

Dear Mr. Patterson,

This technical memorandum is developed to present procedures to be followed for soil sample collection at CR RVAAP-76 Depot Area immediately adjacent to former building U-10. Samples will be collected around the building slab near floor drain outfalls and analyzed to provide data to the Ohio Army National Guard as they are scheduled to begin construction of a Simulated Collapsed Structure on this building pad on May 01, 2010. These analytical results will also be included in the follow-on Remedial Investigation (RI) for this entire AOC.

This technical memorandum presents the sampling methodologies that will be followed during implementation of this sampling effort. Unless otherwise specified in this technical memorandum, these field activities will be conducted in accordance with the *Facility Wide Sampling and Analysis Plan for the Ravenna Army Ammunition Plant, Ravenna, Ohio* (USACE 2001) and the *Facility-Wide Safety and Health Plan* (USACE 2001).

There are multiple planned variations from the Facility Wide SAP:

1. Subsurface Multi-Increment (MI) Sampling, is a new technology and guidance is not provided in the FWSAP. However, all MI sub-surface samples will be collected as previously discussed between key stakeholders;
2. Soil samples will be collected in plastic bags instead of glass jars; and,
3. Subsurface soils will be accessed by means of hydraulic direct-push samplers (e.g., Geoprobe).

Additionally, due to the small scope and fast turn around time for this project, revising standard decontamination procedures and minimizing IDW generation will be accomplished as follows:

1. Each macro-core sample section will only be used once so the equipment will not go through the standard decontamination process until completion of the field effort. However, these samplers will still be cleaned with previously approved water to ensure all soils are removed from sampling equipment before it is taken off site. Analytical results from Frontz Drilling's wells which will be used for decontamination purposes are provided in Attachment 2;
2. The limited soil cleaned off of equipment and the water used to clean the equipment will be containerized in a labeled DOT approved open top 55-gallon drum for the entire project. Decontamination water will ultimately be disposed of in accordance with all applicable State, Federal, and local rules, laws, and regulations;
3. Macro-core samplers will be lined with acetate sleeves for easy removal of samples. These sleeves will be cut open using disposable razor blades to eliminate the need for decontamination of a knife. Soil aliquots will be taken from the borings using disposable Terra Core or similar type samplers; and,

4. No investigation-derived wastes from soil sampling activities will be generated. Either the entire sample will be sent to the laboratory for analysis; or, excess soil will be submitted to the to the laboratory for contingency purposes.

CR RVAAP-76 Depot Area

Building U-10 was historically used for demilitarization purposes in the early 1950s. Demilitarization activities at this location reportedly consisted of reconditioning fin assemblies, the AN-M106A1 track vehicle, and the F/250-lb bomb. Building U-10 was also used for de-banding 8-inch High Explosive (HE) projectiles, and storing M103 tank maintenance parts assemblies. Other demilitarization activities occurred in the Depot Area; however, the specific locations of the activities are unknown at this time.

SAMPLING AND ANALYSIS STRATEGY:

Subsurface and geoprobe sampling MI techniques are being utilized because this entire study area is covered with asphalt. Frontz Drilling will provide direct-push services for this project.

The following presents a rationale for sampling based on discussions with RVAAP Stakeholders. Borings will be taken immediately adjacent to the building slab at 6 locations shown on Figure 1. Soil boring locations were chosen at areas which may have a potential to encounter contamination. Borings will be taken to a depth of 8' below ground surface (bgs). Two borings are located along the east side of the building slab at random locations as this is the down gradient side of the building. Two borings are located along the west side of the building slab near what appear to be loading ramps where overhead doors may have been located at the building. One boring is located near the south of the building slab at a floor drain location. One boring is located near the south end of the slab next to a slab where an above ground storage tank was located.

The sampling of soils at this Area of Concern (AOC) will be done using subsurface MI samples with an attempted minimum of 50 aliquots taken within each 2' interval below ground surface (horizontal MI samples – see figure 2) and each boring (vertical MI samples – see figure 3) for analysis, except for VOCs analysis. One discrete sample will be taken from each 2' interval of each boring for VOC analysis (see figure 4). The VOC sample will be biased towards any visible contamination. If no visible contamination is present the sample will be taken from the approximate middle of the interval.

Due to the historical usage of this building, samples will be analyzed for TAL Metals, Explosives, Propellants, PCBs, VOCs, and SVOCS. In addition, 10% of samples will be analyzed for the RVAAP full suite. Table 1 shows total number of samples and their corresponding analyses.

Test America Laboratories will be the primary lab and RTI Laboratories will be the Quality Assurance lab.

ADDITIONAL REQUIREMENTS:

Geoprobe holes will be sealed using bentonite. Specifications for bentonite used for geoprobe hole sealing are provided in Attachment 1. Cored asphalt will be replaced at the top of the hole after any settling/shrinking and topping off of bentonite occurs.

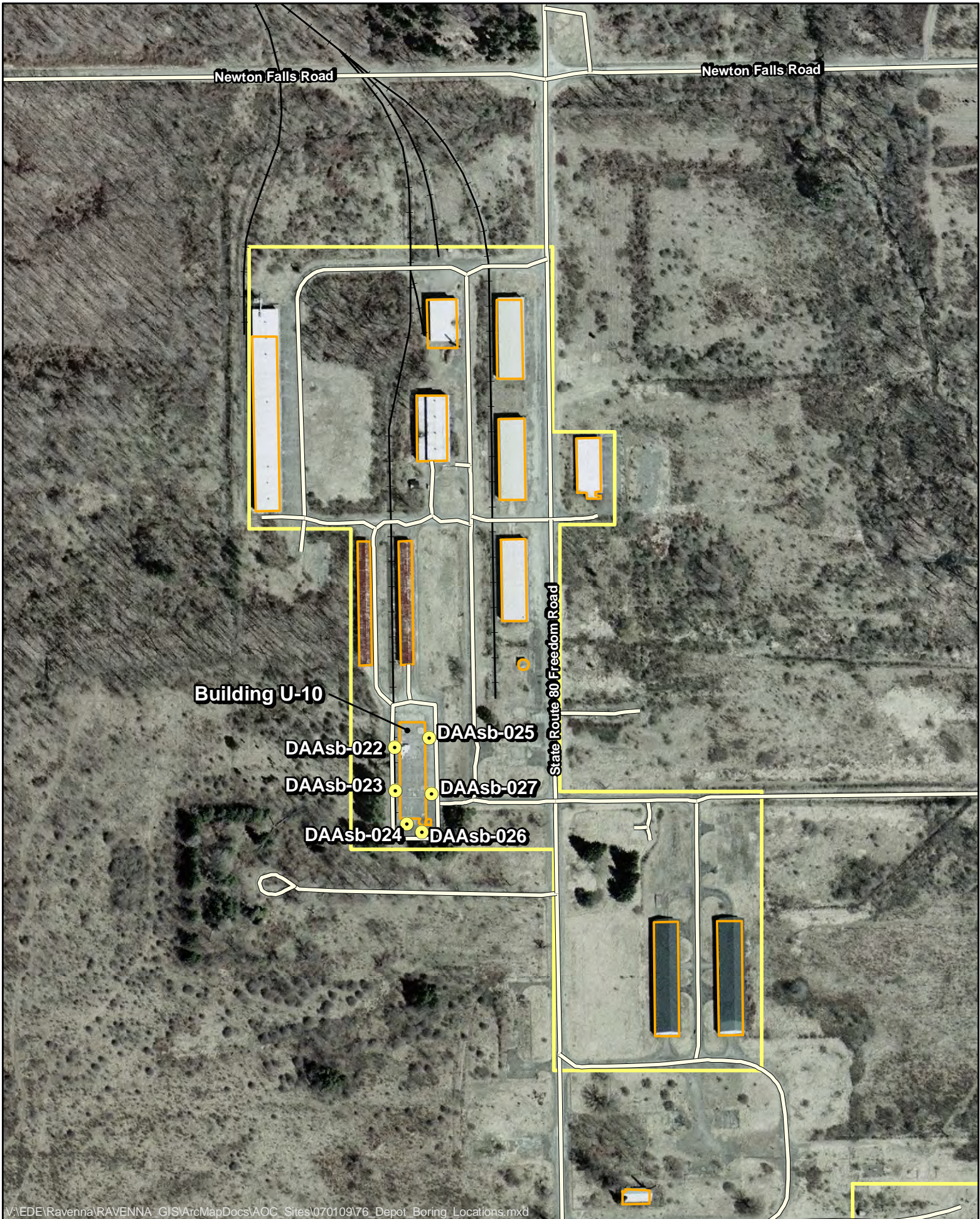
MEC avoidance will not be required since no sampling will be conducted within a Munitions Response Site (MRS).

Please review the proposed sampling scheme and referenced sampling methodologies under which the sampling will be conducted. If you have any questions or comments, please feel free to contact me at 502-315-6393.

Sincerely,

U.S. Army Corps of Engineers LRL

Derek Kinder, E.I.T, L.S.I.T.
31 March 2010



V:\EDE\Ravenna\RAVENNA_GIS\ArcMapDocs\AOC_Sites\070109\76_Depot_Boring_Locations.mxd

	Road	AOC	Boring Locations
	Railroad	Building	

CC RVAAP - 76: Depot Area
Building U-10 Boring Locations

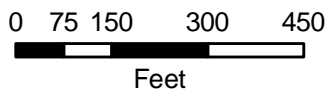


Figure 1 U-10 Sample Locations

Figure 2 Horizontal MI Sampling Plan

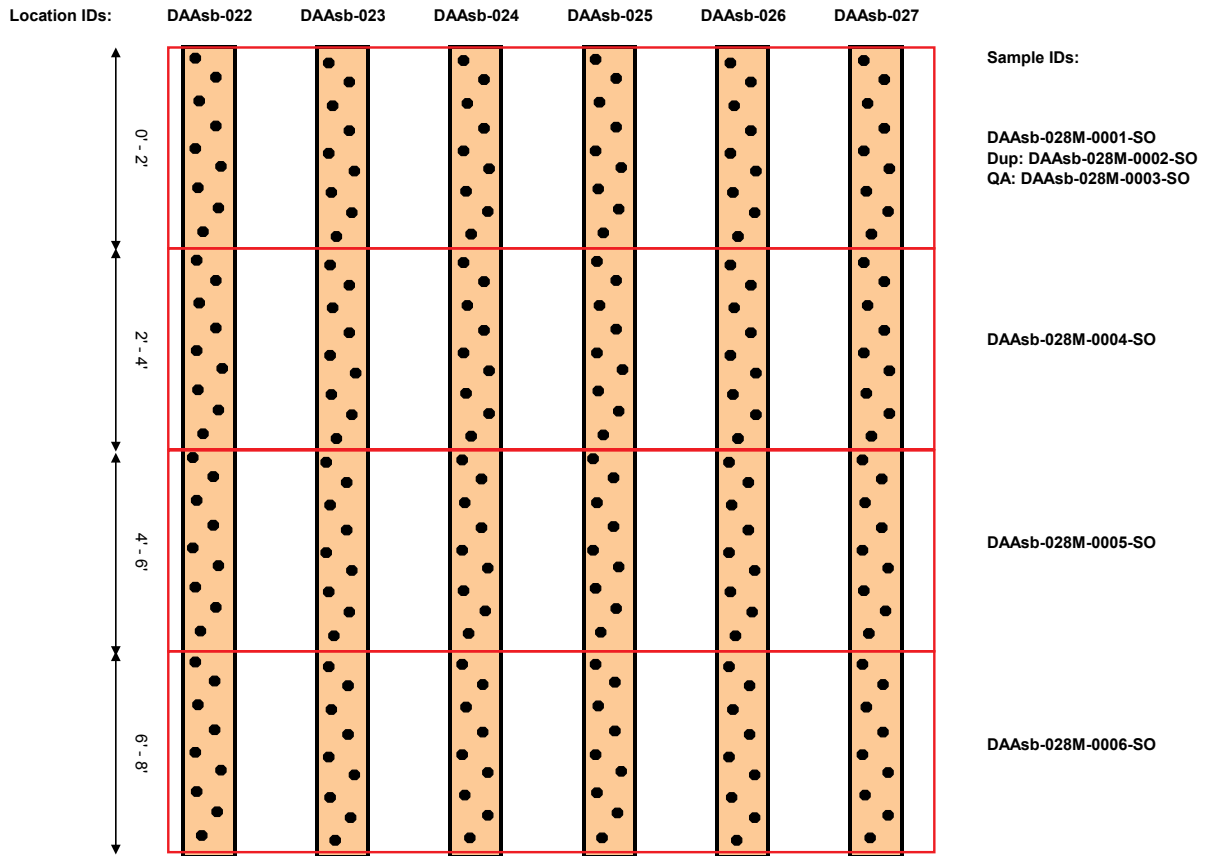


Figure 3 Vertical MI Sampling Plan

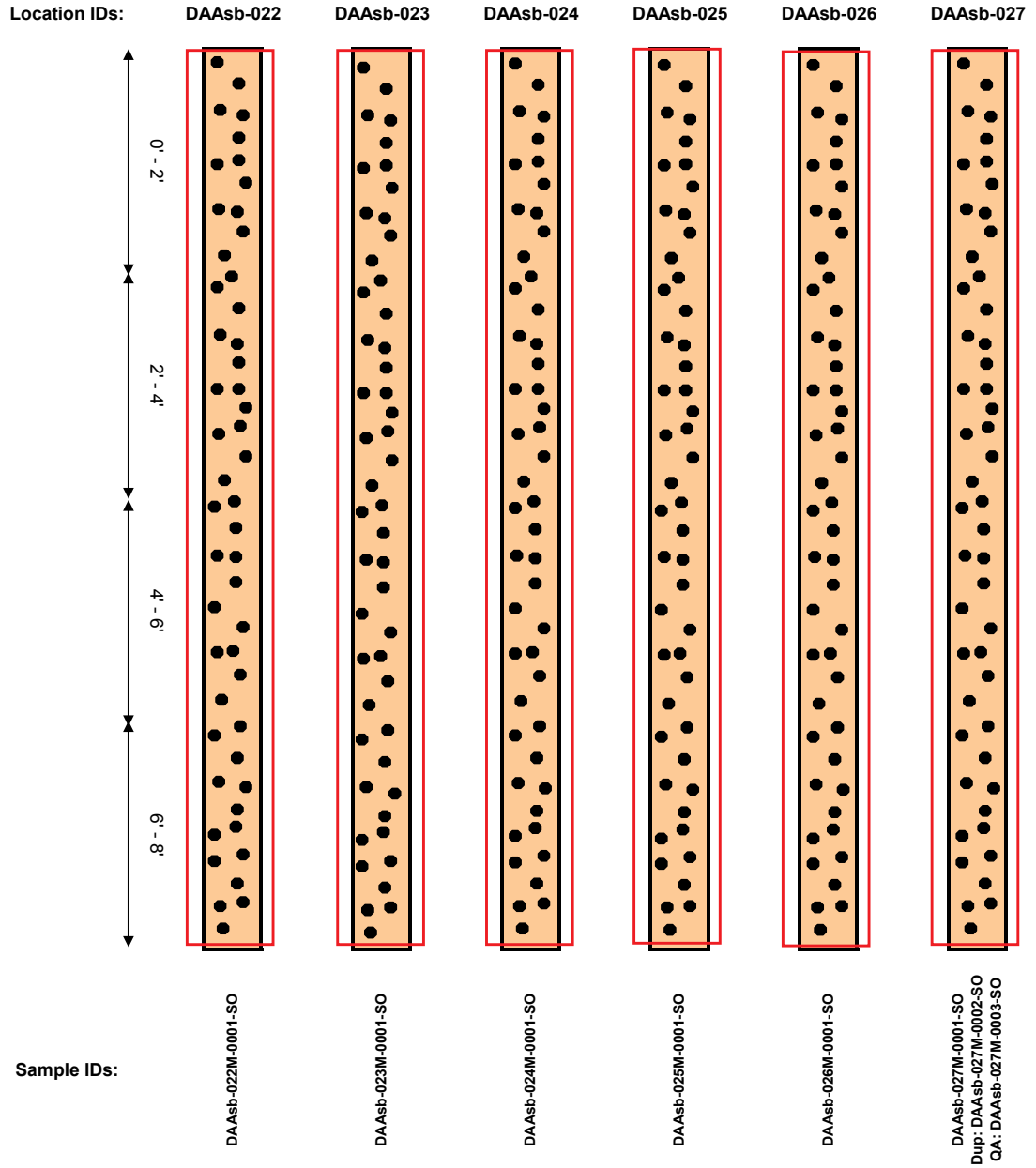


Figure 4 VOC Sampling Plan

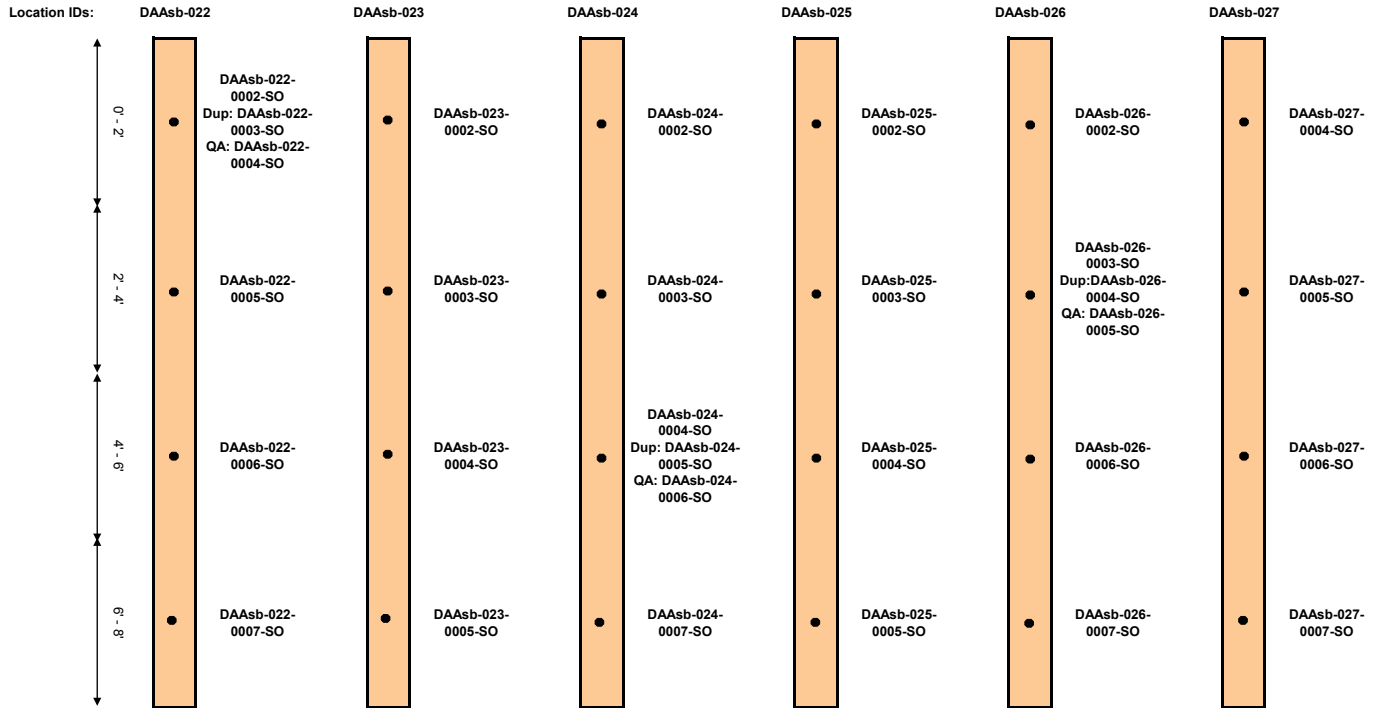


Table 1 Sample Analysis

Sample Type	Sample ID	Analysis						
		EXPL	PROP	MET	SVOC	PCB	PEST	VOC
Primary	DAAsb-022M-0001-SO	x	x	x	x	x		
VOC	DAAsb-022-0002-SO							x
VOC MS	DAAsb-022-0008-SO							x
VOC MSD	DAAsb-022-0009-SO							x
VOC Blind Duplicate	DAAsb-022-0003-SO							x
VOC Field Dup (QA)	DAAsb-022-0004-SO							x
VOC	DAAsb-022-0005-SO							x
VOC	DAAsb-022-0006-SO							x
VOC	DAAsb-022-0007-SO							x
Primary	DAAsb-023M-0001-SO	x	x	x	x	x		
VOC	DAAsb-023-0002-SO							x
VOC	DAAsb-023-0003-SO							x
VOC	DAAsb-023-0004-SO							x
VOC	DAAsb-023-0005-SO							
Primary	DAAsb-024M-0001-SO	x	x	x	x	x		
VOC	DAAsb-024-0002-SO							x
VOC	DAAsb-024-0003-SO							x
VOC	DAAsb-024-0004-SO							x
VOC MS	DAAsb-024-0008-SO							x
VOC MSD	DAAsb-024-0009-SO							x
VOC Blind Duplicate	DAAsb-024-0005-SO							x
VOC Field Dup (QA)	DAAsb-024-0006-SO							x
VOC	DAAsb-024-0007-SO							x
Primary	DAAsb-025M-0001-SO	x	x	x	x	x		
VOC	DAAsb-025-0002-SO							x
VOC	DAAsb-025-0003-SO							x
VOC	DAAsb-025-0004-SO							x
VOC	DAAsb-025-0005-SO							x
Primary	DAAsb-026M-0001-SO	x	x	x	x	x		
VOC	DAAsb-026-0002-SO							x
VOC	DAAsb-026-0003-SO							x
VOC MS	DAAsb-026-0008-SO							x
VOC MSD	DAAsb-026-0009-SO							x
VOC Blind Duplicate	DAAsb-026-0004-SO							x
VOC Field Dup (QA)	DAAsb-026-0005-SO							x
VOC	DAAsb-026-0006-SO							x
VOC	DAAsb-026-0007-SO							x
Primary	DAAsb-027M-0001-SO	x	x	x	x	x		
Blind Duplicate	DAAsb-027M-0002-SO	x	x	x	x	x		
Field Duplicate (QA)	DAAsb-027M-0003-SO	x	x	x	x	x		
VOC	DAAsb-027-0004-SO							x
VOC	DAAsb-027-0005-SO							x
VOC	DAAsb-027-0006-SO							x
VOC	DAAsb-027-0007-SO							x
Primary	DAAsb-028M-0001-SO	x	x	x	x	x	x	
Blind Duplicate	DAAsb-028M-0002-SO	x	x	x	x	x	x	
Field Duplicate (QA)	DAAsb-028M-0003-SO	x	x	x	x	x	x	
Primary	DAAsb-028M-0004-SO	x	x	x	x	x	x	
MS	DAAsb-028M-0007-SO	x	x	x	x	x	x	
MSD	DAAsb-028M-0008-SO	x	x	x	x	x	x	
Primary	DAAsb-028M-0005-SO	x	x	x	x	x		
Primary	DAAsb-028M-0006-SO	x	x	x	x	x		

Attachment 1 – Bentonite Specification Sheets

Attachment 2 – Well Water Analytical Results

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10
Location ID: DAAsb-027-0007-SO

Date: 4/28/10 **Weather Conditions:** Sunny **Temperature:** 38°F

Sampling Information

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

Sample Collection: 0900 hrs **Sample Type:** Composite - MI - Grab **Location:** Plotted on Map - Staked in Field
 If MI, # of increments taken: _____ **Estimated:** _____
Sample Depth: 6-8 FT (below surface) **Measured - Surveyed**
Decon: Dedicated Each Day - Each Location

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

Sample Description	Split Sample
Color: _____ Col Odor: _____ Staining: _____ Texture: _____ Sorting: _____ Plasticity: _____ Moisture: _____ <p style="font-size: 1.2em; margin-top: 10px;">See Boring Logs</p>	Split Sample ID: _____ Name: _____ Agency/Company: _____ Address: _____ <hr/> QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks Parameters: Same as Above - As Listed
<p><i>Soil sample description should include:</i></p> <p>Munsell Color Odor Staining Texture Sorting Plasticity Moisture</p> <p><i>Water sample description should include:</i></p> <p>Color Odor Sheen Turbidity</p>	

Logged By: Eric Cheng (Please Print) **Reviewed by:** Derek Kinder (Please Print)
Signature: [Signature] **Signature:** [Signature] **Date:** 5/12/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10

Location ID: DAAsb-028M-0005-SO

Date: 4/28/10 **Weather Conditions:** cloudy **Temperature:** 47°-54°F

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge		
Method	Bailer	Sample Bottle	Scoop	Trowel	
	Pump	Bacon Bomb	Bowl	Hand Auger	
	Micro-purge		Push Probe	Plastic Liner	
Type/Construction			Mattocks	Terra Core	X
Miscellaneous 0920	Well Purging Form Yes - No				

Sample Collection: 1530 hrs **Sample Type:** Composite - (M) - Grab **Location:** Plotted on Map - Staked in Field
 If MI, # of increments taken: 50 Estimated -

Sample Depth: 46 FT (below surface) **Measured - Surveyed**
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	X	TPH DRO		Reactivity Sulfide/Cyanide			
	Explosives	X	Chromium +6	X	Ignitability			
Sample: ppm	Propellants	X	Nitrate					
Water Level: FT	TAL Metals	X	Asbestos		QA Samples			
Temperature: °C	PCBs	X			MS/MSD	Yes / No	NA	
Sp. Conductance: uMHOs	Pesticides				Duplicate ID	Yes / No	NA	
pH: units	TOC				Equipment Rinse ID	Yes / No	NA	
Turbidity: N.T.U.	Grain Size				Trip Blank ID	Yes / No	NA	

Sample Description

Color: _____ **Col**

Odor: _____

Staining: _____

Texture: _____

Sorting: _____

Plasticity: _____

Moisture: _____

See Boring Logs

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: Derek Kinder (Please Print) **OK Reviewed by:** Eric Chey (Please Print)
Signature: [Signature] **Signature:** [Signature] **Date:** 5/5/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10
Location ID: DAAsb-028M-0003-SO

Date: 4/28/10 **Weather Conditions:** cloudy **Temperature:** 47°-54°F

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge
Method	Bailer	Sample Bottle	Scoop Trowel
	Pump	Bacon Bomb	Bowl Hand Auger
	Micro-purge		Push Probe Plastic Liner
Type/Construction			Mattocks Terra Core X
Miscellaneous 0920	Well Purging Form Yes - No		

Sample Collection: 1530 hrs **Sample Type:** Composite - MI - Grab **Location:** Plotted on Map - Staked in Field
 If MI, # of increments taken: 50 Estimated -
Sample Depth: 0-2 FT (below surface) **Measured - Surveyed**
Decon: Dedicated - Each Day - Each Location

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

Sample Description

Color: _____
 Odor: _____
 Staining: _____
 Texture: _____
 Sorting: _____
 Plasticity: _____
 Moisture: _____

See Boring Logs

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

*Water sample description should include:
 Color Odor Sheen Turbidity*

Split Sample DK

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: Derek Kinder (Please Print) Reviewed by: Erig Cheng (Please Print)
 Signature: [Signature] Signature: [Signature] Date: 5/5/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10

Location ID: DAAsb-028M-0002-SO

Date: 4/28/10 **Weather Conditions:** cloudy **Temperature:** 47°-59°F

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge
Method	Bailer	Sample Bottle	Scoop Trowel
	Pump	Bacon Bomb	Bowl Hand Auger
	Micro-purge		Push Probe Plastic Liner
Type/Construction		Mattocks	Terra Core X
Miscellaneous 0920-	Well Purging Form Yes - No		

Sample Collection: 1530 hrs **Sample Type:** Composite - MI - Grab **Location:** Plotted on Map - Staked in Field
 If MI, # of increments taken: 50 Estimated -

Sample Depth: 0-2 FT (below surface) **Measured - Surveyed**
Decon: Dedicated Each Day - Each Location

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

Sample Description	Split Sample
Color: _____ Odor: _____ Staining: _____ Texture: _____ Sorting: _____ Plasticity: _____ Moisture: _____ <p style="font-size: 1.2em; margin-top: 10px;">See Boring Logs</p>	Split Sample ID: _____ Name: _____ Agency/Company: _____ Address: _____ <hr/> QA/QC Provided: MS/MSD - Duplicates - Trip Blanks - Field Blanks Parameters: Same as Above - As Listed
<p><i>Soil sample description should include:</i></p> <p>Munsell Color Odor Staining Texture Sorting Plasticity Moisture</p> <p><i>Water sample description should include:</i></p> <p>Color Odor Sheen Turbidity</p>	

Logged By: Derek Kinder (Please Print) **Reviewed by:** Eric Cheng (Please Print)
Signature: **Signature:** **Date:** 5/5/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10
 Location ID: DAAsb-028M-0001-SO

Date: 4/28/10 Weather Conditions cloudy Temperature 47°-54°F

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge
Method	Bailer	Sample Bottle	Scoop Trowel
	Pump	Bacon Bomb	Bowl Hand Auger
	Micro-purge		Push Probe Plastic Liner
Type/Construction			Mattocks Terra Core X
Miscellaneous <u>0920-</u>	Well Purging Form Yes - No		

Sample Collection: 1530 hrs Sample Type: Composite - (MI) - Grab 50 Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: 50 Estimated
 Sample Depth: 0-2 FT (below surface) Measured - Surveyed Decon: Dedicated - Each Day - Each Location

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

<p style="text-align: center;">Sample Description</p> <p>Color: _____</p> <p>Odor: _____</p> <p>Staining: _____</p> <p>Texture: _____</p> <p>Sorting: _____</p> <p>Plasticity: _____</p> <p>Moisture: _____</p> <p><u>See boring log</u></p> <p><i>Soil sample description should include: Munsell Color Odor Staining Texture Sorting Plasticity Moisture</i></p> <p><i>Water sample description should include: Color Odor Sheen Turbidity</i></p>	<p style="text-align: center;">Split Sample</p> <p>Split Sample ID: _____</p> <p>Name: _____</p> <p>Agency/Company: _____</p> <p>Address: _____</p> <p>_____</p> <p>_____</p> <p>QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks Parameters: Same as Above - As Listed</p>
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Logged By: Derek Kinder (Please Print) Reviewed by: Eric Cheng (Please Print)
 Signature: [Signature] Signature: [Signature] Date: 5/5/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10

Location ID: DAAsb-025-0004-SO

Date: 4/28/10 **Weather Conditions:** partly cloudy **Temperature:** 59°F

Sampling Information

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

Sample Collection: 1500 hrs **Sample Type:** Composite - MI - Grab -
 If MI, # of increments taken: _____ **Location:** Plotted on Map - Staked in Field
 Estimated - _____
Sample Depth: 4-6 FT (below surface) **Measured - Surveyed**
Decon: Dedicated - Each Day - Each Location

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

Sample Description

Color: _____ **Odor:** _____ **Staining:** _____

Texture: _____ **Sorting:** _____

Plasticity: _____

Moisture: _____

See Boring Log

*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: Derek Kinder (Please Print) **Reviewed by:** Eric Cheng (Please Print)

Signature: [Signature] **Signature:** [Signature] **Date:** 5/5/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10

Location ID: DAAsb-025-0002-SO

Date: 4/28/10

Weather Conditions: partly cloudy

Temperature: 59°F

Sampling Information

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

Sample Collection: 1455 hrs

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

Location: Plotted on Map - Staked in Field
Estimated -

Sample Depth: 0-2 FT (below surface)

Measured - Surveyed
Decon: Dedicated - Each Day - Each Location

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

Sample Description

Color: _____

Odor: _____

Staining: _____

Texture: _____

Sorting: _____

Plasticity: _____

Moisture: _____

See Boring Log

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: Derek Kinder (Please Print)

Reviewed by: Eric Cheng (Please Print)

Signature: [Signature]

Signature: [Signature] Date: 5/5/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10

Location ID: DAAAb-022-0006-SO MS/MSD

Date: 9/28/10

Weather Conditions: partly cloudy

Temperature: 53°F

Sampling Information

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

Sample Collection: 1920 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: _____ Estimated - _____
 Measured - Surveyed
 Sample Depth: OK 4-6 BGS 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	X	TPH GRO		Corrosivity			
	SVOC		TPH DRO		Reactivity Sulfide/Cyanide			
	Explosives		Chromium +6		Ignitability			
Sample: ppm	Propellants		Nitrate					
Water Level FT	TAL Metals		Asbestos		QA Samples			
Temperature °C	PCBs				MS/MSD	<u>Yes</u> No		NA
Sp. Conductance: uMHos	Pesticides				Duplicate ID	Yes / No		NA
pH units	TOC				Equipment Rinse ID	Yes / No		NA
Turbidity N.T.U.	Grain Size				Trip Blank ID	Yes / No		NA

Sample Description

Color: _____
 Odor: _____
 Staining: _____
 Texture: _____
 Sorting: _____
 Plasticity: _____
 Moisture: _____

See Boring Log

*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: Derek Kinder (Please Print) Reviewed by: Eric Cheng (Please Print)
 Signature: [Signature] Signature: [Signature] Date: 5/5/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10

Location ID: DAAAsb-022-0004-SO

Date: 4/28/10 Weather Conditions partly cloudy Temperature 53°F

Sampling Information

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

Sample Collection: 1414 hrs Sample Type: Composite - MI - Grab
 If MI, # of increments taken: _____ Location: Plotted on Map - Staked in Field
 Estimated - _____

Sample Depth: 0-2 FT (below surface) Measured - Surveyed
 Decon: Dedicated - Each Day - Each Location

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

<p style="text-align: center;">Sample Description</p> <p>Color: _____</p> <p>Odor: _____</p> <p>Staining: _____</p> <p>Texture: _____</p> <p>Sorting: _____</p> <p>Plasticity: _____</p> <p>Moisture: _____</p> <p style="font-size: 1.5em; text-align: center;">See Boring Log</p> <p><i>Soil sample description should include:</i> Munsell Color Odor Staining Texture Sorting Plasticity Moisture</p> <p><i>Water sample description should include:</i> Color Odor Sheen Turbidity</p>	<p style="text-align: center;">Split Sample</p> <p>Split Sample ID: _____</p> <p>Name: _____</p> <p>Agency/Company: _____</p> <p>Address: _____</p> <p>_____</p> <p>_____</p> <p>QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks Parameters: Same as Above - As Listed</p>
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Logged By: Derek Kinden (Please Print) Reviewed by: Eric Cheng (Please Print)

Signature: [Signature] Signature: [Signature] Date: 5/5/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10

Location ID: DAAsb-022-0003-SO

Date: 4/25/10 **Weather Conditions:** partly cloudy **Temperature:** 53°F

Sampling Information

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

Sample Collection: 1412 hrs **Sample Type:** Composite - MI - Grab
 If MI, # of increments taken: _____ **Location:** Plotted on Map - Staked in Field
 Estimated _____

Sample Depth: 0.2 FT (below surface) **Measured - Surveyed**
Decon: Medicated - Each Day - Each Location

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

<p style="text-align: center;">Sample Description</p> <p>Color: _____</p> <p>Odor: _____</p> <p>Staining: _____</p> <p>Texture: _____</p> <p>Sorting: _____</p> <p>Plasticity: _____</p> <p>Moisture: _____</p> <p style="font-size: 1.2em; margin-top: 20px;">See Boring Log</p> <p><i>Soil sample description should include:</i> Munsell Color Odor Staining Texture Sorting Plasticity Moisture</p> <p><i>Water sample description should include:</i> Color Odor Sheen Turbidity</p>	<p style="text-align: center;">Split Sample</p> <p>Split Sample ID: _____</p> <p>Name: _____</p> <p>Agency/Company: _____</p> <p>Address: _____</p> <p>_____</p> <p>_____</p> <p>QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks Parameters: Same as Above - As Listed</p>
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Logged By: Derek Kinder (Please Print) **Reviewed by:** Eric Cheng (Please Print)

Signature: [Signature] **Signature:** [Signature] **Date:** 5/5/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10

Location ID: ~~DAAsb-022-0002-SO, MS DAAsb-022-0008-SO, MSD DAAsb-022-0009-SO~~

Date: 4/28/10 Weather Conditions: partly cloudy Temperature: 53°F

Sampling Information

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

Sample Collection: 1410 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: _____ Estimated - _____
 Measured - Surveyed
 Sample Depth: 0-2 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	X	TPH GRO	Corrosivity
	SVOC		TPH DRO	Reactivity Sulfide/Cyanide
	Explosives		Chromium +6	Ignitability
Sample: ppm	Propellants	Nitrate		
Water Level	FT	TAL Metals	Asbestos	QA Samples
Temperature	°C	PCBs		MS/MSD <u>Yes</u> / <u>No</u> NA
Sp. Conductance:	uMHOS	Pesticides		Duplicate ID Yes / No NA
pH	units	TOC		Equipment Rinse ID Yes / No NA
Turbidity	N.T.U.	Grain Size		Trip Blank ID Yes / No NA

Sample Description	Split Sample
Color: _____ Odor: _____ Staining: _____ Texture: _____ Sorting: _____ Plasticity: _____ Moisture: _____ <p style="font-size: 1.2em; margin-top: 10px;"><i>See Boring Log</i></p>	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: Derek Kinder (Please Print) Reviewed by: Eric Cheng (Please Print)
 Signature: [Signature] Signature: [Signature] Date: 5/5/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10
 Location ID: DAAsb-028M-0006-SO

Date: 4/28/10 Weather Conditions partly cloudy Temperature 47°-54°F

Sampling Information

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

Sample Collection: 1530 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: 100
 Sample Depth: 6-8 FT (below surface) Measured - Surveyed Decon: Dedicated Each Day - Each Location

Field Parameters (at time of sample)	Analytical Parameters	Other Parameters
PID / PID Readings: Background: ppm	VOC	Corrosivity
	SVOC	Reactivity Sulfide/Cyanide
	Explosives	Ignitability
Sample: ppm	TPH GRO	
	TPH DRO	
	Chromium +6	
	Propellants	
	Nitrate	
Water Level	TAL Metals	QA Samples
Temperature	Asbestos	MS/MSD
Sp. Conductance:	PCBs	Duplicate ID
pH	Pesticides	Equipment Rinse ID
Turbidity	TOC	Trip Blank ID
	Grain Size	

Sample Description	Split Sample
or: _____ Col _____ Odor: _____ Staining: _____ Texture: _____ Sorting: _____ Plasticity: _____ Moisture: _____ <i>See Boring Log</i>	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: Eric Cheng (Please Print) Reviewed by: Derek Kindan (Please Print)
 Signature: [Signature] Signature: [Signature] Date: 5/12/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10
 Location ID: DAAsb-028M-0004-SO, MS DAAsb-028M-0007-SO, MSD DAAsb-028M-0008-SO

Date: 4/28/10 Weather Conditions: partly cloudy Temperature: 47° - 54°F

Sampling Information

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

Sample Collection: 1530 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: 100 Estimated -
 Sample Depth: 2-4 FT (below surface) Measured - Surveyed 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	X	TPH DRO		Reactivity Sulfide/Cyanide			
	Explosives	X	Chromium +6	X	Ignitability			
Sample: ppm	Propellants	X	Nitrate					
Water Level: FT	TAL Metals	X	Asbestos		QA Samples			
Temperature: °C	PCBs	X			MS/MSD	<u>Yes</u> / No		NA
Sp. Conductance: uMHOs	Pesticides	X			Duplicate ID	Yes / No		NA
pH: units	TOC				Equipment Rinse ID	Yes / No		NA
Turbidity: N.T.U.	Grain Size				Trip Blank ID	Yes / No		NA

Sample Description	Split Sample
Color: _____ Odor: _____ Staining: _____ Texture: _____ Sorting: _____ Plasticity: _____ Moisture: _____ <p style="font-size: 1.5em; margin-top: 10px;"><i>See Boring Log</i></p>	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: Eric Cheng (Please Print) Reviewed by: Derek Kinder (Please Print)
 Signature: Eric Cheng Signature: [Signature] Date: 5/12/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10

Location ID: DAAsb-025-0005-SO /MS/MSD

Date: 4/28/10 **Weather Conditions:** partly cloudy **Temperature:** 54°F

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge		
Method	Bailer	Sample Bottle	Scoop		Trowel
	Pump	Bacon Bomb	Bowl		Hand Auger
	Micro-purge		Push Probe		Plastic Liner
Type/Construction			Mattocks		Terra Core 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: _____ Estimated -

Sample Depth: 6-8 FT (below surface) **Measured - Surveyed**
Decon: Dedicated - Each Day - Each Location

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

<p style="text-align: center;">Sample Description</p> <p>Color: _____ Odor: _____ Staining: _____</p> <p>Texture: _____ Sorting: _____</p> <p>Plasticity: _____</p> <p>Moisture: _____</p> <p style="font-size: 1.2em; margin-top: 20px;">See Boring Log</p> <p><i>Soil sample description should include:</i> Munsell Color Odor Staining Texture Sorting Plasticity Moisture</p> <p><i>Water sample description should include:</i> Color Odor Sheen Turbidity</p>	<p style="text-align: center;">Split Sample</p> <p>Split Sample ID: _____</p> <p>Name: _____</p> <p>Agency/Company: _____</p> <p>Address: _____</p> <p>_____</p> <p>_____</p> <p>QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks Parameters: Same as Above - As Listed</p>
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Logged By: Eric Cheng (Please Print) **Reviewed by:** Derek Kinder (Please Print)

Signature: [Signature] **Signature:** [Signature] **Date:** 5/12/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10

Location ID: DAAsb-025-0003-SO

Date: 4/20/10 **Weather Conditions:** partly cloudy **Temperature:** 54°F

Sampling Information

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

Sample Collection: 1455 hrs **Sample Type:** Composite - MI - Grab **Location:** Plotted on Map - Staked in Field
 If MI, # of increments taken: _____ Estimated -

Sample Depth: 2-4 FT (below surface) **Measured - Surveyed**
Decon: Dedicated - Each Day - Each Location

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

<p style="text-align: center;">Sample Description</p> <p>Color: _____ Col</p> <p>Odor: _____</p> <p>Staining: _____</p> <p>Texture: _____</p> <p>Sorting: _____</p> <p>Plasticity: _____</p> <p>Moisture: _____</p> <p style="font-size: 2em; margin-top: 20px;">See Boring Log</p> <p><i>Soil sample description should include: Munsell Color Odor Staining Texture Sorting Plasticity Moisture</i></p> <p><i>Water sample description should include: Color Odor Sheen Turbidity</i></p>	<p style="text-align: center;">Split Sample</p> <p>Split Sample ID: _____</p> <p>Name: _____</p> <p>Agency/Company: _____</p> <p>Address: _____</p> <p>_____</p> <p>_____</p> <p>QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks Parameters: Same as Above - As Listed</p> <p>_____</p> <p>_____</p>
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Logged By: Eric Cheng (Please Print) **Reviewed by:** Derek Kinder (Please Print)

Signature: [Signature] **Signature:** [Signature] **Date:** 5/14/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10

Location ID: DAAsb-022-0005-SO

Date: 4/28/10

Weather Conditions: partly cloudy

Temperature: 53°F

Sampling Information

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

Sample Collection: 1410 hrs

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

Location: Plotted on Map - Staked in Field
Estimated - _____

Sample Depth: 2-4 FT (below surface)

Measured - Surveyed
Decon: Dedicated - Each Day - Each Location

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

<p style="text-align: center;">Sample Description</p> <p>Color: _____ Col</p> <p>Odor: _____</p> <p>Staining: _____</p> <p>Texture: _____</p> <p>Sorting: _____</p> <p>Plasticity: _____</p> <p>Moisture: _____</p> <p><i>see Boring Log</i></p> <p>Soil sample description should include: Munsell Color Odor Staining Texture Sorting Plasticity Moisture</p> <p>Water sample description should include: Color Odor Sheen Turbidity</p>	<p style="text-align: center;">Split Sample</p> <p>Split Sample ID: _____</p> <p>Name: _____</p> <p>Agency/Company: _____</p> <p>Address: _____</p> <p>_____</p> <p>QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks Parameters: Same as Above - As Listed</p> <p>_____</p> <p>_____</p>
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Logged By: Eric Cheng (Please Print)

Signature: Eric Cheng

Reviewed by: Derek Kinder (Please Print)

Signature: Derek Kinder **Date:** 5/12/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10

Location ID: DAAsb-022-0007-SO

Date: 4/28/10 **Weather Conditions:** partly cloudy **Temperature:** 53°F

Sampling Information

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

Sample Collection: 1420 hrs **Sample Type:** Composite - MI - Grab **Location:** Plotted on Map - Staked in Field
 If MI, # of increments taken: _____ Estimated -

Sample Depth: 6-8 FT (below surface) **Measured - Surveyed**
Decon: Dedicated Each Day - Each Location

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

Sample Description

Color: _____ **Odor:** _____ **Staining:** _____
Texture: _____ **Sorting:** _____
Plasticity: _____
Moisture: _____

See Boring Log

*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: Eric Cheng (Please Print)
Signature: [Signature]

Reviewed by: Derek Kinder (Please Print)
Signature: [Signature] **Date:** 5/12/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10

Location ID: DAAsb-026-0007-SO

Date: 4/28/10 **Weather Conditions:** partly cloudy **Temperature:** 43°F

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge		
Method	Bailer	Sample Bottle	Scoop		Trowel
	Pump	Bacon Bomb	Bowl		Hand Auger
	Micro-purge		Push Probe		Plastic Liner
Type/Construction			Mattocks		Terra Core X
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: _____ Estimated - _____
Sample Depth: 6-8 FT (below surface) **Measured - Surveyed**
Decon: Dedicated - Each Day - Each Location

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

<p style="text-align: center;">Sample Description</p> <p>Color: _____ Col</p> <p>Odor: _____</p> <p>Staining: _____</p> <p>Texture: _____</p> <p>Sorting: _____</p> <p>Plasticity: _____</p> <p>Moisture: _____</p> <p style="font-size: 1.5em; margin-top: 20px;"><i>See Boring Log</i></p> <p><i>Soil sample description should include:</i> Munsell Color Odor Staining Texture Sorting Plasticity Moisture</p> <p><i>Water sample description should include:</i> Color Odor Sheen Turbidity</p>	<p style="text-align: center;">Split Sample</p> <p>Split Sample ID: _____</p> <p>Name: _____</p> <p>Agency/Company: _____</p> <p>Address: _____</p> <p>_____</p> <p>_____</p> <p>QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks Parameters: Same as Above - As Listed</p>
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Logged By: Eric Cheng (Please Print) **Reviewed by:** Derek Kinder (Please Print)
Signature: [Signature] **Signature:** [Signature] **Date:** 5/12/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10

Location ID: DAAsb-023-0003-SO

Date: 4/28/10 Weather Conditions partly cloudy Temperature 47° F

Sampling Information

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

Sample Collection: 1120 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: _____ Estimated - _____

Sample Depth: 2-4 FT (below surface) Measured - Surveyed Decon: Dedicated Each Day - Each Location

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

<p style="text-align: center;">Sample Description</p> <p>Color: _____ Col</p> <p>Odor: _____</p> <p>Staining: _____</p> <p>Texture: _____</p> <p>Sorting: _____</p> <p>Plasticity: _____</p> <p>Moisture: _____</p> <p style="font-size: 1.2em; margin-top: 10px;"><i>See Boring Log</i></p> <p><i>Soil sample description should include:</i> Munsell Color Odor Staining Texture Sorting Plasticity Moisture</p> <p><i>Water sample description should include:</i> Color Odor Sheen Turbidity</p>	<p style="text-align: center;">Split Sample</p> <p>Split Sample ID: _____</p> <p>Name: _____</p> <p>Agency/Company: _____</p> <p>Address: _____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks Parameters: Same as Above - As Listed</p>
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Logged By: Eric Cheng (Please Print) Reviewed by: Derek Kinden (Please Print)

Signature: *Eric Cheng* Signature: *Derek Kinden* Date: 5/12/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10

Location ID: DAAsb-023-0005-SO **MS/MSD**

Date: **4/28/10** Weather Conditions: **partly cloudy** Temperature: **47°F**

Sampling Information

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

Sample Collection: **1130** hrs Sample Type: Composite - MI - **Grab** Location: **Plotted on Map - Staked in Field**
 If MI, # of increments taken: _____ Estimated -

Sample Depth: **6-8** FT (below surface) Measured - Surveyed Decon: **Dedicated** - Each Day - Each Location

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

Sample Description

Color: _____

Odor: _____

Staining: _____

Texture: _____

Sorting: _____

Plasticity: _____

Moisture: _____

See Boring Log

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: **Eric Cheng** (Please Print) Signature: *Eric Cheng*

Reviewed by: **Derek Kinder** (Please Print) Signature: *Derek Kinder* Date: **5/12/10**

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10

Location ID: DAAsb-024-0003-SO

Date: 4/28/10 **Weather Conditions:** partly cloudy **Temperature:** 45° F

Sampling Information

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

Sample Collection: 1035 hrs **Sample Type:** Composite - MI - Grab **Location:** Plotted on Map - Staked in Field
 If MI, # of increments taken: _____ Estimated -

Sample Depth: 2-4 FT (below surface) **Measured - Surveyed**
Decon: Dedicated - Each Day - Each Location

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

<p style="text-align: center;">Sample Description</p> <p>Color: _____ Col</p> <p>Odor: _____</p> <p>Staining: _____</p> <p>Texture: _____</p> <p>Sorting: _____</p> <p>Plasticity: _____</p> <p>Moisture: _____</p> <p style="font-size: 1.2em; margin-top: 20px;">See Boring Log</p> <p style="font-size: 0.8em; margin-top: 20px;"><i>Soil sample description should include:</i> Munsell Color Odor Staining Texture Sorting Plasticity Moisture</p> <p style="font-size: 0.8em; margin-top: 10px;"><i>Water sample description should include:</i> Color Odor Sheen Turbidity</p>	<p style="text-align: center;">Split Sample</p> <p>Split Sample ID: _____</p> <p>Name: _____</p> <p>Agency/Company: _____</p> <p>Address: _____</p> <p>_____</p> <p>_____</p> <p>QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks Parameters: Same as Above - As Listed</p>
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Logged By: Eric Cheng (Please Print) **Reviewed by:** Derek Kinder (Please Print)
Signature: *Eric Cheng* **Signature:** *Derek Kinder* **Date:** 5/12/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10

Location ID: DAAsb-024-0007-SO

Date: 4/28/10 Weather Conditions partly cloudy Temperature 45°F

Sampling Information

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

Sample Collection: 1025 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: _____ Estimated - _____

Sample Depth: 6-8 FT (below surface) Measured - Surveyed
 Decon: Dedicated - Each Day - Each Location

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

Sample Description	Split Sample
Color: _____ Col Odor: _____ Staining: _____ Texture: _____ Sorting: _____ Plasticity: _____ Moisture: _____ <p style="font-size: 1.2em; font-family: cursive;">See Boring Log</p>	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: Eric Cherny (Please Print) Reviewed by: Derek Kinder (Please Print)

Signature: [Signature] Signature: [Signature] Date: 5/12/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10

Location ID: DAAsb-026-0003-SO, ~~DAAsb-026-0003-SO~~ EC

Date: 4/28/10 Weather Conditions partly cloudy Temperature 45°F

Sampling Information

Source	Groundwater / Product	Surface Water	Soils / Sediments / Sludge	
Method	Bailer	Sample Bottle	Scoop	Trowel
	Pump	Bacon Bomb	Bowl	Hand Auger
	Micro-purge		Push Probe	Plastic Liner
Type/Construction			Mattocks	Terra Core 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: _____ Estimated - _____

Sample Depth: 2-4 FT (below surface) Measured - Surveyed
 Decon: Dedicated - Each Day - Each Location

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

Sample Description _____ Col _____
 or: _____ Odor: _____
 _____ Staining: _____
 _____ Texture: _____
 _____ Sorting: _____
 _____ Plasticity: _____
 Moisture: _____
See Boring Log

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: Eric Cheng (Please Print)
 Signature: [Signature]

Reviewed by: Derek Kinder (Please Print)
 Signature: [Signature] Date: 5/12/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10

Location ID: DAAsb-026-0004-SO

Date: 4/28/10 **Weather Conditions:** partly cloudy **Temperature:** 45°F

Sampling Information

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

Sample Collection: 1000 hrs 1002 EC **Sample Type:** Composite - MI - Grab -
 If MI, # of increments taken: _____ **Location:** Plotted on Map - Staked in Field
 Estimated -

Sample Depth: 2-4 FT (below surface) **Measured - Surveyed**
Decon: Dedicated Each Day - Each Location

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

Sample Description

Color: _____ **Col**

Odor: _____ **Staining:** _____

Texture: _____ **Sorting:** _____

Plasticity: _____

Moisture: _____

See Boring Log

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: Eric Cheng (Please Print)
Signature: [Signature]

Reviewed by: Derek Kinder (Please Print)
Signature: [Signature] **Date:** 5/12/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10

Location ID: DAAAsb-026-0005-SO

Date: 4/28/10 **Weather Conditions:** partly clouds **Temperature:** 45°F

Sampling Information

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

Sample Collection: 1004 hrs **Sample Type:** Composite - MI - Grab **Location:** Plotted on Map - Staked in Field
If MI, # of increments taken: _____ Estimated -

Sample Depth: 6-8 FT (below surface) **Measured - Surveyed**
Decon: Dedicated - Each Day - Each Location

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

Sample Description

Color: _____ **Odor:** _____ **Staining:** _____

Texture: _____ **Sorting:** _____

Plasticity: _____

Moisture: _____

See Boring Log

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: Eric Cheng (Please Print) **Reviewed by:** Derek Kinder (Please Print)

Signature: [Signature] **Signature:** [Signature] **Date:** 5/12/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10

Location ID: DAAsb-024-0006-SO

Date: 4/28/10

Weather Conditions: Cloudy

Temperature: 47°F

Sampling Information

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

Sample Collection: 10:44 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: _____ Estimated -

Sample Depth: 4-6 FT (below surface) Measured - Surveyed Decon: Dedicated - Each Day - Each Location

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

Sample Description	Split Sample
Color: _____ Col Odor: _____ Staining: _____ Texture: _____ Sorting: _____ Plasticity: _____ Moisture: _____ <i>See Boring Log</i>	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: Derek Kinder (Please Print) Reviewed by: Eric Cheng (Please Print)
 Signature: [Signature] Signature: [Signature] Date: 5/5/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10

Location ID: DAAsb-024-0005-SO

Date: 9/28/10

Weather Conditions: Cloudy

Temperature: 47°F

Sampling Information

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

Sample Collection: 10:42 hrs AM **Sample Type:** Composite - MI - Grab **Location:** Plotted on Map - Staked in Field
 If MI, # of increments taken: _____ Estimated -

Sample Depth: 4-6 FT (below surface) **Measured - Surveyed**
Decon: Dedicated - Each Day - Each Location

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

<p style="text-align: center;">Sample Description</p> <p>Color: _____ Col</p> <p>Odor: _____</p> <p>Staining: _____</p> <p>Texture: _____</p> <p>Sorting: _____</p> <p>Plasticity: _____</p> <p>Moisture: _____</p> <p style="font-size: 1.5em; margin-top: 20px;">See Boring Log</p> <p><i>Soil sample description should include:</i> Munsell Color Odor Staining Texture Sorting Plasticity Moisture</p> <p><i>Water sample description should include:</i> Color Odor Sheen Turbidity</p>	<p style="text-align: center;">Split Sample</p> <p>Split Sample ID: _____</p> <p>Name: _____</p> <p>Agency/Company: _____</p> <p>Address: _____</p> <p>_____</p> <p>_____</p> <p>QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks Parameters: Same as Above - As Listed</p> <p>_____</p> <p>_____</p>
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Logged By: Derek Kinder (Please Print)

Signature: [Signature]

Reviewed by: Eric Cheng (Please Print)

Signature: [Signature] **Date:** 5/5/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10

Location ID: ~~DAAsb-024-0004-SO, MS DAAsb-024-0008-SO, MSD DAAsb-024-0009-SO~~ **PK**

Date: 4/28/10 **Weather Conditions:** Clady **Temperature:** 47°F

Sampling Information

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

Sample Collection: 10:40 hrs AM **Sample Type:** Composite - MI - **Location:** Plotted on Map - Staked in Field
 If MI, # of increments taken: _____
Sample Depth: 4.6 FT (below surface) **Measured - Surveyed** **Decon:** Dedicated Each Day - Each Location

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

<p style="text-align: center;">Sample Description</p> <p>Color: _____ Odor: _____ Staining: _____</p> <p>Texture: _____ Sorting: _____</p> <p>Plasticity: _____</p> <p>Moisture: _____</p> <p style="font-size: 2em; margin-top: 20px;">See Boring Log</p> <p><i>Soil sample description should include: Munsell Color Odor Staining Texture Sorting Plasticity Moisture</i></p> <p><i>Water sample description should include: Color Odor Sheen Turbidity</i></p>	<p style="text-align: center;">Split Sample</p> <p>Split Sample ID: _____</p> <p>Name: _____</p> <p>Agency/Company: _____</p> <p>Address: _____</p> <p>_____</p> <p>_____</p> <p>QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks Parameters: Same as Above - As Listed</p>
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Logged By: Derek Kinder (Please Print) **Reviewed by:** Eriz Cheng (Please Print)
Signature: [Signature] **Signature:** [Signature] **Date:** 5/5/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10

Location ID: DAAsb-024-0002-SO

Date: 9/28/10 **Weather Conditions:** Cloudy **Temperature:** 97°F

Sampling Information

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

Sample Collection: 1520 cc **Sample Type:** Composite - MI - Grab **Location:** Plotted on Map - Staked in Field
If MI, # of increments taken: _____ Estimated -

Sample Depth: 0-2 FT (below surface) **Measured - Surveyed**
Decon: Dedicated - Each Day - Each Location

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

Sample Description Col

or: _____ **Odor:** _____ **Staining:** _____

_____ **Texture:** _____ **Sorting:** _____

_____ **Plasticity:** _____

Moisture: _____

See Boring Logs

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: Derek Kinder (Please Print) **Reviewed by:** Eric Cheng (Please Print)

Signature: [Signature] **Signature:** [Signature] **Date:** 9/5/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10

Location ID: DAAsb-023-0004-SO

Date: 9/28/10 **Weather Conditions:** Cloudy **Temperature:** 47°F

Sampling Information

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

Sample Collection: 11:30 hrs AM **Sample Type:** Composite - MI - Grab **Location:** Plotted on Map - Staked in Field
 If MI, # of increments taken: _____ Estimated -

Sample Depth: 4-6 FT (below surface) **Measured -** Surveyed **Decon:** Dedicated - Each Day - Each Location

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

Sample Description

Color: _____ **Odor:** _____ **Staining:** _____
Texture: _____ **Sorting:** _____
Plasticity: _____

Moisture: _____

See Boring Logs

*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: Derek Kinder (Please Print) **Reviewed by:** Eric Cheng (Please Print)
Signature: *[Signature]* **Signature:** *[Signature]* **Date:** 5/5/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10

Location ID: DAAsb-023-0002-SO

Date: 4/28/10

Weather Conditions: Cloudy

Temperature: 47°F

Sampling Information

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

Sample Collection: 1:20 hrs AM **Sample Type:** Composite - MI - Grab **Location:** Plotted on Map - Staked in Field
 If MI, # of increments taken: _____ Estimated -

Sample Depth: 0.2 FT (below surface) **Measured - Surveyed**
Decon: Dedicated Each Day - Each Location

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

Sample Description _____ Col _____
or: _____ **Odor:** _____ **Staining:** _____
 _____ **Texture:** _____ **Sorting:** _____
 _____ **Plasticity:** _____
Moisture: _____

See Boring Logs

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

Water sample description should include:
 Color Odor Sheen Turbidity

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: Derek Kinder (Please Print)

Signature: [Signature]

Reviewed by: Eric Cheng (Please Print)

Signature: [Signature] **Date:** 5/5/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10

Location ID: DAAsb-026-0002-SO

Date: 5/28/10

Weather Conditions: Cloudy

Temperature: ~~70~~ 70°F

Sampling Information

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

Sample Collection: 10:00 hrs AM Sample Type: Composite - MI - Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: _____ Estimated - _____

Sample Depth: 0-2 FT (below surface) Measured - Surveied Decon: Dedicated Each Day - Each Location

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

<p style="text-align: center;">Sample Description</p> <p>Color: _____</p> <p>Odor: _____</p> <p>Staining: _____</p> <p>Texture: _____</p> <p>Sorting: _____</p> <p>Plasticity: _____</p> <p>Moisture: _____</p> <p style="font-size: 1.2em; margin-top: 20px;"><i>See Boring Logs</i></p> <p><i>Soil sample description should include:</i> Munsell Color Odor Staining Texture Sorting Plasticity Moisture</p> <p><i>Water sample description should include:</i> Color Odor Sheen Turbidity</p>	<p style="text-align: center;">Split Sample</p> <p>Split Sample ID: _____</p> <p>Name: _____</p> <p>Agency/Company: _____</p> <p>Address: _____</p> <p>_____</p> <p>_____</p> <p>QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks Parameters: Same as Above - As Listed</p>
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Logged By: Derek Kinder (Please Print) Reviewed by: Eric Cheng (Please Print)

Signature: [Signature] Signature: [Signature] Date: 5/28/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10

Location ID: DAAAsb-026-0006-SO

Date: 4/28/10

Weather Conditions: Cloudy

Temperature: 40°F

Sampling Information

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

Sample Collection: 10:00 hrs 10 **Sample Type:** Composite - MI - Grab **Location:** Plotted on Map - Staked in Field
 If MI, # of increments taken: _____ Estimated -

Sample Depth: 46 FT (below surface) **Measured - Surveyed**
Decon: Dedicated - Each Day - Each Location

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

Sample Description _____ Col _____
or: _____ **Odor:** _____
 _____ **Staining:** _____
 _____ **Texture:** _____
 _____ **Sorting:** _____
 _____ **Plasticity:** _____
Moisture: _____
See Boring Log

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

*Water sample description should include:
 Color Odor Sheen Turbidity*

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: Derek Kinder (Please Print) **Reviewed by:** Eric Cheng (Please Print)
Signature: *[Signature]* **Signature:** *[Signature]* **Date:** 5/5/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10

Location ID: DAAAb-027-0004-SO

Date: 4/28/10

Weather Conditions: Sunny

Temperature: 38°F

Sampling Information

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

Sample Collection: 8:50 hrs AM **Sample Type:** Composite - MI - Grab **Location:** Plotted on Map - Staked in Field
 If MI, # of increments taken: _____

Sample Depth: 0-2 FT (below surface) **Measured - Surveved**
Decon: Dedicated Each Day - Each Location

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

Sample Description

Color: _____ **Col**

Odor: _____

Staining: _____

Texture: _____

Sorting: _____

Plasticity: _____

Moisture: _____

See Boring Log

*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: Derek Kinder (Please Print) **Reviewed by:** Eriz Cheng (Please Print)

Signature: [Signature] **Signature:** [Signature] **Date:** 5/5/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10

Location ID: DAAsb-027-0006-SO

Date: 4/28/10 **Weather Conditions:** Sunny **Temperature:** 38° F

Sampling Information

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

Sample Collection: 0910 hrs **Sample Type:** Composite - MI - Grab
 If MI, # of increments taken: _____ **Location:** Plotted on Map - Staked in Field
 Estimated - _____

Sample Depth: 4-6' FT (below surface) **Measured - Surveyed**
Decon: Dedicated - Each Day - Each Location

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

<p style="text-align: center;">Sample Description</p> <p>Color: _____ Odor: _____</p> <p>_____ Staining: _____</p> <p>_____ Sorting: _____</p> <p>_____ Plasticity: _____</p> <p>Moisture: _____</p> <p style="font-size: 1.5em; margin-top: 20px;">See Boring Log</p> <p><i>Soil sample description should include:</i> Munsell Color Odor Staining Texture Sorting Plasticity Moisture</p> <p><i>Water sample description should include:</i> Color Odor Sheen Turbidity</p>	<p style="text-align: center;">Split Sample</p> <p>Split Sample ID: _____</p> <p>Name: _____</p> <p>Agency/Company: _____</p> <p>Address: _____</p> <p>_____</p> <p>_____</p> <p>QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks Parameters: Same as Above - As Listed</p>
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Logged By: Derek Kinder (Please Print) **Reviewed by:** Eric Cheng (Please Print)

Signature: [Signature] **Signature:** [Signature] **Date:** 5/5/10

Field Sampling Report

Drilling started @ 1400

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10
 Location ID: DAAsb-022M-0001-SO

Date: 4/28/2010 Weather Conditions Partly Cloudy Temperature 49°F

Sampling Information

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

Sample Collection: 1420-1440 hrs Sample Type: Composite - MI - Grab Location: Plotted on Map - Staked in Field
 If MI, # of increments taken: 50 Estimated -
 Sample Depth: 0-8 FT (below surface) Measured - Surveyed
 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	X	TPH DRO		Reactivity Sulfide/Cyanide			
	Explosives	X	Chromium +6	X	Ignitability			
Sample: ppm	Propellants	X	Nitrate					
Water Level: FT	TAL Metals	X	Asbestos		QA Samples			
Temperature: °C	PCBs	X			MS/MSD	Yes / No		NA
Sp. Conductance: uMHOs	Pesticides				Duplicate ID	Yes / No		NA
pH: units	TOC				Equipment Rinse ID	Yes / No		NA
Turbidity: N.T.U.	Grain Size				Trip Blank ID	Yes / No		NA

Sample Description	Split Sample
Col: _____ Odor: _____ Staining: _____ Texture: _____ Sorting: _____ Plasticity: _____ Moisture: _____ <p style="font-size: 1.2em; margin-top: 10px;">See Boring Log</p>	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: Nathaniel Peters (Please Print) Nathaniel Peters Reviewed by: Eric Cheng (Please Print)
 Signature: Nathaniel Peters Signature: Eric Cheng Date: 5/5/10

Field Sampling Report

Drilling started @ 1450

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10

Location ID: DAAsb-025M-0001-SO

Date: 4/28/2010

Weather Conditions: partly cloudy

Temperature: 59°F

Sampling Information

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

Sample Collection: 1530 hrs

Sample Type: Composite - (MI) - Grab
If MI, # of increments taken: 50

Location: Plotted on Map - Staked in Field
Estimated -

Sample Depth: 0-8 FT (below surface)

Measured - Surveyed
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	X	TPH DRO			Reactivity Sulfide/Cyanide			
	Explosives	X	Chromium +6	X		Ignitability			
Sample: ppm	Propellants	X	Nitrate						
Water Level: FT	TAL Metals	X	Asbestos		QA Samples				
Temperature: °C	PCBs	X			MS/MSD	Yes / No		NA	
Sp. Conductance: uMHOs	Pesticides				Duplicate ID	Yes / No		NA	
pH: units	TOC				Equipment Rinse ID	Yes / No		NA	
Turbidity: NTU	Grain Size				Trip Blank ID	Yes / No		NA	

Sample Description

Color: _____ Col

Odor: _____

Staining: _____

Texture: _____

Sorting: _____

Plasticity: _____

Moisture: _____

Sec Boring Log

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: Derek Kinder (Please Print)

Signature: [Signature]

Reviewed by: Eric Cheng (Please Print)

Signature: [Signature] Date: 5/5/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10

Location ID: DAAsb-027M-0001-SO

Date: 4-28-2010 **Weather Conditions:** 54.000 / , WIND / **Temperature:** 40°F

Sampling Information

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

Sample Collection: 8:30-9:30 hrs **Sample Type:** Composite - MI - Grab
 If MI, # of increments taken: 50 **Location:** Plotted on Map - Staked in Field
 Estimated - EAST SIDE OF U-10

Sample Depth: 8' FT (below surface) **Measured - Surveyed**
Decon: Dedicated Each Day - Each Location

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

Sample Description	Split Sample
Color: _____ Odor: _____ Staining: _____ Texture: _____ Sorting: _____ Plasticity: _____ Moisture: _____ <u>BROWN, FIRM-SOFT, SLIGHTLY-MEDIUM PLASTIC SILTY CLAY.</u> <u>+ See Boring Log</u> Soil sample description should include: Munsell Color Odor Staining Texture Sorting Plasticity Moisture Water sample description should include: Color Odor Sheen Turbidity	Split Sample ID: _____ Name: _____ Agency/Company: _____ Address: _____ _____ _____ _____ QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks Parameters: Same as Above - As Listed

Logged By: MARK NICHTER (Please Print)

Signature: Mark Nichter

Reviewed by: Eric Cheng (Please Print)

Signature: Eric Cheng **Date:** 5/5/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10
 Location ID: DAAsb-027M-0002-SO

Date: 4-28-2010 Weather Conditions: SUNNY, WINDY Temperature: 40°F

Sampling Information

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

Sample Collection: 8:36 AM hrs Sample Type: Composite - MI - Grab
 If MI, # of increments taken: 50 Location: Plotted on Map - Staked in Field
 Sample Depth: 8' FT (below surface) Measured - Surveyed Decon: Dedicated Each Day - Each Location
 Estimated: EAST SIDE OF U-10

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

Sample Description

Color: _____ Odor: _____ Staining: _____
 Texture: _____ Sorting: _____
 Plasticity: _____
 Moisture: _____

BROWN, FIRM - STIFF, SLIGHTLY - MLD. PLASTIC, SILTY CLAY.
+ See Boring Log

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

Water sample description should include:
 Color Odor Sheen Turbidity

Split Sample

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

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

Logged By: MARK NICHOLS (Please Print) Reviewed by: Eric Cheng (Please Print)
 Signature: Mark W. Nichols Signature: [Signature] Date: 5/5/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10
Location ID: DAAAsb-027M-0003-SO

Date: 4-28-2016 **Weather Conditions:** SUNNY, WINDY **Temperature:** 40°F.

Sampling Information

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

Sample Collection: 5:30-9:30hrs **Sample Type:** Composite - MI - Grab
 If MI, # of increments taken: 50 **Location:** Plotted on Map - Staked in Field
 Estimated - EAST SIDE OF U-10
Sample Depth: 8 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	X	TPH DRO			Reactivity Sulfide/Cyanide		
Sample: ppm	Explosives	X	Chromium +6	X	Ignitability			
	Propellants	X	Nitrate					
Water Level FT	TAL Metals	X	Asbestos		QA Samples			
Temperature °C	PCBs	X			MS/MSD	Yes / No	NA	
Sp. Conductance: uMHOs	Pesticides				Duplicate ID	<input checked="" type="checkbox"/> Yes / No	NA	
pH units	TOC				Equipment Rinse ID	Yes / No	NA	
Turbidity N.T.U.	Grain Size				Trip Blank ID	Yes / No	NA	

<p style="text-align: center;">Sample Description</p> <p>Color: _____ Col _____</p> <p>Odor: _____</p> <p>Staining: _____</p> <p>Texture: _____</p> <p>Sorting: _____</p> <p>Plasticity: _____</p> <p>Moisture: _____</p> <p><u>BROWN, FIRM-STIFF, SLIGHTLY-MEDIUM, SILTY CLAY.</u></p> <p><u>+ see Boring Log</u></p> <p><i>Soil sample description should include:</i> Munsell Color Odor Staining Texture Sorting Plasticity Moisture</p> <p><i>Water sample description should include:</i> Color Odor Sheen Turbidity</p>	<p style="text-align: center;">Split Sample</p> <p>Split Sample ID: _____</p> <p>Name: _____</p> <p>Agency/Company: _____</p> <p>Address: _____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>QA/QC Provided: MS/MSD - Duplicate - Trip Blanks - Field Blanks Parameters: Same as Above - As Listed</p>
---	---

Logged By: MARK NICHTEL (Please Print) **Reviewed by:** Eric Cheng (Please Print)
Signature: [Signature] **Signature:** [Signature] **Date:** 5/5/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10

Location ID: DAAsb-026M-0001-SO

Date: 4-28-10 **Weather Conditions:** SUNNY, WINDY **Temperature:** 40°F

Sampling Information

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

Sample Collection: 355-10:20 hrs **Sample Type:** Composite - MI - Grab
 If MI, # of increments taken: 50 **Location:** Plotted on Map - Staked in Field
 Estimated - SE SIDE OF U-10

Sample Depth: 8 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	X	TPH DRO		Reactivity Sulfide/Cyanide		
	Explosives	X	Chromium +6	X	Ignitability		
Sample: _____ ppm	Propellants	X	Nitrate				
Water Level _____ FT	TAL Metals	X	Asbestos		QA Samples		
Temperature _____ °C	PCBs	X			MS/MSD	Yes / No	NA
Sp. Conductance: _____ uMHos	Pesticides				Duplicate ID	Yes / No	NA
pH _____ units	TOC				Equipment Rinse ID	Yes / No	NA
Turbidity _____ N.T.U.	Grain Size				Trip Blank ID	Yes / No	NA

Sample Description _____ Col _____

Odor: _____ **Staining:** _____

Texture: _____ **Sorting:** _____

Plasticity: _____

Moisture: _____

BROWN, ~~SOFT~~ SOFT-STIFF, SLIGHTLY -
MEDIUM PLASTIC, SILTY CLAY
+ See Boring Log

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

Water sample description should include:
Color Odor Sheen Turbidity

Split Sample ID: _____

Name: _____

Agency/Company: _____

Address: _____

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

Logged By: MARK NICHTEL (Please Print) **Reviewed by:** Eric Cheng (Please Print)

Signature: Mark W. Nichtel **Signature:** Eric Cheng **Date:** 5/5/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10
 Location ID: DAAAb-023M-0001-SO

Date: 4-28-10 Weather Conditions: SUNNY, WINDY Temperature: 47°F

Sampling Information

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

Sample Collection: 1/2 - 1/5 hrs Sample Type: Composite - MI - Grab
 If MI, # of increments taken: 50 Location: Plotted on Map - Staked in Field
 Estimated - WEST SIDE OF U-10 PAD
 Sample Depth: 3 FT (below surface) Measured - Surveyed 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	X	TPH DRO			Reactivity Sulfide/Cyanide			
	Explosives	X	Chromium +6	X		Ignitability			
Sample: ppm	Propellants	X	Nitrate						
Water Level: FT	TAL Metals	X	Asbestos		QA Samples				
Temperature: °C	PCBs	X			MS/MSD	Yes / No		NA	
Sp. Conductance: uMHOs	Pesticides				Duplicate ID	Yes / No		NA	
pH: units	TOC				Equipment Rinse ID	Yes / No		NA	
Turbidity: N.T.U.	Grain Size				Trip Blank ID	Yes / No		NA	

Sample Description

Color: _____ Odor: _____ Staining: _____
 Texture: _____ Sorting: _____
 Plasticity: _____
 Moisture: _____

GRAY TO BROWN, LOOSE TO FIRM SILT, AND BROWN, FIRM - STIFF, MEDIUM PLASTIC SILTY CLAY. + See Boring Log

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

Water sample description should include:
 Color Odor Sheen Turbidity

Split Sample

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

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

Logged By: MARK WICKER (Please Print) Reviewed by: Eric Cheng (Please Print)
 Signature: Mark Wicker Signature: Eric Cheng Date: 5/5/10

Field Sampling Report

Project Name: RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO SAMPLING CR RVAAP-76 Depot Area immediately adjacent to former building U-10
 Location ID: DAAAsb-024M-0001-SO

Date: 4-28-10 Weather Conditions SUNNY, WINDY Temperature 47°F

Sampling Information

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

Sample Collection: 165-120 hrs Sample Type: Composite - MI - Grab
 If MI, # of increments taken: 50 Location: Plotted on Map - Staked in Field
 Estimated -
 Sample Depth: 8' FT (below surface) Measured - Surveyed
 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 Reactivity Sulfide/Cyanide Ignitability			
	SVOC	X	TPH DRO					
	Explosives	X	Chromium +6	X				
Sample: ppm	Propellants	X	Nitrate		QA Samples MS/MSD Yes / No NA Duplicate ID Yes / No NA Equipment Rinse ID Yes / No NA Trip Blank ID Yes / No NA			
Water Level FT	TAL Metals	X	Asbestos					
Temperature °C	PCBs	X						
Sp. Conductance: uMHOs	Pesticides							
pH units	TOC							
Turbidity N.T.U.	Grain Size							

Sample Description

Color: _____ Odor: _____ Staining: _____
 Texture: _____ Sorting: _____
 Plasticity: _____
 Moisture: _____

BROWN, SOFT-STIFF, SLIGHT TO MEDIUM
PLASTIC CLAY,
+ See Boring Log

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

Water sample description should include:
 Color Odor Sheen Turbidity

Split Sample

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

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

Logged By: MARK NICTER (Please Print) Reviewed by: Eric Cheng (Please Print)
 Signature: Mark W. Nictier Signature: [Signature] Date: 5/5/10

22
DAAsb-024 Boring Logs / Sample Description

Task two geoblogs
samples here to get
adequate recovery

0-2' BGS

~ 3" asphalt
8" - 14" gravel and sand
14" - 18" very stiff gray to black
clayey silt with fine sand some gravel
19" - 24" hard brown silt with fine
sand

2'-4' BGS

very stiff brown clayey silt with
some fine sand

4'-6' BGS

stiff to very stiff brown sandy silt

6'-8' BGS

stiff to hard brown silty clay
with fine sand

4/28/10.

1120 - 1150 HRS.

DAAsb-023 Boring Logs / Sample Description

0-2' BGS

0-1' ASPHALT + GRAVEL SURFACE

1-2' GRAY TO BROWN LOOSE, FINE SAND.

2'-4' BGS

2-4' GRAY TO BROWN, LOOSE, FINE SAND

4'-6' BGS

4-6' BROWN, ^{LOOSE} SOFT TO FIRM, CLAYEY SILT.

6'-8' BGS

6-8' BROWN FIRM-STIFF, MEDIUM PLASTIC, SILTY CLAY.

4-28-10 1035 - HAS.

Took three
geoprobe samples
here to get
adequate recovery

24
DAAsb-022 Boring Logs / Sample Description

0-2' BGS

0-1' ASPHALT & SUBBASE GRAVEL

1-2' BROWN, SOFT, LOOSE, SILTY CLAY. (25% RECOVERY)
LOOSE FILL MATERIAL - DIRMEX.

2'-4' BGS

4'-6' BGS

4-8" - BROWN, FIRM-STIFF, MEDIUM PLASTIC, SILTY CLAY.

6'-8' BGS

TD @ 8'

DAAsb-025 Boring Logs / Sample Description

0-2' BGS

0-16" gravel asphalt over gravel + sand

16" - 24"

firm brown clayey silt to silty clay
with fine sand

2'-4' BGS

firm brown clayey silt to silty clay
with fine sand

4'-6' BGS

stiff brown silty clay

6'-8' BGS

stiff to very stiff

brown silty clay with some fine gravel

4-28-10
8:55 - 10:20 HRS

DAAsb-026 Boring Logs / Sample Description

0-2' BGS

0-1' - ASPHALT WITH GRANULAR SUBBASE

1-2' BROWN, SLIGHTLY PLASTIC, SOFT, SILTY CLAY.

2'-4' BGS

2-4 BROWN, MEDIUM PLASTIC, FIRM-STIFF, SILTY CLAY.

4'-6' BGS

6'-8' BGS



TO @ 8'

42x10

DAAsb-027 Boring Logs / Sample Description

Took two geoprobe samples here to get adequate recovery

0-2' BGS - 8:30 AM.

0-4' ASPHALT + SUBBASE

1-2' BROWN, SILTY CLAY, FIRM SLIGHTLY PLASTIC.

2'-4' BGS

2-4 BROWN, FIRM, SLIGHTLY PLASTIC, SILTY CLAY.

(50% RECOVERY)

4'-6' BGS

6'-8' BGS



Chain of Custody Record

TestAmerica Laboratory location: N.Canton --- 4101 Shuffel Street NW/ North Canton, OH 44720 / 330-497-9396

Client Contact		Regulatory program: <input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other										TestAmerica Laboratories, Inc.												
Company Name: USACE		Client Project Manager: Derek Kinder				Site Contact:				Lab Contact:		COC No:												
Address: 8451 ST RT 5		Telephone: 602-315-6393				Telephone:				Telephone:		of COCs												
City/State/Zip: Putnam OH		Email: Cell 502-554-3515				Analysis Turnaround Time				Analyses		For lab use only												
Phone:		TAT if different from below <input type="checkbox"/> 3 weeks <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day				Matrix: Explosives Propellants SVOCs PCB Pesticides TAL Metals + CrVI and Hg																		
Project Name: RVAAP U-10														Method of Shipment/Carrier:										
Project Number:		Shipping/Tracking No:				Containers & Preservatives						Sample Specific Notes / Special Instructions:												
PO #																								
Sample Identification		Sample Date	Sample Time	Air	Aqueous	Sediment	Solid	Other:	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Matrix	Containers & Preservatives	Matrix	Containers & Preservatives	Matrix	Containers & Preservatives	Matrix	Containers & Preservatives	Sample Specific Notes / Special Instructions:
DAAsb-022M-0001-S0		4/28/10	1400 1400				✓																	1420-1440 Sample Time
DAAsb-023M-0001-S0		4/28/10	1120-1150				✓																	
DAAsb-024M-0001-S0		4/28/10	1035-1120				✓																	
DAAsb-025M-0001-S0		4/28/10	1500-1530				✓																	
DAAsb-026M-0001-S0		4/28/10	0855-1020				✓																	
DAAsb-027M-0001-S0		4/28/10	0830-0930				✓																	
DAAsb-027M-0002-S0		4/28/10	0830-0930				✓																	
DAAsb-028M-0001-S0		4/28/10	0920-1530				✓																	
DAAsb-028M-0002-S0		4/28/10	0920-1530				✓																	
DAAsb-028M-0004-S0		4/28/10	0920-1530				✓																	M.S/MSD See Below
DAAsb-028M-0005-S0		4/28/10	0920-1530				✓																	
DAAsb-028M-0006-S0		4/28/10	0920-1530				✓																	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown										Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months														
Special Instructions/QC Requirements & Comments: Note: M.S/MSD IDs are DAAsb-028M-0007-S0 and DAAsb-028M-0008-S0 respectively Note: One cooler contains contingency samples which shall not be processed or analyzed unless instructed to by the Client.																								
Relinquished by: Derek Kinder				Company: USACE				Date/Time: 4/29/10 0800				Received by: Test America				Company:				Date/Time:				
Relinquished by:				Company:				Date/Time:				Received by:				Company:				Date/Time:				
Relinquished by:				Company:				Date/Time:				Received in Laboratory by:				Company:				Date/Time:				

Chain of Custody Record

TestAmerica Laboratory location: N.Canton — 4101 Shuffel Street NW/ North Canton, OH 44720 / 330-497-9396

Client Contact		Regulatory program: <input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other		TestAmerica Laboratories, Inc.														
Company Name: USACE		Client Project Manager: Derek Kinder			Site Contact:			Lab Contact:			COC No:							
Address:		Telephone: 502 315 6393			Telephone:			Telephone:			of COCs							
City/State/Zip:		Email:			Analysis Turnaround Time:			Analyses			For lab use only							
Phone:		TAT if different from below			TAT if different from below <input type="checkbox"/> 3 weeks <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day													
Project Name: Ravenna AAP U-10		Method of Shipment/Carrier:																
Project Number:		Shipping/Tracking No:																
PO #																		
23457 23467 Sample Identification		Sample Date	Sample Time	Matrix			Containers & Preservatives							Walk-in cooler Lab storage Job site	Sample Specific Notes / Special Instructions:			
				Air	Aqueous	Sediment	Solid	Other: Soil	H2SO4	HNO3	HCl	NaOH	ZnAc			NaOH	Unpres	Other:
DAA sb-024-0002-50		4/28/10	1520					X										X
DAA sb-024-0003-50			1520															
DAA sb-024-0004-50			1040															
DAA sb-024-0005-50			1042															
DAA sb-024-0007-50			1025															
DAA sb-026-0002-50			1000															
DAA sb-026-0003-50			1000															
DAA sb-026-0004-50			1002															
DAA sb-026-0006-50			1015															
DAA sb-026-0007-50			1015															
Possible Hazard Identification				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)														
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown				<input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months														
Special Instructions/QC Requirements & Comments:																		
Relinquished by:		Company: USACE		Date/Time: 4/29/10; 0800		Received by:			Company:			Date/Time:						
Relinquished by:		Company:		Date/Time:		Received by:			Company:			Date/Time:						
Relinquished by:		Company:		Date/Time:		Received in Laboratory by:			Company:			Date/Time:						

Chain of Custody Record

TestAmerica Laboratory location: N.Canton --- 4101 Shuffel Street NW/ North Canton, OH 44720 / 330-497-9396

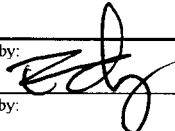
Client Contact		Regulatory program: <input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other _____										TestAmerica Laboratories, Inc.						
Company Name: USACE		Client Project Manager: Derck Kinder				Site Contact:				Lab Contact:				COC No:				
Address:		Telephone: 502 315 6393				Telephone:				Telephone:				of COCs				
City/State/Zip:		Email:				Analysis Turnaround Time				Analyses				For lab use only:				
Phone:		TAT if different from below <input type="checkbox"/> 3 weeks <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day				Filtered Sample (Y/N) Composite or Grab-G								Walk-in client				
Project Name: Ravenna AAP u-10														Method of Shipment/Carrier:				
Project Number:		Shipping/Tracking No:												Job/SDG No:				
PO #																		
Sample Identification		Sample Date	Sample Time	Matrix					Containers & Preservatives					Sample Specific Notes / Special Instructions:				
				Air	Aqueous	Sediment	Solid	Other: soil	H2SO4	HNO3	HCl	NaOH	ZnAc		NaOH	Unpres	Other:	
DAAsb-025-0002-50		4/28/10	1455					X										X
DAAsb-025-0003-50			1455															
DAAsb-025-0004-50			1500															
DAAsb-025-0005-50			1500															
DAAsb-025-0006-50			1500															
DAAsb-025-0007-50			1500															
DAAsb-027-0004-50			0850															
DAAsb-027-0005-50			0850															
DAAsb-027-0006-50			0900															
DAAsb-027-0007-50			0900															
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown										Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months								
Special Instructions/QC Requirements & Comments:																		
Relinquished by:		Company: USACE		Date/Time: 4/29/10, 0800		Received by:			Company:		Date/Time:							
Relinquished by:		Company:		Date/Time:		Received by:			Company:		Date/Time:							
Relinquished by:		Company:		Date/Time:		Received in Laboratory by:			Company:		Date/Time:							

unlabelled, in same bag as 0005-
unlabelled, in same bag as 0005-

Chain of Custody Record

TestAmerica Laboratory location: N.Canton --- 4101 Shuffel Street NW/ North Canton, OH 44720 / 330-497-9396

Client Contact		Regulatory program: <input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other										TestAmerica Laboratories, Inc.											
Company Name: USACE		Client Project Manager: Derek Kinder				Site Contact:				Lab Contact:		COC No:											
Address:		Telephone: 502 315 6393				Telephone:				Telephone:		of COCs											
City/State/Zip:		Email:				Analysis Turnaround Time				Analyses		For lab use only											
Phone:		TAT if different from below <input type="checkbox"/> 3 weeks <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day				Filtered Sample (V/N) Composite C/Grab-G VOCs						Walk-in client Lab sampling Job/SDG No:											
Project Name: Ravenna AAP														Method of Shipment/Carrier:									
Project Number:														Shipping/Tracking No:									
PO #		Sample Date		Sample Time		Matrix				Containers & Preservatives				Sample Specific Notes / Special Instructions:									
Sample Identification						Air	Aqueous	Sediment	Soils	Other:	H2SO4	HNO3	HCl			NaOH	ZnAc	NaOH	Unpres	Other:			
DAA sb-022-0002-50		4/28/10		1410					X														
DAA sb-022-0003-50				1412																			
DAA sb-022-0005-50				1410																			
DAA sb-022-0006-50				1420																			
DAA sb-022-0008-50				1420																			
DAA sb-022-0009-50				1420																			
DAA sb-022-0007-50				1420																			
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown										Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months													
Special Instructions/QC Requirements & Comments:																							
Relinquished by:		Company: USACE				Date/Time: 4/29/10, 0800				Received by:				Company:		Date/Time:							
Relinquished by:		Company:				Date/Time:				Received by:				Company:		Date/Time:							
Relinquished by:		Company:				Date/Time:				Received in Laboratory by:				Company:		Date/Time:							

Client Contact		Regulatory program: <input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other										TestAmerica Laboratories, Inc.															
Company Name: USACE		Client Project Manager: DEREK KINDER					Site Contact:					Lab Contact:					COC No:										
Address:		Telephone: 502 315 6393					Telephone:					Telephone:					of COCs										
City/State/Zip:		Email:					Analysis Turnaround Time					Analyses					For Lab Use										
Phone:		TAT if different from below <input type="checkbox"/> 3 weeks <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day					Filtered Samples (N)					Compliance (C)					SOS					Sample Specific Notes / Special Instructions:					
Project Name: Ravenna AAP 4-10																											Method of Shipment/Carrier:
Project Number:		Shipping/Tracking No:					Matrix					Containers & Preservatives															
PO #		Sample Date		Sample Time		Air	Aqueous	Sediment	Solid	Other: SI	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:										
234567 Sample Identification																											
DAA sb -023-0002-50		4/28/10		1120						X																	
DAA sb -023-0003-50				1120																							
DAA sb -023-0004-50				1130																							
DAA sb -023-0005-50				1130																							
DAA sb -023-0006-50				1130																			unlabelled, in same bag as -0005 unlabelled, in same bag as -0005				
DAA sb -023-0007-50				1130																							
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown										Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																	
Special Instructions/QC Requirements & Comments:																											
Relinquished by: 		Company: USACE		Date/Time: 4/29/10; 0800		Received by:					Company:					Date/Time:											
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ANALYTICAL REPORT

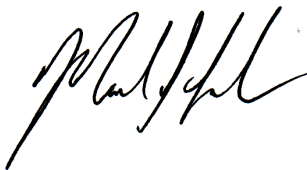
PROJECT NO. RVAAP U-10
RVAAP U-10
Lot #: A0D300624
CONTRACT NO: W912QR-07-D-0020
DELIVERY ORDER: Task 23

Derek S. Kinder

U.S. Army Corps of Engineers
600 Martin Luther King Place
Room 921
Louisville, KY 40202

TESTAMERICA LABORATORIES, INC.

Unless noted otherwise, the test results reported herein meet all requirements of NELAC and the current version of the DoD QSM.



Approved for release.
Mark J. Loeb
Project Manager II
6/2/2010 2:35 PM

Mark J. Loeb
Project Manager
mark.loeb@testamericainc.com

June 01, 2010

TestAmerica Laboratories, Inc.

TestAmerica North Canton 4101 Shuffel Street NW, North Canton, OH 44720

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CASE NARRATIVE

CASE NARRATIVE

A0D300624

The following report contains the analytical results for twelve solid samples submitted to TestAmerica North Canton by U.S. Army Corps of Engineers from the RVAAP U-10 Site. The samples were received April 29, 2010, according to documented sample acceptance procedures.

The Explosive and Propellant analysis were performed at the TestAmerica West Sacramento Laboratory.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Derek S. Kinder on May 27, 2010. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by a dry weight adjustment footnote at the bottom of the analytical report page. The list of parameters which are never reported on a dry weight basis is included on the Sample Summary.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

All parameters were evaluated to the method detection limit and include qualified results where applicable.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Mark J. Loeb, at 330-497-9396.

CASE NARRATIVE (continued)

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperatures of the coolers upon sample receipt were 4.3 and 5.8°C.

See TestAmerica's Cooler Receipt Form for additional information.

GC/MS SEMIVOLATILES

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

The matrix spike/matrix spike duplicate(s) for DAAsb-028M-0004-SO had RPD's and recoveries outside acceptance limits. However, since the associated method blank(s) and laboratory control sample(s) were in control, no corrective action was necessary.

Sample DAAsb-022M-0001-SO and DAAsb-023M-0001-SO had elevated reporting limits due to matrix interferences.

The method blank associated with QC batch 0127049 had an acid surrogate (2,4,6-TBP) recovery below acceptance criteria. Most of the samples were analyzed without dilution (i.e. straight). There was significant matrix interference, which resulted in most compounds of interest needing to be manually integrated. The samples were re-extracted and the new QC analyzed. The same deficiency with the acid surrogate occurred. Since no better results would be provided with the re-extracted samples it was decided to report only the initial results.

PESTICIDES-8081

The matrix spike/matrix spike duplicate(s) for DAAsb-028M-0004-SO had recoveries outside acceptance limits. However, since the associated method blank(s) and laboratory control sample(s) were in control, no corrective action was necessary.

The reporting limits are elevated due to a Sulfur matrix interference that routine clean-up techniques could not remove, for samples DAAsb-028M-0001-SO, DAAsb-028M-0002-SO and DAAsb-028M-0004-SO.

CASE NARRATIVE (continued)

PESTICIDES-8081 (cont)

The bracketing MRLs failed high for heptachlor Epoxide on the confirmation column because of a co-eluting matrix interference peak, since the samples are non-detect, no corrective action is needed for samples DAAsb-028M-0001-SO, DAAsb-028M-0002-SO and DAAsb-028M-0004-SO.

Heptachlor is reported from the confirmation column because of matrix interference on the primary column for sample DAAsb-028m-0004-SO MS/MSD.

POLYCHLORINATED BIPHENYLS-8082

The matrix spike/matrix spike duplicate(s) for DAAsb-028M-0004-SO had recoveries outside acceptance limits. However, since the associated method blank(s) and laboratory control sample(s) were in control, no corrective action was necessary.

The client specific or regulatory program requirements stated that corrective action must be performed for MS/MSD and/or RPD outside criteria in batch 0127040. Due to insufficient sample volume, re-preparation and reanalysis could not occur.

For sample(s) DAAsb-027M-0002-SO re-extract the recovery for one surrogate compound is outside acceptance criteria. Since the LCG criterion is that one of two surrogate compounds must meet acceptance criteria, no corrective action was required. (Surrogate was below acceptance limit but above 10%)

The opening CCV passed average for DAAsb-027M-0002-SO MS/MSD on the confirmation column. Corrective action was not required.

NITROAROMATICS AND NITRAMINES-8330

The matrix spike/matrix spike duplicate(s) for DAAsb-028M-0004-SO had recoveries outside acceptance limits. However, since the associated method blank(s) and laboratory control sample(s) were in control, no corrective action was necessary.

METALS

The sample(s) had elevated reporting limits due to matrix interferences. Refer to the sample report pages for the affected analyte(s) flagged with "G".

The sample(s) that contained concentrations of target analyte(s) at a reportable level in the associated Method Blank(s) were flagged with "J". Refer to the sample report pages for the affected analyte(s).

CASE NARRATIVE (continued)

METALS (cont)

Matrix spike recovery and relative percent difference (RPD) data were not calculated for some analytes for DAAsb-028M-0004-SO due to the sample concentration reading greater than four times the spike amount. See the Matrix Spike Report for the affected analytes which will be flagged with "NC, MSB".

The matrix spike/matrix spike duplicate(s) for DAAsb-028M-0004-SO had recoveries outside acceptance limits. However, since the associated method blank(s) and laboratory control sample(s) were in control, no corrective action was necessary.

GENERAL CHEMISTRY

The sample(s) that contain results between the MDL and the RL were flagged with "B". There is the possibility of false positive or mis-identification at these quantitation levels. The acceptance criteria for the ICB, CCB, and Method Blank are +/- the standard reporting limit (SRL).

The sample(s) that contained concentrations of target analyte(s) at a reportable level in the associated Method Blank(s) were flagged with "J". Refer to the sample report pages for the affected analytes(s).

Insufficient sample to perform Hexachrome test for sample DAAsb-028M-0004-SO.

The matrix spike/matrix spike duplicate(s) for DAAsb-028M-0004-SO had recoveries outside acceptance limits. However, since the associated method blank(s) and laboratory control sample(s) were in control, no corrective action was necessary.

MANUAL INTEGRATION SUMMARY

Manual integrations were performed on samples(s) reported herein. A list of samples and analytes for which manual integration was necessary is provided following this Case Narrative.

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data. Program or agency specific requirements take precedence over the requirements listed in this narrative.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the reparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

<u>Volatile (GC or GC/MS)</u>	<u>Semivolatile (GC/MS)</u>	<u>Metals ICP-MS</u>	<u>Metals ICP Trace</u>
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

QUALITY CONTROL ELEMENTS NARRATIVE (continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.
- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the reparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.



TestAmerica Certifications and Approvals:

The laboratory is certified for the analytes listed on the documents below. These are available upon request.
California (#01144CA), Connecticut (#PH-0590), Florida (#E87225),
Illinois (#200004), Kansas (#E10336), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), Nevada
(#OH-000482008A), OhioVAP (#CL0024), Pennsylvania (#008), West Virginia (#210), Wisconsin (#999518190), NAVY,
ARMY, USDA Soil Permit

N:\QAQC\Customer Service\Narrative - Combined RCRA_CWA 032609.doc

MANUAL INTEGRATION SUMMARY

Lot A0E070585

Client ID: T-2E(1S)

Compound Name: Naphthalene

Instrument ID: a4hp10.i

File Name: L07TJ1AC.D

Inj. Date and Time: 11-MAY-2010 15:07

Manual Integration Reason: Peak not found

Client ID: T-2E(1S)

Compound Name: 1-Methylnaphthalene

Instrument ID: a4hp10.i

File Name: L07TJ1AC.D

Inj. Date and Time: 11-MAY-2010 15:07

Manual Integration Reason: Peak not found

Client ID: INTRA-LAB CHECK

Compound Name: 1,4-Dioxane

Instrument ID: a4hp10.i

File Name: L07881AC.D

Inj. Date and Time: 11-MAY-2010 12:12

Manual Integration Reason: Poor Chromatography

Client ID: INTRA-LAB CHECK

Compound Name: Naphthalene

Instrument ID: a4hp10.i

File Name: L07881AC.D

Inj. Date and Time: 11-MAY-2010 12:12

Manual Integration Reason: Peak not found

Client ID: INTRA-LAB CHECK

Compound Name: AROCLOR-1260

Instrument ID: a2hp11.i

File Name: 032F3201.D

Inj. Date and Time: 12-MAY-2010 14:21

Manual Integration Reason: Analyte not Identified by the Data System

Client ID: P-3W(5N)

Compound Name: 1,4-Dioxane

Instrument ID: a4hp10.i

File Name: L07TN1AC.D

Inj. Date and Time: 11-MAY-2010 18:21

Manual Integration Reason: Peak not found

Client ID: P-3W(5N)

Compound Name: Naphthalene

Instrument ID: a4hp10.i

File Name: L07TN1AC.D

Inj. Date and Time: 11-MAY-2010 18:21

Manual Integration Reason: Peak not found

MANUAL INTEGRATION SUMMARY

Lot A0E070585 (Continued)

Client ID: P-3W(5N)

Compound Name: Anthracene

Instrument ID: a4hp10.i

File Name: L07TN1AC.D

Inj. Date and Time: 11-MAY-2010 18:21

Manual Integration Reason: Peak not found

Client ID: P-3W(5N)

Compound Name: bis(2-ethylhexyl)Phthalate

Instrument ID: a4hp10.i

File Name: L07TN1AC.D

Inj. Date and Time: 11-MAY-2010 18:21

Manual Integration Reason: Poor Chromatography

Client ID: P-3W(5N)

Compound Name: Benzo(a)Anthracene

Instrument ID: a4hp10.i

File Name: L07TN1AC.D

Inj. Date and Time: 11-MAY-2010 18:21

Manual Integration Reason: Peak not found

Client ID: P-3W(5N)

Compound Name: Dibenz(a,h)anthracene

Instrument ID: a4hp10.i

File Name: L07TN1AC.D

Inj. Date and Time: 11-MAY-2010 18:21

Manual Integration Reason: Poor Chromatography

Client ID: P-3W(5N)

Compound Name: AROCLOR-1254

Instrument ID: a2hp11.i

File Name: 024F2401.D

Inj. Date and Time: 12-MAY-2010 12:28

Manual Integration Reason: Unknown

Client ID: P-3W(5N)

Compound Name: AROCLOR-1254

Instrument ID: a2hp11.i

File Name: 034F3401.D

Inj. Date and Time: 13-MAY-2010 19:07

Manual Integration Reason: Analyte not Identified by the Data System

Client ID: P-4E(4S)

Compound Name: 1,4-Dioxane

Instrument ID: a4hp10.i

File Name: L07TQ1AC.D

Inj. Date and Time: 11-MAY-2010 17:23

Manual Integration Reason: Peak not found

MANUAL INTEGRATION SUMMARY

Lot A0E070585 (Continued)

Client ID: P-4E(4S)

Compound Name: AROCLOR-1254

Instrument ID: a2hp11.i

File Name: 025F2501.D

Inj. Date and Time: 12-MAY-2010 12:42

Manual Integration Reason: Unknown

Client ID: P-4E(4S)

Compound Name: AROCLOR-1254

Instrument ID: a2hp11.i

File Name: 035F3501.D

Inj. Date and Time: 13-MAY-2010 19:21

Manual Integration Reason: Analyte not Identified by the Data System

Client ID: P-4W(5S)

Compound Name: 1,4-Dioxane

Instrument ID: a4hp10.i

File Name: L07TW1AC.D

Inj. Date and Time: 11-MAY-2010 17:04

Manual Integration Reason: Poor Chromatography

Client ID: P-4W(5S)

Compound Name: bis(2-ethylhexyl)Phthalate

Instrument ID: a4hp10.i

File Name: L07TW1AC.D

Inj. Date and Time: 11-MAY-2010 17:04

Manual Integration Reason: Poor Chromatography

Client ID: P-5E(6N)

Compound Name: 1,4-Dioxane

Instrument ID: a4hp10.i

File Name: L07TX1AC.D

Inj. Date and Time: 11-MAY-2010 18:02

Manual Integration Reason: Peak not found

Client ID: P-5E(6N)

Compound Name: Phenol

Instrument ID: a4hp10.i

File Name: L07TX1AC.D

Inj. Date and Time: 11-MAY-2010 18:02

Manual Integration Reason: Peak not found

Client ID: P-5E(6N)

Compound Name: bis(2-ethylhexyl)Phthalate

Instrument ID: a4hp10.i

File Name: L07TX1AC.D

Inj. Date and Time: 11-MAY-2010 18:02

Manual Integration Reason: Poor Chromatography

MANUAL INTEGRATION SUMMARY

Lot A0E070585 (Continued)

Client ID: P-5E(6N)

Compound Name: Benzo(a)Anthracene

Instrument ID: a4hp10.i

File Name: L07TX1AC.D

Inj. Date and Time: 11-MAY-2010 18:02

Manual Integration Reason: Peak not found

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY - Detection Highlights

A0D300624

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
DAAsb-022M-0001-SO 04/28/10 14:40 001				
Aluminum	7550	50.6	mg/kg	SW846 6020
Arsenic	15.4	2.5	mg/kg	SW846 6020
Barium	34.4	5.1	mg/kg	SW846 6020
Beryllium	0.41	0.10	mg/kg	SW846 6020
Calcium	2630	1010	mg/kg	SW846 6020
Cadmium	0.028 J,G	1.0	mg/kg	SW846 6020
Cobalt	8.8	2.5	mg/kg	SW846 6020
Chromium	14.3	2.5	mg/kg	SW846 6020
Copper	19.9	2.5	mg/kg	SW846 6020
Iron	22400	253	mg/kg	SW846 6020
Potassium	1360	506	mg/kg	SW846 6020
Magnesium	2860	506	mg/kg	SW846 6020
Manganese	434	5.1	mg/kg	SW846 6020
Nickel	22.7	5.1	mg/kg	SW846 6020
Lead	11.1	1.5	mg/kg	SW846 6020
Selenium	0.82 J,G	2.5	mg/kg	SW846 6020
Vanadium	12.7	5.1	mg/kg	SW846 6020
Zinc	66.1	20.2	mg/kg	SW846 6020
Mercury	0.021 J	0.10	mg/kg	SW846 7471A
Naphthalene	64 J	250	ug/kg	SW846 8270C
Hexavalent Chromium	0.41 J	0.81	mg/kg	SW846 7196A
Percent Solids	98.9	10.0	%	MCAWW 160.3 MOD
DAAsb-023M-0001-SO 04/28/10 11:50 002				
Aluminum	6710	50.6	mg/kg	SW846 6020
Arsenic	16.1	2.5	mg/kg	SW846 6020
Barium	28.9	1.0	mg/kg	SW846 6020
Beryllium	0.38	0.10	mg/kg	SW846 6020
Calcium	2980	1010	mg/kg	SW846 6020
Cobalt	8.1	2.5	mg/kg	SW846 6020
Chromium	15.9	2.5	mg/kg	SW846 6020
Copper	19.8	2.5	mg/kg	SW846 6020
Iron	22400	253	mg/kg	SW846 6020
Potassium	1060	506	mg/kg	SW846 6020
Magnesium	2150	506	mg/kg	SW846 6020
Manganese	421	5.1	mg/kg	SW846 6020
Nickel	21.9	5.1	mg/kg	SW846 6020
Lead	11.2	0.30	mg/kg	SW846 6020
Antimony	0.095 J	0.51	mg/kg	SW846 6020
Selenium	0.96 J,G	2.5	mg/kg	SW846 6020
Thallium	0.096 J	0.20	mg/kg	SW846 6020

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A0D300624

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
DAAsb-023M-0001-SO 04/28/10 11:50 002				
Vanadium	11.6	5.1	mg/kg	SW846 6020
Zinc	72.2	20.2	mg/kg	SW846 6020
Mercury	0.032 J	0.10	mg/kg	SW846 7471A
Anthracene	93 J	250	ug/kg	SW846 8270C
Benzo(a)anthracene	100 J	250	ug/kg	SW846 8270C
Benzo(b)fluoranthene	82 J	250	ug/kg	SW846 8270C
Benzo(ghi)perylene	40 J	250	ug/kg	SW846 8270C
Benzo(a)pyrene	71 J	250	ug/kg	SW846 8270C
Chrysene	80 J	250	ug/kg	SW846 8270C
Fluoranthene	270	250	ug/kg	SW846 8270C
Fluorene	45 J	250	ug/kg	SW846 8270C
Indeno(1,2,3-cd)pyrene	35 J	250	ug/kg	SW846 8270C
Phenanthrene	300	250	ug/kg	SW846 8270C
Pyrene	180 J	250	ug/kg	SW846 8270C
Percent Solids	98.9	10.0	%	MCAWW 160.3 MOD
DAAsb-024M-0001-SO 04/28/10 11:20 003				
Silver	0.018 J	0.51	mg/kg	SW846 6020
Aluminum	12800	51.0	mg/kg	SW846 6020
Arsenic	17.7	0.51	mg/kg	SW846 6020
Barium	49.8	1.0	mg/kg	SW846 6020
Beryllium	0.63	0.10	mg/kg	SW846 6020
Calcium	12100	1020	mg/kg	SW846 6020
Cadmium	0.036 J	0.20	mg/kg	SW846 6020
Cobalt	11.6	2.5	mg/kg	SW846 6020
Chromium	20.2	2.5	mg/kg	SW846 6020
Copper	19.6	2.5	mg/kg	SW846 6020
Iron	28900	255	mg/kg	SW846 6020
Potassium	1670	510	mg/kg	SW846 6020
Magnesium	4680	510	mg/kg	SW846 6020
Manganese	298	5.1	mg/kg	SW846 6020
Nickel	29.0	5.1	mg/kg	SW846 6020
Lead	10.7	0.31	mg/kg	SW846 6020
Antimony	0.076 J	0.51	mg/kg	SW846 6020
Selenium	0.81	0.51	mg/kg	SW846 6020
Thallium	0.13 J	0.20	mg/kg	SW846 6020
Vanadium	19.5	5.1	mg/kg	SW846 6020
Zinc	67.3	20.4	mg/kg	SW846 6020
Mercury	0.029 J	0.10	mg/kg	SW846 7471A
Hexavalent Chromium	0.46 J	0.82	mg/kg	SW846 7196A
Percent Solids	98.1	10.0	%	MCAWW 160.3 MOD

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A0D300624

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
DAAsb-025M-0001-SO 04/28/10 15:30 004				
Aluminum	11500	50.8	mg/kg	SW846 6020
Arsenic	17.1	2.5	mg/kg	SW846 6020
Barium	57.4	1.0	mg/kg	SW846 6020
Beryllium	0.56	0.10	mg/kg	SW846 6020
Calcium	1400	1020	mg/kg	SW846 6020
Cadmium	0.018 J,G	1.0	mg/kg	SW846 6020
Cobalt	10.6	2.5	mg/kg	SW846 6020
Chromium	24.7	2.5	mg/kg	SW846 6020
Copper	20.7	2.5	mg/kg	SW846 6020
Iron	27200	254	mg/kg	SW846 6020
Potassium	910	508	mg/kg	SW846 6020
Magnesium	3000	508	mg/kg	SW846 6020
Manganese	437	5.1	mg/kg	SW846 6020
Nickel	28.3	5.1	mg/kg	SW846 6020
Lead	12.4	0.30	mg/kg	SW846 6020
Antimony	0.095 J	0.51	mg/kg	SW846 6020
Selenium	0.91 J,G	2.5	mg/kg	SW846 6020
Thallium	0.14 J	0.20	mg/kg	SW846 6020
Vanadium	18.9	5.1	mg/kg	SW846 6020
Zinc	59.9	20.3	mg/kg	SW846 6020
Mercury	0.035 J	0.10	mg/kg	SW846 7471A
Naphthalene	8.4 J	51	ug/kg	SW846 8270C
Hexavalent Chromium	0.76 J	0.81	mg/kg	SW846 7196A
Percent Solids	98.4	10.0	%	MCAWW 160.3 MOD

DAAsb-026M-0001-SO 04/28/10 10:20 005

Aluminum	12200	50.8	mg/kg	SW846 6020
Arsenic	18.0	2.5	mg/kg	SW846 6020
Barium	58.2	1.0	mg/kg	SW846 6020
Beryllium	0.66	0.10	mg/kg	SW846 6020
Calcium	8630	1020	mg/kg	SW846 6020
Cadmium	0.020 J,G	1.0	mg/kg	SW846 6020
Cobalt	11.1	2.5	mg/kg	SW846 6020
Chromium	18.6	2.5	mg/kg	SW846 6020
Copper	18.8	2.5	mg/kg	SW846 6020
Iron	26700	254	mg/kg	SW846 6020
Potassium	1380	508	mg/kg	SW846 6020
Magnesium	4540	508	mg/kg	SW846 6020
Manganese	415	5.1	mg/kg	SW846 6020
Nickel	28.7	5.1	mg/kg	SW846 6020
Lead	10.1	0.30	mg/kg	SW846 6020

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A0D300624

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
DAAsb-026M-0001-SO 04/28/10 10:20 005				
Antimony	0.070 J	0.51	mg/kg	SW846 6020
Selenium	0.99 J,G	2.5	mg/kg	SW846 6020
Thallium	0.11 J	0.20	mg/kg	SW846 6020
Vanadium	17.3	5.1	mg/kg	SW846 6020
Zinc	61.4	20.3	mg/kg	SW846 6020
Mercury	0.025 J	0.10	mg/kg	SW846 7471A
2-Methylnaphthalene	6.8 J	340	ug/kg	SW846 8270C
Naphthalene	7.2 J	51	ug/kg	SW846 8270C
Hexavalent Chromium	0.78 J	0.81	mg/kg	SW846 7196A
Percent Solids	98.5	10.0	%	MCAWW 160.3 MOD
DAAsb-027M-0001-SO 04/28/10 09:30 006				
Aluminum	12000	50.8	mg/kg	SW846 6020
Arsenic	19.3	2.5	mg/kg	SW846 6020
Barium	57.2	5.1	mg/kg	SW846 6020
Beryllium	0.73	0.10	mg/kg	SW846 6020
Calcium	2190	1020	mg/kg	SW846 6020
Cadmium	0.030 J,G	1.0	mg/kg	SW846 6020
Cobalt	12.8	2.5	mg/kg	SW846 6020
Chromium	19.1	2.5	mg/kg	SW846 6020
Copper	21.2	2.5	mg/kg	SW846 6020
Iron	27800	254	mg/kg	SW846 6020
Potassium	1370	508	mg/kg	SW846 6020
Magnesium	3930	508	mg/kg	SW846 6020
Manganese	356	5.1	mg/kg	SW846 6020
Nickel	32.7	5.1	mg/kg	SW846 6020
Lead	11.4	1.5	mg/kg	SW846 6020
Selenium	1.1 J,G	2.5	mg/kg	SW846 6020
Vanadium	17.9	5.1	mg/kg	SW846 6020
Zinc	66.6	20.3	mg/kg	SW846 6020
Mercury	0.027 J	0.10	mg/kg	SW846 7471A
bis(2-Ethylhexyl) phthalate	220 J	340	ug/kg	SW846 8270C
Percent Solids	98.4	10.0	%	MCAWW 160.3 MOD
DAAsb-027M-0002-SO 04/28/10 09:30 007				
Aluminum	11900	50.8	mg/kg	SW846 6020
Arsenic	18.5	2.5	mg/kg	SW846 6020
Barium	63.7	5.1	mg/kg	SW846 6020
Beryllium	0.69	0.10	mg/kg	SW846 6020

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A0D300624

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
DAAsb-027M-0002-SO 04/28/10 09:30 007				
Calcium	5340	1020	mg/kg	SW846 6020
Cadmium	0.017 J,G	1.0	mg/kg	SW846 6020
Cobalt	12.9	2.5	mg/kg	SW846 6020
Chromium	18.2	2.5	mg/kg	SW846 6020
Copper	21.3	2.5	mg/kg	SW846 6020
Iron	29600	254	mg/kg	SW846 6020
Potassium	1280	508	mg/kg	SW846 6020
Magnesium	4610	508	mg/kg	SW846 6020
Manganese	350	5.1	mg/kg	SW846 6020
Nickel	33.2	5.1	mg/kg	SW846 6020
Lead	11.8	1.5	mg/kg	SW846 6020
Selenium	1.0 J,G	2.5	mg/kg	SW846 6020
Vanadium	17.6	5.1	mg/kg	SW846 6020
Zinc	65.9	20.3	mg/kg	SW846 6020
Mercury	0.019 J	0.10	mg/kg	SW846 7471A
2-Methylnaphthalene	12 J	340	ug/kg	SW846 8270C
Naphthalene	12 J	51	ug/kg	SW846 8270C
Hexavalent Chromium	0.50 J	0.81	mg/kg	SW846 7196A
Percent Solids	98.4	10.0	%	MCAWW 160.3 MOD
DAAsb-028M-0001-SO 04/28/10 15:30 008				
Aluminum	11100	50.8	mg/kg	SW846 6020
Arsenic	18.1	2.5	mg/kg	SW846 6020
Barium	56.5	5.1	mg/kg	SW846 6020
Beryllium	0.59	0.10	mg/kg	SW846 6020
Calcium	2210	1020	mg/kg	SW846 6020
Cadmium	0.024 J,G	1.0	mg/kg	SW846 6020
Cobalt	12.0	2.5	mg/kg	SW846 6020
Chromium	18.6	2.5	mg/kg	SW846 6020
Copper	19.5	2.5	mg/kg	SW846 6020
Iron	27100	254	mg/kg	SW846 6020
Potassium	1140	508	mg/kg	SW846 6020
Magnesium	2850	508	mg/kg	SW846 6020
Manganese	411	5.1	mg/kg	SW846 6020
Nickel	27.0	5.1	mg/kg	SW846 6020
Lead	13.4	1.5	mg/kg	SW846 6020
Selenium	1.1 J,G	2.5	mg/kg	SW846 6020
Vanadium	17.6	5.1	mg/kg	SW846 6020
Zinc	63.2	20.3	mg/kg	SW846 6020
Mercury	0.037 J	0.10	mg/kg	SW846 7471A
bis(2-Ethylhexyl) phthalate	28 J	340	ug/kg	SW846 8270C

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A0D300624

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
DAAsb-028M-0001-SO 04/28/10 15:30 008				
2-Methylnaphthalene	14 J	340	ug/kg	SW846 8270C
Naphthalene	24 J	51	ug/kg	SW846 8270C
Phenanthrene	7.1 J	51	ug/kg	SW846 8270C
Percent Solids	98.4	10.0	%	MCAWW 160.3 MOD
Nitrocellulose	0.92 B	5.1	mg/kg	MCAWW 353.2
DAAsb-028M-0002-SO 04/28/10 15:30 009				
Silver	0.0089 J	0.51	mg/kg	SW846 6020
Aluminum	10000	50.8	mg/kg	SW846 6020
Arsenic	15.6	0.51	mg/kg	SW846 6020
Barium	53.3	1.0	mg/kg	SW846 6020
Beryllium	0.55	0.10	mg/kg	SW846 6020
Calcium	2210	1020	mg/kg	SW846 6020
Cadmium	0.056 J	0.20	mg/kg	SW846 6020
Cobalt	11.1	2.5	mg/kg	SW846 6020
Chromium	26.8	2.5	mg/kg	SW846 6020
Copper	19.4	2.5	mg/kg	SW846 6020
Iron	25300	254	mg/kg	SW846 6020
Potassium	1030	508	mg/kg	SW846 6020
Magnesium	2720	508	mg/kg	SW846 6020
Manganese	370	5.1	mg/kg	SW846 6020
Nickel	30.7	5.1	mg/kg	SW846 6020
Lead	12.2	0.30	mg/kg	SW846 6020
Antimony	0.096 J	0.51	mg/kg	SW846 6020
Selenium	0.93	0.51	mg/kg	SW846 6020
Thallium	0.13 J	0.20	mg/kg	SW846 6020
Vanadium	16.0	5.1	mg/kg	SW846 6020
Zinc	61.8	20.3	mg/kg	SW846 6020
Mercury	0.031 J	0.10	mg/kg	SW846 7471A
2-Methylnaphthalene	13 J	340	ug/kg	SW846 8270C
Naphthalene	28 J	51	ug/kg	SW846 8270C
Percent Solids	98.4	10.0	%	MCAWW 160.3 MOD
DAAsb-028M-0004-SO 04/28/10 15:30 010				
Silver	0.019 J,G	2.5	mg/kg	SW846 6020
Aluminum	10800	50.8	mg/kg	SW846 6020
Arsenic	15.3	2.5	mg/kg	SW846 6020
Barium	59.5	1.0	mg/kg	SW846 6020
Beryllium	0.54	0.10	mg/kg	SW846 6020
Calcium	1820	1020	mg/kg	SW846 6020
Cadmium	0.060 J,G	1.0	mg/kg	SW846 6020

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A0D300624

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
DAAsb-028M-0004-SO 04/28/10 15:30 010				
Cobalt	9.7	2.5	mg/kg	SW846 6020
Chromium	16.7	2.5	mg/kg	SW846 6020
Copper	18.4	2.5	mg/kg	SW846 6020
Iron	24100	254	mg/kg	SW846 6020
Potassium	1280	508	mg/kg	SW846 6020
Magnesium	2940	508	mg/kg	SW846 6020
Manganese	413	5.1	mg/kg	SW846 6020
Nickel	24.3	5.1	mg/kg	SW846 6020
Lead	11.4	0.30	mg/kg	SW846 6020
Antimony	0.084 J	0.51	mg/kg	SW846 6020
Selenium	1.1 J,G	2.5	mg/kg	SW846 6020
Thallium	0.12 J	0.20	mg/kg	SW846 6020
Vanadium	16.7	5.1	mg/kg	SW846 6020
Zinc	63.0	20.3	mg/kg	SW846 6020
Mercury	0.031 J	0.10	mg/kg	SW846 7471A
Isophorone	69 J	340	ug/kg	SW846 8270C
Percent Solids	98.5	10.0	%	MCAWW 160.3 MOD
DAAsb-028M-0005-SO 04/28/10 15:30 011				
Aluminum	10600	50.8	mg/kg	SW846 6020
Arsenic	18.7	2.5	mg/kg	SW846 6020
Barium	45.4	1.0	mg/kg	SW846 6020
Beryllium	0.52	0.10	mg/kg	SW846 6020
Calcium	3710	1020	mg/kg	SW846 6020
Cadmium	0.032 J,G	1.0	mg/kg	SW846 6020
Cobalt	10.7	2.5	mg/kg	SW846 6020
Chromium	16.6	2.5	mg/kg	SW846 6020
Copper	20.3	2.5	mg/kg	SW846 6020
Iron	25100	254	mg/kg	SW846 6020
Potassium	1440	508	mg/kg	SW846 6020
Magnesium	3430	508	mg/kg	SW846 6020
Manganese	363	5.1	mg/kg	SW846 6020
Nickel	26.9	5.1	mg/kg	SW846 6020
Lead	11.4	0.30	mg/kg	SW846 6020
Antimony	0.097 J	0.51	mg/kg	SW846 6020
Selenium	0.93 J,G	2.5	mg/kg	SW846 6020
Thallium	0.12 J	0.20	mg/kg	SW846 6020
Vanadium	16.4	5.1	mg/kg	SW846 6020
Zinc	64.5	20.3	mg/kg	SW846 6020
Mercury	0.018 J	0.10	mg/kg	SW846 7471A
Hexavalent Chromium	0.29 J	0.81	mg/kg	SW846 7196A

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EXECUTIVE SUMMARY - Detection Highlights

A0D300624

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
DAAsb-028M-0005-SO 04/28/10 15:30 011				
Percent Solids	98.5	10.0	%	MCAWW 160.3 MOD
DAAsb-028M-0006-SO 04/28/10 15:30 012				
Silver	0.012 J	0.51	mg/kg	SW846 6020
Aluminum	9420	50.6	mg/kg	SW846 6020
Arsenic	16.8	0.51	mg/kg	SW846 6020
Barium	38.3	1.0	mg/kg	SW846 6020
Beryllium	0.48	0.10	mg/kg	SW846 6020
Calcium	4990	1010	mg/kg	SW846 6020
Cadmium	0.038 J	0.20	mg/kg	SW846 6020
Cobalt	11.1	2.5	mg/kg	SW846 6020
Chromium	23.2	2.5	mg/kg	SW846 6020
Copper	20.3	2.5	mg/kg	SW846 6020
Iron	25900	253	mg/kg	SW846 6020
Potassium	1150	506	mg/kg	SW846 6020
Magnesium	4140	506	mg/kg	SW846 6020
Manganese	379	5.1	mg/kg	SW846 6020
Nickel	31.3	5.1	mg/kg	SW846 6020
Lead	10.6	0.30	mg/kg	SW846 6020
Antimony	0.064 J	0.51	mg/kg	SW846 6020
Selenium	0.76	0.51	mg/kg	SW846 6020
Thallium	0.11 J	0.20	mg/kg	SW846 6020
Vanadium	14.3	5.1	mg/kg	SW846 6020
Zinc	64.5	20.3	mg/kg	SW846 6020
Mercury	0.019 J	0.10	mg/kg	SW846 7471A
2-Methylnaphthalene	10 J	330	ug/kg	SW846 8270C
Naphthalene	11 J	51	ug/kg	SW846 8270C
Percent Solids	98.7	10.0	%	MCAWW 160.3 MOD
Nitrocellulose	0.93 B	5.1	mg/kg	MCAWW 353.2

METHOD SUMMARY

ANALYTICAL METHODS SUMMARY

A0D300624

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>
Hexavalent Chromium	SW846 7196A
ICP-MS (6020)	SW846 6020
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471A
Nitroaromatics and Nitramines by HPLC	SW846 8330B
Nitrocellulose as N, 353.2	MCAWW 353.2
Organics by UV/HPLC	SW846 8330 (Modified)
Organochlorine Pesticides	SW846 8081A
PCBs by SW-846 8082	SW846 8082
Semivolatile Organic Compounds by GC/MS	SW846 8270C
Total Residue as Percent Solids	MCAWW 160.3 MOD

References:

- MCAWW "Methods for Chemical Analysis of Water and Wastes",
EPA-600/4-79-020, March 1983 and subsequent revisions.
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical
Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

SAMPLE SUMMARY

A0D300624

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
L0VJG	001	DAAsb-022M-0001-SO	04/28/10	14:40
L0VJR	002	DAAsb-023M-0001-SO	04/28/10	11:50
L0VJT	003	DAAsb-024M-0001-SO	04/28/10	11:20
L0VJW	004	DAAsb-025M-0001-SO	04/28/10	15:30
L0VJ0	005	DAAsb-026M-0001-SO	04/28/10	10:20
L0VJ1	006	DAAsb-027M-0001-SO	04/28/10	09:30
L0VJ3	007	DAAsb-027M-0002-SO	04/28/10	09:30
L0VJ4	008	DAAsb-028M-0001-SO	04/28/10	15:30
L0VJ6	009	DAAsb-028M-0002-SO	04/28/10	15:30
L0VKA	010	DAAsb-028M-0004-SO	04/28/10	15:30
L0VKE	011	DAAsb-028M-0005-SO	04/28/10	15:30
L0VKG	012	DAAsb-028M-0006-SO	04/28/10	15:30

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

***SHIPPING
AND
RECEIVING DOCUMENTS***

Chain of Custody Record

TestAmerica Laboratory location: N Canton ... 4101 Shuffel Street, NW/ North Canton, OH 44720 / 330-497-9396



Client Contact Company Name: USACE Address: 4451 State St City/State/Zip: ... Phone: ...		Client Project Manager: Name: Dorek Kinder Telephone: 502-315-6393 Cell: 502-554-3515		Regulatory program: <input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other		Site Contact: Name: _____ Telephone: _____		Lab Contact: Name: _____ Telephone: _____		TestAmerica Laboratories, Inc. COC No: _____ of _____ COCs						
Project Name: RYAAD U-10		Method of Shipment/Carrier: _____		Shipping/Tracking No: _____		Analyses: Filtered Sample (Y/N) Composite - C / Grab - G Explosives Propellants SVOCs PCB Pesticides TAL Metals + CrVI etc Hg		For reference only Work on site Lab sampling ADD/SD/ND		Sample Specific Notes / Special Instructions: 1420-1440 Sample Time						
Sample Identification		Sample Date	Sample Time	Matrix			Conductivity & Resistivity			Filtered Sample (Y/N)		Composite - C / Grab - G		Sample Specific Notes / Special Instructions		
DASb-022M-0001-50		4/28/10	1120-1150	Air	Aqueous	Sediment	Solid	Other:	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	
DASb-023M-0001-50		4/28/10	035-1120													
DASb-024M-0001-50		4/28/10	1530													
DASb-025M-0001-50		4/28/10	0855-1020													
DASb-026M-0001-50		4/28/10	0830-0930													
DASb-027M-0001-50		4/28/10	0830-0930													
DASb-028M-0002-50		4/28/10	0920-1530													
DASb-028M-0001-50		4/28/10	0920-1530													
DASb-028M-0004-50		4/28/10	0920-1530													
DASb-028M-0005-50		4/28/10	0920-1530													
DASb-028M-0006-50		4/28/10	0920-1530													
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Note: One cooler contains contingency samples which shall not be processed or analyzed unless instructed to by the client.												
Relinquished by: Dorek Kinder		Company: USACE Date/Time: 4/29/10 0800		Received by: T&T America		Company: _____ Date/Time: _____		Received in Laboratory by: [Signature]		Company: TA DC Date/Time: 4/29/10 1130						

TestAmerica Cooler Receipt Form/Narrative

Lot Number: ADD300624

North Canton Facility

Client USACE Project RVAPP-D-10 By: [Signature]

Cooler Received on 4/29/10 Opened on 4/29/10 (Signature)

FedEx UPS DHL FAS Stetson Client Drop Off TestAmerica Courier Other

TestAmerica Cooler # _____ Multiple Coolers Foam Box Client Cooler Other

1. Were custody seals on the outside of the cooler(s)? Yes No Intact? Yes No NA

If YES, Quantity _____ Quantity Unsalvageable _____

Were custody seals on the outside of cooler(s) signed and dated? Yes No NA

Were custody seals on the bottle(s)? Yes No

If YES, are there any exceptions? _____

2. Shippers' packing slip attached to the cooler(s)? Yes No

3. Did custody papers accompany the sample(s)? Yes No Relinquished by client? Yes No

4. Were the custody papers signed in the appropriate place? Yes No

5. Packing material used: Bubble Wrap Foam None Other _____

6. Cooler temperature upon receipt _____ °C See back of form for multiple coolers/temps

METHOD: IR Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

7. Did all bottles arrive in good condition (Unbroken)? Yes No

8. Could all bottle labels be reconciled with the COC? Yes No

9. Were sample(s) at the correct pH upon receipt? Yes No NA

10. Were correct bottle(s) used for the test(s) indicated? Yes No

11. Were air bubbles >6 mm in any VOA vials? Yes No NA

12. Sufficient quantity received to perform indicated analyses? Yes No

13. Was a trip blank present in the cooler(s)? Yes No Were VOAs on the COC? Yes No

Contacted PM MSL Date 4/30/10 by [Signature] via Verbal Voice Mail Other

Concerning #14.

14. CHAIN OF CUSTODY

The following discrepancies occurred:

Received samples not on chain DAASb-022, 023, 024,
025, 26, and 027. Chain reads MSMSD are 028M 0067, 0008
did not receive samples with that Id.
Limited volume for samples.

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). Nitric Acid Lot# 121709-HNO₃; Sulfuric Acid Lot# 121709-H₂SO₄; Sodium Hydroxide Lot# 100108 -NaOH; Hydrochloric Acid Lot# 092006-HCl; Sodium Hydroxide and Zinc Acetate Lot# 100108-(CH₃COO)₂ZN/NaOH. What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials

GCMS SEMIVOLATILE DATA

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-022M-0001-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-001 Work Order #...: L0VJG1AC Matrix.....: SO
 Date Sampled...: 04/28/10 14:40 Date Received...: 04/29/10
 Prep Date.....: 05/07/10 Analysis Date...: 05/11/10
 Prep Batch #...: 0127049
 Dilution Factor: 5 Initial Wgt/Vol: 30.12 g Final Wgt/Vol...: 2 mL
 % Moisture.....: 1.1 Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acenaphthene	ND	250	ug/kg
Acenaphthylene	ND	250	ug/kg
Anthracene	ND	250	ug/kg
Benzo(a)anthracene	ND	250	ug/kg
Benzo(b)fluoranthene	ND	250	ug/kg
Benzo(k)fluoranthene	ND	250	ug/kg
Benzoic acid	ND	4000	ug/kg
Benzo(ghi)perylene	ND	250	ug/kg
Benzo(a)pyrene	ND	250	ug/kg
Benzyl alcohol	ND	1700	ug/kg
bis(2-Chloroethoxy) methane	ND	1700	ug/kg
bis(2-Chloroethyl)- ether	ND	1700	ug/kg
bis(2-Chloroisopropyl) ether	ND	1700	ug/kg
bis(2-Ethylhexyl) phthalate	ND	1700	ug/kg
4-Bromophenyl phenyl ether	ND	1700	ug/kg
Butyl benzyl phthalate	ND	1700	ug/kg
4-Chloroaniline	ND	1700	ug/kg
4-Chloro-3-methylphenol	ND	1700	ug/kg
2-Chloronaphthalene	ND	1700	ug/kg
2-Chlorophenol	ND	1700	ug/kg
4-Chlorophenyl phenyl ether	ND	1700	ug/kg
Chrysene	ND	250	ug/kg
Dibenzofuran	ND	1700	ug/kg
Di-n-butyl phthalate	ND	1700	ug/kg
1,2-Dichlorobenzene	ND	1700	ug/kg
1,3-Dichlorobenzene	ND	1700	ug/kg
1,4-Dichlorobenzene	ND	1700	ug/kg
3,3'-Dichlorobenzidine	ND	1700	ug/kg
2,4-Dichlorophenol	ND	1700	ug/kg
Diethyl phthalate	ND	1700	ug/kg
2,4-Dimethylphenol	ND	1700	ug/kg
Dimethyl phthalate	ND	1700	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-022M-0001-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-001 Work Order #...: L0VJG1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Di-n-octyl phthalate	ND	1700	ug/kg
4,6-Dinitro- 2-methylphenol	ND	4000	ug/kg
2,4-Dinitrophenol	ND	4000	ug/kg
2,4-Dinitrotoluene	ND	1700	ug/kg
2,6-Dinitrotoluene	ND	1700	ug/kg
Fluoranthene	ND	250	ug/kg
Fluorene	ND	250	ug/kg
Hexachlorobenzene	ND	1700	ug/kg
Hexachlorobutadiene	ND	1700	ug/kg
Hexachlorocyclopenta- diene	ND	1700	ug/kg
Hexachloroethane	ND	1700	ug/kg
Indeno(1,2,3-cd)pyrene	ND	250	ug/kg
Isophorone	ND	1700	ug/kg
2-Methylnaphthalene	ND	1700	ug/kg
2-Methylphenol	ND	1700	ug/kg
Naphthalene	64 J	250	ug/kg
2-Nitroaniline	ND	4000	ug/kg
3-Nitroaniline	ND	4000	ug/kg
4-Nitroaniline	ND	4000	ug/kg
Nitrobenzene	ND	1700	ug/kg
2-Nitrophenol	ND	1700	ug/kg
4-Nitrophenol	ND	4000	ug/kg
N-Nitrosodi-n-propyl- amine	ND	1700	ug/kg
N-Nitrosodiphenylamine	ND	1700	ug/kg
Pentachlorophenol	ND	1700	ug/kg
Phenanthrene	ND	250	ug/kg
Phenol	ND	1700	ug/kg
Pyrene	ND	250	ug/kg
1,2,4-Trichloro- benzene	ND	1700	ug/kg
2,4,5-Trichloro- phenol	ND	1700	ug/kg
2,4,6-Trichloro- phenol	ND	1700	ug/kg
Dibenzo(a,h)anthracene	ND	250	ug/kg
Carbazole	ND	250	ug/kg
3-Methylphenol & 4-Methylphenol	ND	1700	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-022M-0001-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-001 Work Order #...: L0VJG1AC Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2-Fluorobiphenyl	73 DIL	(45 - 105)
2-Fluorophenol	97 DIL	(35 - 105)
Phenol-d5	82 DIL	(40 - 100)
2,4,6-Tribromophenol	48 DIL	(35 - 125)
Nitrobenzene-d5	70 DIL	(35 - 100)
Terphenyl-d14	85 DIL	(30 - 125)

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

J Estimated: The analyte was positively identified; the quantitation is estimated.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-023M-0001-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-002 Work Order #...: L0VJR1AN Matrix.....: SO
 Date Sampled...: 04/28/10 11:50 Date Received...: 04/29/10
 Prep Date.....: 05/07/10 Analysis Date...: 05/11/10
 Prep Batch #...: 0127049
 Dilution Factor: 5 Initial Wgt/Vol: 30.07 g Final Wgt/Vol...: 2 mL
 % Moisture.....: 1.2 Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acenaphthene	ND	250	ug/kg
Acenaphthylene	ND	250	ug/kg
Anthracene	93 J	250	ug/kg
Benzo(a)anthracene	100 J	250	ug/kg
Benzo(b)fluoranthene	82 J	250	ug/kg
Benzo(k)fluoranthene	ND	250	ug/kg
Benzoic acid	ND	4000	ug/kg
Benzo(ghi)perylene	40 J	250	ug/kg
Benzo(a)pyrene	71 J	250	ug/kg
Benzyl alcohol	ND	1700	ug/kg
bis(2-Chloroethoxy) methane	ND	1700	ug/kg
bis(2-Chloroethyl)- ether	ND	1700	ug/kg
bis(2-Chloroisopropyl) ether	ND	1700	ug/kg
bis(2-Ethylhexyl) phthalate	ND	1700	ug/kg
4-Bromophenyl phenyl ether	ND	1700	ug/kg
Butyl benzyl phthalate	ND	1700	ug/kg
4-Chloroaniline	ND	1700	ug/kg
4-Chloro-3-methylphenol	ND	1700	ug/kg
2-Chloronaphthalene	ND	1700	ug/kg
2-Chlorophenol	ND	1700	ug/kg
4-Chlorophenyl phenyl ether	ND	1700	ug/kg
Chrysene	80 J	250	ug/kg
Dibenzofuran	ND	1700	ug/kg
Di-n-butyl phthalate	ND	1700	ug/kg
1,2-Dichlorobenzene	ND	1700	ug/kg
1,3-Dichlorobenzene	ND	1700	ug/kg
1,4-Dichlorobenzene	ND	1700	ug/kg
3,3'-Dichlorobenzidine	ND	1700	ug/kg
2,4-Dichlorophenol	ND	1700	ug/kg
Diethyl phthalate	ND	1700	ug/kg
2,4-Dimethylphenol	ND	1700	ug/kg
Dimethyl phthalate	ND	1700	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-023M-0001-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-002 Work Order #...: L0VJR1AN Matrix.....: SO

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Di-n-octyl phthalate	ND	1700	ug/kg
4,6-Dinitro- 2-methylphenol	ND	4000	ug/kg
2,4-Dinitrophenol	ND	4000	ug/kg
2,4-Dinitrotoluene	ND	1700	ug/kg
2,6-Dinitrotoluene	ND	1700	ug/kg
Fluoranthene	270	250	ug/kg
Fluorene	45 J	250	ug/kg
Hexachlorobenzene	ND	1700	ug/kg
Hexachlorobutadiene	ND	1700	ug/kg
Hexachlorocyclopenta- diene	ND	1700	ug/kg
Hexachloroethane	ND	1700	ug/kg
Indeno(1,2,3-cd)pyrene	35 J	250	ug/kg
Isophorone	ND	1700	ug/kg
2-Methylnaphthalene	ND	1700	ug/kg
2-Methylphenol	ND	1700	ug/kg
Naphthalene	ND	250	ug/kg
2-Nitroaniline	ND	4000	ug/kg
3-Nitroaniline	ND	4000	ug/kg
4-Nitroaniline	ND	4000	ug/kg
Nitrobenzene	ND	1700	ug/kg
2-Nitrophenol	ND	1700	ug/kg
4-Nitrophenol	ND	4000	ug/kg
N-Nitrosodi-n-propyl- amine	ND	1700	ug/kg
N-Nitrosodiphenylamine	ND	1700	ug/kg
Pentachlorophenol	ND	1700	ug/kg
Phenanthrene	300	250	ug/kg
Phenol	ND	1700	ug/kg
Pyrene	180 J	250	ug/kg
1,2,4-Trichloro- benzene	ND	1700	ug/kg
2,4,5-Trichloro- phenol	ND	1700	ug/kg
2,4,6-Trichloro- phenol	ND	1700	ug/kg
Dibenzo(a,h)anthracene	ND	250	ug/kg
Carbazole	ND	250	ug/kg
3-Methylphenol & 4-Methylphenol	ND	1700	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-023M-0001-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-002 Work Order #...: L0VJR1AN Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2-Fluorobiphenyl	42 DIL, *	(45 - 105)
2-Fluorophenol	55 DIL	(35 - 105)
Phenol-d5	46 DIL	(40 - 100)
2,4,6-Tribromophenol	21 DIL, *	(35 - 125)
Nitrobenzene-d5	37 DIL	(35 - 100)
Terphenyl-d14	50 DIL	(30 - 125)

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

J Estimated: The analyte was positively identified; the quantitation is estimated.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-024M-0001-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-003 Work Order #...: L0VJT1AN Matrix.....: SO
 Date Sampled...: 04/28/10 11:20 Date Received...: 04/29/10
 Prep Date.....: 05/07/10 Analysis Date...: 05/11/10
 Prep Batch #...: 0127049
 Dilution Factor: 1 Initial Wgt/Vol: 30.1 g Final Wgt/Vol...: 2 mL
 % Moisture.....: 1.9 Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acenaphthene	ND	51	ug/kg
Acenaphthylene	ND	51	ug/kg
Anthracene	ND	51	ug/kg
Benzo(a)anthracene	ND	51	ug/kg
Benzo(b)fluoranthene	ND	51	ug/kg
Benzo(k)fluoranthene	ND	51	ug/kg
Benzoic acid	ND	820	ug/kg
Benzo(ghi)perylene	ND	51	ug/kg
Benzo(a)pyrene	ND	51	ug/kg
Benzyl alcohol	ND	340	ug/kg
bis(2-Chloroethoxy) methane	ND	340	ug/kg
bis(2-Chloroethyl)- ether	ND	340	ug/kg
bis(2-Chloroisopropyl) ether	ND	340	ug/kg
bis(2-Ethylhexyl) phthalate	ND	340	ug/kg
4-Bromophenyl phenyl ether	ND	340	ug/kg
Butyl benzyl phthalate	ND	340	ug/kg
4-Chloroaniline	ND	340	ug/kg
4-Chloro-3-methylphenol	ND	340	ug/kg
2-Chloronaphthalene	ND	340	ug/kg
2-Chlorophenol	ND	340	ug/kg
4-Chlorophenyl phenyl ether	ND	340	ug/kg
Chrysene	ND	51	ug/kg
Dibenzofuran	ND	340	ug/kg
Di-n-butyl phthalate	ND	340	ug/kg
1,2-Dichlorobenzene	ND	340	ug/kg
1,3-Dichlorobenzene	ND	340	ug/kg
1,4-Dichlorobenzene	ND	340	ug/kg
3,3'-Dichlorobenzidine	ND	340	ug/kg
2,4-Dichlorophenol	ND	340	ug/kg
Diethyl phthalate	ND	340	ug/kg
2,4-Dimethylphenol	ND	340	ug/kg
Dimethyl phthalate	ND	340	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-024M-0001-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-003 Work Order #...: L0VJT1AN Matrix.....: SO

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
Di-n-octyl phthalate	ND	340	ug/kg
4,6-Dinitro- 2-methylphenol	ND	820	ug/kg
2,4-Dinitrophenol	ND	820	ug/kg
2,4-Dinitrotoluene	ND	340	ug/kg
2,6-Dinitrotoluene	ND	340	ug/kg
Fluoranthene	ND	51	ug/kg
Fluorene	ND	51	ug/kg
Hexachlorobenzene	ND	340	ug/kg
Hexachlorobutadiene	ND	340	ug/kg
Hexachlorocyclopenta- diene	ND	340	ug/kg
Hexachloroethane	ND	340	ug/kg
Indeno(1,2,3-cd)pyrene	ND	51	ug/kg
Isophorone	ND	340	ug/kg
2-Methylnaphthalene	ND	340	ug/kg
2-Methylphenol	ND	340	ug/kg
Naphthalene	ND	51	ug/kg
2-Nitroaniline	ND	820	ug/kg
3-Nitroaniline	ND	820	ug/kg
4-Nitroaniline	ND	820	ug/kg
Nitrobenzene	ND	340	ug/kg
2-Nitrophenol	ND	340	ug/kg
4-Nitrophenol	ND	820	ug/kg
N-Nitrosodi-n-propyl- amine	ND	340	ug/kg
N-Nitrosodiphenylamine	ND	340	ug/kg
Pentachlorophenol	ND	340	ug/kg
Phenanthrene	ND	51	ug/kg
Phenol	ND	340	ug/kg
Pyrene	ND	51	ug/kg
1,2,4-Trichloro- benzene	ND	340	ug/kg
2,4,5-Trichloro- phenol	ND	340	ug/kg
2,4,6-Trichloro- phenol	ND	340	ug/kg
Dibenzo(a,h)anthracene	ND	51	ug/kg
Carbazole	ND	51	ug/kg
3-Methylphenol & 4-Methylphenol	ND	340	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-024M-0001-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-003 Work Order #...: L0VJT1AN Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2-Fluorobiphenyl	69	(45 - 105)
2-Fluorophenol	64	(35 - 105)
Phenol-d5	87	(40 - 100)
2,4,6-Tribromophenol	72	(35 - 125)
Nitrobenzene-d5	64	(35 - 100)
Terphenyl-d14	94	(30 - 125)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-025M-0001-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-004 Work Order #...: L0VJW1AN Matrix.....: SO
 Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10
 Prep Date.....: 05/07/10 Analysis Date...: 05/11/10
 Prep Batch #...: 0127049
 Dilution Factor: 1 Initial Wgt/Vol: 30.09 g Final Wgt/Vol...: 2 mL
 % Moisture.....: 1.6 Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acenaphthene	ND	51	ug/kg
Acenaphthylene	ND	51	ug/kg
Anthracene	ND	51	ug/kg
Benzo(a)anthracene	ND	51	ug/kg
Benzo(b)fluoranthene	ND	51	ug/kg
Benzo(k)fluoranthene	ND	51	ug/kg
Benzoic acid	ND	810	ug/kg
Benzo(ghi)perylene	ND	51	ug/kg
Benzo(a)pyrene	ND	51	ug/kg
Benzyl alcohol	ND	340	ug/kg
bis(2-Chloroethoxy) methane	ND	340	ug/kg
bis(2-Chloroethyl)- ether	ND	340	ug/kg
bis(2-Chloroisopropyl) ether	ND	340	ug/kg
bis(2-Ethylhexyl) phthalate	ND	340	ug/kg
4-Bromophenyl phenyl ether	ND	340	ug/kg
Butyl benzyl phthalate	ND	340	ug/kg
4-Chloroaniline	ND	340	ug/kg
4-Chloro-3-methylphenol	ND	340	ug/kg
2-Chloronaphthalene	ND	340	ug/kg
2-Chlorophenol	ND	340	ug/kg
4-Chlorophenyl phenyl ether	ND	340	ug/kg
Chrysene	ND	51	ug/kg
Dibenzofuran	ND	340	ug/kg
Di-n-butyl phthalate	ND	340	ug/kg
1,2-Dichlorobenzene	ND	340	ug/kg
1,3-Dichlorobenzene	ND	340	ug/kg
1,4-Dichlorobenzene	ND	340	ug/kg
3,3'-Dichlorobenzidine	ND	340	ug/kg
2,4-Dichlorophenol	ND	340	ug/kg
Diethyl phthalate	ND	340	ug/kg
2,4-Dimethylphenol	ND	340	ug/kg
Dimethyl phthalate	ND	340	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-025M-0001-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-004 Work Order #...: L0VJW1AN Matrix.....: SO

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Di-n-octyl phthalate	ND	340	ug/kg
4,6-Dinitro- 2-methylphenol	ND	810	ug/kg
2,4-Dinitrophenol	ND	810	ug/kg
2,4-Dinitrotoluene	ND	340	ug/kg
2,6-Dinitrotoluene	ND	340	ug/kg
Fluoranthene	ND	51	ug/kg
Fluorene	ND	51	ug/kg
Hexachlorobenzene	ND	340	ug/kg
Hexachlorobutadiene	ND	340	ug/kg
Hexachlorocyclopenta- diene	ND	340	ug/kg
Hexachloroethane	ND	340	ug/kg
Indeno(1,2,3-cd)pyrene	ND	51	ug/kg
Isophorone	ND	340	ug/kg
2-Methylnaphthalene	ND	340	ug/kg
2-Methylphenol	ND	340	ug/kg
Naphthalene	8.4 J	51	ug/kg
2-Nitroaniline	ND	810	ug/kg
3-Nitroaniline	ND	810	ug/kg
4-Nitroaniline	ND	810	ug/kg
Nitrobenzene	ND	340	ug/kg
2-Nitrophenol	ND	340	ug/kg
4-Nitrophenol	ND	810	ug/kg
N-Nitrosodi-n-propyl- amine	ND	340	ug/kg
N-Nitrosodiphenylamine	ND	340	ug/kg
Pentachlorophenol	ND	340	ug/kg
Phenanthrene	ND	51	ug/kg
Phenol	ND	340	ug/kg
Pyrene	ND	51	ug/kg
1,2,4-Trichloro- benzene	ND	340	ug/kg
2,4,5-Trichloro- phenol	ND	340	ug/kg
2,4,6-Trichloro- phenol	ND	340	ug/kg
Dibenzo(a,h)anthracene	ND	51	ug/kg
Carbazole	ND	51	ug/kg
3-Methylphenol & 4-Methylphenol	ND	340	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-025M-0001-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-004 Work Order #...: L0VJW1AN Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2-Fluorobiphenyl	70	(45 - 105)
2-Fluorophenol	86	(35 - 105)
Phenol-d5	85	(40 - 100)
2,4,6-Tribromophenol	51	(35 - 125)
Nitrobenzene-d5	65	(35 - 100)
Terphenyl-d14	79	(30 - 125)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated: The analyte was positively identified; the quantitation is estimated.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-026M-0001-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-005 Work Order #...: L0VJ01AN Matrix.....: SO
 Date Sampled...: 04/28/10 10:20 Date Received...: 04/29/10
 Prep Date.....: 05/07/10 Analysis Date...: 05/11/10
 Prep Batch #...: 0127049
 Dilution Factor: 1 Initial Wgt/Vol: 30.06 g Final Wgt/Vol...: 2 mL
 % Moisture.....: 1.6 Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acenaphthene	ND	51	ug/kg
Acenaphthylene	ND	51	ug/kg
Anthracene	ND	51	ug/kg
Benzo(a)anthracene	ND	51	ug/kg
Benzo(b)fluoranthene	ND	51	ug/kg
Benzo(k)fluoranthene	ND	51	ug/kg
Benzoic acid	ND	810	ug/kg
Benzo(ghi)perylene	ND	51	ug/kg
Benzo(a)pyrene	ND	51	ug/kg
Benzyl alcohol	ND	340	ug/kg
bis(2-Chloroethoxy) methane	ND	340	ug/kg
bis(2-Chloroethyl)- ether	ND	340	ug/kg
bis(2-Chloroisopropyl) ether	ND	340	ug/kg
bis(2-Ethylhexyl) phthalate	ND	340	ug/kg
4-Bromophenyl phenyl ether	ND	340	ug/kg
Butyl benzyl phthalate	ND	340	ug/kg
4-Chloroaniline	ND	340	ug/kg
4-Chloro-3-methylphenol	ND	340	ug/kg
2-Chloronaphthalene	ND	340	ug/kg
2-Chlorophenol	ND	340	ug/kg
4-Chlorophenyl phenyl ether	ND	340	ug/kg
Chrysene	ND	51	ug/kg
Dibenzofuran	ND	340	ug/kg
Di-n-butyl phthalate	ND	340	ug/kg
1,2-Dichlorobenzene	ND	340	ug/kg
1,3-Dichlorobenzene	ND	340	ug/kg
1,4-Dichlorobenzene	ND	340	ug/kg
3,3'-Dichlorobenzidine	ND	340	ug/kg
2,4-Dichlorophenol	ND	340	ug/kg
Diethyl phthalate	ND	340	ug/kg
2,4-Dimethylphenol	ND	340	ug/kg
Dimethyl phthalate	ND	340	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-026M-0001-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-005 Work Order #...: L0VJ01AN Matrix.....: SO

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Di-n-octyl phthalate	ND	340	ug/kg
4,6-Dinitro- 2-methylphenol	ND	810	ug/kg
2,4-Dinitrophenol	ND	810	ug/kg
2,4-Dinitrotoluene	ND	340	ug/kg
2,6-Dinitrotoluene	ND	340	ug/kg
Fluoranthene	ND	51	ug/kg
Fluorene	ND	51	ug/kg
Hexachlorobenzene	ND	340	ug/kg
Hexachlorobutadiene	ND	340	ug/kg
Hexachlorocyclopenta- diene	ND	340	ug/kg
Hexachloroethane	ND	340	ug/kg
Indeno(1,2,3-cd)pyrene	ND	51	ug/kg
Isophorone	ND	340	ug/kg
2-Methylnaphthalene	6.8 J	340	ug/kg
2-Methylphenol	ND	340	ug/kg
Naphthalene	7.2 J	51	ug/kg
2-Nitroaniline	ND	810	ug/kg
3-Nitroaniline	ND	810	ug/kg
4-Nitroaniline	ND	810	ug/kg
Nitrobenzene	ND	340	ug/kg
2-Nitrophenol	ND	340	ug/kg
4-Nitrophenol	ND	810	ug/kg
N-Nitrosodi-n-propyl- amine	ND	340	ug/kg
N-Nitrosodiphenylamine	ND	340	ug/kg
Pentachlorophenol	ND	340	ug/kg
Phenanthrene	ND	51	ug/kg
Phenol	ND	340	ug/kg
Pyrene	ND	51	ug/kg
1,2,4-Trichloro- benzene	ND	340	ug/kg
2,4,5-Trichloro- phenol	ND	340	ug/kg
2,4,6-Trichloro- phenol	ND	340	ug/kg
Dibenzo(a,h)anthracene	ND	51	ug/kg
Carbazole	ND	51	ug/kg
3-Methylphenol & 4-Methylphenol	ND	340	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-026M-0001-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-005 Work Order #...: L0VJ01AN Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2-Fluorobiphenyl	73	(45 - 105)
2-Fluorophenol	79	(35 - 105)
Phenol-d5	84	(40 - 100)
2,4,6-Tribromophenol	53	(35 - 125)
Nitrobenzene-d5	66	(35 - 100)
Terphenyl-d14	86	(30 - 125)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated: The analyte was positively identified; the quantitation is estimated.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-027M-0001-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-006 Work Order #...: L0VJ11AN Matrix.....: SO
 Date Sampled...: 04/28/10 09:30 Date Received...: 04/29/10
 Prep Date.....: 05/07/10 Analysis Date...: 05/11/10
 Prep Batch #...: 0127049
 Dilution Factor: 1 Initial Wgt/Vol: 30.07 g Final Wgt/Vol...: 2 mL
 % Moisture.....: 1.6 Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acenaphthene	ND	51	ug/kg
Acenaphthylene	ND	51	ug/kg
Anthracene	ND	51	ug/kg
Benzo(a)anthracene	ND	51	ug/kg
Benzo(b)fluoranthene	ND	51	ug/kg
Benzo(k)fluoranthene	ND	51	ug/kg
Benzoic acid	ND	810	ug/kg
Benzo(ghi)perylene	ND	51	ug/kg
Benzo(a)pyrene	ND	51	ug/kg
Benzyl alcohol	ND	340	ug/kg
bis(2-Chloroethoxy) methane	ND	340	ug/kg
bis(2-Chloroethyl)- ether	ND	340	ug/kg
bis(2-Chloroisopropyl) ether	ND	340	ug/kg
bis(2-Ethylhexyl) phthalate	220 J	340	ug/kg
4-Bromophenyl phenyl ether	ND	340	ug/kg
Butyl benzyl phthalate	ND	340	ug/kg
4-Chloroaniline	ND	340	ug/kg
4-Chloro-3-methylphenol	ND	340	ug/kg
2-Chloronaphthalene	ND	340	ug/kg
2-Chlorophenol	ND	340	ug/kg
4-Chlorophenyl phenyl ether	ND	340	ug/kg
Chrysene	ND	51	ug/kg
Dibenzofuran	ND	340	ug/kg
Di-n-butyl phthalate	ND	340	ug/kg
1,2-Dichlorobenzene	ND	340	ug/kg
1,3-Dichlorobenzene	ND	340	ug/kg
1,4-Dichlorobenzene	ND	340	ug/kg
3,3'-Dichlorobenzidine	ND	340	ug/kg
2,4-Dichlorophenol	ND	340	ug/kg
Diethyl phthalate	ND	340	ug/kg
2,4-Dimethylphenol	ND	340	ug/kg
Dimethyl phthalate	ND	340	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-027M-0001-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-006 Work Order #...: L0VJ11AN Matrix.....: SO

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
Di-n-octyl phthalate	ND	340	ug/kg
4,6-Dinitro- 2-methylphenol	ND	810	ug/kg
2,4-Dinitrophenol	ND	810	ug/kg
2,4-Dinitrotoluene	ND	340	ug/kg
2,6-Dinitrotoluene	ND	340	ug/kg
Fluoranthene	ND	51	ug/kg
Fluorene	ND	51	ug/kg
Hexachlorobenzene	ND	340	ug/kg
Hexachlorobutadiene	ND	340	ug/kg
Hexachlorocyclopenta- diene	ND	340	ug/kg
Hexachloroethane	ND	340	ug/kg
Indeno(1,2,3-cd)pyrene	ND	51	ug/kg
Isophorone	ND	340	ug/kg
2-Methylnaphthalene	ND	340	ug/kg
2-Methylphenol	ND	340	ug/kg
Naphthalene	ND	51	ug/kg
2-Nitroaniline	ND	810	ug/kg
3-Nitroaniline	ND	810	ug/kg
4-Nitroaniline	ND	810	ug/kg
Nitrobenzene	ND	340	ug/kg
2-Nitrophenol	ND	340	ug/kg
4-Nitrophenol	ND	810	ug/kg
N-Nitrosodi-n-propyl- amine	ND	340	ug/kg
N-Nitrosodiphenylamine	ND	340	ug/kg
Pentachlorophenol	ND	340	ug/kg
Phenanthrene	ND	51	ug/kg
Phenol	ND	340	ug/kg
Pyrene	ND	51	ug/kg
1,2,4-Trichloro- benzene	ND	340	ug/kg
2,4,5-Trichloro- phenol	ND	340	ug/kg
2,4,6-Trichloro- phenol	ND	340	ug/kg
Dibenzo(a,h)anthracene	ND	51	ug/kg
Carbazole	ND	51	ug/kg
3-Methylphenol & 4-Methylphenol	ND	340	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-027M-0001-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-006 Work Order #...: L0VJ11AN Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2-Fluorobiphenyl	64	(45 - 105)
2-Fluorophenol	52	(35 - 105)
Phenol-d5	78	(40 - 100)
2,4,6-Tribromophenol	53	(35 - 125)
Nitrobenzene-d5	57	(35 - 100)
Terphenyl-d14	76	(30 - 125)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated: The analyte was positively identified; the quantitation is estimated.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-027M-0002-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-007 Work Order #...: L0VJ31AN Matrix.....: SO
 Date Sampled...: 04/28/10 09:30 Date Received...: 04/29/10
 Prep Date.....: 05/07/10 Analysis Date...: 05/11/10
 Prep Batch #...: 0127049
 Dilution Factor: 1 Initial Wgt/Vol: 30.04 g Final Wgt/Vol...: 2 mL
 % Moisture.....: 1.6 Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acenaphthene	ND	51	ug/kg
Acenaphthylene	ND	51	ug/kg
Anthracene	ND	51	ug/kg
Benzo(a)anthracene	ND	51	ug/kg
Benzo(b)fluoranthene	ND	51	ug/kg
Benzo(k)fluoranthene	ND	51	ug/kg
Benzoic acid	ND	810	ug/kg
Benzo(ghi)perylene	ND	51	ug/kg
Benzo(a)pyrene	ND	51	ug/kg
Benzyl alcohol	ND	340	ug/kg
bis(2-Chloroethoxy) methane	ND	340	ug/kg
bis(2-Chloroethyl)- ether	ND	340	ug/kg
bis(2-Chloroisopropyl) ether	ND	340	ug/kg
bis(2-Ethylhexyl) phthalate	ND	340	ug/kg
4-Bromophenyl phenyl ether	ND	340	ug/kg
Butyl benzyl phthalate	ND	340	ug/kg
4-Chloroaniline	ND	340	ug/kg
4-Chloro-3-methylphenol	ND	340	ug/kg
2-Chloronaphthalene	ND	340	ug/kg
2-Chlorophenol	ND	340	ug/kg
4-Chlorophenyl phenyl ether	ND	340	ug/kg
Chrysene	ND	51	ug/kg
Dibenzofuran	ND	340	ug/kg
Di-n-butyl phthalate	ND	340	ug/kg
1,2-Dichlorobenzene	ND	340	ug/kg
1,3-Dichlorobenzene	ND	340	ug/kg
1,4-Dichlorobenzene	ND	340	ug/kg
3,3'-Dichlorobenzidine	ND	340	ug/kg
2,4-Dichlorophenol	ND	340	ug/kg
Diethyl phthalate	ND	340	ug/kg
2,4-Dimethylphenol	ND	340	ug/kg
Dimethyl phthalate	ND	340	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-027M-0002-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-007 Work Order #...: L0VJ31AN Matrix.....: SO

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Di-n-octyl phthalate	ND	340	ug/kg
4,6-Dinitro- 2-methylphenol	ND	810	ug/kg
2,4-Dinitrophenol	ND	810	ug/kg
2,4-Dinitrotoluene	ND	340	ug/kg
2,6-Dinitrotoluene	ND	340	ug/kg
Fluoranthene	ND	51	ug/kg
Fluorene	ND	51	ug/kg
Hexachlorobenzene	ND	340	ug/kg
Hexachlorobutadiene	ND	340	ug/kg
Hexachlorocyclopenta- diene	ND	340	ug/kg
Hexachloroethane	ND	340	ug/kg
Indeno(1,2,3-cd)pyrene	ND	51	ug/kg
Isophorone	ND	340	ug/kg
2-Methylnaphthalene	12 J	340	ug/kg
2-Methylphenol	ND	340	ug/kg
Naphthalene	12 J	51	ug/kg
2-Nitroaniline	ND	810	ug/kg
3-Nitroaniline	ND	810	ug/kg
4-Nitroaniline	ND	810	ug/kg
Nitrobenzene	ND	340	ug/kg
2-Nitrophenol	ND	340	ug/kg
4-Nitrophenol	ND	810	ug/kg
N-Nitrosodi-n-propyl- amine	ND	340	ug/kg
N-Nitrosodiphenylamine	ND	340	ug/kg
Pentachlorophenol	ND	340	ug/kg
Phenanthrene	ND	51	ug/kg
Phenol	ND	340	ug/kg
Pyrene	ND	51	ug/kg
1,2,4-Trichloro- benzene	ND	340	ug/kg
2,4,5-Trichloro- phenol	ND	340	ug/kg
2,4,6-Trichloro- phenol	ND	340	ug/kg
Dibenzo(a,h)anthracene	ND	51	ug/kg
Carbazole	ND	51	ug/kg
3-Methylphenol & 4-Methylphenol	ND	340	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-027M-0002-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-007 Work Order #...: L0VJ31AN Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2-Fluorobiphenyl	70	(45 - 105)
2-Fluorophenol	84	(35 - 105)
Phenol-d5	85	(40 - 100)
2,4,6-Tribromophenol	76	(35 - 125)
Nitrobenzene-d5	67	(35 - 100)
Terphenyl-d14	84	(30 - 125)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated: The analyte was positively identified; the quantitation is estimated.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0001-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-008 Work Order #...: L0VJ41AN Matrix.....: SO
 Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10
 Prep Date.....: 05/07/10 Analysis Date...: 05/11/10
 Prep Batch #...: 0127049
 Dilution Factor: 1 Initial Wgt/Vol: 30.07 g Final Wgt/Vol...: 2 mL
 % Moisture.....: 1.6 Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acenaphthene	ND	51	ug/kg
Acenaphthylene	ND	51	ug/kg
Anthracene	ND	51	ug/kg
Benzo(a)anthracene	ND	51	ug/kg
Benzo(b)fluoranthene	ND	51	ug/kg
Benzo(k)fluoranthene	ND	51	ug/kg
Benzoic acid	ND	810	ug/kg
Benzo(ghi)perylene	ND	51	ug/kg
Benzo(a)pyrene	ND	51	ug/kg
Benzyl alcohol	ND	340	ug/kg
bis(2-Chloroethoxy) methane	ND	340	ug/kg
bis(2-Chloroethyl)- ether	ND	340	ug/kg
bis(2-Chloroisopropyl) ether	ND	340	ug/kg
bis(2-Ethylhexyl) phthalate	28 J	340	ug/kg
4-Bromophenyl phenyl ether	ND	340	ug/kg
Butyl benzyl phthalate	ND	340	ug/kg
4-Chloroaniline	ND	340	ug/kg
4-Chloro-3-methylphenol	ND	340	ug/kg
2-Chloronaphthalene	ND	340	ug/kg
2-Chlorophenol	ND	340	ug/kg
4-Chlorophenyl phenyl ether	ND	340	ug/kg
Chrysene	ND	51	ug/kg
Dibenzofuran	ND	340	ug/kg
Di-n-butyl phthalate	ND	340	ug/kg
1,2-Dichlorobenzene	ND	340	ug/kg
1,3-Dichlorobenzene	ND	340	ug/kg
1,4-Dichlorobenzene	ND	340	ug/kg
3,3'-Dichlorobenzidine	ND	340	ug/kg
2,4-Dichlorophenol	ND	340	ug/kg
Diethyl phthalate	ND	340	ug/kg
2,4-Dimethylphenol	ND	340	ug/kg
Dimethyl phthalate	ND	340	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0001-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-008 Work Order #...: L0VJ41AN Matrix.....: SO

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Di-n-octyl phthalate	ND	340	ug/kg
4,6-Dinitro- 2-methylphenol	ND	810	ug/kg
2,4-Dinitrophenol	ND	810	ug/kg
2,4-Dinitrotoluene	ND	340	ug/kg
2,6-Dinitrotoluene	ND	340	ug/kg
Fluoranthene	ND	51	ug/kg
Fluorene	ND	51	ug/kg
Hexachlorobenzene	ND	340	ug/kg
Hexachlorobutadiene	ND	340	ug/kg
Hexachlorocyclopenta- diene	ND	340	ug/kg
Hexachloroethane	ND	340	ug/kg
Indeno(1,2,3-cd)pyrene	ND	51	ug/kg
Isophorone	ND	340	ug/kg
2-Methylnaphthalene	14 J	340	ug/kg
2-Methylphenol	ND	340	ug/kg
Naphthalene	24 J	51	ug/kg
2-Nitroaniline	ND	810	ug/kg
3-Nitroaniline	ND	810	ug/kg
4-Nitroaniline	ND	810	ug/kg
Nitrobenzene	ND	340	ug/kg
2-Nitrophenol	ND	340	ug/kg
4-Nitrophenol	ND	810	ug/kg
N-Nitrosodi-n-propyl- amine	ND	340	ug/kg
N-Nitrosodiphenylamine	ND	340	ug/kg
Pentachlorophenol	ND	340	ug/kg
Phenanthrene	7.1 J	51	ug/kg
Phenol	ND	340	ug/kg
Pyrene	ND	51	ug/kg
1,2,4-Trichloro- benzene	ND	340	ug/kg
2,4,5-Trichloro- phenol	ND	340	ug/kg
2,4,6-Trichloro- phenol	ND	340	ug/kg
Dibenzo(a,h)anthracene	ND	51	ug/kg
Carbazole	ND	51	ug/kg
3-Methylphenol & 4-Methylphenol	ND	340	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0001-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-008 Work Order #...: L0VJ41AN Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2-Fluorobiphenyl	70	(45 - 105)
2-Fluorophenol	61	(35 - 105)
Phenol-d5	87	(40 - 100)
2,4,6-Tribromophenol	75	(35 - 125)
Nitrobenzene-d5	67	(35 - 100)
Terphenyl-d14	87	(30 - 125)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated: The analyte was positively identified; the quantitation is estimated.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0002-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-009 Work Order #...: L0VJ61A1 Matrix.....: SO
 Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10
 Prep Date.....: 05/07/10 Analysis Date...: 05/11/10
 Prep Batch #...: 0127049
 Dilution Factor: 1 Initial Wgt/Vol: 30.08 g Final Wgt/Vol...: 2 mL
 % Moisture.....: 1.6 Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acenaphthene	ND	51	ug/kg
Acenaphthylene	ND	51	ug/kg
Anthracene	ND	51	ug/kg
Benzo(a)anthracene	ND	51	ug/kg
Benzo(b)fluoranthene	ND	51	ug/kg
Benzo(k)fluoranthene	ND	51	ug/kg
Benzoic acid	ND	810	ug/kg
Benzo(ghi)perylene	ND	51	ug/kg
Benzo(a)pyrene	ND	51	ug/kg
Benzyl alcohol	ND	340	ug/kg
bis(2-Chloroethoxy) methane	ND	340	ug/kg
bis(2-Chloroethyl)- ether	ND	340	ug/kg
bis(2-Chloroisopropyl) ether	ND	340	ug/kg
bis(2-Ethylhexyl) phthalate	ND	340	ug/kg
4-Bromophenyl phenyl ether	ND	340	ug/kg
Butyl benzyl phthalate	ND	340	ug/kg
4-Chloroaniline	ND	340	ug/kg
4-Chloro-3-methylphenol	ND	340	ug/kg
2-Chloronaphthalene	ND	340	ug/kg
2-Chlorophenol	ND	340	ug/kg
4-Chlorophenyl phenyl ether	ND	340	ug/kg
Chrysene	ND	51	ug/kg
Dibenzofuran	ND	340	ug/kg
Di-n-butyl phthalate	ND	340	ug/kg
1,2-Dichlorobenzene	ND	340	ug/kg
1,3-Dichlorobenzene	ND	340	ug/kg
1,4-Dichlorobenzene	ND	340	ug/kg
3,3'-Dichlorobenzidine	ND	340	ug/kg
2,4-Dichlorophenol	ND	340	ug/kg
Diethyl phthalate	ND	340	ug/kg
2,4-Dimethylphenol	ND	340	ug/kg
Dimethyl phthalate	ND	340	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0002-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-009 Work Order #...: L0VJ61A1 Matrix.....: SO

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
Di-n-octyl phthalate	ND	340	ug/kg
4,6-Dinitro- 2-methylphenol	ND	810	ug/kg
2,4-Dinitrophenol	ND	810	ug/kg
2,4-Dinitrotoluene	ND	340	ug/kg
2,6-Dinitrotoluene	ND	340	ug/kg
Fluoranthene	ND	51	ug/kg
Fluorene	ND	51	ug/kg
Hexachlorobenzene	ND	340	ug/kg
Hexachlorobutadiene	ND	340	ug/kg
Hexachlorocyclopenta- diene	ND	340	ug/kg
Hexachloroethane	ND	340	ug/kg
Indeno(1,2,3-cd)pyrene	ND	51	ug/kg
Isophorone	ND	340	ug/kg
2-Methylnaphthalene	13 J	340	ug/kg
2-Methylphenol	ND	340	ug/kg
Naphthalene	28 J	51	ug/kg
2-Nitroaniline	ND	810	ug/kg
3-Nitroaniline	ND	810	ug/kg
4-Nitroaniline	ND	810	ug/kg
Nitrobenzene	ND	340	ug/kg
2-Nitrophenol	ND	340	ug/kg
4-Nitrophenol	ND	810	ug/kg
N-Nitrosodi-n-propyl- amine	ND	340	ug/kg
N-Nitrosodiphenylamine	ND	340	ug/kg
Pentachlorophenol	ND	340	ug/kg
Phenanthrene	ND	51	ug/kg
Phenol	ND	340	ug/kg
Pyrene	ND	51	ug/kg
1,2,4-Trichloro- benzene	ND	340	ug/kg
2,4,5-Trichloro- phenol	ND	340	ug/kg
2,4,6-Trichloro- phenol	ND	340	ug/kg
Dibenzo(a,h)anthracene	ND	51	ug/kg
Carbazole	ND	51	ug/kg
3-Methylphenol & 4-Methylphenol	ND	340	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0002-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-009 Work Order #...: L0VJ61A1 Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2-Fluorobiphenyl	74	(45 - 105)
2-Fluorophenol	96	(35 - 105)
Phenol-d5	84	(40 - 100)
2,4,6-Tribromophenol	74	(35 - 125)
Nitrobenzene-d5	66	(35 - 100)
Terphenyl-d14	80	(30 - 125)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated: The analyte was positively identified; the quantitation is estimated.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0004-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-010 Work Order #...: L0VKA1AC Matrix.....: SO
 Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10
 Prep Date.....: 05/07/10 Analysis Date...: 05/11/10
 Prep Batch #...: 0127049
 Dilution Factor: 1 Initial Wgt/Vol: 30.07 g Final Wgt/Vol...: 2 mL
 % Moisture.....: 1.5 Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acenaphthene	ND	51	ug/kg
Acenaphthylene	ND	51	ug/kg
Anthracene	ND	51	ug/kg
Benzo(a)anthracene	ND	51	ug/kg
Benzo(b)fluoranthene	ND	51	ug/kg
Benzo(k)fluoranthene	ND	51	ug/kg
Benzoic acid	ND	810	ug/kg
Benzo(ghi)perylene	ND	51	ug/kg
Benzo(a)pyrene	ND	51	ug/kg
Benzyl alcohol	ND	340	ug/kg
bis(2-Chloroethoxy) methane	ND	340	ug/kg
bis(2-Chloroethyl)- ether	ND	340	ug/kg
bis(2-Chloroisopropyl) ether	ND	340	ug/kg
bis(2-Ethylhexyl) phthalate	ND	340	ug/kg
4-Bromophenyl phenyl ether	ND	340	ug/kg
Butyl benzyl phthalate	ND	340	ug/kg
4-Chloroaniline	ND	340	ug/kg
4-Chloro-3-methylphenol	ND	340	ug/kg
2-Chloronaphthalene	ND	340	ug/kg
2-Chlorophenol	ND	340	ug/kg
4-Chlorophenyl phenyl ether	ND	340	ug/kg
Chrysene	ND	51	ug/kg
Dibenzofuran	ND	340	ug/kg
Di-n-butyl phthalate	ND	340	ug/kg
1,2-Dichlorobenzene	ND	340	ug/kg
1,3-Dichlorobenzene	ND	340	ug/kg
1,4-Dichlorobenzene	ND	340	ug/kg
3,3'-Dichlorobenzidine	ND	340	ug/kg
2,4-Dichlorophenol	ND	340	ug/kg
Diethyl phthalate	ND	340	ug/kg
2,4-Dimethylphenol	ND	340	ug/kg
Dimethyl phthalate	ND	340	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0004-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-010 Work Order #...: L0VKA1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Di-n-octyl phthalate	ND	340	ug/kg
4,6-Dinitro- 2-methylphenol	ND	810	ug/kg
2,4-Dinitrophenol	ND	810	ug/kg
2,4-Dinitrotoluene	ND	340	ug/kg
2,6-Dinitrotoluene	ND	340	ug/kg
Fluoranthene	ND	51	ug/kg
Fluorene	ND	51	ug/kg
Hexachlorobenzene	ND	340	ug/kg
Hexachlorobutadiene	ND	340	ug/kg
Hexachlorocyclopenta- diene	ND	340	ug/kg
Hexachloroethane	ND	340	ug/kg
Indeno(1,2,3-cd)pyrene	ND	51	ug/kg
Isophorone	69 J	340	ug/kg
2-Methylnaphthalene	ND	340	ug/kg
2-Methylphenol	ND	340	ug/kg
Naphthalene	ND	51	ug/kg
2-Nitroaniline	ND	810	ug/kg
3-Nitroaniline	ND	810	ug/kg
4-Nitroaniline	ND	810	ug/kg
Nitrobenzene	ND	340	ug/kg
2-Nitrophenol	ND	340	ug/kg
4-Nitrophenol	ND	810	ug/kg
N-Nitrosodi-n-propyl- amine	ND	340	ug/kg
N-Nitrosodiphenylamine	ND	340	ug/kg
Pentachlorophenol	ND	340	ug/kg
Phenanthrene	ND	51	ug/kg
Phenol	ND	340	ug/kg
Pyrene	ND	51	ug/kg
1,2,4-Trichloro- benzene	ND	340	ug/kg
2,4,5-Trichloro- phenol	ND	340	ug/kg
2,4,6-Trichloro- phenol	ND	340	ug/kg
Dibenzo(a,h)anthracene	ND	51	ug/kg
Carbazole	ND	51	ug/kg
3-Methylphenol & 4-Methylphenol	ND	340	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0004-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-010 Work Order #...: L0VKA1AC Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2-Fluorobiphenyl	73	(45 - 105)
2-Fluorophenol	55	(35 - 105)
Phenol-d5	88	(40 - 100)
2,4,6-Tribromophenol	70	(35 - 125)
Nitrobenzene-d5	68	(35 - 100)
Terphenyl-d14	94	(30 - 125)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated: The analyte was positively identified; the quantitation is estimated.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0005-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-011 **Work Order #...**: L0VKE1AN **Matrix.....**: SO
Date Sampled...: 04/28/10 15:30 **Date Received..**: 04/29/10
Prep Date.....: 05/07/10 **Analysis Date..**: 05/11/10
Prep Batch #...: 0127049
Dilution Factor: 1 **Initial Wgt/Vol:** 30.1 g **Final Wgt/Vol...:** 2 mL
% Moisture.....: 1.5 **Method.....**: SW846 8270C

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
Acenaphthene	ND	51	ug/kg
Acenaphthylene	ND	51	ug/kg
Anthracene	ND	51	ug/kg
Benzo(a)anthracene	ND	51	ug/kg
Benzo(b)fluoranthene	ND	51	ug/kg
Benzo(k)fluoranthene	ND	51	ug/kg
Benzoic acid	ND	810	ug/kg
Benzo(ghi)perylene	ND	51	ug/kg
Benzo(a)pyrene	ND	51	ug/kg
Benzyl alcohol	ND	340	ug/kg
bis(2-Chloroethoxy) methane	ND	340	ug/kg
bis(2-Chloroethyl)- ether	ND	340	ug/kg
bis(2-Chloroisopropyl) ether	ND	340	ug/kg
bis(2-Ethylhexyl) phthalate	ND	340	ug/kg
4-Bromophenyl phenyl ether	ND	340	ug/kg
Butyl benzyl phthalate	ND	340	ug/kg
4-Chloroaniline	ND	340	ug/kg
4-Chloro-3-methylphenol	ND	340	ug/kg
2-Chloronaphthalene	ND	340	ug/kg
2-Chlorophenol	ND	340	ug/kg
4-Chlorophenyl phenyl ether	ND	340	ug/kg
Chrysene	ND	51	ug/kg
Dibenzofuran	ND	340	ug/kg
Di-n-butyl phthalate	ND	340	ug/kg
1,2-Dichlorobenzene	ND	340	ug/kg
1,3-Dichlorobenzene	ND	340	ug/kg
1,4-Dichlorobenzene	ND	340	ug/kg
3,3'-Dichlorobenzidine	ND	340	ug/kg
2,4-Dichlorophenol	ND	340	ug/kg
Diethyl phthalate	ND	340	ug/kg
2,4-Dimethylphenol	ND	340	ug/kg
Dimethyl phthalate	ND	340	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0005-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-011 Work Order #...: L0VKE1AN Matrix.....: SO

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
Di-n-octyl phthalate	ND	340	ug/kg
4,6-Dinitro- 2-methylphenol	ND	810	ug/kg
2,4-Dinitrophenol	ND	810	ug/kg
2,4-Dinitrotoluene	ND	340	ug/kg
2,6-Dinitrotoluene	ND	340	ug/kg
Fluoranthene	ND	51	ug/kg
Fluorene	ND	51	ug/kg
Hexachlorobenzene	ND	340	ug/kg
Hexachlorobutadiene	ND	340	ug/kg
Hexachlorocyclopenta- diene	ND	340	ug/kg
Hexachloroethane	ND	340	ug/kg
Indeno(1,2,3-cd)pyrene	ND	51	ug/kg
Isophorone	ND	340	ug/kg
2-Methylnaphthalene	ND	340	ug/kg
2-Methylphenol	ND	340	ug/kg
Naphthalene	ND	51	ug/kg
2-Nitroaniline	ND	810	ug/kg
3-Nitroaniline	ND	810	ug/kg
4-Nitroaniline	ND	810	ug/kg
Nitrobenzene	ND	340	ug/kg
2-Nitrophenol	ND	340	ug/kg
4-Nitrophenol	ND	810	ug/kg
N-Nitrosodi-n-propyl- amine	ND	340	ug/kg
N-Nitrosodiphenylamine	ND	340	ug/kg
Pentachlorophenol	ND	340	ug/kg
Phenanthrene	ND	51	ug/kg
Phenol	ND	340	ug/kg
Pyrene	ND	51	ug/kg
1,2,4-Trichloro- benzene	ND	340	ug/kg
2,4,5-Trichloro- phenol	ND	340	ug/kg
2,4,6-Trichloro- phenol	ND	340	ug/kg
Dibenzo(a,h)anthracene	ND	51	ug/kg
Carbazole	ND	51	ug/kg
3-Methylphenol & 4-Methylphenol	ND	340	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0005-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-011 Work Order #...: L0VKE1AN Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2-Fluorobiphenyl	72	(45 - 105)
2-Fluorophenol	103	(35 - 105)
Phenol-d5	91	(40 - 100)
2,4,6-Tribromophenol	64	(35 - 125)
Nitrobenzene-d5	65	(35 - 100)
Terphenyl-d14	77	(30 - 125)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0006-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-012 Work Order #...: L0VKG1AN Matrix.....: SO
 Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10
 Prep Date.....: 05/07/10 Analysis Date...: 05/11/10
 Prep Batch #...: 0127049
 Dilution Factor: 1 Initial Wgt/Vol: 30.15 g Final Wgt/Vol...: 2 mL
 % Moisture.....: 1.3 Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acenaphthene	ND	51	ug/kg
Acenaphthylene	ND	51	ug/kg
Anthracene	ND	51	ug/kg
Benzo(a)anthracene	ND	51	ug/kg
Benzo(b)fluoranthene	ND	51	ug/kg
Benzo(k)fluoranthene	ND	51	ug/kg
Benzoic acid	ND	810	ug/kg
Benzo(ghi)perylene	ND	51	ug/kg
Benzo(a)pyrene	ND	51	ug/kg
Benzyl alcohol	ND	330	ug/kg
bis(2-Chloroethoxy) methane	ND	330	ug/kg
bis(2-Chloroethyl)- ether	ND	330	ug/kg
bis(2-Chloroisopropyl) ether	ND	330	ug/kg
bis(2-Ethylhexyl) phthalate	ND	330	ug/kg
4-Bromophenyl phenyl ether	ND	330	ug/kg
Butyl benzyl phthalate	ND	330	ug/kg
4-Chloroaniline	ND	330	ug/kg
4-Chloro-3-methylphenol	ND	330	ug/kg
2-Chloronaphthalene	ND	330	ug/kg
2-Chlorophenol	ND	330	ug/kg
4-Chlorophenyl phenyl ether	ND	330	ug/kg
Chrysene	ND	51	ug/kg
Dibenzofuran	ND	330	ug/kg
Di-n-butyl phthalate	ND	330	ug/kg
1,2-Dichlorobenzene	ND	330	ug/kg
1,3-Dichlorobenzene	ND	330	ug/kg
1,4-Dichlorobenzene	ND	330	ug/kg
3,3'-Dichlorobenzidine	ND	330	ug/kg
2,4-Dichlorophenol	ND	330	ug/kg
Diethyl phthalate	ND	330	ug/kg
2,4-Dimethylphenol	ND	330	ug/kg
Dimethyl phthalate	ND	330	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0006-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-012 Work Order #...: L0VKG1AN Matrix.....: SO

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Di-n-octyl phthalate	ND	330	ug/kg
4,6-Dinitro- 2-methylphenol	ND	810	ug/kg
2,4-Dinitrophenol	ND	810	ug/kg
2,4-Dinitrotoluene	ND	330	ug/kg
2,6-Dinitrotoluene	ND	330	ug/kg
Fluoranthene	ND	51	ug/kg
Fluorene	ND	51	ug/kg
Hexachlorobenzene	ND	330	ug/kg
Hexachlorobutadiene	ND	330	ug/kg
Hexachlorocyclopenta- diene	ND	330	ug/kg
Hexachloroethane	ND	330	ug/kg
Indeno(1,2,3-cd)pyrene	ND	51	ug/kg
Isophorone	ND	330	ug/kg
2-Methylnaphthalene	10 J	330	ug/kg
2-Methylphenol	ND	330	ug/kg
Naphthalene	11 J	51	ug/kg
2-Nitroaniline	ND	810	ug/kg
3-Nitroaniline	ND	810	ug/kg
4-Nitroaniline	ND	810	ug/kg
Nitrobenzene	ND	330	ug/kg
2-Nitrophenol	ND	330	ug/kg
4-Nitrophenol	ND	810	ug/kg
N-Nitrosodi-n-propyl- amine	ND	330	ug/kg
N-Nitrosodiphenylamine	ND	330	ug/kg
Pentachlorophenol	ND	330	ug/kg
Phenanthrene	ND	51	ug/kg
Phenol	ND	330	ug/kg
Pyrene	ND	51	ug/kg
1,2,4-Trichloro- benzene	ND	330	ug/kg
2,4,5-Trichloro- phenol	ND	330	ug/kg
2,4,6-Trichloro- phenol	ND	330	ug/kg
Dibenzo(a,h)anthracene	ND	51	ug/kg
Carbazole	ND	51	ug/kg
3-Methylphenol & 4-Methylphenol	ND	330	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0006-SO

GC/MS Semivolatiles

Lot-Sample #...: A0D300624-012 Work Order #...: L0VKG1AN Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2-Fluorobiphenyl	69	(45 - 105)
2-Fluorophenol	83	(35 - 105)
Phenol-d5	81	(40 - 100)
2,4,6-Tribromophenol	63	(35 - 125)
Nitrobenzene-d5	65	(35 - 100)
Terphenyl-d14	80	(30 - 125)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated: The analyte was positively identified; the quantitation is estimated.

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A0D300624
 MB Lot-Sample #: A0E070000-049

Work Order #...: L053M1AA

Matrix.....: SOLID

Analysis Date...: 05/11/10
 Dilution Factor: 1

Prep Date.....: 05/07/10

Final Wgt/Vol...: 2 mL

Prep Batch #...: 0127049

Initial Wgt/Vol: 30 g

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	METHOD
Acenaphthene	ND	50	ug/kg	SW846 8270C
Acenaphthylene	ND	50	ug/kg	SW846 8270C
Anthracene	ND	50	ug/kg	SW846 8270C
Benzo(a)anthracene	ND	50	ug/kg	SW846 8270C
Benzo(b)fluoranthene	ND	50	ug/kg	SW846 8270C
Benzo(k)fluoranthene	ND	50	ug/kg	SW846 8270C
Benzoic acid	ND	800	ug/kg	SW846 8270C
Benzo(ghi)perylene	ND	50	ug/kg	SW846 8270C
Benzo(a)pyrene	ND	50	ug/kg	SW846 8270C
Benzyl alcohol	ND	330	ug/kg	SW846 8270C
bis(2-Chloroethoxy) methane	ND	330	ug/kg	SW846 8270C
bis(2-Chloroethyl)- ether	ND	330	ug/kg	SW846 8270C
bis(2-Chloroisopropyl) ether	ND	330	ug/kg	SW846 8270C
bis(2-Ethylhexyl) phthalate	ND	330	ug/kg	SW846 8270C
4-Bromophenyl phenyl ether	ND	330	ug/kg	SW846 8270C
Butyl benzyl phthalate	ND	330	ug/kg	SW846 8270C
4-Chloroaniline	ND	330	ug/kg	SW846 8270C
4-Chloro-3-methylphenol	ND	330	ug/kg	SW846 8270C
2-Chloronaphthalene	ND	330	ug/kg	SW846 8270C
2-Chlorophenol	ND	330	ug/kg	SW846 8270C
4-Chlorophenyl phenyl ether	ND	330	ug/kg	SW846 8270C
Chrysene	ND	50	ug/kg	SW846 8270C
Dibenzofuran	ND	330	ug/kg	SW846 8270C
Di-n-butyl phthalate	ND	330	ug/kg	SW846 8270C
1,2-Dichlorobenzene	ND	330	ug/kg	SW846 8270C
1,3-Dichlorobenzene	ND	330	ug/kg	SW846 8270C
1,4-Dichlorobenzene	ND	330	ug/kg	SW846 8270C
3,3'-Dichlorobenzidine	ND	330	ug/kg	SW846 8270C
2,4-Dichlorophenol	ND	330	ug/kg	SW846 8270C
Diethyl phthalate	ND	330	ug/kg	SW846 8270C
2,4-Dimethylphenol	ND	330	ug/kg	SW846 8270C
Dimethyl phthalate	ND	330	ug/kg	SW846 8270C
Di-n-octyl phthalate	ND	330	ug/kg	SW846 8270C
4,6-Dinitro- 2-methylphenol	ND	800	ug/kg	SW846 8270C

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A0D300624

Work Order #...: L053M1AA

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	METHOD
2,4-Dinitrophenol	ND	800	ug/kg	SW846 8270C
2,4-Dinitrotoluene	ND	330	ug/kg	SW846 8270C
2,6-Dinitrotoluene	ND	330	ug/kg	SW846 8270C
Fluoranthene	ND	50	ug/kg	SW846 8270C
Fluorene	ND	50	ug/kg	SW846 8270C
Hexachlorobenzene	ND	330	ug/kg	SW846 8270C
Hexachlorobutadiene	ND	330	ug/kg	SW846 8270C
Hexachlorocyclopenta- diene	ND	330	ug/kg	SW846 8270C
Hexachloroethane	ND	330	ug/kg	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	50	ug/kg	SW846 8270C
Isophorone	ND	330	ug/kg	SW846 8270C
2-Methylnaphthalene	ND	330	ug/kg	SW846 8270C
2-Methylphenol	ND	330	ug/kg	SW846 8270C
Naphthalene	ND	50	ug/kg	SW846 8270C
2-Nitroaniline	ND	800	ug/kg	SW846 8270C
3-Nitroaniline	ND	800	ug/kg	SW846 8270C
4-Nitroaniline	ND	800	ug/kg	SW846 8270C
Nitrobenzene	ND	330	ug/kg	SW846 8270C
2-Nitrophenol	ND	330	ug/kg	SW846 8270C
4-Nitrophenol	ND	800	ug/kg	SW846 8270C
N-Nitrosodi-n-propyl- amine	ND	330	ug/kg	SW846 8270C
N-Nitrosodiphenylamine	ND	330	ug/kg	SW846 8270C
Pentachlorophenol	ND	330	ug/kg	SW846 8270C
Phenanthrene	ND	50	ug/kg	SW846 8270C
Phenol	ND	330	ug/kg	SW846 8270C
Pyrene	ND	50	ug/kg	SW846 8270C
1,2,4-Trichloro- benzene	ND	330	ug/kg	SW846 8270C
2,4,5-Trichloro- phenol	ND	330	ug/kg	SW846 8270C
2,4,6-Trichloro- phenol	ND	330	ug/kg	SW846 8270C
Dibenzo(a,h)anthracene	ND	50	ug/kg	SW846 8270C
Carbazole	ND	50	ug/kg	SW846 8270C
3-Methylphenol & 4-Methylphenol	ND	330	ug/kg	SW846 8270C

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
2-Fluorobiphenyl	74	(45 - 105)
2-Fluorophenol	96	(35 - 105)
Phenol-d5	87	(40 - 100)
2,4,6-Tribromophenol	19 *	(35 - 125)

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A0D300624

Work Order #...: L053M1AA

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
Nitrobenzene-d5	77	(35 - 100)		
Terphenyl-d14	94	(30 - 125)		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

* Surrogate recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A0D300624 Work Order #...: L053M1AC Matrix.....: SOLID
 LCS Lot-Sample#: A0E070000-049
 Prep Date.....: 05/07/10 Analysis Date...: 05/11/10
 Prep Batch #...: 0127049
 Dilution Factor: 1 Final Wgt/Vol...: 2 mL
 Initial Wgt/Vol: 30 g

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>
Acenaphthene	76	(45 - 110)	SW846 8270C
4-Chloro-3-methylphenol	85	(45 - 115)	SW846 8270C
2-Chlorophenol	83	(45 - 105)	SW846 8270C
1,4-Dichlorobenzene	87	(35 - 105)	SW846 8270C
2,4-Dinitrotoluene	83	(50 - 115)	SW846 8270C
4-Nitrophenol	81	(15 - 140)	SW846 8270C
N-Nitrosodi-n-propyl- amine	86	(40 - 115)	SW846 8270C
Pentachlorophenol	51	(25 - 120)	SW846 8270C
Phenol	87	(40 - 100)	SW846 8270C
Pyrene	79	(45 - 125)	SW846 8270C
1,2,4-Trichloro- benzene	77	(45 - 110)	SW846 8270C
bis(2-Ethylhexyl) phthalate	86	(45 - 125)	SW846 8270C
Acenaphthylene	79	(45 - 105)	SW846 8270C
Anthracene	81	(55 - 105)	SW846 8270C
Benzo(a)anthracene	88	(50 - 110)	SW846 8270C
Benzo(b)fluoranthene	105	(45 - 115)	SW846 8270C
Benzo(k)fluoranthene	65	(45 - 125)	SW846 8270C
Benzo(ghi)perylene	87	(40 - 125)	SW846 8270C
Benzo(a)pyrene	73	(50 - 110)	SW846 8270C
bis(2-Chloroethoxy) methane	79	(45 - 110)	SW846 8270C
bis(2-Chloroethyl)- ether	82	(40 - 105)	SW846 8270C
4-Bromophenyl phenyl ether	84	(45 - 115)	SW846 8270C
Butyl benzyl phthalate	87	(50 - 125)	SW846 8270C
Carbazole	83	(45 - 115)	SW846 8270C
4-Chloroaniline	65	(10 - 95)	SW846 8270C
2-Chloronaphthalene	76	(45 - 105)	SW846 8270C
4-Chlorophenyl phenyl ether	83	(45 - 110)	SW846 8270C

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A0D300624 Work Order #...: L053M1AC Matrix.....: SOLID
 LCS Lot-Sample#: A0E070000-049

PARAMETER	PERCENT	RECOVERY	METHOD
	RECOVERY	LIMITS	
Chrysene	79	(55 - 110)	SW846 8270C
Dibenzo(a,h)anthracene	85	(40 - 125)	SW846 8270C
Dibenzofuran	83	(50 - 105)	SW846 8270C
Di-n-butyl phthalate	86	(55 - 110)	SW846 8270C
1,2-Dichlorobenzene	81	(45 - 95)	SW846 8270C
1,3-Dichlorobenzene	80	(40 - 100)	SW846 8270C
3,3'-Dichlorobenzidine	56	(10 - 130)	SW846 8270C
2,4-Dichlorophenol	82	(45 - 110)	SW846 8270C
Diethyl phthalate	85	(50 - 115)	SW846 8270C
2,4-Dimethylphenol	70	(30 - 105)	SW846 8270C
Dimethyl phthalate	82	(50 - 110)	SW846 8270C
4,6-Dinitro- 2-methylphenol	72	(30 - 135)	SW846 8270C
2,4-Dinitrophenol	50	(15 - 130)	SW846 8270C
2,6-Dinitrotoluene	82	(50 - 110)	SW846 8270C
Di-n-octyl phthalate	85	(40 - 130)	SW846 8270C
Fluoranthene	83	(55 - 115)	SW846 8270C
Fluorene	79	(50 - 110)	SW846 8270C
Hexachlorobenzene	80	(45 - 120)	SW846 8270C
Hexachlorobutadiene	80	(40 - 115)	SW846 8270C
Hexachloroethane	81	(35 - 110)	SW846 8270C
Indeno(1,2,3-cd)pyrene	86	(40 - 120)	SW846 8270C
Isophorone	84	(45 - 110)	SW846 8270C
2-Methylnaphthalene	84	(45 - 105)	SW846 8270C
2-Methylphenol	88	(40 - 105)	SW846 8270C
Naphthalene	81	(40 - 105)	SW846 8270C
2-Nitroaniline	84	(45 - 120)	SW846 8270C
3-Nitroaniline	78	(25 - 110)	SW846 8270C
4-Nitroaniline	83	(35 - 115)	SW846 8270C
Nitrobenzene	83	(40 - 115)	SW846 8270C
2-Nitrophenol	83	(40 - 110)	SW846 8270C
N-Nitrosodiphenylamine	81	(50 - 115)	SW846 8270C
Phenanthrene	82	(50 - 110)	SW846 8270C
2,4,5-Trichloro- phenol	76	(50 - 110)	SW846 8270C
2,4,6-Trichloro- phenol	56	(45 - 110)	SW846 8270C

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A0D300624 Work Order #...: L053M1AC Matrix.....: SOLID
 LCS Lot-Sample#: A0E070000-049

<u>PARAMETER</u>	PERCENT <u>RECOVERY</u>	RECOVERY <u>LIMITS</u>	<u>METHOD</u>
Benzoic acid	12	(0.0- 110)	SW846 8270C
Benzyl alcohol	79	(20 - 125)	SW846 8270C
bis(2-Chloroisopropyl) ether	82	(20 - 115)	SW846 8270C
3-Methylphenol & 4-Methylphenol	81	(40 - 105)	SW846 8270C
N-Nitrosodimethylamine	88	(20 - 115)	SW846 8270C
1,2-Diphenylhydrazine (as Azobenzene)	87	(1.0- 175)	SW846 8270C

<u>SURROGATE</u>	PERCENT <u>RECOVERY</u>	RECOVERY <u>LIMITS</u>
2-Fluorobiphenyl	75	(45 - 105)
2-Fluorophenol	98	(35 - 105)
Phenol-d5	90	(40 - 100)
2,4,6-Tribromophenol	49	(35 - 125)
Nitrobenzene-d5	81	(35 - 100)
Terphenyl-d14	92	(30 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: A0D300624 Work Order #...: L053M1AC Matrix.....: SOLID
 LCS Lot-Sample#: A0E070000-049
 Prep Date.....: 05/07/10 Analysis Date...: 05/11/10
 Prep Batch #...: 0127049
 Dilution Factor: 1 Final Wgt/Vol...: 2 mL
 Initial Wgt/Vol: 30 g

<u>PARAMETER</u>	<u>SPIKE</u> <u>AMOUNT</u>	<u>MEASURED</u> <u>AMOUNT</u>	<u>UNITS</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>METHOD</u>
Acenaphthene	670	510	ug/kg	76	SW846 8270C
4-Chloro-3-methylphenol	670	570	ug/kg	85	SW846 8270C
2-Chlorophenol	670	550	ug/kg	83	SW846 8270C
1,4-Dichlorobenzene	670	580	ug/kg	87	SW846 8270C
2,4-Dinitrotoluene	670	560	ug/kg	83	SW846 8270C
4-Nitrophenol	670	540	ug/kg	81	SW846 8270C
N-Nitrosodi-n-propyl-amine	670	570	ug/kg	86	SW846 8270C
Pentachlorophenol	670	340	ug/kg	51	SW846 8270C
Phenol	670	580	ug/kg	87	SW846 8270C
Pyrene	670	530	ug/kg	79	SW846 8270C
1,2,4-Trichloro-benzene	670	520	ug/kg	77	SW846 8270C
bis(2-Ethylhexyl) phthalate	670	570	ug/kg	86	SW846 8270C
Acenaphthylene	670	530	ug/kg	79	SW846 8270C
Anthracene	670	540	ug/kg	81	SW846 8270C
Benzo(a)anthracene	670	590	ug/kg	88	SW846 8270C
Benzo(b)fluoranthene	670	700	ug/kg	105	SW846 8270C
Benzo(k)fluoranthene	670	430	ug/kg	65	SW846 8270C
Benzo(ghi)perylene	670	580	ug/kg	87	SW846 8270C
Benzo(a)pyrene	670	490	ug/kg	73	SW846 8270C
bis(2-Chloroethoxy) methane	670	530	ug/kg	79	SW846 8270C
bis(2-Chloroethyl)-ether	670	550	ug/kg	82	SW846 8270C
4-Bromophenyl phenyl ether	670	560	ug/kg	84	SW846 8270C
Butyl benzyl phthalate	670	580	ug/kg	87	SW846 8270C
Carbazole	670	550	ug/kg	83	SW846 8270C
4-Chloroaniline	670	430	ug/kg	65	SW846 8270C
2-Chloronaphthalene	670	510	ug/kg	76	SW846 8270C
4-Chlorophenyl phenyl ether	670	550	ug/kg	83	SW846 8270C

(Continued on next page)

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: A0D300624
 LCS Lot-Sample#: A0E070000-049

Work Order #...: L053M1AC

Matrix.....: SOLID

<u>PARAMETER</u>	<u>SPIKE AMOUNT</u>	<u>MEASURED AMOUNT</u>	<u>UNITS</u>	<u>PERCENT RECOVERY</u>	<u>METHOD</u>
Chrysene	670	530	ug/kg	79	SW846 8270C
Dibenzo(a,h)anthracene	670	570	ug/kg	85	SW846 8270C
Dibenzofuran	670	550	ug/kg	83	SW846 8270C
Di-n-butyl phthalate	670	570	ug/kg	86	SW846 8270C
1,2-Dichlorobenzene	670	540	ug/kg	81	SW846 8270C
1,3-Dichlorobenzene	670	530	ug/kg	80	SW846 8270C
3,3'-Dichlorobenzidine	670	380	ug/kg	56	SW846 8270C
2,4-Dichlorophenol	670	540	ug/kg	82	SW846 8270C
Diethyl phthalate	670	560	ug/kg	85	SW846 8270C
2,4-Dimethylphenol	670	470	ug/kg	70	SW846 8270C
Dimethyl phthalate	670	540	ug/kg	82	SW846 8270C
4,6-Dinitro- 2-methylphenol	670	480	ug/kg	72	SW846 8270C
2,4-Dinitrophenol	670	340	ug/kg	50	SW846 8270C
2,6-Dinitrotoluene	670	550	ug/kg	82	SW846 8270C
Di-n-octyl phthalate	670	570	ug/kg	85	SW846 8270C
Fluoranthene	670	560	ug/kg	83	SW846 8270C
Fluorene	670	530	ug/kg	79	SW846 8270C
Hexachlorobenzene	670	540	ug/kg	80	SW846 8270C
Hexachlorobutadiene	670	540	ug/kg	80	SW846 8270C
Hexachloroethane	670	540	ug/kg	81	SW846 8270C
Indeno(1,2,3-cd)pyrene	670	580	ug/kg	86	SW846 8270C
Isophorone	670	560	ug/kg	84	SW846 8270C
2-Methylnaphthalene	670	560	ug/kg	84	SW846 8270C
2-Methylphenol	670	590	ug/kg	88	SW846 8270C
Naphthalene	670	540	ug/kg	81	SW846 8270C
2-Nitroaniline	670	560	ug/kg	84	SW846 8270C
3-Nitroaniline	670	520	ug/kg	78	SW846 8270C
4-Nitroaniline	670	560	ug/kg	83	SW846 8270C
Nitrobenzene	670	560	ug/kg	83	SW846 8270C
2-Nitrophenol	670	560	ug/kg	83	SW846 8270C
N-Nitrosodiphenylamine	670	540	ug/kg	81	SW846 8270C
Phenanthrene	670	550	ug/kg	82	SW846 8270C
2,4,5-Trichloro- phenol	670	510	ug/kg	76	SW846 8270C
2,4,6-Trichloro- phenol	670	380	ug/kg	56	SW846 8270C

(Continued on next page)

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: A0D300624 Work Order #...: L053M1AC Matrix.....: SOLID
 LCS Lot-Sample#: A0E070000-049

<u>PARAMETER</u>	<u>SPIKE AMOUNT</u>	<u>MEASURED AMOUNT</u>	<u>UNITS</u>	<u>PERCENT RECOVERY</u>	<u>METHOD</u>
Benzoic acid	670		ug/kg	12	SW846 8270C
Benzyl alcohol	670	530	ug/kg	79	SW846 8270C
bis(2-Chloroisopropyl) ether	670	550	ug/kg	82	SW846 8270C
3-Methylphenol & 4-Methylphenol	1300	1100	ug/kg	81	SW846 8270C
N-Nitrosodimethylamine	670	590	ug/kg	88	SW846 8270C
1,2-Diphenylhydrazine (as Azobenzene)	670	580	ug/kg	87	SW846 8270C

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2-Fluorobiphenyl	75	(45 - 105)
2-Fluorophenol	98	(35 - 105)
Phenol-d5	90	(40 - 100)
2,4,6-Tribromophenol	49	(35 - 125)
Nitrobenzene-d5	81	(35 - 100)
Terphenyl-d14	92	(30 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.
 Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A0D300624 Work Order #...: L0VKA1AD-MS Matrix.....: SO
 MS Lot-Sample #: A0D300624-010 L0VKA1AE-MSD
 Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10
 Prep Date.....: 05/07/10 Analysis Date...: 05/11/10
 Prep Batch #...: 0127049
 Dilution Factor: 1 Initial Wgt/Vol: 30.04 g Final Wgt/Vol...: 2 mL

PARAMETER	PERCENT	RECOVERY	RPD		METHOD
	RECOVERY	LIMITS	RPD	LIMITS	
Acenaphthene	70	(45 - 110)			SW846 8270C
	74	(45 - 110)	12	(0-30)	SW846 8270C
4-Chloro-3-methylphenol	79	(45 - 115)			SW846 8270C
	85	(45 - 115)	14	(0-30)	SW846 8270C
2-Chlorophenol	76	(45 - 105)			SW846 8270C
	81	(45 - 105)	12	(0-30)	SW846 8270C
1,4-Dichlorobenzene	71	(35 - 105)			SW846 8270C
	76	(35 - 105)	12	(0-30)	SW846 8270C
2,4-Dinitrotoluene	62	(50 - 115)			SW846 8270C
	71	(50 - 115)	19	(0-30)	SW846 8270C
4-Nitrophenol	44	(15 - 140)			SW846 8270C
	46	(15 - 140)	9.6	(0-30)	SW846 8270C
N-Nitrosodi-n-propyl-amine	76	(40 - 115)			SW846 8270C
	80	(40 - 115)	12	(0-30)	SW846 8270C
Pentachlorophenol	62	(25 - 120)			SW846 8270C
	59	(25 - 120)	1.8	(0-30)	SW846 8270C
Phenol	83	(40 - 100)			SW846 8270C
	87	(40 - 100)	10	(0-30)	SW846 8270C
Pyrene	70	(45 - 125)			SW846 8270C
	74	(45 - 125)	11	(0-30)	SW846 8270C
1,2,4-Trichloro-benzene	66	(45 - 110)			SW846 8270C
	69	(45 - 110)	10	(0-30)	SW846 8270C
bis(2-Ethylhexyl) phthalate	77	(45 - 125)			SW846 8270C
	84	(45 - 125)	14	(0-30)	SW846 8270C
Acenaphthylene	72	(45 - 105)			SW846 8270C
	76	(45 - 105)	11	(0-30)	SW846 8270C
Anthracene	49 a	(55 - 105)			SW846 8270C
	58	(55 - 105)	22	(0-30)	SW846 8270C
Benzo(a)anthracene	90	(50 - 110)			SW846 8270C
	95	(50 - 110)	11	(0-30)	SW846 8270C
Benzo(b)fluoranthene	93	(45 - 115)			SW846 8270C
	90	(45 - 115)	2.6	(0-30)	SW846 8270C
Benzo(k)fluoranthene	52	(45 - 125)			SW846 8270C
	60	(45 - 125)	19	(0-30)	SW846 8270C

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MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A0D300624 Work Order #...: L0VKA1AD-MS Matrix.....: SO
 MS Lot-Sample #: A0D300624-010 L0VKA1AE-MSD

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>
Benzo(ghi)perylene	52	(40 - 125)			SW846 8270C
	58	(40 - 125)	17	(0-30)	SW846 8270C
Benzo(a)pyrene	51	(50 - 110)			SW846 8270C
	62	(50 - 110)	26	(0-30)	SW846 8270C
bis(2-Chloroethoxy) methane	74	(45 - 110)			SW846 8270C
	79	(45 - 110)	12	(0-30)	SW846 8270C
bis(2-Chloroethyl)- ether	127 a	(40 - 105)			SW846 8270C
	141 a	(40 - 105)	16	(0-30)	SW846 8270C
4-Bromophenyl phenyl ether	76	(45 - 115)			SW846 8270C
	80	(45 - 115)	11	(0-30)	SW846 8270C
Butyl benzyl phthalate	81	(50 - 125)			SW846 8270C
	85	(50 - 125)	9.8	(0-30)	SW846 8270C
Carbazole	71	(45 - 115)			SW846 8270C
	78	(45 - 115)	16	(0-30)	SW846 8270C
4-Chloroaniline	20	(10 - 95)			SW846 8270C
	25	(10 - 95)	29	(0-30)	SW846 8270C
2-Chloronaphthalene	70	(45 - 105)			SW846 8270C
	72	(45 - 105)	8.8	(0-30)	SW846 8270C
4-Chlorophenyl phenyl ether	74	(45 - 110)			SW846 8270C
	81	(45 - 110)	15	(0-30)	SW846 8270C
Chrysene	50 a	(55 - 110)			SW846 8270C
	57	(55 - 110)	19	(0-30)	SW846 8270C
Dibenzo(a,h)anthracene	52	(40 - 125)			SW846 8270C
	52	(40 - 125)	6.2	(0-30)	SW846 8270C
Dibenzofuran	78	(50 - 105)			SW846 8270C
	82	(50 - 105)	11	(0-30)	SW846 8270C
Di-n-butyl phthalate	75	(55 - 110)			SW846 8270C
	83	(55 - 110)	16	(0-30)	SW846 8270C
1,2-Dichlorobenzene	66	(45 - 95)			SW846 8270C
	73	(45 - 95)	16	(0-30)	SW846 8270C
1,3-Dichlorobenzene	67	(40 - 100)			SW846 8270C
	69	(40 - 100)	8.5	(0-30)	SW846 8270C
3,3'-Dichlorobenzidine	45	(10 - 130)			SW846 8270C
	51	(10 - 130)	17	(0-30)	SW846 8270C

(Continued on next page)

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A0D300624 Work Order #...: L0VKA1AD-MS Matrix.....: SO
 MS Lot-Sample #: A0D300624-010 L0VKA1AE-MSD

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
2,4-Dichlorophenol	78	(45 - 110)			SW846 8270C
	79	(45 - 110)	7.6	(0-30)	SW846 8270C
Diethyl phthalate	77	(50 - 115)			SW846 8270C
	83	(50 - 115)	12	(0-30)	SW846 8270C
2,4-Dimethylphenol	69	(30 - 105)			SW846 8270C
	67	(30 - 105)	1.8	(0-30)	SW846 8270C
Dimethyl phthalate	82	(50 - 110)			SW846 8270C
	80	(50 - 110)	3.9	(0-30)	SW846 8270C
4,6-Dinitro- 2-methylphenol	38	(30 - 135)			SW846 8270C
	32	(30 - 135)	12	(0-30)	SW846 8270C
2,4-Dinitrophenol	24	(15 - 130)			SW846 8270C
	19	(15 - 130)	15	(0-30)	SW846 8270C
2,6-Dinitrotoluene	77	(50 - 110)			SW846 8270C
	81	(50 - 110)	10	(0-30)	SW846 8270C
Di-n-octyl phthalate	71	(40 - 130)			SW846 8270C
	79	(40 - 130)	17	(0-30)	SW846 8270C
Fluoranthene	79	(55 - 115)			SW846 8270C
	81	(55 - 115)	7.4	(0-30)	SW846 8270C
Fluorene	69	(50 - 110)			SW846 8270C
	79	(50 - 110)	19	(0-30)	SW846 8270C
Hexachlorobenzene	71	(45 - 120)			SW846 8270C
	79	(45 - 120)	16	(0-30)	SW846 8270C
Hexachlorobutadiene	69	(40 - 115)			SW846 8270C
	74	(40 - 115)	13	(0-30)	SW846 8270C
Hexachloroethane	62	(35 - 110)			SW846 8270C
	68	(35 - 110)	15	(0-30)	SW846 8270C
Indeno(1,2,3-cd)pyrene	50	(40 - 120)			SW846 8270C
	57	(40 - 120)	18	(0-30)	SW846 8270C
Isophorone	62	(45 - 110)			SW846 8270C
	74	(45 - 110)	21	(0-30)	SW846 8270C
2-Methylnaphthalene	77	(45 - 105)			SW846 8270C
	77	(45 - 105)	6.0	(0-30)	SW846 8270C
2-Methylphenol	83	(40 - 105)			SW846 8270C
	89	(40 - 105)	13	(0-30)	SW846 8270C
Naphthalene	72	(40 - 105)			SW846 8270C
	81	(40 - 105)	17	(0-30)	SW846 8270C
2-Nitroaniline	76	(45 - 120)			SW846 8270C
	85	(45 - 120)	16	(0-30)	SW846 8270C
3-Nitroaniline	29	(25 - 110)			SW846 8270C
	41 p	(25 - 110)	38	(0-30)	SW846 8270C

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MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A0D300624 Work Order #...: L0VKA1AD-MS Matrix.....: SO
 MS Lot-Sample #: A0D300624-010 L0VKA1AE-MSD

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>
4-Nitroaniline	38	(35 - 115)			SW846 8270C
	48	(35 - 115)	28	(0-30)	SW846 8270C
Nitrobenzene	74	(40 - 115)			SW846 8270C
	73	(40 - 115)	4.5	(0-30)	SW846 8270C
2-Nitrophenol	77	(40 - 110)			SW846 8270C
	82	(40 - 110)	12	(0-30)	SW846 8270C
N-Nitrosodiphenylamine	56	(50 - 115)			SW846 8270C
	82 p	(50 - 115)	42	(0-30)	SW846 8270C
Phenanthrene	92	(50 - 110)			SW846 8270C
	98	(50 - 110)	12	(0-30)	SW846 8270C
2,4,5-Trichloro-phenol	46 a	(50 - 110)			SW846 8270C
	52	(50 - 110)	18	(0-30)	SW846 8270C
2,4,6-Trichloro-phenol	98	(45 - 110)			SW846 8270C
	96	(45 - 110)	3.9	(0-30)	SW846 8270C
Benzoic acid	0.0	(0.0- 110)			SW846 8270C
	0.0	(0.0- 110)	0.0	(0-30)	SW846 8270C
Benzyl alcohol	67	(20 - 125)			SW846 8270C
	63	(20 - 125)	0.70	(0-30)	SW846 8270C
bis(2-Chloroisopropyl) ether	70	(20 - 115)			SW846 8270C
	76	(20 - 115)	13	(0-30)	SW846 8270C
3-Methylphenol & 4-Methylphenol	79	(40 - 105)			SW846 8270C
	82	(40 - 105)	10	(0-30)	SW846 8270C
N-Nitrosodimethylamine	58	(20 - 115)			SW846 8270C
	74	(20 - 115)	29	(0-30)	SW846 8270C
1,2-Diphenylhydrazine (as Azobenzene)	78	(1.0- 175)			SW846 8270C
	84	(1.0- 175)	14	(0-30)	SW846 8270C

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2-Fluorobiphenyl	69	(45 - 105)
	72	(45 - 105)

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MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A0D300624 Work Order #...: L0VKA1AD-MS Matrix.....: SO
MS Lot-Sample #: A0D300624-010 L0VKA1AE-MSD

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2-Fluorophenol	71	(35 - 105)
	98	(35 - 105)
Phenol-d5	85	(40 - 100)
	89	(40 - 100)
2,4,6-Tribromophenol	81	(35 - 125)
	85	(35 - 125)
Nitrobenzene-d5	75	(35 - 100)
	78	(35 - 100)
Terphenyl-d14	83	(30 - 125)
	88	(30 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

a Spiked analyte recovery is outside stated control limits.

p Relative percent difference (RPD) is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: A0D300624 Work Order #...: L0VKA1AD-MS Matrix.....: SO
 MS Lot-Sample #: A0D300624-010 L0VKA1AE-MSD
 Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10
 Prep Date.....: 05/07/10 Analysis Date...: 05/11/10
 Prep Batch #...: 0127049
 Dilution Factor: 1 Initial Wgt/Vol: 30.04 g Final Wgt/Vol...: 2 mL

PARAMETER	SAMPLE	SPIKE	MEASRD	UNITS	PERCNT		METHOD
	AMOUNT	AMT	AMOUNT		RECVRY	RPD	
Acenaphthene	ND	680	470	ug/kg	70		SW846 8270C
	ND	720	530	ug/kg	74	12	SW846 8270C
4-Chloro-3-methylphenol	ND	680	530	ug/kg	79		SW846 8270C
	ND	720	610	ug/kg	85	14	SW846 8270C
2-Chlorophenol	ND	680	510	ug/kg	76		SW846 8270C
	ND	720	580	ug/kg	81	12	SW846 8270C
1,4-Dichlorobenzene	ND	680	480	ug/kg	71		SW846 8270C
	ND	720	540	ug/kg	76	12	SW846 8270C
2,4-Dinitrotoluene	ND	680	420	ug/kg	62		SW846 8270C
	ND	720	510	ug/kg	71	19	SW846 8270C
4-Nitrophenol	ND	680	300	ug/kg	44		SW846 8270C
	ND	720	330	ug/kg	46	9.6	SW846 8270C
N-Nitrosodi-n-propyl-amine	ND	680	510	ug/kg	76		SW846 8270C
	ND	720	570	ug/kg	80	12	SW846 8270C
Pentachlorophenol	ND	680	420	ug/kg	62		SW846 8270C
	ND	720	420	ug/kg	59	1.8	SW846 8270C
Phenol	ND	680	560	ug/kg	83		SW846 8270C
	ND	720	620	ug/kg	87	10	SW846 8270C
Pyrene	ND	680	470	ug/kg	70		SW846 8270C
	ND	720	530	ug/kg	74	11	SW846 8270C
1,2,4-Trichloro-benzene	ND	680	440	ug/kg	66		SW846 8270C
	ND	720	490	ug/kg	69	10	SW846 8270C
bis(2-Ethylhexyl) phthalate	ND	680	520	ug/kg	77		SW846 8270C
	ND	720	600	ug/kg	84	14	SW846 8270C
Acenaphthylene	ND	680	490	ug/kg	72		SW846 8270C
	ND	720	540	ug/kg	76	11	SW846 8270C
Anthracene	ND	680	330	ug/kg	49	a	SW846 8270C
	ND	720	410	ug/kg	58	22	SW846 8270C
Benzo(a)anthracene	ND	680	610	ug/kg	90		SW846 8270C
	ND	720	680	ug/kg	95	11	SW846 8270C
Benzo(b)fluoranthene	ND	680	630	ug/kg	93		SW846 8270C
	ND	720	640	ug/kg	90	2.6	SW846 8270C
Benzo(k)fluoranthene	ND	680	350	ug/kg	52		SW846 8270C
	ND	720	430	ug/kg	60	19	SW846 8270C

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MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: A0D300624 Work Order #...: L0VKA1AD-MS Matrix.....: SO
 MS Lot-Sample #: A0D300624-010 L0VKA1AE-MSD

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Benzo(ghi)perylene	ND	680	350	ug/kg	52		SW846 8270C
	ND	720	420	ug/kg	58	17	SW846 8270C
Benzo(a)pyrene	ND	680	340	ug/kg	51		SW846 8270C
	ND	720	440	ug/kg	62	26	SW846 8270C
bis(2-Chloroethoxy) methane	ND	680	500	ug/kg	74		SW846 8270C
	ND	720	560	ug/kg	79	12	SW846 8270C
bis(2-Chloroethyl)- ether	ND	680	860	ug/kg	127	a	SW846 8270C
	ND	720	1000	ug/kg	141	a 16	SW846 8270C
4-Bromophenyl phenyl ether	ND	680	510	ug/kg	76		SW846 8270C
	ND	720	570	ug/kg	80	11	SW846 8270C
Butyl benzyl phthalate	ND	680	550	ug/kg	81		SW846 8270C
	ND	720	610	ug/kg	85	9.8	SW846 8270C
Carbazole	ND	680	480	ug/kg	71		SW846 8270C
	ND	720	560	ug/kg	78	16	SW846 8270C
4-Chloroaniline	ND	680	130	ug/kg	20		SW846 8270C
	ND	720	180	ug/kg	25	29	SW846 8270C
2-Chloronaphthalene	ND	680	470	ug/kg	70		SW846 8270C
	ND	720	520	ug/kg	72	8.8	SW846 8270C
4-Chlorophenyl phenyl ether	ND	680	500	ug/kg	74		SW846 8270C
	ND	720	580	ug/kg	81	15	SW846 8270C
Chrysene	ND	680	340	ug/kg	50	a	SW846 8270C
	ND	720	410	ug/kg	57	19	SW846 8270C
Dibenzo(a,h)anthracene	ND	680	350	ug/kg	52		SW846 8270C
	ND	720	370	ug/kg	52	6.2	SW846 8270C
Dibenzofuran	ND	680	530	ug/kg	78		SW846 8270C
	ND	720	590	ug/kg	82	11	SW846 8270C
Di-n-butyl phthalate	ND	680	510	ug/kg	75		SW846 8270C
	ND	720	600	ug/kg	83	16	SW846 8270C
1,2-Dichlorobenzene	ND	680	450	ug/kg	66		SW846 8270C
	ND	720	530	ug/kg	73	16	SW846 8270C
1,3-Dichlorobenzene	ND	680	450	ug/kg	67		SW846 8270C
	ND	720	490	ug/kg	69	8.5	SW846 8270C
3,3'-Dichlorobenzidine	ND	680	310	ug/kg	45		SW846 8270C
	ND	720	360	ug/kg	51	17	SW846 8270C

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: A0D300624 Work Order #...: L0VKA1AD-MS Matrix.....: SO
 MS Lot-Sample #: A0D300624-010 L0VKA1AE-MSD

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
2,4-Dichlorophenol	ND	680	530	ug/kg	78		SW846 8270C
	ND	720	570	ug/kg	79	7.6	SW846 8270C
Diethyl phthalate	ND	680	520	ug/kg	77		SW846 8270C
	ND	720	590	ug/kg	83	12	SW846 8270C
2,4-Dimethylphenol	ND	680	470	ug/kg	69		SW846 8270C
	ND	720	480	ug/kg	67	1.8	SW846 8270C
Dimethyl phthalate	ND	680	550	ug/kg	82		SW846 8270C
	ND	720	580	ug/kg	80	3.9	SW846 8270C
4,6-Dinitro- 2-methylphenol	ND	680	260	ug/kg	38		SW846 8270C
	ND	720	230	ug/kg	32	12	SW846 8270C
2,4-Dinitrophenol	ND	680	160	ug/kg	24		SW846 8270C
	ND	720	140	ug/kg	19	15	SW846 8270C
2,6-Dinitrotoluene	ND	680	520	ug/kg	77		SW846 8270C
	ND	720	580	ug/kg	81	10	SW846 8270C
Di-n-octyl phthalate	ND	680	480	ug/kg	71		SW846 8270C
	ND	720	570	ug/kg	79	17	SW846 8270C
Fluoranthene	ND	680	540	ug/kg	79		SW846 8270C
	ND	720	580	ug/kg	81	7.4	SW846 8270C
Fluorene	ND	680	470	ug/kg	69		SW846 8270C
	ND	720	570	ug/kg	79	19	SW846 8270C
Hexachlorobenzene	ND	680	480	ug/kg	71		SW846 8270C
	ND	720	560	ug/kg	79	16	SW846 8270C
Hexachlorobutadiene	ND	680	470	ug/kg	69		SW846 8270C
	ND	720	530	ug/kg	74	13	SW846 8270C
Hexachloroethane	ND	680	420	ug/kg	62		SW846 8270C
	ND	720	480	ug/kg	68	15	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	680	340	ug/kg	50		SW846 8270C
	ND	720	400	ug/kg	57	18	SW846 8270C
Isophorone	69	680	490	ug/kg	62		SW846 8270C
	69	720	600	ug/kg	74	21	SW846 8270C
2-Methylnaphthalene	ND	680	520	ug/kg	77		SW846 8270C
	ND	720	550	ug/kg	77	6.0	SW846 8270C
2-Methylphenol	ND	680	560	ug/kg	83		SW846 8270C
	ND	720	640	ug/kg	89	13	SW846 8270C
Naphthalene	ND	680	490	ug/kg	72		SW846 8270C
	ND	720	580	ug/kg	81	17	SW846 8270C
2-Nitroaniline	ND	680	520	ug/kg	76		SW846 8270C
	ND	720	610	ug/kg	85	16	SW846 8270C
3-Nitroaniline	ND	680	200	ug/kg	29		SW846 8270C
	ND	720	290	ug/kg	41 p	38	SW846 8270C

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: A0D300624 Work Order #...: L0VKA1AD-MS Matrix.....: SO
 MS Lot-Sample #: A0D300624-010 L0VKA1AE-MSD

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
4-Nitroaniline	ND	680	260	ug/kg	38		SW846 8270C
	ND	720	340	ug/kg	48	28	SW846 8270C
Nitrobenzene	ND	680	500	ug/kg	74		SW846 8270C
	ND	720	520	ug/kg	73	4.5	SW846 8270C
2-Nitrophenol	ND	680	520	ug/kg	77		SW846 8270C
	ND	720	590	ug/kg	82	12	SW846 8270C
N-Nitrosodiphenylamine	ND	680	380	ug/kg	56		SW846 8270C
	ND	720	590	ug/kg	82 p	42	SW846 8270C
Phenanthrene	ND	680	620	ug/kg	92		SW846 8270C
	ND	720	700	ug/kg	98	12	SW846 8270C
2,4,5-Trichloro-phenol	ND	680	310	ug/kg	46 a		SW846 8270C
	ND	720	380	ug/kg	52	18	SW846 8270C
2,4,6-Trichloro-phenol	ND	680	660	ug/kg	98		SW846 8270C
	ND	720	690	ug/kg	96	3.9	SW846 8270C
Benzoic acid	ND	680	0.0	ug/kg	0.0		SW846 8270C
	ND	720	0.0	ug/kg	0.0	0.0	SW846 8270C
Benzyl alcohol	ND	680	450	ug/kg	67		SW846 8270C
	ND	720	450	ug/kg	63	0.70	SW846 8270C
bis(2-Chloroisopropyl) ether	ND	680	470	ug/kg	70		SW846 8270C
	ND	720	540	ug/kg	76	13	SW846 8270C
3-Methylphenol & 4-Methylphenol	ND	1400	1100	ug/kg	79		SW846 8270C
	ND	1400	1200	ug/kg	82	10	SW846 8270C
N-Nitrosodimethylamine	ND	680	390	ug/kg	58		SW846 8270C
	ND	720	530	ug/kg	74	29	SW846 8270C
1,2-Diphenylhydrazine (as Azobenzene)	ND	680	520	ug/kg	78		SW846 8270C
	ND	720	600	ug/kg	84	14	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorobiphenyl	69	(45 - 105)
	72	(45 - 105)

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MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: A0D300624 Work Order #...: L0VKA1AD-MS Matrix.....: SO
MS Lot-Sample #: A0D300624-010 L0VKA1AE-MSD

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2-Fluorophenol	71	(35 - 105)
	98	(35 - 105)
Phenol-d5	85	(40 - 100)
	89	(40 - 100)
2,4,6-Tribromophenol	81	(35 - 125)
	85	(35 - 125)
Nitrobenzene-d5	75	(35 - 100)
	78	(35 - 100)
Terphenyl-d14	83	(30 - 125)
	88	(30 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

a Spiked analyte recovery is outside stated control limits.

p Relative percent difference (RPD) is outside stated control limits.

PESTICIDE DATA

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0001-SO

GC Semivolatiles

Lot-Sample #...: A0D300624-008 Work Order #...: L0VJ41CC Matrix.....: SO
 Date Sampled...: 04/28/10 15:30 Date Received..: 04/29/10
 Prep Date.....: 05/07/10 Analysis Date..: 05/11/10
 Prep Batch #...: 0127038
 Dilution Factor: 50 Initial Wgt/Vol: 30.02 g Final Wgt/Vol...: 10 mL
 % Moisture.....: 1.6 Method.....: SW846 8081A

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
Aldrin	ND	200	ug/kg
alpha-BHC	ND	130	ug/kg
beta-BHC	ND	180	ug/kg
delta-BHC	ND	200	ug/kg
gamma-BHC (Lindane)	ND	130	ug/kg
alpha-Chlordane	ND	150	ug/kg
gamma-Chlordane	ND	86	ug/kg
4,4'-DDD	ND	100	ug/kg
4,4'-DDE	ND	86	ug/kg
4,4'-DDT	ND	100	ug/kg
Dieldrin	ND	86	ug/kg
Endosulfan I	ND	86	ug/kg
Endosulfan II	ND	130	ug/kg
Endosulfan sulfate	ND	150	ug/kg
Endrin	ND	86	ug/kg
Endrin aldehyde	ND	150	ug/kg
Endrin ketone	ND	100	ug/kg
Heptachlor	ND	180	ug/kg
Heptachlor epoxide	ND	130	ug/kg
Methoxychlor	ND	250	ug/kg
Toxaphene	ND	3400	ug/kg

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
Tetrachloro-m-xylene	1190 DIL, *	(70 - 125)
Decachlorobiphenyl	124 DIL	(55 - 130)

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

Elevated reporting limits. The reporting limits are elevated due to matrix interference.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0002-SO

GC Semivolatiles

Lot-Sample #...: A0D300624-009 Work Order #...: L0VJ61CC Matrix.....: SO
 Date Sampled...: 04/28/10 15:30 Date Received..: 04/29/10
 Prep Date.....: 05/07/10 Analysis Date..: 05/11/10
 Prep Batch #...: 0127038
 Dilution Factor: 20 Initial Wgt/Vol: 30.18 g Final Wgt/Vol...: 10 mL
 % Moisture.....: 1.6 Method.....: SW846 8081A

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
Aldrin	ND	81	ug/kg
alpha-BHC	ND	51	ug/kg
beta-BHC	ND	71	ug/kg
delta-BHC	ND	81	ug/kg
gamma-BHC (Lindane)	ND	51	ug/kg
alpha-Chlordane	ND	61	ug/kg
gamma-Chlordane	ND	35	ug/kg
4,4'-DDD	ND	41	ug/kg
4,4'-DDE	ND	35	ug/kg
4,4'-DDT	ND	41	ug/kg
Dieldrin	ND	35	ug/kg
Endosulfan I	ND	35	ug/kg
Endosulfan II	ND	51	ug/kg
Endosulfan sulfate	ND	61	ug/kg
Endrin	ND	35	ug/kg
Endrin aldehyde	ND	61	ug/kg
Endrin ketone	ND	41	ug/kg
Heptachlor	ND	71	ug/kg
Heptachlor epoxide	ND	51	ug/kg
Methoxychlor	ND	100	ug/kg
Toxaphene	ND	1400	ug/kg

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
Tetrachloro-m-xylene	321 DIL, *	(70 - 125)
Decachlorobiphenyl	130 DIL	(55 - 130)

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

Elevated reporting limits. The reporting limits are elevated due to matrix interference.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0004-SO

GC Semivolatiles

Lot-Sample #...: A0D300624-010 Work Order #...: L0VKA1EC Matrix.....: SO
 Date Sampled...: 04/28/10 15:30 Date Received..: 04/29/10
 Prep Date.....: 05/07/10 Analysis Date..: 05/11/10
 Prep Batch #...: 0127038
 Dilution Factor: 5 Initial Wgt/Vol: 30.17 g Final Wgt/Vol...: 10 mL
 % Moisture.....: 1.5 Method.....: SW846 8081A

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
Aldrin	ND	20	ug/kg
alpha-BHC	ND	13	ug/kg
beta-BHC	ND	18	ug/kg
delta-BHC	ND	20	ug/kg
gamma-BHC (Lindane)	ND	13	ug/kg
alpha-Chlordane	ND	15	ug/kg
gamma-Chlordane	ND	8.6	ug/kg
4,4'-DDD	ND	10	ug/kg
4,4'-DDE	ND	8.6	ug/kg
4,4'-DDT	ND	10	ug/kg
Dieldrin	ND	8.6	ug/kg
Endosulfan I	ND	8.6	ug/kg
Endosulfan II	ND	13	ug/kg
Endosulfan sulfate	ND	15	ug/kg
Endrin	ND	8.6	ug/kg
Endrin aldehyde	ND	15	ug/kg
Endrin ketone	ND	10	ug/kg
Heptachlor	ND	18	ug/kg
Heptachlor epoxide	ND	13	ug/kg
Methoxychlor	ND	25	ug/kg
Toxaphene	ND	340	ug/kg

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
Tetrachloro-m-xylene	217 DIL, *	(70 - 125)
Decachlorobiphenyl	122 DIL	(55 - 130)

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

Elevated reporting limits. The reporting limits are elevated due to matrix interference.

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: A0D300624
 MB Lot-Sample #: A0E070000-038

Work Order #...: L053A1AA

Matrix.....: SOLID

Analysis Date...: 05/10/10
 Dilution Factor: 1

Prep Date.....: 05/07/10

Final Wgt/Vol...: 10 mL

Prep Batch #...: 0127038

Initial Wgt/Vol: 30 g

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	METHOD
Aldrin	ND	4.0	ug/kg	SW846 8081A
alpha-BHC	ND	2.5	ug/kg	SW846 8081A
beta-BHC	ND	3.5	ug/kg	SW846 8081A
delta-BHC	ND	4.0	ug/kg	SW846 8081A
gamma-BHC (Lindane)	ND	2.5	ug/kg	SW846 8081A
alpha-Chlordane	ND	3.0	ug/kg	SW846 8081A
gamma-Chlordane	ND	1.7	ug/kg	SW846 8081A
4,4'-DDD	ND	2.0	ug/kg	SW846 8081A
4,4'-DDE	ND	1.7	ug/kg	SW846 8081A
4,4'-DDT	ND	2.0	ug/kg	SW846 8081A
Dieldrin	ND	1.7	ug/kg	SW846 8081A
Endosulfan I	ND	1.7	ug/kg	SW846 8081A
Endosulfan II	ND	2.5	ug/kg	SW846 8081A
Endosulfan sulfate	ND	3.0	ug/kg	SW846 8081A
Endrin	ND	1.7	ug/kg	SW846 8081A
Endrin aldehyde	ND	3.0	ug/kg	SW846 8081A
Endrin ketone	ND	2.0	ug/kg	SW846 8081A
Heptachlor	ND	3.5	ug/kg	SW846 8081A
Heptachlor epoxide	ND	2.5	ug/kg	SW846 8081A
Methoxychlor	ND	5.0	ug/kg	SW846 8081A
Toxaphene	ND	67	ug/kg	SW846 8081A

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
Tetrachloro-m-xylene	82	(70 - 125)
Decachlorobiphenyl	94	(55 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A0D300624 Work Order #...: L053A1AC Matrix.....: SOLID
 LCS Lot-Sample#: A0E070000-038
 Prep Date.....: 05/07/10 Analysis Date...: 05/10/10
 Prep Batch #...: 0127038
 Dilution Factor: 1 Final Wgt/Vol...: 10 mL
 Initial Wgt/Vol: 30 g

<u>PARAMETER</u>	PERCENT <u>RECOVERY</u>	RECOVERY <u>LIMITS</u>	<u>METHOD</u>
gamma-BHC (Lindane)	89	(60 - 125)	SW846 8081A
Heptachlor	94	(50 - 140)	SW846 8081A
Aldrin	77	(45 - 140)	SW846 8081A
Dieldrin	94	(65 - 125)	SW846 8081A
Endrin	111	(60 - 135)	SW846 8081A
4,4'-DDT	93	(45 - 140)	SW846 8081A
alpha-BHC	87	(60 - 125)	SW846 8081A
beta-BHC	85	(60 - 125)	SW846 8081A
delta-BHC	91	(55 - 130)	SW846 8081A
Heptachlor epoxide	88	(65 - 130)	SW846 8081A
Endosulfan I	56	(15 - 135)	SW846 8081A
4,4'-DDE	92	(70 - 125)	SW846 8081A
Endosulfan II	70	(35 - 140)	SW846 8081A
4,4'-DDD	100	(30 - 135)	SW846 8081A
Endosulfan sulfate	94	(60 - 135)	SW846 8081A
Methoxychlor	90	(55 - 145)	SW846 8081A
Endrin ketone	89	(65 - 135)	SW846 8081A
Endrin aldehyde	79	(35 - 145)	SW846 8081A
alpha-Chlordane	85	(65 - 120)	SW846 8081A
gamma-Chlordane	90	(65 - 125)	SW846 8081A

<u>SURROGATE</u>	PERCENT <u>RECOVERY</u>	RECOVERY <u>LIMITS</u>
Tetrachloro-m-xylene	81	(70 - 125)
Decachlorobiphenyl	92	(55 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.
 Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: A0D300624 Work Order #...: L053A1AC Matrix.....: SOLID
 LCS Lot-Sample#: A0E070000-038
 Prep Date.....: 05/07/10 Analysis Date...: 05/10/10
 Prep Batch #...: 0127038
 Dilution Factor: 1 Final Wgt/Vol...: 10 mL
 Initial Wgt/Vol: 30 g

<u>PARAMETER</u>	<u>SPIKE</u> <u>AMOUNT</u>	<u>MEASURED</u> <u>AMOUNT</u>	<u>UNITS</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>METHOD</u>
gamma-BHC (Lindane)	33	30	ug/kg	89	SW846 8081A
Heptachlor	33	31	ug/kg	94	SW846 8081A
Aldrin	33	26	ug/kg	77	SW846 8081A
Dieldrin	33	31	ug/kg	94	SW846 8081A
Endrin	33	37	ug/kg	111	SW846 8081A
4,4'-DDT	33	31	ug/kg	93	SW846 8081A
alpha-BHC	33	29	ug/kg	87	SW846 8081A
beta-BHC	33	28	ug/kg	85	SW846 8081A
delta-BHC	33	30	ug/kg	91	SW846 8081A
Heptachlor epoxide	33	29	ug/kg	88	SW846 8081A
Endosulfan I	33	19	ug/kg	56	SW846 8081A
4,4'-DDE	33	30	ug/kg	92	SW846 8081A
Endosulfan II	33	23	ug/kg	70	SW846 8081A
4,4'-DDD	33	33	ug/kg	100	SW846 8081A
Endosulfan sulfate	33	31	ug/kg	94	SW846 8081A
Methoxychlor	33	30	ug/kg	90	SW846 8081A
Endrin ketone	33	30	ug/kg	89	SW846 8081A
Endrin aldehyde	33	26	ug/kg	79	SW846 8081A
alpha-Chlordane	33	28	ug/kg	85	SW846 8081A
gamma-Chlordane	33	30	ug/kg	90	SW846 8081A

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
Tetrachloro-m-xylene	81	(70 - 125)
Decachlorobiphenyl	92	(55 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.
 Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A0D300624 Work Order #...: L0VKA1ED-MS Matrix.....: SO
 MS Lot-Sample #: A0D300624-010 L0VKA1EE-MSD
 Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10
 Prep Date.....: 05/07/10 Analysis Date...: 05/11/10
 Prep Batch #...: 0127038
 Dilution Factor: 5 Initial Wgt/Vol: 30.06 g Final Wgt/Vol...: 10 mL

PARAMETER	PERCENT	RECOVERY	RPD		METHOD
	RECOVERY	LIMITS	RPD	LIMITS	
gamma-BHC (Lindane)	85 DIL	(60 - 125)			SW846 8081A
	101 DIL	(60 - 125)	16	(0-30)	SW846 8081A
Heptachlor	148 DIL,a	(50 - 140)			SW846 8081A
	111 DIL	(50 - 140)	29	(0-30)	SW846 8081A
Aldrin	76 DIL	(45 - 140)			SW846 8081A
	76 DIL	(45 - 140)	0.11	(0-30)	SW846 8081A
Dieldrin	85 DIL	(65 - 125)			SW846 8081A
	86 DIL	(65 - 125)	1.6	(0-30)	SW846 8081A
Endrin	93 DIL	(60 - 135)			SW846 8081A
	92 DIL	(60 - 135)	1.6	(0-30)	SW846 8081A
4,4'-DDT	81 DIL	(45 - 140)			SW846 8081A
	80 DIL	(45 - 140)	1.2	(0-30)	SW846 8081A
alpha-BHC	116 DIL	(60 - 125)			SW846 8081A
	114 DIL	(60 - 125)	2.4	(0-30)	SW846 8081A
beta-BHC	93 DIL	(60 - 125)			SW846 8081A
	109 DIL	(60 - 125)	15	(0-30)	SW846 8081A
delta-BHC	95 DIL	(55 - 130)			SW846 8081A
	99 DIL	(55 - 130)	4.8	(0-30)	SW846 8081A
Heptachlor epoxide	82 DIL	(65 - 130)			SW846 8081A
	83 DIL	(65 - 130)	1.2	(0-30)	SW846 8081A
Endosulfan I	58 DIL	(15 - 135)			SW846 8081A
	57 DIL	(15 - 135)	1.1	(0-30)	SW846 8081A
4,4'-DDE	86 DIL	(70 - 125)			SW846 8081A
	85 DIL	(70 - 125)	0.21	(0-30)	SW846 8081A
Endosulfan II	66 DIL	(35 - 140)			SW846 8081A
	65 DIL	(35 - 140)	1.6	(0-30)	SW846 8081A
4,4'-DDD	92 DIL	(30 - 135)			SW846 8081A
	91 DIL	(30 - 135)	1.0	(0-30)	SW846 8081A
Endosulfan sulfate	89 DIL	(60 - 135)			SW846 8081A
	88 DIL	(60 - 135)	1.4	(0-30)	SW846 8081A
Methoxychlor	95 DIL	(55 - 145)			SW846 8081A
	87 DIL	(55 - 145)	8.4	(0-30)	SW846 8081A
Endrin ketone	84 DIL	(65 - 135)			SW846 8081A
	84 DIL	(65 - 135)	0.10	(0-30)	SW846 8081A
Endrin aldehyde	72 DIL	(35 - 145)			SW846 8081A
	70 DIL	(35 - 145)	3.3	(0-30)	SW846 8081A
alpha-Chlordane	82 DIL	(65 - 120)			SW846 8081A
	82 DIL	(65 - 120)	0.65	(0-30)	SW846 8081A
gamma-Chlordane	81 DIL	(65 - 125)			SW846 8081A
	81 DIL	(65 - 125)	0.07	(0-30)	SW846 8081A

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MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A0D300624 Work Order #...: L0VKA1ED-MS Matrix.....: SO
MS Lot-Sample #: A0D300624-010 L0VKA1EE-MSD

<u>SURROGATE</u>	PERCENT <u>RECOVERY</u>	RECOVERY <u>LIMITS</u>
Tetrachloro-m-xylene	196	(70 - 125)
	Qualifiers: DIL,*	
	121 DIL	(70 - 125)
Decachlorobiphenyl	97 DIL	(55 - 130)
	97 DIL	(55 - 130)

NOTE(S):

-
- Calculations are performed before rounding to avoid round-off errors in calculated results.
Bold print denotes control parameters
DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.
Results and reporting limits have been adjusted for dry weight.
a Spiked analyte recovery is outside stated control limits.
* Surrogate recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: A0D300624 Work Order #...: L0VKA1ED-MS Matrix.....: SO
 MS Lot-Sample #: A0D300624-010 L0VKA1EE-MSD
 Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10
 Prep Date.....: 05/07/10 Analysis Date...: 05/11/10
 Prep Batch #...: 0127038
 Dilution Factor: 5 Initial Wgt/Vol: 30.06 g Final Wgt/Vol...: 10 mL

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
gamma-BHC (Lindane)	ND	34	29	ug/kg	85	DIL	SW846 8081A
	ND	34	34	ug/kg	101	16	SW846 8081A
Qualifiers: DIL							
Heptachlor	ND	34	50	ug/kg	148		SW846 8081A
	Qualifiers: DIL,a						
Aldrin	ND	34	37	ug/kg	111	29	SW846 8081A
	Qualifiers: DIL						
Dieldrin	ND	34	26	ug/kg	76	DIL	SW846 8081A
	ND	34	26	ug/kg	76	DIL 0.11	SW846 8081A
Endrin	ND	34	29	ug/kg	85	DIL	SW846 8081A
	ND	34	29	ug/kg	86	DIL 1.6	SW846 8081A
4,4'-DDT	ND	34	32	ug/kg	93	DIL	SW846 8081A
	ND	34	31	ug/kg	92	DIL 1.6	SW846 8081A
alpha-BHC	ND	34	27	ug/kg	81	DIL	SW846 8081A
	ND	34	27	ug/kg	80	DIL 1.2	SW846 8081A
beta-BHC	ND	34	39	ug/kg	116		SW846 8081A
	Qualifiers: DIL						
delta-BHC	ND	34	38	ug/kg	114	2.4	SW846 8081A
	Qualifiers: DIL						
Heptachlor epoxide	ND	34	32	ug/kg	93	DIL	SW846 8081A
	ND	34	37	ug/kg	109	15	SW846 8081A
Qualifiers: DIL							
Endosulfan I	ND	34	32	ug/kg	95	DIL	SW846 8081A
	ND	34	34	ug/kg	99	DIL 4.8	SW846 8081A
4,4'-DDE	ND	34	28	ug/kg	82	DIL	SW846 8081A
	ND	34	28	ug/kg	83	DIL 1.2	SW846 8081A
Endosulfan II	ND	34	20	ug/kg	58	DIL	SW846 8081A
	ND	34	19	ug/kg	57	DIL 1.1	SW846 8081A
4,4'-DDD	ND	34	29	ug/kg	86	DIL	SW846 8081A
	ND	34	29	ug/kg	85	DIL 0.21	SW846 8081A
Endosulfan sulfate	ND	34	22	ug/kg	66	DIL	SW846 8081A
	ND	34	22	ug/kg	65	DIL 1.6	SW846 8081A
Methoxychlor	ND	34	31	ug/kg	92	DIL	SW846 8081A
	ND	34	31	ug/kg	91	DIL 1.0	SW846 8081A
Endrin ketone	ND	34	30	ug/kg	89	DIL	SW846 8081A
	ND	34	30	ug/kg	88	DIL 1.4	SW846 8081A
Endrin ketone	ND	34	32	ug/kg	95	DIL	SW846 8081A
	ND	34	30	ug/kg	87	DIL 8.4	SW846 8081A
Endrin ketone	ND	34	28	ug/kg	84	DIL	SW846 8081A
	ND	34	28	ug/kg	84	DIL 0.10	SW846 8081A

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MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: A0D300624 Work Order #...: L0VKA1ED-MS Matrix.....: SO
 MS Lot-Sample #: A0D300624-010 L0VKA1EE-MSD

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Endrin aldehyde	ND	34	24	ug/kg	72 DIL		SW846 8081A
	ND	34	24	ug/kg	70 DIL	3.3	SW846 8081A
alpha-Chlordane	ND	34	28	ug/kg	82 DIL		SW846 8081A
	ND	34	28	ug/kg	82 DIL	0.65	SW846 8081A
gamma-Chlordane	ND	34	27	ug/kg	81 DIL		SW846 8081A
	ND	34	27	ug/kg	81 DIL	0.07	SW846 8081A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	196	(70 - 125)
	Qualifiers: DIL,*	
	121 DIL	(70 - 125)
Decachlorobiphenyl	97 DIL	(55 - 130)
	97 DIL	(55 - 130)

NOTE(S):

- Calculations are performed before rounding to avoid round-off errors in calculated results.
- Bold print denotes control parameters
- DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.
- Results and reporting limits have been adjusted for dry weight.
- a Spiked analyte recovery is outside stated control limits.
- * Surrogate recovery is outside stated control limits.

***POLYCHLORINATED
BIPHENYLS DATA***

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-022M-0001-SO

GC Semivolatiles

Lot-Sample #...: A0D300624-001 Work Order #...: L0VJG1AD Matrix.....: SO
Date Sampled...: 04/28/10 14:40 Date Received..: 04/29/10
Prep Date.....: 05/07/10 Analysis Date..: 05/11/10
Prep Batch #...: 0127040
Dilution Factor: 1 Initial Wgt/Vol: 30.08 g Final Wgt/Vol...: 10 mL
% Moisture.....: 1.1 Method.....: SW846 8082

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>
Aroclor 1016	ND	33	ug/kg
Aroclor 1221	ND	33	ug/kg
Aroclor 1232	ND	33	ug/kg
Aroclor 1242	ND	33	ug/kg
Aroclor 1248	ND	33	ug/kg
Aroclor 1254	ND	33	ug/kg
Aroclor 1260	ND	33	ug/kg

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
Tetrachloro-m-xylene	75	(40 - 140)
Decachlorobiphenyl	84	(60 - 125)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-023M-0001-SO

GC Semivolatiles

Lot-Sample #...: A0D300624-002 Work Order #...: L0VJR1AP Matrix.....: SO
 Date Sampled...: 04/28/10 11:50 Date Received..: 04/29/10
 Prep Date.....: 05/07/10 Analysis Date..: 05/11/10
 Prep Batch #...: 0127040
 Dilution Factor: 1 Initial Wgt/Vol: 30.07 g Final Wgt/Vol...: 10 mL
 % Moisture.....: 1.2 Method.....: SW846 8082

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
Aroclor 1016	ND	33	ug/kg
Aroclor 1221	ND	33	ug/kg
Aroclor 1232	ND	33	ug/kg
Aroclor 1242	ND	33	ug/kg
Aroclor 1248	ND	33	ug/kg
Aroclor 1254	ND	33	ug/kg
Aroclor 1260	ND	33	ug/kg

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Tetrachloro-m-xylene	74	(40 - 140)
Decachlorobiphenyl	80	(60 - 125)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-024M-0001-SO

GC Semivolatiles

Lot-Sample #...: A0D300624-003 Work Order #...: L0VJT1AP Matrix.....: SO
Date Sampled...: 04/28/10 11:20 Date Received..: 04/29/10
Prep Date.....: 05/07/10 Analysis Date..: 05/11/10
Prep Batch #...: 0127040
Dilution Factor: 1 Initial Wgt/Vol: 30.01 g Final Wgt/Vol...: 10 mL
% Moisture.....: 1.9 Method.....: SW846 8082

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>
Aroclor 1016	ND	34	ug/kg
Aroclor 1221	ND	34	ug/kg
Aroclor 1232	ND	34	ug/kg
Aroclor 1242	ND	34	ug/kg
Aroclor 1248	ND	34	ug/kg
Aroclor 1254	ND	34	ug/kg
Aroclor 1260	ND	34	ug/kg

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
Tetrachloro-m-xylene	82	(40 - 140)
Decachlorobiphenyl	92	(60 - 125)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-025M-0001-SO

GC Semivolatiles

Lot-Sample #...: A0D300624-004 **Work Order #...**: L0VJW1AP **Matrix.....**: SO
Date Sampled...: 04/28/10 15:30 **Date Received..**: 04/29/10
Prep Date.....: 05/07/10 **Analysis Date..**: 05/11/10
Prep Batch #...: 0127040
Dilution Factor: 1 **Initial Wgt/Vol:** 30.02 g **Final Wgt/Vol..**: 10 mL
% Moisture.....: 1.6 **Method.....**: SW846 8082

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
Aroclor 1016	ND	34	ug/kg
Aroclor 1221	ND	34	ug/kg
Aroclor 1232	ND	34	ug/kg
Aroclor 1242	ND	34	ug/kg
Aroclor 1248	ND	34	ug/kg
Aroclor 1254	ND	34	ug/kg
Aroclor 1260	ND	34	ug/kg

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Tetrachloro-m-xylene	63	(40 - 140)
Decachlorobiphenyl	69	(60 - 125)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-026M-0001-SO

GC Semivolatiles

Lot-Sample #...: A0D300624-005 Work Order #...: L0VJ01AP Matrix.....: SO
Date Sampled...: 04/28/10 10:20 Date Received..: 04/29/10
Prep Date.....: 05/07/10 Analysis Date..: 05/11/10
Prep Batch #...: 0127040
Dilution Factor: 1 Initial Wgt/Vol: 30.07 g Final Wgt/Vol...: 10 mL
% Moisture.....: 1.6 Method.....: SW846 8082

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>
Aroclor 1016	ND	34	ug/kg
Aroclor 1221	ND	34	ug/kg
Aroclor 1232	ND	34	ug/kg
Aroclor 1242	ND	34	ug/kg
Aroclor 1248	ND	34	ug/kg
Aroclor 1254	ND	34	ug/kg
Aroclor 1260	ND	34	ug/kg

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
Tetrachloro-m-xylene	71	(40 - 140)
Decachlorobiphenyl	80	(60 - 125)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-027M-0001-SO

GC Semivolatiles

Lot-Sample #...: A0D300624-006 Work Order #...: L0VJ11AP Matrix.....: SO
Date Sampled...: 04/28/10 09:30 Date Received..: 04/29/10
Prep Date.....: 05/07/10 Analysis Date..: 05/11/10
Prep Batch #...: 0127040
Dilution Factor: 1 Initial Wgt/Vol: 30.11 g Final Wgt/Vol...: 10 mL
% Moisture.....: 1.6 Method.....: SW846 8082

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>
Aroclor 1016	ND	34	ug/kg
Aroclor 1221	ND	34	ug/kg
Aroclor 1232	ND	34	ug/kg
Aroclor 1242	ND	34	ug/kg
Aroclor 1248	ND	34	ug/kg
Aroclor 1254	ND	34	ug/kg
Aroclor 1260	ND	34	ug/kg

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
Tetrachloro-m-xylene	56	(40 - 140)
Decachlorobiphenyl	62	(60 - 125)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-027M-0002-SO

GC Semivolatiles

Lot-Sample #...: A0D300624-007 **Work Order #...**: L0VJ32AP **Matrix.....**: SO
Date Sampled...: 04/28/10 09:30 **Date Received..**: 04/29/10
Prep Date.....: 05/12/10 **Analysis Date..**: 05/14/10
Prep Batch #...: 0132225
Dilution Factor: 1 **Initial Wgt/Vol:** 30.04 g **Final Wgt/Vol..**: 10 mL
% Moisture.....: 1.6 **Method.....**: SW846 8082

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
Aroclor 1016	ND	34	ug/kg
Aroclor 1221	ND	34	ug/kg
Aroclor 1232	ND	34	ug/kg
Aroclor 1242	ND	34	ug/kg
Aroclor 1248	ND	34	ug/kg
Aroclor 1254	ND	34	ug/kg
Aroclor 1260	ND	34	ug/kg

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Tetrachloro-m-xylene	55	(40 - 140)
Decachlorobiphenyl	57 *	(60 - 125)

NOTE(S) :

* Surrogate recovery is outside stated control limits.
 Results and reporting limits have been adjusted for dry weight.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0001-SO

GC Semivolatiles

Lot-Sample #...: A0D300624-008 Work Order #...: L0VJ41AP Matrix.....: SO
Date Sampled...: 04/28/10 15:30 Date Received..: 04/29/10
Prep Date.....: 05/07/10 Analysis Date..: 05/11/10
Prep Batch #...: 0127040
Dilution Factor: 1 Initial Wgt/Vol: 30.02 g Final Wgt/Vol...: 10 mL
% Moisture.....: 1.6 Method.....: SW846 8082

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>
Aroclor 1016	ND	34	ug/kg
Aroclor 1221	ND	34	ug/kg
Aroclor 1232	ND	34	ug/kg
Aroclor 1242	ND	34	ug/kg
Aroclor 1248	ND	34	ug/kg
Aroclor 1254	ND	34	ug/kg
Aroclor 1260	ND	34	ug/kg

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
Tetrachloro-m-xylene	78	(40 - 140)
Decachlorobiphenyl	91	(60 - 125)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0002-SO

GC Semivolatiles

Lot-Sample #...: A0D300624-009 Work Order #...: L0VJ61A2 Matrix.....: SO
Date Sampled...: 04/28/10 15:30 Date Received..: 04/29/10
Prep Date.....: 05/07/10 Analysis Date..: 05/11/10
Prep Batch #...: 0127040
Dilution Factor: 1 Initial Wgt/Vol: 30.18 g Final Wgt/Vol...: 10 mL
% Moisture.....: 1.6 Method.....: SW846 8082

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>
Aroclor 1016	ND	34	ug/kg
Aroclor 1221	ND	34	ug/kg
Aroclor 1232	ND	34	ug/kg
Aroclor 1242	ND	34	ug/kg
Aroclor 1248	ND	34	ug/kg
Aroclor 1254	ND	34	ug/kg
Aroclor 1260	ND	34	ug/kg

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
Tetrachloro-m-xylene	71	(40 - 140)
Decachlorobiphenyl	76	(60 - 125)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0004-SO

GC Semivolatiles

Lot-Sample #...: A0D300624-010 Work Order #...: L0VKA1AF Matrix.....: SO
Date Sampled...: 04/28/10 15:30 Date Received..: 04/29/10
Prep Date.....: 05/07/10 Analysis Date..: 05/11/10
Prep Batch #...: 0127040
Dilution Factor: 1 Initial Wgt/Vol: 30.17 g Final Wgt/Vol...: 10 mL
% Moisture.....: 1.5 Method.....: SW846 8082

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
Aroclor 1016	ND	34	ug/kg
Aroclor 1221	ND	34	ug/kg
Aroclor 1232	ND	34	ug/kg
Aroclor 1242	ND	34	ug/kg
Aroclor 1248	ND	34	ug/kg
Aroclor 1254	ND	34	ug/kg
Aroclor 1260	ND	34	ug/kg
	<u>PERCENT</u>	<u>RECOVERY</u>	
<u>SURROGATE</u>	<u>RECOVERY</u>	<u>LIMITS</u>	
Tetrachloro-m-xylene	68	(40 - 140)	
Decachlorobiphenyl	77	(60 - 125)	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0005-SO

GC Semivolatiles

Lot-Sample #...: A0D300624-011 Work Order #...: L0VKE1AP Matrix.....: SO
Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10
Prep Date.....: 05/07/10 Analysis Date...: 05/11/10
Prep Batch #...: 0127040
Dilution Factor: 1 Initial Wgt/Vol: 30.12 g Final Wgt/Vol...: 10 mL
% Moisture.....: 1.5 Method.....: SW846 8082

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
Aroclor 1016	ND	34	ug/kg
Aroclor 1221	ND	34	ug/kg
Aroclor 1232	ND	34	ug/kg
Aroclor 1242	ND	34	ug/kg
Aroclor 1248	ND	34	ug/kg
Aroclor 1254	ND	34	ug/kg
Aroclor 1260	ND	34	ug/kg
	<u>PERCENT</u>	<u>RECOVERY</u>	
<u>SURROGATE</u>	<u>RECOVERY</u>	<u>LIMITS</u>	
Tetrachloro-m-xylene	82	(40 - 140)	
Decachlorobiphenyl	92	(60 - 125)	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0006-SO

GC Semivolatiles

Lot-Sample #...: A0D300624-012 Work Order #...: L0VKG1AP Matrix.....: SO
Date Sampled...: 04/28/10 15:30 Date Received..: 04/29/10
Prep Date.....: 05/07/10 Analysis Date..: 05/11/10
Prep Batch #...: 0127040
Dilution Factor: 1 Initial Wgt/Vol: 30.04 g Final Wgt/Vol...: 10 mL
% Moisture.....: 1.3 Method.....: SW846 8082

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
Aroclor 1016	ND	33	ug/kg
Aroclor 1221	ND	33	ug/kg
Aroclor 1232	ND	33	ug/kg
Aroclor 1242	ND	33	ug/kg
Aroclor 1248	ND	33	ug/kg
Aroclor 1254	ND	33	ug/kg
Aroclor 1260	ND	33	ug/kg

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Tetrachloro-m-xylene	74	(40 - 140)
Decachlorobiphenyl	86	(60 - 125)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: A0D300624
MB Lot-Sample #: A0E070000-040

Work Order #...: L053D1AA

Matrix.....: SOLID

Analysis Date...: 05/11/10
Dilution Factor: 1

Prep Date.....: 05/07/10

Final Wgt/Vol...: 10 mL

Prep Batch #...: 0127040

Initial Wgt/Vol: 30 g

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		
		<u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
Aroclor 1016	ND	33	ug/kg	SW846 8082
Aroclor 1221	ND	33	ug/kg	SW846 8082
Aroclor 1232	ND	33	ug/kg	SW846 8082
Aroclor 1242	ND	33	ug/kg	SW846 8082
Aroclor 1248	ND	33	ug/kg	SW846 8082
Aroclor 1254	ND	33	ug/kg	SW846 8082
Aroclor 1260	ND	33	ug/kg	SW846 8082

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
Tetrachloro-m-xylene	87	(40 - 140)
Decachlorobiphenyl	90	(60 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: A0D300624
MB Lot-Sample #: A0E120000-225
Analysis Date...: 05/14/10
Dilution Factor: 1

Work Order #...: L1DP51AA
Prep Date.....: 05/12/10
Prep Batch #...: 0132225
Initial Wgt/Vol: 30 g

Matrix.....: SOLID
Final Wgt/Vol...: 10 mL

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		
		<u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
Aroclor 1016	ND	33	ug/kg	SW846 8082
Aroclor 1221	ND	33	ug/kg	SW846 8082
Aroclor 1232	ND	33	ug/kg	SW846 8082
Aroclor 1242	ND	33	ug/kg	SW846 8082
Aroclor 1248	ND	33	ug/kg	SW846 8082
Aroclor 1254	ND	33	ug/kg	SW846 8082
Aroclor 1260	ND	33	ug/kg	SW846 8082

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Tetrachloro-m-xylene	98	(40 - 140)
Decachlorobiphenyl	93	(60 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A0D300624 Work Order #...: L053D1AC Matrix.....: SOLID
 LCS Lot-Sample#: A0E070000-040
 Prep Date.....: 05/07/10 Analysis Date...: 05/11/10
 Prep Batch #...: 0127040
 Dilution Factor: 1 Final Wgt/Vol...: 10 mL
 Initial Wgt/Vol: 30 g

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>
Aroclor 1016	77	(40 - 140)	SW846 8082
Aroclor 1260	74	(60 - 130)	SW846 8082

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Tetrachloro-m-xylene	77	(40 - 140)
Decachlorobiphenyl	81	(60 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: A0D300624 Work Order #...: L053D1AC Matrix.....: SOLID
 LCS Lot-Sample#: A0E070000-040
 Prep Date.....: 05/07/10 Analysis Date...: 05/11/10
 Prep Batch #...: 0127040
 Dilution Factor: 1 Final Wgt/Vol...: 10 mL
 Initial Wgt/Vol: 30 g

<u>PARAMETER</u>	<u>SPIKE</u> <u>AMOUNT</u>	<u>MEASURED</u> <u>AMOUNT</u>	<u>UNITS</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>METHOD</u>
Aroclor 1016	330	260	ug/kg	77	SW846 8082
Aroclor 1260	330	250	ug/kg	74	SW846 8082

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
Tetrachloro-m-xylene	77	(40 - 140)
Decachlorobiphenyl	81	(60 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A0D300624 Work Order #...: L1DP51AC Matrix.....: SOLID
 LCS Lot-Sample#: A0E120000-225
 Prep Date.....: 05/12/10 Analysis Date...: 05/17/10
 Prep Batch #...: 0132225
 Dilution Factor: 1 Final Wgt/Vol...: 10 mL
 Initial Wgt/Vol: 30 g

<u>PARAMETER</u>	PERCENT <u>RECOVERY</u>	RECOVERY <u>LIMITS</u>	<u>METHOD</u>
Aroclor 1016	80	(40 - 140)	SW846 8082
Aroclor 1260	85	(60 - 130)	SW846 8082

<u>SURROGATE</u>	PERCENT <u>RECOVERY</u>	RECOVERY <u>LIMITS</u>
Tetrachloro-m-xylene	88	(40 - 140)
Decachlorobiphenyl	82	(60 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: A0D300624 Work Order #...: L1DP51AC Matrix.....: SOLID
 LCS Lot-Sample#: A0E120000-225
 Prep Date.....: 05/12/10 Analysis Date...: 05/17/10
 Prep Batch #...: 0132225
 Dilution Factor: 1 Final Wgt/Vol...: 10 mL
 Initial Wgt/Vol: 30 g

<u>PARAMETER</u>	<u>SPIKE</u> <u>AMOUNT</u>	<u>MEASURED</u> <u>AMOUNT</u>	<u>UNITS</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>METHOD</u>
Aroclor 1016	330	270	ug/kg	80	SW846 8082
Aroclor 1260	330	280	ug/kg	85	SW846 8082

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
Tetrachloro-m-xylene	88	(40 - 140)
Decachlorobiphenyl	82	(60 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A0D300624 Work Order #...: L0VKA1AG-MS Matrix.....: SO
 MS Lot-Sample #: A0D300624-010 L0VKA1AH-MSD
 Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10
 Prep Date.....: 05/07/10 Analysis Date...: 05/11/10
 Prep Batch #...: 0127040
 Dilution Factor: 1 Initial Wgt/Vol: 30.15 g Final Wgt/Vol...: 10 mL

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>
Aroclor 1016	53	(40 - 140)			SW846 8082
	57	(40 - 140)	8.4	(0-30)	SW846 8082
Aroclor 1260	47 a	(60 - 130)			SW846 8082
	55 a	(60 - 130)	16	(0-30)	SW846 8082

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Tetrachloro-m-xylene	47	(40 - 140)
	54	(40 - 140)
Decachlorobiphenyl	51 *	(60 - 125)
	61	(60 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

a Spiked analyte recovery is outside stated control limits.

* Surrogate recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: A0D300624 Work Order #...: L0VKA1AG-MS Matrix.....: SO
 MS Lot-Sample #: A0D300624-010 L0VKA1AH-MSD
 Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10
 Prep Date.....: 05/07/10 Analysis Date...: 05/11/10
 Prep Batch #...: 0127040
 Dilution Factor: 1 Initial Wgt/Vol: 30.15 g Final Wgt/Vol...: 10 mL

PARAMETER	SAMPLE	SPIKE	MEASRD	UNITS	PERCNT		METHOD
	AMOUNT	AMT	AMOUNT		RECVRY	RPD	
Aroclor 1016	ND	340	180	ug/kg	53		SW846 8082
	ND	340	190	ug/kg	57	8.4	SW846 8082
Aroclor 1260	ND	340	160	ug/kg	47 a		SW846 8082
	ND	340	180	ug/kg	55 a	16	SW846 8082

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
Tetrachloro-m-xylene	47	(40 - 140)
	54	(40 - 140)
Decachlorobiphenyl	51 *	(60 - 125)
	61	(60 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

a Spiked analyte recovery is outside stated control limits.

* Surrogate recovery is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A0D300624 Work Order #...: L0VJ31CC-MS Matrix.....: SO
 MS Lot-Sample #: A0D300624-007 L0VJ31CD-MSD
 Date Sampled...: 04/28/10 09:30 Date Received...: 04/29/10
 Prep Date.....: 05/12/10 Analysis Date...: 05/14/10
 Prep Batch #...: 0132225
 Dilution Factor: 1 Initial Wgt/Vol: 30.04 g Final Wgt/Vol...: 10 mL

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>
Aroclor 1016	81	(40 - 140)			SW846 8082
	87	(40 - 140)	6.2	(0-30)	SW846 8082
Aroclor 1260	76	(60 - 130)			SW846 8082
	81	(60 - 130)	5.5	(0-30)	SW846 8082

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Tetrachloro-m-xylene	93	(40 - 140)
	92	(40 - 140)
Decachlorobiphenyl	73	(60 - 125)
	82	(60 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.
 Bold print denotes control parameters
 Results and reporting limits have been adjusted for dry weight.

MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: A0D300624 Work Order #...: L0VJ31CC-MS Matrix.....: SO
 MS Lot-Sample #: A0D300624-007 L0VJ31CD-MSD
 Date Sampled...: 04/28/10 09:30 Date Received...: 04/29/10
 Prep Date.....: 05/12/10 Analysis Date...: 05/14/10
 Prep Batch #...: 0132225
 Dilution Factor: 1 Initial Wgt/Vol: 30.04 g Final Wgt/Vol...: 10 mL

PARAMETER	SAMPLE	SPIKE	MEASRD	UNITS	PERCNT		METHOD
	AMOUNT	AMT	AMOUNT		RECVRY	RPD	
Aroclor 1016	ND	340	280	ug/kg	81		SW846 8082
	ND	340	290	ug/kg	87	6.2	SW846 8082
Aroclor 1260	ND	340	260	ug/kg	76		SW846 8082
	ND	340	270	ug/kg	81	5.5	SW846 8082

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
Tetrachloro-m-xylene	93	(40 - 140)
	92	(40 - 140)
Decachlorobiphenyl	73	(60 - 125)
	82	(60 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.
 Bold print denotes control parameters
 Results and reporting limits have been adjusted for dry weight.

METALS DATA

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-022M-0001-SO

TOTAL Metals

Lot-Sample #...: A0D300624-001

Matrix.....: SO

Date Sampled...: 04/28/10 14:40 Date Received...: 04/29/10

% Moisture.....: 1.1

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK
		LIMIT	UNITS			ANALYSIS DATE	ORDER #
Prep Batch #...: 0127029							
Silver	ND G	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJG1AX	
		Dilution Factor: 5		Analysis Time..: 20:57	Analyst ID.....: 000079		
		Instrument ID..: I8					
Aluminum	7550	50.6	mg/kg	SW846 6020	05/07-05/11/10	L0VJG1AE	
		Dilution Factor: 5		Analysis Time..: 20:57	Analyst ID.....: 000079		
		Instrument ID..: I8					
Arsenic	15.4	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJG1AG	
		Dilution Factor: 5		Analysis Time..: 20:57	Analyst ID.....: 000079		
		Instrument ID..: I8					
Barium	34.4	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VJG1AH	
		Dilution Factor: 5		Analysis Time..: 20:57	Analyst ID.....: 000079		
		Instrument ID..: I8					
Beryllium	0.41	0.10	mg/kg	SW846 6020	05/07-05/11/10	L0VJG1AJ	
		Dilution Factor: 1		Analysis Time..: 13:32	Analyst ID.....: 000079		
		Instrument ID..: I8					
Calcium	2630	1010	mg/kg	SW846 6020	05/07-05/11/10	L0VJG1AL	
		Dilution Factor: 5		Analysis Time..: 20:57	Analyst ID.....: 000079		
		Instrument ID..: I8					
Cadmium	0.028 J,G	1.0	mg/kg	SW846 6020	05/07-05/11/10	L0VJG1AK	
		Dilution Factor: 5		Analysis Time..: 20:57	Analyst ID.....: 000079		
		Instrument ID..: I8					
Cobalt	8.8	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJG1AM	
		Dilution Factor: 5		Analysis Time..: 20:57	Analyst ID.....: 000079		
		Instrument ID..: I8					
Chromium	14.3	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJG1A4	
		Dilution Factor: 5		Analysis Time..: 20:57	Analyst ID.....: 000079		
		Instrument ID..: I8					
Copper	19.9	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJG1AN	
		Dilution Factor: 5		Analysis Time..: 20:57	Analyst ID.....: 000079		
		Instrument ID..: I8					

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-022M-0001-SO

TOTAL Metals

Lot-Sample #...: A0D300624-001

Matrix.....: SO

PARAMETER	RESULT	REPORTING		METHOD	PREPARATION-	WORK
		LIMIT	UNITS		ANALYSIS DATE	ORDER #
Iron	22400	253	mg/kg	SW846 6020	05/07-05/11/10	L0VJG1AP
		Dilution Factor: 5		Analysis Time..: 20:57	Analyst ID.....: 000079	
		Instrument ID..: I8				
Mercury	0.021 J	0.10	mg/kg	SW846 7471A	05/07-05/10/10	L0VJG1A5
		Dilution Factor: 1		Analysis Time..: 13:01	Analyst ID.....: 001576	
		Instrument ID..: H1				
Potassium	1360	506	mg/kg	SW846 6020	05/07-05/11/10	L0VJG1AV
		Dilution Factor: 5		Analysis Time..: 20:57	Analyst ID.....: 000079	
		Instrument ID..: I8				
Magnesium	2860	506	mg/kg	SW846 6020	05/07-05/11/10	L0VJG1AR
		Dilution Factor: 5		Analysis Time..: 20:57	Analyst ID.....: 000079	
		Instrument ID..: I8				
Manganese	434	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VJG1AT
		Dilution Factor: 5		Analysis Time..: 20:57	Analyst ID.....: 000079	
		Instrument ID..: I8				
Sodium	ND G	506	mg/kg	SW846 6020	05/07-05/11/10	L0VJG1A0
		Dilution Factor: 5		Analysis Time..: 20:57	Analyst ID.....: 000079	
		Instrument ID..: I8				
Nickel	22.7	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VJG1AU
		Dilution Factor: 5		Analysis Time..: 20:57	Analyst ID.....: 000079	
		Instrument ID..: I8				
Lead	11.1	1.5	mg/kg	SW846 6020	05/07-05/12/10	L0VJG1AQ
		Dilution Factor: 5		Analysis Time..: 12:58	Analyst ID.....: 000079	
		Instrument ID..: I8				
Antimony	ND G	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJG1AF
		Dilution Factor: 5		Analysis Time..: 20:57	Analyst ID.....: 000079	
		Instrument ID..: I8				
Selenium	0.82 J,G	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJG1AW
		Dilution Factor: 5		Analysis Time..: 20:57	Analyst ID.....: 000079	
		Instrument ID..: I8				

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-022M-0001-SO

TOTAL Metals

Lot-Sample #...: A0D300624-001

Matrix.....: SO

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Thallium	ND G	1.0	mg/kg	SW846 6020	05/07-05/11/10	L0VJG1A1
		Dilution Factor: 5		Analysis Time..: 20:57	Analyst ID.....: 000079	
		Instrument ID..: I8				
Vanadium	12.7	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VJG1A2
		Dilution Factor: 5		Analysis Time..: 20:57	Analyst ID.....: 000079	
		Instrument ID..: I8				
Zinc	66.1	20.2	mg/kg	SW846 6020	05/07-05/11/10	L0VJG1A3
		Dilution Factor: 5		Analysis Time..: 20:57	Analyst ID.....: 000079	
		Instrument ID..: I8				

NOTE(S):

-
- Results and reporting limits have been adjusted for dry weight.
 - G Elevated reporting limit. The reporting limit is elevated due to matrix interference.
 - J Estimated Result: Result is less than RL and greater than or equal to the MDL.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-023M-0001-SO

TOTAL Metals

Lot-Sample #...: A0D300624-002

Matrix.....: SO

Date Sampled...: 04/28/10 11:50 Date Received...: 04/29/10

% Moisture.....: 1.2

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK
		LIMIT	UNITS			ANALYSIS DATE	ORDER #
Prep Batch #...: 0127029							
Silver	ND G	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJR1A9	
		Dilution Factor: 5		Analysis Time..: 21:01	Analyst ID.....: 000079		
		Instrument ID..: I8					
Aluminum	6710	50.6	mg/kg	SW846 6020	05/07-05/11/10	L0VJR1AQ	
		Dilution Factor: 5		Analysis Time..: 21:01	Analyst ID.....: 000079		
		Instrument ID..: I8					
Arsenic	16.1	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJR1AT	
		Dilution Factor: 5		Analysis Time..: 21:01	Analyst ID.....: 000079		
		Instrument ID..: I8					
Barium	28.9	1.0	mg/kg	SW846 6020	05/07-05/11/10	L0VJR1AU	
		Dilution Factor: 1		Analysis Time..: 13:44	Analyst ID.....: 000079		
		Instrument ID..: I8					
Beryllium	0.38	0.10	mg/kg	SW846 6020	05/07-05/11/10	L0VJR1AV	
		Dilution Factor: 1		Analysis Time..: 13:44	Analyst ID.....: 000079		
		Instrument ID..: I8					
Calcium	2980	1010	mg/kg	SW846 6020	05/07-05/11/10	L0VJR1AX	
		Dilution Factor: 5		Analysis Time..: 21:01	Analyst ID.....: 000079		
		Instrument ID..: I8					
Cadmium	ND G	1.0	mg/kg	SW846 6020	05/07-05/11/10	L0VJR1AW	
		Dilution Factor: 5		Analysis Time..: 21:01	Analyst ID.....: 000079		
		Instrument ID..: I8					
Cobalt	8.1	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJR1A0	
		Dilution Factor: 5		Analysis Time..: 21:01	Analyst ID.....: 000079		
		Instrument ID..: I8					
Chromium	15.9	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJR1AF	
		Dilution Factor: 5		Analysis Time..: 21:01	Analyst ID.....: 000079		
		Instrument ID..: I8					
Copper	19.8	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJR1A1	
		Dilution Factor: 5		Analysis Time..: 21:01	Analyst ID.....: 000079		
		Instrument ID..: I8					

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-023M-0001-SO

TOTAL Metals

Lot-Sample #...: A0D300624-002

Matrix.....: SO

PARAMETER	RESULT	REPORTING		METHOD	PREPARATION-	WORK
		LIMIT	UNITS		ANALYSIS DATE	ORDER #
Iron	22400	253	mg/kg	SW846 6020	05/07-05/11/10	L0VJR1A2
		Dilution Factor: 5		Analysis Time..: 21:01	Analyst ID.....: 000079	
		Instrument ID..: I8				
Mercury	0.032 J	0.10	mg/kg	SW846 7471A	05/07-05/10/10	L0VJR1AG
		Dilution Factor: 1		Analysis Time..: 12:52	Analyst ID.....: 001576	
		Instrument ID..: H1				
Potassium	1060	506	mg/kg	SW846 6020	05/07-05/11/10	L0VJR1A7
		Dilution Factor: 5		Analysis Time..: 21:01	Analyst ID.....: 000079	
		Instrument ID..: I8				
Magnesium	2150	506	mg/kg	SW846 6020	05/07-05/11/10	L0VJR1A4
		Dilution Factor: 5		Analysis Time..: 21:01	Analyst ID.....: 000079	
		Instrument ID..: I8				
Manganese	421	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VJR1A5
		Dilution Factor: 5		Analysis Time..: 21:01	Analyst ID.....: 000079	
		Instrument ID..: I8				
Sodium	ND G	506	mg/kg	SW846 6020	05/07-05/11/10	L0VJR1AA
		Dilution Factor: 5		Analysis Time..: 21:01	Analyst ID.....: 000079	
		Instrument ID..: I8				
Nickel	21.9	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VJR1A6
		Dilution Factor: 5		Analysis Time..: 21:01	Analyst ID.....: 000079	
		Instrument ID..: I8				
Lead	11.2	0.30	mg/kg	SW846 6020	05/07-05/11/10	L0VJR1A3
		Dilution Factor: 1		Analysis Time..: 13:44	Analyst ID.....: 000079	
		Instrument ID..: I8				
Antimony	0.095 J	0.51	mg/kg	SW846 6020	05/07-05/11/10	L0VJR1AR
		Dilution Factor: 1		Analysis Time..: 13:44	Analyst ID.....: 000079	
		Instrument ID..: I8				
Selenium	0.96 J,G	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJR1A8
		Dilution Factor: 5		Analysis Time..: 21:01	Analyst ID.....: 000079	
		Instrument ID..: I8				

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-023M-0001-SO

TOTAL Metals

Lot-Sample #...: A0D300624-002

Matrix.....: SO

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Thallium	0.096 J	0.20	mg/kg	SW846 6020	05/07-05/11/10	L0VJR1AC
		Dilution Factor: 1		Analysis Time..: 13:44	Analyst ID.....: 000079	
		Instrument ID..: I8				
Vanadium	11.6	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VJR1AD
		Dilution Factor: 5		Analysis Time..: 21:01	Analyst ID.....: 000079	
		Instrument ID..: I8				
Zinc	72.2	20.2	mg/kg	SW846 6020	05/07-05/11/10	L0VJR1AE
		Dilution Factor: 5		Analysis Time..: 21:01	Analyst ID.....: 000079	
		Instrument ID..: I8				

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-024M-0001-SO

TOTAL Metals

Lot-Sample #...: A0D300624-003

Matrix.....: SO

Date Sampled...: 04/28/10 11:20 Date Received...: 04/29/10

% Moisture.....: 1.9

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK
		LIMIT	UNITS			ANALYSIS DATE	ORDER #
Prep Batch #...: 0127029							
Silver	0.018 J	0.51	mg/kg	SW846 6020	05/07-05/11/10	L0VJT1A9	
		Dilution Factor: 1		Analysis Time..: 13:53	Analyst ID.....: 000079		
		Instrument ID..: I8					
Aluminum	12800	51.0	mg/kg	SW846 6020	05/07-05/11/10	L0VJT1AQ	
		Dilution Factor: 5		Analysis Time..: 21:06	Analyst ID.....: 000079		
		Instrument ID..: I8					
Arsenic	17.7	0.51	mg/kg	SW846 6020	05/07-05/11/10	L0VJT1AT	
		Dilution Factor: 1		Analysis Time..: 13:53	Analyst ID.....: 000079		
		Instrument ID..: I8					
Barium	49.8	1.0	mg/kg	SW846 6020	05/07-05/11/10	L0VJT1AU	
		Dilution Factor: 1		Analysis Time..: 13:53	Analyst ID.....: 000079		
		Instrument ID..: I8					
Beryllium	0.63	0.10	mg/kg	SW846 6020	05/07-05/11/10	L0VJT1AV	
		Dilution Factor: 1		Analysis Time..: 13:53	Analyst ID.....: 000079		
		Instrument ID..: I8					
Calcium	12100	1020	mg/kg	SW846 6020	05/07-05/11/10	L0VJT1AX	
		Dilution Factor: 5		Analysis Time..: 21:06	Analyst ID.....: 000079		
		Instrument ID..: I8					
Cadmium	0.036 J	0.20	mg/kg	SW846 6020	05/07-05/11/10	L0VJT1AW	
		Dilution Factor: 1		Analysis Time..: 13:53	Analyst ID.....: 000079		
		Instrument ID..: I8					
Cobalt	11.6	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJT1A0	
		Dilution Factor: 5		Analysis Time..: 21:06	Analyst ID.....: 000079		
		Instrument ID..: I8					
Chromium	20.2	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJT1AF	
		Dilution Factor: 5		Analysis Time..: 21:06	Analyst ID.....: 000079		
		Instrument ID..: I8					
Copper	19.6	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJT1A1	
		Dilution Factor: 5		Analysis Time..: 21:06	Analyst ID.....: 000079		
		Instrument ID..: I8					

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-024M-0001-SO

TOTAL Metals

Lot-Sample #...: A0D300624-003

Matrix.....: SO

PARAMETER	RESULT	REPORTING		METHOD	PREPARATION-	WORK
		LIMIT	UNITS		ANALYSIS DATE	ORDER #
Iron	28900	255	mg/kg	SW846 6020	05/07-05/11/10	L0VJT1A2
		Dilution Factor: 5		Analysis Time..: 21:06	Analyst ID.....: 000079	
		Instrument ID..: I8				
Mercury	0.029 J	0.10	mg/kg	SW846 7471A	05/07-05/10/10	L0VJT1AG
		Dilution Factor: 1		Analysis Time..: 13:02	Analyst ID.....: 001576	
		Instrument ID..: H1				
Potassium	1670	510	mg/kg	SW846 6020	05/07-05/11/10	L0VJT1A7
		Dilution Factor: 5		Analysis Time..: 21:06	Analyst ID.....: 000079	
		Instrument ID..: I8				
Magnesium	4680	510	mg/kg	SW846 6020	05/07-05/11/10	L0VJT1A4
		Dilution Factor: 5		Analysis Time..: 21:06	Analyst ID.....: 000079	
		Instrument ID..: I8				
Manganese	298	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VJT1A5
		Dilution Factor: 5		Analysis Time..: 21:06	Analyst ID.....: 000079	
		Instrument ID..: I8				
Sodium	ND G	510	mg/kg	SW846 6020	05/07-05/11/10	L0VJT1AA
		Dilution Factor: 5		Analysis Time..: 21:06	Analyst ID.....: 000079	
		Instrument ID..: I8				
Nickel	29.0	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VJT1A6
		Dilution Factor: 5		Analysis Time..: 21:06	Analyst ID.....: 000079	
		Instrument ID..: I8				
Lead	10.7	0.31	mg/kg	SW846 6020	05/07-05/11/10	L0VJT1A3
		Dilution Factor: 1		Analysis Time..: 13:53	Analyst ID.....: 000079	
		Instrument ID..: I8				
Antimony	0.076 J	0.51	mg/kg	SW846 6020	05/07-05/11/10	L0VJT1AR
		Dilution Factor: 1		Analysis Time..: 13:53	Analyst ID.....: 000079	
		Instrument ID..: I8				
Selenium	0.81	0.51	mg/kg	SW846 6020	05/07-05/11/10	L0VJT1A8
		Dilution Factor: 1		Analysis Time..: 13:53	Analyst ID.....: 000079	
		Instrument ID..: I8				

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-024M-0001-SO

TOTAL Metals

Lot-Sample #...: A0D300624-003

Matrix.....: SO

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Thallium	0.13 J	0.20	mg/kg	SW846 6020	05/07-05/11/10	L0VJT1AC
		Dilution Factor: 1		Analysis Time..: 13:53	Analyst ID.....: 000079	
		Instrument ID..: I8				
Vanadium	19.5	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VJT1AD
		Dilution Factor: 5		Analysis Time..: 21:06	Analyst ID.....: 000079	
		Instrument ID..: I8				
Zinc	67.3	20.4	mg/kg	SW846 6020	05/07-05/11/10	L0VJT1AE
		Dilution Factor: 5		Analysis Time..: 21:06	Analyst ID.....: 000079	
		Instrument ID..: I8				

NOTE(S):

-
- Results and reporting limits have been adjusted for dry weight.
 - J Estimated Result: Result is less than RL and greater than or equal to the MDL.
 - G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-025M-0001-SO

TOTAL Metals

Lot-Sample #...: A0D300624-004

Matrix.....: SO

Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10

% Moisture.....: 1.6

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK
		LIMIT	UNITS			ANALYSIS DATE	ORDER #
Prep Batch #...: 0127029							
Silver	ND G	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJW1A9	
		Dilution Factor: 5		Analysis Time..: 21:11	Analyst ID.....: 000079		
		Instrument ID..: I8					
Aluminum	11500	50.8	mg/kg	SW846 6020	05/07-05/11/10	L0VJW1AQ	
		Dilution Factor: 5		Analysis Time..: 21:11	Analyst ID.....: 000079		
		Instrument ID..: I8					
Arsenic	17.1	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJW1AT	
		Dilution Factor: 5		Analysis Time..: 21:11	Analyst ID.....: 000079		
		Instrument ID..: I8					
Barium	57.4	1.0	mg/kg	SW846 6020	05/07-05/11/10	L0VJW1AU	
		Dilution Factor: 1		Analysis Time..: 14:16	Analyst ID.....: 000079		
		Instrument ID..: I8					
Beryllium	0.56	0.10	mg/kg	SW846 6020	05/07-05/11/10	L0VJW1AV	
		Dilution Factor: 1		Analysis Time..: 14:16	Analyst ID.....: 000079		
		Instrument ID..: I8					
Calcium	1400	1020	mg/kg	SW846 6020	05/07-05/11/10	L0VJW1AX	
		Dilution Factor: 5		Analysis Time..: 21:11	Analyst ID.....: 000079		
		Instrument ID..: I8					
Cadmium	0.018 J,G	1.0	mg/kg	SW846 6020	05/07-05/11/10	L0VJW1AW	
		Dilution Factor: 5		Analysis Time..: 21:11	Analyst ID.....: 000079		
		Instrument ID..: I8					
Cobalt	10.6	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJW1A0	
		Dilution Factor: 5		Analysis Time..: 21:11	Analyst ID.....: 000079		
		Instrument ID..: I8					
Chromium	24.7	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJW1AF	
		Dilution Factor: 5		Analysis Time..: 21:11	Analyst ID.....: 000079		
		Instrument ID..: I8					
Copper	20.7	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJW1A1	
		Dilution Factor: 5		Analysis Time..: 21:11	Analyst ID.....: 000079		
		Instrument ID..: I8					

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-025M-0001-SO

TOTAL Metals

Lot-Sample #...: A0D300624-004

Matrix.....: SO

PARAMETER	RESULT	REPORTING		METHOD	PREPARATION-	WORK
		LIMIT	UNITS		ANALYSIS DATE	ORDER #
Iron	27200	254	mg/kg	SW846 6020	05/07-05/11/10	L0VJW1A2
		Dilution Factor: 5		Analysis Time..: 21:11	Analyst ID.....: 000079	
		Instrument ID..: I8				
Mercury	0.035 J	0.10	mg/kg	SW846 7471A	05/07-05/10/10	L0VJW1AG
		Dilution Factor: 1		Analysis Time..: 12:53	Analyst ID.....: 001576	
		Instrument ID..: H1				
Potassium	910	508	mg/kg	SW846 6020	05/07-05/11/10	L0VJW1A7
		Dilution Factor: 5		Analysis Time..: 21:11	Analyst ID.....: 000079	
		Instrument ID..: I8				
Magnesium	3000	508	mg/kg	SW846 6020	05/07-05/11/10	L0VJW1A4
		Dilution Factor: 5		Analysis Time..: 21:11	Analyst ID.....: 000079	
		Instrument ID..: I8				
Manganese	437	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VJW1A5
		Dilution Factor: 5		Analysis Time..: 21:11	Analyst ID.....: 000079	
		Instrument ID..: I8				
Sodium	ND G	508	mg/kg	SW846 6020	05/07-05/11/10	L0VJW1AA
		Dilution Factor: 5		Analysis Time..: 21:11	Analyst ID.....: 000079	
		Instrument ID..: I8				
Nickel	28.3	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VJW1A6
		Dilution Factor: 5		Analysis Time..: 21:11	Analyst ID.....: 000079	
		Instrument ID..: I8				
Lead	12.4	0.30	mg/kg	SW846 6020	05/07-05/11/10	L0VJW1A3
		Dilution Factor: 1		Analysis Time..: 14:16	Analyst ID.....: 000079	
		Instrument ID..: I8				
Antimony	0.095 J	0.51	mg/kg	SW846 6020	05/07-05/11/10	L0VJW1AR
		Dilution Factor: 1		Analysis Time..: 14:16	Analyst ID.....: 000079	
		Instrument ID..: I8				
Selenium	0.91 J,G	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJW1A8
		Dilution Factor: 5		Analysis Time..: 21:11	Analyst ID.....: 000079	
		Instrument ID..: I8				

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-025M-0001-SO

TOTAL Metals

Lot-Sample #...: A0D300624-004

Matrix.....: SO

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Thallium	0.14 J	0.20	mg/kg	SW846 6020	05/07-05/11/10	L0VJW1AC
		Dilution Factor: 1		Analysis Time..: 14:16	Analyst ID.....: 000079	
		Instrument ID..: I8				
Vanadium	18.9	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VJW1AD
		Dilution Factor: 5		Analysis Time..: 21:11	Analyst ID.....: 000079	
		Instrument ID..: I8				
Zinc	59.9	20.3	mg/kg	SW846 6020	05/07-05/11/10	L0VJW1AE
		Dilution Factor: 5		Analysis Time..: 21:11	Analyst ID.....: 000079	
		Instrument ID..: I8				

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-026M-0001-SO

TOTAL Metals

Lot-Sample #...: A0D300624-005

Matrix.....: SO

Date Sampled...: 04/28/10 10:20 Date Received...: 04/29/10

% Moisture.....: 1.6

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK
		LIMIT	UNITS			ANALYSIS DATE	ORDER #
Prep Batch #...: 0127029							
Silver	ND G	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJ01A9	
		Dilution Factor: 5		Analysis Time..: 21:15	Analyst ID.....: 000079		
		Instrument ID..: I8					
Aluminum	12200	50.8	mg/kg	SW846 6020	05/07-05/11/10	L0VJ01AQ	
		Dilution Factor: 5		Analysis Time..: 21:15	Analyst ID.....: 000079		
		Instrument ID..: I8					
Arsenic	18.0	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJ01AT	
		Dilution Factor: 5		Analysis Time..: 21:15	Analyst ID.....: 000079		
		Instrument ID..: I8					
Barium	58.2	1.0	mg/kg	SW846 6020	05/07-05/11/10	L0VJ01AU	
		Dilution Factor: 1		Analysis Time..: 14:25	Analyst ID.....: 000079		
		Instrument ID..: I8					
Beryllium	0.66	0.10	mg/kg	SW846 6020	05/07-05/11/10	L0VJ01AV	
		Dilution Factor: 1		Analysis Time..: 14:25	Analyst ID.....: 000079		
		Instrument ID..: I8					
Calcium	8630	1020	mg/kg	SW846 6020	05/07-05/11/10	L0VJ01AX	
		Dilution Factor: 5		Analysis Time..: 21:15	Analyst ID.....: 000079		
		Instrument ID..: I8					
Cadmium	0.020 J,G	1.0	mg/kg	SW846 6020	05/07-05/11/10	L0VJ01AW	
		Dilution Factor: 5		Analysis Time..: 21:15	Analyst ID.....: 000079		
		Instrument ID..: I8					
Cobalt	11.1	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJ01A0	
		Dilution Factor: 5		Analysis Time..: 21:15	Analyst ID.....: 000079		
		Instrument ID..: I8					
Chromium	18.6	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJ01AF	
		Dilution Factor: 5		Analysis Time..: 21:15	Analyst ID.....: 000079		
		Instrument ID..: I8					
Copper	18.8	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJ01A1	
		Dilution Factor: 5		Analysis Time..: 21:15	Analyst ID.....: 000079		
		Instrument ID..: I8					

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-026M-0001-SO

TOTAL Metals

Lot-Sample #...: A0D300624-005

Matrix.....: SO

PARAMETER	RESULT	REPORTING		METHOD	PREPARATION-	WORK
		LIMIT	UNITS		ANALYSIS DATE	ORDER #
Iron	26700	254	mg/kg	SW846 6020	05/07-05/11/10	L0VJ01A2
		Dilution Factor: 5		Analysis Time..: 21:15	Analyst ID.....: 000079	
		Instrument ID..: I8				
Mercury	0.025 J	0.10	mg/kg	SW846 7471A	05/07-05/10/10	L0VJ01AG
		Dilution Factor: 1		Analysis Time..: 12:59	Analyst ID.....: 001576	
		Instrument ID..: H1				
Potassium	1380	508	mg/kg	SW846 6020	05/07-05/11/10	L0VJ01A7
		Dilution Factor: 5		Analysis Time..: 21:15	Analyst ID.....: 000079	
		Instrument ID..: I8				
Magnesium	4540	508	mg/kg	SW846 6020	05/07-05/11/10	L0VJ01A4
		Dilution Factor: 5		Analysis Time..: 21:15	Analyst ID.....: 000079	
		Instrument ID..: I8				
Manganese	415	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VJ01A5
		Dilution Factor: 5		Analysis Time..: 21:15	Analyst ID.....: 000079	
		Instrument ID..: I8				
Sodium	ND G	508	mg/kg	SW846 6020	05/07-05/11/10	L0VJ01AA
		Dilution Factor: 5		Analysis Time..: 21:15	Analyst ID.....: 000079	
		Instrument ID..: I8				
Nickel	28.7	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VJ01A6
		Dilution Factor: 5		Analysis Time..: 21:15	Analyst ID.....: 000079	
		Instrument ID..: I8				
Lead	10.1	0.30	mg/kg	SW846 6020	05/07-05/11/10	L0VJ01A3
		Dilution Factor: 1		Analysis Time..: 14:25	Analyst ID.....: 000079	
		Instrument ID..: I8				
Antimony	0.070 J	0.51	mg/kg	SW846 6020	05/07-05/11/10	L0VJ01AR
		Dilution Factor: 1		Analysis Time..: 14:25	Analyst ID.....: 000079	
		Instrument ID..: I8				
Selenium	0.99 J,G	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJ01A8
		Dilution Factor: 5		Analysis Time..: 21:15	Analyst ID.....: 000079	
		Instrument ID..: I8				

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-026M-0001-SO

TOTAL Metals

Lot-Sample #...: A0D300624-005

Matrix.....: SO

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Thallium	0.11 J	0.20	mg/kg	SW846 6020	05/07-05/11/10	L0VJ01AC
		Dilution Factor: 1		Analysis Time..: 14:25	Analyst ID.....: 000079	
		Instrument ID..: I8				
Vanadium	17.3	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VJ01AD
		Dilution Factor: 5		Analysis Time..: 21:15	Analyst ID.....: 000079	
		Instrument ID..: I8				
Zinc	61.4	20.3	mg/kg	SW846 6020	05/07-05/11/10	L0VJ01AE
		Dilution Factor: 5		Analysis Time..: 21:15	Analyst ID.....: 000079	
		Instrument ID..: I8				

NOTE(S):

-
- Results and reporting limits have been adjusted for dry weight.
 - G Elevated reporting limit. The reporting limit is elevated due to matrix interference.
 - J Estimated Result: Result is less than RL and greater than or equal to the MDL.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-027M-0001-SO

TOTAL Metals

Lot-Sample #...: A0D300624-006

Matrix.....: SO

Date Sampled...: 04/28/10 09:30 Date Received...: 04/29/10

% Moisture.....: 1.6

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK
		LIMIT	UNITS			ANALYSIS DATE	ORDER #
Prep Batch #...: 0127029							
Silver	ND G	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJ11A9	
		Dilution Factor: 5		Analysis Time..: 21:20	Analyst ID.....: 000079		
		Instrument ID..: I8					
Aluminum	12000	50.8	mg/kg	SW846 6020	05/07-05/11/10	L0VJ11AQ	
		Dilution Factor: 5		Analysis Time..: 21:20	Analyst ID.....: 000079		
		Instrument ID..: I8					
Arsenic	19.3	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJ11AT	
		Dilution Factor: 5		Analysis Time..: 21:20	Analyst ID.....: 000079		
		Instrument ID..: I8					
Barium	57.2	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VJ11AU	
		Dilution Factor: 5		Analysis Time..: 21:20	Analyst ID.....: 000079		
		Instrument ID..: I8					
Beryllium	0.73	0.10	mg/kg	SW846 6020	05/07-05/11/10	L0VJ11AV	
		Dilution Factor: 1		Analysis Time..: 14:35	Analyst ID.....: 000079		
		Instrument ID..: I8					
Calcium	2190	1020	mg/kg	SW846 6020	05/07-05/11/10	L0VJ11AX	
		Dilution Factor: 5		Analysis Time..: 21:20	Analyst ID.....: 000079		
		Instrument ID..: I8					
Cadmium	0.030 J,G	1.0	mg/kg	SW846 6020	05/07-05/11/10	L0VJ11AW	
		Dilution Factor: 5		Analysis Time..: 21:20	Analyst ID.....: 000079		
		Instrument ID..: I8					
Cobalt	12.8	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJ11A0	
		Dilution Factor: 5		Analysis Time..: 21:20	Analyst ID.....: 000079		
		Instrument ID..: I8					
Chromium	19.1	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJ11AF	
		Dilution Factor: 5		Analysis Time..: 21:20	Analyst ID.....: 000079		
		Instrument ID..: I8					
Copper	21.2	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJ11A1	
		Dilution Factor: 5		Analysis Time..: 21:20	Analyst ID.....: 000079		
		Instrument ID..: I8					

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-027M-0001-SO

TOTAL Metals

Lot-Sample #...: A0D300624-006

Matrix.....: SO

PARAMETER	RESULT	REPORTING		METHOD	PREPARATION-	WORK
		LIMIT	UNITS		ANALYSIS DATE	ORDER #
Iron	27800	254	mg/kg	SW846 6020	05/07-05/11/10	L0VJ11A2
		Dilution Factor: 5		Analysis Time..: 21:20	Analyst ID.....: 000079	
		Instrument ID..: I8				
Mercury	0.027 J	0.10	mg/kg	SW846 7471A	05/07-05/10/10	L0VJ11AG
		Dilution Factor: 1		Analysis Time..: 12:51	Analyst ID.....: 001576	
		Instrument ID..: H1				
Potassium	1370	508	mg/kg	SW846 6020	05/07-05/11/10	L0VJ11A7
		Dilution Factor: 5		Analysis Time..: 21:20	Analyst ID.....: 000079	
		Instrument ID..: I8				
Magnesium	3930	508	mg/kg	SW846 6020	05/07-05/11/10	L0VJ11A4
		Dilution Factor: 5		Analysis Time..: 21:20	Analyst ID.....: 000079	
		Instrument ID..: I8				
Manganese	356	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VJ11A5
		Dilution Factor: 5		Analysis Time..: 21:20	Analyst ID.....: 000079	
		Instrument ID..: I8				
Sodium	ND G	508	mg/kg	SW846 6020	05/07-05/11/10	L0VJ11AA
		Dilution Factor: 5		Analysis Time..: 21:20	Analyst ID.....: 000079	
		Instrument ID..: I8				
Nickel	32.7	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VJ11A6
		Dilution Factor: 5		Analysis Time..: 21:20	Analyst ID.....: 000079	
		Instrument ID..: I8				
Lead	11.4	1.5	mg/kg	SW846 6020	05/07-05/12/10	L0VJ11A3
		Dilution Factor: 5		Analysis Time..: 13:03	Analyst ID.....: 000079	
		Instrument ID..: I8				
Antimony	ND G	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJ11AR
		Dilution Factor: 5		Analysis Time..: 21:20	Analyst ID.....: 000079	
		Instrument ID..: I8				
Selenium	1.1 J,G	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJ11A8
		Dilution Factor: 5		Analysis Time..: 21:20	Analyst ID.....: 000079	
		Instrument ID..: I8				

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-027M-0001-SO

TOTAL Metals

Lot-Sample #...: A0D300624-006

Matrix.....: SO

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Thallium	ND G	1.0	mg/kg	SW846 6020	05/07-05/11/10	L0VJ11AC
		Dilution Factor: 5		Analysis Time..: 21:20	Analyst ID.....: 000079	
		Instrument ID..: I8				
Vanadium	17.9	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VJ11AD
		Dilution Factor: 5		Analysis Time..: 21:20	Analyst ID.....: 000079	
		Instrument ID..: I8				
Zinc	66.6	20.3	mg/kg	SW846 6020	05/07-05/11/10	L0VJ11AE
		Dilution Factor: 5		Analysis Time..: 21:20	Analyst ID.....: 000079	
		Instrument ID..: I8				

NOTE(S):

-
- Results and reporting limits have been adjusted for dry weight.
 - G Elevated reporting limit. The reporting limit is elevated due to matrix interference.
 - J Estimated Result: Result is less than RL and greater than or equal to the MDL.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-027M-0002-SO

TOTAL Metals

Lot-Sample #...: A0D300624-007

Matrix.....: SO

Date Sampled...: 04/28/10 09:30 Date Received...: 04/29/10

% Moisture.....: 1.6

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK
		LIMIT	UNITS			ANALYSIS DATE	ORDER #
Prep Batch #...: 0127029							
Silver	ND G	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJ31A9	
		Dilution Factor: 5		Analysis Time..: 21:25	Analyst ID.....: 000079		
		Instrument ID..: I8					
Aluminum	11900	50.8	mg/kg	SW846 6020	05/07-05/11/10	L0VJ31AQ	
		Dilution Factor: 5		Analysis Time..: 21:25	Analyst ID.....: 000079		
		Instrument ID..: I8					
Arsenic	18.5	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJ31AT	
		Dilution Factor: 5		Analysis Time..: 21:25	Analyst ID.....: 000079		
		Instrument ID..: I8					
Barium	63.7	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VJ31AU	
		Dilution Factor: 5		Analysis Time..: 21:25	Analyst ID.....: 000079		
		Instrument ID..: I8					
Beryllium	0.69	0.10	mg/kg	SW846 6020	05/07-05/11/10	L0VJ31AV	
		Dilution Factor: 1		Analysis Time..: 14:44	Analyst ID.....: 000079		
		Instrument ID..: I8					
Calcium	5340	1020	mg/kg	SW846 6020	05/07-05/11/10	L0VJ31AX	
		Dilution Factor: 5		Analysis Time..: 21:25	Analyst ID.....: 000079		
		Instrument ID..: I8					
Cadmium	0.017 J,G	1.0	mg/kg	SW846 6020	05/07-05/11/10	L0VJ31AW	
		Dilution Factor: 5		Analysis Time..: 21:25	Analyst ID.....: 000079		
		Instrument ID..: I8					
Cobalt	12.9	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJ31A0	
		Dilution Factor: 5		Analysis Time..: 21:25	Analyst ID.....: 000079		
		Instrument ID..: I8					
Chromium	18.2	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJ31AF	
		Dilution Factor: 5		Analysis Time..: 21:25	Analyst ID.....: 000079		
		Instrument ID..: I8					
Copper	21.3	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJ31A1	
		Dilution Factor: 5		Analysis Time..: 21:25	Analyst ID.....: 000079		
		Instrument ID..: I8					

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-027M-0002-SO

TOTAL Metals

Lot-Sample #...: A0D300624-007

Matrix.....: SO

PARAMETER	RESULT	REPORTING		METHOD	PREPARATION-	WORK
		LIMIT	UNITS		ANALYSIS DATE	ORDER #
Iron	29600	254	mg/kg	SW846 6020	05/07-05/11/10	L0VJ31A2
		Dilution Factor: 5		Analysis Time..: 21:25	Analyst ID.....: 000079	
		Instrument ID..: I8				
Mercury	0.019 J	0.10	mg/kg	SW846 7471A	05/07-05/10/10	L0VJ31AG
		Dilution Factor: 1		Analysis Time..: 12:58	Analyst ID.....: 001576	
		Instrument ID..: H1				
Potassium	1280	508	mg/kg	SW846 6020	05/07-05/11/10	L0VJ31A7
		Dilution Factor: 5		Analysis Time..: 21:25	Analyst ID.....: 000079	
		Instrument ID..: I8				
Magnesium	4610	508	mg/kg	SW846 6020	05/07-05/11/10	L0VJ31A4
		Dilution Factor: 5		Analysis Time..: 21:25	Analyst ID.....: 000079	
		Instrument ID..: I8				
Manganese	350	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VJ31A5
		Dilution Factor: 5		Analysis Time..: 21:25	Analyst ID.....: 000079	
		Instrument ID..: I8				
Sodium	ND G	508	mg/kg	SW846 6020	05/07-05/11/10	L0VJ31AA
		Dilution Factor: 5		Analysis Time..: 21:25	Analyst ID.....: 000079	
		Instrument ID..: I8				
Nickel	33.2	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VJ31A6
		Dilution Factor: 5		Analysis Time..: 21:25	Analyst ID.....: 000079	
		Instrument ID..: I8				
Lead	11.8	1.5	mg/kg	SW846 6020	05/07-05/12/10	L0VJ31A3
		Dilution Factor: 5		Analysis Time..: 13:19	Analyst ID.....: 000079	
		Instrument ID..: I8				
Antimony	ND G	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJ31AR
		Dilution Factor: 5		Analysis Time..: 21:25	Analyst ID.....: 000079	
		Instrument ID..: I8				
Selenium	1.0 J,G	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJ31A8
		Dilution Factor: 5		Analysis Time..: 21:25	Analyst ID.....: 000079	
		Instrument ID..: I8				

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-027M-0002-SO

TOTAL Metals

Lot-Sample #...: A0D300624-007

Matrix.....: SO

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Thallium	ND G	1.0	mg/kg	SW846 6020	05/07-05/11/10	L0VJ31AC
		Dilution Factor: 5		Analysis Time..: 21:25	Analyst ID.....: 000079	
		Instrument ID..: I8				
Vanadium	17.6	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VJ31AD
		Dilution Factor: 5		Analysis Time..: 21:25	Analyst ID.....: 000079	
		Instrument ID..: I8				
Zinc	65.9	20.3	mg/kg	SW846 6020	05/07-05/11/10	L0VJ31AE
		Dilution Factor: 5		Analysis Time..: 21:25	Analyst ID.....: 000079	
		Instrument ID..: I8				

NOTE(S):

-
- Results and reporting limits have been adjusted for dry weight.
 G Elevated reporting limit. The reporting limit is elevated due to matrix interference.
 J Estimated Result: Result is less than RL and greater than or equal to the MDL.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0001-SO

TOTAL Metals

Lot-Sample #...: A0D300624-008

Matrix.....: SO

Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10

% Moisture.....: 1.6

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK
		LIMIT	UNITS			ANALYSIS DATE	ORDER #
Prep Batch #...: 0127029							
Silver	ND G	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJ41A9	
		Dilution Factor: 5		Analysis Time..: 21:29	Analyst ID.....: 000079		
		Instrument ID..: I8					
Aluminum	11100	50.8	mg/kg	SW846 6020	05/07-05/11/10	L0VJ41AQ	
		Dilution Factor: 5		Analysis Time..: 21:29	Analyst ID.....: 000079		
		Instrument ID..: I8					
Arsenic	18.1	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJ41AT	
		Dilution Factor: 5		Analysis Time..: 21:29	Analyst ID.....: 000079		
		Instrument ID..: I8					
Barium	56.5	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VJ41AU	
		Dilution Factor: 5		Analysis Time..: 21:29	Analyst ID.....: 000079		
		Instrument ID..: I8					
Beryllium	0.59	0.10	mg/kg	SW846 6020	05/07-05/11/10	L0VJ41AV	
		Dilution Factor: 1		Analysis Time..: 14:53	Analyst ID.....: 000079		
		Instrument ID..: I8					
Calcium	2210	1020	mg/kg	SW846 6020	05/07-05/11/10	L0VJ41AX	
		Dilution Factor: 5		Analysis Time..: 21:29	Analyst ID.....: 000079		
		Instrument ID..: I8					
Cadmium	0.024 J,G	1.0	mg/kg	SW846 6020	05/07-05/11/10	L0VJ41AW	
		Dilution Factor: 5		Analysis Time..: 21:29	Analyst ID.....: 000079		
		Instrument ID..: I8					
Cobalt	12.0	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJ41A0	
		Dilution Factor: 5		Analysis Time..: 21:29	Analyst ID.....: 000079		
		Instrument ID..: I8					
Chromium	18.6	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJ41AF	
		Dilution Factor: 5		Analysis Time..: 21:29	Analyst ID.....: 000079		
		Instrument ID..: I8					
Copper	19.5	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJ41A1	
		Dilution Factor: 5		Analysis Time..: 21:29	Analyst ID.....: 000079		
		Instrument ID..: I8					

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0001-SO

TOTAL Metals

Lot-Sample #...: A0D300624-008

Matrix.....: SO

PARAMETER	RESULT	REPORTING		METHOD	PREPARATION-	WORK
		LIMIT	UNITS		ANALYSIS DATE	ORDER #
Iron	27100	254	mg/kg	SW846 6020	05/07-05/11/10	L0VJ41A2
		Dilution Factor: 5		Analysis Time..: 21:29	Analyst ID.....: 000079	
		Instrument ID..: I8				
Mercury	0.037 J	0.10	mg/kg	SW846 7471A	05/07-05/10/10	L0VJ41AG
		Dilution Factor: 1		Analysis Time..: 13:03	Analyst ID.....: 001576	
		Instrument ID..: H1				
Potassium	1140	508	mg/kg	SW846 6020	05/07-05/11/10	L0VJ41A7
		Dilution Factor: 5		Analysis Time..: 21:29	Analyst ID.....: 000079	
		Instrument ID..: I8				
Magnesium	2850	508	mg/kg	SW846 6020	05/07-05/11/10	L0VJ41A4
		Dilution Factor: 5		Analysis Time..: 21:29	Analyst ID.....: 000079	
		Instrument ID..: I8				
Manganese	411	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VJ41A5
		Dilution Factor: 5		Analysis Time..: 21:29	Analyst ID.....: 000079	
		Instrument ID..: I8				
Sodium	ND G	508	mg/kg	SW846 6020	05/07-05/11/10	L0VJ41AA
		Dilution Factor: 5		Analysis Time..: 21:29	Analyst ID.....: 000079	
		Instrument ID..: I8				
Nickel	27.0	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VJ41A6
		Dilution Factor: 5		Analysis Time..: 21:29	Analyst ID.....: 000079	
		Instrument ID..: I8				
Lead	13.4	1.5	mg/kg	SW846 6020	05/07-05/12/10	L0VJ41A3
		Dilution Factor: 5		Analysis Time..: 13:24	Analyst ID.....: 000079	
		Instrument ID..: I8				
Antimony	ND G	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJ41AR
		Dilution Factor: 5		Analysis Time..: 21:29	Analyst ID.....: 000079	
		Instrument ID..: I8				
Selenium	1.1 J,G	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJ41A8
		Dilution Factor: 5		Analysis Time..: 21:29	Analyst ID.....: 000079	
		Instrument ID..: I8				

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0001-SO

TOTAL Metals

Lot-Sample #...: A0D300624-008

Matrix.....: SO

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Thallium	ND G	1.0	mg/kg	SW846 6020	05/07-05/11/10	L0VJ41AC
		Dilution Factor: 5		Analysis Time..: 21:29	Analyst ID.....: 000079	
		Instrument ID..: I8				
Vanadium	17.6	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VJ41AD
		Dilution Factor: 5		Analysis Time..: 21:29	Analyst ID.....: 000079	
		Instrument ID..: I8				
Zinc	63.2	20.3	mg/kg	SW846 6020	05/07-05/11/10	L0VJ41AE
		Dilution Factor: 5		Analysis Time..: 21:29	Analyst ID.....: 000079	
		Instrument ID..: I8				

NOTE(S):

-
- Results and reporting limits have been adjusted for dry weight.
 - G Elevated reporting limit. The reporting limit is elevated due to matrix interference.
 - J Estimated Result: Result is less than RL and greater than or equal to the MDL.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0002-SO

TOTAL Metals

Lot-Sample #...: A0D300624-009

Matrix.....: SO

Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10

% Moisture.....: 1.6

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK
		LIMIT	UNITS			ANALYSIS DATE	ORDER #
Prep Batch #...: 0127029							
Silver	0.0089 J	0.51	mg/kg	SW846 6020	05/07-05/11/10	L0VJ61AL	
		Dilution Factor: 1		Analysis Time..: 15:14	Analyst ID.....: 000079		
		Instrument ID..: I8					
Aluminum	10000	50.8	mg/kg	SW846 6020	05/07-05/11/10	L0VJ61A3	
		Dilution Factor: 5		Analysis Time..: 21:34	Analyst ID.....: 000079		
		Instrument ID..: I8					
Arsenic	15.6	0.51	mg/kg	SW846 6020	05/07-05/11/10	L0VJ61A5	
		Dilution Factor: 1		Analysis Time..: 15:14	Analyst ID.....: 000079		
		Instrument ID..: I8					
Barium	53.3	1.0	mg/kg	SW846 6020	05/07-05/11/10	L0VJ61A6	
		Dilution Factor: 1		Analysis Time..: 15:14	Analyst ID.....: 000079		
		Instrument ID..: I8					
Beryllium	0.55	0.10	mg/kg	SW846 6020	05/07-05/11/10	L0VJ61A7	
		Dilution Factor: 1		Analysis Time..: 15:14	Analyst ID.....: 000079		
		Instrument ID..: I8					
Calcium	2210	1020	mg/kg	SW846 6020	05/07-05/11/10	L0VJ61A9	
		Dilution Factor: 5		Analysis Time..: 21:34	Analyst ID.....: 000079		
		Instrument ID..: I8					
Cadmium	0.056 J	0.20	mg/kg	SW846 6020	05/07-05/11/10	L0VJ61A8	
		Dilution Factor: 1		Analysis Time..: 15:14	Analyst ID.....: 000079		
		Instrument ID..: I8					
Cobalt	11.1	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJ61AA	
		Dilution Factor: 5		Analysis Time..: 21:34	Analyst ID.....: 000079		
		Instrument ID..: I8					
Chromium	26.8	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJ61AR	
		Dilution Factor: 5		Analysis Time..: 21:34	Analyst ID.....: 000079		
		Instrument ID..: I8					
Copper	19.4	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VJ61AC	
		Dilution Factor: 5		Analysis Time..: 21:34	Analyst ID.....: 000079		
		Instrument ID..: I8					

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0002-SO

TOTAL Metals

Lot-Sample #...: A0D300624-009

Matrix.....: SO

PARAMETER	RESULT	REPORTING		METHOD	PREPARATION-	WORK
		LIMIT	UNITS		ANALYSIS DATE	ORDER #
Iron	25300	254	mg/kg	SW846 6020	05/07-05/11/10	L0VJ61AD
		Dilution Factor: 5		Analysis Time..: 21:34	Analyst ID.....: 000079	
		Instrument ID..: I8				
Mercury	0.031 J	0.10	mg/kg	SW846 7471A	05/07-05/10/10	L0VJ61AT
		Dilution Factor: 1		Analysis Time..: 12:49	Analyst ID.....: 001576	
		Instrument ID..: H1				
Potassium	1030	508	mg/kg	SW846 6020	05/07-05/11/10	L0VJ61AJ
		Dilution Factor: 5		Analysis Time..: 21:34	Analyst ID.....: 000079	
		Instrument ID..: I8				
Magnesium	2720	508	mg/kg	SW846 6020	05/07-05/11/10	L0VJ61AF
		Dilution Factor: 5		Analysis Time..: 21:34	Analyst ID.....: 000079	
		Instrument ID..: I8				
Manganese	370	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VJ61AG
		Dilution Factor: 5		Analysis Time..: 21:34	Analyst ID.....: 000079	
		Instrument ID..: I8				
Sodium	ND G	508	mg/kg	SW846 6020	05/07-05/11/10	L0VJ61AM
		Dilution Factor: 5		Analysis Time..: 21:34	Analyst ID.....: 000079	
		Instrument ID..: I8				
Nickel	30.7	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VJ61AH
		Dilution Factor: 5		Analysis Time..: 21:34	Analyst ID.....: 000079	
		Instrument ID..: I8				
Lead	12.2	0.30	mg/kg	SW846 6020	05/07-05/11/10	L0VJ61AE
		Dilution Factor: 1		Analysis Time..: 15:14	Analyst ID.....: 000079	
		Instrument ID..: I8				
Antimony	0.096 J	0.51	mg/kg	SW846 6020	05/07-05/11/10	L0VJ61A4
		Dilution Factor: 1		Analysis Time..: 15:14	Analyst ID.....: 000079	
		Instrument ID..: I8				
Selenium	0.93	0.51	mg/kg	SW846 6020	05/07-05/11/10	L0VJ61AK
		Dilution Factor: 1		Analysis Time..: 15:14	Analyst ID.....: 000079	
		Instrument ID..: I8				

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0002-SO

TOTAL Metals

Lot-Sample #...: A0D300624-009

Matrix.....: SO

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Thallium	0.13 J	0.20	mg/kg	SW846 6020	05/07-05/11/10	L0VJ61AN
		Dilution Factor: 1		Analysis Time..: 15:14	Analyst ID.....: 000079	
		Instrument ID..: I8				
Vanadium	16.0	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VJ61AP
		Dilution Factor: 5		Analysis Time..: 21:34	Analyst ID.....: 000079	
		Instrument ID..: I8				
Zinc	61.8	20.3	mg/kg	SW846 6020	05/07-05/11/10	L0VJ61AQ
		Dilution Factor: 5		Analysis Time..: 21:34	Analyst ID.....: 000079	
		Instrument ID..: I8				

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0004-SO

TOTAL Metals

Lot-Sample #...: A0D300624-010

Matrix.....: SO

Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10

% Moisture.....: 1.5

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK
		LIMIT	UNITS			ANALYSIS DATE	ORDER #
Prep Batch #...:	0127029						
Silver	0.019 J,G	2.5	mg/kg	SW846 6020	05/07-05/12/10	L0VKA1C5	
		Dilution Factor: 5		Analysis Time..: 13:29	Analyst ID.....: 000079		
		Instrument ID..: I8					
Aluminum	10800	50.8	mg/kg	SW846 6020	05/07-05/11/10	L0VKA1AJ	
		Dilution Factor: 5		Analysis Time..: 21:50	Analyst ID.....: 000079		
		Instrument ID..: I8					
Arsenic	15.3	2.5	mg/kg	SW846 6020	05/07-05/12/10	L0VKA1AQ	
		Dilution Factor: 5		Analysis Time..: 13:29	Analyst ID.....: 000079		
		Instrument ID..: I8					
Barium	59.5	1.0	mg/kg	SW846 6020	05/07-05/11/10	L0VKA1AU	
		Dilution Factor: 1		Analysis Time..: 15:24	Analyst ID.....: 000079		
		Instrument ID..: I8					
Beryllium	0.54	0.10	mg/kg	SW846 6020	05/07-05/11/10	L0VKA1AX	
		Dilution Factor: 1		Analysis Time..: 15:24	Analyst ID.....: 000079		
		Instrument ID..: I8					
Calcium	1820	1020	mg/kg	SW846 6020	05/07-05/12/10	L0VKA1A5	
		Dilution Factor: 5		Analysis Time..: 13:29	Analyst ID.....: 000079		
		Instrument ID..: I8					
Cadmium	0.060 J,G	1.0	mg/kg	SW846 6020	05/07-05/12/10	L0VKA1A2	
		Dilution Factor: 5		Analysis Time..: 13:29	Analyst ID.....: 000079		
		Instrument ID..: I8					
Cobalt	9.7	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VKA1A8	
		Dilution Factor: 5		Analysis Time..: 21:50	Analyst ID.....: 000079		
		Instrument ID..: I8					
Chromium	16.7	2.5	mg/kg	SW846 6020	05/07-05/12/10	L0VKA1DM	
		Dilution Factor: 5		Analysis Time..: 13:29	Analyst ID.....: 000079		
		Instrument ID..: I8					
Copper	18.4	2.5	mg/kg	SW846 6020	05/07-05/12/10	L0VKA1CC	
		Dilution Factor: 5		Analysis Time..: 13:29	Analyst ID.....: 000079		
		Instrument ID..: I8					

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0004-SO

TOTAL Metals

Lot-Sample #...: A0D300624-010

Matrix.....: SO

PARAMETER	RESULT	REPORTING		METHOD	PREPARATION-	WORK
		LIMIT	UNITS		ANALYSIS DATE	ORDER #
Iron	24100	254	mg/kg	SW846 6020	05/07-05/11/10	L0VKA1CF
		Dilution Factor: 5		Analysis Time..: 21:50	Analyst ID.....: 000079	
		Instrument ID..: I8				
Mercury	0.031 J	0.10	mg/kg	SW846 7471A	05/07-05/10/10	L0VKA1DQ
		Dilution Factor: 1		Analysis Time..: 12:45	Analyst ID.....: 001576	
		Instrument ID..: H1				
Potassium	1280	508	mg/kg	SW846 6020	05/07-05/12/10	L0VKA1CX
		Dilution Factor: 5		Analysis Time..: 13:29	Analyst ID.....: 000079	
		Instrument ID..: I8				
Magnesium	2940	508	mg/kg	SW846 6020	05/07-05/12/10	L0VKA1CM
		Dilution Factor: 5		Analysis Time..: 13:29	Analyst ID.....: 000079	
		Instrument ID..: I8				
Manganese	413	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VKA1CQ
		Dilution Factor: 5		Analysis Time..: 21:50	Analyst ID.....: 000079	
		Instrument ID..: I8				
Sodium	ND G	508	mg/kg	SW846 6020	05/07-05/12/10	L0VKA1C8
		Dilution Factor: 5		Analysis Time..: 13:29	Analyst ID.....: 000079	
		Instrument ID..: I8				
Nickel	24.3	5.1	mg/kg	SW846 6020	05/07-05/12/10	L0VKA1CU
		Dilution Factor: 5		Analysis Time..: 13:29	Analyst ID.....: 000079	
		Instrument ID..: I8				
Lead	11.4	0.30	mg/kg	SW846 6020	05/07-05/11/10	L0VKA1CJ
		Dilution Factor: 1		Analysis Time..: 15:24	Analyst ID.....: 000079	
		Instrument ID..: I8				
Antimony	0.084 J	0.51	mg/kg	SW846 6020	05/07-05/11/10	L0VKA1AM
		Dilution Factor: 1		Analysis Time..: 15:24	Analyst ID.....: 000079	
		Instrument ID..: I8				
Selenium	1.1 J,G	2.5	mg/kg	SW846 6020	05/07-05/12/10	L0VKA1C2
		Dilution Factor: 5		Analysis Time..: 13:29	Analyst ID.....: 000079	
		Instrument ID..: I8				

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0004-SO

TOTAL Metals

Lot-Sample #...: A0D300624-010

Matrix.....: SO

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Thallium	0.12 J	0.20	mg/kg	SW846 6020	05/07-05/11/10	L0VKA1DC
		Dilution Factor: 1		Analysis Time..: 15:24	Analyst ID.....: 000079	
		Instrument ID..: I8				
Vanadium	16.7	5.1	mg/kg	SW846 6020	05/07-05/12/10	L0VKA1DF
		Dilution Factor: 5		Analysis Time..: 13:29	Analyst ID.....: 000079	
		Instrument ID..: I8				
Zinc	63.0	20.3	mg/kg	SW846 6020	05/07-05/12/10	L0VKA1DJ
		Dilution Factor: 5		Analysis Time..: 13:29	Analyst ID.....: 000079	
		Instrument ID..: I8				

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0005-SO

TOTAL Metals

Lot-Sample #...: A0D300624-011

Matrix.....: SO

Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10

% Moisture.....: 1.5

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK
		LIMIT	UNITS			ANALYSIS DATE	ORDER #
Prep Batch #...: 0127029							
Silver	ND G	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VKE1A9	
		Dilution Factor: 5		Analysis Time..: 22:07	Analyst ID.....: 000079		
		Instrument ID..: I8					
Aluminum	10600	50.8	mg/kg	SW846 6020	05/07-05/11/10	L0VKE1AQ	
		Dilution Factor: 5		Analysis Time..: 22:07	Analyst ID.....: 000079		
		Instrument ID..: I8					
Arsenic	18.7	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VKE1AT	
		Dilution Factor: 5		Analysis Time..: 22:07	Analyst ID.....: 000079		
		Instrument ID..: I8					
Barium	45.4	1.0	mg/kg	SW846 6020	05/07-05/11/10	L0VKE1AU	
		Dilution Factor: 1		Analysis Time..: 16:28	Analyst ID.....: 000079		
		Instrument ID..: I8					
Beryllium	0.52	0.10	mg/kg	SW846 6020	05/07-05/11/10	L0VKE1AV	
		Dilution Factor: 1		Analysis Time..: 16:28	Analyst ID.....: 000079		
		Instrument ID..: I8					
Calcium	3710	1020	mg/kg	SW846 6020	05/07-05/11/10	L0VKE1AX	
		Dilution Factor: 5		Analysis Time..: 22:07	Analyst ID.....: 000079		
		Instrument ID..: I8					
Cadmium	0.032 J,G	1.0	mg/kg	SW846 6020	05/07-05/11/10	L0VKE1AW	
		Dilution Factor: 5		Analysis Time..: 22:07	Analyst ID.....: 000079		
		Instrument ID..: I8					
Cobalt	10.7	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VKE1A0	
		Dilution Factor: 5		Analysis Time..: 22:07	Analyst ID.....: 000079		
		Instrument ID..: I8					
Chromium	16.6	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VKE1AF	
		Dilution Factor: 5		Analysis Time..: 22:07	Analyst ID.....: 000079		
		Instrument ID..: I8					
Copper	20.3	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VKE1A1	
		Dilution Factor: 5		Analysis Time..: 22:07	Analyst ID.....: 000079		
		Instrument ID..: I8					

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0005-SO

TOTAL Metals

Lot-Sample #...: A0D300624-011

Matrix.....: SO

PARAMETER	RESULT	REPORTING		METHOD	PREPARATION-	WORK
		LIMIT	UNITS		ANALYSIS DATE	ORDER #
Iron	25100	254	mg/kg	SW846 6020	05/07-05/11/10	L0VKE1A2
		Dilution Factor: 5		Analysis Time..: 22:07	Analyst ID.....: 000079	
		Instrument ID..: I8				
Mercury	0.018 J	0.10	mg/kg	SW846 7471A	05/07-05/10/10	L0VKE1AG
		Dilution Factor: 1		Analysis Time..: 13:04	Analyst ID.....: 001576	
		Instrument ID..: H1				
Potassium	1440	508	mg/kg	SW846 6020	05/07-05/11/10	L0VKE1A7
		Dilution Factor: 5		Analysis Time..: 22:07	Analyst ID.....: 000079	
		Instrument ID..: I8				
Magnesium	3430	508	mg/kg	SW846 6020	05/07-05/11/10	L0VKE1A4
		Dilution Factor: 5		Analysis Time..: 22:07	Analyst ID.....: 000079	
		Instrument ID..: I8				
Manganese	363	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VKE1A5
		Dilution Factor: 5		Analysis Time..: 22:07	Analyst ID.....: 000079	
		Instrument ID..: I8				
Sodium	ND G	508	mg/kg	SW846 6020	05/07-05/11/10	L0VKE1AA
		Dilution Factor: 5		Analysis Time..: 22:07	Analyst ID.....: 000079	
		Instrument ID..: I8				
Nickel	26.9	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VKE1A6
		Dilution Factor: 5		Analysis Time..: 22:07	Analyst ID.....: 000079	
		Instrument ID..: I8				
Lead	11.4	0.30	mg/kg	SW846 6020	05/07-05/11/10	L0VKE1A3
		Dilution Factor: 1		Analysis Time..: 16:28	Analyst ID.....: 000079	
		Instrument ID..: I8				
Antimony	0.097 J	0.51	mg/kg	SW846 6020	05/07-05/11/10	L0VKE1AR
		Dilution Factor: 1		Analysis Time..: 16:28	Analyst ID.....: 000079	
		Instrument ID..: I8				
Selenium	0.93 J,G	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VKE1A8
		Dilution Factor: 5		Analysis Time..: 22:07	Analyst ID.....: 000079	
		Instrument ID..: I8				

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0005-SO

TOTAL Metals

Lot-Sample #...: A0D300624-011

Matrix.....: SO

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Thallium	0.12 J	0.20	mg/kg	SW846 6020	05/07-05/11/10	L0VKE1AC
		Dilution Factor: 1		Analysis Time..: 16:28	Analyst ID.....: 000079	
		Instrument ID..: I8				
Vanadium	16.4	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VKE1AD
		Dilution Factor: 5		Analysis Time..: 22:07	Analyst ID.....: 000079	
		Instrument ID..: I8				
Zinc	64.5	20.3	mg/kg	SW846 6020	05/07-05/11/10	L0VKE1AE
		Dilution Factor: 5		Analysis Time..: 22:07	Analyst ID.....: 000079	
		Instrument ID..: I8				

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0006-SO

TOTAL Metals

Lot-Sample #...: A0D300624-012

Matrix.....: SO

Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10

% Moisture.....: 1.3

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK
		LIMIT	UNITS			ANALYSIS DATE	ORDER #
Prep Batch #...: 0127029							
Silver	0.012 J	0.51	mg/kg	SW846 6020	05/07-05/11/10	L0VKG1A9	
		Dilution Factor: 1		Analysis Time..: 16:37	Analyst ID.....: 000079		
		Instrument ID..: I8					
Aluminum	9420	50.6	mg/kg	SW846 6020	05/07-05/11/10	L0VKG1AQ	
		Dilution Factor: 5		Analysis Time..: 22:11	Analyst ID.....: 000079		
		Instrument ID..: I8					
Arsenic	16.8	0.51	mg/kg	SW846 6020	05/07-05/11/10	L0VKG1AT	
		Dilution Factor: 1		Analysis Time..: 16:37	Analyst ID.....: 000079		
		Instrument ID..: I8					
Barium	38.3	1.0	mg/kg	SW846 6020	05/07-05/11/10	L0VKG1AU	
		Dilution Factor: 1		Analysis Time..: 16:37	Analyst ID.....: 000079		
		Instrument ID..: I8					
Beryllium	0.48	0.10	mg/kg	SW846 6020	05/07-05/11/10	L0VKG1AV	
		Dilution Factor: 1		Analysis Time..: 16:37	Analyst ID.....: 000079		
		Instrument ID..: I8					
Calcium	4990	1010	mg/kg	SW846 6020	05/07-05/11/10	L0VKG1AX	
		Dilution Factor: 5		Analysis Time..: 22:11	Analyst ID.....: 000079		
		Instrument ID..: I8					
Cadmium	0.038 J	0.20	mg/kg	SW846 6020	05/07-05/11/10	L0VKG1AW	
		Dilution Factor: 1		Analysis Time..: 16:37	Analyst ID.....: 000079		
		Instrument ID..: I8					
Cobalt	11.1	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VKG1A0	
		Dilution Factor: 5		Analysis Time..: 22:11	Analyst ID.....: 000079		
		Instrument ID..: I8					
Chromium	23.2	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VKG1AF	
		Dilution Factor: 5		Analysis Time..: 22:11	Analyst ID.....: 000079		
		Instrument ID..: I8					
Copper	20.3	2.5	mg/kg	SW846 6020	05/07-05/11/10	L0VKG1A1	
		Dilution Factor: 5		Analysis Time..: 22:11	Analyst ID.....: 000079		
		Instrument ID..: I8					

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0006-SO

TOTAL Metals

Lot-Sample #...: A0D300624-012

Matrix.....: SO

PARAMETER	RESULT	REPORTING		METHOD	PREPARATION-	WORK
		LIMIT	UNITS		ANALYSIS DATE	ORDER #
Iron	25900	253	mg/kg	SW846 6020	05/07-05/11/10	L0VKG1A2
		Dilution Factor: 5		Analysis Time..: 22:11	Analyst ID.....: 000079	
		Instrument ID..: I8				
Mercury	0.019 J	0.10	mg/kg	SW846 7471A	05/07-05/10/10	L0VKG1AG
		Dilution Factor: 1		Analysis Time..: 12:57	Analyst ID.....: 001576	
		Instrument ID..: H1				
Potassium	1150	506	mg/kg	SW846 6020	05/07-05/11/10	L0VKG1A7
		Dilution Factor: 5		Analysis Time..: 22:11	Analyst ID.....: 000079	
		Instrument ID..: I8				
Magnesium	4140	506	mg/kg	SW846 6020	05/07-05/11/10	L0VKG1A4
		Dilution Factor: 5		Analysis Time..: 22:11	Analyst ID.....: 000079	
		Instrument ID..: I8				
Manganese	379	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VKG1A5
		Dilution Factor: 5		Analysis Time..: 22:11	Analyst ID.....: 000079	
		Instrument ID..: I8				
Sodium	ND G	506	mg/kg	SW846 6020	05/07-05/11/10	L0VKG1AA
		Dilution Factor: 5		Analysis Time..: 22:11	Analyst ID.....: 000079	
		Instrument ID..: I8				
Nickel	31.3	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VKG1A6
		Dilution Factor: 5		Analysis Time..: 22:11	Analyst ID.....: 000079	
		Instrument ID..: I8				
Lead	10.6	0.30	mg/kg	SW846 6020	05/07-05/11/10	L0VKG1A3
		Dilution Factor: 1		Analysis Time..: 16:37	Analyst ID.....: 000079	
		Instrument ID..: I8				
Antimony	0.064 J	0.51	mg/kg	SW846 6020	05/07-05/11/10	L0VKG1AR
		Dilution Factor: 1		Analysis Time..: 16:37	Analyst ID.....: 000079	
		Instrument ID..: I8				
Selenium	0.76	0.51	mg/kg	SW846 6020	05/07-05/11/10	L0VKG1A8
		Dilution Factor: 1		Analysis Time..: 16:37	Analyst ID.....: 000079	
		Instrument ID..: I8				

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0006-SO

TOTAL Metals

Lot-Sample #...: A0D300624-012

Matrix.....: SO

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Thallium	0.11 J	0.20	mg/kg	SW846 6020	05/07-05/11/10	L0VKG1AC
		Dilution Factor: 1		Analysis Time..: 16:37	Analyst ID.....: 000079	
		Instrument ID..: I8				
Vanadium	14.3	5.1	mg/kg	SW846 6020	05/07-05/11/10	L0VKG1AD
		Dilution Factor: 5		Analysis Time..: 22:11	Analyst ID.....: 000079	
		Instrument ID..: I8				
Zinc	64.5	20.3	mg/kg	SW846 6020	05/07-05/11/10	L0VKG1AE
		Dilution Factor: 5		Analysis Time..: 22:11	Analyst ID.....: 000079	
		Instrument ID..: I8				

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: A0D300624

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK
		LIMIT	UNITS			ANALYSIS DATE	ORDER #
MB Lot-Sample #: A0E070000-029 Prep Batch #...: 0127029							
Aluminum	ND	10.0	mg/kg	SW846 6020		05/07-05/11/10	L052J1AA
		Dilution Factor: 1					
		Analysis Time..: 13:21			Analyst ID.....: 000079	Instrument ID..: I8	
Antimony	ND	0.50	mg/kg	SW846 6020		05/07-05/11/10	L052J1AC
		Dilution Factor: 1					
		Analysis Time..: 13:21			Analyst ID.....: 000079	Instrument ID..: I8	
Arsenic	ND	0.50	mg/kg	SW846 6020		05/07-05/11/10	L052J1AD
		Dilution Factor: 1					
		Analysis Time..: 13:21			Analyst ID.....: 000079	Instrument ID..: I8	
Barium	ND	1.0	mg/kg	SW846 6020		05/07-05/11/10	L052J1AE
		Dilution Factor: 1					
		Analysis Time..: 13:21			Analyst ID.....: 000079	Instrument ID..: I8	
Beryllium	ND	0.10	mg/kg	SW846 6020		05/07-05/11/10	L052J1AF
		Dilution Factor: 1					
		Analysis Time..: 13:21			Analyst ID.....: 000079	Instrument ID..: I8	
Cadmium	ND	0.20	mg/kg	SW846 6020		05/07-05/11/10	L052J1AG
		Dilution Factor: 1					
		Analysis Time..: 13:21			Analyst ID.....: 000079	Instrument ID..: I8	
Calcium	ND	200	mg/kg	SW846 6020		05/07-05/11/10	L052J1AH
		Dilution Factor: 1					
		Analysis Time..: 13:21			Analyst ID.....: 000079	Instrument ID..: I8	
Chromium	ND	0.50	mg/kg	SW846 6020		05/07-05/11/10	L052J1A1
		Dilution Factor: 1					
		Analysis Time..: 13:21			Analyst ID.....: 000079	Instrument ID..: I8	
Cobalt	ND	0.50	mg/kg	SW846 6020		05/07-05/11/10	L052J1AJ
		Dilution Factor: 1					
		Analysis Time..: 13:21			Analyst ID.....: 000079	Instrument ID..: I8	
Copper	ND	0.50	mg/kg	SW846 6020		05/07-05/11/10	L052J1AK
		Dilution Factor: 1					
		Analysis Time..: 13:21			Analyst ID.....: 000079	Instrument ID..: I8	
Iron	ND	50.0	mg/kg	SW846 6020		05/07-05/11/10	L052J1AL
		Dilution Factor: 1					
		Analysis Time..: 13:21			Analyst ID.....: 000079	Instrument ID..: I8	

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: A0D300624

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING		METHOD	PREPARATION-	WORK
		LIMIT	UNITS		ANALYSIS DATE	ORDER #
Lead	ND	0.30	mg/kg	SW846 6020	05/07-05/11/10	L052J1AM
		Dilution Factor: 1				
		Analysis Time..: 13:21		Analyst ID.....: 000079	Instrument ID..: I8	
Magnesium	ND	100	mg/kg	SW846 6020	05/07-05/11/10	L052J1AN
		Dilution Factor: 1				
		Analysis Time..: 13:21		Analyst ID.....: 000079	Instrument ID..: I8	
Manganese	ND	1.0	mg/kg	SW846 6020	05/07-05/11/10	L052J1AP
		Dilution Factor: 1				
		Analysis Time..: 13:21		Analyst ID.....: 000079	Instrument ID..: I8	
Mercury	ND	0.10	mg/kg	SW846 7471A	05/07-05/10/10	L052J1A2
		Dilution Factor: 1				
		Analysis Time..: 12:42		Analyst ID.....: 001576	Instrument ID..: H1	
Nickel	ND	1.0	mg/kg	SW846 6020	05/07-05/11/10	L052J1AQ
		Dilution Factor: 1				
		Analysis Time..: 13:21		Analyst ID.....: 000079	Instrument ID..: I8	
Potassium	ND	100	mg/kg	SW846 6020	05/07-05/11/10	L052J1AR
		Dilution Factor: 1				
		Analysis Time..: 13:21		Analyst ID.....: 000079	Instrument ID..: I8	
Selenium	ND	0.50	mg/kg	SW846 6020	05/07-05/11/10	L052J1AT
		Dilution Factor: 1				
		Analysis Time..: 13:21		Analyst ID.....: 000079	Instrument ID..: I8	
Silver	ND	0.50	mg/kg	SW846 6020	05/07-05/11/10	L052J1AU
		Dilution Factor: 1				
		Analysis Time..: 13:21		Analyst ID.....: 000079	Instrument ID..: I8	
Sodium	ND	100	mg/kg	SW846 6020	05/07-05/11/10	L052J1AV
		Dilution Factor: 1				
		Analysis Time..: 13:21		Analyst ID.....: 000079	Instrument ID..: I8	
Thallium	ND	0.20	mg/kg	SW846 6020	05/07-05/11/10	L052J1AW
		Dilution Factor: 1				
		Analysis Time..: 13:21		Analyst ID.....: 000079	Instrument ID..: I8	
Vanadium	ND	1.0	mg/kg	SW846 6020	05/07-05/11/10	L052J1AX
		Dilution Factor: 1				
		Analysis Time..: 13:21		Analyst ID.....: 000079	Instrument ID..: I8	
Zinc	ND	4.0	mg/kg	SW846 6020	05/07-05/11/10	L052J1A0
		Dilution Factor: 1				
		Analysis Time..: 13:21		Analyst ID.....: 000079	Instrument ID..: I8	

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: A0D300624

Matrix.....: SOLID

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A0D300624

Matrix.....: SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
LCS Lot-Sample#: A0E070000-029 Prep Batch #...: 0127029					
Aluminum	92	(80 - 120)	SW846 6020	05/07-05/11/10	L052J1A3
		Dilution Factor: 1	Analysis Time..: 13:26	Analyst ID.....: 000079	
		Instrument ID..: I8			
Antimony	81	(68 - 113)	SW846 6020	05/07-05/11/10	L052J1A4
		Dilution Factor: 1	Analysis Time..: 13:26	Analyst ID.....: 000079	
		Instrument ID..: I8			
Arsenic	78	(73 - 110)	SW846 6020	05/07-05/11/10	L052J1A5
		Dilution Factor: 1	Analysis Time..: 13:26	Analyst ID.....: 000079	
		Instrument ID..: I8			
Barium	88	(70 - 110)	SW846 6020	05/07-05/11/10	L052J1A6
		Dilution Factor: 1	Analysis Time..: 13:26	Analyst ID.....: 000079	
		Instrument ID..: I8			
Beryllium	80	(79 - 110)	SW846 6020	05/07-05/11/10	L052J1A7
		Dilution Factor: 1	Analysis Time..: 13:26	Analyst ID.....: 000079	
		Instrument ID..: I8			
Cadmium	82	(74 - 110)	SW846 6020	05/07-05/11/10	L052J1A8
		Dilution Factor: 1	Analysis Time..: 13:26	Analyst ID.....: 000079	
		Instrument ID..: I8			
Calcium	95	(80 - 120)	SW846 6020	05/07-05/11/10	L052J1A9
		Dilution Factor: 1	Analysis Time..: 13:26	Analyst ID.....: 000079	
		Instrument ID..: I8			
Cobalt	90	(74 - 110)	SW846 6020	05/07-05/11/10	L052J1CA
		Dilution Factor: 1	Analysis Time..: 13:26	Analyst ID.....: 000079	
		Instrument ID..: I8			
Copper	93	(73 - 110)	SW846 6020	05/07-05/11/10	L052J1CC
		Dilution Factor: 1	Analysis Time..: 13:26	Analyst ID.....: 000079	
		Instrument ID..: I8			
Iron	90	(80 - 120)	SW846 6020	05/07-05/11/10	L052J1CD
		Dilution Factor: 1	Analysis Time..: 13:26	Analyst ID.....: 000079	
		Instrument ID..: I8			

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A0D300624

Matrix.....: SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Lead	90	(75 - 110)	SW846 6020	05/07-05/11/10	L052J1CE
		Dilution Factor: 1		Analysis Time..: 13:26	Analyst ID.....: 000079
		Instrument ID..: I8			
Magnesium	94	(80 - 120)	SW846 6020	05/07-05/11/10	L052J1CF
		Dilution Factor: 1		Analysis Time..: 13:26	Analyst ID.....: 000079
		Instrument ID..: I8			
Manganese	88	(80 - 120)	SW846 6020	05/07-05/11/10	L052J1CG
		Dilution Factor: 1		Analysis Time..: 13:26	Analyst ID.....: 000079
		Instrument ID..: I8			
Nickel	93	(75 - 110)	SW846 6020	05/07-05/11/10	L052J1CH
		Dilution Factor: 1		Analysis Time..: 13:26	Analyst ID.....: 000079
		Instrument ID..: I8			
Potassium	96	(80 - 120)	SW846 6020	05/07-05/11/10	L052J1CJ
		Dilution Factor: 1		Analysis Time..: 13:26	Analyst ID.....: 000079
		Instrument ID..: I8			
Selenium	71	(65 - 110)	SW846 6020	05/07-05/11/10	L052J1CK
		Dilution Factor: 1		Analysis Time..: 13:26	Analyst ID.....: 000079
		Instrument ID..: I8			
Silver	96	(60 - 114)	SW846 6020	05/07-05/11/10	L052J1CL
		Dilution Factor: 1		Analysis Time..: 13:26	Analyst ID.....: 000079
		Instrument ID..: I8			
Sodium	95	(80 - 120)	SW846 6020	05/07-05/11/10	L052J1CM
		Dilution Factor: 1		Analysis Time..: 13:26	Analyst ID.....: 000079
		Instrument ID..: I8			
Thallium	86	(71 - 110)	SW846 6020	05/07-05/11/10	L052J1CN
		Dilution Factor: 1		Analysis Time..: 13:26	Analyst ID.....: 000079
		Instrument ID..: I8			
Vanadium	88	(72 - 110)	SW846 6020	05/07-05/11/10	L052J1CP
		Dilution Factor: 1		Analysis Time..: 13:26	Analyst ID.....: 000079
		Instrument ID..: I8			
Zinc	84	(72 - 113)	SW846 6020	05/07-05/11/10	L052J1CQ
		Dilution Factor: 1		Analysis Time..: 13:26	Analyst ID.....: 000079
		Instrument ID..: I8			

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A0D300624

Matrix.....: SOLID

<u>PARAMETER</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Chromium	88	(70 - 110)	SW846 6020	05/07-05/11/10	L052J1CR
		Dilution Factor: 1		Analysis Time.: 13:26	Analyst ID.....: 000079
		Instrument ID.: I8			
Mercury	103	(80 - 120)	SW846 7471A	05/07-05/10/10	L052J1CT
		Dilution Factor: 1		Analysis Time.: 12:43	Analyst ID.....: 001576
		Instrument ID.: H1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A0D300624

Matrix.....: SOLID

<u>PARAMETER</u>	<u>SPIKE AMOUNT</u>	<u>MEASURED AMOUNT</u>	<u>UNITS</u>	<u>PERCNT RECVRY</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
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LCS Lot-Sample#: A0E070000-029 Prep Batch #...: 0127029

Aluminum	1000	924	mg/kg	92	SW846 6020	05/07-05/11/10	L052J1A3
				Dilution Factor: 1	Analysis Time..: 13:26	Analyst ID.....: 000079	
				Instrument ID..: I8			
Antimony	10.0	8.1	mg/kg	81	SW846 6020	05/07-05/11/10	L052J1A4
				Dilution Factor: 1	Analysis Time..: 13:26	Analyst ID.....: 000079	
				Instrument ID..: I8			
Arsenic	10.0	7.8	mg/kg	78	SW846 6020	05/07-05/11/10	L052J1A5
				Dilution Factor: 1	Analysis Time..: 13:26	Analyst ID.....: 000079	
				Instrument ID..: I8			
Barium	10.0	8.8	mg/kg	88	SW846 6020	05/07-05/11/10	L052J1A6
				Dilution Factor: 1	Analysis Time..: 13:26	Analyst ID.....: 000079	
				Instrument ID..: I8			
Beryllium	10.0	8.0	mg/kg	80	SW846 6020	05/07-05/11/10	L052J1A7
				Dilution Factor: 1	Analysis Time..: 13:26	Analyst ID.....: 000079	
				Instrument ID..: I8			
Cadmium	10.0	8.2	mg/kg	82	SW846 6020	05/07-05/11/10	L052J1A8
				Dilution Factor: 1	Analysis Time..: 13:26	Analyst ID.....: 000079	
				Instrument ID..: I8			
Calcium	1000	953	mg/kg	95	SW846 6020	05/07-05/11/10	L052J1A9
				Dilution Factor: 1	Analysis Time..: 13:26	Analyst ID.....: 000079	
				Instrument ID..: I8			
Cobalt	10.0	9.0	mg/kg	90	SW846 6020	05/07-05/11/10	L052J1CA
				Dilution Factor: 1	Analysis Time..: 13:26	Analyst ID.....: 000079	
				Instrument ID..: I8			
Copper	10.0	9.3	mg/kg	93	SW846 6020	05/07-05/11/10	L052J1CC
				Dilution Factor: 1	Analysis Time..: 13:26	Analyst ID.....: 000079	
				Instrument ID..: I8			
Iron	1000	897	mg/kg	90	SW846 6020	05/07-05/11/10	L052J1CD
				Dilution Factor: 1	Analysis Time..: 13:26	Analyst ID.....: 000079	
				Instrument ID..: I8			

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LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A0D300624

Matrix.....: SOLID

<u>PARAMETER</u>	<u>SPIKE AMOUNT</u>	<u>MEASURED AMOUNT</u>	<u>UNITS</u>	<u>PERCNT RECVRY</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Lead	10.0	9.0	mg/kg	90	SW846 6020	05/07-05/11/10	L052J1CE
			Dilution Factor: 1		Analysis Time..: 13:26	Analyst ID.....: 000079	
			Instrument ID..: I8				
Magnesium	1000	938	mg/kg	94	SW846 6020	05/07-05/11/10	L052J1CF
			Dilution Factor: 1		Analysis Time..: 13:26	Analyst ID.....: 000079	
			Instrument ID..: I8				
Manganese	10.0	8.8	mg/kg	88	SW846 6020	05/07-05/11/10	L052J1CG
			Dilution Factor: 1		Analysis Time..: 13:26	Analyst ID.....: 000079	
			Instrument ID..: I8				
Nickel	10.0	9.3	mg/kg	93	SW846 6020	05/07-05/11/10	L052J1CH
			Dilution Factor: 1		Analysis Time..: 13:26	Analyst ID.....: 000079	
			Instrument ID..: I8				
Potassium	1000	955	mg/kg	96	SW846 6020	05/07-05/11/10	L052J1CJ
			Dilution Factor: 1		Analysis Time..: 13:26	Analyst ID.....: 000079	
			Instrument ID..: I8				
Selenium	10.0	7.1	mg/kg	71	SW846 6020	05/07-05/11/10	L052J1CK
			Dilution Factor: 1		Analysis Time..: 13:26	Analyst ID.....: 000079	
			Instrument ID..: I8				
Silver	10.0	9.6	mg/kg	96	SW846 6020	05/07-05/11/10	L052J1CL
			Dilution Factor: 1		Analysis Time..: 13:26	Analyst ID.....: 000079	
			Instrument ID..: I8				
Sodium	1000	952	mg/kg	95	SW846 6020	05/07-05/11/10	L052J1CM
			Dilution Factor: 1		Analysis Time..: 13:26	Analyst ID.....: 000079	
			Instrument ID..: I8				
Thallium	10.0	8.6	mg/kg	86	SW846 6020	05/07-05/11/10	L052J1CN
			Dilution Factor: 1		Analysis Time..: 13:26	Analyst ID.....: 000079	
			Instrument ID..: I8				
Vanadium	10.0	8.8	mg/kg	88	SW846 6020	05/07-05/11/10	L052J1CP
			Dilution Factor: 1		Analysis Time..: 13:26	Analyst ID.....: 000079	
			Instrument ID..: I8				
Zinc	10.0	8.4	mg/kg	84	SW846 6020	05/07-05/11/10	L052J1CQ
			Dilution Factor: 1		Analysis Time..: 13:26	Analyst ID.....: 000079	
			Instrument ID..: I8				

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LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A0D300624

Matrix.....: SOLID

<u>PARAMETER</u>	<u>SPIKE</u> <u>AMOUNT</u>	<u>MEASURED</u> <u>AMOUNT</u>	<u>UNITS</u>	<u>PERCNT</u> <u>RECVRY</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Chromium	10.0	8.8	mg/kg	88	SW846 6020	05/07-05/11/10	L052J1CR
			Dilution Factor: 1		Analysis Time..: 13:26	Analyst ID.....: 000079	
			Instrument ID..: I8				
Mercury	0.83	0.85	mg/kg	103	SW846 7471A	05/07-05/10/10	L052J1CT
			Dilution Factor: 1		Analysis Time..: 12:43	Analyst ID.....: 001576	
			Instrument ID..: H1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A0D300624

Matrix.....: SO

Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
MS Lot-Sample #: A0D300624-010 Prep Batch #...: 0127029							
Aluminum	NC,MSB	(70 - 130)			SW846 6020	05/07-05/12/10	L0VKA1AK
	NC,MSB	(70 - 130)		(0-20)	SW846 6020	05/07-05/11/10	L0VKA1AL
			Dilution Factor: 10				
			Analysis Time...: 13:44		Instrument ID...: I8	Analyst ID.....: 000079	
Antimony	25 N	(75 - 125)			SW846 6020	05/07-05/11/10	L0VKA1AN
	27 N	(75 - 125)	8.2	(0-20)	SW846 6020	05/07-05/11/10	L0VKA1AP
			Dilution Factor: 10				
			Analysis Time...: 15:54		Instrument ID...: I8	Analyst ID.....: 000079	
Arsenic	120	(23 - 131)			SW846 6020	05/07-05/11/10	L0VKA1AR
	112	(23 - 131)	2.9	(0-20)	SW846 6020	05/07-05/11/10	L0VKA1AT
			Dilution Factor: 10				
			Analysis Time...: 15:54		Instrument ID...: I8	Analyst ID.....: 000079	
Barium	NC,MSB	(10 - 199)			SW846 6020	05/07-05/11/10	L0VKA1AV
	NC,MSB	(10 - 199)		(0-20)	SW846 6020	05/07-05/11/10	L0VKA1AW
			Dilution Factor: 10				
			Analysis Time...: 15:54		Instrument ID...: I8	Analyst ID.....: 000079	
Beryllium	94	(58 - 112)			SW846 6020	05/07-05/11/10	L0VKA1A0
	92	(58 - 112)	2.0	(0-20)	SW846 6020	05/07-05/11/10	L0VKA1A1
			Dilution Factor: 10				
			Analysis Time...: 15:54		Instrument ID...: I8	Analyst ID.....: 000079	
Cadmium	94	(58 - 110)			SW846 6020	05/07-05/11/10	L0VKA1A3
	93	(58 - 110)	1.0	(0-20)	SW846 6020	05/07-05/11/10	L0VKA1A4
			Dilution Factor: 10				
			Analysis Time...: 15:54		Instrument ID...: I8	Analyst ID.....: 000079	
Calcium	83	(70 - 130)			SW846 6020	05/07-05/12/10	L0VKA1A6
	92	(70 - 130)	3.6	(0-20)	SW846 6020	05/07-05/12/10	L0VKA1A7
			Dilution Factor: 10				
			Analysis Time...: 13:44		Instrument ID...: I8	Analyst ID.....: 000079	
Chromium	122	(10 - 199)			SW846 6020	05/07-05/12/10	L0VKA1DN
	118	(10 - 199)	1.5	(0-20)	SW846 6020	05/07-05/11/10	L0VKA1DP
			Dilution Factor: 10				
			Analysis Time...: 13:44		Instrument ID...: I8	Analyst ID.....: 000079	

(Continued on next page)

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A0D300624

Matrix.....: SO

Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Cobalt	96	(55 - 110)			SW846 6020	05/07-05/12/10	L0VKA1A9
	99	(55 - 110)	1.5	(0-20)	SW846 6020	05/07-05/11/10	L0VKA1CA
			Dilution Factor: 10				
			Analysis Time...: 13:44		Instrument ID...: I8	Analyst ID.....: 000079	
Copper	108	(10 - 199)			SW846 6020	05/07-05/12/10	L0VKA1CD
	123	(10 - 199)	5.0	(0-20)	SW846 6020	05/07-05/11/10	L0VKA1CE
			Dilution Factor: 10				
			Analysis Time...: 13:44		Instrument ID...: I8	Analyst ID.....: 000079	
Iron	NC,MSB	(70 - 130)			SW846 6020	05/07-05/12/10	L0VKA1CG
	NC,MSB	(70 - 130)		(0-20)	SW846 6020	05/07-05/11/10	L0VKA1CH
			Dilution Factor: 10				
			Analysis Time...: 13:44		Instrument ID...: I8	Analyst ID.....: 000079	
Lead	96	(10 - 199)			SW846 6020	05/07-05/11/10	L0VKA1CK
	93	(10 - 199)	1.5	(0-20)	SW846 6020	05/07-05/11/10	L0VKA1CL
			Dilution Factor: 10				
			Analysis Time...: 15:54		Instrument ID...: I8	Analyst ID.....: 000079	
Magnesium	99	(70 - 130)			SW846 6020	05/07-05/12/10	L0VKA1CN
	112	(70 - 130)	3.3	(0-20)	SW846 6020	05/07-05/11/10	L0VKA1CP
			Dilution Factor: 10				
			Analysis Time...: 13:44		Instrument ID...: I8	Analyst ID.....: 000079	
Manganese	NC,MSB	(10 - 199)			SW846 6020	05/07-05/12/10	L0VKA1CR
	NC,MSB	(10 - 199)		(0-20)	SW846 6020	05/07-05/12/10	L0VKA1CT
			Dilution Factor: 10				
			Analysis Time...: 13:44		Instrument ID...: I8	Analyst ID.....: 000079	
Mercury	100	(80 - 120)			SW846 7471A	05/07-05/10/10	L0VKA1DR
	101	(80 - 120)	1.1	(0-20)	SW846 7471A	05/07-05/10/10	L0VKA1DT
			Dilution Factor: 1				
			Analysis Time...: 12:47		Instrument ID...: H1	Analyst ID.....: 001576	
Nickel	126	(10 - 176)			SW846 6020	05/07-05/12/10	L0VKA1CV
	134	(10 - 176)	2.0	(0-20)	SW846 6020	05/07-05/11/10	L0VKA1CW
			Dilution Factor: 10				
			Analysis Time...: 13:44		Instrument ID...: I8	Analyst ID.....: 000079	
Potassium	90	(70 - 130)			SW846 6020	05/07-05/12/10	L0VKA1C0
	110	(70 - 130)	8.7	(0-20)	SW846 6020	05/07-05/12/10	L0VKA1C1
			Dilution Factor: 10				
			Analysis Time...: 13:44		Instrument ID...: I8	Analyst ID.....: 000079	

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MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A0D300624

Matrix.....: SO

Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Selenium	86	(39 - 116)			SW846 6020	05/07-05/11/10	L0VKA1C3
	84	(39 - 116)	1.7	(0-20)	SW846 6020	05/07-05/11/10	L0VKA1C4
			Dilution Factor: 10				
			Analysis Time...: 15:54		Instrument ID...: I8	Analyst ID.....: 000079	
Silver	98	(75 - 125)			SW846 6020	05/07-05/11/10	L0VKA1C6
	98	(75 - 125)	0.36	(0-20)	SW846 6020	05/07-05/11/10	L0VKA1C7
			Dilution Factor: 10				
			Analysis Time...: 15:54		Instrument ID...: I8	Analyst ID.....: 000079	
Sodium	100	(70 - 130)			SW846 6020	05/07-05/12/10	L0VKA1C9
	92	(70 - 130)	7.3	(0-20)	SW846 6020	05/07-05/11/10	L0VKA1DA
			Dilution Factor: 10				
			Analysis Time...: 13:44		Instrument ID...: I8	Analyst ID.....: 000079	
Thallium	79	(62 - 110)			SW846 6020	05/07-05/11/10	L0VKA1DD
	79	(62 - 110)	0.23	(0-20)	SW846 6020	05/07-05/11/10	L0VKA1DE
			Dilution Factor: 10				
			Analysis Time...: 15:54		Instrument ID...: I8	Analyst ID.....: 000079	
Vanadium	104	(39 - 129)			SW846 6020	05/07-05/12/10	L0VKA1DG
	128	(39 - 129)	8.3	(0-20)	SW846 6020	05/07-05/11/10	L0VKA1DH
			Dilution Factor: 10				
			Analysis Time...: 13:44		Instrument ID...: I8	Analyst ID.....: 000079	
Zinc	NC,MSB	(10 - 199)			SW846 6020	05/07-05/12/10	L0VKA1DK
	NC,MSB	(10 - 199)		(0-20)	SW846 6020	05/07-05/11/10	L0VKA1DL
			Dilution Factor: 10				
			Analysis Time...: 13:44		Instrument ID...: I8	Analyst ID.....: 000079	

NOTE(S):

- Calculations are performed before rounding to avoid round-off errors in calculated results.
- Results and reporting limits have been adjusted for dry weight.
- NC The recovery and/or RPD were not calculated.
- MSB The recovery and RPD may be outside control limits because the sample amount was greater than 4X the spike amount.
- N Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A0D300624

Matrix.....: SO

Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10

PARAMETER	AMOUNT	SAMPLE SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
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MS Lot-Sample #: A0D300624-010 Prep Batch #...: 0127029

Aluminum

10800	1020	12700	mg/kg				SW846 6020	05/07-05/12/10	L0VKA1AK
Qualifiers: NC,MSB									
10800	1020	13300	mg/kg				SW846 6020	05/07-05/11/10	L0VKA1AL
Qualifiers: NC,MSB									
Dilution Factor: 10									
Analysis Time...: 13:44 Instrument ID...: I8 Analyst ID.....: 000079									

Antimony

0.084	10.2	2.6 N	mg/kg	25			SW846 6020	05/07-05/11/10	L0VKA1AN
0.084	10.2	2.8 N	mg/kg	27	8.2		SW846 6020	05/07-05/11/10	L0VKA1AP
Dilution Factor: 10									
Analysis Time...: 15:54 Instrument ID...: I8 Analyst ID.....: 000079									

Arsenic

15.3	10.2	27.4	mg/kg	120			SW846 6020	05/07-05/11/10	L0VKA1AR
15.3	10.2	26.6	mg/kg	112	2.9		SW846 6020	05/07-05/11/10	L0VKA1AT
Dilution Factor: 10									
Analysis Time...: 15:54 Instrument ID...: I8 Analyst ID.....: 000079									

Barium

59.5	10.2	67.8	mg/kg				SW846 6020	05/07-05/11/10	L0VKA1AV
Qualifiers: NC,MSB									
59.5	10.2	65.9	mg/kg				SW846 6020	05/07-05/11/10	L0VKA1AW
Qualifiers: NC,MSB									
Dilution Factor: 10									
Analysis Time...: 15:54 Instrument ID...: I8 Analyst ID.....: 000079									

Beryllium

0.54	10.2	10.0	mg/kg	94			SW846 6020	05/07-05/11/10	L0VKA1A0
0.54	10.2	9.8	mg/kg	92	2.0		SW846 6020	05/07-05/11/10	L0VKA1A1
Dilution Factor: 10									
Analysis Time...: 15:54 Instrument ID...: I8 Analyst ID.....: 000079									

Cadmium

0.060	10.2	9.6	mg/kg	94			SW846 6020	05/07-05/11/10	L0VKA1A3
0.060	10.2	9.5	mg/kg	93	1.0		SW846 6020	05/07-05/11/10	L0VKA1A4
Dilution Factor: 10									
Analysis Time...: 15:54 Instrument ID...: I8 Analyst ID.....: 000079									

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A0D300624

Matrix.....: SO

Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Calcium									
	1820	1020	2660	mg/kg	83		SW846 6020	05/07-05/12/10	L0VKA1A6
	1820	1020	2750	mg/kg	92	3.6	SW846 6020	05/07-05/12/10	L0VKA1A7
			Dilution Factor: 10						
			Analysis Time...: 13:44		Instrument ID...: I8		Analyst ID.....: 000079		
Chromium									
	16.7	10.2	29.1	mg/kg	122		SW846 6020	05/07-05/12/10	L0VKA1DN
	16.7	10.2	28.7	mg/kg	118	1.5	SW846 6020	05/07-05/11/10	L0VKA1DP
			Dilution Factor: 10						
			Analysis Time...: 13:44		Instrument ID...: I8		Analyst ID.....: 000079		
Cobalt									
	9.7	10.2	19.5	mg/kg	96		SW846 6020	05/07-05/12/10	L0VKA1A9
	9.7	10.2	19.8	mg/kg	99	1.5	SW846 6020	05/07-05/11/10	L0VKA1CA
			Dilution Factor: 10						
			Analysis Time...: 13:44		Instrument ID...: I8		Analyst ID.....: 000079		
Copper									
	18.4	10.2	29.4	mg/kg	108		SW846 6020	05/07-05/12/10	L0VKA1CD
	18.4	10.2	30.9	mg/kg	123	5.0	SW846 6020	05/07-05/11/10	L0VKA1CE
			Dilution Factor: 10						
			Analysis Time...: 13:44		Instrument ID...: I8		Analyst ID.....: 000079		
Iron									
	24100	1020	27200	mg/kg			SW846 6020	05/07-05/12/10	L0VKA1CG
			Qualifiers: NC,MSB						
	24100	1020	27700	mg/kg			SW846 6020	05/07-05/11/10	L0VKA1CH
			Qualifiers: NC,MSB						
			Dilution Factor: 10						
			Analysis Time...: 13:44		Instrument ID...: I8		Analyst ID.....: 000079		
Lead									
	11.4	10.2	21.2	mg/kg	96		SW846 6020	05/07-05/11/10	L0VKA1CK
	11.4	10.2	20.9	mg/kg	93	1.5	SW846 6020	05/07-05/11/10	L0VKA1CL
			Dilution Factor: 10						
			Analysis Time...: 15:54		Instrument ID...: I8		Analyst ID.....: 000079		
Magnesium									
	2940	1020	3950	mg/kg	99		SW846 6020	05/07-05/12/10	L0VKA1CN
	2940	1020	4080	mg/kg	112	3.3	SW846 6020	05/07-05/11/10	L0VKA1CP
			Dilution Factor: 10						
			Analysis Time...: 13:44		Instrument ID...: I8		Analyst ID.....: 000079		

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A0D300624

Matrix.....: SO

Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #	
Manganese										
	413	10.2	396	mg/kg			SW846 6020	05/07-05/12/10	L0VKA1CR	
			Qualifiers: NC,MSB							
	413	10.2	387	mg/kg			SW846 6020	05/07-05/12/10	L0VKA1CT	
			Qualifiers: NC,MSB							
			Dilution Factor: 10							
			Analysis Time...: 13:44			Instrument ID...: I8		Analyst ID.....: 000079		
Mercury										
	0.031	0.17	0.20	mg/kg	100		SW846 7471A	05/07-05/10/10	L0VKA1DR	
	0.031	0.17	0.20	mg/kg	101	1.1	SW846 7471A	05/07-05/10/10	L0VKA1DT	
			Dilution Factor: 1							
			Analysis Time...: 12:47			Instrument ID...: H1		Analyst ID.....: 001576		
Nickel										
	24.3	10.2	37.1	mg/kg	126		SW846 6020	05/07-05/12/10	L0VKA1CV	
	24.3	10.2	37.9	mg/kg	134	2.0	SW846 6020	05/07-05/11/10	L0VKA1CW	
			Dilution Factor: 10							
			Analysis Time...: 13:44			Instrument ID...: I8		Analyst ID.....: 000079		
Potassium										
	1280	1020	2190	mg/kg	90		SW846 6020	05/07-05/12/10	L0VKA1C0	
	1280	1020	2390	mg/kg	110	8.7	SW846 6020	05/07-05/12/10	L0VKA1C1	
			Dilution Factor: 10							
			Analysis Time...: 13:44			Instrument ID...: I8		Analyst ID.....: 000079		
Selenium										
	1.1	10.2	9.8	mg/kg	86		SW846 6020	05/07-05/11/10	L0VKA1C3	
	1.1	10.2	9.7	mg/kg	84	1.7	SW846 6020	05/07-05/11/10	L0VKA1C4	
			Dilution Factor: 10							
			Analysis Time...: 15:54			Instrument ID...: I8		Analyst ID.....: 000079		
Silver										
	0.019	10.2	10.0	mg/kg	98		SW846 6020	05/07-05/11/10	L0VKA1C6	
	0.019	10.2	10	mg/kg	98	0.36	SW846 6020	05/07-05/11/10	L0VKA1C7	
			Dilution Factor: 10							
			Analysis Time...: 15:54			Instrument ID...: I8		Analyst ID.....: 000079		
Sodium										
	ND	1020	1070	mg/kg	100		SW846 6020	05/07-05/12/10	L0VKA1C9	
	ND	1020	992	mg/kg	92	7.3	SW846 6020	05/07-05/11/10	L0VKA1DA	
			Dilution Factor: 10							
			Analysis Time...: 13:44			Instrument ID...: I8		Analyst ID.....: 000079		

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MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A0D300624

Matrix.....: SO

Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Thallium									
	0.12	10.2	8.1	mg/kg	79		SW846 6020	05/07-05/11/10	L0VKA1DD
	0.12	10.2	8.2	mg/kg	79	0.23	SW846 6020	05/07-05/11/10	L0VKA1DE
Dilution Factor: 10									
Analysis Time...: 15:54 Instrument ID...: I8 Analyst ID.....: 000079									
Vanadium									
	16.7	10.2	27.3	mg/kg	104		SW846 6020	05/07-05/12/10	L0VKA1DG
	16.7	10.2	29.6	mg/kg	128	8.3	SW846 6020	05/07-05/11/10	L0VKA1DH
Dilution Factor: 10									
Analysis Time...: 13:44 Instrument ID...: I8 Analyst ID.....: 000079									
Zinc									
	63.0	10.2	74.9	mg/kg			SW846 6020	05/07-05/12/10	L0VKA1DK
Qualifiers: NC,MSB									
	63.0	10.2	74.3	mg/kg			SW846 6020	05/07-05/11/10	L0VKA1DL
Qualifiers: NC,MSB									
Dilution Factor: 10									
Analysis Time...: 13:44 Instrument ID...: I8 Analyst ID.....: 000079									

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD may be outside control limits because the sample amount was greater than 4X the spike amount.

N Spiked analyte recovery is outside stated control limits.

GENERAL CHEMISTRY DATA

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-022M-0001-SO

General Chemistry

Lot-Sample #...: A0D300624-001 Work Order #...: L0VJG Matrix.....: SO
Date Sampled...: 04/28/10 14:40 Date Received...: 04/29/10
% Moisture.....: 1.1

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Hexavalent Chromium	0.41 J	0.81	mg/kg	SW846 7196A	05/12-05/13/10	0127389
Nitrocellulose	ND	5.1	mg/kg	MCAWW 353.2	05/10-05/12/10	0130425
Percent Solids	98.9	10.0	%	MCAWW 160.3 MOD	05/07-05/10/10	0127366

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

J Estimated result: result is less than RL and greater than or equal to the MDL.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-023M-0001-SO

General Chemistry

Lot-Sample #...: A0D300624-002 Work Order #...: L0VJR Matrix.....: SO
Date Sampled...: 04/28/10 11:50 Date Received...: 04/29/10
% Moisture.....: 1.2

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Hexavalent Chromium	ND	0.81	mg/kg	SW846 7196A	05/12-05/13/10	0127389
		Dilution Factor: 1				
Nitrocellulose	ND	5.1	mg/kg	MCAWW 353.2	05/10-05/12/10	0130425
		Dilution Factor: 1				
Percent Solids	98.9	10.0	%	MCAWW 160.3 MOD	05/07-05/10/10	0127366
		Dilution Factor: 1				

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-024M-0001-SO

General Chemistry

Lot-Sample #...: A0D300624-003 Work Order #...: L0VJT Matrix.....: SO
Date Sampled...: 04/28/10 11:20 Date Received...: 04/29/10
% Moisture.....: 1.9

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Hexavalent Chromium	0.46 J	0.82	mg/kg	SW846 7196A	05/12-05/13/10	0127389
			Dilution Factor: 1			
Nitrocellulose	ND	5.1	mg/kg	MCAWW 353.2	05/10-05/12/10	0130425
			Dilution Factor: 1			
Percent Solids	98.1	10.0	%	MCAWW 160.3 MOD	05/07-05/10/10	0127366
			Dilution Factor: 1			

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

J Estimated result: result is less than RL and greater than or equal to the MDL.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-025M-0001-SO

General Chemistry

Lot-Sample #...: A0D300624-004 Work Order #...: L0VJW Matrix.....: SO
 Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10
 % Moisture.....: 1.6

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Hexavalent Chromium	0.76 J	0.81	mg/kg	SW846 7196A	05/12-05/13/10	0127389
				Dilution Factor: 1		
Nitrocellulose	ND	5.1	mg/kg	MCAWW 353.2	05/10-05/12/10	0130425
				Dilution Factor: 1		
Percent Solids	98.4	10.0	%	MCAWW 160.3 MOD	05/06-05/07/10	0126123
				Dilution Factor: 1		

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

J Estimated result: result is less than RL and greater than or equal to the MDL.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-026M-0001-SO

General Chemistry

Lot-Sample #...: A0D300624-005 Work Order #...: L0VJ0 Matrix.....: SO
Date Sampled...: 04/28/10 10:20 Date Received...: 04/29/10
% Moisture.....: 1.6

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Hexavalent Chromium	0.78 J	0.81	mg/kg	SW846 7196A	05/12-05/13/10	0127389
			Dilution Factor: 1			
Nitrocellulose	ND	5.1	mg/kg	MCAWW 353.2	05/10-05/12/10	0130425
			Dilution Factor: 1			
Percent Solids	98.5	10.0	%	MCAWW 160.3 MOD	05/06-05/07/10	0126123
			Dilution Factor: 1			

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

J Estimated result: result is less than RL and greater than or equal to the MDL.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-027M-0001-SO

General Chemistry

Lot-Sample #...: A0D300624-006 Work Order #...: L0VJ1 Matrix.....: SO
Date Sampled...: 04/28/10 09:30 Date Received...: 04/29/10
% Moisture.....: 1.6

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Hexavalent Chromium	ND	0.81	mg/kg	SW846 7196A	05/12-05/13/10	0127389
		Dilution Factor: 1				
Nitrocellulose	ND	5.1	mg/kg	MCAWW 353.2	05/10-05/12/10	0130425
		Dilution Factor: 1				
Percent Solids	98.4	10.0	%	MCAWW 160.3 MOD	05/06-05/07/10	0126123
		Dilution Factor: 1				

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-027M-0002-SO

General Chemistry

Lot-Sample #...: A0D300624-007 Work Order #...: L0VJ3 Matrix.....: SO
 Date Sampled...: 04/28/10 09:30 Date Received...: 04/29/10
 % Moisture.....: 1.6

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Hexavalent Chromium	0.50 J	0.81	mg/kg	SW846 7196A	05/12-05/13/10	0127389
Nitrocellulose	ND	5.1	mg/kg	MCAWW 353.2	05/10-05/12/10	0130425
Percent Solids	98.4	10.0	%	MCAWW 160.3 MOD	05/06-05/07/10	0126123

NOTE(S):

RL Reporting Limit
 Results and reporting limits have been adjusted for dry weight.
 J Estimated result: result is less than RL and greater than or equal to the MDL.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0001-SO

General Chemistry

Lot-Sample #...: A0D300624-008 Work Order #...: L0VJ4 Matrix.....: SO
Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10
% Moisture.....: 1.6

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Hexavalent Chromium	ND	0.81	mg/kg	SW846 7196A	05/12-05/13/10	0127389
			Dilution Factor: 1			
Nitrocellulose	0.92 B	5.1	mg/kg	MCAWW 353.2	05/10-05/12/10	0130425
			Dilution Factor: 1			
Percent Solids	98.4	10.0	%	MCAWW 160.3 MOD	05/06-05/07/10	0126123
			Dilution Factor: 1			

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0002-SO

General Chemistry

Lot-Sample #...: A0D300624-009 Work Order #...: L0VJ6 Matrix.....: SO
Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10
% Moisture.....: 1.6

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Hexavalent Chromium	ND	0.81	mg/kg	SW846 7196A	05/12-05/13/10	0127389
		Dilution Factor: 1				
Nitrocellulose	ND	5.1	mg/kg	MCAWW 353.2	05/10-05/12/10	0130425
		Dilution Factor: 1				
Percent Solids	98.4	10.0	%	MCAWW 160.3 MOD	05/06-05/07/10	0126123
		Dilution Factor: 1				

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0004-SO

General Chemistry

Lot-Sample #...: A0D300624-010 Work Order #...: L0VKA Matrix.....: SO
 Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10
 % Moisture.....: 1.5

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Hexavalent Chromium	IS	0.81	mg/kg	SW846 7196A	05/13/10	0133265
						Dilution Factor: 1
Nitrocellulose	ND	5.1	mg/kg	MCAWW 353.2	05/10-05/12/10	0130425
						Dilution Factor: 1
Percent Solids	98.5	10.0	%	MCAWW 160.3 MOD	05/06-05/07/10	0126123
						Dilution Factor: 1

NOTE(S):

RL Reporting Limit
 Results and reporting limits have been adjusted for dry weight.
 IS Insufficient Sample
 insufficient sample to perform cr6 test

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0005-SO

General Chemistry

Lot-Sample #...: A0D300624-011 Work Order #...: L0VKE Matrix.....: SO
 Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10
 % Moisture.....: 1.5

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Hexavalent Chromium	0.29 J	0.81	mg/kg	SW846 7196A	05/12-05/13/10	0127389
				Dilution Factor: 1		
Nitrocellulose	ND	5.1	mg/kg	MCAWW 353.2	05/10-05/12/10	0130425
				Dilution Factor: 1		
Percent Solids	98.5	10.0	%	MCAWW 160.3 MOD	05/06-05/07/10	0126123
				Dilution Factor: 1		

NOTE(S):

RL Reporting Limit
 Results and reporting limits have been adjusted for dry weight.
 J Estimated result: result is less than RL and greater than or equal to the MDL.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0006-SO

General Chemistry

Lot-Sample #...: A0D300624-012 Work Order #...: L0VKG Matrix.....: SO
 Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10
 % Moisture.....: 1.3

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Hexavalent Chromium	ND	0.81	mg/kg	SW846 7196A	05/12-05/13/10	0127389
				Dilution Factor: 1		
Nitrocellulose	0.93 B	5.1	mg/kg	MCAWW 353.2	05/10-05/12/10	0130425
				Dilution Factor: 1		
Percent Solids	98.7	10.0	%	MCAWW 160.3 MOD	05/06-05/07/10	0126123
				Dilution Factor: 1		

NOTE(S):

RL Reporting Limit
 Results and reporting limits have been adjusted for dry weight.
 B Estimated result. Result is less than RL.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: A0D300624

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING		METHOD	PREPARATION-	PREP
		LIMIT	UNITS		ANALYSIS DATE	BATCH #
Hexavalent Chromium	ND	0.80	mg/kg	SW846 7196A	05/12-05/13/10	0127389
		Work Order #: L1E9J1AA MB Lot-Sample #: A0E070000-389				
		Dilution Factor: 1				
Nitrocellulose	ND	5.0	mg/kg	MCAWW 353.2	05/10-05/12/10	0130425
		Work Order #: L1ALJ1AA MB Lot-Sample #: G0E100000-425				
		Dilution Factor: 1				
Percent Solids	ND	10.0	%	MCAWW 160.3 MOD	05/06-05/07/10	0126123
		Work Order #: L034G1AA MB Lot-Sample #: A0E060000-123				
		Dilution Factor: 1				
Percent Solids	ND	10.0	%	MCAWW 160.3 MOD	05/07-05/10/10	0127366
		Work Order #: L07L21AA MB Lot-Sample #: A0E070000-366				
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A0D300624

Matrix.....: SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Hexavalent Chromium	99	(80 - 120)	SW846 7196A Dilution Factor: 1	05/12-05/13/10	0127389
Nitrocellulose	35	(34 - 115)	MCAWW 353.2 Dilution Factor: 1	05/10-05/12/10	0130425

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Client Lot #...: A0D300624

Matrix.....: SOLID

<u>PARAMETER</u>	<u>SPIKE</u> <u>AMOUNT</u>	<u>MEASURED</u> <u>AMOUNT</u>	<u>UNITS</u>	<u>PERCNT</u> <u>RECVRY</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>PREP</u> <u>BATCH #</u>
Hexavalent Chromium	20.0	19.8	mg/kg	99	SW846 7196A	05/12-05/13/10	0127389
Work Order #: L1E9J1AC LCS Lot-Sample#: A0E070000-389 Dilution Factor: 1							
Nitrocellulose	50.9	17.7	mg/kg	35	MCAWW 353.2	05/10-05/12/10	0130425
Work Order #: L1ALJ1AC LCS Lot-Sample#: G0E100000-425 Dilution Factor: 1							

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A0D300624

Matrix.....: SO

Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Nitrocellulose			WO#:	L0VKA1D3-MS/L0VKA1D4-MSD		MS Lot-Sample #:	A0D300624-010
	20 N	(34 - 115)			MCAWW 353.2	05/10-05/12/10	0130425
	14 N	(34 - 115)	29	(0-71)	MCAWW 353.2	05/10-05/12/10	0130425
			Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: A0D300624

Matrix.....: SO

Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10

<u>PARAMETER</u>	<u>SAMPLE AMOUNT</u>	<u>SPIKE AMT</u>	<u>MEASRD AMOUNT</u>	<u>UNITS</u>	<u>PERCNT RECVRY</u>	<u>RPD</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Nitrocellulose			WO#: L0VKA1D3-MS/L0VKA1D4-MSD				MS Lot-Sample #:	A0D300624-010	
	ND	51.0	10.6 N	mg/kg	20		MCAWW 353.2	05/10-05/12/10	0130425
	ND	51.3	7.9 N	mg/kg	14	29	MCAWW 353.2	05/10-05/12/10	0130425

Dilution Factor: 1

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A0D300624

Work Order #...: L03JW-SMP
L03JW-DUP

Matrix.....: SOLID

Date Sampled...: 05/04/10 09:05 Date Received...: 05/05/10

% Moisture.....: 23

<u>PARAM</u>	<u>RESULT</u>	<u>DUPLICATE</u>	<u>UNITS</u>	<u>RPD</u>	<u>LIMIT</u>	<u>METHOD</u>	<u>PREPARATION-</u>	<u>PREP</u>
		<u>RESULT</u>					<u>ANALYSIS DATE</u>	<u>BATCH #</u>
Percent Solids	77.1	80.5	%	4.3	(0-20)	MCAWW 160.3 MOD	05/06-05/07/10	0126123
							SD Lot-Sample #: A0E050595-004	
							Dilution Factor: 1	

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A0D300624

Work Order #...: L04H8-SMP
L04H8-DUP

Matrix.....: SOLID

Date Sampled...: 05/04/10 09:00 Date Received...: 05/06/10

% Moisture.....: 6.8

<u>PARAM</u>	<u>RESULT</u>	<u>DUPLICATE</u>	<u>UNITS</u>	<u>RPD</u>	<u>LIMIT</u>	<u>METHOD</u>	<u>PREPARATION-</u>	<u>PREP</u>
		<u>RESULT</u>					<u>ANALYSIS DATE</u>	<u>BATCH #</u>
Percent Solids	93.2	93.9	%	0.73	(0-20)	SD Lot-Sample #: A0E060466-001 MCAWW 160.3 MOD	05/07-05/10/10	0127366
Dilution Factor: 1								

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A0D300624

Work Order #...: L06CP-SMP
L06CP-DUP

Matrix.....: SOLID

Date Sampled...: 05/06/10 12:25 Date Received...: 05/07/10

% Moisture.....: 22

<u>PARAM</u>	<u>RESULT</u>	<u>DUPLICATE</u>	<u>UNITS</u>	<u>RPD</u>	<u>LIMIT</u>	<u>METHOD</u>	<u>PREPARATION-</u>	<u>PREP</u>
		<u>RESULT</u>					<u>ANALYSIS DATE</u>	<u>BATCH #</u>
Percent Solids	77.6	86.8	%	11	(0-20)	MCAWW 160.3 MOD	05/07-05/10/10	0127366
							SD Lot-Sample #: A0E070425-003	

Dilution Factor: 1

WEST SACRAMENTO DATA

Case Narrative

TestAmerica West Sacramento Project Number A0D300624

General Comments

Manual integrations were performed only when necessary and are in compliance with the laboratory's standard operating procedure, Acceptable Manual Integration Practices, SOP No.: S-Q-004, including Addendum 1. Detailed information can be found in the Manual Integration Addendum section of this report.

The samples were dried, ground, & sieved by TestAmerica North Canton.

The samples were received at 7 degrees C.

SOLID, 8330B, Explosives

Sample(s): 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 10, 10, 11, 12

The matrix spike duplicate, which was performed on sample 10, was re-analyzed without a bracketing MRL standard.

SOLID, 8330M, Nitroguanidine

Sample(s): 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12

The matrix spikes, which were performed on sample 10, have low recoveries due to possible matrix interferences. Since the laboratory control sample met acceptance criteria, no corrective action was performed.

SOLID, 353.2, Nitrocellulose

Sample(s): 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12

The matrix spikes, which were performed on sample 10, have low recoveries due to possible matrix interferences. Since the laboratory control sample met acceptance criteria, no corrective action was performed.

There were no other anomalies associated with this project.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-022M-0001-SO

HPLC

Lot-Sample #...: A0D300624-001 Work Order #...: L0VJG1A7 Matrix.....: SO
Date Sampled...: 04/28/10 14:40 Date Received..: 04/29/10
Prep Date.....: 05/10/10 Analysis Date..: 05/25/10
Prep Batch #...: 0130417
Dilution Factor: 0.98
% Moisture.....: 1.1 Method.....: SW846 8330 (Modif

<u>PARAMETER</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>UNITS</u>
Nitroguanidine	ND	0.24	mg/kg

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-022M-0001-SO

HPLC

Lot-Sample #...: A0D300624-001 Work Order #...: L0VJG1A6 Matrix.....: SO
 Date Sampled...: 04/28/10 14:40 Date Received...: 04/29/10
 Prep Date.....: 05/10/10 Analysis Date...: 05/25/10
 Prep Batch #...: 0130419
 Dilution Factor: 1
 % Moisture.....: 1.1 Method.....: SW846 8330B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
1,3-Dinitrobenzene	ND	0.25	mg/kg
2,4-Dinitrotoluene	ND	0.25	mg/kg
2,6-Dinitrotoluene	ND	0.25	mg/kg
Nitrobenzene	ND	0.25	mg/kg
Nitroglycerin	ND	0.50	mg/kg
1,3,5-Trinitrobenzene	ND	0.25	mg/kg
2,4,6-Trinitrotoluene	ND	0.25	mg/kg
HMX	ND	0.25	mg/kg
RDX	ND	0.25	mg/kg
Tetryl	ND	0.25	mg/kg
2-Nitrotoluene	ND	0.25	mg/kg
3-Nitrotoluene	ND	0.25	mg/kg
4-Nitrotoluene	ND	0.50	mg/kg
4-Amino-2,6-dinitrotoluene	ND	0.25	mg/kg
2-Amino-4,6-dinitrotoluene	ND	0.25	mg/kg
PETN	ND	0.50	mg/kg
	<u>PERCENT</u>	<u>RECOVERY</u>	
<u>SURROGATE</u>	<u>RECOVERY</u>	<u>LIMITS</u>	
3,4-Dinitrotoluene	102	(81 - 127)	

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-022M-0001-SO

General Chemistry

Lot-Sample #...: A0D300624-001 Work Order #...: L0VJG Matrix.....: SO
Date Sampled...: 04/28/10 14:40 Date Received...: 04/29/10
% Moisture.....: 1.1

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Hexavalent Chromium	0.41 J	0.81	mg/kg	SW846 7196A	05/12-05/13/10	0127389
			Dilution Factor: 1			
Nitrocellulose	ND	5.1	mg/kg	MCAWW 353.2	05/10-05/12/10	0130425
			Dilution Factor: 1			
Percent Solids	98.9	10.0	%	MCAWW 160.3 MOD	05/07-05/10/10	0127366
			Dilution Factor: 1			

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

J Estimated result: result is less than RL and greater than or equal to the MDL.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-023M-0001-SO

HPLC

Lot-Sample #...: A0D300624-002 Work Order #...: L0VJR1AJ Matrix.....: SO
Date Sampled...: 04/28/10 11:50 Date Received..: 04/29/10
Prep Date.....: 05/10/10 Analysis Date..: 05/25/10
Prep Batch #...: 0130417
Dilution Factor: 1
% Moisture.....: 1.2 Method.....: SW846 8330 (Modif

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
Nitroguanidine	ND	0.25	mg/kg

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-023M-0001-SO

General Chemistry

Lot-Sample #...: A0D300624-002 Work Order #...: L0VJR Matrix.....: SO
Date Sampled...: 04/28/10 11:50 Date Received...: 04/29/10
% Moisture.....: 1.2

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Hexavalent Chromium	ND	0.81	mg/kg	SW846 7196A	05/12-05/13/10	0127389
		Dilution Factor: 1				
Nitrocellulose	ND	5.1	mg/kg	MCAWW 353.2	05/10-05/12/10	0130425
		Dilution Factor: 1				
Percent Solids	98.9	10.0	%	MCAWW 160.3 MOD	05/07-05/10/10	0127366
		Dilution Factor: 1				

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-024M-0001-SO

HPLC

Lot-Sample #...: A0D300624-003 Work Order #...: L0VJT1AJ Matrix.....: SO
Date Sampled...: 04/28/10 11:20 Date Received..: 04/29/10
Prep Date.....: 05/10/10 Analysis Date..: 05/25/10
Prep Batch #...: 0130417
Dilution Factor: 1.05
% Moisture.....: 1.9 Method.....: SW846 8330 (Modif

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
Nitroguanidine	ND	0.26	mg/kg

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-024M-0001-SO

HPLC

Lot-Sample #...: A0D300624-003 Work Order #...: L0VJT1AH Matrix.....: SO
 Date Sampled...: 04/28/10 11:20 Date Received..: 04/29/10
 Prep Date.....: 05/10/10 Analysis Date..: 05/25/10
 Prep Batch #...: 0130419
 Dilution Factor: 1
 % Moisture.....: 1.9 Method.....: SW846 8330B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
1,3-Dinitrobenzene	ND	0.25	mg/kg
2,4-Dinitrotoluene	ND	0.25	mg/kg
2,6-Dinitrotoluene	ND	0.25	mg/kg
Nitrobenzene	ND	0.25	mg/kg
Nitroglycerin	ND	0.50	mg/kg
1,3,5-Trinitrobenzene	ND	0.25	mg/kg
2,4,6-Trinitrotoluene	ND	0.25	mg/kg
HMX	ND	0.25	mg/kg
RDX	ND	0.25	mg/kg
Tetryl	ND	0.25	mg/kg
2-Nitrotoluene	ND	0.25	mg/kg
3-Nitrotoluene	ND	0.25	mg/kg
4-Nitrotoluene	ND	0.50	mg/kg
4-Amino-2,6-dinitrotoluene	ND	0.25	mg/kg
2-Amino-4,6-dinitrotoluene	ND	0.25	mg/kg
PETN	ND	0.50	mg/kg
	<u>PERCENT</u>	<u>RECOVERY</u>	
<u>SURROGATE</u>	<u>RECOVERY</u>	<u>LIMITS</u>	
3,4-Dinitrotoluene	101	(81 - 127)	

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-024M-0001-SO

General Chemistry

Lot-Sample #...: A0D300624-003 Work Order #...: L0VJT Matrix.....: SO
Date Sampled...: 04/28/10 11:20 Date Received...: 04/29/10
% Moisture.....: 1.9

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Hexavalent Chromium	0.46 J	0.82	mg/kg	SW846 7196A	05/12-05/13/10	0127389
			Dilution Factor: 1			
Nitrocellulose	ND	5.1	mg/kg	MCAWW 353.2	05/10-05/12/10	0130425
			Dilution Factor: 1			
Percent Solids	98.1	10.0	%	MCAWW 160.3 MOD	05/07-05/10/10	0127366
			Dilution Factor: 1			

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

J Estimated result: result is less than RL and greater than or equal to the MDL.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-025M-0001-SO

HPLC

Lot-Sample #...: A0D300624-004 Work Order #...: L0VJW1AJ Matrix.....: SO
Date Sampled...: 04/28/10 15:30 Date Received..: 04/29/10
Prep Date.....: 05/10/10 Analysis Date..: 05/25/10
Prep Batch #...: 0130417
Dilution Factor: 1
% Moisture.....: 1.6 Method.....: SW846 8330 (Modif

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	<u>LIMIT</u>	<u>UNITS</u>
Nitroguanidine	ND		0.25	mg/kg

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-025M-0001-SO

HPLC

Lot-Sample #...: A0D300624-004 Work Order #...: L0VJW1AH Matrix.....: SO
 Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10
 Prep Date.....: 05/10/10 Analysis Date...: 05/25/10
 Prep Batch #...: 0130419
 Dilution Factor: 0.99
 % Moisture.....: 1.6 Method.....: SW846 8330B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
1,3-Dinitrobenzene	ND	0.25	mg/kg
2,4-Dinitrotoluene	ND	0.25	mg/kg
2,6-Dinitrotoluene	ND	0.25	mg/kg
Nitrobenzene	ND	0.25	mg/kg
Nitroglycerin	ND	0.50	mg/kg
1,3,5-Trinitrobenzene	ND	0.25	mg/kg
2,4,6-Trinitrotoluene	ND	0.25	mg/kg
HMX	ND	0.25	mg/kg
RDX	ND	0.25	mg/kg
Tetryl	ND	0.25	mg/kg
2-Nitrotoluene	ND	0.25	mg/kg
3-Nitrotoluene	ND	0.25	mg/kg
4-Nitrotoluene	ND	0.50	mg/kg
4-Amino-2,6-dinitrotoluene	ND	0.25	mg/kg
2-Amino-4,6-dinitrotoluene	ND	0.25	mg/kg
PETN	ND	0.50	mg/kg
	<u>PERCENT</u>	<u>RECOVERY</u>	
<u>SURROGATE</u>	<u>RECOVERY</u>	<u>LIMITS</u>	
3,4-Dinitrotoluene	101	(81 - 127)	

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-025M-0001-SO

General Chemistry

Lot-Sample #...: A0D300624-004 Work Order #...: L0VJW Matrix.....: SO
Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10
% Moisture.....: 1.6

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Hexavalent Chromium	0.76 J	0.81	mg/kg	SW846 7196A	05/12-05/13/10	0127389
			Dilution Factor: 1			
Nitrocellulose	ND	5.1	mg/kg	MCAWW 353.2	05/10-05/12/10	0130425
			Dilution Factor: 1			
Percent Solids	98.4	10.0	%	MCAWW 160.3 MOD	05/06-05/07/10	0126123
			Dilution Factor: 1			

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

J Estimated result: result is less than RL and greater than or equal to the MDL.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-026M-0001-SO

HPLC

Lot-Sample #...: A0D300624-005 Work Order #...: L0VJ01AJ Matrix.....: SO
Date Sampled...: 04/28/10 10:20 Date Received..: 04/29/10
Prep Date.....: 05/10/10 Analysis Date..: 05/25/10
Prep Batch #...: 0130417
Dilution Factor: 0.98
% Moisture.....: 1.6 Method.....: SW846 8330 (Modif

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	<u>LIMIT</u>	<u>UNITS</u>
Nitroguanidine	ND		0.24	mg/kg

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-026M-0001-SO

HPLC

Lot-Sample #...: A0D300624-005 Work Order #...: L0VJ01AH Matrix.....: SO
 Date Sampled...: 04/28/10 10:20 Date Received..: 04/29/10
 Prep Date.....: 05/10/10 Analysis Date..: 05/25/10
 Prep Batch #...: 0130419
 Dilution Factor: 0.99
 % Moisture.....: 1.6 Method.....: SW846 8330B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
1,3-Dinitrobenzene	ND	0.25	mg/kg
2,4-Dinitrotoluene	ND	0.25	mg/kg
2,6-Dinitrotoluene	ND	0.25	mg/kg
Nitrobenzene	ND	0.25	mg/kg
Nitroglycerin	ND	0.50	mg/kg
1,3,5-Trinitrobenzene	ND	0.25	mg/kg
2,4,6-Trinitrotoluene	ND	0.25	mg/kg
HMX	ND	0.25	mg/kg
RDX	ND	0.25	mg/kg
Tetryl	ND	0.25	mg/kg
2-Nitrotoluene	ND	0.25	mg/kg
3-Nitrotoluene	ND	0.25	mg/kg
4-Nitrotoluene	ND	0.50	mg/kg
4-Amino-2,6-dinitrotoluene	ND	0.25	mg/kg
2-Amino-4,6-dinitrotoluene	ND	0.25	mg/kg
PETN	ND	0.50	mg/kg
	<u>PERCENT</u>	<u>RECOVERY</u>	
<u>SURROGATE</u>	<u>RECOVERY</u>	<u>LIMITS</u>	
3,4-Dinitrotoluene	99	(81 - 127)	

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-026M-0001-SO

General Chemistry

Lot-Sample #...: A0D300624-005 Work Order #...: L0VJ0 Matrix.....: SO
Date Sampled...: 04/28/10 10:20 Date Received...: 04/29/10
% Moisture.....: 1.6

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Hexavalent Chromium	0.78 J	0.81	mg/kg	SW846 7196A	05/12-05/13/10	0127389
			Dilution Factor: 1			
Nitrocellulose	ND	5.1	mg/kg	MCAWW 353.2	05/10-05/12/10	0130425
			Dilution Factor: 1			
Percent Solids	98.5	10.0	%	MCAWW 160.3 MOD	05/06-05/07/10	0126123
			Dilution Factor: 1			

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

J Estimated result: result is less than RL and greater than or equal to the MDL.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-027M-0001-SO

HPLC

Lot-Sample #...: A0D300624-006 Work Order #...: L0VJ11AJ Matrix.....: SO
Date Sampled...: 04/28/10 09:30 Date Received..: 04/29/10
Prep Date.....: 05/10/10 Analysis Date..: 05/25/10
Prep Batch #...: 0130417
Dilution Factor: 0.92
% Moisture.....: 1.6 Method.....: SW846 8330 (Modif

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
Nitroguanidine	ND	0.23	mg/kg

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-027M-0001-SO

HPLC

Lot-Sample #...: A0D300624-006 Work Order #...: L0VJ11AH Matrix.....: SO
 Date Sampled...: 04/28/10 09:30 Date Received..: 04/29/10
 Prep Date.....: 05/10/10 Analysis Date..: 05/25/10
 Prep Batch #...: 0130419
 Dilution Factor: 0.99
 % Moisture.....: 1.6 Method.....: SW846 8330B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
1,3-Dinitrobenzene	ND	0.25	mg/kg
2,4-Dinitrotoluene	ND	0.25	mg/kg
2,6-Dinitrotoluene	ND	0.25	mg/kg
Nitrobenzene	ND	0.25	mg/kg
Nitroglycerin	ND	0.50	mg/kg
1,3,5-Trinitrobenzene	ND	0.25	mg/kg
2,4,6-Trinitrotoluene	ND	0.25	mg/kg
HMX	ND	0.25	mg/kg
RDX	ND	0.25	mg/kg
Tetryl	ND	0.25	mg/kg
2-Nitrotoluene	ND	0.25	mg/kg
3-Nitrotoluene	ND	0.25	mg/kg
4-Nitrotoluene	ND	0.50	mg/kg
4-Amino-2,6-dinitrotoluene	ND	0.25	mg/kg
2-Amino-4,6-dinitrotoluene	ND	0.25	mg/kg
PETN	ND	0.50	mg/kg
	<u>PERCENT</u>	<u>RECOVERY</u>	
<u>SURROGATE</u>	<u>RECOVERY</u>	<u>LIMITS</u>	
3,4-Dinitrotoluene	100	(81 - 127)	

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-027M-0001-SO

General Chemistry

Lot-Sample #...: A0D300624-006 Work Order #...: L0VJ1 Matrix.....: SO
 Date Sampled...: 04/28/10 09:30 Date Received...: 04/29/10
 % Moisture.....: 1.6

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Hexavalent Chromium	ND	0.81	mg/kg	SW846 7196A	05/12-05/13/10	0127389
		Dilution Factor: 1				
Nitrocellulose	ND	5.1	mg/kg	MCAWW 353.2	05/10-05/12/10	0130425
		Dilution Factor: 1				
Percent Solids	98.4	10.0	%	MCAWW 160.3 MOD	05/06-05/07/10	0126123
		Dilution Factor: 1				

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-027M-0002-SO

HPLC

Lot-Sample #...: A0D300624-007 Work Order #...: L0VJ31AJ Matrix.....: SO
Date Sampled...: 04/28/10 09:30 Date Received..: 04/29/10
Prep Date.....: 05/10/10 Analysis Date..: 05/25/10
Prep Batch #...: 0130417
Dilution Factor: 0.93
% Moisture.....: 1.6 Method.....: SW846 8330 (Modif

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
Nitroguanidine	ND	0.23	mg/kg

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-027M-0002-SO

HPLC

Lot-Sample #...: A0D300624-007 Work Order #...: L0VJ31AH Matrix.....: SO
 Date Sampled...: 04/28/10 09:30 Date Received..: 04/29/10
 Prep Date.....: 05/10/10 Analysis Date..: 05/25/10
 Prep Batch #...: 0130419
 Dilution Factor: 1
 % Moisture.....: 1.6 Method.....: SW846 8330B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
1,3-Dinitrobenzene	ND	0.25	mg/kg
2,4-Dinitrotoluene	ND	0.25	mg/kg
2,6-Dinitrotoluene	ND	0.25	mg/kg
Nitrobenzene	ND	0.25	mg/kg
Nitroglycerin	ND	0.50	mg/kg
1,3,5-Trinitrobenzene	ND	0.25	mg/kg
2,4,6-Trinitrotoluene	ND	0.25	mg/kg
HMX	ND	0.25	mg/kg
RDX	ND	0.25	mg/kg
Tetryl	ND	0.25	mg/kg
2-Nitrotoluene	ND	0.25	mg/kg
3-Nitrotoluene	ND	0.25	mg/kg
4-Nitrotoluene	ND	0.50	mg/kg
4-Amino-2,6-dinitrotoluene	ND	0.25	mg/kg
2-Amino-4,6-dinitrotoluene	ND	0.25	mg/kg
PETN	ND	0.50	mg/kg
	<u>PERCENT</u>	<u>RECOVERY</u>	
<u>SURROGATE</u>	<u>RECOVERY</u>	<u>LIMITS</u>	
3,4-Dinitrotoluene	100	(81 - 127)	

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-027M-0002-SO

General Chemistry

Lot-Sample #...: A0D300624-007 Work Order #...: L0VJ3 Matrix.....: SO
Date Sampled...: 04/28/10 09:30 Date Received...: 04/29/10
% Moisture.....: 1.6

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Hexavalent Chromium	0.50 J	0.81	mg/kg	SW846 7196A	05/12-05/13/10	0127389
			Dilution Factor: 1			
Nitrocellulose	ND	5.1	mg/kg	MCAWW 353.2	05/10-05/12/10	0130425
			Dilution Factor: 1			
Percent Solids	98.4	10.0	%	MCAWW 160.3 MOD	05/06-05/07/10	0126123
			Dilution Factor: 1			

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

J Estimated result: result is less than RL and greater than or equal to the MDL.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0001-SO

HPLC

Lot-Sample #...: A0D300624-008 Work Order #...: L0VJ41AJ Matrix.....: SO
Date Sampled...: 04/28/10 15:30 Date Received..: 04/29/10
Prep Date.....: 05/10/10 Analysis Date..: 05/25/10
Prep Batch #...: 0130417
Dilution Factor: 0.96
% Moisture.....: 1.6 Method.....: SW846 8330 (Modif

<u>PARAMETER</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>UNITS</u>
Nitroguanidine	ND	0.24	mg/kg

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0001-SO

HPLC

Lot-Sample #...: A0D300624-008 Work Order #...: L0VJ41AH Matrix.....: SO
 Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10
 Prep Date.....: 05/10/10 Analysis Date...: 05/25/10
 Prep Batch #...: 0130419
 Dilution Factor: 0.99
 % Moisture.....: 1.6 Method.....: SW846 8330B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
1,3-Dinitrobenzene	ND	0.25	mg/kg
2,4-Dinitrotoluene	ND	0.25	mg/kg
2,6-Dinitrotoluene	ND	0.25	mg/kg
Nitrobenzene	ND	0.25	mg/kg
Nitroglycerin	ND	0.50	mg/kg
1,3,5-Trinitrobenzene	ND	0.25	mg/kg
2,4,6-Trinitrotoluene	ND	0.25	mg/kg
HMX	ND	0.25	mg/kg
RDX	ND	0.25	mg/kg
Tetryl	ND	0.25	mg/kg
2-Nitrotoluene	ND	0.25	mg/kg
3-Nitrotoluene	ND	0.25	mg/kg
4-Nitrotoluene	ND	0.50	mg/kg
4-Amino-2,6-dinitrotoluene	ND	0.25	mg/kg
2-Amino-4,6-dinitrotoluene	ND	0.25	mg/kg
PETN	ND	0.50	mg/kg
	<u>PERCENT</u>	<u>RECOVERY</u>	
<u>SURROGATE</u>	<u>RECOVERY</u>	<u>LIMITS</u>	
3,4-Dinitrotoluene	100	(81 - 127)	

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0001-SO

General Chemistry

Lot-Sample #...: A0D300624-008 Work Order #...: L0VJ4 Matrix.....: SO
Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10
% Moisture.....: 1.6

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Hexavalent Chromium	ND	0.81	mg/kg	SW846 7196A	05/12-05/13/10	0127389
			Dilution Factor: 1			
Nitrocellulose	0.92 B	5.1	mg/kg	MCAWW 353.2	05/10-05/12/10	0130425
			Dilution Factor: 1			
Percent Solids	98.4	10.0	%	MCAWW 160.3 MOD	05/06-05/07/10	0126123
			Dilution Factor: 1			

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0002-SO

HPLC

Lot-Sample #...: A0D300624-009 Work Order #...: L0VJ61AV Matrix.....: SO
Date Sampled...: 04/28/10 15:30 Date Received..: 04/29/10
Prep Date.....: 05/10/10 Analysis Date..: 05/25/10
Prep Batch #...: 0130417
Dilution Factor: 1.03
% Moisture.....: 1.6 Method.....: SW846 8330 (Modif

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
Nitroguanidine	ND	0.26	mg/kg

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0002-SO

HPLC

Lot-Sample #...: A0D300624-009 Work Order #...: L0VJ61AU Matrix.....: SO
 Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10
 Prep Date.....: 05/10/10 Analysis Date...: 05/25/10
 Prep Batch #...: 0130419
 Dilution Factor: 0.99
 % Moisture.....: 1.6 Method.....: SW846 8330B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
1,3-Dinitrobenzene	ND	0.25	mg/kg
2,4-Dinitrotoluene	ND	0.25	mg/kg
2,6-Dinitrotoluene	ND	0.25	mg/kg
Nitrobenzene	ND	0.25	mg/kg
Nitroglycerin	ND	0.50	mg/kg
1,3,5-Trinitrobenzene	ND	0.25	mg/kg
2,4,6-Trinitrotoluene	ND	0.25	mg/kg
HMX	ND	0.25	mg/kg
RDX	ND	0.25	mg/kg
Tetryl	ND	0.25	mg/kg
2-Nitrotoluene	ND	0.25	mg/kg
3-Nitrotoluene	ND	0.25	mg/kg
4-Nitrotoluene	ND	0.50	mg/kg
4-Amino-2,6-dinitrotoluene	ND	0.25	mg/kg
2-Amino-4,6-dinitrotoluene	ND	0.25	mg/kg
PETN	ND	0.50	mg/kg
	<u>PERCENT</u>	<u>RECOVERY</u>	
<u>SURROGATE</u>	<u>RECOVERY</u>	<u>LIMITS</u>	
3,4-Dinitrotoluene	100	(81 - 127)	

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0002-SO

General Chemistry

Lot-Sample #...: A0D300624-009 Work Order #...: L0VJ6 Matrix.....: SO
 Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10
 % Moisture.....: 1.6

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Hexavalent Chromium	ND	0.81	mg/kg	SW846 7196A	05/12-05/13/10	0127389
		Dilution Factor: 1				
Nitrocellulose	ND	5.1	mg/kg	MCAWW 353.2	05/10-05/12/10	0130425
		Dilution Factor: 1				
Percent Solids	98.4	10.0	%	MCAWW 160.3 MOD	05/06-05/07/10	0126123
		Dilution Factor: 1				

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0004-SO

HPLC

Lot-Sample #...: A0D300624-010 Work Order #...: L0VKA1DX Matrix.....: SO
Date Sampled...: 04/28/10 15:30 Date Received..: 04/29/10
Prep Date.....: 05/10/10 Analysis Date..: 05/25/10
Prep Batch #...: 0130417
Dilution Factor: 1
% Moisture.....: 1.5 Method.....: SW846 8330 (Modif

<u>PARAMETER</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>UNITS</u>
Nitroguanidine	ND	0.25	mg/kg

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0004-SO

HPLC

Lot-Sample #...: A0D300624-010 Work Order #...: L0VKA1DU Matrix.....: SO
 Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10
 Prep Date.....: 05/10/10 Analysis Date...: 05/25/10
 Prep Batch #...: 0130419
 Dilution Factor: 0.99
 % Moisture.....: 1.5 Method.....: SW846 8330B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
1,3-Dinitrobenzene	ND	0.25	mg/kg
2,4-Dinitrotoluene	ND	0.25	mg/kg
2,6-Dinitrotoluene	ND	0.25	mg/kg
Nitrobenzene	ND	0.25	mg/kg
Nitroglycerin	ND	0.50	mg/kg
1,3,5-Trinitrobenzene	ND	0.25	mg/kg
2,4,6-Trinitrotoluene	ND	0.25	mg/kg
HMX	ND	0.25	mg/kg
RDX	ND	0.25	mg/kg
Tetryl	ND	0.25	mg/kg
2-Nitrotoluene	ND	0.25	mg/kg
3-Nitrotoluene	ND	0.25	mg/kg
4-Nitrotoluene	ND	0.50	mg/kg
4-Amino-2,6-dinitrotoluene	ND	0.25	mg/kg
2-Amino-4,6-dinitrotoluene	ND	0.25	mg/kg
PETN	ND	0.50	mg/kg
	<u>PERCENT</u>	<u>RECOVERY</u>	
<u>SURROGATE</u>	<u>RECOVERY</u>	<u>LIMITS</u>	
3,4-Dinitrotoluene	101	(81 - 127)	

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0004-SO

General Chemistry

Lot-Sample #...: A0D300624-010 Work Order #...: L0VKA Matrix.....: SO
 Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10
 % Moisture.....: 1.5

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Hexavalent Chromium	IS	0.81	mg/kg	SW846 7196A	05/13/10	0133265
						Dilution Factor: 1
Nitrocellulose	ND	5.1	mg/kg	MCAWW 353.2	05/10-05/12/10	0130425
						Dilution Factor: 1
Percent Solids	98.5	10.0	%	MCAWW 160.3 MOD	05/06-05/07/10	0126123
						Dilution Factor: 1

NOTE(S):

RL Reporting Limit
 Results and reporting limits have been adjusted for dry weight.
 IS Insufficient Sample
 insufficient sample to perform cr6 test

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0005-SO

HPLC

Lot-Sample #...: A0D300624-011 Work Order #...: L0VKE1AJ Matrix.....: SO
Date Sampled...: 04/28/10 15:30 Date Received..: 04/29/10
Prep Date.....: 05/10/10 Analysis Date..: 05/25/10
Prep Batch #...: 0130417
Dilution Factor: 1
% Moisture.....: 1.5 Method.....: SW846 8330 (Modif

<u>PARAMETER</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>UNITS</u>
Nitroguanidine	ND	0.25	mg/kg

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0005-SO

HPLC

Lot-Sample #...: A0D300624-011 Work Order #...: L0VKE1AH Matrix.....: SO
 Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10
 Prep Date.....: 05/10/10 Analysis Date...: 05/25/10
 Prep Batch #...: 0130419
 Dilution Factor: 1
 % Moisture.....: 1.5 Method.....: SW846 8330B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
1,3-Dinitrobenzene	ND	0.25	mg/kg
2,4-Dinitrotoluene	ND	0.25	mg/kg
2,6-Dinitrotoluene	ND	0.25	mg/kg
Nitrobenzene	ND	0.25	mg/kg
Nitroglycerin	ND	0.50	mg/kg
1,3,5-Trinitrobenzene	ND	0.25	mg/kg
2,4,6-Trinitrotoluene	ND	0.25	mg/kg
HMX	ND	0.25	mg/kg
RDX	ND	0.25	mg/kg
Tetryl	ND	0.25	mg/kg
2-Nitrotoluene	ND	0.25	mg/kg
3-Nitrotoluene	ND	0.25	mg/kg
4-Nitrotoluene	ND	0.50	mg/kg
4-Amino-2,6-dinitrotoluene	ND	0.25	mg/kg
2-Amino-4,6-dinitrotoluene	ND	0.25	mg/kg
PETN	ND	0.50	mg/kg
	<u>PERCENT</u>	<u>RECOVERY</u>	
<u>SURROGATE</u>	<u>RECOVERY</u>	<u>LIMITS</u>	
3,4-Dinitrotoluene	100	(81 - 127)	

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0005-SO

General Chemistry

Lot-Sample #...: A0D300624-011 Work Order #...: L0VKE Matrix.....: SO
Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10
% Moisture.....: 1.5

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Hexavalent Chromium	0.29 J	0.81	mg/kg	SW846 7196A	05/12-05/13/10	0127389
			Dilution Factor: 1			
Nitrocellulose	ND	5.1	mg/kg	MCAWW 353.2	05/10-05/12/10	0130425
			Dilution Factor: 1			
Percent Solids	98.5	10.0	%	MCAWW 160.3 MOD	05/06-05/07/10	0126123
			Dilution Factor: 1			

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

J Estimated result: result is less than RL and greater than or equal to the MDL.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0006-SO

HPLC

Lot-Sample #...: A0D300624-012 Work Order #...: L0VKG1AJ Matrix.....: SO
Date Sampled...: 04/28/10 15:30 Date Received..: 04/29/10
Prep Date.....: 05/10/10 Analysis Date..: 05/25/10
Prep Batch #...: 0130417
Dilution Factor: 1.01
% Moisture.....: 1.3 Method.....: SW846 8330 (Modif

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
Nitroguanidine	ND	0.25	mg/kg

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0006-SO

HPLC

Lot-Sample #...: A0D300624-012 Work Order #...: L0VKG1AH Matrix.....: SO
 Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10
 Prep Date.....: 05/10/10 Analysis Date...: 05/25/10
 Prep Batch #...: 0130419
 Dilution Factor: 0.98
 % Moisture.....: 1.3 Method.....: SW846 8330B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
1,3-Dinitrobenzene	ND	0.24	mg/kg
2,4-Dinitrotoluene	ND	0.24	mg/kg
2,6-Dinitrotoluene	ND	0.24	mg/kg
Nitrobenzene	ND	0.24	mg/kg
Nitroglycerin	ND	0.49	mg/kg
1,3,5-Trinitrobenzene	ND	0.24	mg/kg
2,4,6-Trinitrotoluene	ND	0.24	mg/kg
HMX	ND	0.24	mg/kg
RDX	ND	0.24	mg/kg
Tetryl	ND	0.24	mg/kg
2-Nitrotoluene	ND	0.24	mg/kg
3-Nitrotoluene	ND	0.24	mg/kg
4-Nitrotoluene	ND	0.49	mg/kg
4-Amino-2,6-dinitrotoluene	ND	0.24	mg/kg
2-Amino-4,6-dinitrotoluene	ND	0.24	mg/kg
PETN	ND	0.49	mg/kg
	<u>PERCENT</u>	<u>RECOVERY</u>	
<u>SURROGATE</u>	<u>RECOVERY</u>	<u>LIMITS</u>	
3,4-Dinitrotoluene	100	(81 - 127)	

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-028M-0006-SO

General Chemistry

Lot-Sample #...: A0D300624-012 Work Order #...: L0VKG Matrix.....: SO
Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10
% Moisture.....: 1.3

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Hexavalent Chromium	ND	0.81	mg/kg	SW846 7196A	05/12-05/13/10	0127389
			Dilution Factor: 1			
Nitrocellulose	0.93 B	5.1	mg/kg	MCAWW 353.2	05/10-05/12/10	0130425
			Dilution Factor: 1			
Percent Solids	98.7	10.0	%	MCAWW 160.3 MOD	05/06-05/07/10	0126123
			Dilution Factor: 1			

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

METHOD BLANK REPORT

HPLC

Client Lot #...: A0D300624
MB Lot-Sample #: G0E100000-417

Work Order #...: L1AJ71AA

Matrix.....: SOLID

Analysis Date...: 05/25/10
Dilution Factor: 1

Prep Date.....: 05/10/10

Prep Batch #...: 0130417

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>
		<u>LIMIT</u>	<u>UNITS</u>	
Nitroguanidine	ND	0.25	mg/kg	SW846 8330 (Modif

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

HPLC

Client Lot #...: A0D300624
 MB Lot-Sample #: G0E100000-419

Work Order #...: L1AKJ1AA

Matrix.....: SOLID

Prep Date.....: 05/10/10

Analysis Date..: 05/25/10

Prep Batch #...: 0130419

Dilution Factor: 1

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		
		<u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
1,3-Dinitrobenzene	ND	0.25	mg/kg	SW846 8330B
2,4-Dinitrotoluene	ND	0.25	mg/kg	SW846 8330B
2,6-Dinitrotoluene	ND	0.25	mg/kg	SW846 8330B
Nitrobenzene	ND	0.25	mg/kg	SW846 8330B
Nitroglycerin	ND	0.50	mg/kg	SW846 8330B
1,3,5-Trinitrobenzene	ND	0.25	mg/kg	SW846 8330B
2,4,6-Trinitrotoluene	ND	0.25	mg/kg	SW846 8330B
HMX	ND	0.25	mg/kg	SW846 8330B
RDX	ND	0.25	mg/kg	SW846 8330B
Tetryl	ND	0.25	mg/kg	SW846 8330B
2-Nitrotoluene	ND	0.25	mg/kg	SW846 8330B
3-Nitrotoluene	ND	0.25	mg/kg	SW846 8330B
4-Nitrotoluene	ND	0.50	mg/kg	SW846 8330B
4-Amino-2,6-dinitrotoluene	ND	0.25	mg/kg	SW846 8330B
2-Amino-4,6-dinitrotoluene	ND	0.25	mg/kg	SW846 8330B
PETN	ND	0.50	mg/kg	SW846 8330B
	<u>PERCENT</u>	<u>RECOVERY</u>		
<u>SURROGATE</u>	<u>RECOVERY</u>	<u>LIMITS</u>		
3,4-Dinitrotoluene	101	(81 - 127)		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: A0D300624

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING		METHOD	PREPARATION-	PREP
		LIMIT	UNITS		ANALYSIS DATE	BATCH #
Hexavalent Chromium	ND	0.80	mg/kg	SW846 7196A	05/12-05/13/10	0127389
		Dilution Factor: 1				
Nitrocellulose	ND	5.0	mg/kg	MCAWW 353.2	05/10-05/12/10	0130425
		Dilution Factor: 1				
Percent Solids	ND	10.0	%	MCAWW 160.3 MOD	05/06-05/07/10	0126123
		Dilution Factor: 1				
Percent Solids	ND	10.0	%	MCAWW 160.3 MOD	05/07-05/10/10	0127366
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: A0D300624 Work Order #...: L1AJ71AC Matrix.....: SOLID
LCS Lot-Sample#: G0E100000-417
Prep Date.....: 05/10/10 Analysis Date...: 05/25/10
Prep Batch #...: 0130417
Dilution Factor: 1

<u>PARAMETER</u>	<u>PERCENT</u>	<u>RECOVERY</u>	<u>METHOD</u>
Nitroguanidine	108	(72 - 121)	SW846 8330 (Modified)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.
Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC

Client Lot #...: A0D300624 Work Order #...: L1AJ71AC Matrix.....: SOLID
LCS Lot-Sample#: G0E100000-417
Prep Date.....: 05/10/10 Analysis Date...: 05/25/10
Prep Batch #...: 0130417
Dilution Factor: 1

<u>PARAMETER</u>	<u>SPIKE</u>	<u>MEASURED</u>	<u>UNITS</u>	<u>PERCENT</u>	<u>METHOD</u>
	<u>AMOUNT</u>	<u>AMOUNT</u>		<u>RECOVERY</u>	
Nitroguanidine	1.0	1.1	mg/kg	108	SW846 8330 (Modi

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.
Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: A0D300624 Work Order #...: L1AKJ1AC Matrix.....: SOLID
 LCS Lot-Sample#: G0E100000-419
 Prep Date.....: 05/10/10 Analysis Date...: 05/25/10
 Prep Batch #...: 0130419
 Dilution Factor: 1

<u>PARAMETER</u>	PERCENT <u>RECOVERY</u>	RECOVERY <u>LIMITS</u>	<u>METHOD</u>
2-Amino-4,6-dinitrotoluene	103	(80 - 125)	SW846 8330B
4-Amino-2,6-dinitrotoluene	102	(80 - 125)	SW846 8330B
1,3-Dinitrobenzene	105	(80 - 125)	SW846 8330B
2,4-Dinitrotoluene	101	(80 - 125)	SW846 8330B
2,6-Dinitrotoluene	100	(80 - 120)	SW846 8330B
HMX	104	(75 - 125)	SW846 8330B
Nitrobenzene	99	(75 - 125)	SW846 8330B
2-Nitrotoluene	106	(80 - 125)	SW846 8330B
3-Nitrotoluene	95	(75 - 120)	SW846 8330B
4-Nitrotoluene	96	(75 - 125)	SW846 8330B
RDX	108	(70 - 135)	SW846 8330B
Tetryl	94	(10 - 150)	SW846 8330B
1,3,5-Trinitrobenzene	105	(75 - 125)	SW846 8330B
2,4,6-Trinitrotoluene	96	(55 - 140)	SW846 8330B
Nitroglycerin	97	(74 - 112)	SW846 8330B
PETN	104	(75 - 117)	SW846 8330B

<u>SURROGATE</u>	PERCENT <u>RECOVERY</u>	RECOVERY <u>LIMITS</u>
3,4-Dinitrotoluene	101	(81 - 127)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC

Client Lot #...: A0D300624 Work Order #...: L1AKJ1AC Matrix.....: SOLID
 LCS Lot-Sample#: G0E100000-419
 Prep Date.....: 05/10/10 Analysis Date...: 05/25/10
 Prep Batch #...: 0130419
 Dilution Factor: 1

<u>PARAMETER</u>	<u>SPIKE</u> <u>AMOUNT</u>	<u>MEASURED</u> <u>AMOUNT</u>	<u>UNITS</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>METHOD</u>
2-Amino-4,6-dinitrotoluene	0.50	0.51	mg/kg	103	SW846 8330B
4-Amino-2,6-dinitrotoluene	0.50	0.51	mg/kg	102	SW846 8330B
1,3-Dinitrobenzene	0.50	0.53	mg/kg	105	SW846 8330B
2,4-Dinitrotoluene	0.50	0.50	mg/kg	101	SW846 8330B
2,6-Dinitrotoluene	0.50	0.50	mg/kg	100	SW846 8330B
HMX	0.50	0.52	mg/kg	104	SW846 8330B
Nitrobenzene	0.50	0.49	mg/kg	99	SW846 8330B
2-Nitrotoluene	0.50	0.53	mg/kg	106	SW846 8330B
3-Nitrotoluene	0.50	0.48	mg/kg	95	SW846 8330B
4-Nitrotoluene	0.50	0.48	mg/kg	96	SW846 8330B
RDX	0.50	0.54	mg/kg	108	SW846 8330B
Tetryl	0.50	0.47	mg/kg	94	SW846 8330B
1,3,5-Trinitrobenzene	0.50	0.53	mg/kg	105	SW846 8330B
2,4,6-Trinitrotoluene	0.50	0.48	mg/kg	96	SW846 8330B
Nitroglycerin	1.0	0.97	mg/kg	97	SW846 8330B
PETN	1.0	1.0	mg/kg	104	SW846 8330B

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
3,4-Dinitrotoluene	101	(81 - 127)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.
 Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A0D300624

Matrix.....: SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Hexavalent Chromium	99	(80 - 120)	SW846 7196A Dilution Factor: 1	05/12-05/13/10	0127389
Nitrocellulose	35	(34 - 115)	MCAWW 353.2 Dilution Factor: 1	05/10-05/12/10	0130425

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Client Lot #...: A0D300624

Matrix.....: SOLID

<u>PARAMETER</u>	<u>SPIKE AMOUNT</u>	<u>MEASURED AMOUNT</u>	<u>UNITS</u>	<u>PERCNT RECVRY</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Hexavalent Chromium	20.0	19.8	mg/kg	99	SW846 7196A	05/12-05/13/10	0127389
Work Order #: L1E9J1AC LCS Lot-Sample#: A0E070000-389							
Dilution Factor: 1							
Nitrocellulose	50.9	17.7	mg/kg	35	MCAWW 353.2	05/10-05/12/10	0130425
Work Order #: L1ALJ1AC LCS Lot-Sample#: G0E100000-425							
Dilution Factor: 1							

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: A0D300624 Work Order #...: L0VKA1D0-MS Matrix.....: SO
 MS Lot-Sample #: A0D300624-010 L0VKA1D1-MSD
 Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10
 Prep Date.....: 05/10/10 Analysis Date...: 05/25/10
 Prep Batch #...: 0130417
 Dilution Factor: 1.02

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>
Nitroguanidine	52 a	(72 - 121)			SW846 8330 (Modified)
	54 a	(72 - 121)	4.9	(0-20)	SW846 8330 (Modified)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

HPLC

Client Lot #...: A0D300624 Work Order #...: L0VKA1D0-MS Matrix.....: SO
 MS Lot-Sample #: A0D300624-010 L0VKA1D1-MSD
 Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10
 Prep Date.....: 05/10/10 Analysis Date...: 05/25/10
 Prep Batch #...: 0130417
 Dilution Factor: 1.02

PARAMETER	SAMPLE	SPIKE	MEASRD	UNITS	PERCNT		METHOD
	AMOUNT	AMT	AMOUNT		RECVRY	RPD	
Nitroguanidine	ND	1.0	0.52	mg/kg	52	a	SW846 8330 (Modified
	ND	1.0	0.54	mg/kg	54	a 4.9	SW846 8330 (Modified

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: A0D300624 Work Order #...: L0VKA1DV-MS Matrix.....: SO
 MS Lot-Sample #: A0D300624-010 L0VKA1DW-MSD
 Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10
 Prep Date.....: 05/10/10 Analysis Date...: 05/25/10
 Prep Batch #...: 0130419
 Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
2-Amino-4,6-dinitrotoluene	103	(80 - 125)			SW846 8330B
	103	(80 - 125)	0.40	(0-30)	SW846 8330B
4-Amino-2,6-dinitrotoluene	100	(80 - 125)			SW846 8330B
	100	(80 - 125)	0.10	(0-30)	SW846 8330B
1,3-Dinitrobenzene	104	(80 - 125)			SW846 8330B
	104	(80 - 125)	0.42	(0-30)	SW846 8330B
2,4-Dinitrotoluene	102	(80 - 125)			SW846 8330B
	103	(80 - 125)	0.91	(0-30)	SW846 8330B
2,6-Dinitrotoluene	103	(80 - 120)			SW846 8330B
	104	(80 - 120)	0.79	(0-30)	SW846 8330B
HMX	101	(75 - 125)			SW846 8330B
	101	(75 - 125)	0.23	(0-30)	SW846 8330B
Nitrobenzene	99	(75 - 125)			SW846 8330B
	103	(75 - 125)	4.9	(0-30)	SW846 8330B
2-Nitrotoluene	93	(80 - 125)			SW846 8330B
	103	(80 - 125)	10	(0-30)	SW846 8330B
3-Nitrotoluene	93	(75 - 120)			SW846 8330B
	103	(75 - 120)	10	(0-30)	SW846 8330B
4-Nitrotoluene	94	(75 - 125)			SW846 8330B
	102	(75 - 125)	8.5	(0-30)	SW846 8330B
RDX	99	(70 - 135)			SW846 8330B
	98	(70 - 135)	0.10	(0-30)	SW846 8330B
Tetryl	95	(10 - 150)			SW846 8330B
	94	(10 - 150)	0.16	(0-30)	SW846 8330B
1,3,5-Trinitrobenzene	105	(75 - 125)			SW846 8330B
	105	(75 - 125)	0.40	(0-30)	SW846 8330B
2,4,6-Trinitrotoluene	96	(55 - 140)			SW846 8330B
	96	(55 - 140)	0.29	(0-30)	SW846 8330B
Nitroglycerin	96	(74 - 112)			SW846 8330B
	97	(74 - 112)	1.6	(0-30)	SW846 8330B
PETN	106	(75 - 117)			SW846 8330B
	107	(75 - 117)	2.2	(0-30)	SW846 8330B

(Continued on next page)

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: A0D300624 Work Order #...: L0VKA1DV-MS Matrix.....: SO
MS Lot-Sample #: A0D300624-010 L0VKA1DW-MSD

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
3,4-Dinitrotoluene	103	(81 - 127)
	103	(81 - 127)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.
Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

HPLC

Client Lot #...: A0D300624 Work Order #...: L0VKA1DV-MS Matrix.....: SO
 MS Lot-Sample #: A0D300624-010 L0VKA1DW-MSD
 Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10
 Prep Date.....: 05/10/10 Analysis Date...: 05/25/10
 Prep Batch #...: 0130419
 Dilution Factor: 1

PARAMETER	SAMPLE	SPIKE	MEASRD	UNITS	PERCNT		METHOD
	AMOUNT	AMT	AMOUNT		RECVRY	RPD	
2-Amino-4,6-dinitrotoluene	ND	0.50	0.51	mg/kg	103		SW846 8330B
	ND	0.50	0.52	mg/kg	103	0.40	SW846 8330B
4-Amino-2,6-dinitrotoluene	ND	0.50	0.50	mg/kg	100		SW846 8330B
	ND	0.50	0.50	mg/kg	100	0.10	SW846 8330B
1,3-Dinitrobenzene	ND	0.50	0.52	mg/kg	104		SW846 8330B
	ND	0.50	0.52	mg/kg	104	0.42	SW846 8330B
2,4-Dinitrotoluene	ND	0.50	0.51	mg/kg	102		SW846 8330B
	ND	0.50	0.52	mg/kg	103	0.91	SW846 8330B
2,6-Dinitrotoluene	ND	0.50	0.52	mg/kg	103		SW846 8330B
	ND	0.50	0.52	mg/kg	104	0.79	SW846 8330B
HMX	ND	0.50	0.50	mg/kg	101		SW846 8330B
	ND	0.50	0.51	mg/kg	101	0.23	SW846 8330B
Nitrobenzene	ND	0.50	0.49	mg/kg	99		SW846 8330B
	ND	0.50	0.52	mg/kg	103	4.9	SW846 8330B
2-Nitrotoluene	ND	0.50	0.46	mg/kg	93		SW846 8330B
	ND	0.50	0.52	mg/kg	103	10	SW846 8330B
3-Nitrotoluene	ND	0.50	0.47	mg/kg	93		SW846 8330B
	ND	0.50	0.52	mg/kg	103	10	SW846 8330B
4-Nitrotoluene	ND	0.50	0.47	mg/kg	94		SW846 8330B
	ND	0.50	0.51	mg/kg	102	8.5	SW846 8330B
RDX	ND	0.50	0.49	mg/kg	99		SW846 8330B
	ND	0.50	0.49	mg/kg	98	0.10	SW846 8330B
Tetryl	ND	0.50	0.47	mg/kg	95		SW846 8330B
	ND	0.50	0.47	mg/kg	94	0.16	SW846 8330B
1,3,5-Trinitrobenzene	ND	0.50	0.52	mg/kg	105		SW846 8330B
	ND	0.50	0.53	mg/kg	105	0.40	SW846 8330B
2,4,6-Trinitrotoluene	ND	0.50	0.48	mg/kg	96		SW846 8330B
	ND	0.50	0.48	mg/kg	96	0.29	SW846 8330B
Nitroglycerin	ND	1.0	0.96	mg/kg	96		SW846 8330B
	ND	1.0	0.97	mg/kg	97	1.6	SW846 8330B
PETN	ND	1.0	1.1	mg/kg	106		SW846 8330B
	ND	1.0	1.1	mg/kg	107	2.2	SW846 8330B

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

HPLC

Client Lot #...: A0D300624 Work Order #...: L0VKA1DV-MS Matrix.....: SO
MS Lot-Sample #: A0D300624-010 L0VKA1DW-MSD

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
3,4-Dinitrotoluene	103	(81 - 127)
	103	(81 - 127)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.
Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A0D300624

Matrix.....: SO

Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Nitrocellulose			WO#:	L0VKA1D3-MS/L0VKA1D4-MSD		MS Lot-Sample #:	A0D300624-010
	20 N	(34 - 115)			MCAWW 353.2	05/10-05/12/10	0130425
	14 N	(34 - 115)	29	(0-71)	MCAWW 353.2	05/10-05/12/10	0130425
			Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: A0D300624

Matrix.....: SO

Date Sampled...: 04/28/10 15:30 Date Received...: 04/29/10

<u>PARAMETER</u>	<u>SAMPLE AMOUNT</u>	<u>SPIKE AMT</u>	<u>MEASRD AMOUNT</u>	<u>UNITS</u>	<u>PERCNT RECVRY</u>	<u>RPD</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Nitrocellulose			WO#: L0VKA1D3-MS/L0VKA1D4-MSD				MS Lot-Sample #: A0D300624-010		
	ND	51.0	10.6 N	mg/kg	20		MCAWW 353.2	05/10-05/12/10	0130425
	ND	51.3	7.9 N	mg/kg	14	29	MCAWW 353.2	05/10-05/12/10	0130425

Dilution Factor: 1

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A0D300624

Work Order #...: L03JW-SMP
L03JW-DUP

Matrix.....: SOLID

Date Sampled...: 05/04/10 09:05 Date Received...: 05/05/10

% Moisture.....: 23

<u>PARAM</u>	<u>RESULT</u>	<u>DUPLICATE</u>	<u>UNITS</u>	<u>RPD</u>	<u>LIMIT</u>	<u>METHOD</u>	<u>PREPARATION-</u>	<u>PREP</u>
		<u>RESULT</u>					<u>ANALYSIS DATE</u>	<u>BATCH #</u>
Percent Solids	77.1	80.5	%	4.3	(0-20)	MCAWW 160.3 MOD	05/06-05/07/10	0126123
							SD Lot-Sample #: A0E050595-004	
							Dilution Factor: 1	

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A0D300624

Work Order #...: L04H8-SMP
L04H8-DUP

Matrix.....: SOLID

Date Sampled...: 05/04/10 09:00 Date Received...: 05/06/10

% Moisture.....: 6.8

<u>PARAM</u>	<u>RESULT</u>	<u>DUPLICATE</u>	<u>UNITS</u>	<u>RPD</u>	<u>RPD</u>	<u>METHOD</u>	<u>PREPARATION-</u>	<u>PREP</u>
		<u>RESULT</u>		<u>RPD</u>	<u>LIMIT</u>		<u>ANALYSIS DATE</u>	<u>BATCH #</u>
Percent Solids	93.2	93.9	%	0.73	(0-20)	SD Lot-Sample #: A0E060466-001 MCAWW 160.3 MOD	05/07-05/10/10	0127366

Dilution Factor: 1

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A0D300624

Work Order #...: L06CP-SMP
L06CP-DUP

Matrix.....: SOLID

Date Sampled...: 05/06/10 12:25 Date Received...: 05/07/10

% Moisture.....: 22

<u>PARAM</u>	<u>RESULT</u>	<u>DUPLICATE</u>	<u>UNITS</u>	<u>RPD</u>	<u>LIMIT</u>	<u>METHOD</u>	<u>PREPARATION-</u>	<u>PREP</u>
		<u>RESULT</u>					<u>ANALYSIS DATE</u>	<u>BATCH #</u>
Percent Solids	77.6	86.8	%	11	(0-20)	MCAWW 160.3 MOD	05/07-05/10/10	0127366
							SD Lot-Sample #: A0E070425-003	
							Dilution Factor: 1	

END OF REPORT

ANALYTICAL REPORT

PROJECT NO. RAVENNA AAP U-10

RAVENNA AAP U-10

Lot #: A0D300448

CONTRACT NO: W912QR-07-D-0020

DELIVERY ORDER: Task 23

Derek S. Kinder

U.S. Army Corps of Engineers

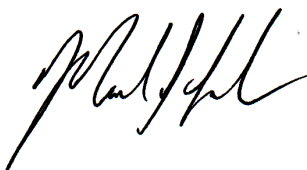
600 Martin Luther King Place

Room 921

Louisville, KY 40202

TESTAMERICA LABORATORIES, INC.

Unless noted otherwise, the test results reported herein meet all requirements of NELAC and the current version of the DoD QSM.



Approved for release.
Mark J. Loeb
Project Manager II
5/27/2010 3:17 PM

Mark J. Loeb
Project Manager
mark.loeb@testamericainc.com

May 25, 2010

TestAmerica Laboratories, Inc.

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CASE NARRATIVE

CASE NARRATIVE

A0D300448

The following report contains the analytical results for twenty-seven solid samples submitted to TestAmerica North Canton by U.S. Army Corps of Engineers from the Ravenna AAP U-10 Site. The samples were received April 29, 2010, according to documented sample acceptance procedures.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Derek S. Kinder on May 13, 2010. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by a dry weight adjustment footnote at the bottom of the analytical report page. The list of parameters which are never reported on a dry weight basis is included on the Sample Summary.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

All parameters were evaluated to the method detection limit and include qualified results where applicable.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Mark J. Loeb, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

CASE NARRATIVE (continued)

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperatures of the coolers upon sample receipt were 4.1, 4.3, 4.6 and 4.7°C.

See TestAmerica's Cooler Receipt Form for additional information.

GC/MS VOLATILES

The sample(s) that contained concentrations of target analyte(s) at a reportable level in the associated Method Blank(s) were flagged with "B". All target analytes in the Method Blank must be below the reporting limit (RL) or the associated sample(s) must be ND with the exception of common laboratory contaminants.

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

The matrix spike/matrix spike duplicate(s) for DAAsb-023-0005/0006/0007-SO and DAAsb-022-0006/0008/0009-SO had RPD's and recoveries outside acceptance limits. However, since the associated method blank(s) and laboratory control sample(s) were in control, no corrective action was necessary.

Sample DAAsb-023-0002-SO had a poor purge the first analysis with no internal standard or surrogate recoveries. The second vial used had the old cap replaced and the top of the vial cleaned off with a paper towel while still frozen. the second vial worked fine.

The samples, DAAsb-026-0002-SO, DAAsb-026-0003-SO, DAAsb-026-0006-SO, DAAsb-026-0007-SO, DAAsb-025-0002-SO, DAAsb-025-0003-SO, DAAsb-025-0004-SO, DAAsb-023-0003-SO, DAAsb-023-0004-SO, DAAsb-023-0005/0006/0007-SO, DAAsb-024-0002-SO, DAAsb-024-0003-SO, DAAsb-024-0004-SO, DAAsb-024-0005-SO and DAAsb-024-0007-SO have an opener QCMRL with 3 compounds failing low. The compounds of interest were all detected in the QCMDL. Acetone was the only reportable compound of interest detected in these samples, which also passed the QCMRL opener. The QCMRL closer also had compounds fail low but detected all compounds of interest. Even though the QCMRL opener did not meet the sporadic marginal failure criteria the quality of the sample results are still good. Because the lowest possible concentrations could be detected for all compounds of interest and no reporting limits were missed on any of the three compounds that failed the QCMRL.

CASE NARRATIVE (continued)

GC/MS VOLATILES (cont)

The samples DAAsb-023-0002-SO, DAAsb-027-0004-SO, DAAsb-027-0005-SO, DAAsb-027-0006-SO, DAAsb-027-0007-SO, DAAsb-022-0002-SO, DAAsb-022-0003-SO, DAAsb-022-0005-SO, DAAsb-022-0006/0008/0009-SO, DAAsb-022-0007-SO and DAAsb-026-0004-SO have an opener QCMRL with 5 compounds failing low. The compounds of interest were all detected in the QCMDL. Acetone was the only reportable compound of interest detected in these samples, which also passed the QCMRL opener. The QCMRL closer also had compounds fail low but detected all compounds of interest. Even though the QCMRL opener did not meet the sporadic marginal failure criteria the quality of the sample results are still good. Because the lowest possible concentrations could be detected for all compounds of interest and no reporting limits were missed on any of the five compounds that failed the QCMRL.

GENERAL CHEMISTRY

The analytical results met the requirements of the laboratory's QA/QC program.

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data. Program or agency specific requirements take precedence over the requirements listed in this narrative.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the reparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

<u>Volatile (GC or GC/MS)</u>	<u>Semivolatile (GC/MS)</u>	<u>Metals ICP-MS</u>	<u>Metals ICP Trace</u>
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

QUALITY CONTROL ELEMENTS NARRATIVE (continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.
- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the reparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.



TestAmerica Certifications and Approvals:

The laboratory is certified for the analytes listed on the documents below. These are available upon request.
California (#01144CA), Connecticut (#PH-0590), Florida (#E87225),
Illinois (#200004), Kansas (#E10336), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), Nevada
(#OH-000482008A), OhioVAP (#CL0024), Pennsylvania (#008), West Virginia (#210), Wisconsin (#999518190), NAVY,
ARMY, USDA Soil Permit

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EXECUTIVE SUMMARY

EXECUTIVE SUMMARY - Detection Highlights

A0D300448

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
DAAsb-023-0002-SO 04/28/10 11:20 001				
Acetone	16 J,B	17	ug/kg	SW846 8260B
2-Butanone	1.1 J,B	17	ug/kg	SW846 8260B
2-Hexanone	0.73 J	17	ug/kg	SW846 8260B
4-Methyl-2-pentanone	1.1 J,B	17	ug/kg	SW846 8260B
Percent Solids	89.3	10.0	%	MCAWW 160.3 MOD
DAAsb-023-0003-SO 04/28/10 11:20 002				
Acetone	25 B	17	ug/kg	SW846 8260B
2-Butanone	2.3 J,B	17	ug/kg	SW846 8260B
4-Methyl-2-pentanone	0.58 J,B	17	ug/kg	SW846 8260B
Percent Solids	88.6	10.0	%	MCAWW 160.3 MOD
DAAsb-023-0004-SO 04/28/10 11:30 003				
Acetone	8.0 J,B	19	ug/kg	SW846 8260B
Percent Solids	89.3	10.0	%	MCAWW 160.3 MOD
DAAsb-023-0005/0006/0007-SO 04/28/10 11:30 004				
Acetone	8.8 J,B	25	ug/kg	SW846 8260B
Percent Solids	87.9	10.0	%	MCAWW 160.3 MOD
DAAsb-024-0002-SO 04/28/10 15:20 005				
Acetone	12 J,B	19	ug/kg	SW846 8260B
4-Methyl-2-pentanone	1.0 J,B	19	ug/kg	SW846 8260B
Percent Solids	83.3	10.0	%	MCAWW 160.3 MOD
DAAsb-024-0003-SO 04/28/10 15:20 006				
Acetone	13 J,B	29	ug/kg	SW846 8260B
Percent Solids	84.9	10.0	%	MCAWW 160.3 MOD
DAAsb-024-0004-SO 04/28/10 10:40 007				
Acetone	5.2 J,B	17	ug/kg	SW846 8260B
Percent Solids	87.9	10.0	%	MCAWW 160.3 MOD

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A0D300448

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
DAAsb-024-0005-SO 04/28/10 10:42 008				
Acetone	5.1 J,B	17	ug/kg	SW846 8260B
Percent Solids	86.8	10.0	%	MCAWW 160.3 MOD
DAAsb-024-0007-SO 04/28/10 10:25 009				
Acetone	7.3 J,B	24	ug/kg	SW846 8260B
Percent Solids	84.1	10.0	%	MCAWW 160.3 MOD
DAAsb-026-0002-SO 04/28/10 10:00 010				
Acetone	6.8 J,B	20	ug/kg	SW846 8260B
Carbon disulfide	0.53 J	5.1	ug/kg	SW846 8260B
Percent Solids	83.3	10.0	%	MCAWW 160.3 MOD
DAAsb-026-0003-SO 04/28/10 10:00 011				
Acetone	8.2 J,B	21	ug/kg	SW846 8260B
4-Methyl-2-pentanone	0.81 J,B	21	ug/kg	SW846 8260B
Percent Solids	84.2	10.0	%	MCAWW 160.3 MOD
DAAsb-026-0006-SO 04/28/10 10:15 012				
Acetone	5.6 J,B	16	ug/kg	SW846 8260B
Percent Solids	88.3	10.0	%	MCAWW 160.3 MOD
DAAsb-026-0007-SO 04/28/10 10:15 013				
Acetone	7.5 J,B	24	ug/kg	SW846 8260B
Percent Solids	86.8	10.0	%	MCAWW 160.3 MOD
DAAsb-025-0002-SO 04/28/10 14:55 014				
Acetone	27 B	20	ug/kg	SW846 8260B
2-Butanone	4.7 J,B	20	ug/kg	SW846 8260B
Carbon disulfide	0.67 J	5.0	ug/kg	SW846 8260B
Percent Solids	84.8	10.0	%	MCAWW 160.3 MOD
DAAsb-025-0003-SO 04/28/10 14:55 015				
Acetone	45 B	18	ug/kg	SW846 8260B
2-Butanone	11 J,B	18	ug/kg	SW846 8260B
Toluene	0.35 J	4.5	ug/kg	SW846 8260B
Percent Solids	85.2	10.0	%	MCAWW 160.3 MOD

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EXECUTIVE SUMMARY - Detection Highlights

A0D300448

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
DAAsb-025-0004-SO 04/28/10 15:00 016				
Acetone	5.5 J,B	18	ug/kg	SW846 8260B
Percent Solids	85.8	10.0	%	MCAWW 160.3 MOD
DAAsb-025-0005/0006/0007-SO 04/28/10 15:00 017				
Acetone	15 J,B	32	ug/kg	SW846 8260B
Percent Solids	85.5	10.0	%	MCAWW 160.3 MOD
DAAsb-027-0004-SO 04/28/10 08:50 018				
Acetone	27 B	16	ug/kg	SW846 8260B
2-Butanone	3.0 J,B	16	ug/kg	SW846 8260B
2-Hexanone	0.89 J	16	ug/kg	SW846 8260B
4-Methyl-2-pentanone	1.9 J,B	16	ug/kg	SW846 8260B
Percent Solids	84.0	10.0	%	MCAWW 160.3 MOD
DAAsb-027-0005-SO 04/28/10 08:50 019				
Acetone	9.2 J,B	19	ug/kg	SW846 8260B
Percent Solids	82.8	10.0	%	MCAWW 160.3 MOD
DAAsb-027-0006-SO 04/28/10 09:00 020				
Acetone	6.6 J,B	17	ug/kg	SW846 8260B
Percent Solids	88.3	10.0	%	MCAWW 160.3 MOD
DAAsb-027-0007-SO 04/28/10 09:00 021				
Acetone	6.9 J,B	20	ug/kg	SW846 8260B
Percent Solids	87.3	10.0	%	MCAWW 160.3 MOD
DAAsb-022-0002-SO 04/28/10 14:10 022				
Acetone	30 B	20	ug/kg	SW846 8260B
2-Butanone	3.2 J,B	20	ug/kg	SW846 8260B
4-Methyl-2-pentanone	2.0 J,B	20	ug/kg	SW846 8260B
Percent Solids	88.7	10.0	%	MCAWW 160.3 MOD
DAAsb-022-0003-SO 04/28/10 14:12 023				
Acetone	7.8 J,B	16	ug/kg	SW846 8260B
Percent Solids	87.6	10.0	%	MCAWW 160.3 MOD

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A0D300448

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
DAAsb-022-0005-SO 04/28/10 14:10 024				
Acetone	6.1 J,B	19	ug/kg	SW846 8260B
Percent Solids	89.1	10.0	%	MCAWW 160.3 MOD
DAAsb-022-0006/0008/0009-SO 04/28/10 14:20 025				
Acetone	4.7 J,B	17	ug/kg	SW846 8260B
Percent Solids	85.8	10.0	%	MCAWW 160.3 MOD
DAAsb-022-0007-SO 04/28/10 14:20 026				
Acetone	12 J,B	23	ug/kg	SW846 8260B
2-Hexanone	0.97 J	23	ug/kg	SW846 8260B
4-Methyl-2-pentanone	1.0 J,B	23	ug/kg	SW846 8260B
Percent Solids	88.8	10.0	%	MCAWW 160.3 MOD
DAAsb-026-0004-SO 04/28/10 10:02 027				
Acetone	14 J,B	23	ug/kg	SW846 8260B
4-Methyl-2-pentanone	2.6 J,B	23	ug/kg	SW846 8260B
Percent Solids	83.3	10.0	%	MCAWW 160.3 MOD

METHOD SUMMARY

ANALYTICAL METHODS SUMMARY

A0D300448

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>
Total Residue as Percent Solids	MCAWW 160.3 MOD
Volatile Organics by GC/MS	SW846 8260B

References:

- MCAWW "Methods for Chemical Analysis of Water and Wastes",
EPA-600/4-79-020, March 1983 and subsequent revisions.
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical
Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

SAMPLE SUMMARY

A0D300448

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L0RVX	001	DAAsb-023-0002-SO	04/28/10	11:20
L0RV7	002	DAAsb-023-0003-SO	04/28/10	11:20
L0RV8	003	DAAsb-023-0004-SO	04/28/10	11:30
L0RV9	004	DAAsb-023-0005/0006/0007-SO	04/28/10	11:30
L0RWG	005	DAAsb-024-0002-SO	04/28/10	15:20
L0RWN	006	DAAsb-024-0003-SO	04/28/10	15:20
L0RWQ	007	DAAsb-024-0004-SO	04/28/10	10:40
L0RWV	008	DAAsb-024-0005-SO	04/28/10	10:42
L0RW4	009	DAAsb-024-0007-SO	04/28/10	10:25
L0RW6	010	DAAsb-026-0002-SO	04/28/10	10:00
L0RW7	011	DAAsb-026-0003-SO	04/28/10	10:00
L0RW8	012	DAAsb-026-0006-SO	04/28/10	10:15
L0RXG	013	DAAsb-026-0007-SO	04/28/10	10:15
L0RXH	014	DAAsb-025-0002-SO	04/28/10	14:55
L0RXJ	015	DAAsb-025-0003-SO	04/28/10	14:55
L0RXL	016	DAAsb-025-0004-SO	04/28/10	15:00
L0RXN	017	DAAsb-025-0005/0006/0007-SO	04/28/10	15:00
L0RXR	018	DAAsb-027-0004-SO	04/28/10	08:50
L0RXT	019	DAAsb-027-0005-SO	04/28/10	08:50
L0RXW	020	DAAsb-027-0006-SO	04/28/10	09:00
L0RX0	021	DAAsb-027-0007-SO	04/28/10	09:00
L0RX1	022	DAAsb-022-0002-SO	04/28/10	14:10
L0RX2	023	DAAsb-022-0003-SO	04/28/10	14:12
L0RX4	024	DAAsb-022-0005-SO	04/28/10	14:10
L0RX5	025	DAAsb-022-0006/0008/0009-SO	04/28/10	14:20
L0RX6	026	DAAsb-022-0007-SO	04/28/10	14:20
L0R4H	027	DAAsb-026-0004-SO	04/28/10	10:02

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

***SHIPPING
AND
RECEIVING DOCUMENTS***

Chain of Custody Record

TestAmerica Laboratory location: N Canton --- 4101 Shuffel Street NW/ North Canton, OH 44720 / 330-497-9396

Client Contact:

Regulatory program:

DW

NPDES

RCRA

Other

Company Name: **USACE**

Client Project Manager: **DEREK KINDER**

Site Contact:

Lab Contact:

TestAmerica Laboratories, Inc.

Address:

Telephone: **502 315 6393**

Telephone:

Telephone:

City/State/Zip:

Email:

Analysis:

Analysis:

Phone:

Method of Shipment/Carrier:

Shipping/Tracking No:

Sample Specific Notes / Special Instructions:

Project Name: **Ravena ATP U-10**

Project Number:

PO #

Sample Identification

Sample Identification

Sample Date

Sample Time

Air

Aqueous

Sediment

Solid

Other: **Soil**

H2SO4

HNO3

HCl

NaOH

ZnAc/NaOH

Unpres

Other:

Filtered Sample (Y/N)

Composite: C/Grab: C

Analysis

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Possible Hazard Identification

Non-Hazard Flammable Skin Irritant Poison B Unknown

Special Instructions/OC Requirements & Comments:

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return to Client Disposed By Lab Archive For _____ Months

Relinquished by:

Company:

Date/Time:

Received by:

Company:

Date/Time:

Relinquished by:

Company:

Date/Time:

Received by:

Company:

Date/Time:

Relinquished by:

Company:

Date/Time:

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Date/Time:

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North Canton

unavailable, in some bags as 0005 available, in some bags as 0005

Chain of Custody Record

TestAmerica Laboratory location: N. Canton --- 4101 Shuffel Street NW/ North Canton, OH 44720 / 330-497-9396

Client Contact

Company Name: **USACE**

Address:

City/State/Zip:

Phone:

Project Name: **Raven AAP U-10**

Project Number:

PO #

Regulatory program:

DW

NPDES

RCRA

Other

Client Project Manager: **Derek Kider**

Telephone: **502 315 6393**

Email:

Site Contact:

Telephone:

Lab Contact:

Telephone:

TestAmerica Laboratories, Inc.
COC No: _____
of _____
COCs

For lab use only

Walk-in client

Lab sampling

Job/SDG No: _____

Sample Specific Notes /
Special Instructions:

Sample Identification

**23457
23467**

Sample Date

4/28/10

Sample Time

1520

Matrix

Air

Aqueous

Sediment

Solid

Other

Soil

Containers & Preservatives

H2SO4

HNO3

HCl

NaOH

ZnAc

NaOH

Unpres

Other:

Filtered Sample (Y / N)

Composite=C / Grab=G

X

Soil

Sample Identification	Sample Date	Sample Time	Matrix					Containers & Preservatives						Filtered Sample (Y / N)	Composite=C / Grab=G		
			Air	Aqueous	Sediment	Solid	Other	H2SO4	HNO3	HCl	NaOH	ZnAc	NaOH			Unpres	Other:
DAA sb-024-0002-50	4/28/10	1520														X	Soil
DAA sb-024-0003-50		1520															
DAA sb-024-0004-50		1040															
DAA sb-024-0005-50		1042															
DAA sb-024-0007-50		1025															
DAA sb-026-0002-50		1000															
DAA sb-026-0003-50		1000															
DAA sb-026-0004-50		1002															
DAA sb-026-0006-50		1015															
DAA sb-026-0007-50		1015															

Possible Hazard Identification
 Non-hazard Flammable Skin Irritant Poison B Unknown

Special Instructions/QC Requirements & Comments:
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return to Client Disposal By Lab Archive For _____ Months

Relinquished by:

ESD

Company: **USACE**

Date/Time: **4/28/10; 0800**

Received by:

GLYNELL

Company:

TA NC

Date/Time:

4/29/10 1330

Relinquished by:

Company:

Date/Time:

Received by:

Company:

Date/Time:

Chain of Custody Record

TestAmerica Laboratory location: N Canton --- 4101 Shuffel Street NW/ North Canton, OH 44720 / 330-497-9396

Client Contact USACE		Regulatory program: <input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other		TestAmerica Laboratories, Inc.							
Address:		Client Project Manager: Beck Kinder		COC No: _____							
City/State/Zip:		Telephone: 502 315 6393		of _____ COCs							
Phone:		Email:		For lab use only							
Project Name: RAVINA ATP		Method of Shipment/Carrier:		Walk-in client							
Project Number:		Shipping/Tracking No:		Lab sampling							
PO #		Matrix:		Job/SDG No: _____							
Sample Identification		Containers & Preservatives		Sample Specific Notes / Special Instructions:							
Sample Date		Air		Filtered Sample (Y / N)							
Sample Time		Aqueous		Composite=C / Grab=G							
		Sediment									
		Soil									
		Other:									
		H2SO4									
		HNO3									
		HCl									
		NaOH									
		ZnAc									
		NaOH									
		Unpres									
		Other:									
DAA sb - 022 - 0002 - 50		4/28/10		1410		X					
DAA sb - 022 - 0003 - 50				1412							
DAA sb - 022 - 0005 - 50				1410							
DAA sb - 022 - 0006 - 50				1420							
DAA sb - 022 - 0008 - 50				1420							
DAA sb - 022 - 0009 - 50				1420							
DAA sb - 022 - 0007 - 50				1420						no label in same bag as - 0006 - unlabeled, in same bag as - 0006 -	

Possible Hazard Identification: Non-Hazard Flammable Skin Irritant Poison B Unknown

Special Instructions/QC Requirements & Comments: Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Return to Client Disposal By Lab Archive For _____ Months

Reinquired by: **[Signature]** Company: **USACE** Date/Time: **4/29/10, 0800** Received by: **[Signature]** Company: **USACE** Date/Time: **4/29/10, 1130**

Reinquired by: **[Signature]** Company: **USACE** Date/Time: **4/29/10, 0800** Received by: **[Signature]** Company: **USACE** Date/Time: **4/29/10, 1130**

Reinquired by: **[Signature]** Company: **USACE** Date/Time: **4/29/10, 0800** Received by: **[Signature]** Company: **USACE** Date/Time: **4/29/10, 1130**

TestAmerica Cooler Receipt Form/Narrative

Lot Number: A0D300448

North Canton Facility

Client USACE Project Recovery FAP By: [Signature]
 Cooler Received on 4/29/10 Opened on 4/29/10 (Signature)

FedEx UPS DHL FAS Stetson Client Drop Off TestAmerica Courier Other _____
 TestAmerica Cooler # _____ Multiple Coolers Foam Box Client Cooler Other _____

1. Were custody seals on the outside of the cooler(s)? Yes No Intact? Yes No NA
 If YES, Quantity 4 Quantity Unsalvageable _____
 Were custody seals on the outside of cooler(s) signed and dated? Yes No NA
 Were custody seals on the bottle(s)? Yes No
 If YES, are there any exceptions? _____
 2. Shippers' packing slip attached to the cooler(s)? Yes No
 3. Did custody papers accompany the sample(s)? Yes No Relinquished by client? Yes No
 4. Were the custody papers signed in the appropriate place? Yes No
 5. Packing material used: Bubble Wrap Foam None Other _____
 6. Cooler temperature upon receipt _____ °C See back of form for multiple coolers/temps
 METHOD: IR Other _____
 COOLANT: Wet Ice Blue Ice Dry Ice Water None
 7. Did all bottles arrive in good condition (Unbroken)? Yes No
 8. Could all bottle labels be reconciled with the COC? Yes No
 9. Were sample(s) at the correct pH upon receipt? Yes No NA
 10. Were correct bottle(s) used for the test(s) indicated? Yes No
 11. Were air bubbles >6 mm in any VOA vials? Yes No NA
 12. Sufficient quantity received to perform indicated analyses? Yes No
 13. Was a trip blank present in the cooler(s)? Yes No Were VOAs on the COC? Yes No
- Contacted PM MJL Date 4/29/10 by [Signature] via Verbal Voice Mail Other
 Concerning #14

14. CHAIN OF CUSTODY

The following discrepancies occurred:
Received samples DAAsh-023-0005, 0006, +0007 in the same bag. None of the containers have any ID on them
Received samples DAAsh-025-0005-50, 0006-50, + 0007-50 in the same bag. None of the containers have any ID on them
Received sample DAAsh-022-0006-50, 0008-50, + 0009-50 in the same bag. None of the containers have any ID on them.

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired. OVER
 Sample(s) _____ were received in a broken container.
 Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). Nitric Acid Lot# 121709-HNO₃; Sulfuric Acid Lot# 121709-H₂SO₄; Sodium Hydroxide Lot# 100108 -NaOH; Hydrochloric Acid Lot# 092006-HCl; Sodium Hydroxide and Zinc Acetate Lot# 100108-(CH₃COO)₂ZN/NaOH. What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials

GCMS VOLATILE DATA

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-023-0002-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-001 Work Order #...: L0RVX1AC Matrix.....: SO
 Date Sampled...: 04/28/10 11:20 Date Received...: 04/29/10
 Prep Date.....: 05/05/10 Analysis Date...: 05/05/10
 Prep Batch #...: 0127105
 Dilution Factor: 0.75 Initial Wgt/Vol: 5 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 11 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acetone	16 J,B	17	ug/kg
Benzene	ND	4.2	ug/kg
Bromochloromethane	ND	4.2	ug/kg
Bromodichloromethane	ND	4.2	ug/kg
Bromoform	ND	4.2	ug/kg
Bromomethane	ND	4.2	ug/kg
2-Butanone	1.1 J,B	17	ug/kg
Carbon disulfide	ND	4.2	ug/kg
Carbon tetrachloride	ND	4.2	ug/kg
Chlorobenzene	ND	4.2	ug/kg
Dibromochloromethane	ND	4.2	ug/kg
Chloroethane	ND	4.2	ug/kg
Chloroform	ND	4.2	ug/kg
Chloromethane	ND	4.2	ug/kg
1,2-Dibromoethane	ND	4.2	ug/kg
1,1-Dichloroethane	ND	4.2	ug/kg
1,2-Dichloroethane	ND	4.2	ug/kg
1,1-Dichloroethene	ND	4.2	ug/kg
1,2-Dichloroethene	ND	4.2	ug/kg
(total)			
1,2-Dichloropropane	ND	4.2	ug/kg
cis-1,3-Dichloropropene	ND	4.2	ug/kg
trans-1,3-Dichloropropene	ND	4.2	ug/kg
Ethylbenzene	ND	4.2	ug/kg
2-Hexanone	0.73 J	17	ug/kg
Methylene chloride	ND	4.2	ug/kg
4-Methyl-2-pentanone	1.1 J,B	17	ug/kg
Styrene	ND	4.2	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.2	ug/kg
Tetrachloroethene	ND	4.2	ug/kg
Toluene	ND	4.2	ug/kg
1,1,1-Trichloroethane	ND	4.2	ug/kg
1,1,2-Trichloroethane	ND	4.2	ug/kg
Trichloroethene	ND	4.2	ug/kg
Vinyl chloride	ND	4.2	ug/kg
Xylenes (total)	ND	8.4	ug/kg

(Continued on next page)

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-023-0002-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-001 Work Order #...: L0RVX1AC Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	100	(61 - 130)
Toluene-d8	98	(85 - 115)
4-Bromofluorobenzene	90	(85 - 120)
Dibromofluoromethane	90	(59 - 138)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated: The analyte was positively identified; the quantitation is estimated.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-023-0003-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-002 Work Order #...: L0RV71AC Matrix.....: SO
 Date Sampled...: 04/28/10 11:20 Date Received...: 04/29/10
 Prep Date.....: 05/04/10 Analysis Date...: 05/04/10
 Prep Batch #...: 0125074
 Dilution Factor: 0.77 Initial Wgt/Vol: 5 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 11 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acetone	25 B	17	ug/kg
Benzene	ND	4.3	ug/kg
Bromochloromethane	ND	4.3	ug/kg
Bromodichloromethane	ND	4.3	ug/kg
Bromoform	ND	4.3	ug/kg
Bromomethane	ND	4.3	ug/kg
2-Butanone	2.3 J,B	17	ug/kg
Carbon disulfide	ND	4.3	ug/kg
Carbon tetrachloride	ND	4.3	ug/kg
Chlorobenzene	ND	4.3	ug/kg
Dibromochloromethane	ND	4.3	ug/kg
Chloroethane	ND	4.3	ug/kg
Chloroform	ND	4.3	ug/kg
Chloromethane	ND	4.3	ug/kg
1,2-Dibromoethane	ND	4.3	ug/kg
1,1-Dichloroethane	ND	4.3	ug/kg
1,2-Dichloroethane	ND	4.3	ug/kg
1,1-Dichloroethene	ND	4.3	ug/kg
1,2-Dichloroethene	ND	4.3	ug/kg
(total)			
1,2-Dichloropropane	ND	4.3	ug/kg
cis-1,3-Dichloropropene	ND	4.3	ug/kg
trans-1,3-Dichloropropene	ND	4.3	ug/kg
Ethylbenzene	ND	4.3	ug/kg
2-Hexanone	ND	17	ug/kg
Methylene chloride	ND	4.3	ug/kg
4-Methyl-2-pentanone	0.58 J,B	17	ug/kg
Styrene	ND	4.3	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.3	ug/kg
Tetrachloroethene	ND	4.3	ug/kg
Toluene	ND	4.3	ug/kg
1,1,1-Trichloroethane	ND	4.3	ug/kg
1,1,2-Trichloroethane	ND	4.3	ug/kg
Trichloroethene	ND	4.3	ug/kg
Vinyl chloride	ND	4.3	ug/kg
Xylenes (total)	ND	8.7	ug/kg

(Continued on next page)

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-023-0003-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-002 Work Order #...: L0RV71AC Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	92	(61 - 130)
Toluene-d8	101	(85 - 115)
4-Bromofluorobenzene	96	(85 - 120)
Dibromofluoromethane	86	(59 - 138)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

J Estimated: The analyte was positively identified; the quantitation is estimated.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-023-0004-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-003 Work Order #...: L0RV81AC Matrix.....: SO
 Date Sampled...: 04/28/10 11:30 Date Received...: 04/29/10
 Prep Date.....: 05/04/10 Analysis Date...: 05/04/10
 Prep Batch #...: 0125074
 Dilution Factor: 0.86 Initial Wgt/Vol: 5 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 11 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acetone	8.0 J,B	19	ug/kg
Benzene	ND	4.8	ug/kg
Bromochloromethane	ND	4.8	ug/kg
Bromodichloromethane	ND	4.8	ug/kg
Bromoform	ND	4.8	ug/kg
Bromomethane	ND	4.8	ug/kg
2-Butanone	ND	19	ug/kg
Carbon disulfide	ND	4.8	ug/kg
Carbon tetrachloride	ND	4.8	ug/kg
Chlorobenzene	ND	4.8	ug/kg
Dibromochloromethane	ND	4.8	ug/kg
Chloroethane	ND	4.8	ug/kg
Chloroform	ND	4.8	ug/kg
Chloromethane	ND	4.8	ug/kg
1,2-Dibromoethane	ND	4.8	ug/kg
1,1-Dichloroethane	ND	4.8	ug/kg
1,2-Dichloroethane	ND	4.8	ug/kg
1,1-Dichloroethene	ND	4.8	ug/kg
1,2-Dichloroethene	ND	4.8	ug/kg
(total)			
1,2-Dichloropropane	ND	4.8	ug/kg
cis-1,3-Dichloropropene	ND	4.8	ug/kg
trans-1,3-Dichloropropene	ND	4.8	ug/kg
Ethylbenzene	ND	4.8	ug/kg
2-Hexanone	ND	19	ug/kg
Methylene chloride	ND	4.8	ug/kg
4-Methyl-2-pentanone	ND	19	ug/kg
Styrene	ND	4.8	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.8	ug/kg
Tetrachloroethene	ND	4.8	ug/kg
Toluene	ND	4.8	ug/kg
1,1,1-Trichloroethane	ND	4.8	ug/kg
1,1,2-Trichloroethane	ND	4.8	ug/kg
Trichloroethene	ND	4.8	ug/kg
Vinyl chloride	ND	4.8	ug/kg
Xylenes (total)	ND	9.6	ug/kg

(Continued on next page)

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-023-0004-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-003 Work Order #...: L0RV81AC Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	92	(61 - 130)
Toluene-d8	102	(85 - 115)
4-Bromofluorobenzene	100	(85 - 120)
Dibromofluoromethane	87	(59 - 138)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated: The analyte was positively identified; the quantitation is estimated.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-023-0005/0006/0007-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-004 Work Order #...: L0RV91AC Matrix.....: SO
 Date Sampled...: 04/28/10 11:30 Date Received..: 04/29/10
 Prep Date.....: 05/04/10 Analysis Date..: 05/04/10
 Prep Batch #...: 0125074
 Dilution Factor: 1.08 Initial Wgt/Vol: 5 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 12 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acetone	8.8 J,B	25	ug/kg
Benzene	ND	6.1	ug/kg
Bromochloromethane	ND	6.1	ug/kg
Bromodichloromethane	ND	6.1	ug/kg
Bromoform	ND	6.1	ug/kg
Bromomethane	ND	6.1	ug/kg
2-Butanone	ND	25	ug/kg
Carbon disulfide	ND	6.1	ug/kg
Carbon tetrachloride	ND	6.1	ug/kg
Chlorobenzene	ND	6.1	ug/kg
Dibromochloromethane	ND	6.1	ug/kg
Chloroethane	ND	6.1	ug/kg
Chloroform	ND	6.1	ug/kg
Chloromethane	ND	6.1	ug/kg
1,2-Dibromoethane	ND	6.1	ug/kg
1,1-Dichloroethane	ND	6.1	ug/kg
1,2-Dichloroethane	ND	6.1	ug/kg
1,1-Dichloroethene	ND	6.1	ug/kg
1,2-Dichloroethene	ND	6.1	ug/kg
(total)			
1,2-Dichloropropane	ND	6.1	ug/kg
cis-1,3-Dichloropropene	ND	6.1	ug/kg
trans-1,3-Dichloropropene	ND	6.1	ug/kg
Ethylbenzene	ND	6.1	ug/kg
2-Hexanone	ND	25	ug/kg
Methylene chloride	ND	6.1	ug/kg
4-Methyl-2-pentanone	ND	25	ug/kg
Styrene	ND	6.1	ug/kg
1,1,2,2-Tetrachloroethane	ND	6.1	ug/kg
Tetrachloroethene	ND	6.1	ug/kg
Toluene	ND	6.1	ug/kg
1,1,1-Trichloroethane	ND	6.1	ug/kg
1,1,2-Trichloroethane	ND	6.1	ug/kg
Trichloroethene	ND	6.1	ug/kg
Vinyl chloride	ND	6.1	ug/kg
Xylenes (total)	ND	12	ug/kg

(Continued on next page)

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-023-0005/0006/0007-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-004 Work Order #...: L0RV91AC Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	95	(61 - 130)
Toluene-d8	105	(85 - 115)
4-Bromofluorobenzene	101	(85 - 120)
Dibromofluoromethane	87	(59 - 138)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated: The analyte was positively identified; the quantitation is estimated.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-024-0002-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-005 Work Order #...: L0RWG1AC Matrix.....: SO
 Date Sampled...: 04/28/10 15:20 Date Received..: 04/29/10
 Prep Date.....: 05/04/10 Analysis Date..: 05/04/10
 Prep Batch #...: 0125074
 Dilution Factor: 0.78 Initial Wgt/Vol: 5 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 17 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acetone	12 J,B	19	ug/kg
Benzene	ND	4.7	ug/kg
Bromochloromethane	ND	4.7	ug/kg
Bromodichloromethane	ND	4.7	ug/kg
Bromoform	ND	4.7	ug/kg
Bromomethane	ND	4.7	ug/kg
2-Butanone	ND	19	ug/kg
Carbon disulfide	ND	4.7	ug/kg
Carbon tetrachloride	ND	4.7	ug/kg
Chlorobenzene	ND	4.7	ug/kg
Dibromochloromethane	ND	4.7	ug/kg
Chloroethane	ND	4.7	ug/kg
Chloroform	ND	4.7	ug/kg
Chloromethane	ND	4.7	ug/kg
1,2-Dibromoethane	ND	4.7	ug/kg
1,1-Dichloroethane	ND	4.7	ug/kg
1,2-Dichloroethane	ND	4.7	ug/kg
1,1-Dichloroethene	ND	4.7	ug/kg
1,2-Dichloroethene	ND	4.7	ug/kg
(total)			
1,2-Dichloropropane	ND	4.7	ug/kg
cis-1,3-Dichloropropene	ND	4.7	ug/kg
trans-1,3-Dichloropropene	ND	4.7	ug/kg
Ethylbenzene	ND	4.7	ug/kg
2-Hexanone	ND	19	ug/kg
Methylene chloride	ND	4.7	ug/kg
4-Methyl-2-pentanone	1.0 J,B	19	ug/kg
Styrene	ND	4.7	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.7	ug/kg
Tetrachloroethene	ND	4.7	ug/kg
Toluene	ND	4.7	ug/kg
1,1,1-Trichloroethane	ND	4.7	ug/kg
1,1,2-Trichloroethane	ND	4.7	ug/kg
Trichloroethene	ND	4.7	ug/kg
Vinyl chloride	ND	4.7	ug/kg
Xylenes (total)	ND	9.4	ug/kg

(Continued on next page)

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-024-0002-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-005 Work Order #...: L0RWG1AC Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	95	(61 - 130)
Toluene-d8	102	(85 - 115)
4-Bromofluorobenzene	95	(85 - 120)
Dibromofluoromethane	88	(59 - 138)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated: The analyte was positively identified; the quantitation is estimated.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-024-0003-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-006 Work Order #...: L0RWN1AC Matrix.....: SO
 Date Sampled...: 04/28/10 15:20 Date Received..: 04/29/10
 Prep Date.....: 05/04/10 Analysis Date..: 05/04/10
 Prep Batch #...: 0125074
 Dilution Factor: 1.24 Initial Wgt/Vol: 5 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 15 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acetone	13 J,B	29	ug/kg
Benzene	ND	7.3	ug/kg
Bromochloromethane	ND	7.3	ug/kg
Bromodichloromethane	ND	7.3	ug/kg
Bromoform	ND	7.3	ug/kg
Bromomethane	ND	7.3	ug/kg
2-Butanone	ND	29	ug/kg
Carbon disulfide	ND	7.3	ug/kg
Carbon tetrachloride	ND	7.3	ug/kg
Chlorobenzene	ND	7.3	ug/kg
Dibromochloromethane	ND	7.3	ug/kg
Chloroethane	ND	7.3	ug/kg
Chloroform	ND	7.3	ug/kg
Chloromethane	ND	7.3	ug/kg
1,2-Dibromoethane	ND	7.3	ug/kg
1,1-Dichloroethane	ND	7.3	ug/kg
1,2-Dichloroethane	ND	7.3	ug/kg
1,1-Dichloroethene	ND	7.3	ug/kg
1,2-Dichloroethene	ND	7.3	ug/kg
(total)			
1,2-Dichloropropane	ND	7.3	ug/kg
cis-1,3-Dichloropropene	ND	7.3	ug/kg
trans-1,3-Dichloropropene	ND	7.3	ug/kg
Ethylbenzene	ND	7.3	ug/kg
2-Hexanone	ND	29	ug/kg
Methylene chloride	ND	7.3	ug/kg
4-Methyl-2-pentanone	ND	29	ug/kg
Styrene	ND	7.3	ug/kg
1,1,2,2-Tetrachloroethane	ND	7.3	ug/kg
Tetrachloroethene	ND	7.3	ug/kg
Toluene	ND	7.3	ug/kg
1,1,1-Trichloroethane	ND	7.3	ug/kg
1,1,2-Trichloroethane	ND	7.3	ug/kg
Trichloroethene	ND	7.3	ug/kg
Vinyl chloride	ND	7.3	ug/kg
Xylenes (total)	ND	15	ug/kg

(Continued on next page)

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-024-0003-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-006 Work Order #...: L0RWN1AC Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	102	(61 - 130)
Toluene-d8	94	(85 - 115)
4-Bromofluorobenzene	89	(85 - 120)
Dibromofluoromethane	86	(59 - 138)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated: The analyte was positively identified; the quantitation is estimated.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-024-0004-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-007 Work Order #...: L0RWQ1AC Matrix.....: SO
 Date Sampled...: 04/28/10 10:40 Date Received..: 04/29/10
 Prep Date.....: 05/04/10 Analysis Date..: 05/04/10
 Prep Batch #...: 0125074
 Dilution Factor: 0.76 Initial Wgt/Vol: 5 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 12 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acetone	5.2 J,B	17	ug/kg
Benzene	ND	4.3	ug/kg
Bromochloromethane	ND	4.3	ug/kg
Bromodichloromethane	ND	4.3	ug/kg
Bromoform	ND	4.3	ug/kg
Bromomethane	ND	4.3	ug/kg
2-Butanone	ND	17	ug/kg
Carbon disulfide	ND	4.3	ug/kg
Carbon tetrachloride	ND	4.3	ug/kg
Chlorobenzene	ND	4.3	ug/kg
Dibromochloromethane	ND	4.3	ug/kg
Chloroethane	ND	4.3	ug/kg
Chloroform	ND	4.3	ug/kg
Chloromethane	ND	4.3	ug/kg
1,2-Dibromoethane	ND	4.3	ug/kg
1,1-Dichloroethane	ND	4.3	ug/kg
1,2-Dichloroethane	ND	4.3	ug/kg
1,1-Dichloroethene	ND	4.3	ug/kg
1,2-Dichloroethene	ND	4.3	ug/kg
(total)			
1,2-Dichloropropane	ND	4.3	ug/kg
cis-1,3-Dichloropropene	ND	4.3	ug/kg
trans-1,3-Dichloropropene	ND	4.3	ug/kg
Ethylbenzene	ND	4.3	ug/kg
2-Hexanone	ND	17	ug/kg
Methylene chloride	ND	4.3	ug/kg
4-Methyl-2-pentanone	ND	17	ug/kg
Styrene	ND	4.3	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.3	ug/kg
Tetrachloroethene	ND	4.3	ug/kg
Toluene	ND	4.3	ug/kg
1,1,1-Trichloroethane	ND	4.3	ug/kg
1,1,2-Trichloroethane	ND	4.3	ug/kg
Trichloroethene	ND	4.3	ug/kg
Vinyl chloride	ND	4.3	ug/kg
Xylenes (total)	ND	8.6	ug/kg

(Continued on next page)

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-024-0004-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-007 Work Order #...: L0RWQ1AC Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	97	(61 - 130)
Toluene-d8	99	(85 - 115)
4-Bromofluorobenzene	93	(85 - 120)
Dibromofluoromethane	88	(59 - 138)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated: The analyte was positively identified; the quantitation is estimated.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-024-0005-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-008 Work Order #...: L0RWV1AC Matrix.....: SO
 Date Sampled...: 04/28/10 10:42 Date Received...: 04/29/10
 Prep Date.....: 05/04/10 Analysis Date...: 05/04/10
 Prep Batch #...: 0125074
 Dilution Factor: 0.75 Initial Wgt/Vol: 5 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 13 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acetone	5.1 J,B	17	ug/kg
Benzene	ND	4.3	ug/kg
Bromochloromethane	ND	4.3	ug/kg
Bromodichloromethane	ND	4.3	ug/kg
Bromoform	ND	4.3	ug/kg
Bromomethane	ND	4.3	ug/kg
2-Butanone	ND	17	ug/kg
Carbon disulfide	ND	4.3	ug/kg
Carbon tetrachloride	ND	4.3	ug/kg
Chlorobenzene	ND	4.3	ug/kg
Dibromochloromethane	ND	4.3	ug/kg
Chloroethane	ND	4.3	ug/kg
Chloroform	ND	4.3	ug/kg
Chloromethane	ND	4.3	ug/kg
1,2-Dibromoethane	ND	4.3	ug/kg
1,1-Dichloroethane	ND	4.3	ug/kg
1,2-Dichloroethane	ND	4.3	ug/kg
1,1-Dichloroethene	ND	4.3	ug/kg
1,2-Dichloroethene	ND	4.3	ug/kg
(total)			
1,2-Dichloropropane	ND	4.3	ug/kg
cis-1,3-Dichloropropene	ND	4.3	ug/kg
trans-1,3-Dichloropropene	ND	4.3	ug/kg
Ethylbenzene	ND	4.3	ug/kg
2-Hexanone	ND	17	ug/kg
Methylene chloride	ND	4.3	ug/kg
4-Methyl-2-pentanone	ND	17	ug/kg
Styrene	ND	4.3	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.3	ug/kg
Tetrachloroethene	ND	4.3	ug/kg
Toluene	ND	4.3	ug/kg
1,1,1-Trichloroethane	ND	4.3	ug/kg
1,1,2-Trichloroethane	ND	4.3	ug/kg
Trichloroethene	ND	4.3	ug/kg
Vinyl chloride	ND	4.3	ug/kg
Xylenes (total)	ND	8.6	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-024-0005-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-008 Work Order #...: L0RWV1AC Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	94	(61 - 130)
Toluene-d8	99	(85 - 115)
4-Bromofluorobenzene	102	(85 - 120)
Dibromofluoromethane	85	(59 - 138)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated: The analyte was positively identified; the quantitation is estimated.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-024-0007-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-009 Work Order #...: L0RW41AC Matrix.....: SO
 Date Sampled...: 04/28/10 10:25 Date Received..: 04/29/10
 Prep Date.....: 05/04/10 Analysis Date..: 05/04/10
 Prep Batch #...: 0125074
 Dilution Factor: 1 Initial Wgt/Vol: 5 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 16 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acetone	7.3 J,B	24	ug/kg
Benzene	ND	5.9	ug/kg
Bromochloromethane	ND	5.9	ug/kg
Bromodichloromethane	ND	5.9	ug/kg
Bromoform	ND	5.9	ug/kg
Bromomethane	ND	5.9	ug/kg
2-Butanone	ND	24	ug/kg
Carbon disulfide	ND	5.9	ug/kg
Carbon tetrachloride	ND	5.9	ug/kg
Chlorobenzene	ND	5.9	ug/kg
Dibromochloromethane	ND	5.9	ug/kg
Chloroethane	ND	5.9	ug/kg
Chloroform	ND	5.9	ug/kg
Chloromethane	ND	5.9	ug/kg
1,2-Dibromoethane	ND	5.9	ug/kg
1,1-Dichloroethane	ND	5.9	ug/kg
1,2-Dichloroethane	ND	5.9	ug/kg
1,1-Dichloroethene	ND	5.9	ug/kg
1,2-Dichloroethene	ND	5.9	ug/kg
(total)			
1,2-Dichloropropane	ND	5.9	ug/kg
cis-1,3-Dichloropropene	ND	5.9	ug/kg
trans-1,3-Dichloropropene	ND	5.9	ug/kg
Ethylbenzene	ND	5.9	ug/kg
2-Hexanone	ND	24	ug/kg
Methylene chloride	ND	5.9	ug/kg
4-Methyl-2-pentanone	ND	24	ug/kg
Styrene	ND	5.9	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.9	ug/kg
Tetrachloroethene	ND	5.9	ug/kg
Toluene	ND	5.9	ug/kg
1,1,1-Trichloroethane	ND	5.9	ug/kg
1,1,2-Trichloroethane	ND	5.9	ug/kg
Trichloroethene	ND	5.9	ug/kg
Vinyl chloride	ND	5.9	ug/kg
Xylenes (total)	ND	12	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-024-0007-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-009 Work Order #...: L0RW41AC Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	95	(61 - 130)
Toluene-d8	100	(85 - 115)
4-Bromofluorobenzene	101	(85 - 120)
Dibromofluoromethane	84	(59 - 138)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated: The analyte was positively identified; the quantitation is estimated.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-026-0002-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-010 Work Order #...: L0RW61AC Matrix.....: SO
 Date Sampled...: 04/28/10 10:00 Date Received...: 04/29/10
 Prep Date.....: 05/04/10 Analysis Date...: 05/04/10
 Prep Batch #...: 0125074
 Dilution Factor: 0.85 Initial Wgt/Vol: 5 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 17 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acetone	6.8 J,B	20	ug/kg
Benzene	ND	5.1	ug/kg
Bromochloromethane	ND	5.1	ug/kg
Bromodichloromethane	ND	5.1	ug/kg
Bromoform	ND	5.1	ug/kg
Bromomethane	ND	5.1	ug/kg
2-Butanone	ND	20	ug/kg
Carbon disulfide	0.53 J	5.1	ug/kg
Carbon tetrachloride	ND	5.1	ug/kg
Chlorobenzene	ND	5.1	ug/kg
Dibromochloromethane	ND	5.1	ug/kg
Chloroethane	ND	5.1	ug/kg
Chloroform	ND	5.1	ug/kg
Chloromethane	ND	5.1	ug/kg
1,2-Dibromoethane	ND	5.1	ug/kg
1,1-Dichloroethane	ND	5.1	ug/kg
1,2-Dichloroethane	ND	5.1	ug/kg
1,1-Dichloroethene	ND	5.1	ug/kg
1,2-Dichloroethene	ND	5.1	ug/kg
(total)			
1,2-Dichloropropane	ND	5.1	ug/kg
cis-1,3-Dichloropropene	ND	5.1	ug/kg
trans-1,3-Dichloropropene	ND	5.1	ug/kg
Ethylbenzene	ND	5.1	ug/kg
2-Hexanone	ND	20	ug/kg
Methylene chloride	ND	5.1	ug/kg
4-Methyl-2-pentanone	ND	20	ug/kg
Styrene	ND	5.1	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.1	ug/kg
Tetrachloroethene	ND	5.1	ug/kg
Toluene	ND	5.1	ug/kg
1,1,1-Trichloroethane	ND	5.1	ug/kg
1,1,2-Trichloroethane	ND	5.1	ug/kg
Trichloroethene	ND	5.1	ug/kg
Vinyl chloride	ND	5.1	ug/kg
Xylenes (total)	ND	10	ug/kg

(Continued on next page)

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-026-0002-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-010 Work Order #...: L0RW61AC Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	94	(61 - 130)
Toluene-d8	102	(85 - 115)
4-Bromofluorobenzene	96	(85 - 120)
Dibromofluoromethane	87	(59 - 138)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated: The analyte was positively identified; the quantitation is estimated.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-026-0003-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-011 Work Order #...: L0RW71AC Matrix.....: SO
 Date Sampled...: 04/28/10 10:00 Date Received..: 04/29/10
 Prep Date.....: 05/04/10 Analysis Date..: 05/04/10
 Prep Batch #...: 0125074
 Dilution Factor: 0.9 Initial Wgt/Vol: 5 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 16 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acetone	8.2 J,B	21	ug/kg
Benzene	ND	5.3	ug/kg
Bromochloromethane	ND	5.3	ug/kg
Bromodichloromethane	ND	5.3	ug/kg
Bromoform	ND	5.3	ug/kg
Bromomethane	ND	5.3	ug/kg
2-Butanone	ND	21	ug/kg
Carbon disulfide	ND	5.3	ug/kg
Carbon tetrachloride	ND	5.3	ug/kg
Chlorobenzene	ND	5.3	ug/kg
Dibromochloromethane	ND	5.3	ug/kg
Chloroethane	ND	5.3	ug/kg
Chloroform	ND	5.3	ug/kg
Chloromethane	ND	5.3	ug/kg
1,2-Dibromoethane	ND	5.3	ug/kg
1,1-Dichloroethane	ND	5.3	ug/kg
1,2-Dichloroethane	ND	5.3	ug/kg
1,1-Dichloroethene	ND	5.3	ug/kg
1,2-Dichloroethene	ND	5.3	ug/kg
(total)			
1,2-Dichloropropane	ND	5.3	ug/kg
cis-1,3-Dichloropropene	ND	5.3	ug/kg
trans-1,3-Dichloropropene	ND	5.3	ug/kg
Ethylbenzene	ND	5.3	ug/kg
2-Hexanone	ND	21	ug/kg
Methylene chloride	ND	5.3	ug/kg
4-Methyl-2-pentanone	0.81 J,B	21	ug/kg
Styrene	ND	5.3	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.3	ug/kg
Tetrachloroethene	ND	5.3	ug/kg
Toluene	ND	5.3	ug/kg
1,1,1-Trichloroethane	ND	5.3	ug/kg
1,1,2-Trichloroethane	ND	5.3	ug/kg
Trichloroethene	ND	5.3	ug/kg
Vinyl chloride	ND	5.3	ug/kg
Xylenes (total)	ND	11	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-026-0003-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-011 Work Order #...: L0RW71AC Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	94	(61 - 130)
Toluene-d8	101	(85 - 115)
4-Bromofluorobenzene	95	(85 - 120)
Dibromofluoromethane	87	(59 - 138)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated: The analyte was positively identified; the quantitation is estimated.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-026-0006-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-012 Work Order #...: L0RW81AC Matrix.....: SO
 Date Sampled...: 04/28/10 10:15 Date Received...: 04/29/10
 Prep Date.....: 05/04/10 Analysis Date...: 05/04/10
 Prep Batch #...: 0125074
 Dilution Factor: 0.69 Initial Wgt/Vol: 5 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 12 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acetone	5.6 J,B	16	ug/kg
Benzene	ND	3.9	ug/kg
Bromochloromethane	ND	3.9	ug/kg
Bromodichloromethane	ND	3.9	ug/kg
Bromoform	ND	3.9	ug/kg
Bromomethane	ND	3.9	ug/kg
2-Butanone	ND	16	ug/kg
Carbon disulfide	ND	3.9	ug/kg
Carbon tetrachloride	ND	3.9	ug/kg
Chlorobenzene	ND	3.9	ug/kg
Dibromochloromethane	ND	3.9	ug/kg
Chloroethane	ND	3.9	ug/kg
Chloroform	ND	3.9	ug/kg
Chloromethane	ND	3.9	ug/kg
1,2-Dibromoethane	ND	3.9	ug/kg
1,1-Dichloroethane	ND	3.9	ug/kg
1,2-Dichloroethane	ND	3.9	ug/kg
1,1-Dichloroethene	ND	3.9	ug/kg
1,2-Dichloroethene	ND	3.9	ug/kg
(total)			
1,2-Dichloropropane	ND	3.9	ug/kg
cis-1,3-Dichloropropene	ND	3.9	ug/kg
trans-1,3-Dichloropropene	ND	3.9	ug/kg
Ethylbenzene	ND	3.9	ug/kg
2-Hexanone	ND	16	ug/kg
Methylene chloride	ND	3.9	ug/kg
4-Methyl-2-pentanone	ND	16	ug/kg
Styrene	ND	3.9	ug/kg
1,1,2,2-Tetrachloroethane	ND	3.9	ug/kg
Tetrachloroethene	ND	3.9	ug/kg
Toluene	ND	3.9	ug/kg
1,1,1-Trichloroethane	ND	3.9	ug/kg
1,1,2-Trichloroethane	ND	3.9	ug/kg
Trichloroethene	ND	3.9	ug/kg
Vinyl chloride	ND	3.9	ug/kg
Xylenes (total)	ND	7.8	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-026-0006-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-012 Work Order #...: L0RW81AC Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	94	(61 - 130)
Toluene-d8	101	(85 - 115)
4-Bromofluorobenzene	96	(85 - 120)
Dibromofluoromethane	86	(59 - 138)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated: The analyte was positively identified; the quantitation is estimated.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-026-0007-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-013 Work Order #...: L0RXG1AC Matrix.....: SO
 Date Sampled...: 04/28/10 10:15 Date Received..: 04/29/10
 Prep Date.....: 05/04/10 Analysis Date..: 05/04/10
 Prep Batch #...: 0125074
 Dilution Factor: 1.04 Initial Wgt/Vol: 5 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 13 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acetone	7.5 J,B	24	ug/kg
Benzene	ND	6.0	ug/kg
Bromochloromethane	ND	6.0	ug/kg
Bromodichloromethane	ND	6.0	ug/kg
Bromoform	ND	6.0	ug/kg
Bromomethane	ND	6.0	ug/kg
2-Butanone	ND	24	ug/kg
Carbon disulfide	ND	6.0	ug/kg
Carbon tetrachloride	ND	6.0	ug/kg
Chlorobenzene	ND	6.0	ug/kg
Dibromochloromethane	ND	6.0	ug/kg
Chloroethane	ND	6.0	ug/kg
Chloroform	ND	6.0	ug/kg
Chloromethane	ND	6.0	ug/kg
1,2-Dibromoethane	ND	6.0	ug/kg
1,1-Dichloroethane	ND	6.0	ug/kg
1,2-Dichloroethane	ND	6.0	ug/kg
1,1-Dichloroethene	ND	6.0	ug/kg
1,2-Dichloroethene	ND	6.0	ug/kg
(total)			
1,2-Dichloropropane	ND	6.0	ug/kg
cis-1,3-Dichloropropene	ND	6.0	ug/kg
trans-1,3-Dichloropropene	ND	6.0	ug/kg
Ethylbenzene	ND	6.0	ug/kg
2-Hexanone	ND	24	ug/kg
Methylene chloride	ND	6.0	ug/kg
4-Methyl-2-pentanone	ND	24	ug/kg
Styrene	ND	6.0	ug/kg
1,1,2,2-Tetrachloroethane	ND	6.0	ug/kg
Tetrachloroethene	ND	6.0	ug/kg
Toluene	ND	6.0	ug/kg
1,1,1-Trichloroethane	ND	6.0	ug/kg
1,1,2-Trichloroethane	ND	6.0	ug/kg
Trichloroethene	ND	6.0	ug/kg
Vinyl chloride	ND	6.0	ug/kg
Xylenes (total)	ND	12	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-026-0007-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-013 Work Order #...: L0RXG1AC Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	96	(61 - 130)
Toluene-d8	101	(85 - 115)
4-Bromofluorobenzene	98	(85 - 120)
Dibromofluoromethane	88	(59 - 138)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated: The analyte was positively identified; the quantitation is estimated.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-025-0002-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-014 Work Order #...: L0RXH1AC Matrix.....: SO
 Date Sampled...: 04/28/10 14:55 Date Received..: 04/29/10
 Prep Date.....: 05/04/10 Analysis Date..: 05/04/10
 Prep Batch #...: 0125074
 Dilution Factor: 0.85 Initial Wgt/Vol: 5 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 15 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acetone	27 B	20	ug/kg
Benzene	ND	5.0	ug/kg
Bromochloromethane	ND	5.0	ug/kg
Bromodichloromethane	ND	5.0	ug/kg
Bromoform	ND	5.0	ug/kg
Bromomethane	ND	5.0	ug/kg
2-Butanone	4.7 J,B	20	ug/kg
Carbon disulfide	0.67 J	5.0	ug/kg
Carbon tetrachloride	ND	5.0	ug/kg
Chlorobenzene	ND	5.0	ug/kg
Dibromochloromethane	ND	5.0	ug/kg
Chloroethane	ND	5.0	ug/kg
Chloroform	ND	5.0	ug/kg
Chloromethane	ND	5.0	ug/kg
1,2-Dibromoethane	ND	5.0	ug/kg
1,1-Dichloroethane	ND	5.0	ug/kg
1,2-Dichloroethane	ND	5.0	ug/kg
1,1-Dichloroethene	ND	5.0	ug/kg
1,2-Dichloroethene	ND	5.0	ug/kg
(total)			
1,2-Dichloropropane	ND	5.0	ug/kg
cis-1,3-Dichloropropene	ND	5.0	ug/kg
trans-1,3-Dichloropropene	ND	5.0	ug/kg
Ethylbenzene	ND	5.0	ug/kg
2-Hexanone	ND	20	ug/kg
Methylene chloride	ND	5.0	ug/kg
4-Methyl-2-pentanone	ND	20	ug/kg
Styrene	ND	5.0	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg
Tetrachloroethene	ND	5.0	ug/kg
Toluene	ND	5.0	ug/kg
1,1,1-Trichloroethane	ND	5.0	ug/kg
1,1,2-Trichloroethane	ND	5.0	ug/kg
Trichloroethene	ND	5.0	ug/kg
Vinyl chloride	ND	5.0	ug/kg
Xylenes (total)	ND	10	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-025-0002-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-014 Work Order #...: L0RXH1AC Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	95	(61 - 130)
Toluene-d8	102	(85 - 115)
4-Bromofluorobenzene	98	(85 - 120)
Dibromofluoromethane	87	(59 - 138)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

J Estimated: The analyte was positively identified; the quantitation is estimated.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-025-0003-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-015 Work Order #...: L0RXJ1AC Matrix.....: SO
 Date Sampled...: 04/28/10 14:55 Date Received..: 04/29/10
 Prep Date.....: 05/04/10 Analysis Date..: 05/04/10
 Prep Batch #...: 0125074
 Dilution Factor: 0.76 Initial Wgt/Vol: 5 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 15 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acetone	45 B	18	ug/kg
Benzene	ND	4.5	ug/kg
Bromochloromethane	ND	4.5	ug/kg
Bromodichloromethane	ND	4.5	ug/kg
Bromoform	ND	4.5	ug/kg
Bromomethane	ND	4.5	ug/kg
2-Butanone	11 J,B	18	ug/kg
Carbon disulfide	ND	4.5	ug/kg
Carbon tetrachloride	ND	4.5	ug/kg
Chlorobenzene	ND	4.5	ug/kg
Dibromochloromethane	ND	4.5	ug/kg
Chloroethane	ND	4.5	ug/kg
Chloroform	ND	4.5	ug/kg
Chloromethane	ND	4.5	ug/kg
1,2-Dibromoethane	ND	4.5	ug/kg
1,1-Dichloroethane	ND	4.5	ug/kg
1,2-Dichloroethane	ND	4.5	ug/kg
1,1-Dichloroethene	ND	4.5	ug/kg
1,2-Dichloroethene	ND	4.5	ug/kg
(total)			
1,2-Dichloropropane	ND	4.5	ug/kg
cis-1,3-Dichloropropene	ND	4.5	ug/kg
trans-1,3-Dichloropropene	ND	4.5	ug/kg
Ethylbenzene	ND	4.5	ug/kg
2-Hexanone	ND	18	ug/kg
Methylene chloride	ND	4.5	ug/kg
4-Methyl-2-pentanone	ND	18	ug/kg
Styrene	ND	4.5	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.5	ug/kg
Tetrachloroethene	ND	4.5	ug/kg
Toluene	0.35 J	4.5	ug/kg
1,1,1-Trichloroethane	ND	4.5	ug/kg
1,1,2-Trichloroethane	ND	4.5	ug/kg
Trichloroethene	ND	4.5	ug/kg
Vinyl chloride	ND	4.5	ug/kg
Xylenes (total)	ND	8.9	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-025-0003-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-015 Work Order #...: L0RXJ1AC Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	92	(61 - 130)
Toluene-d8	101	(85 - 115)
4-Bromofluorobenzene	104	(85 - 120)
Dibromofluoromethane	83	(59 - 138)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

J Estimated: The analyte was positively identified; the quantitation is estimated.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-025-0004-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-016 Work Order #...: L0RXL1AC Matrix.....: SO
 Date Sampled...: 04/28/10 15:00 Date Received..: 04/29/10
 Prep Date.....: 05/04/10 Analysis Date..: 05/04/10
 Prep Batch #...: 0125074
 Dilution Factor: 0.76 Initial Wgt/Vol: 5 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 14 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acetone	5.5 J,B	18	ug/kg
Benzene	ND	4.4	ug/kg
Bromochloromethane	ND	4.4	ug/kg
Bromodichloromethane	ND	4.4	ug/kg
Bromoform	ND	4.4	ug/kg
Bromomethane	ND	4.4	ug/kg
2-Butanone	ND	18	ug/kg
Carbon disulfide	ND	4.4	ug/kg
Carbon tetrachloride	ND	4.4	ug/kg
Chlorobenzene	ND	4.4	ug/kg
Dibromochloromethane	ND	4.4	ug/kg
Chloroethane	ND	4.4	ug/kg
Chloroform	ND	4.4	ug/kg
Chloromethane	ND	4.4	ug/kg
1,2-Dibromoethane	ND	4.4	ug/kg
1,1-Dichloroethane	ND	4.4	ug/kg
1,2-Dichloroethane	ND	4.4	ug/kg
1,1-Dichloroethene	ND	4.4	ug/kg
1,2-Dichloroethene	ND	4.4	ug/kg
(total)			
1,2-Dichloropropane	ND	4.4	ug/kg
cis-1,3-Dichloropropene	ND	4.4	ug/kg
trans-1,3-Dichloropropene	ND	4.4	ug/kg
Ethylbenzene	ND	4.4	ug/kg
2-Hexanone	ND	18	ug/kg
Methylene chloride	ND	4.4	ug/kg
4-Methyl-2-pentanone	ND	18	ug/kg
Styrene	ND	4.4	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.4	ug/kg
Tetrachloroethene	ND	4.4	ug/kg
Toluene	ND	4.4	ug/kg
1,1,1-Trichloroethane	ND	4.4	ug/kg
1,1,2-Trichloroethane	ND	4.4	ug/kg
Trichloroethene	ND	4.4	ug/kg
Vinyl chloride	ND	4.4	ug/kg
Xylenes (total)	ND	8.9	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-025-0004-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-016 Work Order #...: L0RXL1AC Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	97	(61 - 130)
Toluene-d8	97	(85 - 115)
4-Bromofluorobenzene	91	(85 - 120)
Dibromofluoromethane	87	(59 - 138)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated: The analyte was positively identified; the quantitation is estimated.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-025-0005/0006/0007-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-017 Work Order #...: L0RXN1AC Matrix.....: SO
 Date Sampled...: 04/28/10 15:00 Date Received...: 04/29/10
 Prep Date.....: 05/05/10 Analysis Date...: 05/05/10
 Prep Batch #...: 0127105
 Dilution Factor: 1.37 Initial Wgt/Vol: 5 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 15 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acetone	15 J,B	32	ug/kg
Benzene	ND	8.0	ug/kg
Bromochloromethane	ND	8.0	ug/kg
Bromodichloromethane	ND	8.0	ug/kg
Bromoform	ND	8.0	ug/kg
Bromomethane	ND	8.0	ug/kg
2-Butanone	ND	32	ug/kg
Carbon disulfide	ND	8.0	ug/kg
Carbon tetrachloride	ND	8.0	ug/kg
Chlorobenzene	ND	8.0	ug/kg
Dibromochloromethane	ND	8.0	ug/kg
Chloroethane	ND	8.0	ug/kg
Chloroform	ND	8.0	ug/kg
Chloromethane	ND	8.0	ug/kg
1,2-Dibromoethane	ND	8.0	ug/kg
1,1-Dichloroethane	ND	8.0	ug/kg
1,2-Dichloroethane	ND	8.0	ug/kg
1,1-Dichloroethene	ND	8.0	ug/kg
1,2-Dichloroethene	ND	8.0	ug/kg
(total)			
1,2-Dichloropropane	ND	8.0	ug/kg
cis-1,3-Dichloropropene	ND	8.0	ug/kg
trans-1,3-Dichloropropene	ND	8.0	ug/kg
Ethylbenzene	ND	8.0	ug/kg
2-Hexanone	ND	32	ug/kg
Methylene chloride	ND	8.0	ug/kg
4-Methyl-2-pentanone	ND	32	ug/kg
Styrene	ND	8.0	ug/kg
1,1,2,2-Tetrachloroethane	ND	8.0	ug/kg
Tetrachloroethene	ND	8.0	ug/kg
Toluene	ND	8.0	ug/kg
1,1,1-Trichloroethane	ND	8.0	ug/kg
1,1,2-Trichloroethane	ND	8.0	ug/kg
Trichloroethene	ND	8.0	ug/kg
Vinyl chloride	ND	8.0	ug/kg
Xylenes (total)	ND	16	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-025-0005/0006/0007-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-017 Work Order #...: L0RXN1AC Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	97	(61 - 130)
Toluene-d8	100	(85 - 115)
4-Bromofluorobenzene	95	(85 - 120)
Dibromofluoromethane	88	(59 - 138)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated: The analyte was positively identified; the quantitation is estimated.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-027-0004-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-018 Work Order #...: L0RXR1AC Matrix.....: SO
 Date Sampled...: 04/28/10 08:50 Date Received..: 04/29/10
 Prep Date.....: 05/05/10 Analysis Date..: 05/05/10
 Prep Batch #...: 0127105
 Dilution Factor: 0.68 Initial Wgt/Vol: 5 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 16 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acetone	27 B	16	ug/kg
Benzene	ND	4.0	ug/kg
Bromochloromethane	ND	4.0	ug/kg
Bromodichloromethane	ND	4.0	ug/kg
Bromoform	ND	4.0	ug/kg
Bromomethane	ND	4.0	ug/kg
2-Butanone	3.0 J,B	16	ug/kg
Carbon disulfide	ND	4.0	ug/kg
Carbon tetrachloride	ND	4.0	ug/kg
Chlorobenzene	ND	4.0	ug/kg
Dibromochloromethane	ND	4.0	ug/kg
Chloroethane	ND	4.0	ug/kg
Chloroform	ND	4.0	ug/kg
Chloromethane	ND	4.0	ug/kg
1,2-Dibromoethane	ND	4.0	ug/kg
1,1-Dichloroethane	ND	4.0	ug/kg
1,2-Dichloroethane	ND	4.0	ug/kg
1,1-Dichloroethene	ND	4.0	ug/kg
1,2-Dichloroethene	ND	4.0	ug/kg
(total)			
1,2-Dichloropropane	ND	4.0	ug/kg
cis-1,3-Dichloropropene	ND	4.0	ug/kg
trans-1,3-Dichloropropene	ND	4.0	ug/kg
Ethylbenzene	ND	4.0	ug/kg
2-Hexanone	0.89 J	16	ug/kg
Methylene chloride	ND	4.0	ug/kg
4-Methyl-2-pentanone	1.9 J,B	16	ug/kg
Styrene	ND	4.0	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.0	ug/kg
Tetrachloroethene	ND	4.0	ug/kg
Toluene	ND	4.0	ug/kg
1,1,1-Trichloroethane	ND	4.0	ug/kg
1,1,2-Trichloroethane	ND	4.0	ug/kg
Trichloroethene	ND	4.0	ug/kg
Vinyl chloride	ND	4.0	ug/kg
Xylenes (total)	ND	8.1	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-027-0004-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-018 Work Order #...: L0RXR1AC Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	104	(61 - 130)
Toluene-d8	100	(85 - 115)
4-Bromofluorobenzene	95	(85 - 120)
Dibromofluoromethane	93	(59 - 138)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

J Estimated: The analyte was positively identified; the quantitation is estimated.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-027-0005-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-019 Work Order #...: L0RXT1AC Matrix.....: SO
 Date Sampled...: 04/28/10 08:50 Date Received..: 04/29/10
 Prep Date.....: 05/05/10 Analysis Date..: 05/05/10
 Prep Batch #...: 0127105
 Dilution Factor: 0.77 Initial Wgt/Vol: 5 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 17 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acetone	9.2 J,B	19	ug/kg
Benzene	ND	4.7	ug/kg
Bromochloromethane	ND	4.7	ug/kg
Bromodichloromethane	ND	4.7	ug/kg
Bromoform	ND	4.7	ug/kg
Bromomethane	ND	4.7	ug/kg
2-Butanone	ND	19	ug/kg
Carbon disulfide	ND	4.7	ug/kg
Carbon tetrachloride	ND	4.7	ug/kg
Chlorobenzene	ND	4.7	ug/kg
Dibromochloromethane	ND	4.7	ug/kg
Chloroethane	ND	4.7	ug/kg
Chloroform	ND	4.7	ug/kg
Chloromethane	ND	4.7	ug/kg
1,2-Dibromoethane	ND	4.7	ug/kg
1,1-Dichloroethane	ND	4.7	ug/kg
1,2-Dichloroethane	ND	4.7	ug/kg
1,1-Dichloroethene	ND	4.7	ug/kg
1,2-Dichloroethene	ND	4.7	ug/kg
(total)			
1,2-Dichloropropane	ND	4.7	ug/kg
cis-1,3-Dichloropropene	ND	4.7	ug/kg
trans-1,3-Dichloropropene	ND	4.7	ug/kg
Ethylbenzene	ND	4.7	ug/kg
2-Hexanone	ND	19	ug/kg
Methylene chloride	ND	4.7	ug/kg
4-Methyl-2-pentanone	ND	19	ug/kg
Styrene	ND	4.7	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.7	ug/kg
Tetrachloroethene	ND	4.7	ug/kg
Toluene	ND	4.7	ug/kg
1,1,1-Trichloroethane	ND	4.7	ug/kg
1,1,2-Trichloroethane	ND	4.7	ug/kg
Trichloroethene	ND	4.7	ug/kg
Vinyl chloride	ND	4.7	ug/kg
Xylenes (total)	ND	9.3	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-027-0005-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-019 Work Order #...: L0RXT1AC Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	108	(61 - 130)
Toluene-d8	101	(85 - 115)
4-Bromofluorobenzene	96	(85 - 120)
Dibromofluoromethane	92	(59 - 138)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated: The analyte was positively identified; the quantitation is estimated.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-027-0006-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-020 Work Order #...: L0RXW1AC Matrix.....: SO
 Date Sampled...: 04/28/10 09:00 Date Received...: 04/29/10
 Prep Date.....: 05/05/10 Analysis Date...: 05/05/10
 Prep Batch #...: 0127105
 Dilution Factor: 0.77 Initial Wgt/Vol: 5 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 12 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acetone	6.6 J,B	17	ug/kg
Benzene	ND	4.4	ug/kg
Bromochloromethane	ND	4.4	ug/kg
Bromodichloromethane	ND	4.4	ug/kg
Bromoform	ND	4.4	ug/kg
Bromomethane	ND	4.4	ug/kg
2-Butanone	ND	17	ug/kg
Carbon disulfide	ND	4.4	ug/kg
Carbon tetrachloride	ND	4.4	ug/kg
Chlorobenzene	ND	4.4	ug/kg
Dibromochloromethane	ND	4.4	ug/kg
Chloroethane	ND	4.4	ug/kg
Chloroform	ND	4.4	ug/kg
Chloromethane	ND	4.4	ug/kg
1,2-Dibromoethane	ND	4.4	ug/kg
1,1-Dichloroethane	ND	4.4	ug/kg
1,2-Dichloroethane	ND	4.4	ug/kg
1,1-Dichloroethene	ND	4.4	ug/kg
1,2-Dichloroethene	ND	4.4	ug/kg
(total)			
1,2-Dichloropropane	ND	4.4	ug/kg
cis-1,3-Dichloropropene	ND	4.4	ug/kg
trans-1,3-Dichloropropene	ND	4.4	ug/kg
Ethylbenzene	ND	4.4	ug/kg
2-Hexanone	ND	17	ug/kg
Methylene chloride	ND	4.4	ug/kg
4-Methyl-2-pentanone	ND	17	ug/kg
Styrene	ND	4.4	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.4	ug/kg
Tetrachloroethene	ND	4.4	ug/kg
Toluene	ND	4.4	ug/kg
1,1,1-Trichloroethane	ND	4.4	ug/kg
1,1,2-Trichloroethane	ND	4.4	ug/kg
Trichloroethene	ND	4.4	ug/kg
Vinyl chloride	ND	4.4	ug/kg
Xylenes (total)	ND	8.7	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-027-0006-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-020 Work Order #...: L0RXW1AC Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	98	(61 - 130)
Toluene-d8	101	(85 - 115)
4-Bromofluorobenzene	97	(85 - 120)
Dibromofluoromethane	86	(59 - 138)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated: The analyte was positively identified; the quantitation is estimated.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-027-0007-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-021 Work Order #...: L0RX01AC Matrix.....: SO
 Date Sampled...: 04/28/10 09:00 Date Received..: 04/29/10
 Prep Date.....: 05/05/10 Analysis Date..: 05/05/10
 Prep Batch #...: 0127105
 Dilution Factor: 0.87 Initial Wgt/Vol: 5 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 13 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acetone	6.9 J,B	20	ug/kg
Benzene	ND	5.0	ug/kg
Bromochloromethane	ND	5.0	ug/kg
Bromodichloromethane	ND	5.0	ug/kg
Bromoform	ND	5.0	ug/kg
Bromomethane	ND	5.0	ug/kg
2-Butanone	ND	20	ug/kg
Carbon disulfide	ND	5.0	ug/kg
Carbon tetrachloride	ND	5.0	ug/kg
Chlorobenzene	ND	5.0	ug/kg
Dibromochloromethane	ND	5.0	ug/kg
Chloroethane	ND	5.0	ug/kg
Chloroform	ND	5.0	ug/kg
Chloromethane	ND	5.0	ug/kg
1,2-Dibromoethane	ND	5.0	ug/kg
1,1-Dichloroethane	ND	5.0	ug/kg
1,2-Dichloroethane	ND	5.0	ug/kg
1,1-Dichloroethene	ND	5.0	ug/kg
1,2-Dichloroethene	ND	5.0	ug/kg
(total)			
1,2-Dichloropropane	ND	5.0	ug/kg
cis-1,3-Dichloropropene	ND	5.0	ug/kg
trans-1,3-Dichloropropene	ND	5.0	ug/kg
Ethylbenzene	ND	5.0	ug/kg
2-Hexanone	ND	20	ug/kg
Methylene chloride	ND	5.0	ug/kg
4-Methyl-2-pentanone	ND	20	ug/kg
Styrene	ND	5.0	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg
Tetrachloroethene	ND	5.0	ug/kg
Toluene	ND	5.0	ug/kg
1,1,1-Trichloroethane	ND	5.0	ug/kg
1,1,2-Trichloroethane	ND	5.0	ug/kg
Trichloroethene	ND	5.0	ug/kg
Vinyl chloride	ND	5.0	ug/kg
Xylenes (total)	ND	10	ug/kg

(Continued on next page)

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-027-0007-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-021 Work Order #...: L0RX01AC Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	100	(61 - 130)
Toluene-d8	96	(85 - 115)
4-Bromofluorobenzene	96	(85 - 120)
Dibromofluoromethane	84	(59 - 138)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated: The analyte was positively identified; the quantitation is estimated.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-022-0002-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-022 Work Order #...: L0RX11AC Matrix.....: SO
 Date Sampled...: 04/28/10 14:10 Date Received..: 04/29/10
 Prep Date.....: 05/05/10 Analysis Date..: 05/05/10
 Prep Batch #...: 0127105
 Dilution Factor: 0.9 Initial Wgt/Vol: 5 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 11 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acetone	30 B	20	ug/kg
Benzene	ND	5.1	ug/kg
Bromochloromethane	ND	5.1	ug/kg
Bromodichloromethane	ND	5.1	ug/kg
Bromoform	ND	5.1	ug/kg
Bromomethane	ND	5.1	ug/kg
2-Butanone	3.2 J,B	20	ug/kg
Carbon disulfide	ND	5.1	ug/kg
Carbon tetrachloride	ND	5.1	ug/kg
Chlorobenzene	ND	5.1	ug/kg
Dibromochloromethane	ND	5.1	ug/kg
Chloroethane	ND	5.1	ug/kg
Chloroform	ND	5.1	ug/kg
Chloromethane	ND	5.1	ug/kg
1,2-Dibromoethane	ND	5.1	ug/kg
1,1-Dichloroethane	ND	5.1	ug/kg
1,2-Dichloroethane	ND	5.1	ug/kg
1,1-Dichloroethene	ND	5.1	ug/kg
1,2-Dichloroethene	ND	5.1	ug/kg
(total)			
1,2-Dichloropropane	ND	5.1	ug/kg
cis-1,3-Dichloropropene	ND	5.1	ug/kg
trans-1,3-Dichloropropene	ND	5.1	ug/kg
Ethylbenzene	ND	5.1	ug/kg
2-Hexanone	ND	20	ug/kg
Methylene chloride	ND	5.1	ug/kg
4-Methyl-2-pentanone	2.0 J,B	20	ug/kg
Styrene	ND	5.1	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.1	ug/kg
Tetrachloroethene	ND	5.1	ug/kg
Toluene	ND	5.1	ug/kg
1,1,1-Trichloroethane	ND	5.1	ug/kg
1,1,2-Trichloroethane	ND	5.1	ug/kg
Trichloroethene	ND	5.1	ug/kg
Vinyl chloride	ND	5.1	ug/kg
Xylenes (total)	ND	10	ug/kg

(Continued on next page)

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-022-0002-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-022 Work Order #...: L0RX11AC Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	100	(61 - 130)
Toluene-d8	100	(85 - 115)
4-Bromofluorobenzene	100	(85 - 120)
Dibromofluoromethane	86	(59 - 138)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

J Estimated: The analyte was positively identified; the quantitation is estimated.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-022-0003-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-023 Work Order #...: L0RX21AC Matrix.....: SO
 Date Sampled...: 04/28/10 14:12 Date Received...: 04/29/10
 Prep Date.....: 05/05/10 Analysis Date...: 05/05/10
 Prep Batch #...: 0127105
 Dilution Factor: 0.72 Initial Wgt/Vol: 5 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 12 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acetone	7.8 J,B	16	ug/kg
Benzene	ND	4.1	ug/kg
Bromochloromethane	ND	4.1	ug/kg
Bromodichloromethane	ND	4.1	ug/kg
Bromoform	ND	4.1	ug/kg
Bromomethane	ND	4.1	ug/kg
2-Butanone	ND	16	ug/kg
Carbon disulfide	ND	4.1	ug/kg
Carbon tetrachloride	ND	4.1	ug/kg
Chlorobenzene	ND	4.1	ug/kg
Dibromochloromethane	ND	4.1	ug/kg
Chloroethane	ND	4.1	ug/kg
Chloroform	ND	4.1	ug/kg
Chloromethane	ND	4.1	ug/kg
1,2-Dibromoethane	ND	4.1	ug/kg
1,1-Dichloroethane	ND	4.1	ug/kg
1,2-Dichloroethane	ND	4.1	ug/kg
1,1-Dichloroethene	ND	4.1	ug/kg
1,2-Dichloroethene	ND	4.1	ug/kg
(total)			
1,2-Dichloropropane	ND	4.1	ug/kg
cis-1,3-Dichloropropene	ND	4.1	ug/kg
trans-1,3-Dichloropropene	ND	4.1	ug/kg
Ethylbenzene	ND	4.1	ug/kg
2-Hexanone	ND	16	ug/kg
Methylene chloride	ND	4.1	ug/kg
4-Methyl-2-pentanone	ND	16	ug/kg
Styrene	ND	4.1	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.1	ug/kg
Tetrachloroethene	ND	4.1	ug/kg
Toluene	ND	4.1	ug/kg
1,1,1-Trichloroethane	ND	4.1	ug/kg
1,1,2-Trichloroethane	ND	4.1	ug/kg
Trichloroethene	ND	4.1	ug/kg
Vinyl chloride	ND	4.1	ug/kg
Xylenes (total)	ND	8.2	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-022-0003-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-023 Work Order #...: L0RX21AC Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	101	(61 - 130)
Toluene-d8	100	(85 - 115)
4-Bromofluorobenzene	95	(85 - 120)
Dibromofluoromethane	88	(59 - 138)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated: The analyte was positively identified; the quantitation is estimated.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-022-0005-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-024 Work Order #...: L0RX41AC Matrix.....: SO
 Date Sampled...: 04/28/10 14:10 Date Received..: 04/29/10
 Prep Date.....: 05/05/10 Analysis Date..: 05/05/10
 Prep Batch #...: 0127105
 Dilution Factor: 0.86 Initial Wgt/Vol: 5 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 11 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acetone	6.1 J,B	19	ug/kg
Benzene	ND	4.8	ug/kg
Bromochloromethane	ND	4.8	ug/kg
Bromodichloromethane	ND	4.8	ug/kg
Bromoform	ND	4.8	ug/kg
Bromomethane	ND	4.8	ug/kg
2-Butanone	ND	19	ug/kg
Carbon disulfide	ND	4.8	ug/kg
Carbon tetrachloride	ND	4.8	ug/kg
Chlorobenzene	ND	4.8	ug/kg
Dibromochloromethane	ND	4.8	ug/kg
Chloroethane	ND	4.8	ug/kg
Chloroform	ND	4.8	ug/kg
Chloromethane	ND	4.8	ug/kg
1,2-Dibromoethane	ND	4.8	ug/kg
1,1-Dichloroethane	ND	4.8	ug/kg
1,2-Dichloroethane	ND	4.8	ug/kg
1,1-Dichloroethene	ND	4.8	ug/kg
1,2-Dichloroethene	ND	4.8	ug/kg
(total)			
1,2-Dichloropropane	ND	4.8	ug/kg
cis-1,3-Dichloropropene	ND	4.8	ug/kg
trans-1,3-Dichloropropene	ND	4.8	ug/kg
Ethylbenzene	ND	4.8	ug/kg
2-Hexanone	ND	19	ug/kg
Methylene chloride	ND	4.8	ug/kg
4-Methyl-2-pentanone	ND	19	ug/kg
Styrene	ND	4.8	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.8	ug/kg
Tetrachloroethene	ND	4.8	ug/kg
Toluene	ND	4.8	ug/kg
1,1,1-Trichloroethane	ND	4.8	ug/kg
1,1,2-Trichloroethane	ND	4.8	ug/kg
Trichloroethene	ND	4.8	ug/kg
Vinyl chloride	ND	4.8	ug/kg
Xylenes (total)	ND	9.6	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-022-0005-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-024 Work Order #...: L0RX41AC Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	100	(61 - 130)
Toluene-d8	100	(85 - 115)
4-Bromofluorobenzene	105	(85 - 120)
Dibromofluoromethane	85	(59 - 138)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated: The analyte was positively identified; the quantitation is estimated.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-022-0006/0008/0009-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-025 Work Order #...: L0RX51AC Matrix.....: SO
 Date Sampled...: 04/28/10 14:20 Date Received..: 04/29/10
 Prep Date.....: 05/05/10 Analysis Date..: 05/05/10
 Prep Batch #...: 0127105
 Dilution Factor: 0.73 Initial Wgt/Vol: 5 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 14 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acetone	4.7 J,B	17	ug/kg
Benzene	ND	4.3	ug/kg
Bromochloromethane	ND	4.3	ug/kg
Bromodichloromethane	ND	4.3	ug/kg
Bromoform	ND	4.3	ug/kg
Bromomethane	ND	4.3	ug/kg
2-Butanone	ND	17	ug/kg
Carbon disulfide	ND	4.3	ug/kg
Carbon tetrachloride	ND	4.3	ug/kg
Chlorobenzene	ND	4.3	ug/kg
Dibromochloromethane	ND	4.3	ug/kg
Chloroethane	ND	4.3	ug/kg
Chloroform	ND	4.3	ug/kg
Chloromethane	ND	4.3	ug/kg
1,2-Dibromoethane	ND	4.3	ug/kg
1,1-Dichloroethane	ND	4.3	ug/kg
1,2-Dichloroethane	ND	4.3	ug/kg
1,1-Dichloroethene	ND	4.3	ug/kg
1,2-Dichloroethene	ND	4.3	ug/kg
(total)			
1,2-Dichloropropane	ND	4.3	ug/kg
cis-1,3-Dichloropropene	ND	4.3	ug/kg
trans-1,3-Dichloropropene	ND	4.3	ug/kg
Ethylbenzene	ND	4.3	ug/kg
2-Hexanone	ND	17	ug/kg
Methylene chloride	ND	4.3	ug/kg
4-Methyl-2-pentanone	ND	17	ug/kg
Styrene	ND	4.3	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.3	ug/kg
Tetrachloroethene	ND	4.3	ug/kg
Toluene	ND	4.3	ug/kg
1,1,1-Trichloroethane	ND	4.3	ug/kg
1,1,2-Trichloroethane	ND	4.3	ug/kg
Trichloroethene	ND	4.3	ug/kg
Vinyl chloride	ND	4.3	ug/kg
Xylenes (total)	ND	8.5	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-022-0006/0008/0009-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-025 Work Order #...: L0RX51AC Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	102	(61 - 130)
Toluene-d8	104	(85 - 115)
4-Bromofluorobenzene	103	(85 - 120)
Dibromofluoromethane	89	(59 - 138)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated: The analyte was positively identified; the quantitation is estimated.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-022-0007-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-026 **Work Order #...**: L0RX61AC **Matrix.....**: SO
Date Sampled...: 04/28/10 14:20 **Date Received..**: 04/29/10
Prep Date.....: 05/05/10 **Analysis Date..**: 05/05/10
Prep Batch #...: 0127105
Dilution Factor: 1.03 **Initial Wgt/Vol**: 5 g **Final Wgt/Vol..**: 5 mL
% Moisture.....: 11 **Method.....**: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acetone	12 J,B	23	ug/kg
Benzene	ND	5.8	ug/kg
Bromochloromethane	ND	5.8	ug/kg
Bromodichloromethane	ND	5.8	ug/kg
Bromoform	ND	5.8	ug/kg
Bromomethane	ND	5.8	ug/kg
2-Butanone	ND	23	ug/kg
Carbon disulfide	ND	5.8	ug/kg
Carbon tetrachloride	ND	5.8	ug/kg
Chlorobenzene	ND	5.8	ug/kg
Dibromochloromethane	ND	5.8	ug/kg
Chloroethane	ND	5.8	ug/kg
Chloroform	ND	5.8	ug/kg
Chloromethane	ND	5.8	ug/kg
1,2-Dibromoethane	ND	5.8	ug/kg
1,1-Dichloroethane	ND	5.8	ug/kg
1,2-Dichloroethane	ND	5.8	ug/kg
1,1-Dichloroethene	ND	5.8	ug/kg
1,2-Dichloroethene	ND	5.8	ug/kg
(total)			
1,2-Dichloropropane	ND	5.8	ug/kg
cis-1,3-Dichloropropene	ND	5.8	ug/kg
trans-1,3-Dichloropropene	ND	5.8	ug/kg
Ethylbenzene	ND	5.8	ug/kg
2-Hexanone	0.97 J	23	ug/kg
Methylene chloride	ND	5.8	ug/kg
4-Methyl-2-pentanone	1.0 J,B	23	ug/kg
Styrene	ND	5.8	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.8	ug/kg
Tetrachloroethene	ND	5.8	ug/kg
Toluene	ND	5.8	ug/kg
1,1,1-Trichloroethane	ND	5.8	ug/kg
1,1,2-Trichloroethane	ND	5.8	ug/kg
Trichloroethene	ND	5.8	ug/kg
Vinyl chloride	ND	5.8	ug/kg
Xylenes (total)	ND	12	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-022-0007-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-026 Work Order #...: L0RX61AC Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	103	(61 - 130)
Toluene-d8	99	(85 - 115)
4-Bromofluorobenzene	103	(85 - 120)
Dibromofluoromethane	88	(59 - 138)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated: The analyte was positively identified; the quantitation is estimated.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-026-0004-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-027 Work Order #...: L0R4H1AC Matrix.....: SO
 Date Sampled...: 04/28/10 10:02 Date Received..: 04/29/10
 Prep Date.....: 05/05/10 Analysis Date..: 05/05/10
 Prep Batch #...: 0127105
 Dilution Factor: 0.97 Initial Wgt/Vol: 5 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 17 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acetone	14 J,B	23	ug/kg
Benzene	ND	5.8	ug/kg
Bromochloromethane	ND	5.8	ug/kg
Bromodichloromethane	ND	5.8	ug/kg
Bromoform	ND	5.8	ug/kg
Bromomethane	ND	5.8	ug/kg
2-Butanone	ND	23	ug/kg
Carbon disulfide	ND	5.8	ug/kg
Carbon tetrachloride	ND	5.8	ug/kg
Chlorobenzene	ND	5.8	ug/kg
Dibromochloromethane	ND	5.8	ug/kg
Chloroethane	ND	5.8	ug/kg
Chloroform	ND	5.8	ug/kg
Chloromethane	ND	5.8	ug/kg
1,2-Dibromoethane	ND	5.8	ug/kg
1,1-Dichloroethane	ND	5.8	ug/kg
1,2-Dichloroethane	ND	5.8	ug/kg
1,1-Dichloroethene	ND	5.8	ug/kg
1,2-Dichloroethene	ND	5.8	ug/kg
(total)			
1,2-Dichloropropane	ND	5.8	ug/kg
cis-1,3-Dichloropropene	ND	5.8	ug/kg
trans-1,3-Dichloropropene	ND	5.8	ug/kg
Ethylbenzene	ND	5.8	ug/kg
2-Hexanone	ND	23	ug/kg
Methylene chloride	ND	5.8	ug/kg
4-Methyl-2-pentanone	2.6 J,B	23	ug/kg
Styrene	ND	5.8	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.8	ug/kg
Tetrachloroethene	ND	5.8	ug/kg
Toluene	ND	5.8	ug/kg
1,1,1-Trichloroethane	ND	5.8	ug/kg
1,1,2-Trichloroethane	ND	5.8	ug/kg
Trichloroethene	ND	5.8	ug/kg
Vinyl chloride	ND	5.8	ug/kg
Xylenes (total)	ND	12	ug/kg

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U.S. Army Corps of Engineers

Client Sample ID: DAAsb-026-0004-SO

GC/MS Volatiles

Lot-Sample #...: A0D300448-027 Work Order #...: L0R4H1AC Matrix.....: SO

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	100	(61 - 130)
Toluene-d8	95	(85 - 115)
4-Bromofluorobenzene	100	(85 - 120)
Dibromofluoromethane	85	(59 - 138)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated: The analyte was positively identified; the quantitation is estimated.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0D300448
 MB Lot-Sample #: A0E050000-074

Work Order #...: L01PN1AA

Matrix.....: SOLID

Analysis Date...: 05/04/10
 Dilution Factor: 1

Prep Date.....: 05/04/10

Final Wgt/Vol...: 5 mL

Prep Batch #...: 0125074

Initial Wgt/Vol: 5 g

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	METHOD
Acetone	14 J	20	ug/kg	SW846 8260B
Benzene	ND	5.0	ug/kg	SW846 8260B
Bromochloromethane	ND	5.0	ug/kg	SW846 8260B
Bromodichloromethane	ND	5.0	ug/kg	SW846 8260B
Bromoform	ND	5.0	ug/kg	SW846 8260B
Bromomethane	ND	5.0	ug/kg	SW846 8260B
2-Butanone	1.2 J	20	ug/kg	SW846 8260B
Carbon disulfide	ND	5.0	ug/kg	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/kg	SW846 8260B
Chlorobenzene	ND	5.0	ug/kg	SW846 8260B
Dibromochloromethane	ND	5.0	ug/kg	SW846 8260B
Chloroethane	ND	5.0	ug/kg	SW846 8260B
Chloroform	ND	5.0	ug/kg	SW846 8260B
Chloromethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dibromoethane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
(total)				
1,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
cis-1,3-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
trans-1,3-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B
2-Hexanone	ND	20	ug/kg	SW846 8260B
Methylene chloride	ND	5.0	ug/kg	SW846 8260B
4-Methyl-2-pentanone	0.98 J	20	ug/kg	SW846 8260B
Styrene	ND	5.0	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
Tetrachloroethene	ND	5.0	ug/kg	SW846 8260B
Toluene	ND	5.0	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
Trichloroethene	ND	5.0	ug/kg	SW846 8260B
Vinyl chloride	ND	5.0	ug/kg	SW846 8260B
Xylenes (total)	ND	10	ug/kg	SW846 8260B

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
1,2-Dichloroethane-d4	92	(61 - 130)
Toluene-d8	97	(85 - 115)

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0D300448

Work Order #...: L01PN1AA

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
4-Bromofluorobenzene	92	(85 - 120)		
Dibromofluoromethane	86	(59 - 138)		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated: The analyte was positively identified; the quantitation is estimated.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0D300448
 MB Lot-Sample #: A0E070000-105

Work Order #...: L058A1AA

Matrix.....: SOLID

Analysis Date...: 05/05/10
 Dilution Factor: 1

Prep Date.....: 05/05/10

Final Wgt/Vol...: 5 mL

Prep Batch #...: 0127105

Initial Wgt/Vol: 5 g

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	METHOD
Acetone	12 J	20	ug/kg	SW846 8260B
Benzene	ND	5.0	ug/kg	SW846 8260B
Bromochloromethane	ND	5.0	ug/kg	SW846 8260B
Bromodichloromethane	ND	5.0	ug/kg	SW846 8260B
Bromoform	ND	5.0	ug/kg	SW846 8260B
Bromomethane	ND	5.0	ug/kg	SW846 8260B
2-Butanone	1.1 J	20	ug/kg	SW846 8260B
Carbon disulfide	ND	5.0	ug/kg	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/kg	SW846 8260B
Chlorobenzene	ND	5.0	ug/kg	SW846 8260B
Dibromochloromethane	ND	5.0	ug/kg	SW846 8260B
Chloroethane	ND	5.0	ug/kg	SW846 8260B
Chloroform	ND	5.0	ug/kg	SW846 8260B
Chloromethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dibromoethane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
(total)				
1,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
cis-1,3-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
trans-1,3-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B
2-Hexanone	ND	20	ug/kg	SW846 8260B
Methylene chloride	ND	5.0	ug/kg	SW846 8260B
4-Methyl-2-pentanone	0.96 J	20	ug/kg	SW846 8260B
Styrene	ND	5.0	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
Tetrachloroethene	ND	5.0	ug/kg	SW846 8260B
Toluene	ND	5.0	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
Trichloroethene	ND	5.0	ug/kg	SW846 8260B
Vinyl chloride	ND	5.0	ug/kg	SW846 8260B
Xylenes (total)	ND	10	ug/kg	SW846 8260B

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
1,2-Dichloroethane-d4	98	(61 - 130)
Toluene-d8	95	(85 - 115)

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0D300448

Work Order #...: L058A1AA

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
4-Bromofluorobenzene	92	(85 - 120)		
Dibromofluoromethane	85	(59 - 138)		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated: The analyte was positively identified; the quantitation is estimated.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L01PN1AC-LCS Matrix.....: SOLID
 LCS Lot-Sample#: A0E050000-074 L01PN1AD-LCSD
 Prep Date.....: 05/04/10 Analysis Date..: 05/04/10
 Prep Batch #...: 0125074
 Dilution Factor: 1 Final Wgt/Vol...: 5 mL
 Initial Wgt/Vol: 5 g

PARAMETER	PERCENT	RECOVERY	RPD		METHOD
	RECOVERY	LIMITS	RPD	LIMITS	
1,1-Dichloroethene	118	(65 - 135)			SW846 8260B
	117	(65 - 135)	0.76	(0-30)	SW846 8260B
Trichloroethene	96	(75 - 125)			SW846 8260B
	96	(75 - 125)	0.050	(0-30)	SW846 8260B
Benzene	98	(75 - 125)			SW846 8260B
	99	(75 - 125)	1.6	(0-30)	SW846 8260B
Toluene	99	(70 - 125)			SW846 8260B
	98	(70 - 125)	1.2	(0-30)	SW846 8260B
Chlorobenzene	95	(75 - 125)			SW846 8260B
	95	(75 - 125)	0.48	(0-30)	SW846 8260B
Acetone	78	(20 - 160)			SW846 8260B
	86	(20 - 160)	10	(0-30)	SW846 8260B
Bromodichloromethane	90	(70 - 130)			SW846 8260B
	93	(70 - 130)	2.9	(0-30)	SW846 8260B
Bromoform	74	(55 - 135)			SW846 8260B
	77	(55 - 135)	4.2	(0-30)	SW846 8260B
Bromomethane	99	(30 - 160)			SW846 8260B
	94	(30 - 160)	5.7	(0-30)	SW846 8260B
2-Butanone	82	(30 - 160)			SW846 8260B
	87	(30 - 160)	6.2	(0-30)	SW846 8260B
Bromochloromethane	91	(70 - 125)			SW846 8260B
	92	(70 - 125)	1.5	(0-30)	SW846 8260B
Carbon disulfide	103	(45 - 160)			SW846 8260B
	98	(45 - 160)	4.6	(0-30)	SW846 8260B
Carbon tetrachloride	98	(65 - 135)			SW846 8260B
	95	(65 - 135)	2.8	(0-30)	SW846 8260B
Chloroethane	100	(40 - 155)			SW846 8260B
	95	(40 - 155)	5.2	(0-30)	SW846 8260B
Chloroform	96	(70 - 125)			SW846 8260B
	98	(70 - 125)	1.9	(0-30)	SW846 8260B
Chloromethane	100	(50 - 130)			SW846 8260B
	98	(50 - 130)	2.8	(0-30)	SW846 8260B
1,2-Dibromoethane	87	(70 - 125)			SW846 8260B
	90	(70 - 125)	2.7	(0-30)	SW846 8260B
1,1-Dichloroethane	99	(75 - 125)			SW846 8260B
	101	(75 - 125)	1.4	(0-30)	SW846 8260B
1,2-Dichloroethane	95	(70 - 135)			SW846 8260B
	97	(70 - 135)	2.1	(0-30)	SW846 8260B

(Continued on next page)

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L01PN1AC-LCS Matrix.....: SOLID
 LCS Lot-Sample#: A0E050000-074 L01PN1AD-LCSD
 Prep Date.....: 05/04/10 Analysis Date...: 05/04/10
 Prep Batch #...: 0125074
 Dilution Factor: 1 Final Wgt/Vol...: 5 mL
 Initial Wgt/Vol: 5 g

PARAMETER	SPIKE	MEASURED	UNITS	PERCENT	RPD	METHOD
	AMOUNT	AMOUNT		RECOVERY		
1,1-Dichloroethene	50	59	ug/kg	118		SW846 8260B
	50	59	ug/kg	117	0.76	SW846 8260B
Trichloroethene	50	48	ug/kg	96		SW846 8260B
	50	48	ug/kg	96	0.050	SW846 8260B
Benzene	50	49	ug/kg	98		SW846 8260B
	50	50	ug/kg	99	1.6	SW846 8260B
Toluene	50	49	ug/kg	99		SW846 8260B
	50	49	ug/kg	98	1.2	SW846 8260B
Chlorobenzene	50	48	ug/kg	95		SW846 8260B
	50	48	ug/kg	95	0.48	SW846 8260B
Acetone	100	78	ug/kg	78		SW846 8260B
	100	86	ug/kg	86	10	SW846 8260B
Bromodichloromethane	50	45	ug/kg	90		SW846 8260B
	50	46	ug/kg	93	2.9	SW846 8260B
Bromoform	50	37	ug/kg	74		SW846 8260B
	50	39	ug/kg	77	4.2	SW846 8260B
Bromomethane	50	50	ug/kg	99		SW846 8260B
	50	47	ug/kg	94	5.7	SW846 8260B
2-Butanone	100	82	ug/kg	82		SW846 8260B
	100	87	ug/kg	87	6.2	SW846 8260B
Bromochloromethane	50	45	ug/kg	91		SW846 8260B
	50	46	ug/kg	92	1.5	SW846 8260B
Carbon disulfide	50	52	ug/kg	103		SW846 8260B
	50	49	ug/kg	98	4.6	SW846 8260B
Carbon tetrachloride	50	49	ug/kg	98		SW846 8260B
	50	48	ug/kg	95	2.8	SW846 8260B
Chloroethane	50	50	ug/kg	100		SW846 8260B
	50	47	ug/kg	95	5.2	SW846 8260B
Chloroform	50	48	ug/kg	96		SW846 8260B
	50	49	ug/kg	98	1.9	SW846 8260B
Chloromethane	50	50	ug/kg	100		SW846 8260B
	50	49	ug/kg	98	2.8	SW846 8260B
1,2-Dibromoethane	50	44	ug/kg	87		SW846 8260B
	50	45	ug/kg	90	2.7	SW846 8260B
1,1-Dichloroethane	50	50	ug/kg	99		SW846 8260B
	50	50	ug/kg	101	1.4	SW846 8260B
1,2-Dichloroethane	50	48	ug/kg	95		SW846 8260B
	50	49	ug/kg	97	2.1	SW846 8260B

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LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L01PN1AC-LCS Matrix.....: SOLID
 LCS Lot-Sample#: A0E050000-074 L01PN1AD-LCSD

PARAMETER	SPIKE	MEASURED	UNITS	PERCENT	RPD	METHOD
	AMOUNT	AMOUNT		RECOVERY		
1,2-Dichloropropane	50	48	ug/kg	96		SW846 8260B
	50	49	ug/kg	98	2.0	SW846 8260B
cis-1,3-Dichloropropene	50	43	ug/kg	86		SW846 8260B
	50	44	ug/kg	88	2.4	SW846 8260B
trans-1,3-Dichloropropene	50	41	ug/kg	82		SW846 8260B
	50	42	ug/kg	84	2.4	SW846 8260B
Ethylbenzene	50	49	ug/kg	98		SW846 8260B
	50	48	ug/kg	97	1.2	SW846 8260B
2-Hexanone	100	84	ug/kg	84		SW846 8260B
	100	88	ug/kg	88	4.2	SW846 8260B
Methylene chloride	50	47	ug/kg	95		SW846 8260B
	50	47	ug/kg	95	0.27	SW846 8260B
4-Methyl-2-pentanone	100	89	ug/kg	89		SW846 8260B
	100	90	ug/kg	90	1.2	SW846 8260B
Styrene	50	48	ug/kg	95		SW846 8260B
	50	48	ug/kg	95	0.060	SW846 8260B
1,1,2,2-Tetrachloroethane	50	44	ug/kg	88		SW846 8260B
	50	47	ug/kg	94	6.0	SW846 8260B
Tetrachloroethene	50	51	ug/kg	103		SW846 8260B
	50	49	ug/kg	98	4.4	SW846 8260B
1,1,2-Trichloroethane	50	45	ug/kg	89		SW846 8260B
	50	46	ug/kg	91	2.2	SW846 8260B
1,1,1-Trichloroethane	50	48	ug/kg	96		SW846 8260B
	50	48	ug/kg	95	0.56	SW846 8260B
Xylenes (total)	150	150	ug/kg	100		SW846 8260B
	150	150	ug/kg	98	2.0	SW846 8260B
Vinyl chloride	50	51	ug/kg	101		SW846 8260B
	50	50	ug/kg	99	2.0	SW846 8260B
Dibromochloromethane	50	41	ug/kg	83		SW846 8260B
	50	43	ug/kg	86	3.6	SW846 8260B
1,2-Dibromo-3-chloro- propane	50	34	ug/kg	68		SW846 8260B
	50	36	ug/kg	72	6.2	SW846 8260B
1,3-Dichlorobenzene	50	46	ug/kg	93		SW846 8260B
	50	46	ug/kg	91	1.2	SW846 8260B
1,4-Dichlorobenzene	50	46	ug/kg	91		SW846 8260B
	50	45	ug/kg	90	1.8	SW846 8260B
1,2-Dichlorobenzene	50	46	ug/kg	92		SW846 8260B
	50	47	ug/kg	93	1.2	SW846 8260B
Dichlorodifluoromethane	50	43	ug/kg	86		SW846 8260B
	50	41	ug/kg	83	3.6	SW846 8260B

(Continued on next page)

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L01PN1AC-LCS Matrix.....: SOLID
 LCS Lot-Sample#: A0E050000-074 L01PN1AD-LCSD

PARAMETER	SPIKE	MEASURED	UNITS	PERCENT	RPD	METHOD
	AMOUNT	AMOUNT		RECOVERY		
trans-1,2-Dichloroethene	50	51	ug/kg	102		SW846 8260B
	50	51	ug/kg	101	0.63	SW846 8260B
cis-1,2-Dichloroethene	50	48	ug/kg	96		SW846 8260B
	50	49	ug/kg	98	2.0	SW846 8260B
Naphthalene	50	42	ug/kg	85		SW846 8260B
	50	44	ug/kg	88	3.4	SW846 8260B
1,1,1,2-Tetrachloroethane	50	47	ug/kg	93		SW846 8260B
	50	47	ug/kg	94	0.74	SW846 8260B
Trichlorofluoromethane	50	67	ug/kg	134		SW846 8260B
	50	63	ug/kg	125	7.0	SW846 8260B
o-Xylene	50	50	ug/kg	99		SW846 8260B
	50	50	ug/kg	99	0.070	SW846 8260B
m-Xylene & p-Xylene	100	100	ug/kg	101		SW846 8260B
	100	98	ug/kg	98	3.0	SW846 8260B
Isopropylbenzene	50	51	ug/kg	102		SW846 8260B
	50	50	ug/kg	99	2.9	SW846 8260B
1,1-Dichloropropene	50	52	ug/kg	104		SW846 8260B
	50	51	ug/kg	103	1.5	SW846 8260B
1,2,3-Trichlorobenzene	50	47	ug/kg	94		SW846 8260B
	50	47	ug/kg	93	1.5	SW846 8260B
1,2,3-Trichloropropane	50	48	ug/kg	96		SW846 8260B
	50	48	ug/kg	97	1.1	SW846 8260B
1,2,4-Trichloro- benzene	50	48	ug/kg	95		SW846 8260B
	50	46	ug/kg	92	3.1	SW846 8260B
1,3-Dichloropropane	50	48	ug/kg	96		SW846 8260B
	50	49	ug/kg	98	1.5	SW846 8260B
2,2-Dichloropropane	50	42	ug/kg	85		SW846 8260B
	50	41	ug/kg	81	4.7	SW846 8260B
2-Chlorotoluene	50	49	ug/kg	97		SW846 8260B
	50	48	ug/kg	95	1.8	SW846 8260B
4-Chlorotoluene	50	49	ug/kg	98		SW846 8260B
	50	48	ug/kg	95	2.2	SW846 8260B
Bromobenzene	50	47	ug/kg	93		SW846 8260B
	50	45	ug/kg	90	3.7	SW846 8260B
Dibromomethane	50	47	ug/kg	93		SW846 8260B
	50	49	ug/kg	98	5.1	SW846 8260B
Hexachlorobutadiene	50	50	ug/kg	99		SW846 8260B
	50	49	ug/kg	98	1.1	SW846 8260B
n-Butylbenzene	50	53	ug/kg	107		SW846 8260B
	50	51	ug/kg	103	3.9	SW846 8260B

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LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L01PN1AC-LCS Matrix.....: SOLID
 LCS Lot-Sample#: A0E050000-074 L01PN1AD-LCSD

<u>PARAMETER</u>	<u>SPIKE AMOUNT</u>	<u>MEASURED AMOUNT</u>	<u>UNITS</u>	<u>PERCENT RECOVERY</u>	<u>RPD</u>	<u>METHOD</u>
n-Propylbenzene	50	51	ug/kg	102		SW846 8260B
	50	51	ug/kg	102	0.55	SW846 8260B
p-Isopropyltoluene	50	54	ug/kg	107		SW846 8260B
	50	53	ug/kg	107	0.72	SW846 8260B
sec-Butylbenzene	50	52	ug/kg	104		SW846 8260B
	50	51	ug/kg	102	2.4	SW846 8260B
tert-Butylbenzene	50	51	ug/kg	103		SW846 8260B
	50	52	ug/kg	103	0.16	SW846 8260B
1,2,4-Trimethylbenzene	50	52	ug/kg	105		SW846 8260B
	50	51	ug/kg	102	2.5	SW846 8260B
1,3,5-Trimethylbenzene	50	52	ug/kg	104		SW846 8260B
	50	51	ug/kg	103	1.2	SW846 8260B
Methyl tert-butyl ether	50	41 a	ug/kg	81		SW846 8260B
	50	43 a,p	ug/kg	85	4.8	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	96	(61 - 130)
	98	(61 - 130)
Toluene-d8	100	(85 - 115)
	99	(85 - 115)
4-Bromofluorobenzene	95	(85 - 120)
	96	(85 - 120)
Dibromofluoromethane	96	(59 - 138)
	96	(59 - 138)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

p Relative percent difference (RPD) is outside stated control limits.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L058A1AC-LCS Matrix.....: SOLID
 LCS Lot-Sample#: A0E070000-105 L058A1AD-LCSD
 Prep Date.....: 05/05/10 Analysis Date..: 05/05/10
 Prep Batch #...: 0127105
 Dilution Factor: 1 Final Wgt/Vol..: 5 mL
 Initial Wgt/Vol: 5 g

PARAMETER	PERCENT	RECOVERY	RPD		METHOD
	RECOVERY	LIMITS	RPD	LIMITS	
1,1-Dichloroethene	111	(65 - 135)			SW846 8260B
	122	(65 - 135)	9.6	(0-30)	SW846 8260B
Trichloroethene	97	(75 - 125)			SW846 8260B
	99	(75 - 125)	1.8	(0-30)	SW846 8260B
Benzene	97	(75 - 125)			SW846 8260B
	100	(75 - 125)	2.6	(0-30)	SW846 8260B
Toluene	97	(70 - 125)			SW846 8260B
	101	(70 - 125)	4.0	(0-30)	SW846 8260B
Chlorobenzene	96	(75 - 125)			SW846 8260B
	99	(75 - 125)	3.3	(0-30)	SW846 8260B
Acetone	77	(20 - 160)			SW846 8260B
	89	(20 - 160)	14	(0-30)	SW846 8260B
Bromodichloromethane	94	(70 - 130)			SW846 8260B
	93	(70 - 130)	0.58	(0-30)	SW846 8260B
Bromoform	78	(55 - 135)			SW846 8260B
	79	(55 - 135)	0.44	(0-30)	SW846 8260B
Bromomethane	93	(30 - 160)			SW846 8260B
	99	(30 - 160)	5.5	(0-30)	SW846 8260B
2-Butanone	86	(30 - 160)			SW846 8260B
	95	(30 - 160)	10	(0-30)	SW846 8260B
Bromochloromethane	89	(70 - 125)			SW846 8260B
	95	(70 - 125)	7.5	(0-30)	SW846 8260B
Carbon disulfide	92	(45 - 160)			SW846 8260B
	99	(45 - 160)	7.4	(0-30)	SW846 8260B
Carbon tetrachloride	94	(65 - 135)			SW846 8260B
	101	(65 - 135)	7.2	(0-30)	SW846 8260B
Chloroethane	95	(40 - 155)			SW846 8260B
	101	(40 - 155)	6.3	(0-30)	SW846 8260B
Chloroform	95	(70 - 125)			SW846 8260B
	101	(70 - 125)	5.5	(0-30)	SW846 8260B
Chloromethane	98	(50 - 130)			SW846 8260B
	105	(50 - 130)	7.0	(0-30)	SW846 8260B
1,2-Dibromoethane	90	(70 - 125)			SW846 8260B
	91	(70 - 125)	0.91	(0-30)	SW846 8260B
1,1-Dichloroethane	98	(75 - 125)			SW846 8260B
	104	(75 - 125)	5.9	(0-30)	SW846 8260B
1,2-Dichloroethane	101	(70 - 135)			SW846 8260B
	108	(70 - 135)	6.7	(0-30)	SW846 8260B

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L058A1AC-LCS Matrix.....: SOLID
 LCS Lot-Sample#: A0E070000-105 L058A1AD-LCSD

PARAMETER	PERCENT	RECOVERY	RPD		METHOD
	RECOVERY	LIMITS	RPD	LIMITS	
1,2-Dichloropropane	100	(70 - 120)			SW846 8260B
	99	(70 - 120)	0.76	(0-30)	SW846 8260B
cis-1,3-Dichloropropene	88	(70 - 125)			SW846 8260B
	89	(70 - 125)	0.81	(0-30)	SW846 8260B
trans-1,3-Dichloropropene	85	(65 - 125)			SW846 8260B
	85	(65 - 125)	0.030	(0-30)	SW846 8260B
Ethylbenzene	97	(75 - 125)			SW846 8260B
	100	(75 - 125)	3.1	(0-30)	SW846 8260B
2-Hexanone	88	(45 - 145)			SW846 8260B
	97	(45 - 145)	9.1	(0-30)	SW846 8260B
Methylene chloride	91	(55 - 140)			SW846 8260B
	98	(55 - 140)	6.7	(0-30)	SW846 8260B
4-Methyl-2-pentanone	87	(45 - 145)			SW846 8260B
	98	(45 - 145)	12	(0-30)	SW846 8260B
Styrene	96	(75 - 125)			SW846 8260B
	98	(75 - 125)	1.6	(0-30)	SW846 8260B
1,1,2,2-Tetrachloroethane	91	(55 - 130)			SW846 8260B
	99	(55 - 130)	8.2	(0-30)	SW846 8260B
Tetrachloroethene	100	(65 - 140)			SW846 8260B
	106	(65 - 140)	6.2	(0-30)	SW846 8260B
1,1,2-Trichloroethane	90	(60 - 125)			SW846 8260B
	94	(60 - 125)	4.4	(0-30)	SW846 8260B
1,1,1-Trichloroethane	94	(70 - 135)			SW846 8260B
	100	(70 - 135)	5.4	(0-30)	SW846 8260B
Xylenes (total)	97	(75 - 125)			SW846 8260B
	102	(75 - 125)	5.0	(0-30)	SW846 8260B
Vinyl chloride	97	(60 - 125)			SW846 8260B
	106	(60 - 125)	9.5	(0-30)	SW846 8260B
Dibromochloromethane	87	(65 - 130)			SW846 8260B
	88	(65 - 130)	0.94	(0-30)	SW846 8260B
1,2-Dibromo-3-chloro- propane	67	(40 - 135)			SW846 8260B
	73	(40 - 135)	7.7	(0-30)	SW846 8260B
1,3-Dichlorobenzene	95	(70 - 125)			SW846 8260B
	100	(70 - 125)	4.6	(0-30)	SW846 8260B
1,4-Dichlorobenzene	94	(70 - 125)			SW846 8260B
	99	(70 - 125)	4.7	(0-30)	SW846 8260B
1,2-Dichlorobenzene	93	(75 - 120)			SW846 8260B
	98	(75 - 120)	5.0	(0-30)	SW846 8260B
Dichlorodifluoromethane	80	(35 - 135)			SW846 8260B
	88	(35 - 135)	9.5	(0-30)	SW846 8260B

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L058A1AC-LCS Matrix.....: SOLID
 LCS Lot-Sample#: A0E070000-105 L058A1AD-LCSD

PARAMETER	PERCENT	RECOVERY	RPD		METHOD
	RECOVERY	LIMITS	RPD	LIMITS	
trans-1,2-Dichloroethene	97	(65 - 135)			SW846 8260B
	106	(65 - 135)	8.7	(0-30)	SW846 8260B
cis-1,2-Dichloroethene	93	(65 - 125)			SW846 8260B
	99	(65 - 125)	5.5	(0-30)	SW846 8260B
Naphthalene	80	(40 - 125)			SW846 8260B
	89	(40 - 125)	10	(0-30)	SW846 8260B
1,1,1,2-Tetrachloroethane	88	(75 - 125)			SW846 8260B
	95	(75 - 125)	7.6	(0-30)	SW846 8260B
Trichlorofluoromethane	130	(25 - 185)			SW846 8260B
	135	(25 - 185)	3.8	(0-30)	SW846 8260B
o-Xylene	94	(75 - 125)			SW846 8260B
	102	(75 - 125)	7.7	(0-30)	SW846 8260B
m-Xylene & p-Xylene	98	(80 - 125)			SW846 8260B
	101	(80 - 125)	3.6	(0-30)	SW846 8260B
Isopropylbenzene	95	(75 - 130)			SW846 8260B
	103	(75 - 130)	7.6	(0-30)	SW846 8260B
1,1-Dichloropropene	103	(70 - 135)			SW846 8260B
	108	(70 - 135)	4.5	(0-30)	SW846 8260B
1,2,3-Trichlorobenzene	85	(60 - 135)			SW846 8260B
	97	(60 - 135)	13	(0-30)	SW846 8260B
1,2,3-Trichloropropane	101	(65 - 130)			SW846 8260B
	105	(65 - 130)	3.6	(0-30)	SW846 8260B
1,2,4-Trichloro- benzene	88	(65 - 130)			SW846 8260B
	100	(65 - 130)	13	(0-30)	SW846 8260B
1,3-Dichloropropane	97	(75 - 125)			SW846 8260B
	100	(75 - 125)	3.2	(0-30)	SW846 8260B
2,2-Dichloropropane	80	(65 - 135)			SW846 8260B
	82	(65 - 135)	2.6	(0-30)	SW846 8260B
2-Chlorotoluene	98	(70 - 130)			SW846 8260B
	101	(70 - 130)	3.8	(0-30)	SW846 8260B
4-Chlorotoluene	100	(75 - 125)			SW846 8260B
	103	(75 - 125)	2.4	(0-30)	SW846 8260B
Bromobenzene	99	(65 - 120)			SW846 8260B
	99	(65 - 120)	0.18	(0-30)	SW846 8260B
Dibromomethane	96	(75 - 130)			SW846 8260B
	100	(75 - 130)	3.3	(0-30)	SW846 8260B
Hexachlorobutadiene	95	(55 - 140)			SW846 8260B
	108	(55 - 140)	13	(0-30)	SW846 8260B
n-Butylbenzene	104	(65 - 140)			SW846 8260B
	112	(65 - 140)	7.2	(0-30)	SW846 8260B

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L058A1AC-LCS Matrix.....: SOLID
 LCS Lot-Sample#: A0E070000-105 L058A1AD-LCSD

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>
n-Propylbenzene	104	(65 - 135)			SW846 8260B
	108	(65 - 135)	3.4	(0-30)	SW846 8260B
p-Isopropyltoluene	104	(75 - 135)			SW846 8260B
	114	(75 - 135)	9.5	(0-30)	SW846 8260B
sec-Butylbenzene	100	(65 - 130)			SW846 8260B
	110	(65 - 130)	9.4	(0-30)	SW846 8260B
tert-Butylbenzene	100	(65 - 130)			SW846 8260B
	107	(65 - 130)	6.6	(0-30)	SW846 8260B
1,2,4-Trimethylbenzene	103	(65 - 135)			SW846 8260B
	111	(65 - 135)	7.3	(0-30)	SW846 8260B
1,3,5-Trimethylbenzene	101	(65 - 135)			SW846 8260B
	109	(65 - 135)	7.4	(0-30)	SW846 8260B
Methyl tert-butyl ether	81	(70 - 130)			SW846 8260B
	84	(70 - 130)	3.1	(0-30)	SW846 8260B
tert-Butyl alcohol	62 a	(70 - 130)			SW846 8260B
	69 a	(70 - 130)	12	(0-30)	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	98	(61 - 130)
	100	(61 - 130)
Toluene-d8	97	(85 - 115)
	98	(85 - 115)
4-Bromofluorobenzene	100	(85 - 120)
	96	(85 - 120)
Dibromofluoromethane	93	(59 - 138)
	96	(59 - 138)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L058A1AC-LCS Matrix.....: SOLID
 LCS Lot-Sample#: A0E070000-105 L058A1AD-LCSD
 Prep Date.....: 05/05/10 Analysis Date...: 05/05/10
 Prep Batch #...: 0127105
 Dilution Factor: 1 Final Wgt/Vol...: 5 mL
 Initial Wgt/Vol: 5 g

PARAMETER	SPIKE	MEASURED	UNITS	PERCENT	RPD	METHOD
	AMOUNT	AMOUNT		RECOVERY		
1,1-Dichloroethene	50	55	ug/kg	111		SW846 8260B
	50	61	ug/kg	122	9.6	SW846 8260B
Trichloroethene	50	49	ug/kg	97		SW846 8260B
	50	50	ug/kg	99	1.8	SW846 8260B
Benzene	50	49	ug/kg	97		SW846 8260B
	50	50	ug/kg	100	2.6	SW846 8260B
Toluene	50	48	ug/kg	97		SW846 8260B
	50	50	ug/kg	101	4.0	SW846 8260B
Chlorobenzene	50	48	ug/kg	96		SW846 8260B
	50	50	ug/kg	99	3.3	SW846 8260B
Acetone	100	77	ug/kg	77		SW846 8260B
	100	89	ug/kg	89	14	SW846 8260B
Bromodichloromethane	50	47	ug/kg	94		SW846 8260B
	50	47	ug/kg	93	0.58	SW846 8260B
Bromoform	50	39	ug/kg	78		SW846 8260B
	50	39	ug/kg	79	0.44	SW846 8260B
Bromomethane	50	47	ug/kg	93		SW846 8260B
	50	49	ug/kg	99	5.5	SW846 8260B
2-Butanone	100	86	ug/kg	86		SW846 8260B
	100	95	ug/kg	95	10	SW846 8260B
Bromochloromethane	50	44	ug/kg	89		SW846 8260B
	50	48	ug/kg	95	7.5	SW846 8260B
Carbon disulfide	50	46	ug/kg	92		SW846 8260B
	50	50	ug/kg	99	7.4	SW846 8260B
Carbon tetrachloride	50	47	ug/kg	94		SW846 8260B
	50	51	ug/kg	101	7.2	SW846 8260B
Chloroethane	50	47	ug/kg	95		SW846 8260B
	50	50	ug/kg	101	6.3	SW846 8260B
Chloroform	50	48	ug/kg	95		SW846 8260B
	50	50	ug/kg	101	5.5	SW846 8260B
Chloromethane	50	49	ug/kg	98		SW846 8260B
	50	53	ug/kg	105	7.0	SW846 8260B
1,2-Dibromoethane	50	45	ug/kg	90		SW846 8260B
	50	45	ug/kg	91	0.91	SW846 8260B
1,1-Dichloroethane	50	49	ug/kg	98		SW846 8260B
	50	52	ug/kg	104	5.9	SW846 8260B
1,2-Dichloroethane	50	50	ug/kg	101		SW846 8260B
	50	54	ug/kg	108	6.7	SW846 8260B

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LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L058A1AC-LCS Matrix.....: SOLID
 LCS Lot-Sample#: A0E070000-105 L058A1AD-LCSD

PARAMETER	SPIKE	MEASURED	UNITS	PERCENT	RPD	METHOD
	AMOUNT	AMOUNT		RECOVERY		
1,2-Dichloropropane	50	50	ug/kg	100		SW846 8260B
	50	49	ug/kg	99	0.76	SW846 8260B
cis-1,3-Dichloropropene	50	44	ug/kg	88		SW846 8260B
	50	44	ug/kg	89	0.81	SW846 8260B
trans-1,3-Dichloropropene	50	42	ug/kg	85		SW846 8260B
	50	42	ug/kg	85	0.030	SW846 8260B
Ethylbenzene	50	48	ug/kg	97		SW846 8260B
	50	50	ug/kg	100	3.1	SW846 8260B
2-Hexanone	100	88	ug/kg	88		SW846 8260B
	100	97	ug/kg	97	9.1	SW846 8260B
Methylene chloride	50	46	ug/kg	91		SW846 8260B
	50	49	ug/kg	98	6.7	SW846 8260B
4-Methyl-2-pentanone	100	87	ug/kg	87		SW846 8260B
	100	98	ug/kg	98	12	SW846 8260B
Styrene	50	48	ug/kg	96		SW846 8260B
	50	49	ug/kg	98	1.6	SW846 8260B
1,1,2,2-Tetrachloroethane	50	46	ug/kg	91		SW846 8260B
	50	49	ug/kg	99	8.2	SW846 8260B
Tetrachloroethene	50	50	ug/kg	100		SW846 8260B
	50	53	ug/kg	106	6.2	SW846 8260B
1,1,2-Trichloroethane	50	45	ug/kg	90		SW846 8260B
	50	47	ug/kg	94	4.4	SW846 8260B
1,1,1-Trichloroethane	50	47	ug/kg	94		SW846 8260B
	50	50	ug/kg	100	5.4	SW846 8260B
Xylenes (total)	150	150	ug/kg	97		SW846 8260B
	150	150	ug/kg	102	5.0	SW846 8260B
Vinyl chloride	50	48	ug/kg	97		SW846 8260B
	50	53	ug/kg	106	9.5	SW846 8260B
Dibromochloromethane	50	44	ug/kg	87		SW846 8260B
	50	44	ug/kg	88	0.94	SW846 8260B
1,2-Dibromo-3-chloro- propane	50	34	ug/kg	67		SW846 8260B
	50	36	ug/kg	73	7.7	SW846 8260B
1,3-Dichlorobenzene	50	48	ug/kg	95		SW846 8260B
	50	50	ug/kg	100	4.6	SW846 8260B
1,4-Dichlorobenzene	50	47	ug/kg	94		SW846 8260B
	50	49	ug/kg	99	4.7	SW846 8260B
1,2-Dichlorobenzene	50	46	ug/kg	93		SW846 8260B
	50	49	ug/kg	98	5.0	SW846 8260B
Dichlorodifluoromethane	50	40	ug/kg	80		SW846 8260B
	50	44	ug/kg	88	9.5	SW846 8260B

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MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L0RV91AD-MS Matrix.....: SO
 MS Lot-Sample #: A0D300448-004 L0RV91AE-MSD
 Date Sampled...: 04/28/10 11:30 Date Received...: 04/29/10
 Prep Date.....: 05/04/10 Analysis Date...: 05/04/10
 Prep Batch #...: 0125074
 Dilution Factor: 0.87 Initial Wgt/Vol: 5 g Final Wgt/Vol...: 5 mL

PARAMETER	PERCENT	RECOVERY	RPD		METHOD
	RECOVERY	LIMITS	RPD	LIMITS	
1,1-Dichloroethene	120	(65 - 135)			SW846 8260B
	117	(65 - 135)	27	(0-30)	SW846 8260B
Trichloroethene	93	(75 - 125)			SW846 8260B
	93	(75 - 125)	29	(0-30)	SW846 8260B
Benzene	99	(75 - 125)			SW846 8260B
	98	(75 - 125)	27	(0-30)	SW846 8260B
Toluene	103	(70 - 125)			SW846 8260B
	102	(70 - 125)	28	(0-30)	SW846 8260B
Chlorobenzene	95	(75 - 125)			SW846 8260B
	93	(75 - 125)	27	(0-30)	SW846 8260B
Acetone	77	(20 - 160)			SW846 8260B
	75	(20 - 160)	24	(0-30)	SW846 8260B
Bromodichloromethane	88	(70 - 130)			SW846 8260B
	89	(70 - 130)	30	(0-30)	SW846 8260B
Bromoform	72	(55 - 135)			SW846 8260B
	75 p	(55 - 135)	33	(0-30)	SW846 8260B
Bromomethane	98	(30 - 160)			SW846 8260B
	98	(30 - 160)	28	(0-30)	SW846 8260B
2-Butanone	89	(30 - 160)			SW846 8260B
	89	(30 - 160)	29	(0-30)	SW846 8260B
Bromochloromethane	92	(70 - 125)			SW846 8260B
	95 p	(70 - 125)	31	(0-30)	SW846 8260B
Carbon disulfide	100	(45 - 160)			SW846 8260B
	101	(45 - 160)	30	(0-30)	SW846 8260B
Carbon tetrachloride	94	(65 - 135)			SW846 8260B
	95	(65 - 135)	30	(0-30)	SW846 8260B
Chloroethane	99	(40 - 155)			SW846 8260B
	99	(40 - 155)	29	(0-30)	SW846 8260B
Chloroform	97	(70 - 125)			SW846 8260B
	96	(70 - 125)	28	(0-30)	SW846 8260B
Chloromethane	100	(50 - 130)			SW846 8260B
	101	(50 - 130)	29	(0-30)	SW846 8260B
1,2-Dibromoethane	93	(70 - 125)			SW846 8260B
	92	(70 - 125)	27	(0-30)	SW846 8260B
1,1-Dichloroethane	101	(75 - 125)			SW846 8260B
	101	(75 - 125)	29	(0-30)	SW846 8260B
1,2-Dichloroethane	98	(70 - 135)			SW846 8260B
	97	(70 - 135)	28	(0-30)	SW846 8260B
1,2-Dichloropropane	98	(70 - 120)			SW846 8260B
	97	(70 - 120)	28	(0-30)	SW846 8260B

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MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L0RV91AD-MS Matrix.....: SO
 MS Lot-Sample #: A0D300448-004 L0RV91AE-MSD

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>
cis-1,3-Dichloropropene	81	(70 - 125)			SW846 8260B
	82	(70 - 125)	30	(0-30)	SW846 8260B
trans-1,3-Dichloropropene	82	(65 - 125)			SW846 8260B
	83	(65 - 125)	30	(0-30)	SW846 8260B
Ethylbenzene	99	(75 - 125)			SW846 8260B
	95	(75 - 125)	24	(0-30)	SW846 8260B
2-Hexanone	88	(45 - 145)			SW846 8260B
	91 p	(45 - 145)	32	(0-30)	SW846 8260B
Methylene chloride	96	(55 - 140)			SW846 8260B
	95	(55 - 140)	27	(0-30)	SW846 8260B
4-Methyl-2-pentanone	96	(45 - 145)			SW846 8260B
	97	(45 - 145)	30	(0-30)	SW846 8260B
Styrene	93	(75 - 125)			SW846 8260B
	88	(75 - 125)	24	(0-30)	SW846 8260B
1,1,2,2-Tetrachloroethane	117	(55 - 130)			SW846 8260B
	110	(55 - 130)	23	(0-30)	SW846 8260B
Tetrachloroethene	103	(65 - 140)			SW846 8260B
	101	(65 - 140)	27	(0-30)	SW846 8260B
1,1,2-Trichloroethane	96	(60 - 125)			SW846 8260B
	94	(60 - 125)	27	(0-30)	SW846 8260B
1,1,1-Trichloroethane	93	(70 - 135)			SW846 8260B
	95 p	(70 - 135)	31	(0-30)	SW846 8260B
Xylenes (total)	101	(75 - 125)			SW846 8260B
	95	(75 - 125)	23	(0-30)	SW846 8260B
Vinyl chloride	101	(60 - 125)			SW846 8260B
	103	(60 - 125)	30	(0-30)	SW846 8260B
Dibromochloromethane	83	(65 - 130)			SW846 8260B
	85 p	(65 - 130)	31	(0-30)	SW846 8260B
1,2-Dibromo-3-chloro- propane	73	(40 - 135)			SW846 8260B
	71	(40 - 135)	26	(0-30)	SW846 8260B
1,3-Dichlorobenzene	94	(70 - 125)			SW846 8260B
	87	(70 - 125)	21	(0-30)	SW846 8260B
1,4-Dichlorobenzene	93	(70 - 125)			SW846 8260B
	85	(70 - 125)	20	(0-30)	SW846 8260B
1,2-Dichlorobenzene	95	(75 - 120)			SW846 8260B
	87	(75 - 120)	20	(0-30)	SW846 8260B
Dichlorodifluoromethane	86	(35 - 135)			SW846 8260B
	87 p	(35 - 135)	31	(0-30)	SW846 8260B
trans-1,2-Dichloroethene	103	(65 - 135)			SW846 8260B
	102	(65 - 135)	29	(0-30)	SW846 8260B

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MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L0RV91AD-MS Matrix.....: SO
 MS Lot-Sample #: A0D300448-004 L0RV91AE-MSD

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>
cis-1,2-Dichloroethene	98	(65 - 125)			SW846 8260B
	96	(65 - 125)	27	(0-30)	SW846 8260B
Naphthalene	67	(40 - 125)			SW846 8260B
	64	(40 - 125)	24	(0-30)	SW846 8260B
1,1,1,2-Tetrachloroethane	97	(75 - 125)			SW846 8260B
	95	(75 - 125)	26	(0-30)	SW846 8260B
Trichlorofluoromethane	129	(25 - 185)			SW846 8260B
	131 p	(25 - 185)	31	(0-30)	SW846 8260B
o-Xylene	103	(75 - 125)			SW846 8260B
	96	(75 - 125)	22	(0-30)	SW846 8260B
m-Xylene & p-Xylene	101	(80 - 125)			SW846 8260B
	95	(80 - 125)	23	(0-30)	SW846 8260B
Isopropylbenzene	103	(75 - 130)			SW846 8260B
	96	(75 - 130)	21	(0-30)	SW846 8260B
1,1-Dichloropropene	103	(70 - 135)			SW846 8260B
	102	(70 - 135)	28	(0-30)	SW846 8260B
1,2,3-Trichlorobenzene	61	(60 - 135)			SW846 8260B
	57 a	(60 - 135)	22	(0-30)	SW846 8260B
1,2,3-Trichloropropane	126	(65 - 130)			SW846 8260B
	116	(65 - 130)	20	(0-30)	SW846 8260B
1,2,4-Trichloro- benzene	67	(65 - 130)			SW846 8260B
	61 a	(65 - 130)	20	(0-30)	SW846 8260B
1,3-Dichloropropane	103	(75 - 125)			SW846 8260B
	102	(75 - 125)	28	(0-30)	SW846 8260B
2,2-Dichloropropane	79	(65 - 135)			SW846 8260B
	83 p	(65 - 135)	33	(0-30)	SW846 8260B
2-Chlorotoluene	113	(70 - 130)			SW846 8260B
	102	(70 - 130)	19	(0-30)	SW846 8260B
4-Chlorotoluene	109	(75 - 125)			SW846 8260B
	98	(75 - 125)	18	(0-30)	SW846 8260B
Bromobenzene	106	(65 - 120)			SW846 8260B
	98	(65 - 120)	21	(0-30)	SW846 8260B
Dibromomethane	93	(75 - 130)			SW846 8260B
	93	(75 - 130)	29	(0-30)	SW846 8260B
Hexachlorobutadiene	93	(55 - 140)			SW846 8260B
	74	(55 - 140)	6.6	(0-30)	SW846 8260B
n-Butylbenzene	111	(65 - 140)			SW846 8260B
	93	(65 - 140)	11	(0-30)	SW846 8260B
n-Propylbenzene	121	(65 - 135)			SW846 8260B
	107	(65 - 135)	16	(0-30)	SW846 8260B

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MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L0RV91AD-MS Matrix.....: SO
 MS Lot-Sample #: A0D300448-004 L0RV91AE-MSD

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>
p-Isopropyltoluene	123	(75 - 135)			SW846 8260B
	106	(75 - 135)	14	(0-30)	SW846 8260B
sec-Butylbenzene	122	(65 - 130)			SW846 8260B
	105	(65 - 130)	14	(0-30)	SW846 8260B
tert-Butylbenzene	127	(65 - 130)			SW846 8260B
	110	(65 - 130)	14	(0-30)	SW846 8260B
1,2,4-Trimethylbenzene	122	(65 - 135)			SW846 8260B
	107	(65 - 135)	15	(0-30)	SW846 8260B
1,3,5-Trimethylbenzene	123	(65 - 135)			SW846 8260B
	108	(65 - 135)	15	(0-30)	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	93	(61 - 130)
	93	(61 - 130)
Toluene-d8	105	(85 - 115)
	105	(85 - 115)
4-Bromofluorobenzene	106	(85 - 120)
	106	(85 - 120)
Dibromofluoromethane	94	(59 - 138)
	96	(59 - 138)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

p Relative percent difference (RPD) is outside stated control limits.

a Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L0RV91AD-MS Matrix.....: SO
 MS Lot-Sample #: A0D300448-004 L0RV91AE-MSD
 Date Sampled...: 04/28/10 11:30 Date Received...: 04/29/10
 Prep Date.....: 05/04/10 Analysis Date...: 05/04/10
 Prep Batch #...: 0125074
 Dilution Factor: 0.87 Initial Wgt/Vol: 5 g Final Wgt/Vol...: 5 mL

PARAMETER	SAMPLE	SPIKE	MEASRD	UNITS	PERCNT		METHOD
	AMOUNT	AMT	AMOUNT		RECVRY	RPD	
1,1-Dichloroethene	ND	49	59	ug/kg	120		SW846 8260B
	ND	66	77	ug/kg	117	27	SW846 8260B
Trichloroethene	ND	49	46	ug/kg	93		SW846 8260B
	ND	66	61	ug/kg	93	29	SW846 8260B
Benzene	ND	49	49	ug/kg	99		SW846 8260B
	ND	66	65	ug/kg	98	27	SW846 8260B
Toluene	ND	49	51	ug/kg	103		SW846 8260B
	ND	66	67	ug/kg	102	28	SW846 8260B
Chlorobenzene	ND	49	47	ug/kg	95		SW846 8260B
	ND	66	61	ug/kg	93	27	SW846 8260B
Acetone	8.8	99	84	ug/kg	77		SW846 8260B
	8.8	130	110	ug/kg	75	24	SW846 8260B
Bromodichloromethane	ND	49	43	ug/kg	88		SW846 8260B
	ND	66	58	ug/kg	89	30	SW846 8260B
Bromoform	ND	49	35	ug/kg	72		SW846 8260B
	ND	66	50	ug/kg	75 p	33	SW846 8260B
Bromomethane	ND	49	48	ug/kg	98		SW846 8260B
	ND	66	64	ug/kg	98	28	SW846 8260B
2-Butanone	ND	99	87	ug/kg	89		SW846 8260B
	ND	130	120	ug/kg	89	29	SW846 8260B
Bromochloromethane	ND	49	45	ug/kg	92		SW846 8260B
	ND	66	62	ug/kg	95 p	31	SW846 8260B
Carbon disulfide	ND	49	49	ug/kg	100		SW846 8260B
	ND	66	66	ug/kg	101	30	SW846 8260B
Carbon tetrachloride	ND	49	46	ug/kg	94		SW846 8260B
	ND	66	62	ug/kg	95	30	SW846 8260B
Chloroethane	ND	49	49	ug/kg	99		SW846 8260B
	ND	66	65	ug/kg	99	29	SW846 8260B
Chloroform	ND	49	48	ug/kg	97		SW846 8260B
	ND	66	64	ug/kg	96	28	SW846 8260B
Chloromethane	ND	49	49	ug/kg	100		SW846 8260B
	ND	66	66	ug/kg	101	29	SW846 8260B
1,2-Dibromoethane	ND	49	46	ug/kg	93		SW846 8260B
	ND	66	60	ug/kg	92	27	SW846 8260B
1,1-Dichloroethane	ND	49	50	ug/kg	101		SW846 8260B
	ND	66	67	ug/kg	101	29	SW846 8260B
1,2-Dichloroethane	ND	49	48	ug/kg	98		SW846 8260B
	ND	66	64	ug/kg	97	28	SW846 8260B
1,2-Dichloropropane	ND	49	48	ug/kg	98		SW846 8260B
	ND	66	64	ug/kg	97	28	SW846 8260B

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MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L0RV91AD-MS Matrix.....: SO
 MS Lot-Sample #: A0D300448-004 L0RV91AE-MSD

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
cis-1,3-Dichloropropene	ND	49	40	ug/kg	81		SW846 8260B
	ND	66	54	ug/kg	82	30	SW846 8260B
trans-1,3-Dichloropropene	ND	49	41	ug/kg	82		SW846 8260B
	ND	66	55	ug/kg	83	30	SW846 8260B
Ethylbenzene	ND	49	49	ug/kg	99		SW846 8260B
	ND	66	62	ug/kg	95	24	SW846 8260B
2-Hexanone	ND	99	87	ug/kg	88		SW846 8260B
	ND	130	120	ug/kg	91 p	32	SW846 8260B
Methylene chloride	ND	49	48	ug/kg	96		SW846 8260B
	ND	66	62	ug/kg	95	27	SW846 8260B
4-Methyl-2-pentanone	ND	99	95	ug/kg	96		SW846 8260B
	ND	130	130	ug/kg	97	30	SW846 8260B
Styrene	ND	49	46	ug/kg	93		SW846 8260B
	ND	66	58	ug/kg	88	24	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	49	58	ug/kg	117		SW846 8260B
	ND	66	72	ug/kg	110	23	SW846 8260B
Tetrachloroethene	ND	49	51	ug/kg	103		SW846 8260B
	ND	66	67	ug/kg	101	27	SW846 8260B
1,1,2-Trichloroethane	ND	49	47	ug/kg	96		SW846 8260B
	ND	66	62	ug/kg	94	27	SW846 8260B
1,1,1-Trichloroethane	ND	49	46	ug/kg	93		SW846 8260B
	ND	66	63	ug/kg	95 p	31	SW846 8260B
Xylenes (total)	ND	150	150	ug/kg	101		SW846 8260B
	ND	200	190	ug/kg	95	23	SW846 8260B
Vinyl chloride	ND	49	50	ug/kg	101		SW846 8260B
	ND	66	68	ug/kg	103	30	SW846 8260B
Dibromochloromethane	ND	49	41	ug/kg	83		SW846 8260B
	ND	66	56	ug/kg	85 p	31	SW846 8260B
1,2-Dibromo-3-chloro- propane	ND	49	36	ug/kg	73		SW846 8260B
	ND	66	47	ug/kg	71	26	SW846 8260B
1,3-Dichlorobenzene	ND	49	46	ug/kg	94		SW846 8260B
	ND	66	57	ug/kg	87	21	SW846 8260B
1,4-Dichlorobenzene	ND	49	46	ug/kg	93		SW846 8260B
	ND	66	56	ug/kg	85	20	SW846 8260B
1,2-Dichlorobenzene	ND	49	47	ug/kg	95		SW846 8260B
	ND	66	57	ug/kg	87	20	SW846 8260B
Dichlorodifluoromethane	ND	49	42	ug/kg	86		SW846 8260B
	ND	66	58	ug/kg	87 p	31	SW846 8260B
trans-1,2-Dichloroethene	ND	49	51	ug/kg	103		SW846 8260B
	ND	66	67	ug/kg	102	29	SW846 8260B

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MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L0RV91AD-MS Matrix.....: SO
 MS Lot-Sample #: A0D300448-004 L0RV91AE-MSD

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
cis-1,2-Dichloroethene	ND	49	48	ug/kg	98		SW846 8260B
	ND	66	63	ug/kg	96	27	SW846 8260B
Naphthalene	ND	49	33	ug/kg	67		SW846 8260B
	ND	66	42	ug/kg	64	24	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	49	48	ug/kg	97		SW846 8260B
	ND	66	62	ug/kg	95	26	SW846 8260B
Trichlorofluoromethane	ND	49	63	ug/kg	129		SW846 8260B
	ND	66	86	ug/kg	131 p	31	SW846 8260B
o-Xylene	ND	49	51	ug/kg	103		SW846 8260B
	ND	66	63	ug/kg	96	22	SW846 8260B
m-Xylene & p-Xylene	ND	99	99	ug/kg	101		SW846 8260B
	ND	130	130	ug/kg	95	23	SW846 8260B
Isopropylbenzene	ND	49	51	ug/kg	103		SW846 8260B
	ND	66	63	ug/kg	96	21	SW846 8260B
1,1-Dichloropropene	ND	49	51	ug/kg	103		SW846 8260B
	ND	66	67	ug/kg	102	28	SW846 8260B
1,2,3-Trichlorobenzene	ND	49	30	ug/kg	61		SW846 8260B
	ND	66	38	ug/kg	57 a	22	SW846 8260B
1,2,3-Trichloropropane	ND	49	62	ug/kg	126		SW846 8260B
	ND	66	76	ug/kg	116	20	SW846 8260B
1,2,4-Trichloro- benzene	ND	49	33	ug/kg	67		SW846 8260B
	ND	66	40	ug/kg	61 a	20	SW846 8260B
1,3-Dichloropropane	ND	49	51	ug/kg	103		SW846 8260B
	ND	66	67	ug/kg	102	28	SW846 8260B
2,2-Dichloropropane	ND	49	39	ug/kg	79		SW846 8260B
	ND	66	54	ug/kg	83 p	33	SW846 8260B
2-Chlorotoluene	ND	49	56	ug/kg	113		SW846 8260B
	ND	66	67	ug/kg	102	19	SW846 8260B
4-Chlorotoluene	ND	49	54	ug/kg	109		SW846 8260B
	ND	66	64	ug/kg	98	18	SW846 8260B
Bromobenzene	ND	49	52	ug/kg	106		SW846 8260B
	ND	66	65	ug/kg	98	21	SW846 8260B
Dibromomethane	ND	49	46	ug/kg	93		SW846 8260B
	ND	66	61	ug/kg	93	29	SW846 8260B
Hexachlorobutadiene	ND	49	46	ug/kg	93		SW846 8260B
	ND	66	49	ug/kg	74	6.6	SW846 8260B
n-Butylbenzene	ND	49	55	ug/kg	111		SW846 8260B
	ND	66	61	ug/kg	93	11	SW846 8260B
n-Propylbenzene	ND	49	60	ug/kg	121		SW846 8260B
	ND	66	70	ug/kg	107	16	SW846 8260B

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MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L0RV91AD-MS Matrix.....: SO
 MS Lot-Sample #: A0D300448-004 L0RV91AE-MSD

<u>PARAMETER</u>	<u>SAMPLE AMOUNT</u>	<u>SPIKE AMT</u>	<u>MEASRD AMOUNT</u>	<u>UNITS</u>	<u>PERCNT RECVRY</u>	<u>RPD</u>	<u>METHOD</u>
p-Isopropyltoluene	ND	49	61	ug/kg	123		SW846 8260B
	ND	66	70	ug/kg	106	14	SW846 8260B
sec-Butylbenzene	ND	49	60	ug/kg	122		SW846 8260B
	ND	66	69	ug/kg	105	14	SW846 8260B
tert-Butylbenzene	ND	49	63	ug/kg	127		SW846 8260B
	ND	66	72	ug/kg	110	14	SW846 8260B
1,2,4-Trimethylbenzene	ND	49	60	ug/kg	122		SW846 8260B
	ND	66	70	ug/kg	107	15	SW846 8260B
1,3,5-Trimethylbenzene	ND	49	61	ug/kg	123		SW846 8260B
	ND	66	71	ug/kg	108	15	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	93	(61 - 130)
	93	(61 - 130)
Toluene-d8	105	(85 - 115)
	105	(85 - 115)
4-Bromofluorobenzene	106	(85 - 120)
	106	(85 - 120)
Dibromofluoromethane	94	(59 - 138)
	96	(59 - 138)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

p Relative percent difference (RPD) is outside stated control limits.

a Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L0RX51AD-MS Matrix.....: SO
 MS Lot-Sample #: A0D300448-025 L0RX51AE-MSD
 Date Sampled...: 04/28/10 14:20 Date Received...: 04/29/10
 Prep Date.....: 05/05/10 Analysis Date...: 05/05/10
 Prep Batch #...: 0127105
 Dilution Factor: 0.84 Initial Wgt/Vol: 5 g Final Wgt/Vol...: 5 mL

PARAMETER	PERCENT	RECOVERY	RPD		METHOD
	RECOVERY	LIMITS	RPD	LIMITS	
1,1-Dichloroethene	127	(65 - 135)			SW846 8260B
	131	(65 - 135)	23	(0-30)	SW846 8260B
Trichloroethene	87	(75 - 125)			SW846 8260B
	91	(75 - 125)	21	(0-30)	SW846 8260B
Benzene	90	(75 - 125)			SW846 8260B
	93	(75 - 125)	22	(0-30)	SW846 8260B
Toluene	93	(70 - 125)			SW846 8260B
	97	(70 - 125)	21	(0-30)	SW846 8260B
Chlorobenzene	92	(75 - 125)			SW846 8260B
	94	(75 - 125)	23	(0-30)	SW846 8260B
Acetone	81	(20 - 160)			SW846 8260B
	86	(20 - 160)	19	(0-30)	SW846 8260B
Bromodichloromethane	84	(70 - 130)			SW846 8260B
	91	(70 - 130)	19	(0-30)	SW846 8260B
Bromoform	74	(55 - 135)			SW846 8260B
	79	(55 - 135)	20	(0-30)	SW846 8260B
Bromomethane	75	(30 - 160)			SW846 8260B
	78	(30 - 160)	22	(0-30)	SW846 8260B
2-Butanone	97	(30 - 160)			SW846 8260B
	103	(30 - 160)	21	(0-30)	SW846 8260B
Bromochloromethane	84	(70 - 125)			SW846 8260B
	88	(70 - 125)	22	(0-30)	SW846 8260B
Carbon disulfide	67	(45 - 160)			SW846 8260B
	71	(45 - 160)	20	(0-30)	SW846 8260B
Carbon tetrachloride	82	(65 - 135)			SW846 8260B
	86	(65 - 135)	21	(0-30)	SW846 8260B
Chloroethane	82	(40 - 155)			SW846 8260B
	86	(40 - 155)	21	(0-30)	SW846 8260B
Chloroform	90	(70 - 125)			SW846 8260B
	93	(70 - 125)	23	(0-30)	SW846 8260B
Chloromethane	89	(50 - 130)			SW846 8260B
	91	(50 - 130)	23	(0-30)	SW846 8260B
1,2-Dibromoethane	92	(70 - 125)			SW846 8260B
	97	(70 - 125)	20	(0-30)	SW846 8260B
1,1-Dichloroethane	89	(75 - 125)			SW846 8260B
	92	(75 - 125)	22	(0-30)	SW846 8260B
1,2-Dichloroethane	97	(70 - 135)			SW846 8260B
	104	(70 - 135)	19	(0-30)	SW846 8260B
1,2-Dichloropropane	90	(70 - 120)			SW846 8260B
	96	(70 - 120)	20	(0-30)	SW846 8260B

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MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L0RX51AD-MS Matrix.....: SO
 MS Lot-Sample #: A0D300448-025 L0RX51AE-MSD

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>
cis-1,3-Dichloropropene	79	(70 - 125)			SW846 8260B
	85	(70 - 125)	19	(0-30)	SW846 8260B
trans-1,3-Dichloropropene	80	(65 - 125)			SW846 8260B
	88	(65 - 125)	17	(0-30)	SW846 8260B
Ethylbenzene	91	(75 - 125)			SW846 8260B
	95	(75 - 125)	22	(0-30)	SW846 8260B
2-Hexanone	106	(45 - 145)			SW846 8260B
	115	(45 - 145)	18	(0-30)	SW846 8260B
Methylene chloride	80	(55 - 140)			SW846 8260B
	83	(55 - 140)	23	(0-30)	SW846 8260B
4-Methyl-2-pentanone	99	(45 - 145)			SW846 8260B
	109	(45 - 145)	16	(0-30)	SW846 8260B
Styrene	90	(75 - 125)			SW846 8260B
	95	(75 - 125)	21	(0-30)	SW846 8260B
1,1,2,2-Tetrachloroethane	106	(55 - 130)			SW846 8260B
	112	(55 - 130)	21	(0-30)	SW846 8260B
Tetrachloroethene	96	(65 - 140)			SW846 8260B
	101	(65 - 140)	20	(0-30)	SW846 8260B
1,1,2-Trichloroethane	92	(60 - 125)			SW846 8260B
	98	(60 - 125)	20	(0-30)	SW846 8260B
1,1,1-Trichloroethane	79	(70 - 135)			SW846 8260B
	83	(70 - 135)	21	(0-30)	SW846 8260B
Xylenes (total)	92	(75 - 125)			SW846 8260B
	96	(75 - 125)	22	(0-30)	SW846 8260B
Vinyl chloride	88	(60 - 125)			SW846 8260B
	87	(60 - 125)	28	(0-30)	SW846 8260B
Dibromochloromethane	82	(65 - 130)			SW846 8260B
	90	(65 - 130)	17	(0-30)	SW846 8260B
1,2-Dibromo-3-chloro- propane	71	(40 - 135)			SW846 8260B
	74	(40 - 135)	22	(0-30)	SW846 8260B
1,3-Dichlorobenzene	91	(70 - 125)			SW846 8260B
	91	(70 - 125)	26	(0-30)	SW846 8260B
1,4-Dichlorobenzene	91	(70 - 125)			SW846 8260B
	91	(70 - 125)	26	(0-30)	SW846 8260B
1,2-Dichlorobenzene	89	(75 - 120)			SW846 8260B
	88	(75 - 120)	27	(0-30)	SW846 8260B
Dichlorodifluoromethane	71	(35 - 135)			SW846 8260B
	73	(35 - 135)	22	(0-30)	SW846 8260B
trans-1,2-Dichloroethene	87	(65 - 135)			SW846 8260B
	91	(65 - 135)	22	(0-30)	SW846 8260B

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MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L0RX51AD-MS Matrix.....: SO
 MS Lot-Sample #: A0D300448-025 L0RX51AE-MSD

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>
cis-1,2-Dichloroethene	86	(65 - 125)			SW846 8260B
	90	(65 - 125)	22	(0-30)	SW846 8260B
Naphthalene	64	(40 - 125)			SW846 8260B
	60 p	(40 - 125)	31	(0-30)	SW846 8260B
1,1,1,2-Tetrachloroethane	85	(75 - 125)			SW846 8260B
	88	(75 - 125)	22	(0-30)	SW846 8260B
Trichlorofluoromethane	100	(25 - 185)			SW846 8260B
	108	(25 - 185)	19	(0-30)	SW846 8260B
o-Xylene	90	(75 - 125)			SW846 8260B
	93	(75 - 125)	23	(0-30)	SW846 8260B
m-Xylene & p-Xylene	92	(80 - 125)			SW846 8260B
	97	(80 - 125)	21	(0-30)	SW846 8260B
Isopropylbenzene	91	(75 - 130)			SW846 8260B
	92	(75 - 130)	24	(0-30)	SW846 8260B
1,1-Dichloropropene	96	(70 - 135)			SW846 8260B
	98	(70 - 135)	23	(0-30)	SW846 8260B
1,2,3-Trichlorobenzene	61	(60 - 135)			SW846 8260B
	56 a,p	(60 - 135)	34	(0-30)	SW846 8260B
1,2,3-Trichloropropane	118	(65 - 130)			SW846 8260B
	122	(65 - 130)	23	(0-30)	SW846 8260B
1,2,4-Trichloro- benzene	65	(65 - 130)			SW846 8260B
	63 a	(65 - 130)	29	(0-30)	SW846 8260B
1,3-Dichloropropane	101	(75 - 125)			SW846 8260B
	107	(75 - 125)	21	(0-30)	SW846 8260B
2,2-Dichloropropane	58 a	(65 - 135)			SW846 8260B
	60 a	(65 - 135)	23	(0-30)	SW846 8260B
2-Chlorotoluene	98	(70 - 130)			SW846 8260B
	100	(70 - 130)	24	(0-30)	SW846 8260B
4-Chlorotoluene	100	(75 - 125)			SW846 8260B
	103	(75 - 125)	23	(0-30)	SW846 8260B
Bromobenzene	97	(65 - 120)			SW846 8260B
	103	(65 - 120)	21	(0-30)	SW846 8260B
Dibromomethane	92	(75 - 130)			SW846 8260B
	98	(75 - 130)	20	(0-30)	SW846 8260B
Hexachlorobutadiene	82	(55 - 140)			SW846 8260B
	82	(55 - 140)	26	(0-30)	SW846 8260B
n-Butylbenzene	98	(65 - 140)			SW846 8260B
	98	(65 - 140)	27	(0-30)	SW846 8260B
n-Propylbenzene	105	(65 - 135)			SW846 8260B
	106	(65 - 135)	25	(0-30)	SW846 8260B

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MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L0RX51AD-MS Matrix.....: SO
 MS Lot-Sample #: A0D300448-025 L0RX51AE-MSD

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>
p-Isopropyltoluene	105	(75 - 135)			SW846 8260B
	105	(75 - 135)	27	(0-30)	SW846 8260B
sec-Butylbenzene	100	(65 - 130)			SW846 8260B
	101	(65 - 130)	25	(0-30)	SW846 8260B
tert-Butylbenzene	104	(65 - 130)			SW846 8260B
	105	(65 - 130)	25	(0-30)	SW846 8260B
1,2,4-Trimethylbenzene	103	(65 - 135)			SW846 8260B
	106	(65 - 135)	24	(0-30)	SW846 8260B
1,3,5-Trimethylbenzene	103	(65 - 135)			SW846 8260B
	106	(65 - 135)	23	(0-30)	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	102	(61 - 130)
	100	(61 - 130)
Toluene-d8	99	(85 - 115)
	101	(85 - 115)
4-Bromofluorobenzene	106	(85 - 120)
	107	(85 - 120)
Dibromofluoromethane	93	(59 - 138)
	93	(59 - 138)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

p Relative percent difference (RPD) is outside stated control limits.

a Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L0RX51AD-MS Matrix.....: SO
 MS Lot-Sample #: A0D300448-025 L0RX51AE-MSD
 Date Sampled...: 04/28/10 14:20 Date Received...: 04/29/10
 Prep Date.....: 05/05/10 Analysis Date...: 05/05/10
 Prep Batch #...: 0127105
 Dilution Factor: 0.84 Initial Wgt/Vol: 5 g Final Wgt/Vol...: 5 mL

PARAMETER	SAMPLE	SPIKE	MEASRD	UNITS	PERCNT		METHOD
	AMOUNT	AMT	AMOUNT		RECVRY	RPD	
1,1-Dichloroethene	ND	49	63	ug/kg	127		SW846 8260B
	ND	38	50	ug/kg	131	23	SW846 8260B
Trichloroethene	ND	49	43	ug/kg	87		SW846 8260B
	ND	38	34	ug/kg	91	21	SW846 8260B
Benzene	ND	49	44	ug/kg	90		SW846 8260B
	ND	38	35	ug/kg	93	22	SW846 8260B
Toluene	ND	49	46	ug/kg	93		SW846 8260B
	ND	38	37	ug/kg	97	21	SW846 8260B
Chlorobenzene	ND	49	45	ug/kg	92		SW846 8260B
	ND	38	36	ug/kg	94	23	SW846 8260B
Acetone	4.7	98	85	ug/kg	81		SW846 8260B
	4.7	76	70	ug/kg	86	19	SW846 8260B
Bromodichloromethane	ND	49	42	ug/kg	84		SW846 8260B
	ND	38	34	ug/kg	91	19	SW846 8260B
Bromoform	ND	49	36	ug/kg	74		SW846 8260B
	ND	38	30	ug/kg	79	20	SW846 8260B
Bromomethane	ND	49	37	ug/kg	75		SW846 8260B
	ND	38	29	ug/kg	78	22	SW846 8260B
2-Butanone	ND	98	96	ug/kg	97		SW846 8260B
	ND	76	78	ug/kg	103	21	SW846 8260B
Bromochloromethane	ND	49	42	ug/kg	84		SW846 8260B
	ND	38	34	ug/kg	88	22	SW846 8260B
Carbon disulfide	ND	49	33	ug/kg	67		SW846 8260B
	ND	38	27	ug/kg	71	20	SW846 8260B
Carbon tetrachloride	ND	49	40	ug/kg	82		SW846 8260B
	ND	38	33	ug/kg	86	21	SW846 8260B
Chloroethane	ND	49	40	ug/kg	82		SW846 8260B
	ND	38	32	ug/kg	86	21	SW846 8260B
Chloroform	ND	49	44	ug/kg	90		SW846 8260B
	ND	38	35	ug/kg	93	23	SW846 8260B
Chloromethane	ND	49	44	ug/kg	89		SW846 8260B
	ND	38	35	ug/kg	91	23	SW846 8260B
1,2-Dibromoethane	ND	49	45	ug/kg	92		SW846 8260B
	ND	38	37	ug/kg	97	20	SW846 8260B
1,1-Dichloroethane	ND	49	44	ug/kg	89		SW846 8260B
	ND	38	35	ug/kg	92	22	SW846 8260B
1,2-Dichloroethane	ND	49	48	ug/kg	97		SW846 8260B
	ND	38	39	ug/kg	104	19	SW846 8260B
1,2-Dichloropropane	ND	49	44	ug/kg	90		SW846 8260B
	ND	38	37	ug/kg	96	20	SW846 8260B

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MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L0RX51AD-MS Matrix.....: SO
 MS Lot-Sample #: A0D300448-025 L0RX51AE-MSD

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
cis-1,3-Dichloropropene	ND	49	39	ug/kg	79		SW846 8260B
	ND	38	32	ug/kg	85	19	SW846 8260B
trans-1,3-Dichloropropene	ND	49	40	ug/kg	80		SW846 8260B
	ND	38	33	ug/kg	88	17	SW846 8260B
Ethylbenzene	ND	49	45	ug/kg	91		SW846 8260B
	ND	38	36	ug/kg	95	22	SW846 8260B
2-Hexanone	ND	98	100	ug/kg	106		SW846 8260B
	ND	76	87	ug/kg	115	18	SW846 8260B
Methylene chloride	ND	49	39	ug/kg	80		SW846 8260B
	ND	38	31	ug/kg	83	23	SW846 8260B
4-Methyl-2-pentanone	ND	98	98	ug/kg	99		SW846 8260B
	ND	76	83	ug/kg	109	16	SW846 8260B
Styrene	ND	49	44	ug/kg	90		SW846 8260B
	ND	38	36	ug/kg	95	21	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	49	52	ug/kg	106		SW846 8260B
	ND	38	42	ug/kg	112	21	SW846 8260B
Tetrachloroethene	ND	49	47	ug/kg	96		SW846 8260B
	ND	38	38	ug/kg	101	20	SW846 8260B
1,1,2-Trichloroethane	ND	49	45	ug/kg	92		SW846 8260B
	ND	38	37	ug/kg	98	20	SW846 8260B
1,1,1-Trichloroethane	ND	49	39	ug/kg	79		SW846 8260B
	ND	38	32	ug/kg	83	21	SW846 8260B
Xylenes (total)	ND	150	140	ug/kg	92		SW846 8260B
	ND	110	110	ug/kg	96	22	SW846 8260B
Vinyl chloride	ND	49	44	ug/kg	88		SW846 8260B
	ND	38	33	ug/kg	87	28	SW846 8260B
Dibromochloromethane	ND	49	40	ug/kg	82		SW846 8260B
	ND	38	34	ug/kg	90	17	SW846 8260B
1,2-Dibromo-3-chloro- propane	ND	49	35	ug/kg	71		SW846 8260B
	ND	38	28	ug/kg	74	22	SW846 8260B
1,3-Dichlorobenzene	ND	49	45	ug/kg	91		SW846 8260B
	ND	38	35	ug/kg	91	26	SW846 8260B
1,4-Dichlorobenzene	ND	49	45	ug/kg	91		SW846 8260B
	ND	38	34	ug/kg	91	26	SW846 8260B
1,2-Dichlorobenzene	ND	49	44	ug/kg	89		SW846 8260B
	ND	38	33	ug/kg	88	27	SW846 8260B
Dichlorodifluoromethane	ND	49	35	ug/kg	71		SW846 8260B
	ND	38	28	ug/kg	73	22	SW846 8260B
trans-1,2-Dichloroethene	ND	49	43	ug/kg	87		SW846 8260B
	ND	38	34	ug/kg	91	22	SW846 8260B

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MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L0RX51AD-MS Matrix.....: SO
 MS Lot-Sample #: A0D300448-025 L0RX51AE-MSD

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
cis-1,2-Dichloroethene	ND	49	42	ug/kg	86		SW846 8260B
	ND	38	34	ug/kg	90	22	SW846 8260B
Naphthalene	ND	49	31	ug/kg	64		SW846 8260B
	ND	38	23	ug/kg	60 p	31	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	49	42	ug/kg	85		SW846 8260B
	ND	38	33	ug/kg	88	22	SW846 8260B
Trichlorofluoromethane	ND	49	49	ug/kg	100		SW846 8260B
	ND	38	41	ug/kg	108	19	SW846 8260B
o-Xylene	ND	49	44	ug/kg	90		SW846 8260B
	ND	38	35	ug/kg	93	23	SW846 8260B
m-Xylene & p-Xylene	ND	98	91	ug/kg	92		SW846 8260B
	ND	76	73	ug/kg	97	21	SW846 8260B
Isopropylbenzene	ND	49	45	ug/kg	91		SW846 8260B
	ND	38	35	ug/kg	92	24	SW846 8260B
1,1-Dichloropropene	ND	49	47	ug/kg	96		SW846 8260B
	ND	38	37	ug/kg	98	23	SW846 8260B
1,2,3-Trichlorobenzene	ND	49	30	ug/kg	61		SW846 8260B
	ND	38	21	ug/kg	56 a,p	34	SW846 8260B
1,2,3-Trichloropropane	ND	49	58	ug/kg	118		SW846 8260B
	ND	38	46	ug/kg	122	23	SW846 8260B
1,2,4-Trichloro- benzene	ND	49	32	ug/kg	65		SW846 8260B
	ND	38	24	ug/kg	63 a	29	SW846 8260B
1,3-Dichloropropane	ND	49	50	ug/kg	101		SW846 8260B
	ND	38	41	ug/kg	107	21	SW846 8260B
2,2-Dichloropropane	ND	49	28	ug/kg	58 a		SW846 8260B
	ND	38	23	ug/kg	60 a	23	SW846 8260B
2-Chlorotoluene	ND	49	48	ug/kg	98		SW846 8260B
	ND	38	38	ug/kg	100	24	SW846 8260B
4-Chlorotoluene	ND	49	49	ug/kg	100		SW846 8260B
	ND	38	39	ug/kg	103	23	SW846 8260B
Bromobenzene	ND	49	48	ug/kg	97		SW846 8260B
	ND	38	39	ug/kg	103	21	SW846 8260B
Dibromomethane	ND	49	45	ug/kg	92		SW846 8260B
	ND	38	37	ug/kg	98	20	SW846 8260B
Hexachlorobutadiene	ND	49	41	ug/kg	82		SW846 8260B
	ND	38	31	ug/kg	82	26	SW846 8260B
n-Butylbenzene	ND	49	48	ug/kg	98		SW846 8260B
	ND	38	37	ug/kg	98	27	SW846 8260B
n-Propylbenzene	ND	49	52	ug/kg	105		SW846 8260B
	ND	38	40	ug/kg	106	25	SW846 8260B

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MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L0RX51AD-MS Matrix.....: SO
 MS Lot-Sample #: A0D300448-025 L0RX51AE-MSD

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
p-Isopropyltoluene	ND	49	52	ug/kg	105		SW846 8260B
	ND	38	40	ug/kg	105	27	SW846 8260B
sec-Butylbenzene	ND	49	49	ug/kg	100		SW846 8260B
	ND	38	38	ug/kg	101	25	SW846 8260B
tert-Butylbenzene	ND	49	51	ug/kg	104		SW846 8260B
	ND	38	40	ug/kg	105	25	SW846 8260B
1,2,4-Trimethylbenzene	ND	49	51	ug/kg	103		SW846 8260B
	ND	38	40	ug/kg	106	24	SW846 8260B
1,3,5-Trimethylbenzene	ND	49	51	ug/kg	103		SW846 8260B
	ND	38	40	ug/kg	106	23	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	102	(61 - 130)
	100	(61 - 130)
Toluene-d8	99	(85 - 115)
	101	(85 - 115)
4-Bromofluorobenzene	106	(85 - 120)
	107	(85 - 120)
Dibromofluoromethane	93	(59 - 138)
	93	(59 - 138)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

p Relative percent difference (RPD) is outside stated control limits.

a Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L0RXN1AD-MS Matrix.....: SO
 MS Lot-Sample #: A0D300448-017 L0RXN1AE-MSD
 Date Sampled...: 04/28/10 15:00 Date Received...: 04/29/10
 Prep Date.....: 05/05/10 Analysis Date...: 05/05/10
 Prep Batch #...: 0127105
 Dilution Factor: 1.1 Initial Wgt/Vol: 5 g Final Wgt/Vol...: 5 mL

PARAMETER	PERCENT	RECOVERY	RPD		METHOD
	RECOVERY	LIMITS	RPD	LIMITS	
1,1-Dichloroethene	116	(65 - 135)			SW846 8260B
	108	(65 - 135)	9.2	(0-30)	SW846 8260B
Trichloroethene	93	(75 - 125)			SW846 8260B
	87	(75 - 125)	7.6	(0-30)	SW846 8260B
Benzene	97	(75 - 125)			SW846 8260B
	90	(75 - 125)	8.4	(0-30)	SW846 8260B
Toluene	97	(70 - 125)			SW846 8260B
	91	(70 - 125)	7.8	(0-30)	SW846 8260B
Chlorobenzene	94	(75 - 125)			SW846 8260B
	89	(75 - 125)	6.7	(0-30)	SW846 8260B
Acetone	71	(20 - 160)			SW846 8260B
	78	(20 - 160)	6.6	(0-30)	SW846 8260B
Bromodichloromethane	89	(70 - 130)			SW846 8260B
	86	(70 - 130)	4.2	(0-30)	SW846 8260B
Bromoform	74	(55 - 135)			SW846 8260B
	72	(55 - 135)	4.6	(0-30)	SW846 8260B
Bromomethane	94	(30 - 160)			SW846 8260B
	87	(30 - 160)	8.8	(0-30)	SW846 8260B
2-Butanone	89	(30 - 160)			SW846 8260B
	90	(30 - 160)	0.52	(0-30)	SW846 8260B
Bromochloromethane	92	(70 - 125)			SW846 8260B
	90	(70 - 125)	3.5	(0-30)	SW846 8260B
Carbon disulfide	94	(45 - 160)			SW846 8260B
	87	(45 - 160)	8.7	(0-30)	SW846 8260B
Carbon tetrachloride	97	(65 - 135)			SW846 8260B
	89	(65 - 135)	9.1	(0-30)	SW846 8260B
Chloroethane	99	(40 - 155)			SW846 8260B
	91	(40 - 155)	10	(0-30)	SW846 8260B
Chloroform	97	(70 - 125)			SW846 8260B
	93	(70 - 125)	5.3	(0-30)	SW846 8260B
Chloromethane	101	(50 - 130)			SW846 8260B
	95	(50 - 130)	7.4	(0-30)	SW846 8260B
1,2-Dibromoethane	88	(70 - 125)			SW846 8260B
	84	(70 - 125)	5.8	(0-30)	SW846 8260B
1,1-Dichloroethane	100	(75 - 125)			SW846 8260B
	94	(75 - 125)	6.9	(0-30)	SW846 8260B
1,2-Dichloroethane	99	(70 - 135)			SW846 8260B
	97	(70 - 135)	3.0	(0-30)	SW846 8260B
1,2-Dichloropropane	95	(70 - 120)			SW846 8260B
	92	(70 - 120)	4.3	(0-30)	SW846 8260B

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MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L0RXN1AD-MS Matrix.....: SO
 MS Lot-Sample #: A0D300448-017 L0RXN1AE-MSD

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>
cis-1,3-Dichloropropene	82	(70 - 125)			SW846 8260B
	80	(70 - 125)	4.3	(0-30)	SW846 8260B
trans-1,3-Dichloropropene	79	(65 - 125)			SW846 8260B
	78	(65 - 125)	3.0	(0-30)	SW846 8260B
Ethylbenzene	95	(75 - 125)			SW846 8260B
	89	(75 - 125)	7.8	(0-30)	SW846 8260B
2-Hexanone	87	(45 - 145)			SW846 8260B
	87	(45 - 145)	0.91	(0-30)	SW846 8260B
Methylene chloride	94	(55 - 140)			SW846 8260B
	90	(55 - 140)	5.7	(0-30)	SW846 8260B
4-Methyl-2-pentanone	92	(45 - 145)			SW846 8260B
	92	(45 - 145)	1.9	(0-30)	SW846 8260B
Styrene	93	(75 - 125)			SW846 8260B
	86	(75 - 125)	8.6	(0-30)	SW846 8260B
1,1,2,2-Tetrachloroethane	95	(55 - 130)			SW846 8260B
	88	(55 - 130)	9.3	(0-30)	SW846 8260B
Tetrachloroethene	103	(65 - 140)			SW846 8260B
	94	(65 - 140)	10	(0-30)	SW846 8260B
1,1,2-Trichloroethane	92	(60 - 125)			SW846 8260B
	87	(60 - 125)	6.7	(0-30)	SW846 8260B
1,1,1-Trichloroethane	94	(70 - 135)			SW846 8260B
	88	(70 - 135)	8.2	(0-30)	SW846 8260B
Xylenes (total)	97	(75 - 125)			SW846 8260B
	90	(75 - 125)	9.1	(0-30)	SW846 8260B
Vinyl chloride	103	(60 - 125)			SW846 8260B
	95	(60 - 125)	9.0	(0-30)	SW846 8260B
Dibromochloromethane	82	(65 - 130)			SW846 8260B
	80	(65 - 130)	2.9	(0-30)	SW846 8260B
1,2-Dibromo-3-chloro- propane	67	(40 - 135)			SW846 8260B
	63	(40 - 135)	8.6	(0-30)	SW846 8260B
1,3-Dichlorobenzene	94	(70 - 125)			SW846 8260B
	86	(70 - 125)	10	(0-30)	SW846 8260B
1,4-Dichlorobenzene	91	(70 - 125)			SW846 8260B
	83	(70 - 125)	11	(0-30)	SW846 8260B
1,2-Dichlorobenzene	92	(75 - 120)			SW846 8260B
	83	(75 - 120)	13	(0-30)	SW846 8260B
Dichlorodifluoromethane	86	(35 - 135)			SW846 8260B
	78	(35 - 135)	11	(0-30)	SW846 8260B
trans-1,2-Dichloroethene	102	(65 - 135)			SW846 8260B
	96	(65 - 135)	7.6	(0-30)	SW846 8260B

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MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L0RXN1AD-MS Matrix.....: SO
 MS Lot-Sample #: A0D300448-017 L0RXN1AE-MSD

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>
cis-1,2-Dichloroethene	94	(65 - 125)			SW846 8260B
	90	(65 - 125)	6.2	(0-30)	SW846 8260B
Naphthalene	74	(40 - 125)			SW846 8260B
	66	(40 - 125)	14	(0-30)	SW846 8260B
1,1,1,2-Tetrachloroethane	92	(75 - 125)			SW846 8260B
	87	(75 - 125)	7.4	(0-30)	SW846 8260B
Trichlorofluoromethane	127	(25 - 185)			SW846 8260B
	119	(25 - 185)	7.7	(0-30)	SW846 8260B
o-Xylene	97	(75 - 125)			SW846 8260B
	91	(75 - 125)	8.2	(0-30)	SW846 8260B
m-Xylene & p-Xylene	98	(80 - 125)			SW846 8260B
	90	(80 - 125)	9.6	(0-30)	SW846 8260B
Isopropylbenzene	99	(75 - 130)			SW846 8260B
	92	(75 - 130)	9.2	(0-30)	SW846 8260B
1,1-Dichloropropene	103	(70 - 135)			SW846 8260B
	96	(70 - 135)	7.6	(0-30)	SW846 8260B
1,2,3-Trichlorobenzene	80	(60 - 135)			SW846 8260B
	70	(60 - 135)	15	(0-30)	SW846 8260B
1,2,3-Trichloropropane	99	(65 - 130)			SW846 8260B
	98	(65 - 130)	3.2	(0-30)	SW846 8260B
1,2,4-Trichloro- benzene	85	(65 - 130)			SW846 8260B
	74	(65 - 130)	15	(0-30)	SW846 8260B
1,3-Dichloropropane	97	(75 - 125)			SW846 8260B
	92	(75 - 125)	6.2	(0-30)	SW846 8260B
2,2-Dichloropropane	75	(65 - 135)			SW846 8260B
	72	(65 - 135)	5.7	(0-30)	SW846 8260B
2-Chlorotoluene	98	(70 - 130)			SW846 8260B
	89	(70 - 130)	11	(0-30)	SW846 8260B
4-Chlorotoluene	99	(75 - 125)			SW846 8260B
	89	(75 - 125)	12	(0-30)	SW846 8260B
Bromobenzene	95	(65 - 120)			SW846 8260B
	89	(65 - 120)	8.2	(0-30)	SW846 8260B
Dibromomethane	94	(75 - 130)			SW846 8260B
	91	(75 - 130)	4.2	(0-30)	SW846 8260B
Hexachlorobutadiene	94	(55 - 140)			SW846 8260B
	79	(55 - 140)	19	(0-30)	SW846 8260B
n-Butylbenzene	105	(65 - 140)			SW846 8260B
	93	(65 - 140)	14	(0-30)	SW846 8260B
n-Propylbenzene	103	(65 - 135)			SW846 8260B
	92	(65 - 135)	12	(0-30)	SW846 8260B

(Continued on next page)

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L0RXN1AD-MS Matrix.....: SO
 MS Lot-Sample #: A0D300448-017 L0RXN1AE-MSD

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>
p-Isopropyltoluene	111	(75 - 135)			SW846 8260B
	98	(75 - 135)	14	(0-30)	SW846 8260B
sec-Butylbenzene	105	(65 - 130)			SW846 8260B
	94	(65 - 130)	13	(0-30)	SW846 8260B
tert-Butylbenzene	107	(65 - 130)			SW846 8260B
	95	(65 - 130)	13	(0-30)	SW846 8260B
1,2,4-Trimethylbenzene	107	(65 - 135)			SW846 8260B
	96	(65 - 135)	12	(0-30)	SW846 8260B
1,3,5-Trimethylbenzene	106	(65 - 135)			SW846 8260B
	96	(65 - 135)	11	(0-30)	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	99	(61 - 130)
	102	(61 - 130)
Toluene-d8	100	(85 - 115)
	101	(85 - 115)
4-Bromofluorobenzene	98	(85 - 120)
	98	(85 - 120)
Dibromofluoromethane	96	(59 - 138)
	99	(59 - 138)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L0RXN1AD-MS Matrix.....: SO
 MS Lot-Sample #: A0D300448-017 L0RXN1AE-MSD
 Date Sampled...: 04/28/10 15:00 Date Received...: 04/29/10
 Prep Date.....: 05/05/10 Analysis Date...: 05/05/10
 Prep Batch #...: 0127105
 Dilution Factor: 1.1 Initial Wgt/Vol: 5 g Final Wgt/Vol...: 5 mL

PARAMETER	SAMPLE	SPIKE	MEASRD	UNITS	PERCNT		METHOD
	AMOUNT	AMT	AMOUNT		RECVRY	RPD	
1,1-Dichloroethene	ND	64	75	ug/kg	116		SW846 8260B
	ND	64	68	ug/kg	108	9.2	SW846 8260B
Trichloroethene	ND	64	60	ug/kg	93		SW846 8260B
	ND	64	55	ug/kg	87	7.6	SW846 8260B
Benzene	ND	64	63	ug/kg	97		SW846 8260B
	ND	64	58	ug/kg	90	8.4	SW846 8260B
Toluene	ND	64	62	ug/kg	97		SW846 8260B
	ND	64	58	ug/kg	91	7.8	SW846 8260B
Chlorobenzene	ND	64	61	ug/kg	94		SW846 8260B
	ND	64	57	ug/kg	89	6.7	SW846 8260B
Acetone	15	130	110	ug/kg	71		SW846 8260B
	15	130	110	ug/kg	78	6.6	SW846 8260B
Bromodichloromethane	ND	64	57	ug/kg	89		SW846 8260B
	ND	64	55	ug/kg	86	4.2	SW846 8260B
Bromoform	ND	64	48	ug/kg	74		SW846 8260B
	ND	64	46	ug/kg	72	4.6	SW846 8260B
Bromomethane	ND	64	61	ug/kg	94		SW846 8260B
	ND	64	56	ug/kg	87	8.8	SW846 8260B
2-Butanone	ND	130	110	ug/kg	89		SW846 8260B
	ND	130	110	ug/kg	90	0.52	SW846 8260B
Bromochloromethane	ND	64	59	ug/kg	92		SW846 8260B
	ND	64	57	ug/kg	90	3.5	SW846 8260B
Carbon disulfide	ND	64	60	ug/kg	94		SW846 8260B
	ND	64	55	ug/kg	87	8.7	SW846 8260B
Carbon tetrachloride	ND	64	62	ug/kg	97		SW846 8260B
	ND	64	57	ug/kg	89	9.1	SW846 8260B
Chloroethane	ND	64	64	ug/kg	99		SW846 8260B
	ND	64	58	ug/kg	91	10	SW846 8260B
Chloroform	ND	64	62	ug/kg	97		SW846 8260B
	ND	64	59	ug/kg	93	5.3	SW846 8260B
Chloromethane	ND	64	65	ug/kg	101		SW846 8260B
	ND	64	60	ug/kg	95	7.4	SW846 8260B
1,2-Dibromoethane	ND	64	57	ug/kg	88		SW846 8260B
	ND	64	54	ug/kg	84	5.8	SW846 8260B
1,1-Dichloroethane	ND	64	64	ug/kg	100		SW846 8260B
	ND	64	60	ug/kg	94	6.9	SW846 8260B
1,2-Dichloroethane	ND	64	64	ug/kg	99		SW846 8260B
	ND	64	62	ug/kg	97	3.0	SW846 8260B
1,2-Dichloropropane	ND	64	61	ug/kg	95		SW846 8260B
	ND	64	58	ug/kg	92	4.3	SW846 8260B

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L0RXN1AD-MS Matrix.....: SO
 MS Lot-Sample #: A0D300448-017 L0RXN1AE-MSD

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
cis-1,3-Dichloropropene	ND	64	53	ug/kg	82		SW846 8260B
	ND	64	51	ug/kg	80	4.3	SW846 8260B
trans-1,3-Dichloropropene	ND	64	51	ug/kg	79		SW846 8260B
	ND	64	49	ug/kg	78	3.0	SW846 8260B
Ethylbenzene	ND	64	61	ug/kg	95		SW846 8260B
	ND	64	57	ug/kg	89	7.8	SW846 8260B
2-Hexanone	ND	130	110	ug/kg	87		SW846 8260B
	ND	130	110	ug/kg	87	0.91	SW846 8260B
Methylene chloride	ND	64	60	ug/kg	94		SW846 8260B
	ND	64	57	ug/kg	90	5.7	SW846 8260B
4-Methyl-2-pentanone	ND	130	120	ug/kg	92		SW846 8260B
	ND	130	120	ug/kg	92	1.9	SW846 8260B
Styrene	ND	64	60	ug/kg	93		SW846 8260B
	ND	64	55	ug/kg	86	8.6	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	64	61	ug/kg	95		SW846 8260B
	ND	64	56	ug/kg	88	9.3	SW846 8260B
Tetrachloroethene	ND	64	67	ug/kg	103		SW846 8260B
	ND	64	60	ug/kg	94	10	SW846 8260B
1,1,2-Trichloroethane	ND	64	59	ug/kg	92		SW846 8260B
	ND	64	55	ug/kg	87	6.7	SW846 8260B
1,1,1-Trichloroethane	ND	64	60	ug/kg	94		SW846 8260B
	ND	64	56	ug/kg	88	8.2	SW846 8260B
Xylenes (total)	ND	190	190	ug/kg	97		SW846 8260B
	ND	190	170	ug/kg	90	9.1	SW846 8260B
Vinyl chloride	ND	64	66	ug/kg	103		SW846 8260B
	ND	64	60	ug/kg	95	9.0	SW846 8260B
Dibromochloromethane	ND	64	53	ug/kg	82		SW846 8260B
	ND	64	51	ug/kg	80	2.9	SW846 8260B
1,2-Dibromo-3-chloro- propane	ND	64	43	ug/kg	67		SW846 8260B
	ND	64	40	ug/kg	63	8.6	SW846 8260B
1,3-Dichlorobenzene	ND	64	60	ug/kg	94		SW846 8260B
	ND	64	54	ug/kg	86	10	SW846 8260B
1,4-Dichlorobenzene	ND	64	59	ug/kg	91		SW846 8260B
	ND	64	53	ug/kg	83	11	SW846 8260B
1,2-Dichlorobenzene	ND	64	60	ug/kg	92		SW846 8260B
	ND	64	52	ug/kg	83	13	SW846 8260B
Dichlorodifluoromethane	ND	64	55	ug/kg	86		SW846 8260B
	ND	64	50	ug/kg	78	11	SW846 8260B
trans-1,2-Dichloroethene	ND	64	66	ug/kg	102		SW846 8260B
	ND	64	61	ug/kg	96	7.6	SW846 8260B

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MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L0RXN1AD-MS Matrix.....: SO
 MS Lot-Sample #: A0D300448-017 L0RXN1AE-MSD

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
cis-1,2-Dichloroethene	ND	64	61	ug/kg	94		SW846 8260B
	ND	64	57	ug/kg	90	6.2	SW846 8260B
Naphthalene	ND	64	48	ug/kg	74		SW846 8260B
	ND	64	42	ug/kg	66	14	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	64	59	ug/kg	92		SW846 8260B
	ND	64	55	ug/kg	87	7.4	SW846 8260B
Trichlorofluoromethane	ND	64	82	ug/kg	127		SW846 8260B
	ND	64	76	ug/kg	119	7.7	SW846 8260B
o-Xylene	ND	64	63	ug/kg	97		SW846 8260B
	ND	64	58	ug/kg	91	8.2	SW846 8260B
m-Xylene & p-Xylene	ND	130	130	ug/kg	98		SW846 8260B
	ND	130	110	ug/kg	90	9.6	SW846 8260B
Isopropylbenzene	ND	64	64	ug/kg	99		SW846 8260B
	ND	64	58	ug/kg	92	9.2	SW846 8260B
1,1-Dichloropropene	ND	64	66	ug/kg	103		SW846 8260B
	ND	64	61	ug/kg	96	7.6	SW846 8260B
1,2,3-Trichlorobenzene	ND	64	52	ug/kg	80		SW846 8260B
	ND	64	45	ug/kg	70	15	SW846 8260B
1,2,3-Trichloropropane	ND	64	64	ug/kg	99		SW846 8260B
	ND	64	62	ug/kg	98	3.2	SW846 8260B
1,2,4-Trichloro- benzene	0.53	64	55	ug/kg	85		SW846 8260B
	0.53	64	47	ug/kg	74	15	SW846 8260B
1,3-Dichloropropane	ND	64	62	ug/kg	97		SW846 8260B
	ND	64	58	ug/kg	92	6.2	SW846 8260B
2,2-Dichloropropane	ND	64	48	ug/kg	75		SW846 8260B
	ND	64	46	ug/kg	72	5.7	SW846 8260B
2-Chlorotoluene	ND	64	63	ug/kg	98		SW846 8260B
	ND	64	56	ug/kg	89	11	SW846 8260B
4-Chlorotoluene	ND	64	64	ug/kg	99		SW846 8260B
	ND	64	56	ug/kg	89	12	SW846 8260B
Bromobenzene	ND	64	61	ug/kg	95		SW846 8260B
	ND	64	57	ug/kg	89	8.2	SW846 8260B
Dibromomethane	ND	64	60	ug/kg	94		SW846 8260B
	ND	64	58	ug/kg	91	4.2	SW846 8260B
Hexachlorobutadiene	ND	64	61	ug/kg	94		SW846 8260B
	ND	64	50	ug/kg	79	19	SW846 8260B
n-Butylbenzene	ND	64	68	ug/kg	105		SW846 8260B
	ND	64	59	ug/kg	93	14	SW846 8260B
n-Propylbenzene	ND	64	66	ug/kg	103		SW846 8260B
	ND	64	59	ug/kg	92	12	SW846 8260B

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MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A0D300448 Work Order #...: L0RXN1AD-MS Matrix.....: SO
 MS Lot-Sample #: A0D300448-017 L0RXN1AE-MSD

<u>PARAMETER</u>	<u>SAMPLE AMOUNT</u>	<u>SPIKE AMT</u>	<u>MEASRD AMOUNT</u>	<u>UNITS</u>	<u>PERCNT RECVRY</u>	<u>RPD</u>	<u>METHOD</u>
p-Isopropyltoluene	ND	64	71	ug/kg	111		SW846 8260B
	ND	64	62	ug/kg	98	14	SW846 8260B
sec-Butylbenzene	ND	64	68	ug/kg	105		SW846 8260B
	ND	64	60	ug/kg	94	13	SW846 8260B
tert-Butylbenzene	ND	64	69	ug/kg	107		SW846 8260B
	ND	64	60	ug/kg	95	13	SW846 8260B
1,2,4-Trimethylbenzene	ND	64	69	ug/kg	107		SW846 8260B
	ND	64	61	ug/kg	96	12	SW846 8260B
1,3,5-Trimethylbenzene	ND	64	68	ug/kg	106		SW846 8260B
	ND	64	61	ug/kg	96	11	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	99	(61 - 130)
	102	(61 - 130)
Toluene-d8	100	(85 - 115)
	101	(85 - 115)
4-Bromofluorobenzene	98	(85 - 120)
	98	(85 - 120)
Dibromofluoromethane	96	(59 - 138)
	99	(59 - 138)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.
 Bold print denotes control parameters
 Results and reporting limits have been adjusted for dry weight.

GENERAL CHEMISTRY DATA

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-023-0002-SO

General Chemistry

Lot-Sample #...: A0D300448-001 Work Order #...: L0RVX Matrix.....: SO
Date Sampled...: 04/28/10 11:20 Date Received..: 04/29/10
% Moisture.....: 11

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	89.3	10.0	%	MCAWW 160.3 MOD	05/03-05/04/10	0123340

Dilution Factor: 1

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-023-0003-SO

General Chemistry

Lot-Sample #...: A0D300448-002 Work Order #...: L0RV7 Matrix.....: SO
Date Sampled...: 04/28/10 11:20 Date Received..: 04/29/10
% Moisture.....: 11

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	88.6	10.0	%	MCAWW 160.3 MOD	05/03-05/04/10	0123340

Dilution Factor: 1

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-023-0004-SO

General Chemistry

Lot-Sample #...: A0D300448-003 Work Order #...: L0RV8 Matrix.....: SO
Date Sampled...: 04/28/10 11:30 Date Received..: 04/29/10
% Moisture.....: 11

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	89.3	10.0	%	MCAWW 160.3 MOD	05/03-05/04/10	0123340

Dilution Factor: 1

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-023-0005/0006/0007-SO

General Chemistry

Lot-Sample #...: A0D300448-004 Work Order #...: L0RV9 Matrix.....: SO
Date Sampled...: 04/28/10 11:30 Date Received...: 04/29/10
% Moisture.....: 12

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	87.9	10.0	%	MCAWW 160.3 MOD	05/03-05/04/10	0123340

Dilution Factor: 1

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-024-0002-SO

General Chemistry

Lot-Sample #...: A0D300448-005 Work Order #...: L0RWG Matrix.....: SO
Date Sampled...: 04/28/10 15:20 Date Received..: 04/29/10
% Moisture.....: 17

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	83.3	10.0	%	MCAWW 160.3 MOD	05/03-05/04/10	0123340

Dilution Factor: 1

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-024-0003-SO

General Chemistry

Lot-Sample #...: A0D300448-006 Work Order #...: LORWN Matrix.....: SO
Date Sampled...: 04/28/10 15:20 Date Received..: 04/29/10
% Moisture.....: 15

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	84.9	10.0	%	MCAWW 160.3 MOD	05/03-05/04/10	0123340

Dilution Factor: 1

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-024-0004-SO

General Chemistry

Lot-Sample #...: A0D300448-007 Work Order #...: L0RWQ Matrix.....: SO
Date Sampled...: 04/28/10 10:40 Date Received..: 04/29/10
% Moisture.....: 12

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	87.9	10.0	%	MCAWW 160.3 MOD	05/03-05/04/10	0123340

Dilution Factor: 1

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-024-0005-SO

General Chemistry

Lot-Sample #...: A0D300448-008 Work Order #...: L0RWV Matrix.....: SO
Date Sampled...: 04/28/10 10:42 Date Received..: 04/29/10
% Moisture.....: 13

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	86.8	10.0	%	MCAWW 160.3 MOD	05/03-05/04/10	0123340

Dilution Factor: 1

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-024-0007-SO

General Chemistry

Lot-Sample #...: A0D300448-009 Work Order #...: L0RW4 Matrix.....: SO
Date Sampled...: 04/28/10 10:25 Date Received...: 04/29/10
% Moisture.....: 16

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	84.1	10.0	%	MCAWW 160.3 MOD	05/03-05/04/10	0123340

Dilution Factor: 1

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-026-0002-SO

General Chemistry

Lot-Sample #...: A0D300448-010 Work Order #...: L0RW6 Matrix.....: SO
Date Sampled...: 04/28/10 10:00 Date Received..: 04/29/10
% Moisture.....: 17

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	83.3	10.0	%	MCAWW 160.3 MOD	05/03-05/04/10	0123340

Dilution Factor: 1

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-026-0003-SO

General Chemistry

Lot-Sample #...: A0D300448-011 Work Order #...: L0RW7 Matrix.....: SO
Date Sampled...: 04/28/10 10:00 Date Received..: 04/29/10
% Moisture.....: 16

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	84.2	10.0	%	MCAWW 160.3 MOD	05/03-05/04/10	0123340

Dilution Factor: 1

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-026-0006-SO

General Chemistry

Lot-Sample #...: A0D300448-012 Work Order #...: L0RW8 Matrix.....: SO
Date Sampled...: 04/28/10 10:15 Date Received..: 04/29/10
% Moisture.....: 12

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	88.3	10.0	%	MCAWW 160.3 MOD	05/03-05/04/10	0123340

Dilution Factor: 1

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-026-0007-SO

General Chemistry

Lot-Sample #...: A0D300448-013 Work Order #...: L0RXG Matrix.....: SO
Date Sampled...: 04/28/10 10:15 Date Received..: 04/29/10
% Moisture.....: 13

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	86.8	10.0	%	MCAWW 160.3 MOD	05/03-05/04/10	0123340

Dilution Factor: 1

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-025-0002-SO

General Chemistry

Lot-Sample #...: A0D300448-014 Work Order #...: L0RXH Matrix.....: SO
Date Sampled...: 04/28/10 14:55 Date Received..: 04/29/10
% Moisture.....: 15

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	84.8	10.0	%	MCAWW 160.3 MOD	05/03-05/04/10	0123340

Dilution Factor: 1

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-025-0003-SO

General Chemistry

Lot-Sample #...: A0D300448-015 Work Order #...: L0RXJ Matrix.....: SO
Date Sampled...: 04/28/10 14:55 Date Received..: 04/29/10
% Moisture.....: 15

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	85.2	10.0	%	MCAWW 160.3 MOD	05/03-05/04/10	0123340

Dilution Factor: 1

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-025-0004-SO

General Chemistry

Lot-Sample #...: A0D300448-016 Work Order #...: L0RXL Matrix.....: SO
Date Sampled...: 04/28/10 15:00 Date Received..: 04/29/10
% Moisture.....: 14

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	85.8	10.0	%	MCAWW 160.3 MOD	05/03-05/04/10	0123340

Dilution Factor: 1

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-025-0005/0006/0007-SO

General Chemistry

Lot-Sample #...: A0D300448-017 Work Order #...: L0RXN Matrix.....: SO
Date Sampled...: 04/28/10 15:00 Date Received..: 04/29/10
% Moisture.....: 15

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	85.5	10.0	%	MCAWW 160.3 MOD	05/03-05/04/10	0123340

Dilution Factor: 1

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-027-0004-SO

General Chemistry

Lot-Sample #...: A0D300448-018 Work Order #...: L0RXR Matrix.....: SO
Date Sampled...: 04/28/10 08:50 Date Received...: 04/29/10
% Moisture.....: 16

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	84.0	10.0	%	MCAWW 160.3 MOD	05/03-05/04/10	0123364

Dilution Factor: 1

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-027-0005-SO

General Chemistry

Lot-Sample #...: A0D300448-019 Work Order #...: L0RXT Matrix.....: SO
Date Sampled...: 04/28/10 08:50 Date Received...: 04/29/10
% Moisture.....: 17

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	82.8	10.0	%	MCAWW 160.3 MOD	05/03-05/04/10	0123364

Dilution Factor: 1

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-027-0006-SO

General Chemistry

Lot-Sample #...: A0D300448-020 Work Order #...: L0RXW Matrix.....: SO
Date Sampled...: 04/28/10 09:00 Date Received..: 04/29/10
% Moisture.....: 12

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	88.3	10.0	%	MCAWW 160.3 MOD	05/03-05/04/10	0123364

Dilution Factor: 1

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-027-0007-SO

General Chemistry

Lot-Sample #...: A0D300448-021 Work Order #...: L0RX0 Matrix.....: SO
Date Sampled...: 04/28/10 09:00 Date Received..: 04/29/10
% Moisture.....: 13

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	87.3	10.0	%	MCAWW 160.3 MOD	05/03-05/04/10	0123364

Dilution Factor: 1

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-022-0002-SO

General Chemistry

Lot-Sample #...: A0D300448-022 Work Order #...: L0RX1 Matrix.....: SO
Date Sampled...: 04/28/10 14:10 Date Received..: 04/29/10
% Moisture.....: 11

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	88.7	10.0	%	MCAWW 160.3 MOD	05/03-05/04/10	0123364

Dilution Factor: 1

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-022-0003-SO

General Chemistry

Lot-Sample #...: A0D300448-023 Work Order #...: L0RX2 Matrix.....: SO
Date Sampled...: 04/28/10 14:12 Date Received..: 04/29/10
% Moisture.....: 12

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	87.6	10.0	%	MCAWW 160.3 MOD	05/03-05/04/10	0123364

Dilution Factor: 1

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-022-0005-SO

General Chemistry

Lot-Sample #...: A0D300448-024 Work Order #...: L0RX4 Matrix.....: SO
Date Sampled...: 04/28/10 14:10 Date Received...: 04/29/10
% Moisture.....: 11

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	89.1	10.0	%	MCAWW 160.3 MOD	05/03-05/04/10	0123364

Dilution Factor: 1

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-022-0006/0008/0009-SO

General Chemistry

Lot-Sample #...: A0D300448-025 Work Order #...: L0RX5 Matrix.....: SO
Date Sampled...: 04/28/10 14:20 Date Received..: 04/29/10
% Moisture.....: 14

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	85.8	10.0	%	MCAWW 160.3 MOD	05/03-05/04/10	0123364

Dilution Factor: 1

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-022-0007-SO

General Chemistry

Lot-Sample #...: A0D300448-026 Work Order #...: L0RX6 Matrix.....: SO
Date Sampled...: 04/28/10 14:20 Date Received..: 04/29/10
% Moisture.....: 11

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	88.8	10.0	%	MCAWW 160.3 MOD	05/03-05/04/10	0123364

Dilution Factor: 1

U.S. Army Corps of Engineers

Client Sample ID: DAAsb-026-0004-SO

General Chemistry

Lot-Sample #...: A0D300448-027 Work Order #...: L0R4H Matrix.....: SO
Date Sampled...: 04/28/10 10:02 Date Received..: 04/29/10
% Moisture.....: 17

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	83.3	10.0	%	MCAWW 160.3 MOD	05/03-05/04/10	0123364

Dilution Factor: 1

METHOD BLANK REPORT

General Chemistry

Client Lot #...: A0D300448

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>PREP</u> <u>BATCH #</u>
Percent Solids	ND	Work Order #: L0XA21AA 10.0	%	MB Lot-Sample #: A0E030000-340 MCAWW 160.3 MOD	05/03-05/04/10	0123340
		Dilution Factor: 1				
Percent Solids	ND	Work Order #: L0XC91AA 10.0	%	MB Lot-Sample #: A0E030000-364 MCAWW 160.3 MOD	05/03-05/04/10	0123364
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A0D300448

Work Order #...: L0RXN-SMP
L0RXN-DUP

Matrix.....: SO

Date Sampled...: 04/28/10 15:00 Date Received...: 04/29/10

% Moisture.....: 15

<u>PARAM</u>	<u>RESULT</u>	<u>DUPLICATE</u>	<u>UNITS</u>	<u>RPD</u>	<u>LIMIT</u>	<u>METHOD</u>	<u>PREPARATION-</u>	<u>PREP</u>
		<u>RESULT</u>		<u>RPD</u>			<u>ANALYSIS DATE</u>	<u>BATCH #</u>
Percent Solids	85.5	85.7	%	0.26	(0-20)	SD Lot-Sample #: A0D300448-017 MCAWW 160.3 MOD	05/03-05/04/10	0123340

Dilution Factor: 1

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A0D300448

Work Order #...: L0RX5-SMP
L0RX5-DUP

Matrix.....: SO

Date Sampled...: 04/28/10 14:20 Date Received...: 04/29/10

% Moisture.....: 14

<u>PARAM</u>	<u>RESULT</u>	<u>DUPLICATE</u>	<u>UNITS</u>	<u>RPD</u>	<u>RPD</u>	<u>METHOD</u>	<u>PREPARATION-</u>	<u>PREP</u>
		<u>RESULT</u>		<u>RPD</u>	<u>LIMIT</u>		<u>ANALYSIS DATE</u>	<u>BATCH #</u>
Percent Solids	85.8	86.3	%	0.57	(0-20)	SD Lot-Sample #: A0D300448-025 MCAWW 160.3 MOD	05/03-05/04/10	0123364

Dilution Factor: 1

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A0D300448

Work Order #...: LOWQ6-SMP
LOWQ6-DUP

Matrix.....: SOLID

Date Sampled...: 04/21/10 15:10 Date Received...: 05/01/10

% Moisture.....: 3.1

<u>PARAM</u>	<u>RESULT</u>	<u>DUPLICATE</u>	<u>UNITS</u>	<u>RPD</u>	<u>LIMIT</u>	<u>METHOD</u>	<u>PREPARATION-</u>	<u>PREP</u>
		<u>RESULT</u>					<u>ANALYSIS DATE</u>	<u>BATCH #</u>
Percent Solids	96.9	96.8	%	0.10	(0-20)	SD Lot-Sample #: A0E030419-004 MCAWW 160.3 MOD	05/03-05/04/10	0123364
Dilution Factor: 1								

END OF REPORT