FINAL
DECISION DOCUMENT
FOR
CHEMICAL CONTAMINATION
SEVEN SITES IN THE FORT BELVOIR NORTH AREA
U.S. ARMY GARRISON
FORT BELVOIR, VIRGINIA

Prepared for:

U.S. Army Environmental Command

Contract No. W91ZLK-05-D-0010
Task Order 0001

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Prepared by:

HydroGeoLogic, Inc.
11107 Sunset Hills Road, Suite 400
Reston, Virginia 20190

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LIST OF ACRONYMS AND ABBREVIATIONS

amsl	above mean sea level
ANL	Argonne National Laboratory
AOPC	area of potential concern
bgs	below ground surface
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("Superfund")
CFR	Code of Federal Regulations
COPC	chemical of potential concern
Dewberry	Dewberry & Davis
DNT	dinitrotoluene
EBS	Environmental Baseline Study
EIP	environmental investigation plan
EPG	Engineer Proving Ground
FBNA	Fort Belvoir North Area
GPR	ground penetrating radar
HGL	HydroGeoLogic, Inc.
HI	hazard index
HMX	octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
μg/L	micrograms per liter
MCL	maximum contaminant level
MEC	munitions and explosives of concern
mg/kg	milligrams per kilogram
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NFA	No Further Action
NPL	National Priorities List
PCE	tetrachloroethene
RBC	risk-based concentration
RCRA	Resource Conservation and Recovery Act
RDX	hexahydro-1,3,5-trinitro-1,3,5-triazine
RSL	regional screening level

SARA	Superfund Amendments and Reauthorization Act of 1986
SSL	soil screening level
SVOC	semivolatile organic compound
SWMU	solid waste management unit
UAO	Unilateral Administrative Order
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
UXO	unexploded ordnance
VDEQ	Virginia Department of Environmental Quality
VOC	volatile organic compound

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PART 1: THE DECLARATION

1.0 SITE NAME AND LOCATION

This Decision Document presents the Selected Remedy to address chemical contamination at seven sites at the Fort Belvoir North Area (FBNA), Fort Belvoir, Virginia.[1] This document discusses the following areas of potential concern (AOPCs) and study areas:

Site Name	Installation Restoration Program Site Number
Building 5091,Range 5 (M-32)	FTBL-005-R-08
Waste Ordnance Pits, Range 5 (M-34)	FTBL-005-R-06
Troop Training Area, Range 5B (M-35)	FTBL-005-R-07
Burial Pit, Range 1A (AOPC-16)	FTBL-005-R-04
AOPC-17	None Assigned
AOPC-18	None Assigned
AOPC-19	None Assigned

The U.S. Army Garrison at Fort Belvoir includes the Main Post and FBNA. FBNA is an 820-acre tract of land 1.5 miles northwest of the Main Post (Figure 1). The aforementioned sites are located within the physical limits of FBNA, but they have been investigated independently for the presence of chemical contaminants that could create unacceptable risks to human health or the environment.

Munitions and explosives of concern (MEC) that could exist at the seven sites are being addressed in a separate decision document covering all of FBNA. In addition, groundwater at site M-32 has been administratively transferred to FBNA site M-33 (FTBL-005-R-05, Inert Mine Testing Area at Range 5); thus, groundwater for site M-32 will be addressed in the decision document for M-33.

2.0 STATEMENT OF BASIS AND PURPOSE

This Decision Document presents the Selected Remedy to address chemical contamination at seven sites in the FBNA. Investigations at the sites were conducted in accordance with the Unilateral Administrative Order (UAO) issued by the U.S. Environmental Protection Agency

[1] The Fort Belvoir North Area was formerly designated the "Engineer Proving Ground," or "EPG."

(USEPA) in September 2005 under Section 3013 of the Resource Conservation and Recovery Act (RCRA)-03-2005-0116AM. Post-investigation activities, including remedial decisions for the sites, are being performed in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), as implemented by the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) regulations (40 Code of Federal Regulations [CFR] 300). Fort Belvoir and the sites addressed in this Decision Document are not on the National Priorities List (NPL).

The Army is the lead agency and provides funding for site cleanup activities at Fort Belvoir. The Army has adopted the term "Decision Document" for the documentation of remedial action decisions at non-NPL installations. A Decision Document is similar to the Record of Decision prepared to document the CERCLA remedy selection process for an NPL site. The information supporting the decision on this selected remedial action is contained in the Administrative Record for all respective sites. The USEPA Region 3 and the Virginia Department of Environmental Quality (VDEQ) concur with the selected remedial action presented herein.

3.0 DESCRIPTION OF SELECTED REMEDY

The selected remedy for chemical contamination at all sites addressed by this Decision Document is No Further Action (NFA). As described in Section 1.0, this Decision Document excludes MEC in FBNA and groundwater at site M-32, which will be addressed in separate decision documents. Analytical results from historical investigations of chemical constituents at each of the seven sites included in this Decision Document demonstrated that site conditions do not pose a risk to human health or the environment. USEPA agreed to Fort Belvoir's recommendations of NFA, and VDEQ concurred with these recommendations. The individual concurrence communications that address each site are tabulated below and can be found in Appendix A.

Site	NFA Concurrence Document	Comments
M-32 (Soil)	Letter from USEPA to Fort Belvoir dated September 14, 2009	USEPA agreed to Fort Belvoir's recommendation of NFA for soil at M-32 (USEPA, 2009). M-32 groundwater was transferred to M-33, which is not included in the current Decision Document.
M-34	Letter from USEPA to Fort Belvoir dated September 14, 2009	USEPA agreed to NFA for M-34 (USEPA, 2009).
M-35	Email received from the USEPA on October 30, 2009	USEPA accepted the NFA recommendation for M-35 (USEPA, 2009b).
AOPC-16	Email received from the USEPA on August 26, 2009	USEPA accepted the Investigation Summary Report, which included the NFA recommendation for AOPC-16 (USEPA, 2009c).
AOPC-17 and AOPC-18	Letter from USEPA to Fort Belvoir dated September 14, 2009	USEPA agreed to the recommendation of NFA for AOPC-17 and AOPC-18 (USEPA, 2009).
AOPC-19	Letter from USEPA to Fort Belvoir dated September 14, 2009	USEPA agreed to the recommendation of NFA for AOPC-19 (USEPA, 2009).

USEPA Region 3 and VDEQ have determined that no remedial action with respect to chemical contamination is necessary for the sites addressed by this Decision Document. The decision for each of these sites is NFA, whereby no remedial action is required to ensure protection of human health and the environment.

The decision for these sites was completed after publication of a Proposed Plan for public comment, a public meeting, and a public comment period. As described in Section 8.0 of the Decision Summary, no oral or written comments were received during the public comment period. No public meeting was requested.

4.0 STATUTORY DETERMINATIONS

The selection of NFA is protective of human health and the environment because each site addressed by this Decision Document either has not had a CERCLA release or has contaminant levels determined to be below residential screening values. Sites considered to be NFA because they have not had a contaminant release include:

- M-35,
- AOPC-17,
- AOPC-18, and
- AOPC-19.

Sites that have evidence of release but are considered to be NFA because contaminant levels are below accepted residential use criteria and/or background levels include:

- M-32,
- M-34, and
- AOPC-16.

It has been established in previous reports that releases to soil at M-32, and to soil and groundwater at M-34 and AOPC-16, do not pose an unacceptable risk to human health or the environment.[2]

Because no remedial action with respect to soil and groundwater[2] is required, the following also were not required:

- Assessing federal or state regulations to identify those that are applicable or relevant and appropriate;
- Assessing the cost-effectiveness of various remedial alternatives;
- Using permanent solutions and alternative treatment technologies for remedial actions to the maximum extent practicable; and

[2] As previously noted, releases to groundwater at site M-32 are being addressed in the decision document for site M-33.

- Assessing the CERCLA statutory preference for treatment as a principal element for the remedy (40 CFR 300.430(a)(1)(iii)(A)).

In addition, NFA attains the mandates of CERCLA Section 121 and, to the extent practicable, the regulatory requirements of the NCP. Because NFA allows for unlimited use and unrestricted exposure, statutory review of the protectiveness of the selected remedial action once per five years (Five-Year Review) will not be required. This NFA status applies only to chemical constituents at the sites. The seven sites addressed in this Decision Document are part of FBNA, which, as a whole, has a residual explosive hazard because MEC is potentially buried in the area. A separate decision document will be issued to address the explosive hazard for FBNA as a whole.

5.0 AUTHORIZING SIGNATURE

This Decision Document presents the Selected Remedy to address findings at seven sites at FBNA, Fort Belvoir, Virginia. The U.S. Army is the lead agency at Fort Belvoir and has developed this Decision Document, which is consistent with the CERCLA, as amended, and the NCP. This Decision Document will be incorporated into the larger Administrative Record, which is available for public review at the following repositories:

Kingstowne Library
6500 Landsdowne Centre
Alexandria, VA 22315-5011
Telephone: 703-339-4610

Lorton Library
9520 Richmond Highway
Lorton, VA 22079-2124
Telephone: 703-339-7385

This document, which presents a selected remedy with a present-worth cost estimate of $0, is approved by the undersigned.

Michelle D. Mitchell
Colonel, U.S. Army
Commanding

11 Feb 15
Date

PART 2: DECISION SUMMARY

1.0 SITE NAME, LOCATION, AND DESCRIPTION

This Decision Document is provided for the following sites within FBNA:

Site Name	Installation Restoration Program Site Number
Building 5091,Range 5 (M-32)	FTBL-005-R-08
Waste Ordnance Pits, Range 5 (M-34)	FTBL-005-R-06
Troop Training Area, Range 5B (M-35)	FTBL-005-R-07
Burial Pit, Range 1A (AOPC-16)	FTBL-005-R-04
AOPC-17	None Assigned
AOPC-18	None Assigned
AOPC-19	None Assigned

The U.S. Army Garrison at Fort Belvoir is located in the Commonwealth of Virginia, 14 miles south of Washington, D.C. (Figure 1). FBNA, an 820-acre tract of land 1.5 miles northwest of the Main Post of Fort Belvoir, is bounded by Interstate 95 on the east, by commercial properties to the south, and by residential properties on the west and north. The layout of FBNA is shown on Figure 2. Historically, FBNA was used for testing a wide range of engineering equipment and supplies, such as methods and equipment for the deployment, detection, and neutralization of land mines, as well as anti-intrusion and counter-barrier systems and techniques. The seven sites within FBNA are described separately in the following sections.

1.1 SITE SPECIFIC LOCATIONS AND DESCRIPTIONS

1.1.1 M-32 (Soil)

M-32, Building 2091 (renumbered to 5091), is located in FBNA near Range 5A (Figures 2 and 3). Historically, Building 2091 was used as a bunker and as a firing target for small arms. This Decision Document pertains only to soil at this site. Groundwater contamination from M-32 is commingled with contamination from the adjacent site, M-33, and will be addressed in a separate decision document.

1.1.2 M-34

M-34 is an area of former waste ordnance pits located in an open field (Range 5) in the northwestern portion of FBNA (Figures 2 and 4). An Environmental Baseline Study (EBS) (ANL, 1990) prepared in 1990 reported that waste ordnance, demilitarized weapons, bottles of chemicals, and barbed wire were at one time buried in this area.

1.1.3 M-35

M-35 is located on Range 5B within the northwestern portion of FBNA (Figures 2 and 5). M-35 was reportedly used for training troops in land mine detection and removal, including in underground tunnels (ANL, 1990).

1.1.4 AOPC-16

AOPC-16 was a MEC burial pit discovered by Conti during MEC clearance activities at Range 1A in 2007 (Figures 2 and 6). The pit was reported to be 77 feet long, 35 feet wide, and 30 feet deep. Conti's subcontractor, Zapata, excavated the burial pit and removed nearly 20,000 items, predominantly MEC.

1.1.5 AOPC-17 and AOPC-18

AOPC-17 and AOPC-18 are MEC burial pits located in the northwestern portion of FBNA adjacent to Range 5 (Figures 2 and 7). The sites were identified during 2008 MEC removal activities. The dimensions of the AOPC-17 and AOPC-18 burial pits were 6 by 100 by 6 feet and 4.25 by 5 by 4 feet, respectively.

1.1.6 AOPC-19

AOPC-19 is located on the western portion of FBNA, adjacent to Range 5A (Figures 2 and 8). AOPC-19 is composed of two former MEC burial pits located approximately 20 feet apart. The two pits have been designated as the 2O-16 pit and the 2P-16 pit after the grids in which they were predominately located (Figure 8). The dimensions of the pits were 28 by 8 by 6 feet for the 2O-16 pit and 25 by 11 by 6 feet for the 2P-16 pit.

2.0 SITE HISTORY AND ENFORCEMENT ACTIVITIES

The following subsections summarize the site history and investigations that have been conducted at FBNA.

2.1 REGIONAL SITE HISTORY

FBNA was acquired by the U.S. Army in the early 1940s, and was occupied by the Fort Belvoir Research, Development, and Engineering Center. Historically, FBNA was used for testing a wide range of engineering equipment and supplies. The testing and activities on the eastern portion of FBNA included the following:

- Construction, material handling, maintenance, railway, power generation, air compression, and bridging equipment;
- Fuel, fuel handling, and storage equipment;
- Mobile water purification equipment, and waste and sewage structures; and
- Climatic effects on paints, tactical sensors, and anti-mine systems and techniques.

The testing on the western portion of the FBNA included the following:

- Methods and equipment for the deployment, detection, and neutralization of land mines;

- Anti-intrusion and counter-barrier systems and techniques; and
- Tactical sensors and anti-mine systems and techniques.

The highest level of activity at FBNA occurred from the 1940s to the mid-1950s. Commercial and residential encroachment in the vicinity of FBNA in the 1960s and 1970s contributed to the reduction of testing activities at the facility. In 1989, the Research, Development, and Engineering Center returned the property to Fort Belvoir. Since 1989, Fort Belvoir has used or leased only a few select buildings on the entire 820-acre FBNA property.

2.2 ENFORCEMENT ACTIVITIES

In September 2005, USEPA issued Fort Belvoir a UAO under Section 3013 of the Solid Waste Disposal Act (i.e., RCRA), 42 U.S. Code Section 6934. Section 3013 grants USEPA the authority to require an investigation by the respondent to evaluate risks posed by the presence of hazardous waste (as defined in the statute, RCRA Section 1004(5), versus the regulatory definition under Subtitle C) at the site. All investigation work completed at FBNA subsequent to September 2005 was conducted in accordance with the requirements outlined in this UAO.

2.3 SITE INVESTIGATIONS

In the following sections, each site investigation is discussed. This Decision Document summarizes information that can be found in greater detail in the following reports for each site:

Site	Supporting Documentation
M-32	*Final Investigation Summary Report, Solid Waste Management Unit (SWMU) M-32 at Engineer Proving Ground* (HGL, 2009). *Closure Report – SWMU M-32, Engineer Proving Ground, U.S. Army Garrison, Fort Belvoir, Virginia* (Dewberry, 2002).
M-34	*Investigation Summary Report, Solid Waste Management Unit M-34 at Engineer Proving Ground* (Tetra Tech, 2007). *Technical Memorandum: Request for No Further Action (NFA) Status for Solid Waste Management Unit (SWMU) M-34, Waste Ordnance Pits at Range 5, Fort Belvoir Environmental Proving Ground (EPG)* (HGL, 2009b).
M-35	*Technical Memorandum: Request for No Further Action (NFA) Status for Solid Waste Management Unit (SWMU) M-35, Troop Training at Range 5B, Fort Belvoir North Area* (HGL, 2009c).
AOPC-16	*Final Investigation Summary Report, Area of Potential Concern 16 (AOPC-16), Engineering Proving Ground, Fort Belvoir, Virginia* (HGL, 2009d).
AOPC-17	*Final Investigation Summary Report, Areas of Potential Concern 17 and 18, Engineer Proving Ground, Fort Belvoir, Virgini*a (HGL, 2009e).
AOPC-19	*Final Investigation Summary Report, Area of Potential Concern-19, Engineer Proving Ground, Fort Belvoir, Virginia* (HGL, 2009f).

3.0 COMMUNITY PARTICIPATION

The scope of community participation activities performed was consistent with USEPA CERCLA guidance for community involvement (USEPA, 2005), and Section 300 of the NCP.

A public comment period occurred from May 23, 2014, to June 23, 2014. Notices of availability of the Proposed Plan were published to announce the Proposed Plan public meeting (if requested) and the availability of the Proposed Plan in the Administrative Record at Building 1442, Room 207 at Fort Belvoir. Copies of the Proposed Plan were also made available for review, along with more detailed information about these seven sites, in the Administrative Record files at the Kingstowne and Lorton Libraries.

4.0 SCOPE AND ROLE OF RESPONSE ACTION

The U.S. Army has organized work to date at FBNA into Investigation Areas and AOPCs. This Decision Document describes the rationale for the Selected Remedy to address the seven sites. The Selected Remedy will be the final CERCLA action at the sites. As described in Section 3.0 of the Declaration, the investigations are complete and no unacceptable risks to human health or the environment have been identified.

5.0 SITE CHARACTERISTICS

5.1 CONCEPTUAL SITE MODEL

The western portion of FBNA is largely undeveloped and is covered mostly by a mature deciduous forest. The eastern portion of FBNA was developed by the Army for various training and support uses. The area is restricted to the general public, but is accessible to site visitors, site workers, groundskeepers, and construction workers. The potential future land use at the areas assessed within this Decision Document is not expected to change. FBNA is identified in the Fort Belvoir Master Plan as an industrial and/or administrative use area; however, not one of the seven sites within this Decision Document is currently being used.

The conceptual site model for M-35, AOPC-17, AOPC-18, and AOPC-19 is presented on Figure 9. At these sites no release of chemicals to the environment has been identified. Consequently, there are no complete exposure pathways by which receptors could contact contamination at these sites.

The conceptual site model for M-32, M-34, and AOPC-16 is presented on Figure 10. Data for these sites indicates that historical activities resulted in chemical releases. At these three sites, current and potential future receptors could be exposed to contaminants in the site soil as shown on Figure 10. The historical investigations evaluated the transport of soil contaminants to groundwater and the potential risks associated with groundwater consumption by a hypothetical future resident. At M-32, groundwater contamination with actionable risk was identified and transferred to the adjacent site M-33 for evaluation of remedial alternatives. Soil data indicates that the M-32 soil is no longer a source of groundwater contamination (i.e., that

the soil-to-groundwater transport pathway is no longer complete). Groundwater contamination at AOPC-16 was determined not to pose a risk to human health through risk assessment calculations. At M-34, the historical investigations identified no groundwater contamination above screening levels.

5.2 SITE OVERVIEW

5.2.1 Physical Setting

FBNA, an 820-acre tract of land 1.5 miles northwest of the Main Post of Fort Belvoir, is bounded by Interstate 95 on the east, by commercial properties to the south, and by residential properties on the west and north. The layout of FBNA is shown on Figure 2.

5.2.2 Geology

All seven sites are located near the northeastern-trending physiographic boundary (known as the Fall Line) that separates the eastern edge of the Appalachian Piedmont Upland Province and the western edge of the Atlantic Coastal Plain Province. All seven sites are on the western portion of FBNA and in the transition zone between the Coastal Plain Province and the Piedmont Province. The Piedmont Province consists primarily of Precambrian metamorphic and Cambrian igneous rock formations, whereas the Coastal Plain consists of an eastward-thickening wedge of unconsolidated sediments of gravel, sand, silt, and clay from the Cretaceous to Tertiary periods. Due to the irregularity of the Fall Line, formations from both provinces can be found within the boundaries of FBNA.

5.2.3 Topography

The majority of FBNA has gently rolling topography, cut by steep slopes associated with the narrow stream valley of Accotink Creek. Land elevations across FBNA range between 200 and 300 feet above mean sea level (amsl). The western and eastern halves of FBNA contain sizable upland flat areas to which the majority of testing and training activities were limited.

The western portion of FBNA is largely undeveloped and is covered mostly by a mature deciduous forest. The eastern portion of FBNA was developed by the Army for various training and support uses. However, formerly cleared areas on the property have become largely overgrown with young pines. All seven sites are situated on the western portion of FBNA. Topography is relatively flat, with elevations between 200 and 210 feet amsl.

5.2.4 Soils

On the western portion of the FBNA, soils of the Fairfax-Beltsville-Appling Association overlie both Coastal Plain sediments and crystalline rocks. This group consists mostly of well-drained to moderately well-drained soils on high Coastal Plain terraces formed from fluvial material and the residuum (saprolite) of granitic gneiss. The Fairfax (silt loam), Beltsville (silt loam), and Appling (gritty loam) soils all occupy broad upland ridges.

5.2.5 Hydrogeology

The closest significant drainage feature near all the sites is Accotink Creek (Figure 2). The majority of surface water runoff follows the gently sloping surficial topography toward the southeast and the local tributary. The 100-year floodplain is outside the boundary of all seven sites.

At all seven sites, groundwater is typically encountered 10 to 20 feet below ground surface (bgs). Groundwater flow for the unconfined, uppermost-saturated layer (water table aquifer) typically follows the surficial topography. However, where Coastal Plain sediments exist, local flow patterns can be affected by the heterogeneous nature of the unconsolidated fluvial-deltaic sediments. Groundwater may become perched in lenses within these unconsolidated sediments. Within the crystalline rocks or saprolite of the Piedmont Province, groundwater flow is largely controlled by the density and orientation of fracture and fault systems existing within the rock formations. The orientation of these systems is highly variable on a local scale.

5.2.6 Land Use Activities

The seven sites in this Decision Document are undeveloped and covered mostly by a mature deciduous forest with some open field.

5.3 NATURE AND EXTENT OF CONTAMINATION

The nature and extent of contamination determined during site investigations are summarized in the following sections.

5.3.1 M-32 (Soil)

In 1995, surface soil samples were collected from the bunker interior and its earthen cover (Figure 3). The analytical results indicated that the soil inside the bunker contained lead and hexadydro-1,3,5-trinitro-1,3,5-triazine (RDX) at concentrations above action levels and, in the case of lead, above background levels. In 1996, 18 tons of lead/RDX-contaminated soil were excavated from within the bunker and, following characterization, were disposed of as nonhazardous material at the Potomac Landfill. Six confirmation soil samples were analyzed at M-32 for RDX, octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX), chromium, and lead from the bottom of the excavated area from 0 to 12 inches bgs (Table 1). No detections above residential risk-based concentrations (RBC) were reported for these chemicals.

In December 2008, HydroGeoLogic, Inc. (HGL) prepared an environmental investigation plan (EIP) (HGL, 2008) for an investigation of M-32, Building 2091. Previous investigations had not assessed whether surface soil contamination had leached to groundwater. Additionally, the soil near the entrances of Building 2091 had not been characterized. To address these data gaps, HGL collected four surface soil samples (and one duplicate) and installed three temporary monitoring wells, from which groundwater samples were collected. These samples were analyzed for explosives and metals. The data for soil samples are provided as in Table 2.

No explosives were detected in the soil samples, but metals were detected in each of them. Of the 21 metals detected, only arsenic was detected at concentrations greater than its residential soil regional screening level (RSL) but below the background level. Arsenic detections ranged from 1.5 milligrams per kilogram (mg/kg) to 3.8 mg/kg; background levels for arsenic within Fort Belvoir range from 0.36 mg/kg to 7.26 mg/kg. Explosives were reported in groundwater. Because the M-32 explosives groundwater contamination is commingled with contamination from the adjacent site M-33, the M-32 groundwater was transferred to M-33 for the purposes of identifying and implementing an appropriate remedy.

5.3.2 M-34

M-34 was identified when the EBS was performed. After the EBS, approximately 200 cubic yards of soil mixed with various items of inert debris (including barbed wire, razor wire, and rusted metal) and a number of inert land mines were removed from seven disposal pits. Soil samples were collected from the bottoms of the pits, and explosives residues were discovered in the samples. In response, an additional 2 feet of soil were excavated from the pits, and confirmation samples were collected.

Between November 2006 and January 2007, subsurface soil and groundwater samples were collected to assess the presence of remaining contamination at M-34. Four temporary monitoring wells were installed along the perimeter of M-34 (Figure 4). One soil sample (with one field duplicate at M34-SB03) was collected at each well location and analyzed for metals and explosives. Well M34-MW02 (Figure 4) was dry. Groundwater samples were collected from the other three wells and analyzed for metals and explosives.

Soil and groundwater data are provided in Tables 3, 4 and 5. All detections of both metals and explosives in the soils and groundwater at M-34 were screened against USEPA Region 3 RBCs, and in the case of groundwater, USEPA Maximum Contaminant Levels (MCLs). In soil, arsenic was the only chemical exceeding screening values. Arsenic concentrations, which ranged from 0.64 to 2.3 mg/kg, are within the range of Fort Belvoir background levels (0.36 to 7.3 mg/kg). In groundwater (Tables 4 and 5), arsenic and manganese exceeded screening levels. Arsenic was reported below the MCL (which is the cleanup standard). This concentration, however, falls within the range of manganese concentrations reported in FBNA (ranging up to 2,250 micrograms per liter [μg/L]) in areas that are not known to have had a manganese release. Therefore, no action with respect to manganese in groundwater is required.

In 2008 and 2009, MEC burial pit areas were uncovered at geographic grids 2U-24 and 2U-25, which are located within and adjacent to M-34 (see Figure 4 for grid locations). The areas within grids 2U-25 and 2U-25 have been assigned to site AOPC-21 and are no longer considered part of M-34. AOPC-21 is undergoing a separate investigation and will be subject to its own decision document.

5.3.3 M-35

M-35 is located on Range 5B. During the 1990 EBS, an unexploded ordnance (UXO) survey was completed at Range 5B. A total of 85 contacts were detected. Approximately 30 inert fuzes were collected from the surface of Range 5B (Malcolm Pirnie, 2006). The contacts also included 12-inch pieces of aluminum pipe. Magnetic and electromagnetic conductivity surveys were also completed at Range 5B. Ground penetrating radar (GPR) traverses were conducted in an effort to locate the suspected underground tunnels; however, no such features were found. One small magnetic anomaly was detected at the center of the site. The report concluded the anomaly may have been a land mine buried just below the surface.

In 2008, the U.S. Army Corps of Engineers (USACE) completed an instrument-assisted surface/subsurface transect investigation of 71 acres on the western portion of FBNA, including Range 5B (USACE, 2008), to identify areas requiring further MEC clearance. During the course of this investigation, Range 5B was surveyed using a magnetometer and an all-metals detector. Five-foot sweep lanes were separated by a maximum of 25 feet. This survey encompassed the area representing the maximum extent of Range 5B. Based on the results of the transect investigation, USACE determined that the extreme northern and western areas of Range 5B required no additional MEC clearance. No potential MEC burial pits were identified in any portion of Range 5B during this work.

In 2007 and 2008, two episodes of MEC clearance were completed in the remaining areas of Range 5B. The areas identified as requiring clearance were divided into 100- by 100-foot grids. In total, 49 grids were cleared. Each grid was cleared using a 200 percent coverage technique to provide a high level of confidence that the grid had been cleared. This technique involved clearing each grid with 100 percent coverage using north to south traverses and then repeating the process for the entire grid using east to west traverses (or vice versa). In 2007, 16 grids were cleared and 8 MEC items were recovered, including 6 fuzes, 1 M1 land mine, and 1 M12 land mine (Conti, 2008). No MEC burial pits were discovered during this work (Conti, 2008).

In 2008, 33 grids were cleared. Twelve MEC items were found: 10 fuzes, 1 mine igniter, and 1 fuzed M6A1 2.36-inch high-explosive antitank rocket with spent rocket motor. No MEC disposal pits were found during this work.

Based on the historical information, geophysical surveys, and MEC clearance results, the only potential source of contamination at M-35 were the former MEC items placed at or near the ground surface. In development of the EPG Area EIP, the data collected for investigations completed throughout EPG were evaluated to assess whether MEC items placed at or near the ground surface could have resulted in a contaminant release. The details of this evaluation are presented in the 2009 EIP for FBNA, which at that time was referred to as the Engineer Proving Ground (EPG) (HGL, 2009). The analysis concluded that MEC items placed at or near the ground surface were unlikely to have released contaminants at concentrations that would pose a risk via direct contact or via the soil-to-groundwater migration pathway. Accordingly, there is no evidence of a contaminant release at M-35.

5.3.4 AOPC-16

In 2008 and 2009, HGL investigated AOPC-16. Soil samples were collected from the pit excavation and the two soil stockpiles (Figure 6). The data from the samples are provided in Tables 6 and 7. All detections of volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and explosives found within the pit were below screening levels. Arsenic, the only metal above screening levels, had concentrations that ranged from 1.6 to 2.9 mg/kg, within the range of Fort Belvoir background levels (0.36 to 7.3 mg/kg).

The two stockpiles from the pit excavation were sampled, and a limited number of organic compounds were detected in Stockpile 1. Consequently, Stockpile 1 was removed and disposed of as nonhazardous waste. In the samples collected from Stockpile 2 (Table 8), as well as the floor and sidewalls of the pit (Tables 6 and 7), metals and a limited number of organic compounds were detected. With the exception of arsenic, all detections were less than the risk-based screening levels. Arsenic concentrations were consistent with background levels, with concentrations ranging from 1.7 to 1.9 mg/kg. Because contaminants were not detected above the screening criteria, Stockpile 2 was used to backfill the pit.

Three monitoring wells (specifically, AOPC16-MW01 through AOPC16-MW03) were installed in January 2009, and groundwater samples were collected in February 2009 (Figure 6). The groundwater data from the February 2009 sampling is provided in Table 9. A limited number of organic compounds were detected in the samples: these organic compounds were tetrachloroethene (PCE), butyl benzyl phthalate, naphthalene, 2,4-dinitrotoluene (DNT), 2,6-DNT, and 2-nitrotoluene. Additional wells were installed, and a second set of groundwater samples were collected in June 2009. The data from the June 2009 sampling event is provided in Table 10. This sampling event showed low levels of chloromethane, diethyl phthalate, 2,4-DNT, 2,6-DNT, acetone, and di-n-butyl phthalate. As described in Section 7.4, a quantitative risk assessment was performed to assess whether the chemicals detected in the site groundwater posed a risk to human health.

5.3.5 AOPC-17 and AOPC-18

MEC removal operations in 2008 resulted in identifying and removing MEC in pits at AOPC-17 and AOPC-18. Soils that were removed from the pits were stockpiled next to the pits. To assess whether the buried MEC resulted in a contaminant release, soil samples were collected from the bottoms and sidewalls of the pits and from stockpiled soils. All four side walls of the pits were sampled along with the base of the pit. In total, 12 samples were taken from the AOPC-17 pit and 5 were taken from the AOPC-18 pit (Figure 7). The soil samples were analyzed for explosives and metals. The data from AOPC-17 is provided in Table 11. The data from AOPC-18 is provided in Table 12.

No explosive compounds were detected in any of the soil samples. Metals were detected in each of the soil samples. However, no metals were detected at levels above background concentrations or screening levels (HGL, 2009e).

5.3.6 AOPC-19

MEC removal operations resulted in the identification and removal of MEC in the pits at grids 2O-16 and 2P-16. Soil from these pits was stockpiled near the pits. To assess whether the buried MEC resulted in a contaminant release, soil samples were collected from the pit bottoms, pit sidewalls, and stockpiled soils (Figure 8). Each soil sample was analyzed for explosives and metals. The data for the samples is presented in Tables 13 and 14.

No explosive compounds were detected in the soil samples. Metals were detected in each of the pit soil and soil stockpile samples, but no metals were at levels above screening values or Fort Belvoir background levels (HGL, 2009f).

6.0 CURRENT AND POTENTIAL FUTURE LAND, SITE, AND RESOURCE USES

Below are the current and future uses for each of the seven sites:

Site Name	Current Use	Potential Future Use
M-32	No activities	Industrial Use
M-34	No activities	Industrial Use
M-35	Part of Fairfax County Parkway Right-of-Way	Remain as Part of the Right-of-Way
AOPC-16	No activities	Industrial Use
AOPC-17	No activities	Industrial Use
AOPC-18	No activities	Industrial Use
AOPC-19	No activities	Industrial Use

FBNA is identified in the Fort Belvoir Master Plan as an industrial and/or administrative area; however, not one of the seven sites within this Decision Document is currently being used. Based upon the Fort Belvoir Master Plan, the future intended land use for these sites is not expected to change.

7.0 SUMMARY OF SITE RISKS

All seven sites addressed in this Decision Document will remain under federal control; they will not be used for nonindustrial or noncommercial purposes. Regardless, to be consistent with the CERCLA process, potential risks to a hypothetical future resident were considered for each site.

7.1 M-32 (SOIL)

Following the excavation of 18 tons of lead/RDX-contaminated soil and the results of confirmatory samples inside Building 2091, soil samples were collected near entrances to the building. Of the 21 metals detected in the M-32 soil samples only arsenic was detected at concentrations greater than its residential RSL of 0.39 mg/kg. Arsenic was detected in M-32 soils at concentrations ranging from 1.5 to 3.8 mg/kg. These concentrations fall within the

range of Fort Belvoir background levels (0.36 to 7.3 mg/kg). Therefore, arsenic results represent naturally occurring background conditions.

7.2 M-34

Soil and groundwater samples were collected at M-34 in 2006 and 2007. For soil, only arsenic exceeded its corresponding residential screening value (RBCs provided by the USEPA Region 3 were the screening values used during this investigation). Because the arsenic concentrations were within Fort Belvoir background levels (0.36 to 7.3 mg/kg), arsenic was not identified as a site contaminant. All other soil detections were less than the risk-based screening values, indicating that soil does not pose a threat.

None of the analytes detected in the M-34 groundwater samples exceeded their corresponding MCLs. Also, none of the explosives detected in the groundwater samples exceeded their corresponding tap water RBC values. A single arsenic detection of 2.3 μg/L exceeded the tap water RBC value of 0.045 μg/L, but that detection was less than the MCL of 10 μg/L. In addition, the soil data provided no evidence of arsenic contamination. For these reasons, the arsenic detection is not considered significant. A single manganese concentration of 888 μg/L was detected in a groundwater sample that exceeded the tap water RBC value but was within the range of manganese concentrations reported in FBNA (ranging up to 2,250 μg/L) in areas that are not known to have had a manganese release. Therefore, no action with respect to manganese in groundwater is required.

7.3 M-35

To help assess risks posed by the M-35 site, historical records about site use were reviewed. These records, as well as geophysical surveys and MEC clearance activities, did not identify any areas where a chemical release is known or suspected to have occurred at M-35. Therefore, no soil or groundwater samples were collected at the site and no risk exists.

7.4 AOPC-16

Soil from the former MEC pit at AOPC-16 was analyzed for VOCs, SVOCs, explosives, metals, and pH. With the exception of arsenic, the analytical results for the pit sidewall and floor samples and Stockpile 2 samples were at levels below health-based screening values. Because arsenic concentrations were consistent with background values for Fort Belvoir, arsenic in soil was identified as naturally occurring. Contamination was identified in Stockpile 1, and this stockpile was disposed of off site as nonhazardous waste in April 2009. The soil remaining at AOPC-16 does not pose a threat.

As part of the AOPC-16 Phase I Investigation, groundwater quality data was reviewed to assess potential risks. The groundwater data was analyzed and compared to USEPA tap water RSLs to produce list of chemicals of potential concern (COPCs). The COPCs were arsenic, cobalt, manganese, tetrachloroethene, naphthalene, 2,4-DNT, 2,6-DNT, and 2-nitrotoluene.

The COPCs were evaluated in a quantitative risk assessment to determine risks associated with potential future use of the AOPC-16 groundwater as a potable water supply. Human health risks from exposure to site chemicals are based on a conservative estimate of the potential carcinogenic risk and potential to cause other health effects not related to cancer. Cancer risks are expressed as numbers reflecting the increased chance that a person will develop cancer if he or she is directly exposed to the contaminants found in environmental media (such as groundwater) at the site over a period of time.

The risk associated with developing other (noncancer) health effects is expressed as a hazard index (HI), which is the ratio of the estimated level of exposure to chemicals at a site to an acceptable level of exposure. If the HI is less than or equal to 1, adverse health effects are not expected.

The groundwater risk assessment indicated that for a hypothetical future resident who uses the site groundwater as a source of drinking water, the cancer risks due to site contaminants were $6x10^{-5}$. This risk is within the USEPA target risk range of $1x10^{-6}$ to $1x10^{-4}$. None of the target organ HIs for the hypothetical resident was greater than 1, indicating that noncancer adverse effects would not be expected from using AOPC-16 groundwater as drinking water. In summary, the groundwater would not pose an unacceptable risk to the hypothetical future resident receptor.

7.5 AOPC-17 AND AOPC-18

Soil samples from the bottoms, sidewalls, and stockpiled soils of AOPC-17 and AOPC-18 were analyzed for explosives and metals. No explosives were detected; however, 22 metals were detected. Only one metal, arsenic, was detected at concentrations greater than its residential soil and industrial soil RSLs. However, the levels of arsenic reported were within Fort Belvoir background levels.

Soil screening levels (SSLs) developed by USEPA are concentrations of chemicals in soil that could leach to groundwater at concentrations greater than the tap water RSL under certain assumptions concerning the site. The only chemical reported above its SSL was iron. Iron was reported at concentrations up to 32,000 mg/kg in AOPC-17 and AOPC-18 soil. However, high iron concentrations have been detected in samples collected across FBNA, suggesting that the iron concentrations are consistent with background conditions. In addition, the SSL value is based on the assumption that the contaminated area encompasses 0.5 acre, but the combined area of AOPC-17 and AOPC-18 is only 0.014 acre. Therefore, the SSL is overly conservative. Based on the potential for the iron results to represent background conditions and the conservatism in the screening value, the exceedances are not considered significant and do not pose a risk to groundwater quality.

7.6 AOPC-19

Soil samples from the bottoms, sidewalls, and stockpiled soils of the two pits at AOPC-19 were analyzed for explosives and metals. No explosives were detected. Of the metals detected, only arsenic was reported at concentrations greater than its residential RSL. However, the

levels of arsenic reported were within Fort Belvoir background levels, indicating that the metal is naturally occurring. Therefore, no risk due to an arsenic release is present.

The only chemical detected above its SSL was iron. Iron was reported at concentrations ranging from 8,100 to 33,000 mg/kg. However, high iron concentrations have been detected in samples collected across FBNA, suggesting that the iron concentrations in the pit soils are consistent with background conditions. In addition, the SSL value is based on the assumption that the contaminated area encompasses 0.5 acre, but the area of AOPC-19 is less than 0.008 acre. Therefore, the SSL is overly conservative. Given that the iron results appear to reflect background levels and the conservative screening value used, these exceedances are not considered to be significant.

8.0 DOCUMENTATION OF SIGNIFICANT CHANGES

NFA is required to ensure protection of human health and the environment. The Proposed Plan recommends NFA for chemical contamination for the seven sites at the FBNA for all media with the exception of groundwater at site M-32. Groundwater at M-32 has been administratively transferred to site M-33 and will be the subject of the decision document for that site. Since publication of the Proposed Plan, no changes to the recommendation of NFA have been made.

PART 3: RESPONSIVENESS SUMMARY

The public comment period was from May 23, 2014, through June 23, 2014. The U.S. Army published a notice of availability of this Proposed Plan in *The Washington Post-Extra*, the *Mt. Vernon Voice*, and the *Fairfax County Times*. No comments were received during the public comment period and no meetings to discuss the Proposed Plan were requested.

1.0 STAKEHOLDER ISSUES AND LEAD AGENCY RESPONSES

No oral or written comments were received during the public comment period of May 23, 2014, through June 23, 2014.

2.0 TECHNICAL AND LEGAL ISSUES

The public participation requirements set out in the NCP at 40 CFR 300.435(c)(2)(ii) have been met for the seven sites at FBNA. No oral or written comments were received during the public comment period of May 23, 2014, through June 23, 2014.

3.0 REFERENCES

Argonne National Laboratory (ANL), 1990. Environmental Baseline Study for the Engineer Proving Ground, Fort Belvoir, Virginia, Volume 1: Phase I, Scope Definition, and Phase II, Environmental Survey.

Dewberry & Davis (Dewberry), 2002. Closure Report – SWMU M-32, Engineer Proving Ground, U.S. Army Garrison, Fort Belvoir, Virginia.

HydroGeoLogic, Inc. (HGL), 2008. Environmental Investigation Plan, Solid Waste Management Unit (SWMU) M-32, Building 2091, at Engineering Proving Ground.

HGL, 2009. Final Investigation Summary Report, Solid Waste Management Unit M-32, Engineer Proving Ground, Fort Belvoir, Virginia.

HGL, 2009b. 27 May 2009 Technical Memorandum: Request for No Further Action (NFA) Status for Solid Waste Management Unit (SWMU) M-34, Waste Ordnance Pits at Range 5, Fort Belvoir Environmental Proving Ground (EPG) from HydroGeoLogic, Inc., to Ms. Wanda Martinez of EPA Region 3.

HGL, 2009c. 1 October 2009 Technical Memorandum: Request for No Further Action (NFA) Status for Solid Waste Management Unit (SWMU) M-35, Troop Training at Range 5B, Fort Belvoir North Area, Contract No. W91ZLK-05-D-0010, Task Order 0001 from HydroGeoLogic, Inc., to Ms. Wanda Martinez of EPA Region 3.

HGL, 2009d. Final Investigation Summary Report, Area of Potential Concern 16 (AOPC-16), Engineering Proving Ground, Fort Belvoir, Virginia.

HGL, 2009e. Final Investigation Summary Report, Areas of Potential Concern 17 and 18, Engineering Proving Ground, Fort Belvoir, Virginia.

HGL, 2009f. Final Investigation Summary Report, Area of Potential Concern 19, Engineering Proving Ground, Fort Belvoir, Virginia.

HGL, 2009g. Final Phase II Environmental Investigation Plan, Solid Waste Management Unit M-33, Engineer Proving Ground, Fort Belvoir, Virginia.

HGL, 2014. Revised Final Focused Feasibility Study, Fort Belvoir North Area (FTBL-005-R-01), Fort Belvoir, Virginia.

Tetra Tech, 2007. Investigation Summary Report, Solid Waste Management Unit M-34 at Engineer Proving Ground. Department of the Army, U.S. Army Garrison, Fort Belvoir, Directorate of Public Works.

U.S. Army Corps of Engineers (USACE), 2008. Draft Site Specific Final Report, Transect and Site Investigation, Engineer Proving Ground (EPG), Fort Belvoir, Virginia.

U.S. Environmental Protection Agency (USEPA), 2009. 14 September 2009 letter correspondence from Ms. Wanda Martinez of USEPA, Region 3, to Mr. McLaughlin of DPW-ENRD.

USEPA, 2009b. 30 October 2009 email correspondence from Ms. Wanda Martinez of USEPA Region 3, to Mr. David Iseri of HGL.

USEPA, 2009c. 26 August 2009 email correspondence from Ms. Wanda Martinez of USEPA Region 3, to Mr. David Iseri of HGL.

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TABLES

Table 1
Summary of M-32 Analytical Results for Post-Closure Samples, May 1996

Analyte	RBC		Background		Soil Samples						
	Industrial	Residential	Minimum	Maximum	M-32-FC-1	M-32-FC-2	M-32-FC-3	M-32-FC-4	M-32-FC-5	M-32-FC-6	M-32-FC-7[1]
Chromium	6,100	230	5.9	29.9	9.23	13.0	19.1	15.1	6.60	29.9	5.93
Lead	100	300	4.5	19.4	5.19	4.50 U	9.90	12.0	8.90	19.4	6.85
HMX	10,000	3,900	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
RDX	52	5.8	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U

Notes:
[1] Duplicate sample of M-32-FC-5
U = indicates nondetect result
All results reported in mg/kg.
HMX = octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
RDX = hexahydro-1,3,5-trinitro-1,3,5-triazine
RBC = risk-based concentrations

Source: Dewberry and Davis, 2002. Closure Report – SWMU M-32, Engineer Proving Ground, U.S. Army Garrison, Fort Belvoir, Virginia.

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Table 2
M-32 2009 Soil Data

FIELD ID / DATE COLLECTED	Residential RSL	Industrial RSL	SSL	BM32-SS01-00 1.12.09			BM32-SS02-00 1.12.09			BM32-SS03-00 1.12.09			BM32-SS04-00 1.12.09			BM32-DUP-011209 1.12.09		
				Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
Explosives (µg/kg)																		
1,3,5-Trinitrobenzene	2,200,000	27,000,000	52,000	99	99	U	100	100	U	99	99	U	100	100	U	99	99	U
1,3-Dinitrobenzene	6,100	62,000	46	99	99	U	100	100	U	99	99	U	100	100	U	99	99	U
2,4,6-Trinitrotoluene	19,000	79,000	174	99	99	U	100	100	U	99	99	U	100	100	U	99	99	U
2,4-Dinitrotoluene	120,000	1,200,000	1.86	99	99	U	100	100	U	99	99	U	100	100	U	99	99	U
2,6-Dinitrotoluene	61,000	620,000	1.86	200	200	U	200	200	U	200	200	U	200	200	U	200	200	U
2,4/2,6-Dinitrotoluene (Mixture of Isomers)	710	2,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	150,000	2,000,000	580	200	200	U	200	200	U	200	200	U	200	200	U	200	200	U
2-Nitrotoluene	2,900	13,000	5	200	200	U	200	200	U	200	200	U	200	200	U	200	200	U
3-Nitrotoluene	1,200,000	12,000,000	12,000	200	200	U	200	200	U	200	200	U	200	200	U	200	200	U
4-Amino-2,6-dinitrotoluene	150,000	1,900,000	580	200	200	U	200	200	U	200	200	U	200	200	U	200	200	U
4-Nitrotoluene	30,000	110,000	68	200	200	U	200	200	U	200	200	U	200	200	U	200	200	U
HMX	3,800,000	49,000,000	142,000	200	200	U	200	200	U	200	200	U	200	200	U	200	200	U
Nitrobenzene	31,000	280,000	40	99	99	U	100	100	U	99	99	U	100	100	U	99	99	U
Tetryl	240,000	2,500,000	13,000	250	250	U	250	250	U	250	250	U	250	250	U	250	250	U
RDX	5,500	24,000	7.2	200	200	U	200	200	U	200	200	U	200	200	U	200	200	U
MNX	NA	NA	NA	99	99	U	100	100	U	99	99	U	100	100	U	99	99	U
DNX	NA	NA	NA	120	120	U	120	120	U	120	120	U	120	120	U	120	120	U
TNX	NA	NA	NA	120	120	U	120	120	U	120	120	U	120	120	U	120	120	U
Metals (mg/kg)																		
Aluminum	77,000	990,000	1,100,000	**19,000**	24		**980**	19		**14,000**	25		**7,500**	23	J	**5,300**	20	J
Antimony	31	410	5.4	0.81	2.4	B	0.4	1.9	B	0.68	2.5	B	0.53	2.3	B	0.47	2	B
Arsenic	0.39	1.6	5.8	**3.8**	1.2		**1.5**	0.95		**3.4**	1.2		**2.1**	1.2		**2**	1	
Barium	15,000	190,000	1,640	**38**	1.5		**5.5**	1.2		**42**	1.6		**16**	1.5	J	**12**	1.3	J
Beryllium	160	2,000	64	**0.68**	0.47		0.089	0.38	J	0.45	0.49	J	0.21	0.47	J	0.19	0.41	J
Cadmium	70	810	7.6	0.47	0.47	U	0.19	0.19	U	0.25	0.25	U	0.23	0.23	U	0.2	0.2	U
Calcium	NA	NA	NA	**1,000**	12		**62**	9.5		**480**	12		**270**	12	J	**350**	10	J
Chromium	39*	2,000	42	**18**	1.2		**9.3**	0.95		**17**	1.2		**14**	1.2		**12**	1	
Cobalt	23	300	9.8	**1.8**	0.59		**0.56**	0.48		**2.9**	0.62		**0.79**	0.58		**0.82**	0.51	
Copper	3,100	41,000	920	**16**	1.7	J	**7.7**	1.3	J	**9**	1.7	J	**16**	1.6	J	**12**	1.4	J
Iron	55,000	720,000	12,800	**31,000**	13	J	**4,900**	10	J	**21,000**	14	J	**14,000**	13	J	**11,000**	11	J
Lead	400	800	280	**17**	0.95		**7**	0.76	J	**16**	0.99		**11**	0.93		**10**	0.81	
Magnesium	NA	NA	NA	**590**	12		**37**	9.5		**570**	12		**240**	12		**210**	10	
Manganese	1,800	23,000	1140	**65**	1.2	J	**22**	0.95	J	**280**	1.2	J	**37**	1.2	J	**54**	1	J
Nickel	1,600	20,000	960	**4.4**	1.5		**1.4**	1.2		**4.4**	1.6		**2.3**	1.5		**2.3**	1.3	
Potassium	NA	NA	NA	**910**	59		**61**	48		**550**	62		**280**	58		**240**	51	
Selenium	390	5,100	5.2	0.99	1.4	J	1.1	1.1	U	0.98	1.5	J	0.7	1.4	J	1.2	1.2	U
Silver	390	5,100	32	0.59	0.59	U	0.48	0.48	U	0.62	0.62	U	0.58	0.58	U	0.51	0.51	U
Sodium	55	NA	NA	25	120	J	95	95	U	120	120	U	120	120	U	100	100	U
Thallium	7	66	2.8	0.65	1.8	J	1.4	1.4	U	1.8	1.8	U	1.8	1.8	U	1.5	1.5	U
Vanadium	550	7,200	5200	**46**	0.71		**5.1**	0.57		**33**	0.74		**23**	0.7	J	**18**	0.61	J
Zinc	23,000	310,000	13600	**26**	2.4		**8.6**	1.9		**20**	2.5		**10**	2.3		**11**	2	
Mercury	23**	310	2	**0.14**	0.026	J	**0.29**	0.022	J	**0.034**	0.025	J	0.022	0.024	J	0.019	0.024	J

Notes:
B = Not detected substantially above the level reported in laboratory or field blanks.
J = The analyte was detected at the reported concentration; the quantitation is an estimate.
µg/kg = microgram per kilogram
mg/kg = milligram per kilogram
NA = not applicable; DNT not detected in any samples.
Qual = Qualifier
RL = Reporting Limit
RSL = Regional Screening Level
U = Not detected. The associated number indicates the analyte RL.
SSL = Soil Screening Level

HMX = Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
RDX = 1,3,5-Trinitroperhydro-1,3,5-triazine
MNX = hexahydro-1-nitroso-3,5-dinitro-1,3,5-triazine
DNX = 3,4-dinitrophenol
TNX = hexahydro-1,3,5-trinitroso-1,3,5-triazine
DNT = dinitrotoluene
ID = identification
USEPA = U.S. Environmental Protection Agency

Bold = Confirmed identification. The analyte was positively identified at the reported concentration.
Bold, Box and Shading = Confirmed identification above the industrial soil RSL.
RSL data obtained from U.S. EPA September 12, 2008.
* = value is from Chromium IV
** = value is from Mercuric Chloride

Source: HydroGeoLogic, Inc, 2009. Final Investigation Summary Report, Solid Waste Management Unit M-32, Engineer Proving Ground, Fort Belvoir, Virginia.

Table 3
Comparison of Soil Sample Results to USEPA Region 3 Risk-Based Concentrations: M-34

Sample ID	BM34-SB01-24		BM34-SB02-21		BM34-SB03-08		BM34-SB03P-08		BM34-SB04-22		April 2006 Risk-based Concentrations (RBCs)*	
Depth	24 feet		21 feet		8 feet		8 feet		22 feet			
Date Sampled	11/30/2006		11/30/2006		11/29/2006		11/29/2006		11/29/2006		Soil	
Analyte	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Residential (mg/kg)	Industrial (mg/kg)
USEPA SW-846 Method 6010B TAL Metals mg/kg												
Aluminum	11,500		10,400		19,100		19,500		8,050		--	--
Antimony	0.4	B	0.21	UL	0.25	UL	0.46	B	0.26	UL	31	410
Arsenic	0.64	J	2.3		2.2		2.1		1.5	J	0.43	1.9
Barium	34.7		386		55.6	J	30.1	J	15		16,000	200,000
Beryllium	0.43	J	0.76	J	0.64	J	0.64	J	1.1	J	160	2,000
Cadmium	0.036	B	0.38	J	0.055	B	0.059	B	0.048	B	39 [1]	510 [1]
Calcium	31.2	B	46.8	B	102		74.6	B	175		--	--
Chromium	0.91		1.7		4.4		6.1		1.5		230 [2]	3100 [2]
Cobalt	6.1		14.8		30	J	2.2	J	0.5	J	--	--
Copper	8.7		14.8		12.1		12.3		13.2		3,100	41,000
Iron	8,080		14,000		16,400		18,300		9,850		23,000	310,000
Lead	79.3		13.9		88.6	J	32.9	J	15.9		--	--
Magnesium	477		927		1060		809		477		--	--
Manganese	685		2710		690	J	74.1	J	41.2		1,600	20,000
Nickel	1.7		4.3		2.2		2.3		1.1		1,600	20,000
Potassium	763	L	1,590	L	1,220	L	888	L	751	L	--	--
Selenium	0.18	U	0.16	U	0.6	B	0.38	B	0.32	B	390	5,100
Silver	0.048	U	0.21	U	0.25	U	0.042	U	0.052	U	390	5,100
Sodium	89	B	71.3	B	80.2	B	83.2	B	121	B	--	--
Thallium	0.66	U	3.3		0.84	J	0.58	U	0.71	U	5.5	72
Vanadium	4.7		8		16.6		18.1		7.5		780	1,000
Zinc	11.3		34.3		29.4		27		19.7		23,000	310,000
USEPA SW-846 Method 7471A Mercury mg/Kg												
Mercury	0.012	J	0.01	J	0.062		0.043		0.0085	U	7.8 [3]	100 [3]
USEPA SW-846 Method 8330 Explosives mg/Kg												
2,4,6-Trinitrotoluene	0.46		0.1	U	0.1	U	0.1	U	0.1	U	21	950

Notes:
(1) value is from Diet Cadmium
(2) value is from Chromium VI
(3) value is from elemental Mercury
ID = identification
UL = Non Detect Bias Low Detection Limit

Shaded results exceed the corresponding RBC Value
B = Not substantially different than levels
Q = Validation Qualifier
U = Non-detect
J = Estimated Value
L = Bias Low reported in associated laboratory blanks

- - = no value
mg/kg = milligram per kilogram
USEPA = United States Environmental Protection Agency
*Values Based on EPA Region III RBC Table 04/07/2006

Source: Tetra Tech, 2007. Investigation Summary Report, Solid Waste Management Unit M-34 at Engineer Proving Ground. Department of the Army, U.S. Army Garrison, Fort Belvoir, Directorate of Public Works.

Table 4
Comparison of Validated Groundwater Sample Results to USEPA Region 3 RBCs and MCLs: M-34

Sample ID	M34-MW01-FIL		M34-MW03-FIL		M34-MW04-FIL		April 2006 Risk-Based Concentrations (RBCs) Tap Water (µg/L)	EPA Maximum Contaminant Level (MCL) (µg/L)
Date Sampled	12/14/2006		12/14/2006		12/13/2006			
Analyte	Result	Q	Result	Q	Result	Q		
USEPA SW-846 Method 6010B TAL Metals µg/L								
Aluminum	26.6	U	38.1	B	26.6	U	--	--
Antimony	4.1	U	4.1	U	4.1	U	15	6
Arsenic	2.3	U	2.3	J	2.3	UL	0.045	10
Barium	21.5		55.8		46.1	K	7,300	2000
Beryllium	0.14	U	0.25	J	0.14	U	73	4
Cadmium	0.5	U	0.5	U	0.5	U	18	5
Calcium	1750		1300		1,860		--	--
Chromium	0.92	U	0.92	U	0.92	U	110	100
Cobalt	2.1	J	33.3		2.5	J	--	--
Copper	5.7	J	1	J	6.7	B	1,500	--
Iron	180	B	239	K	631		11,000	--
Lead	1.9	B	2.9	B	0.7	U	--	15
Magnesium	616		833		492		--	--
Manganese	249		888		280		730	--
Nickel	1.9	U	10.8		5.6	J	730	--
Potassium	1480		970		1,580		--	--
Selenium	5	U	5	U	5	U	180	--
Silver	0.67	U	0.67	U	0.67	U	180	--
Sodium	4710		6,960		9,060		0.25	--
Thallium	4.5	U	4.5	U	4.5	UL	2.6	2
Vanadium	0.92	U	0.92	U	0.92		370	--
Zinc	14.2	J	27.3		32.8	B	11,000	--
USEPA SW-846 Method 7470A Mercury µg/L								
Mercury	0.035	J	0.034	U	0.034	U	3.7	2 [1]

Notes:
Q = Validation Qualifier
U = Non-detect
UL = Nondetect Bias Low Detection Limit
J = Estimated
ug/L = microgram per liter
ID = identification
B = Not substantially different than levels reported in associated laboratory blanks
K = Bias High
-- = no value
USEPA = United States Environmental Protection Agency
(1) = value is from elemental Mercury
Shaded results are detected analytes

Source: Tetra Tech, 2007. Investigation Summary Report, Solid Waste Management Unit M-34 at Engineer Proving Ground. Department of the Army, U.S. Army Garrison, Fort Belvoir, Directorate of Public Works

Table 5
Comparison of Validated Groundwater Sample Results to USEPA Region 3 RBCs: M-34

Sample ID	M34-MW01		BM34-MW03		M34-MW04		M34-MW04P		April 2006 Risk-Based Concentrations (RBCs) Tap Water (µg/L)
Date Sampled	12/14/2006		1/10/2007		12/13/2006		12/13/2006		
Analyte	Result	Q	Result	Q	Result	Q	Result	Q	
USEPA SW-846 Method 8330 Explosives µg/L									
1,3,5-Trinitrobenzene	0.21	U	0.24	U	0.2	U	0.21	U	1,100
1,3-Dinitrobenzene	0.21	U	0.24	U	0.2	U	0.21	U	3.7
2,4,6-Trinitrotoluene	0.48		0.24	U	0.2	U	0.21	U	2.2
2,4-Dinitrotoluene	0.21	U	0.24	U	0.2	U	0.21	U	73
2,6-Dinitrotoluene	0.21	U	0.24	U	0.2	U	0.21	U	37
2-Amino-4,6-Dinitrotoluene	0.21	U	0.24	U	0.2	U	0.21	U	--
4-Amino-2,6-Dinitrotoluene	0.21	U	0.24	U	0.2	U	0.21	U	--
HMX	0.42	U	0.47	U	0.41	U	0.42	U	1,800
m-Nitrotoluene	0.42	U	0.47	U	0.41	U	0.42	U	--
Nitrobenzene	0.21	U	0.24	U	0.2	U	0.21	U	3.5
o-Nitrotoluene	0.42	U	0.47	U	0.41	U	0.42	U	--
p-Nitrotoluene	0.42	U	0.47	U	0.41	U	0.42	U	--
RDX	0.46		0.47	U	0.41	U	0.42	U	0.61
Tetryl	0.42	U	0.47	U	0.41	U	0.42	U	150

Notes:
Q = Validation Qualifier Shaded results are detected analytes
U = Nondetect
ug/L = microgram per liter
ID = identification
HMX = Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
RDX = 1,3,5-Trinitroperhydro-1,3,5-triazine
USEPA = United States Environmental Protection Agency
-- = no value

Source: Tetra Tech, 2007. Investigation Summary Report, Solid Waste Management Unit M-34 at Engineer Proving Ground. Department of the Army, U.S. Army Garrison, Fort Belvoir, Directorate of Public Works

Table 6
AOPC-16 Pit Bottom Soil Analytical Data

Field ID / Date Collected	RSL [1,2]	Background	SSL[3]	BAOPC16-FL-01A 2.18.09			BAOPC16-FL-01B 2.18.09			BAOPC16-FL-02A 2.18.09			BAOPC16-FL-02B 2.18.09			BAOPC16-FL-03A 2.18.09			BAOPC16-FL-03B 2.18.09		
				Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
VOCs (mg/kg)																					
1,1,1-Trichloroethane	39,000	--		0.0066	0.0066	U	0.073	0.073	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
1,1,2,2-Tetrachloroethane	2.9	--		0.0066	0.0066	U	0.081	0.081	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
1,1,2-Trichloro-1,2,2-trifluoroethane	180,000	--		0.0066	0.0066	U	0.11	0.11	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
1,1,2-Trichloroethane	5.5	--		0.0072	0.0072	U	0.1	0.1	U	0.011	0.011	U	0.0064	0.0064	U	0.0083	0.0083	U	0.0067	0.0067	U
1,1-Dichloroethane	17.00	--		0.0066	0.0066	U	0.057	0.057	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
1,1-Dichloroethene	1,100	--		0.0066	0.0066	U	0.069	0.069	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
1,2,4-Trichlorobenzene	400.00	--		0.0066	0.0066	U	0.11	0.11	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
1,2-Dibromo-3-Chloropropane	0.073	--		0.0066	0.0066	U	0.26	0.26	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
1,2-Dibromoethane	0.17	--		0.0066	0.0066	U	0.11	0.11	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
1,2-Dichlorobenzene	10,000	--		0.0066	0.0066	U	0.11	0.11	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
1,2-Dichloroethane	2.2	--		0.0066	0.0066	U	0.07	0.07	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
1,2-Dichloropropane	4.7	--		0.0066	0.0066	U	0.073	0.073	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
1,3-Dichlorobenzene	NA	--		0.0066	0.0066	U	0.11	0.11	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
1,4-Dichlorobenzene	13	--		0.0066	0.0066	U	0.11	0.11	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
2-Butanone (MEK)	190,000	--		0.0072	0.0072	U	0.21	0.21	U	0.011	0.011	U	0.0064	0.0064	U	0.0083	0.0083	U	0.0067	0.0067	U
2-Hexanone	NA	--		0.0066	0.0066	U	0.11	0.11	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
4-Methyl-2-pentanone (MIBK)	52,000	--		0.0066	0.0066	U	0.11	0.11	UJ	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
Acetone	610,000	--	88	0.013	0.013	U	0.43	0.43	U	0.039	0.02		0.019	0.012		0.015	0.015	U	0.012	0.012	U
Benzene	5.6	--		0.0066	0.0066	U	0.027	0.027	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
Bromodichloromethane	46	--		0.0066	0.0066	U	0.11	0.11	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
Bromoform	220	--		0.0066	0.0066	U	0.11	0.11	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
Bromomethane	35	--		0.0088	0.0088	U	0.11	0.11	UJ	0.014	0.014	U	0.0078	0.0078	U	0.01	0.01	U	0.0082	0.0082	U
Carbon disulfide	3,000	--		0.0066	0.0066	UJ	0.11	0.11	U	0.01	0.01	UJ	0.0059	0.0059	UJ	0.0077	0.0077	UJ	0.0062	0.0062	UJ
Carbon tetrachloride	1.3	--		0.0066	0.0066	U	0.068	0.068	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
Chlorobenzene	1,500	--		0.0066	0.0066	U	0.055	0.055	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
Chloroethane	NA	--		0.0066	0.0066	U	0.11	0.11	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
Chloroform	1.5	--		0.0066	0.0066	U	0.053	0.053	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
Chloromethane	8.4	--		0.0066	0.0066	U	0.11	0.11	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
cis-1,2-Dichloroethene	10,000	--		0.0066	0.0066	U	0.065	0.065	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
cis-1,3-Dichloropropene	NA	--		0.0066	0.0066	U	0.058	0.058	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
Cyclohexane	30,000	--		0.0066	0.0066	U	0.11	0.11	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
Dibromochloromethane	21	--		0.0066	0.0066	U	0.11	0.11	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
Dichlorodifluoromethane	780	--		0.008	0.008	UJ	0.11	0.11	UJ	0.012	0.012	UJ	0.0071	0.0071	UJ	0.0092	0.0092	UJ	0.0075	0.0075	UJ
Ethylbenzene	29	--		0.0066	0.0066	U	0.032	0.032	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
Isopropylbenzene	NA	--		0.0066	0.0066	U	0.11	0.11	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
m&p-Xylene	NA	--		0.013	0.013	U	0.053	0.053	U	0.02	0.02	U	0.012	0.012	U	0.015	0.015	U	0.012	0.012	U
Methyl acetate	1,000,000	--		0.0066	0.0066	U	0.11	0.11	UJ	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
Methyl tert-butyl ether	190	--		0.0066	0.0066	U	0.11	0.11	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
Methylcyclohexane	NA	--		0.0066	0.0066	U	0.11	0.11	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
Methylene Chloride	54	--		0.0066	0.0066	U	0.11	0.11	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
o-Xylene	23,000	--		0.0066	0.0066	U	0.027	0.027	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
Styrene	38,000	--		0.0066	0.0066	U	0.053	0.053	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
Tetrachloroethene	2.7	--		0.0066	0.0066	U	0.053	0.053	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
Toluene	46,000	--	15.2	0.0066	0.0066	U	0.027	0.027	U	0.053	0.01		0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
trans-1,2-Dichloroethene	500	--		0.0066	0.0066	UJ	0.055	0.055	U	0.01	0.01	UJ	0.0059	0.0059	UJ	0.0077	0.0077	UJ	0.0062	0.0062	UJ

Table 6 (continued)
AOPC-16 Pit Bottom Soil Analytical Data

Field ID / Date Collected	RSL [1,2]	Background	SSL [3]	BAOPC16-FL-01A 2.18.09			BAOPC16-FL-01B 2.18.09			BAOPC16-FL-02A 2.18.09			BAOPC16-FL-02B 2.18.09			BAOPC16-FL-03A 2.18.09			BAOPC16-FL-03B 2.18.09		
				Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
trans-1,3-Dichloropropene	NA	--		0.0066	0.0066	U	0.053	0.053	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
Trichloroethene	14	--		0.0066	0.0066	U	0.053	0.053	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
Trichlorofluoromethane	3,400	--		0.0066	0.0066	U	0.11	0.11	U	0.01	0.01	U	0.0059	0.0059	U	0.0077	0.0077	U	0.0062	0.0062	U
Vinyl chloride	1.7	--		0.0066	0.0066	UJ	0.054	0.054	U	0.01	0.01	UJ	0.0059	0.0059	UJ	0.0077	0.0077	U	0.0062	0.0062	UJ
Xylenes, Total	2,600	--		0.013	0.013	U	0.053	0.053	U	0.02	0.02	U	0.012	0.012	U	0.015	0.015	U	0.012	0.012	U
SVOCs (mg/kg)																					
1,1'-Biphenyl	51,000	--		0.19	0.19	U	0.2	0.2	U	0.21	0.21	U	0.21	0.21	U	0.2	0.2	U	0.2	0.2	U
1,2,4-Trichlorobenzene	400	--		0.19	0.19	U	0.2	0.2	U	0.21	0.21	U	0.21	0.21	UL	0.2	0.2	U	0.2	0.2	UL
1,2-Dichlorobenzene	10,000	--		0.19	0.19	UL	0.2	0.2	UL	0.21	0.21	UL	0.21	0.21	UL	0.2	0.2	UL	0.2	0.2	UL
1,2-Diphenylhydrazine	2.2	--		0.19	0.19	U	0.2	0.2	U	0.21	0.21	U	0.21	0.21	UL	0.2	0.2	U	0.2	0.2	UL
1,3-Dichlorobenzene	NA	--		0.19	0.19	UL	0.2	0.2	UL	0.21	0.21	UL	0.21	0.21	UL	0.2	0.2	UL	0.2	0.2	UL
1,4-Dichlorobenzene	13	--		0.19	0.19	U	0.2	0.2	U	0.21	0.21	U	0.21	0.21	UL	0.2	0.2	U	0.2	0.2	UL
1,4-Dioxane	160	--		0.77	0.77	UJ	0.81	0.81	U	0.85	0.85	UJ	0.83	0.83	UJ	0.8	0.8	UJ	0.8	0.8	UJ
2,2'-oxybis[1-chloropropane]	NA	--		0.19	0.19	U	0.2	0.2	U	0.21	0.21	U	0.21	0.21	UL	0.2	0.2	U	0.2	0.2	UL
2,4-Dinitrotoluene	1,200	--		0.19	0.19	U	0.2	0.2	U	0.21	0.21	U	0.21	0.21	UL	0.2	0.2	U	0.2	0.2	UL
2,6-Dinitrotoluene	620	--		0.19	0.19	U	0.2	0.2	U	0.21	0.21	U	0.21	0.21	UL	0.2	0.2	U	0.2	0.2	UL
2,4/2,6-Dinitrotoluene mixture	2.5	--		0.19		U	0.2		U	0.21		U	0.21		UL	0.2		U	0.2		UL
2-Chloronaphthalene	NA	--		0.19	0.19	U	0.2	0.2	U	0.21	0.21	U	0.21	0.21	UL	0.2	0.2	U	0.2	0.2	UL
2-Methylnaphthalene	4,100	--		0.19	0.19	U	0.2	0.2	U	0.21	0.21	U	0.21	0.21	UL	0.2	0.2	U	0.2	0.2	UL
2-Nitroaniline	NA	--		0.19	0.19	U	0.2	0.2	U	0.21	0.21	U	0.21	0.21	UL	0.2	0.2	U	0.2	0.2	UL
3,3'-Dichlorobenzidine	3.8	--		0.19	0.19	U	0.2	0.2	U	0.21	0.21	U	0.21	0.21	UL	0.2	0.2	U	0.2	0.2	UL
3-Nitroaniline	82	--		0.38	0.38	U	0.4	0.4	U	0.42	0.42	U	0.41	0.41	UL	0.39	0.39	U	0.4	0.4	UL
4-Bromophenyl phenyl ether	NA	--		0.19	0.19	U	0.2	0.2	U	0.21	0.21	U	0.21	0.21	UL	0.2	0.2	U	0.2	0.2	UL
4-Chloroaniline	NA	--		0.77	0.77	U	0.81	0.81	U	0.85	0.85	U	0.83	0.83	UL	0.8	0.8	U	0.8	0.8	UL
4-Chlorophenyl phenyl ether	NA	--		0.19	0.19	U	0.2	0.2	U	0.21	0.21	U	0.21	0.21	UL	0.2	0.2	U	0.2	0.2	UL
4-Nitroaniline	82	--		0.38	0.38	U	0.4	0.4	U	0.42	0.42	U	0.41	0.41	UL	0.39	0.39	U	0.4	0.4	UL
Acenaphthene	33,000	--		0.038	0.038	U	0.04	0.04	U	0.042	0.042	U	0.041	0.041	UL	0.039	0.039	U	0.04	0.04	UL
Acenaphthylene	NA	--		0.038	0.038	U	0.04	0.04	U	0.042	0.042	U	0.041	0.041	UL	0.039	0.039	U	0.04	0.04	UL
Acetophenone	100,000	--		0.38	0.38	U	0.4	0.4	U	0.42	0.42	U	0.41	0.41	UL	0.39	0.39	U	0.4	0.4	UL
Aniline	300	--		0.77	0.77	UL	0.81	0.81	UL	0.85	0.85	UL	0.83	0.83	UL	0.8	0.8	UL	0.8	0.8	UL
Anthracene	170,000	--		0.038	0.038	U	0.04	0.04	U	0.042	0.042	U	0.041	0.041	UL	0.039	0.039	U	0.04	0.04	UL
Atrazine	7.5	--		0.38	0.38	U	0.4	0.4	U	0.42	0.42	U	0.41	0.41	UL	0.39	0.39	U	0.4	0.4	UL
Benzaldehyde	100,000	--		0.38	0.38	U	0.4	0.4	U	0.42	0.42	U	0.41	0.41	UL	0.39	0.39	U	0.4	0.4	UL
Benzidine	0.0075	--		0.77	0.77	UL	0.81	0.81	UL	0.85	0.85	UL	0.83	0.83	UL	0.8	0.8	UL	0.8	0.8	UL
Benzo[a]anthracene	2.1	--		0.038	0.038	U	0.04	0.04	U	0.042	0.042	U	0.041	0.041	UL	0.039	0.039	U	0.04	0.04	UL
Benzo[a]pyrene	0.21	--		0.038	0.038	U	0.04	0.04	U	0.042	0.042	U	0.041	0.041	UL	0.039	0.039	U	0.04	0.04	UL
Benzo[b]fluoranthene	2.1	--		0.038	0.038	U	0.04	0.04	U	0.042	0.042	U	0.041	0.041	UL	0.039	0.039	U	0.04	0.04	UL
Benzo[g,h,i]perylene	NA	--		0.038	0.038	U	0.04	0.04	U	0.042	0.042	U	0.041	0.041	UL	0.039	0.039	U	0.04	0.04	UL
Benzo[k]fluoranthene	21	--		0.038	0.038	U	0.04	0.04	U	0.042	0.042	U	0.041	0.041	UL	0.039	0.039	U	0.04	0.04	UL
Benzyl alcohol	310,000	--		0.38	0.38	U	0.4	0.4	U	0.42	0.42	U	0.41	0.41	UL	0.39	0.39	U	0.4	0.4	UL
Butyl benzyl phthalate	910	--		0.19	0.19	U	0.2	0.2	U	0.21	0.21	U	0.21	0.21	UL	0.2	0.2	U	0.2	0.2	UL
Bis(2-chloroethoxy)methane	1,800	--		0.19	0.19	U	0.2	0.2	U	0.21	0.21	U	0.21	0.21	UL	0.2	0.2	U	0.2	0.2	UL
Bis(2-chloroethyl)ether	0.9	--		0.19	0.19	U	0.2	0.2	U	0.21	0.21	U	0.21	0.21	UL	0.2	0.2	U	0.2	0.2	UL
Bis(2-ethylhexyl) phthalate	120	--		0.19	0.19	U	0.2	0.2	U	0.21	0.21	U	0.21	0.21	UL	0.2	0.2	U	0.2	0.2	UL
Caprolactam	310,000	--		0.38	0.38	UJ	0.4	0.4	UJ	0.42	0.42	UJ	0.41	0.41	UJ	0.39	0.39	UJ	0.4	0.4	UJ
Carbazole	NA	--		0.19	0.19	U	0.2	0.2	U	0.21	0.21	U	0.21	0.21	UL	0.2	0.2	U	0.2	0.2	UL
Chrysene	210	--		0.038	0.038	U	0.04	0.04	U	0.042	0.042	U	0.041	0.041	UL	0.039	0.039	U	0.04	0.04	UL
Dibenz(a,h)anthracene	0.21	--		0.038	0.038	U	0.04	0.04	U	0.042	0.042	U	0.041	0.041	UL	0.039	0.039	U	0.04	0.04	UL

Table 6 (continued)
AOPC-16 Pit Bottom Soil Analytical Data

Field ID / Date Collected	RSL [1,2]	Background	SSL[3]	BAOPC16-FL-01A 2.18.09			BAOPC16-FL-01B 2.18.09			BAOPC16-FL-02A 2.18.09			BAOPC16-FL-02B 2.18.09			BAOPC16-FL-03A 2.18.09			BAOPC16-FL-03B 2.18.09		
				Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
Dibenzofuran	NA	--		0.19	0.19	U	0.2	0.2	U	0.21	0.21	U	0.21	0.21	UL	0.2	0.2	U	0.2	0.2	UL
Diethyl phthalate	490,000	--		0.19	0.19	U	0.2	0.2	U	0.21	0.21	U	0.21	0.21	UL	0.2	0.2	U	0.2	0.2	UL
Dimethyl phthalate	NA	--		0.19	0.19	U	0.2	0.2	U	0.21	0.21	U	0.21	0.21	UL	0.2	0.2	U	0.2	0.2	UL
Di-n-butyl phthalate	NA	--		0.19	0.19	U	0.2	0.2	U	0.21	0.21	U	0.21	0.21	UL	0.2	0.2	U	0.2	0.2	UL
Di-n-octyl phthalate	NA	--		0.19	0.19	U	0.2	0.2	U	0.21	0.21	U	0.21	0.21	UL	0.2	0.2	U	0.2	0.2	UL
Fluoranthene	22,000	--		0.038	0.038	U	0.04	0.04	U	0.042	0.042	U	0.041	0.041	UL	0.039	0.039	U	0.04	0.04	UL
Fluorene	22,000	--		0.038	0.038	U	0.04	0.04	U	0.042	0.042	U	0.041	0.041	UL	0.039	0.039	U	0.04	0.04	UL
Hexachlorobenzene	1.1	--		0.077	0.077	U	0.081	0.081	U	0.085	0.085	U	0.083	0.083	UL	0.08	0.08	U	0.08	0.08	UL
Hexachlorobutadiene	22	--		0.19	0.19	U	0.2	0.2	U	0.21	0.21	U	0.21	0.21	UL	0.2	0.2	U	0.2	0.2	UL
Hexachlorocyclopentadiene	3,700	--		0.77	0.77	U	0.81	0.81	U	0.85	0.85	U	0.83	0.83	UL	0.8	0.8	U	0.8	0.8	UL
Hexachloroethane	120	--		0.19	0.19	UL	0.2	0.2	UL	0.21	0.21	UL	0.21	0.21	UL	0.2	0.2	UL	0.2	0.2	UL
Indeno[1,2,3-cd]pyrene	2.1	--		0.038	0.038	U	0.04	0.04	U	0.042	0.042	U	0.041	0.041	UL	0.039	0.039	U	0.04	0.04	UL
Isophorone	1,800	--		0.19	0.19	U	0.2	0.2	U	0.21	0.21	U	0.21	0.21	UL	0.2	0.2	U	0.2	0.2	UL
Naphthalene	20	--		0.038	0.038	U	0.04	0.04	U	0.042	0.042	U	0.041	0.041	UL	0.039	0.039	U	0.04	0.04	UL
Nitrobenzene	280	--		0.038	0.038	U	0.04	0.04	U	0.042	0.042	U	0.041	0.041	UL	0.039	0.039	U	0.04	0.04	UL
N-Nitrosodimethylamine	0.034	--		0.38	0.38	UJ	0.4	0.4	UJ	0.42	0.42	UJ	0.41	0.41	UJ	0.39	0.39	UJ	0.4	0.4	UJ
N-Nitrosodi-n-propylamine	0.25	--		0.19	0.19	U	0.2	0.2	U	0.21	0.21	U	0.21	0.21	UL	0.2	0.2	U	0.2	0.2	UL
N-Nitrosodiphenylamine	350	--		0.19	0.19	U	0.2	0.2	U	0.21	0.21	U	0.21	0.21	UL	0.2	0.2	U	0.2	0.2	UL
Phenanthrene	NA	--		0.038	0.038	U	0.04	0.04	U	0.042	0.042	U	0.041	0.041	UL	0.039	0.039	U	0.04	0.04	UL
Pyrene	17,000	--		0.038	0.038	U	0.04	0.04	U	0.042	0.042	U	0.041	0.041	UL	0.039	0.039	U	0.04	0.04	UL
Pyridine	1,000	--		0.77	0.77	UJ	0.81	0.81	UJ	0.85	0.85	UJ	0.83	0.83	UJ	0.8	0.8	UJ	0.8	0.8	UJ
2,4,5-Trichlorophenol	62,000	--		0.38	0.38	U	0.4	0.4	U	0.42	0.42	U	0.41	0.41	U	0.39	0.39	U	0.4	0.4	U
2,4,6-Trichlorophenol	620	--		0.38	0.38	U	0.4	0.4	U	0.42	0.42	U	0.41	0.41	U	0.39	0.39	U	0.4	0.4	U
2,4-Dichlorophenol	1,800	--		0.38	0.38	U	0.4	0.4	U	0.42	0.42	U	0.41	0.41	U	0.39	0.39	U	0.4	0.4	U
2,4-Dimethylphenol	12,000	--		0.38	0.38	U	0.4	0.4	U	0.42	0.42	U	0.41	0.41	U	0.39	0.39	U	0.4	0.4	U
2,4-Dinitrophenol	1,200	--		0.77	0.77	U	0.81	0.81	U	0.85	0.85	U	0.83	0.83	U	0.8	0.8	U	0.8	0.8	U
2,6-Dichlorophenol	NA	--		0.19	0.19	U	0.2	0.2	U	0.21	0.21	U	0.21	0.21	U	0.2	0.2	U	0.2	0.2	U
2-Chlorophenol	5,100	--		0.19	0.19	U	0.2	0.2	U	0.21	0.21	U	0.21	0.21	U	0.2	0.2	U	0.2	0.2	U
2-Methylphenol	NA	--		0.19	0.19	U	0.2	0.2	U	0.21	0.21	U	0.21	0.21	U	0.2	0.2	U	0.2	0.2	U
2-Nitrophenol	NA	--		0.38	0.38	U	0.4	0.4	U	0.42	0.42	U	0.41	0.41	U	0.39	0.39	U	0.4	0.4	U
4-Nitrophenol	NA	--		0.77	0.77	U	0.81	0.81	U	0.85	0.85	U	0.83	0.83	U	0.8	0.8	U	0.8	0.8	U
3 & 4 Methylphenol	NA	--		0.19	0.19	U	0.2	0.2	U	0.21	0.21	U	0.21	0.21	U	0.2	0.2	U	0.2	0.2	U
4,6-Dinitro-2-methylphenol	NA	--		0.38	0.38	U	0.4	0.4	U	0.42	0.42	U	0.41	0.41	U	0.39	0.39	U	0.4	0.4	U
4-Chloro-3-methylphenol	NA	--		0.38	0.38	U	0.4	0.4	U	0.42	0.42	U	0.41	0.41	U	0.39	0.39	U	0.4	0.4	U
Benzoic acid	2,500,000	--		1.9	1.9	UJ	2	2	UJ	2.1	2.1	UJ	2.1	2.1	UJ	2	2	UJ	2	2	UJ
Pentachlorophenol	9	--		0.77	0.77	U	0.81	0.81	U	0.85	0.85	U	0.83	0.83	U	0.8	0.8	U	0.8	0.8	U
Phenol	180,000	--		0.19	0.19	U	0.2	0.2	U	0.21	0.21	U	0.21	0.21	U	0.2	0.2	U	0.2	0.2	U
Explosives (mg/kg)																					
1,3,5-Trinitrobenzene	27,000	--		0.1	0.1	U	0.099	0.099	U	0.099	0.099	U	0.1	0.1	U	0.098	0.098	U	0.098	0.098	U
1,3-Dinitrobenzene	62	--		0.1	0.1	U	0.099	0.099	U	0.099	0.099	U	0.1	0.1	U	0.098	0.098	U	0.098	0.098	U
2,4,6-Trinitrotoluene	420	--		0.1	0.1	U	0.099	0.099	U	0.099	0.099	U	0.1	0.1	U	0.098	0.098	U	0.098	0.098	U
2,4-Dinitrotoluene	1,200	--	1.36	0.1	0.1	U	0.099	0.099	U	0.099	0.099	U	0.051	0.1	J	0.098	0.098	U	0.098	0.098	U
2,6-Dinitrotoluene	620	--		0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U
2,4/2,6-Dinitrotoluene mixture	2.5	--	0.00186	0.2		U	0.2		U	0.2		U	0.051		J	0.2		U	0.2		U
2-Amino-4,6-dinitrotoluene	2,000	--		0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U
2-Nitrotoluene	13	--		0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U
3-Nitrotoluene	NA	--		0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U
4-Amino-2,6-dinitrotoluene	1,900	--		0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U

Table 6 (continued)
AOPC-16 Pit Bottom Soil Analytical Data

Field ID / Date Collected	RSL [1,2]	Background	SSL[3]	BAOPC16-FL-01A 2.18.09			BAOPC16-FL-01B 2.18.09			BAOPC16-FL-02A 2.18.09			BAOPC16-FL-02B 2.18.09			BAOPC16-FL-03A 2.18.09			BAOPC16-FL-03B 2.18.09		
				Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
4-Nitrotoluene	NA	--		0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U
HMX	49,000	--		0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U
Nitrobenzene	280	--		0.1	0.1	U	0.099	0.099	U	0.099	0.099	U	0.1	0.1	U	0.098	0.098	U	0.098	0.098	U
Tetryl	2,500	--		0.25	0.25	U	0.25	0.25	U	0.25	0.25	U	0.25	0.25	U	0.24	0.24	U	0.25	0.25	U
RDX	24	--		0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U
MNX	NA	--		0.1	0.1	U	0.099	0.099	U	0.099	0.099	U	0.1	0.1	U	0.098	0.098	U	0.098	0.098	U
DNX	NA	--		0.12	0.12	U	0.12	0.12	U	0.12	0.12	U	0.12	0.12	U	0.12	0.12	U	0.12	0.12	U
TNX	NA	--		0.12	0.12	U	0.12	0.12	U	0.12	0.12	U	0.12	0.12	U	0.12	0.12	U	0.12	0.12	U
Metals (mg/kg)																					
Aluminum	990,000	NA	1,100,000	8,300	22		7,100	24		11,000	24		10,000	22		10,000	22		12,000	23	
Antimony	410	NA	5.4	2.2	2.2	UL	2.4	2.4	UL	2.4	2.4	UL	2.2	2.2	UL	0.43	2.2	J	2.3	2.3	UL
Arsenic	1.6	7.3	5.8	1.3	1.1		1.9	1.2		1.9	1.2		1.7	1.1		1.8	1.1		1.4	1.2	
Barium	190,000	112	1,640	14	1.4		23	1.5		33	1.6		29	1.4		23	1.5		22	1.5	
Beryllium	2,000	NA	64	0.53	0.43		0.41	0.47	J	0.45	0.49	J	0.44	0.44		0.46	0.45		0.55	0.46	
Cadmium	810	2	7.6	0.24	0.22		0.43	0.24		0.51	0.24		0.58	0.22		0.32	0.22		0.29	0.23	
Calcium	NA	NA	NA	110	11	J	160	12	J	210	12	J	240	11	J	230	11	J	260	12	J
Chromium	200	80.8	42	3.4	1.1		5.4	1.2		7.9	1.2		8.2	1.1		6.7	1.1		6.7	1.2	
Cobalt	300	NA	9.8	1.6	0.54		3.2	0.59		2.1	0.61		2.1	0.54		2.3	0.56		2.2	0.58	
Copper	41,000	NA	920	2.5	1.5		5.9	1.6		6.9	1.7		9.5	1.5		9.5	1.6		5.5	1.6	
Iron	720,000	NA	12,800	5,300	12		5,900	13		8,800	13		9,100	12		15,000	12		8,400	13	
Lead	800	107	280	11	0.87	J	20	0.94	J	11	0.98	J	10	0.87	J	11	0.9	J	10	0.93	J
Magnesium	NA	NA	NA	170	11	J	280	12	J	400	12	J	430	11	J	330	11	J	320	12	J
Manganese	23,000	NA	1,140	25	1.1		37	1.2		48	1.2		51	1.1		81	1.1		73	1.2	
Mercury	310	0.4	2	0.0082	0.025	J	0.0095	0.025	J	0.019	0.026	J	0.036	0.026		0.016	0.025	J	0.015	0.026	J
Nickel	20,000	NA	960	1.4	1.4	J	2.3	1.5		3.3	1.6		3.3	1.4		2.7	1.5		2.4	1.5	
Potassium	NA	NA	NA	820	54	K	790	59	K	460	61	K	430	54	K	330	56	K	400	58	K
Selenium	5,100	NA		1.3	1.3	U	1.4	1.4	U	1.5	1.5	U	1.3	1.3	U	1.3	1.3	U	1.4	1.4	U
Silver	5,100	0.58		0.54	0.54	U	0.59	0.59	U	0.61	0.61	U	0.54	0.54	U	0.56	0.56	U	0.58	0.58	U
Sodium	NA	NA		110	110	U	120	120	U	120	120	U	110	110	U	110	110	U	120	120	U
Thallium	66	NA		1.6	1.6	U	1.8	1.8	U	1.8	1.8	U	1.6	1.6	U	1.7	1.7	U	1.7	1.7	U
Vanadium	7,200	NA	5,200	7.1	0.65		9.4	0.71		14	0.73		14	0.65		13	0.67		12	0.7	
Zinc	310,000	NA	13,600	11	2.2	J	20	2.4	J	32	2.4	J	31	2.2	J	64	2.2	J	22	2.3	J
General Chemistry																					
pH	NA	NA	NA	NA			NA			NA			NA			NA			NA		

Notes:
Samples analyzed by TestAmerica in Chicago, IL
[1] September 2008 Industrial Soil RSL Table
[2] Chromium RSL is for Cr6
[3] SSLs for detected analytes only, based on DAF=20
-- = No Background Data Available
UL = Undetected Low Bias
NA = not applicable
Qual = Qualifier
SSL = Soil Screening Level
SVOC = semivolatile organic compounds
ID = identification
HMX = Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
RDX = 1,3,5-Trinitroperhydro-1,3,5-triazine
MNX = hexahydro-1-nitroso-3,5-dinitro-1,3,5-triazine
DNX = 3,4-dinitrophenol
TNX = hexahydro-1,3,5-trinitroso-1,3,5-triazine

= Compound detected
mg/kg = milligram per kilogram
J = Estimated
U = Non-detect
UJ = Estimated Non-detect
K = unknown bias
RL = Reporting Limit
RSL = Regional Screening Level
VOC = volatile organic compounds
AOPC = area of potential concern

Source: HydroGeoLogic, Inc, 2009. Final Investigation Summary Report, Area of Potential Concern 16 (AOPC-16), Engineering Proving Ground, Fort Belvoir, Virginia.

Table 7
AOPC-16 Pit Sidewall Soil Analytical Data

Field ID / Date Collected	RSL [1,2]	Background	SSL [3]	A16-SWE-15-01 11.07.2008			A16-SWE-15-01A 11.10.2008			A16-SWN05-01 11.10.2008			A16-SWN05-02 11.10.2008			A16-DUP-01 11.10.2008			BAOPC16-SBSWN15-01 2.18.09			BAOPC16-DUP01-021809 2.18.09			A16-SWN15-02 11.10.2008		
				Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
VOCs (mg/kg)																											
1,1,1-Trichloroethane	39,000	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
1,1,2,2-Tetrachloroethane	2.9	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
1,1,2-Trichloro-1,2,2-trifluoroethane	180,000	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
1,1,2-Trichloroethane	5.5	--		0.0069	0.0069	U	NA			0.0096	0.0096	U	0.0067	0.0067	U	0.0069	0.0069	U	0.0071	0.0071	U	0.0069	0.0069	U	0.0092	0.0092	U
1,1-Dichloroethane	17.00	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
1,1-Dichloroethene	1,100	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
1,2,4-Trichlorobenzene	400.00	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
1,2-Dibromo-3-Chloropropane	0.073	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
1,2-Dibromoethane	0.17	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
1,2-Dichlorobenzene	10,000	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
1,2-Dichloroethane	2.2	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
1,2-Dichloropropane	4.7	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
1,3-Dichlorobenzene	NA	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
1,4-Dichlorobenzene	13	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
2-Butanone (MEK)	190,000	--		0.0069	0.0069	UJ	NA			0.0096	0.0096	U	0.0067	0.0067	U	0.0069	0.0069	U	0.0071	0.0071	U	0.0069	0.0069	U	0.0092	0.0092	U
2-Hexanone	NA	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
4-Methyl-2-pentanone (MIBK)	52,000	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
Acetone	610,000	--	88	0.013	0.013	UJ	NA			0.018	0.018	U	0.012	0.012	U	0.009	0.013	J	0.013	0.013	U	0.013	0.013	U	0.017	0.017	U
Benzene	5.6	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
Bromodichloromethane	46	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
Bromoform	220	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
Bromomethane	35	--		0.0085	0.0085	U	NA			0.012	0.012	U	0.0082	0.0082	U	0.0085	0.0085	U	0.0087	0.0087	U	0.0084	0.0084	U	0.011	0.011	U
Carbon disulfide	3,000	--		0.0064	0.0064	UJ	NA			0.0089	0.0089	UJ	0.0062	0.0062	UJ	0.0064	0.0064	UJ	0.0066	0.0066	UJ	0.0064	0.0064	UJ	0.0085	0.0085	UJ
Carbon tetrachloride	1.3	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
Chlorobenzene	1,500	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
Chloroethane	NA	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
Chloroform	1.5	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
Chloromethane	8.4	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
cis-1,2-Dichloroethene	10,000	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
cis-1,3-Dichloropropene	NA	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
Cyclohexane	30,000	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
Dibromochloromethane	21	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
Dichlorodifluoromethane	780	--		0.0077	0.0077	U	NA			0.011	0.011	UJ	0.0074	0.0074	UJ	0.0077	0.0077	UJ	0.0079	0.0079	UJ	0.0077	0.0077	UJ	0.01	0.01	UJ
Ethylbenzene	29	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
Isopropylbenzene	NA	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
m&p-Xylene	NA	--		0.013	0.013	U	NA			0.018	0.018	U	0.012	0.012	U	0.013	0.013	U	0.013	0.013	U	0.013	0.013	U	0.017	0.017	U
Methyl acetate	1,000,000	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
Methyl tert-butyl ether	190	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
Methylcyclohexane	NA	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
Methylene Chloride	54	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
o-Xylene	23,000	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
Styrene	38,000	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
Tetrachloroethene	2.7	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
Toluene	46,000	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
trans-1,2-Dichloroethene	500	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	UJ	0.0064	0.0064	UJ	0.0085	0.0085	U

Table 7 (continued)
AOPC-16 Pit Sidewall Soil Analytical Data

Field ID / Date Collected	RSL [1,2]	Background	SSL [3]	A16-SWE-15-01 11.07.2008			A16-SWE-15-01A 11.10.2008			A16-SWN05-01 11.10.2008			A16-SWN05-02 11.10.2008			A16-DUP-01 11.10.2008			BAOPC16-SBSWN15-01 2.18.09			BAOPC16-DUP01-021809 2.18.09			A16-SWN15-02 11.10.2008		
				Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
trans-1,3-Dichloropropene	NA	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
Trichloroethene	14	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
Trichlorofluoromethane	3,400	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	U	0.0064	0.0064	U	0.0085	0.0085	U
Vinyl chloride	1.7	--		0.0064	0.0064	U	NA			0.0089	0.0089	U	0.0062	0.0062	U	0.0064	0.0064	U	0.0066	0.0066	UJ	0.0064	0.0064	UJ	0.0085	0.0085	U
Xylenes, Total	2,600			0.013	0.013	U	NA			0.018	0.018	U	0.012	0.012	U	0.013	0.013	U	0.013	0.013	U	0.013	0.013	U	0.017	0.017	U
SVOCs (mg/kg)																											
1,1'-Biphenyl	51,000	--		NA			0.19	0.19	U	0.2	0.2	U	0.18	0.18	U	0.18	0.18	U	0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
1,2,4-Trichlorobenzene	400	--		NA			0.19	0.19	UL	0.2	0.2	UL	0.18	0.18	UL	0.18	0.18	UL	0.19	0.19	U	0.19	0.19	U	0.19	0.19	UL
1,2-Dichlorobenzene	10,000	--		NA			0.19	0.19	UL	0.2	0.2	UL	0.18	0.18	UL	0.18	0.18	UL	0.19	0.19	UL	0.19	0.19	UL	0.19	0.19	UL
1,2-Diphenylhydrazine	2.2	--		NA			0.19	0.19	UL	0.2	0.2	U	0.18	0.18	U	0.18	0.18	U	0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
1,3-Dichlorobenzene	NA	--		NA			0.19	0.19	UL	0.2	0.2	UL	0.18	0.18	UL	0.18	0.18	UL	0.19	0.19	UL	0.19	0.19	UL	0.19	0.19	UL
1,4-Dichlorobenzene	13	--		NA			0.19	0.19	UL	0.2	0.2	UL	0.18	0.18	UL	0.18	0.18	UL	0.19	0.19	U	0.19	0.19	U	0.19	0.19	UL
1,4-Dioxane	160	--		NA			0.76	0.76	UL	0.78	0.78	U	0.74	0.74	U	0.73	0.73	U	0.75	0.75	UJ	0.77	0.77	UJ	0.77	0.77	U
2,2'-oxybis[1-chloropropane]	NA	--		NA			0.19	0.19	UL	0.2	0.2	U	0.18	0.18	U	0.18	0.18	U	0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
2,4-Dinitrotoluene	1,200	--	1.36	NA			0.19	0.19	UL	0.072	0.2	J	0.13	0.18	J	0.17	0.18	J	0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
2,6-Dinitrotoluene	620	--	0.68	NA			0.19	0.19	UL	0.2	0.2	U	0.029	0.18	J	0.033	0.18	J	0.19	0.19	U	0.19	0.19	U	0.031	0.19	J
2,4/2,6-Dinitrotoluene mixture	2.5	--	0.00186	NA			0.19		UL	0.072		J	0.159		J	0.203		J	0.19		U	0.19		U	0.031		J
2-Chloronaphthalene	NA	--		NA			0.19	0.19	UL	0.2	0.2	U	0.18	0.18	U	0.18	0.18	U	0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
2-Methylnaphthalene	4,100	--		NA			0.19	0.19	UL	0.2	0.2	UL	0.18	0.18	UL	0.18	0.18	UL	0.19	0.19	U	0.19	0.19	U	0.19	0.19	UL
2-Nitroaniline	NA	--		NA			0.19	0.19	UL	0.2	0.2	U	0.18	0.18	U	0.18	0.18	U	0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
3,3'-Dichlorobenzidine	3.8	--		NA			0.19	0.19	UL	0.2	0.2	U	0.18	0.18	U	0.18	0.18	U	0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
3-Nitroaniline	82	--		NA			0.37	0.37	UL	0.39	0.39	U	0.36	0.36	U	0.36	0.36	U	0.37	0.37	U	0.38	0.38	U	0.38	0.38	U
4-Bromophenyl phenyl ether	NA	--		NA			0.19	0.19	UL	0.2	0.2	U	0.18	0.18	U	0.18	0.18	U	0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
4-Chloroaniline	NA	--		NA			0.76	0.76	UL	0.78	0.78	U	0.74	0.74	U	0.73	0.73	U	0.75	0.75	U	0.77	0.77	U	0.77	0.77	U
4-Chlorophenyl phenyl ether	NA	--		NA			0.19	0.19	UL	0.2	0.2	U	0.18	0.18	U	0.18	0.18	U	0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
4-Nitroaniline	82	--		NA			0.37	0.37	UL	0.39	0.39	U	0.36	0.36	U	0.36	0.36	U	0.37	0.37	U	0.38	0.38	U	0.38	0.38	U
Acenaphthene	33,000	--		NA			0.037	0.037	UL	0.039	0.039	U	0.036	0.036	U	0.036	0.036	U	0.037	0.037	U	0.038	0.038	U	0.038	0.038	U
Acenaphthylene	NA	--		NA			0.037	0.037	UL	0.039	0.039	U	0.036	0.036	U	0.036	0.036	U	0.037	0.037	U	0.038	0.038	U	0.038	0.038	U
Acetophenone	100,000	--		NA			0.37	0.37	UJ	0.39	0.39	UJ	0.36	0.36	UJ	0.36	0.36	UJ	0.37	0.37	U	0.38	0.38	U	0.38	0.38	UJ
Aniline	300	--		NA			0.76	0.76	UL	0.78	0.78	U	0.74	0.74	U	0.73	0.73	U	0.75	0.75	UL	0.77	0.77	UL	0.77	0.77	U
Anthracene	170,000	--		NA			0.037	0.037	UL	0.039	0.039	U	0.036	0.036	U	0.036	0.036	U	0.037	0.037	U	0.038	0.038	U	0.038	0.038	U
Atrazine	7.5	--		NA			0.37	0.37	UL	0.39	0.39	UL	0.36	0.36	UL	0.36	0.36	UL	0.37	0.37	U	0.38	0.38	U	0.38	0.38	UL
Benzaldehyde	100,000	--		NA			0.37	0.37	UL	0.39	0.39	UL	0.36	0.36	UL	0.36	0.36	UL	0.37	0.37	U	0.38	0.38	U	0.38	0.38	UL
Benzidine	0.0075	--		NA			0.76	0.76	UL	0.78	0.78	UL	0.74	0.74	UL	0.73	0.73	UL	0.75	0.75	UL	0.77	0.77	UL	0.77	0.77	UL
Benzo[a]anthracene	2.1	--		NA			0.037	0.037	UL	0.039	0.039	U	0.036	0.036	U	0.036	0.036	U	0.037	0.037	U	0.038	0.038	U	0.038	0.038	U
Benzo[a]pyrene	0.21	--		NA			0.037	0.037	UL	0.039	0.039	U	0.036	0.036	U	0.036	0.036	U	0.037	0.037	U	0.038	0.038	U	0.038	0.038	U
Benzo[b]fluoranthene	2.1	--		NA			0.037	0.037	UL	0.039	0.039	U	0.036	0.036	U	0.036	0.036	U	0.037	0.037	U	0.038	0.038	U	0.038	0.038	U
Benzo[g,h,i]perylene	NA	--		NA			0.037	0.037	UL	0.039	0.039	U	0.036	0.036	U	0.036	0.036	U	0.037	0.037	U	0.038	0.038	U	0.038	0.038	U
Benzo[k]fluoranthene	21	--		NA			0.037	0.037	UL	0.039	0.039	U	0.036	0.036	U	0.036	0.036	U	0.037	0.037	U	0.038	0.038	U	0.038	0.038	U
Benzyl alcohol	310,000	--		NA			0.37	0.37	UL	0.39	0.39	U	0.36	0.36	U	0.36	0.36	U	0.37	0.37	U	0.38	0.38	U	0.38	0.38	U
Butyl benzyl phthalate	910	--		NA			0.19	0.19	UL	0.2	0.2	U	0.18	0.18	U	0.18	0.18	U	0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
Bis(2-chloroethoxy)methane	1,800	--		NA			0.19	0.19	UL	0.2	0.2	U	0.18	0.18	U	0.18	0.18	U	0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
Bis(2-chloroethyl)ether	0.9	--		NA			0.19	0.19	UJ	0.2	0.2	UJ	0.18	0.18	UJ	0.18	0.18	UJ	0.19	0.19	U	0.19	0.19	U	0.19	0.19	UJ
Bis(2-ethylhexyl) phthalate	120	--		NA			0.19	0.19	UL	0.2	0.2	U	0.18	0.18	U	0.18	0.18	U	0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
Caprolactam	310,000	--		NA			0.37	0.37	UJ	0.39	0.39	UJ	0.36	0.36	UJ	0.36	0.36	UJ	0.37	0.37	UJ	0.38	0.38	UJ	0.38	0.38	UJ
Carbazole	NA	--		NA			0.19	0.19	UL	0.2	0.2	U	0.18	0.18	U	0.18	0.18	U	0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
Chrysene	210	--	28	NA			0.037	0.037	UL	0.039	0.039	U	0.0092	0.036	J	0.036	0.036	U	0.037	0.037	U	0.038	0.038	U	0.038	0.038	U
Dibenz(a,h)anthracene	0.21	--		NA			0.037	0.037	UL	0.039	0.039	U	0.036	0.036	U	0.036	0.036	U	0.037	0.037	U	0.038	0.038	U	0.038	0.038	U

Table 7 (continued)
AOPC-16 Pit Sidewall Soil Analytical Data

Field ID / Date Collected	RSL [1,2]	Background	SSL [3]	A16-SWE-15-01 11.07.2008			A16-SWE-15-01A 11.10.2008			A16-SWN05-01 11.10.2008			A16-SWN05-02 11.10.2008			A16-DUP-01 11.10.2008			BAOPC16-SBSWN15-01 2.18.09			BAOPC16-DUP01-021809 2.18.09			A16-SWN15-02 11.10.2008		
				Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
Dibenzofuran	NA	--		NA			0.19	0.19	UL	0.2	0.2	U	0.18	0.18	U	0.18	0.18	U	0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
Diethyl phthalate	490,000	--		NA			0.19	0.19	UL	0.2	0.2	U	0.18	0.18	U	0.18	0.18	U	0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
Dimethyl phthalate	NA	--		NA			0.19	0.19	UL	0.2	0.2	U	0.18	0.18	U	0.18	0.18	U	0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
Di-n-butyl phthalate	NA	--	NA	NA			0.19	0.19	UL	0.2	0.2	U	0.18	0.18	U	0.18	0.18	U	0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
Di-n-octyl phthalate	NA	--		NA			0.19	0.19	UL	0.2	0.2	U	0.18	0.18	U	0.18	0.18	U	0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
Fluoranthene	22,000	--		NA			0.037	0.037	UL	0.039	0.039	U	0.036	0.036	U	0.036	0.036	U	0.037	0.037	U	0.038	0.038	U	0.038	0.038	U
Fluorene	22,000	--		NA			0.037	0.037	UL	0.039	0.039	U	0.036	0.036	U	0.036	0.036	U	0.037	0.037	U	0.038	0.038	U	0.038	0.038	U
Hexachlorobenzene	1.1	--		NA			0.076	0.076	UL	0.078	0.078	U	0.074	0.074	U	0.073	0.073	U	0.075	0.075	U	0.077	0.077	U	0.077	0.077	U
Hexachlorobutadiene	22	--		NA			0.19	0.19	UL	0.2	0.2	UL	0.18	0.18	UL	0.18	0.18	UL	0.19	0.19	U	0.19	0.19	U	0.19	0.19	UL
Hexachlorocyclopentadiene	3,700	--		NA			0.76	0.76	UL	0.78	0.78	UL	0.74	0.74	UL	0.73	0.73	UL	0.75	0.75	U	0.77	0.77	U	0.77	0.77	UL
Hexachloroethane	120	--		NA			0.19	0.19	UL	0.2	0.2	UL	0.18	0.18	UL	0.18	0.18	UL	0.19	0.19	UL	0.19	0.19	UL	0.19	0.19	UL
Indeno[1,2,3-cd]pyrene	2.1	--		NA			0.037	0.037	UL	0.039	0.039	U	0.036	0.036	U	0.036	0.036	U	0.037	0.037	U	0.038	0.038	U	0.038	0.038	U
Isophorone	1,800	--		NA			0.19	0.19	UL	0.2	0.2	U	0.18	0.18	U	0.18	0.18	U	0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
Naphthalene	20	--		NA			0.037	0.037	UL	0.039	0.039	UL	0.036	0.036	UL	0.036	0.036	UL	0.037	0.037	U	0.038	0.038	U	0.038	0.038	UL
Nitrobenzene	280	--		NA			0.037	0.037	UL	0.039	0.039	U	0.036	0.036	U	0.036	0.036	U	0.037	0.037	U	0.038	0.038	U	0.038	0.038	U
N-Nitrosodimethylamine	0.034	--		NA			0.37	0.37	UJ	0.39	0.39	UJ	0.36	0.36	UJ	0.36	0.36	UJ	0.37	0.37	UJ	0.38	0.38	UJ	0.38	0.38	UJ
N-Nitrosodi-n-propylamine	0.25	--		NA			0.19	0.19	UL	0.2	0.2	U	0.18	0.18	U	0.18	0.18	U	0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
N-Nitrosodiphenylamine	350	--		NA			0.19	0.19	UL	0.2	0.2	U	0.18	0.18	U	0.18	0.18	U	0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
Phenanthrene	NA	--		NA			0.037	0.037	UL	0.039	0.039	U	0.036	0.036	U	0.036	0.036	U	0.037	0.037	U	0.038	0.038	U	0.038	0.038	U
Pyrene	17,000	--		NA			0.037	0.037	UL	0.039	0.039	U	0.036	0.036	U	0.036	0.036	U	0.037	0.037	U	0.038	0.038	U	0.038	0.038	U
Pyridine	1,000	--		NA			0.76	0.76	UJ	0.78	0.78	UJ	0.74	0.74	UJ	0.73	0.73	UJ	0.75	0.75	UJ	0.77	0.77	UJ	0.77	0.77	UJ
2,4,5-Trichlorophenol	62,000	--		NA			0.37	0.37	U	0.39	0.39	U	0.36	0.36	U	0.36	0.36	U	0.37	0.37	U	0.38	0.38	U	0.38	0.38	U
2,4,6-Trichlorophenol	620	--		NA			0.37	0.37	U	0.39	0.39	U	0.36	0.36	U	0.36	0.36	U	0.37	0.37	U	0.38	0.38	U	0.38	0.38	U
2,4-Dichlorophenol	1,800	--		NA			0.37	0.37	U	0.39	0.39	U	0.36	0.36	U	0.36	0.36	U	0.37	0.37	U	0.38	0.38	U	0.38	0.38	U
2,4-Dimethylphenol	12,000	--		NA			0.37	0.37	U	0.39	0.39	U	0.36	0.36	U	0.36	0.36	U	0.37	0.37	U	0.38	0.38	U	0.38	0.38	U
2,4-Dinitrophenol	1,200	--		NA			0.76	0.76	U	0.78	0.78	U	0.74	0.74	U	0.73	0.73	U	0.75	0.75	U	0.77	0.77	U	0.77	0.77	U
2,6-Dichlorophenol	NA	--		NA			0.19	0.19	U	0.2	0.2	U	0.18	0.18	U	0.18	0.18	U	0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
2-Chlorophenol	5,100	--		NA			0.19	0.19	U	0.2	0.2	U	0.18	0.18	U	0.18	0.18	U	0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
2-Methylphenol	NA	--		NA			0.19	0.19	U	0.2	0.2	U	0.18	0.18	U	0.18	0.18	U	0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
2-Nitrophenol	NA	--		NA			0.37	0.37	U	0.39	0.39	U	0.36	0.36	U	0.36	0.36	U	0.37	0.37	U	0.38	0.38	U	0.38	0.38	U
4-Nitrophenol	NA	--		NA			0.76	0.76	U	0.78	0.78	U	0.74	0.74	U	0.73	0.73	U	0.75	0.75	U	0.77	0.77	U	0.77	0.77	U
3 & 4 Methylphenol	NA	--		NA			0.19	0.19	UJ	0.2	0.2	UJ	0.18	0.18	UJ	0.18	0.18	UJ	0.19	0.19	U	0.19	0.19	U	0.19	0.19	UJ
4,6-Dinitro-2-methylphenol	NA	--		NA			0.37	0.37	U	0.39	0.39	U	0.36	0.36	U	0.36	0.36	U	0.37	0.37	U	0.38	0.38	U	0.38	0.38	U
4-Chloro-3-methylphenol	NA	--		NA			0.37	0.37	U	0.39	0.39	U	0.36	0.36	U	0.36	0.36	U	0.37	0.37	U	0.38	0.38	U	0.38	0.38	U
Benzoic acid	2,500,000	--		NA			1.9	1.9	U	2	2	U	1.8	1.8	U	1.8	1.8	U	1.9	1.9	UJ	1.9	1.9	UJ	1.9	1.9	U
Pentachlorophenol	9	--		NA			0.76	0.76	U	0.78	0.78	U	0.74	0.74	U	0.73	0.73	U	0.75	0.75	U	0.77	0.77	U	0.77	0.77	U
Phenol	180,000	--		NA			0.19	0.19	U	0.2	0.2	U	0.18	0.18	U	0.18	0.18	U	0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
Explosives (mg/kg)																											
1,3,5-Trinitrobenzene	27,000	--		NA			0.099	0.099	U	0.099	0.099	U	0.1	0.1	U	0.099	0.099	U	0.1	0.1	U	0.098	0.098	U	0.1	0.1	U
1,3-Dinitrobenzene	62	--		NA			0.099	0.099	U	0.099	0.099	U	0.1	0.1	U	0.099	0.099	U	0.1	0.1	U	0.098	0.098	U	0.1	0.1	U
2,4,6-Trinitrotoluene	420	--		NA			0.099	0.099	U	0.099	0.099	U	0.1	0.1	U	0.099	0.099	U	0.1	0.1	U	0.098	0.098	U	0.1	0.1	U
2,4-Dinitrotoluene	1,200	--	1.36	NA			0.099	0.099	U	0.1	0.099	J	0.3	0.1	J	0.12	0.099	J	0.1	0.1	U	0.098	0.098	U	0.1	0.1	U
2,6-Dinitrotoluene	620	--		NA			0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U
2,4/2,6-Dinitrotoluene mixture	2.5	--	0.00186	NA			0.2		U	0.1		J	0.3		J	0.12		J	0.2		U	0.2		U	0.2		U
2-Amino-4,6-dinitrotoluene	2,000	--		NA			0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	UL
2-Nitrotoluene	13	--		NA			0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U
3-Nitrotoluene	NA	--		NA			0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U
4-Amino-2,6-dinitrotoluene	1,900	--		NA			0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U

Table 7 (continued)
AOPC-16 Pit Sidewall Soil Analytical Data

Field ID / Date Collected	RSL [1,2]	Background	SSL [3]	A16-SWE-15-01 11.07.2008			A16-SWE-15-01A 11.10.2008			A16-SWN05-01 11.10.2008			A16-SWN05-02 11.10.2008			A16-DUP-01 11.10.2008			BAOPC16-SBSWN15-01 2.18.09			BAOPC16-DUP01-021809 2.18.09			A16-SWN15-02 11.10.2008		
				Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
4-Nitrotoluene	NA	--		NA			0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U
HMX	49,000	--		NA			0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U
Nitrobenzene	280	--		NA			0.099	0.099	U	0.099	0.099	U	0.1	0.1	U	0.099	0.099	U	0.1	0.1	U	0.098	0.098	U	0.1	0.1	U
Tetryl	2,500	--		NA			0.25	0.25	U	0.25	0.25	U	0.25	0.25	U	0.25	0.25	U	0.25	0.25	U	0.25	0.25	U	0.25	0.25	U
RDX	24	--		NA			0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U	0.2	0.2	U
MNX	NA	--		NA			0.099	0.099	U	0.099	0.099	U	0.1	0.1	U	0.099	0.099	U	0.1	0.1	U	0.098	0.098	U	0.1	0.1	U
DNX	NA	--		NA			0.12	0.12	U	0.12	0.12	U	0.12	0.12	U	0.12	0.12	U	0.12	0.12	U	0.12	0.12	U	0.12	0.12	U
TNX	NA	--		NA			0.12	0.12	U	0.12	0.12	U	0.12	0.12	U	0.12	0.12	U	0.12	0.12	U	0.12	0.12	U	0.12	0.12	U
Metals (mg/kg)																											
Aluminum	990,000	NA	1,100,000	NA			12000	21		19000	23		8400	20		7600	19		12000	22		10000	20		7000	19	
Antimony	410	NA	5.4	NA			2.1	2.1	UL	2.3	2.3	UL	0.46	2	J	0.29	1.9	J	1	2.2	J	2	2	UL	1.9	1.9	UL
Arsenic	1.6	7.3	5.8	NA			1.3	1.1		2.9	1.1		2.1	1		1.9	0.96		2	1.1		1.7	1		0.8	0.97	J
Barium	190,000	112	1,640	NA			9.5	1.4	J	24	1.5	J	45	1.3	J	38	1.2	J	32	1.4		28	1.3		8.9	1.3	J
Beryllium	2,000	NA	64	NA			0.7	0.42		0.54	0.45		0.3	0.4	J	0.28	0.38	J	0.42	0.45	J	0.4	0.4		0.61	0.39	
Cadmium	810	2	7.6	NA			0.21	0.21	U	0.23	0.23	U	0.64	0.2	J	0.47	0.19	J	0.25	0.22		0.25	0.2		0.26	0.19	
Calcium	NA	NA	NA	NA			59	11	J	360	11	J	100	10	J	63	9.6	J	260	11	J	250	10	J	140	9.7	J
Chromium	200	80.8	42	NA			3.4	1.1		11	1.1		9.6	1		9	0.96		7.9	1.1		7.4	1		1.9	0.97	
Cobalt	300	NA	9.8	NA			1.1	0.53	J	1.3	0.56	J	4	0.5	J	4.3	0.48	J	1.8	0.56		1.7	0.5		0.75	0.48	J
Copper	41,000	NA	920	NA			1.7	1.5		3.5	1.6		4.1	1.4		3.9	1.3		5	1.6		6	1.4		1.2	1.4	J
Iron	720,000	NA	12,800	NA			5400	12	J	12000	12	J	8700	11	J	8500	11	J	9100	12		8100	11		3200	11	J
Lead	800	107	280	NA			5.9	0.84	J	6.7	0.9	J	11	0.8	J	10	0.77	J	7.6	0.89	J	9	0.81	J	6.3	0.77	J
Magnesium	NA	NA	NA	NA			160	11	J	400	11	J	560	10	J	510	9.6	J	440	11	J	400	10	J	140	9.7	J
Manganese	23,000	NA	1,140	NA			34	1.1		16	1.1		130	1		140	0.96		38	1.1		39	1		21	0.97	
Mercury	310	0.4	2	NA			0.024	0.024	U	0.015	0.024	J	0.021	0.022	J	0.016	0.023	J	0.03	0.023		0.026	0.023		0.023	0.023	U
Nickel	20,000	NA	960	NA			1.3	1.4	J	3.1	1.5		3.7	1.3		3.5	1.2		3.2	1.4		2.9	1.3		0.89	1.3	J
Potassium	NA	NA	NA	NA			170	53		440	56		350	50		360	48		350	56	K	320	50	K	360	48	
Selenium	5,100	NA		NA			1.3	1.3	U	1.4	1.4	U	1.2	1.2	U	1.2	1.2	U	1.3	1.3	U	1.2	1.2	U	1.2	1.2	U
Silver	5,100	0.58	32	NA			0.53	0.53	U	0.56	0.56	U	0.5	0.5	U	0.48	0.48	U	0.56	0.56	U	0.5	0.5	U	0.48	0.48	U
Sodium	NA	NA		NA			110	110	U	110	110	U	100	100	U	96	96	U	110	110	U	100	100	U	97	97	U
Thallium	66	NA		NA			1.6	1.6	U	1.7	1.7	U	1.5	1.5	U	1.4	1.4	U	1.7	1.7	U	1.5	1.5	U	1.4	1.4	U
Vanadium	7,200	NA	5,200	NA			8.4	0.63		22	0.68		16	0.6		15	0.58		15	0.67		13	0.61		4	0.58	
Zinc	310,000	NA	13,600	NA			4	2.1	J	7.5	2.3	J	22	2	J	19	1.9	J	16	2.2	J	21	2	J	13	1.9	J
General Chemistry																											
pH	NA	NA	NA	NA			4.90		J	4.67		J	4.56		J	4.58		J	NA			NA			5.38		J

Table 7 (continued)
AOPC-16 Pit Sidewall Soil Analytical Data

Field ID / Date Collected	RSL [1,2]	Background	SSL [3]	A16-SWS-05-01 11.7.2008			A16-SWS-05-02 11.07.2008			A16-SWS-05-02A 11.10.2008			A16-SWS15-01 11.07.2008			A16-SWS15-01A 11.10.2008			A16-SWS-15-02 11.07.2008			A16-SWS15-02A 11.10.2008			A16-SWW-15-01 11.7.2008		
				Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
VOCs (mg/kg)																											
1,1,1-Trichloroethane	39,000	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
1,1,2,2-Tetrachloroethane	2.9	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
1,1,2-Trichloro-1,2,2-trifluoroethane	180,000	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
1,1,2-Trichloroethane	5.5	--		0.0048	0.0048	U	0.0047	0.0047	U	NA			0.0073	0.0073	U	NA			0.0058	0.0058	U	NA			0.0064	0.0064	U
1,1-Dichloroethane	17.00	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
1,1-Dichloroethene	1,100	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
1,2,4-Trichlorobenzene	400.00	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
1,2-Dibromo-3-Chloropropane	0.073	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
1,2-Dibromoethane	0.17	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
1,2-Dichlorobenzene	10,000	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
1,2-Dichloroethane	2.2	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
1,2-Dichloropropane	4.7	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
1,3-Dichlorobenzene	NA	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
1,4-Dichlorobenzene	13	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
2-Butanone (MEK)	190,000	--		0.0048	0.0048	UJ	0.0047	0.0047	UJ	NA			0.0073	0.0073	UJ	NA			0.0058	0.0058	UJ	NA			0.0064	0.0064	UJ
2-Hexanone	NA	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
4-Methyl-2-pentanone (MIBK)	52,000	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
Acetone	610,000	--		0.0088	0.0088	UJ	0.0087	0.0087	UJ	NA			0.014	0.014	UJ	NA			0.011	0.011	UJ	NA			0.012	0.012	UJ
Benzene	5.6	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
Bromodichloromethane	46	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
Bromoform	220	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
Bromomethane	35	--		0.0058	0.0058	U	0.0058	0.0058	U	NA			0.009	0.009	U	NA			0.0071	0.0071	U	NA			0.0079	0.0079	U
Carbon disulfide	3,000	--		0.0044	0.0044	UJ	0.0044	0.0044	UJ	NA			0.0068	0.0068	UJ	NA			0.0054	0.0054	UJ	NA			0.006	0.006	UJ
Carbon tetrachloride	1.3	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
Chlorobenzene	1,500	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
Chloroethane	NA	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
Chloroform	1.5	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
Chloromethane	8.4	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
cis-1,2-Dichloroethene	10,000	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
cis-1,3-Dichloropropene	NA	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
Cyclohexane	30,000	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
Dibromochloromethane	21	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
Dichlorodifluoromethane	780	--		0.0053	0.0053	U	0.0052	0.0052	U	NA			0.0081	0.0081	U	NA			0.0064	0.0064	U	NA			0.0071	0.0071	U
Ethylbenzene	29	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
Isopropylbenzene	NA	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
m&p-Xylene	NA	--		0.0088	0.0088	U	0.0087	0.0087	U	NA			0.014	0.014	U	NA			0.011	0.011	U	NA			0.012	0.012	U
Methyl acetate	1,000,000	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
Methyl tert-butyl ether	190	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
Methylcyclohexane	NA	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
Methylene Chloride	54	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
o-Xylene	23,000	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
Styrene	38,000	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
Tetrachloroethene	2.7	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
Toluene	46,000	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
trans-1,2-Dichloroethene	500	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U

Table 7 (continued)
AOPC-16 Pit Sidewall Soil Analytical Data

Field ID / Date Collected	RSL [1,2]	Background	SSL [3]	A16-SWS-05-01 11.7.2008			A16-SWS-05-02 11.07.2008			A16-SWS-05-02A 11.10.2008			A16-SWS15-01 11.07.2008			A16-SWS15-01A 11.10.2008			A16-SWS-15-02 11.07.2008			A16-SWS15-02A 11.10.2008			A16-SWW-15-01 11.7.2008		
				Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
trans-1,3-Dichloropropene	NA	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
Trichloroethene	14	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
Trichlorofluoromethane	3,400	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
Vinyl chloride	1.7	--		0.0044	0.0044	U	0.0044	0.0044	U	NA			0.0068	0.0068	U	NA			0.0054	0.0054	U	NA			0.006	0.006	U
Xylenes, Total	2,600	--		0.0088	0.0088	U	0.0087	0.0087	U	NA			0.014	0.014	U	NA			0.011	0.011	U	NA			0.012	0.012	U
SVOCs (mg/kg)																											
1,1'-Biphenyl	51,000	--		0.18	0.18	UL	NA			0.17	0.17	U	NA			0.17	0.17	U	NA			0.19	0.19	U	0.18	0.18	UJ
1,2,4-Trichlorobenzene	400	--		0.18	0.18	U	NA			0.17	0.17	UL	NA			0.17	0.17	UL	NA			0.19	0.19	UL	0.18	0.18	U
1,2-Dichlorobenzene	10,000	--		0.18	0.18	UL	NA			0.17	0.17	UL	NA			0.17	0.17	UL	NA			0.19	0.19	UL	0.18	0.18	U
1,2-Diphenylhydrazine	2.2	--		0.18	0.18	U	NA			0.17	0.17	U	NA			0.17	0.17	UL	NA			0.19	0.19	U	0.18	0.18	U
1,3-Dichlorobenzene	NA	--		0.18	0.18	UL	NA			0.17	0.17	UL	NA			0.17	0.17	UL	NA			0.19	0.19	UL	0.18	0.18	U
1,4-Dichlorobenzene	13	--		0.18	0.18	UL	NA			0.17	0.17	UL	NA			0.17	0.17	UL	NA			0.19	0.19	UL	0.18	0.18	U
1,4-Dioxane	160	--		0.71	0.71	R	NA			0.68	0.68	U	NA			0.69	0.69	UL	NA			0.76	0.76	U	0.74	0.74	UJ
2,2'-oxybis[1-chloropropane]	NA	--		0.18	0.18	U	NA			0.17	0.17	U	NA			0.17	0.17	UL	NA			0.19	0.19	U	0.18	0.18	U
2,4-Dinitrotoluene	1,200	--	1.36	0.18	0.18	U	NA			0.17	0.17	U	NA			0.17	0.17	UL	NA			0.19	0.19	U	0.18	0.18	U
2,6-Dinitrotoluene	620	--	0.68	0.18	0.18	U	NA			0.17	0.17	U	NA			0.17	0.17	UL	NA			0.19	0.19	U	0.18	0.18	U
2,4/2,6-Dinitrotoluene mixture	2.5	--	0.00186	0.18		U	NA			0.17		U	NA			0.17		UL	NA			0.19		U	0.18		U
2-Chloronaphthalene	NA	--		0.18	0.18	U	NA			0.17	0.17	U	NA			0.17	0.17	UL	NA			0.19	0.19	U	0.18	0.18	U
2-Methylnaphthalene	4,100	--		0.18	0.18	U	NA			0.17	0.17	UL	NA			0.17	0.17	UL	NA			0.19	0.19	UL	0.18	0.18	U
2-Nitroaniline	NA	--		0.18	0.18	U	NA			0.17	0.17	U	NA			0.17	0.17	UL	NA			0.19	0.19	U	0.18	0.18	U
3,3'-Dichlorobenzidine	3.8	--		0.18	0.18	U	NA			0.17	0.17	U	NA			0.17	0.17	UL	NA			0.19	0.19	U	0.18	0.18	U
3-Nitroaniline	82	--		0.35	0.35	U	NA			0.34	0.34	U	NA			0.34	0.34	UL	NA			0.37	0.37	U	0.36	0.36	U
4-Bromophenyl phenyl ether	NA	--		0.18	0.18	U	NA			0.17	0.17	U	NA			0.17	0.17	UL	NA			0.19	0.19	U	0.18	0.18	U
4-Chloroaniline	NA	--		0.71	0.71	U	NA			0.68	0.68	U	NA			0.69	0.69	UL	NA			0.76	0.76	U	0.74	0.74	U
4-Chlorophenyl phenyl ether	NA	--		0.18	0.18	U	NA			0.17	0.17	U	NA			0.17	0.17	UL	NA			0.19	0.19	U	0.18	0.18	U
4-Nitroaniline	82	--		0.35	0.35	U	NA			0.34	0.34	U	NA			0.34	0.34	UL	NA			0.37	0.37	U	0.36	0.36	U
Acenaphthene	33,000	--		0.035	0.035	U	NA			0.034	0.034	U	NA			0.034	0.034	UL	NA			0.037	0.037	U	0.036	0.036	U
Acenaphthylene	NA	--		0.035	0.035	U	NA			0.034	0.034	U	NA			0.034	0.034	UL	NA			0.037	0.037	U	0.036	0.036	U
Acetophenone	100,000	--		0.35	0.35	UJ	NA			0.34	0.34	UJ	NA			0.34	0.34	UJ	NA			0.37	0.37	UJ	0.36	0.36	UJ
Aniline	300	--		0.71	0.71	U	NA			0.68	0.68	U	NA			0.69	0.69	UL	NA			0.76	0.76	U	0.74	0.74	U
Anthracene	170,000	--		0.035	0.035	U	NA			0.034	0.034	U	NA			0.034	0.034	UL	NA			0.037	0.037	U	0.036	0.036	U
Atrazine	7.5	--		0.35	0.35	UJ	NA			0.34	0.34	UL	NA			0.34	0.34	UL	NA			0.37	0.37	UL	0.36	0.36	UJ
Benzaldehyde	100,000	--		0.35	0.35	UJ	NA			0.34	0.34	UL	NA			0.34	0.34	UL	NA			0.37	0.37	UL	0.36	0.36	UJ
Benzidine	0.0075	--		0.71	0.71	UJ	NA			0.68	0.68	UL	NA			0.69	0.69	UL	NA			0.76	0.76	UL	0.74	0.74	UJ
Benzo[a]anthracene	2.1	--		0.035	0.035	U	NA			0.034	0.034	U	NA			0.034	0.034	UL	NA			0.037	0.037	U	0.036	0.036	U
Benzo[a]pyrene	0.21	--		0.035	0.035	U	NA			0.034	0.034	U	NA			0.034	0.034	UL	NA			0.037	0.037	U	0.036	0.036	U
Benzo[b]fluoranthene	2.1	--		0.035	0.035	U	NA			0.034	0.034	U	NA			0.034	0.034	UL	NA			0.037	0.037	U	0.036	0.036	U
Benzo[g,h,i]perylene	NA	--		0.035	0.035	U	NA			0.034	0.034	U	NA			0.034	0.034	UL	NA			0.037	0.037	U	0.036	0.036	U
Benzo[k]fluoranthene	21	--		0.035	0.035	UJ	NA			0.034	0.034	U	NA			0.034	0.034	UL	NA			0.037	0.037	U	0.036	0.036	U
Benzyl alcohol	310,000	--		0.35	0.35	U	NA			0.34	0.34	U	NA			0.34	0.34	UL	NA			0.37	0.37	U	0.36	0.36	U
Butyl benzyl phthalate	910	--		0.18	0.18	U	NA			0.17	0.17	U	NA			0.17	0.17	UL	NA			0.19	0.19	U	0.18	0.18	U
Bis(2-chloroethoxy)methane	1,800	--		0.18	0.18	U	NA			0.17	0.17	U	NA			0.17	0.17	UL	NA			0.19	0.19	U	0.18	0.18	U
Bis(2-chloroethyl)ether	0.9	--		0.18	0.18	UJ	NA			0.17	0.17	UJ	NA			0.17	0.17	UJ	NA			0.19	0.19	UJ	0.18	0.18	UJ
Bis(2-ethylhexyl) phthalate	120	--		0.18	0.18	UJ	NA			0.17	0.17	U	NA			0.17	0.17	UL	NA			0.19	0.19	U	0.18	0.18	U
Caprolactam	310,000	--		0.35	0.35	UJ	NA			0.34	0.34	UJ	NA			0.34	0.34	UJ	NA			0.37	0.37	UJ	0.36	0.36	UJ
Carbazole	NA	--		0.18	0.18	U	NA			0.17	0.17	U	NA			0.17	0.17	UL	NA			0.19	0.19	U	0.18	0.18	U
Chrysene	210	--	28	0.035	0.035	U	NA			0.034	0.034	U	NA			0.034	0.034	UL	NA			0.037	0.037	U	0.036	0.036	U
Dibenz(a,h)anthracene	0.21	--		0.035	0.035	U	NA			0.034	0.034	U	NA			0.034	0.034	UL	NA			0.037	0.037	U	0.036	0.036	U

Table 7 (continued)
AOPC-16 Pit Sidewall Soil Analytical Data

Field ID / Date Collected	RSL [1,2]	Background	SSL [3]	A16-SWS-05-01 11.7.2008			A16-SWS-05-02 11.07.2008			A16-SWS-05-02A 11.10.2008			A16-SWS15-01 11.07.2008			A16-SWS15-01A 11.10.2008			A16-SWS-15-02 11.07.2008			A16-SWS15-02A 11.10.2008			A16-SWW-15-01 11.7.2008		
				Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
Dibenzofuran	NA	--		0.18	0.18	U	NA			0.17	0.17	U	NA			0.17	0.17	UL	NA			0.19	0.19	U	0.18	0.18	U
Diethyl phthalate	490,000	--		0.18	0.18	U	NA			0.17	0.17	U	NA			0.17	0.17	UL	NA			0.19	0.19	U	0.18	0.18	U
Dimethyl phthalate	NA	--		0.18	0.18	U	NA			0.17	0.17	U	NA			0.17	0.17	UL	NA			0.19	0.19	U	0.18	0.18	U
Di-n-butyl phthalate	NA	--	NA	0.18	0.18	U	NA			0.022	0.17	J	NA			0.17	0.17	UL	NA			0.19	0.19	U	0.18	0.18	U
Di-n-octyl phthalate	NA	--		0.18	0.18	U	NA			0.17	0.17	U	NA			0.17	0.17	UL	NA			0.19	0.19	U	0.18	0.18	U
Fluoranthene	22,000	--		0.035	0.035	U	NA			0.034	0.034	U	NA			0.034	0.034	UL	NA			0.037	0.037	U	0.036	0.036	U
Fluorene	22,000	--		0.035	0.035	U	NA			0.034	0.034	U	NA			0.034	0.034	UL	NA			0.037	0.037	U	0.036	0.036	U
Hexachlorobenzene	1.1	--		0.071	0.071	U	NA			0.068	0.068	U	NA			0.069	0.069	UL	NA			0.076	0.076	U	0.074	0.074	U
Hexachlorobutadiene	22	--		0.18	0.18	U	NA			0.17	0.17	UL	NA			0.17	0.17	UL	NA			0.19	0.19	UL	0.18	0.18	U
Hexachlorocyclopentadiene	3,700	--		0.71	0.71	U	NA			0.68	0.68	UL	NA			0.69	0.69	UL	NA			0.76	0.76	UL	0.74	0.74	U
Hexachloroethane	120	--		0.18	0.18	UL	NA			0.17	0.17	UL	NA			0.17	0.17	UL	NA			0.19	0.19	UL	0.18	0.18	U
Indeno[1,2,3-cd]pyrene	2.1	--		0.035	0.035	U	NA			0.034	0.034	U	NA			0.034	0.034	UL	NA			0.037	0.037	U	0.036	0.036	U
Isophorone	1,800	--		0.18	0.18	U	NA			0.17	0.17	U	NA			0.17	0.17	UL	NA			0.19	0.19	U	0.18	0.18	U
Naphthalene	20	--		0.035	0.035	U	NA			0.034	0.034	UL	NA			0.034	0.034	UL	NA			0.037	0.037	UL	0.036	0.036	U
Nitrobenzene	280	--		0.035	0.035	U	NA			0.034	0.034	U	NA			0.034	0.034	UL	NA			0.037	0.037	U	0.036	0.036	U
N-Nitrosodimethylamine	0.034	--		0.35	0.35	U	NA			0.34	0.34	UJ	NA			0.34	0.34	UJ	NA			0.37	0.37	UJ	0.36	0.36	UJ
N-Nitrosodi-n-propylamine	0.25	--		0.18	0.18	U	NA			0.17	0.17	U	NA			0.17	0.17	UL	NA			0.19	0.19	U	0.18	0.18	UJ
N-Nitrosodiphenylamine	350	--		0.18	0.18	UJ	NA			0.17	0.17	U	NA			0.17	0.17	UL	NA			0.19	0.19	U	0.18	0.18	UJ
Phenanthrene	NA	--		0.035	0.035	U	NA			0.034	0.034	U	NA			0.034	0.034	UL	NA			0.037	0.037	U	0.036	0.036	U
Pyrene	17,000	--		0.035	0.035	U	NA			0.034	0.034	U	NA			0.034	0.034	UL	NA			0.037	0.037	U	0.036	0.036	U
Pyridine	1,000	--		0.71	0.71	UJ	NA			0.68	0.68	UJ	NA			0.69	0.69	UJ	NA			0.76	0.76	UJ	0.74	0.74	UJ
2,4,5-Trichlorophenol	62,000	--		0.35	0.35	U	NA			0.34	0.34	U	NA			0.34	0.34	U	NA			0.37	0.37	U	0.36	0.36	U
2,4,6-Trichlorophenol	620	--		0.35	0.35	U	NA			0.34	0.34	U	NA			0.34	0.34	U	NA			0.37	0.37	U	0.36	0.36	U
2,4-Dichlorophenol	1,800	--		0.35	0.35	U	NA			0.34	0.34	U	NA			0.34	0.34	U	NA			0.37	0.37	U	0.36	0.36	U
2,4-Dimethylphenol	12,000	--		0.35	0.35	U	NA			0.34	0.34	U	NA			0.34	0.34	U	NA			0.37	0.37	U	0.36	0.36	U
2,4-Dinitrophenol	1,200	--		0.71	0.71	UJ	NA			0.68	0.68	U	NA			0.69	0.69	U	NA			0.76	0.76	U	0.74	0.74	UJ
2,6-Dichlorophenol	NA	--		0.18	0.18	UJ	NA			0.17	0.17	U	NA			0.17	0.17	U	NA			0.19	0.19	U	0.18	0.18	UJ
2-Chlorophenol	5,100	--		0.18	0.18	U	NA			0.17	0.17	U	NA			0.17	0.17	U	NA			0.19	0.19	U	0.18	0.18	U
2-Methylphenol	NA	--		0.18	0.18	U	NA			0.17	0.17	U	NA			0.17	0.17	U	NA			0.19	0.19	U	0.18	0.18	U
2-Nitrophenol	NA	--		0.35	0.35	U	NA			0.34	0.34	U	NA			0.34	0.34	U	NA			0.37	0.37	U	0.36	0.36	U
4-Nitrophenol	NA	--		0.71	0.71	U	NA			0.68	0.68	U	NA			0.69	0.69	U	NA			0.76	0.76	U	0.74	0.74	U
3 & 4 Methylphenol	NA	--		0.18	0.18	U	NA			0.17	0.17	UJ	NA			0.17	0.17	UJ	NA			0.19	0.19	UJ	0.18	0.18	UJ
4,6-Dinitro-2-methylphenol	NA	--		0.35	0.35	U	NA			0.34	0.34	U	NA			0.34	0.34	U	NA			0.37	0.37	U	0.36	0.36	U
4-Chloro-3-methylphenol	NA	--		0.35	0.35	U	NA			0.34	0.34	U	NA			0.34	0.34	U	NA			0.37	0.37	U	0.36	0.36	U
Benzoic acid	2,500,000	--		1.8	1.8	U	NA			1.7	1.7	U	NA			1.7	1.7	UL	NA			1.9	1.9	U	1.8	1.8	UJ
Pentachlorophenol	9	--		0.71	0.71	U	NA			0.68	0.68	U	NA			0.69	0.69	U	NA			0.76	0.76	U	0.74	0.74	U
Phenol	180,000	--		0.18	0.18	U	NA			0.17	0.17	U	NA			0.17	0.17	U	NA			0.19	0.19	U	0.18	0.18	U
Explosives (mg/kg)																											
1,3,5-Trinitrobenzene	27,000	--		0.099	0.099	U	NA			0.1	0.1	U	NA			0.099	0.099	U	NA			0.099	0.099	U	0.1	0.1	U
1,3-Dinitrobenzene	62	--		0.099	0.099	U	NA			0.1	0.1	U	NA			0.099	0.099	U	NA			0.099	0.099	U	0.1	0.1	U
2,4,6-Trinitrotoluene	420	--		0.099	0.099	U	NA			0.1	0.1	U	NA			0.099	0.099	U	NA			0.099	0.099	U	0.1	0.1	U
2,4-Dinitrotoluene	1,200	--	1.36	0.099	0.099	U	NA			0.1	0.1	U	NA			0.099	0.099	U	NA			0.099	0.099	U	0.1	0.1	U
2,6-Dinitrotoluene	620	--		0.2	0.2	U	NA			0.2	0.2	U	NA			0.2	0.2	U	NA			0.2	0.2	U	0.2	0.2	U
2,4/2,6-Dinitrotoluene mixture	2.5	--	0.00186	0.2		U	NA			0.2		U	NA			0.2		U	NA			0.2		U	0.2		U
2-Amino-4,6-dinitrotoluene	2,000	--		0.2	0.2	U	NA			0.2	0.2	U	NA			0.2	0.2	U	NA			0.2	0.2	U	0.2	0.2	U
2-Nitrotoluene	13	--		0.2	0.2	U	NA			0.2	0.2	U	NA			0.2	0.2	U	NA			0.2	0.2	U	0.2	0.2	U
3-Nitrotoluene	NA	--		0.2	0.2	U	NA			0.2	0.2	U	NA			0.2	0.2	U	NA			0.2	0.2	U	0.2	0.2	U
4-Amino-2,6-dinitrotoluene	1,900	--		0.2	0.2	U	NA			0.2	0.2	U	NA			0.2	0.2	U	NA			0.2	0.2	U	0.2	0.2	U

Table 7 (continued)
AOPC-16 Pit Sidewall Soil Analytical Data

Field ID / Date Collected	RSL [1,2]	Background	SSL [3]	A16-SWS-05-01 11.7.2008			A16-SWS-05-02 11.07.2008			A16-SWS-05-02A 11.10.2008			A16-SWS15-01 11.07.2008			A16-SWS15-01A 11.10.2008			A16-SWS-15-02 11.07.2008			A16-SWS15-02A 11.10.2008			A16-SWW-15-01 11.7.2008		
				Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
4-Nitrotoluene	NA	--		0.2	0.2	U	NA			0.2	0.2	U	NA			0.2	0.2	U	NA			0.2	0.2	U	0.2	0.2	U
HMX	49,000	--		0.2	0.2	U	NA			0.2	0.2	U	NA			0.2	0.2	U	NA			0.2	0.2	U	0.2	0.2	U
Nitrobenzene	280	--		0.099	0.099	U	NA			0.1	0.1	U	NA			0.099	0.099	U	NA			0.099	0.099	U	0.1	0.1	U
Tetryl	2,500	--		0.25	0.25	U	NA			0.25	0.25	U	NA			0.25	0.25	U	NA			0.25	0.25	U	0.25	0.25	U
RDX	24	--		0.2	0.2	U	NA			0.2	0.2	U	NA			0.2	0.2	U	NA			0.2	0.2	U	0.2	0.2	U
MNX	NA	--		0.099	0.099	U	NA			0.1	0.1	U	NA			0.099	0.099	U	NA			0.099	0.099	U	0.1	0.1	U
DNX	NA	--		0.12	0.12	U	NA			0.12	0.12	U	NA			0.12	0.12	U	NA			0.12	0.12	U	0.12	0.12	U
TNX	NA	--		0.12	0.12	U	NA			0.12	0.12	U	NA			0.12	0.12	U	NA			0.12	0.12	U	0.12	0.12	U
Metals (mg/kg)																											
Aluminum	990,000	NA	1,100,000	7800	21		NA			8,000	20		NA			8,300	19		NA			11,000	23		12,000	20	
Antimony	410	NA	5.4	2.1	2.1	UL	NA			2	2	UL	NA			1.9	1.9	UL	NA			2.3	2.3	UL	2	2	UL
Arsenic	1.6	7.3	5.8	1.8	1.1		NA			1.6	0.98		NA			0.99	0.95		NA			1.6	1.1		1.5	1	
Barium	190,000	112	1,640	29	1.4		NA			22	1.3	J	NA			14	1.2	J	NA			22	1.5	J	27	1.3	
Beryllium	2,000	NA	64	0.27	0.42	J	NA			0.25	0.39	J	NA			0.38	0.38	J	NA			0.45	0.46	J	0.32	0.41	J
Cadmium	810	2	7.6	0.21	0.21	U	NA			0.2	0.2	U	NA			0.19	0.19	U	NA			0.11	0.23	J	0.2	0.2	U
Calcium	NA	NA	NA	84	11		NA			80	9.8	J	NA			300	9.5	J	NA			150	11	J	500	10	
Chromium	200	80.8	42	8.6	1.1		NA			7.7	0.98		NA			3.5	0.95		NA			7	1.1		6.1	1	
Cobalt	300	NA	9.8	2.2	0.53		NA			1.8	0.49	J	NA			3.9	0.48	J	NA			1.6	0.57	J	1	0.51	
Copper	41,000	NA	920	2.7	1.5		NA			4.7	1.4		NA			1.5	1.3		NA			7.5	1.6		2.3	1.4	
Iron	720,000	NA	12,800	8700	12		NA			8100	11	J	NA			5100	10	J	NA			10000	13	J	7200	11	
Lead	800	107	280	6	0.84	J	NA			6.7	0.79	J	NA			14	0.76	J	NA			11	0.91	J	6.2	0.81	J
Magnesium	NA	NA	NA	530	11	J	NA			350	9.8	J	NA			210	9.5	J	NA			360	11	J	410	10	J
Manganese	23,000	NA	1,140	39	1.1		NA			33	0.98		NA			84	0.95		NA			38	1.1		15	1	
Mercury	310	0.4	2	0.015	0.022	J	NA			0.0095	0.021	J	NA			0.022	0.022	U	NA			0.024	0.024	U	0.016	0.023	J
Nickel	20,000	NA	960	3.6	1.4		NA			3.1	1.3		NA			1.3	1.2		NA			2.5	1.5		2.4	1.3	
Potassium	NA	NA	NA	300	53	J	NA			240	49		NA			240	48		NA			330	57		280	51	J
Selenium	5,100	NA		1.3	1.3	U	NA			1.2	1.2	U	NA			1.1	1.1	U	NA			1.4	1.4	U	1.2	1.2	U
Silver	5,100	0.58	32	0.53	0.53	U	NA			0.49	0.49	U	NA			0.48	0.48	U	NA			0.19	0.57	J	0.51	0.51	U
Sodium	NA	NA		110	110	U	NA			98	98	U	NA			95	95	U	NA			110	110	U	100	100	U
Thallium	66	NA		1.6	1.6	UL	NA			1.5	1.5	U	NA			1.4	1.4	U	NA			1.7	1.7	U	1.5	1.5	UL
Vanadium	7,200	NA	5,200	15	0.63		NA			13	0.59		NA			7.6	0.57		NA			12	0.68		12	0.61	
Zinc	310,000	NA	13,600	12	2.1	J	NA			13	2	J	NA			3.7	1.9	J	NA			16	2.3	J	3.1	2	J
General Chemistry																											
pH	NA	NA	NA	5.08			NA			4.85		J	NA			5.17		J	NA			4.95		J	5.31		

Notes:
Samples analyzed by TestAmerica in Chicago, IL
[1] September 2008 Industrial Soil RSL Table
[2] Chromium RSL is for Cr6
[3] SSLs for detected analytes only, based on DAF=20
-- = No background data
NA = not applicable
RL = Reporting Limit
ID = identification
K = unknown bias
VOC = volatile organic compounds
SVOC = semivolatile organic compounds
HMX = Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
RDX = 1,3,5-Trinitroperhydro-1,3,5-triazine
MNX = hexahydro-1-nitroso-3,5-dinitro-1,3,5-triazine
DNX = 3,4-dinitrophenol
TNX = hexahydro-1,3,5-trinitroso-1,3,5-triazine

= Compound detected
mg/kg = milligram per kilogram
J = Estimated
U = Non-detect
UJ = Estimated Non-detect
UL = Undetected Low Biased
AOPC = area of potential concern

Qual = Qualifier
RSL = Regional Screening Level
SSL = Soil Screening Level

Source: HydroGeoLogic, Inc, 2009. Final Investigation Summary Report, Area of Potential Concern 16 (AOPC-16), Engineering Proving Ground, Fort Belvoir, Virginia.

Table 8
AOPC-16 Spoils Pile 2 Soil Analytical Data

Field ID Date Collected	RSL [1,2]	Background	SSL [3]	A16-WP-01 11/7/2008			A16-WP-02 11/7/2008			A16-WP-03 11/7/2008		
				Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
VOCs (mg/kg)												
1,1,1-Trichloroethane	39,000	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
1,1,2,2-Tetrachloroethane	2.9	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
1,1,2-Trichloro-1,2,2-trifluoroethane	180,000	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
1,1,2-Trichloroethane	5.5	--		0.0048	0.0048	U	0.0062	0.0062	U	0.0053	0.0053	U
1,1-Dichloroethane	17.00	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
1,1-Dichloroethene	1,100	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
1,2,4-Trichlorobenzene	400.00	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
1,2-Dibromo-3-Chloropropane	0.073	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
1,2-Dibromoethane	0.17	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
1,2-Dichlorobenzene	10,000	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
1,2-Dichloroethane	2.2	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
1,2-Dichloropropane	4.7	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
1,3-Dichlorobenzene	NA	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
1,4-Dichlorobenzene	13	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
2-Butanone (MEK)	190,000	--		0.0023	0.0048	U	0.0062	0.0062	UJ	0.0053	0.0053	UJ
2-Hexanone	NA	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
4-Methyl-2-pentanone (MIBK)	52,000	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
Acetone	610,000	--	88	0.015	0.0089	J	0.011	0.011	UJ	0.0098	0.0098	UJ
Benzene	5.6	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
Bromodichloromethane	46	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
Bromoform	220	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
Bromomethane	35	--		0.0059	0.0059	U	0.0075	0.0075	U	0.0065	0.0065	U
Carbon disulfide	3,000	--		0.0045	0.0045	UJ	0.0057	0.0057	UJ	0.0049	0.0049	UJ
Carbon tetrachloride	1.3	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
Chlorobenzene	1,500	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
Chloroethane	NA	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
Chloroform	1.5	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
Chloromethane	8.4	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
cis-1,2-Dichloroethene	10,000	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U

Table 8 (continued)
AOPC-16 Spoils Pile 2 Soil Analytical Data

Field ID / Date Collected	RSL [1,2]	Background	SSL [3]	A16-WP-01 11/7/2008			A16-WP-02 11/7/2008			A16-WP-03 11/7/2008		
				Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
cis-1,3-Dichloropropene	NA	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
Cyclohexane	30,000	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
Dibromochloromethane	21	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
Dichlorodifluoromethane	780	--		0.0054	0.0054	U	0.0068	0.0068	U	0.0059	0.0059	U
Ethylbenzene	29	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
Isopropylbenzene	NA	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
m&p-Xylene	NA	--		0.0089	0.0089	U	0.011	0.011	U	0.0098	0.0098	U
Methyl acetate	1,000,000	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
Methyl tert-butyl ether	190	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
Methylcyclohexane	NA	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
Methylene Chloride	54	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
o-Xylene	23,000	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
Styrene	38,000	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
Tetrachloroethene	2.7	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
Toluene	46,000	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
trans-1,2-Dichloroethene	500	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
trans-1,3-Dichloropropene	NA	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
Trichloroethene	14	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
Trichlorofluoromethane	3,400	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
Vinyl chloride	1.7	--		0.0045	0.0045	U	0.0057	0.0057	U	0.0049	0.0049	U
Xylenes, Total	2,600	--		0.0089	0.0089	U	0.011	0.011	U	0.0098	0.0098	U
SVOCs (mg/kg)												
1,1'-Biphenyl	51,000	--		0.19	0.19	UJ	0.19	0.19	UJ	0.19	0.19	UJ
1,2,4-Trichlorobenzene	400	--		0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
1,2-Dichlorobenzene	10,000	--		0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
1,2-Diphenylhydrazine	2.2	--		0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
1,3-Dichlorobenzene	NA	--		0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
1,4-Dichlorobenzene	13	--		0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
1,4-Dioxane	160	--		0.74	0.74	R	0.76	0.76	R	0.77	0.77	R
2,2'-oxybis[1-chloropropane]	NA	--		0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
2,4-Dinitrotoluene	1,200	--	1.36	0.064	0.19	J	0.19	0.19	U	0.038	0.19	J
2,6-Dinitrotoluene	620	--	0.68	0.032	0.19	J	0.19	0.19	U	0.19	0.19	U
2,4/2,6-Dinitrotoluene mixture	2.5	--	0.00186	0.096		J	0.19		U	0.19		U

Table 8 (continued)
AOPC-16 Spoils Pile 2 Soil Analytical Data

Field ID Date Collected	RSL [1,2]	Background	SSL [3]	A16-WP-01 11/7/2008			A16-WP-02 11/7/2008			A16-WP-03 11/7/2008		
				Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
2-Chloronaphthalene	NA	--		0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
2-Methylnaphthalene	4,100	--		0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
2-Nitroaniline	NA	--		0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
3,3'-Dichlorobenzidine	3.8	--		0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
3-Nitroaniline	82	--		0.37	0.37	U	0.37	0.37	U	0.38	0.38	U
4-Bromophenyl phenyl ether	NA	--		0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
4-Chloroaniline	NA	--		0.74	0.74	U	0.76	0.76	U	0.77	0.77	U
4-Chlorophenyl phenyl ether	NA	--		0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
4-Nitroaniline	82	--		0.37	0.37	U	0.37	0.37	U	0.38	0.38	U
Acenaphthene	33,000	--		0.037	0.037	U	0.037	0.037	U	0.038	0.038	U
Acenaphthylene	NA	--		0.037	0.037	U	0.037	0.037	U	0.038	0.038	U
Acetophenone	100,000	--		0.37	0.37	UJ	0.37	0.37	UJ	0.38	0.38	UJ
Aniline	300	--		0.74	0.74	U	0.76	0.76	U	0.77	0.77	U
Anthracene	170,000	--		0.037	0.037	U	0.037	0.037	U	0.038	0.038	U
Atrazine	7.5	--		0.37	0.37	UJ	0.37	0.37	UJ	0.38	0.38	UJ
Benzaldehyde	100,000	--		0.37	0.37	UJ	0.37	0.37	UJ	0.38	0.38	UJ
Benzidine	0.0075	--		0.74	0.74	UJ	0.76	0.76	UJ	0.77	0.77	UJ
Benzo[a]anthracene	2.1	--		0.037	0.037	U	0.037	0.037	U	0.038	0.038	U
Benzo[a]pyrene	0.21	--		0.037	0.037	U	0.037	0.037	U	0.038	0.038	U
Benzo[b]fluoranthene	2.1	--		0.037	0.037	U	0.037	0.037	U	0.038	0.038	U
Benzo[g,h,i]perylene	NA	--		0.037	0.037	U	0.037	0.037	U	0.038	0.038	U
Benzo[k]fluoranthene	21	--		0.037	0.037	UJ	0.037	0.037	UJ	0.038	0.038	UJ
Benzyl alcohol	310,000	--		0.37	0.37	U	0.37	0.37	U	0.38	0.38	U
Butyl benzyl phthalate	910	--		0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
Bis(2-chloroethoxy)methane	1,800	--		0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
Bis(2-chloroethyl)ether	0.9	--		0.19	0.19	UJ	0.19	0.19	UJ	0.19	0.19	UJ
Bis(2-ethylhexyl) phthalate	120	--		0.19	0.19	UJ	0.19	0.19	UJ	0.19	0.19	UJ
Caprolactam	310,000	--		0.37	0.37	UJ	0.37	0.37	UJ	0.38	0.38	UJ
Carbazole	NA	--		0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
Chrysene	210	--		0.037	0.037	U	0.037	0.037	U	0.038	0.038	U
Dibenz(a,h)anthracene	0.21	--		0.037	0.037	U	0.037	0.037	U	0.038	0.038	U
Dibenzofuran	NA	--		0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
Diethyl phthalate	490,000	--		0.19	0.19	U	0.19	0.19	U	0.19	0.19	U

Table 8 (continued)
AOPC-16 Spoils Pile 2 Soil Analytical Data

Field ID Date Collected	RSL [1,2]	Background	SSL [3]	A16-WP-01 11/7/2008			A16-WP-02 11/7/2008			A16-WP-03 11/7/2008		
				Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
Dimethyl phthalate	NA	--		0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
Di-n-butyl phthalate	NA	--		0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
Di-n-octyl phthalate	NA	--		0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
Fluoranthene	22,000	--		0.037	0.037	U	0.037	0.037	U	0.038	0.038	U
Fluorene	22,000	--		0.037	0.037	U	0.037	0.037	U	0.038	0.038	U
Hexachlorobenzene	1.1	--		0.074	0.074	U	0.076	0.076	U	0.077	0.077	U
Hexachlorobutadiene	22	--		0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
Hexachlorocyclopentadiene	3,700	--		0.74	0.74	U	0.76	0.76	U	0.77	0.77	U
Hexachloroethane	120	--		0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
Indeno[1,2,3-cd]pyrene	2.1	--		0.037	0.037	U	0.037	0.037	U	0.038	0.038	U
Isophorone	1,800	--		0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
Naphthalene	20	--		0.037	0.037	U	0.037	0.037	U	0.038	0.038	U
Nitrobenzene	280	--		0.037	0.037	U	0.037	0.037	U	0.038	0.038	U
N-Nitrosodimethylamine	0.034	--		0.37	0.37	U	0.37	0.37	U	0.38	0.38	U
N-Nitrosodi-n-propylamine	0.25	--		0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
N-Nitrosodiphenylamine	350	--		0.19	0.19	UJ	0.19	0.19	UJ	0.19	0.19	UJ
Phenanthrene	NA	--		0.037	0.037	U	0.037	0.037	U	0.038	0.038	U
Pyrene	17,000	--		0.037	0.037	U	0.037	0.037	U	0.038	0.038	U
Pyridine	1,000	--		0.74	0.74	UJ	0.76	0.76	UJ	0.77	0.77	UJ
2,4,5-Trichlorophenol	62,000	--		0.37	0.37	U	0.37	0.37	U	0.38	0.38	U
2,4,6-Trichlorophenol	620	--		0.37	0.37	U	0.37	0.37	U	0.38	0.38	U
2,4-Dichlorophenol	1,800	--		0.37	0.37	U	0.37	0.37	U	0.38	0.38	U
2,4-Dimethylphenol	12,000	--		0.37	0.37	U	0.37	0.37	U	0.38	0.38	U
2,4-Dinitrophenol	1,200	--		0.74	0.74	UJ	0.76	0.76	UJ	0.77	0.77	UJ
2,6-Dichlorophenol	NA	--		0.19	0.19	UJ	0.19	0.19	UJ	0.19	0.19	UJ
2-Chlorophenol	5,100	--		0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
2-Methylphenol	NA	--		0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
2-Nitrophenol	NA	--		0.37	0.37	U	0.37	0.37	U	0.38	0.38	U
4-Nitrophenol	NA	--		0.74	0.74	U	0.76	0.76	U	0.77	0.77	U
3 & 4 Methylphenol	NA	--		0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
4,6-Dinitro-2-methylphenol	NA	--		0.37	0.37	U	0.37	0.37	U	0.38	0.38	U
4-Chloro-3-methylphenol	NA	--		0.37	0.37	U	0.37	0.37	U	0.38	0.38	U
Benzoic acid	2,500,000	--		1.9	1.9	U	1.9	1.9	U	1.9	1.9	U

Table 8 (continued)
AOPC-16 Spoils Pile 2 Soil Analytical Data

Field ID Date Collected	RSL [1,2]	Background	SSL [3]	A16-WP-01 11/7/2008			A16-WP-02 11/7/2008			A16-WP-03 11/7/2008		
				Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
Pentachlorophenol	9	--		0.74	0.74	U	0.76	0.76	U	0.77	0.77	U
Phenol	180,000	--		0.19	0.19	U	0.19	0.19	U	0.19	0.19	U
Explosives (mg/kg)												
1,3,5-Trinitrobenzene	27,000	--		0.1	0.1	U	0.099	0.099	U	0.099	0.099	U
1,3-Dinitrobenzene	62	--		0.1	0.1	U	0.099	0.099	U	0.099	0.099	U
2,4,6-Trinitrotoluene	420	--		0.1	0.1	U	0.099	0.099	U	0.099	0.099	U
2,4-Dinitrotoluene	1,200	--		0.1	0.1	U	0.099	0.099	U	0.099	0.099	U
2,6-Dinitrotoluene	620	--		0.2	0.2	U	0.2	0.2	U	0.2	0.2	U
2,4/2,6-Dinitrotoluene mixture	2.5	--		0.2		U	0.2		U	0.2		U
2-Amino-4,6-dinitrotoluene	2,000	--		0.2	0.2	U	0.2	0.2	U	0.2	0.2	U
2-Nitrotoluene	13	--		0.2	0.2	U	0.2	0.2	U	0.2	0.2	U
3-Nitrotoluene	NA	--		0.2	0.2	U	0.2	0.2	U	0.2	0.2	U
4-Amino-2,6-dinitrotoluene	1,900	--		0.2	0.2	U	0.2	0.2	U	0.2	0.2	U
4-Nitrotoluene	NA	--		0.2	0.2	U	0.2	0.2	U	0.2	0.2	U
HMX	49,000	--		0.2	0.2	U	0.2	0.2	U	0.2	0.2	U
Nitrobenzene	280	--		0.1	0.1	U	0.099	0.099	U	0.099	0.099	U
Tetryl	2,500	--		0.25	0.25	U	0.25	0.25	U	0.25	0.25	U
RDX	24	--		0.2	0.2	U	0.2	0.2	U	0.2	0.2	U
MNX	NA	--		0.1	0.1	U	0.099	0.099	U	0.099	0.099	U
DNX	NA	--		0.12	0.12	U	0.12	0.12	U	0.12	0.12	U
TNX	NA	--		0.12	0.12	U	0.12	0.12	U	0.12	0.12	U
Metals (mg/kg)												
Aluminum	990,000	NA	1,100,000	13,000	21		13,000	21		14,000	21	
Antimony	410	NA	5.4	0.49	2.1	J	2.1	2.1	UL	2.1	2.1	UL
Arsenic	1.6	7.3	5.8	1.7	1.1		1.9	1.1		1.9	1.1	
Barium	190,000	112	1,640	31	1.4		36	1.4		22	1.4	
Beryllium	2,000	NA	64	0.57	0.43	J	0.46	0.42	J	0.58	0.42	J
Cadmium	810	2	7.6	1.4	0.21		0.04	0.21	J	0.096	0.21	J
Calcium	NA	NA	NA	210	11		210	11		140	11	
Chromium	200	80.8	42	8.2	1.1		9.8	1.1		7.2	1.1	
Cobalt	300	NA	9.8	1.8	0.53		2.1	0.53		1.7	0.53	
Copper	41,000	NA	920	20	1.5		5.2	1.5		6	1.5	
Iron	720,000	NA	12,800	9,500	12		9,800	12		9,000	12	

Table 8 (continued)
AOPC-16 Spoils Pile 2 Soil Analytical Data

Field ID / Date Collected	RSL [1,2]	Background	SSL [3]	A16-WP-01 11/7/2008			A16-WP-02 11/7/2008			A16-WP-03 11/7/2008		
				Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
Lead	800	107	280	16	0.85	J	11	0.84	J	9.9	0.85	J
Magnesium	NA	NA	NA	410	11	J	470	11	J	350	11	J
Manganese	23,000	NA	1,140	42	1.1		49	1.1		41	1.1	
Mercury	310	0.4	2	0.021	0.024	J	0.017	0.024	J	0.013	0.024	J
Nickel	20,000	NA	960	3.5	1.4		3.4	1.4		2.6	1.4	
Potassium	NA	NA	NA	410	53	J	370	53	J	350	53	J
Selenium	5,100	NA		1.3	1.3	U	1.3	1.3	U	1.3	1.3	U
Silver	5,100	0.58	32	0.17	0.53	J	0.53	0.53	U	0.53	0.53	U
Sodium	NA	NA		110	110	U	110	110	U	110	110	U
Thallium	66	NA		1.6	1.6	UL	1.6	1.6	UL	1.6	1.6	UL
Vanadium	7,200	NA	5,200	15	0.64		16	0.63		15	0.63	
Zinc	310,000	NA	13,600	41	2.1	J	17	2.1	J	17	2.1	J
General Chemistry												
pH	NA	NA	NA	5.13		J	4.84		J	4.85		J

Notes:
Samples analyzed by TestAmerica in Chicago, IL
[1] September 2008 Industrial Soil RSL Table
[2] Chromium RSL is for Cr6
[3] SSLs for detected analytes only, based on DAF=20
-- = No Background Data Available
NA = not applicable
ID = identification
RL = Reporting Limit
Qual = Qualifier
RSL = Regional Screening Level
SSL = Soil Screening Level
UL = Undetected Low biased
R = Rejected
AOPC = area of potential concern
HMX = Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
RDX = 1,3,5-Trinitroperhydro-1,3,5-triazine
DNX = 3,4-dinitrophenol
TNX = hexahydro-1,3,5-trinitroso-1,3,5-triazine

= Compound detected
mg/kg = milligram per kilogram
J = Estimated
U = Nondetect
UJ = Estimated Nondetect
UL = Undetected Low biased

Source: HydroGeoLogic, Inc, 2009. Final Investigation Summary Report, Area of Potential Concern 16 (AOPC-16), Engineering Proving Ground, Fort Belvoir, Virginia.

Table 9
AOPC-16 Groundwater Analytical Data, February 2009

Field ID / Date Collected	MCL/ RSL[1]	BAOPC16-GWMW01 2.13.09			BAOPC16-GWMW02 2.13.09			BAOPC16-GWMW03 2.13.09			BAOPC16-DUP01-021309 2.13.09			BAOPC16-GWMW02 2.20.09			BAOPC16-GWMW03 2.20.09			BAOPC16-DUP01-022009 2.20.09			BAOPC16-GWMW02-02 2.25.09			BAOPC16-GWMW03-02 2.25.09			BAOPC16-DUP03-022509 2.25.09		
		Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
VOCs (µg/L)																															
1,1,1-Trichloroethane	200	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
1,1,2,2-Tetrachloroethane	0.067	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
1,1,2-Trichloro-1,2,2-trifluoroethane	59,000	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
1,1,2-Trichloroethane	5	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
1,1-Dichloroethane	2.4	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
1,1-Dichloroethene	7	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
1,2,4-Trichlorobenzene	70	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
1,2-Dibromo-3-Chloropropane	0.2	2.6	2.6	U	2.6	2.6	U	2.6	2.6	U	2.6	2.6	U	NA			NA			NA			NA			NA			NA		
1,2-Dibromoethane	0.05	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
1,2-Dichlorobenzene	600	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
1,2-Dichloroethane	5	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
1,2-Dichloropropane	5	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
1,3-Dichlorobenzene	NA	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
1,4-Dichlorobenzene	75	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
2-Butanone (MEK)	7,100	5	5	U	5	5	U	5	5	U	5	5	U	NA			NA			NA			NA			NA			NA		
2-Hexanone	NA	5	5	U	5	5	U	5	5	U	5	5	U	NA			NA			NA			NA			NA			NA		
4-Methyl-2-pentanone (MIBK)	2,000	5	5	U	5	5	U	5	5	U	5	5	U	NA			NA			NA			NA			NA			NA		
Acetone	22,000	5	5	U	5	5	U	5	5	U	5	5	U	NA			NA			NA			NA			NA			NA		
Benzene	5	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
Bromodichloromethane	1.1	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
Bromoform	8.5	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
Bromomethane	8.7	1.4	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4	1.4	U	NA			NA			NA			NA			NA			NA		
Carbon disulfide	1,000	5	5	U	5	5	U	5	5	U	5	5	U	NA			NA			NA			NA			NA			NA		
Carbon tetrachloride	5	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
Chlorobenzene	100	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
Chloroethane	NA	1.4	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4	1.4	U	NA			NA			NA			NA			NA			NA		
Chloroform	0.19	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
Chloromethane	1.8	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
cis-1,2-Dichloroethene	70	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
cis-1,3-Dichloropropene	NA	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
Cyclohexane	13,000	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
Dibromochloromethane	0.8	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
Dichlorodifluoromethane	390	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
Ethylbenzene	700	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
Isopropylbenzene	NA	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
m&p-Xylene	NA	2	2	U	2	2	U	2	2	U	2	2	U	NA			NA			NA			NA			NA			NA		
Methyl acetate	37,000	2	2	U	2	2	U	2	2	U	2	2	U	NA			NA			NA			NA			NA			NA		
Methyl tert-butyl ether	12	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
Methylcyclohexane	NA	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
Methylene Chloride	5	3	3	U	3	3	U	3	3	U	3	3	U	NA			NA			NA			NA			NA			NA		
o-Xylene	1,400	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
Styrene	100	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
Tetrachloroethene	5	1	1	U	1	1	U	2.9	1		2.4	1		NA			NA			NA			NA			NA			NA		
Toluene	1,000	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		

Table 9 (continued)
AOPC-16 Groundwater Analytical Data, February 2009

Field ID / Date Collected	MCL/ RSL[1]	BAOPC16-GWMW01 2.13.09			BAOPC16-GWMW02 2.13.09			BAOPC16-GWMW03 2.13.09			BAOPC16-DUP01-021309 2.13.09			BAOPC16-GWMW02 2.20.09			BAOPC16-GWMW03 2.20.09			BAOPC16-DUP01-022009 2.20.09			BAOPC16-GWMW02-02 2.25.09			BAOPC16-GWMW03-02 2.25.09			BAOPC16-DUP03-022509 2.25.09		
		Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
trans-1,2-Dichloroethene	100	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
trans-1,3-Dichloropropene	NA	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
Trichloroethene	5	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
Trichlorofluoromethane	1,300	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
Vinyl chloride	2	1	1	U	1	1	U	1	1	U	1	1	U	NA			NA			NA			NA			NA			NA		
Xylenes, Total	10,000	2	2	U	2	2	U	2	2	U	2	2	U	NA			NA			NA			NA			NA			NA		
SVOCs (µg/L)																															
1,1'-Biphenyl	1,800	4.9	4.9	U	5.1	5.1	U	4.8	4.8	U	4.8	4.8	U	NA			NA			NA			NA			NA			NA		
1,2,4-Trichlorobenzene	70	1.9	1.9	U	2	2	U	1.9	1.9	UL	1.9	1.9	UL	NA			NA			NA			NA			NA			NA		
1,2-Dichlorobenzene	600	1.9	1.9	U	2	2	U	1.9	1.9	UL	1.9	1.9	UL	NA			NA			NA			NA			NA			NA		
1,2-Diphenylhydrazine	0.08	4.9	4.9	U	5.1	5.1	U	4.8	4.8	UL	4.8	4.8	UL	NA			NA			NA			NA			NA			NA		
1,3-Dichlorobenzene	NA	1.9	1.9	U	2	2	U	1.9	1.9	UL	1.9	1.9	UL	NA			NA			NA			NA			NA			NA		
1,4-Dichlorobenzene	75	1.9	1.9	U	2	2	U	1.9	1.9	UL	1.9	1.9	UL	NA			NA			NA			NA			NA			NA		
1,4-Dioxane	6.1	19	19	U	20	20	U	19	19	UL	19	19	UL	NA			NA			NA			NA			NA			NA		
2,2'-oxybis[1-chloropropane]	NA	1.9	1.9	U	2	2	U	1.9	1.9	UL	1.9	1.9	UL	NA			NA			NA			NA			NA			NA		
2,4-Dinitrotoluene	73	1.4	1.4	U	0.75	1.4	J	1.3	1.3	UL	1.3	1.3	UL	NA			NA			NA			NA			NA			NA		
2,6-Dinitrotoluene	37	0.49	0.49	U	0.68	0.51		0.48	0.48	UL	0.48	0.48	UL	NA			NA			NA			NA			NA			NA		
2,4/2,6-Dinitrotoluene mixture	0.099	1.4		U	**1.43**		J	1.3		UL	1.3		UL	NA			NA			NA			NA			NA			NA		
2-Chloronaphthalene	2,900	1.9	1.9	U	2	2	U	1.9	1.9	UL	1.9	1.9	UL	NA			NA			NA			NA			NA			NA		
2-Methylnaphthalene	150	0.49	0.49	U	0.51	0.51	U	0.48	0.48	UL	0.48	0.48	UL	NA			NA			NA			NA			NA			NA		
2-Nitroaniline	NA	4.9	4.9	U	5.1	5.1	U	4.8	4.8	UL	4.8	4.8	UL	NA			NA			NA			NA			NA			NA		
3,3'-Dichlorobenzidine	0.15	4.9	4.9	U	5.1	5.1	U	4.8	4.8	UL	4.8	4.8	UL	NA			NA			NA			NA			NA			NA		
3-Nitroaniline	3.2	9.7	9.7	U	10	10	U	9.6	9.6	UL	9.6	9.6	UL	NA			NA			NA			NA			NA			NA		
4-Bromophenyl phenyl ether	NA	4.9	4.9	U	5.1	5.1	U	4.8	4.8	UL	4.8	4.8	UL	NA			NA			NA			NA			NA			NA		
4-Chloroaniline	1.2	9.7	9.7	U	10	10	U	9.6	9.6	UL	9.6	9.6	UL	NA			NA			NA			NA			NA			NA		
4-Chlorophenyl phenyl ether	NA	4.9	4.9	U	5.1	5.1	U	4.8	4.8	UL	4.8	4.8	UL	NA			NA			NA			NA			NA			NA		
4-Nitroaniline	3.2	9.7	9.7	U	10	10	U	9.6	9.6	UL	9.6	9.6	UL	NA			NA			NA			NA			NA			NA		
Acenaphthene	2,200	0.97	0.97	U	1	1	U	0.96	0.96	UL	0.96	0.96	UL	NA			NA			NA			NA			NA			NA		
Acenaphthylene	NA	0.97	0.97	U	1	1	U	0.96	0.96	UL	0.96	0.96	UL	NA			NA			NA			NA			NA			NA		
Acetophenone	3,700	4.9	4.9	U	5.1	5.1	U	4.8	4.8	UL	4.8	4.8	UL	NA			NA			NA			NA			NA			NA		
Aniline	12	19	19	U	20	20	U	19	19	UL	19	19	UL	NA			NA			NA			NA			NA			NA		
Anthracene	11,000	0.97	0.97	U	1	1	U	0.96	0.96	UL	0.96	0.96	UL	NA			NA			NA			NA			NA			NA		
Atrazine	3	4.9	4.9	U	5.1	5.1	U	4.8	4.8	UL	4.8	4.8	UL	NA			NA			NA			NA			NA			NA		
Benzaldehyde	3,700	9.7	9.7	U	10	10	U	9.6	9.6	UL	9.6	9.6	UL	NA			NA			NA			NA			NA			NA		
Benzidine	0.000094	39	39	U	40	40	U	38	38	UL	38	38	UL	NA			NA			NA			NA			NA			NA		
Benzo[a]anthracene	0.029	0.19	0.19	U	0.2	0.2	U	0.19	0.19	UL	0.19	0.19	UL	NA			NA			NA			NA			NA			NA		
Benzo[a]pyrene	0.2	0.19	0.19	U	0.2	0.2	U	0.19	0.19	UL	0.19	0.19	UL	NA			NA			NA			NA			NA			NA		
Benzo[b]fluoranthene	0.029	0.19	0.19	U	0.2	0.2	U	0.19	0.19	UL	0.19	0.19	UL	NA			NA			NA			NA			NA			NA		
Benzo[g,h,i]perylene	NA	0.97	0.97	U	1	1	U	0.96	0.96	UL	0.96	0.96	UL	NA			NA			NA			NA			NA			NA		
Benzo[k]fluoranthene	0.29	0.24	0.24	U	0.25	0.25	U	0.24	0.24	UL	0.24	0.24	UL	NA			NA			NA			NA			NA			NA		
Benzyl alcohol	18,000	19	19	U	20	20	U	19	19	UL	19	19	UL	NA			NA			NA			NA			NA			NA		
Butyl benzyl phthalate	35	1.9	1.9	U	2	2	U	0.85	1.9	J	1.9	1.9	UL	NA			NA			NA			NA			NA			NA		
Bis(2-chloroethoxy)methane	110	1.9	1.9	U	2	2	U	1.9	1.9	UL	1.9	1.9	UL	NA			NA			NA			NA			NA			NA		
Bis(2-chloroethyl)ether	0.012	1.9	1.9	U	2	2	U	1.9	1.9	UL	1.9	1.9	UL	NA			NA			NA			NA			NA			NA		
Bis(2-ethylhexyl) phthalate	6	9.7	9.7	U	10	10	U	9.6	9.6	UL	9.6	9.6	UL	NA			NA			NA			NA			NA			NA		
Caprolactam	18,000	9.7	9.7	UL	10	10	UL	9.6	9.6	UL	9.6	9.6	UL	NA			NA			NA			NA			NA			NA		
Carbazole	NA	4.9	4.9	U	5.1	5.1	U	4.8	4.8	UL	4.8	4.8	UL	NA			NA			NA			NA			NA			NA		
Chrysene	2.9	0.49	0.49	U	0.51	0.51	U	0.48	0.48	UL	0.48	0.48	UL	NA			NA			NA			NA			NA			NA		

Table 9 (continued)
AOPC-16 Groundwater Analytical Data, February 2009

Field ID / Date Collected	MCL/ RSL[1]	BAOPC16-GWMW01 2.13.09			BAOPC16-GWMW02 2.13.09			BAOPC16-GWMW03 2.13.09			BAOPC16-DUP01-021309 2.13.09			BAOPC16-GWMW02 2.20.09			BAOPC16-GWMW03 2.20.09			BAOPC16-DUP01-022009 2.20.09			BAOPC16-GWMW02-02 2.25.09			BAOPC16-GWMW03-02 2.25.09			BAOPC16-DUP03-022509 2.25.09		
		Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
Dibenz(a,h)anthracene	0.0029	0.29	0.29	U	0.3	0.3	U	0.29	0.29	UL	0.29	0.29	UL	NA			NA			NA			NA			NA			NA		
Dibenzofuran	NA	1.9	1.9	U	2	2	U	1.9	1.9	UL	1.9	1.9	UL	NA			NA			NA			NA			NA			NA		
Diethyl phthalate	29,000	1.9	1.9	U	2	2	U	1.9	1.9	UL	1.9	1.9	UL	NA			NA			NA			NA			NA			NA		
Dimethyl phthalate	NA	1.9	1.9	U	2	2	U	1.9	1.9	UL	1.9	1.9	UL	NA			NA			NA			NA			NA			NA		
Di-n-butyl phthalate	NA	4.9	4.9	U	5.1	5.1	U	4.8	4.8	UL	4.8	4.8	UL	NA			NA			NA			NA			NA			NA		
Di-n-octyl phthalate	NA	9.7	9.7	U	10	10	U	9.6	9.6	UL	9.6	9.6	UL	NA			NA			NA			NA			NA			NA		
Fluoranthene	1,500	0.97	0.97	U	1	1	U	0.96	0.96	UL	0.96	0.96	UL	NA			NA			NA			NA			NA			NA		
Fluorene	1,500	0.97	0.97	U	1	1	U	0.96	0.96	UL	0.96	0.96	UL	NA			NA			NA			NA			NA			NA		
Hexachlorobenzene	1	0.49	0.49	U	0.51	0.51	U	0.48	0.48	UL	0.48	0.48	UL	NA			NA			NA			NA			NA			NA		
Hexachlorobutadiene	0.86	4.9	4.9	U	5.1	5.1	U	4.8	4.8	UL	4.8	4.8	UL	NA			NA			NA			NA			NA			NA		
Hexachlorocyclopentadiene	50	19	19	U	20	20	U	19	19	UL	19	19	UL	NA			NA			NA			NA			NA			NA		
Hexachloroethane	4.8	4.9	4.9	U	5.1	5.1	U	4.8	4.8	UL	4.8	4.8	UL	NA			NA			NA			NA			NA			NA		
Indeno[1,2,3-cd]pyrene	0.029	0.24	0.24	U	0.25	0.25	U	0.24	0.24	UL	0.24	0.24	UL	NA			NA			NA			NA			NA			NA		
Isophorone	71	1.9	1.9	U	2	2	U	1.9	1.9	UL	1.9	1.9	UL	NA			NA			NA			NA			NA			NA		
Naphthalene	0.14	**0.19**	0.97	J	1	1	U	0.96	0.96	UL	0.96	0.96	UL	NA			NA			NA			NA			NA			NA		
Nitrobenzene	3.4	0.97	0.97	U	1	1	U	0.96	0.96	UL	0.96	0.96	UL	NA			NA			NA			NA			NA			NA		
N-Nitrosodimethylamine	0.00042	9.7	9.7	UJ	10	10	UJ	9.6	9.6	UJ	9.6	9.6	UJ	NA			NA			NA			NA			NA			NA		
N-Nitrosodi-n-propylamine	0.0096	0.49	0.49	U	0.51	0.51	U	0.48	0.48	UL	0.48	0.48	UL	NA			NA			NA			NA			NA			NA		
N-Nitrosodiphenylamine	14	0.97	0.97	U	1	1	U	0.96	0.96	UL	0.96	0.96	UL	NA			NA			NA			NA			NA			NA		
Phenanthrene	NA	0.97	0.97	U	1	1	U	0.96	0.96	UL	0.96	0.96	UL	NA			NA			NA			NA			NA			NA		
Pyrene	1,100	0.97	0.97	U	1	1	U	0.96	0.96	UL	0.96	0.96	UL	NA			NA			NA			NA			NA			NA		
Pyridine	37	19	19	U	20	20	U	19	19	UL	19	19	UL	NA			NA			NA			NA			NA			NA		
2,4,5-Trichlorophenol	3,700	9.7	9.7	U	10	10	U	9.6	9.6	U	9.6	9.6	U	NA			NA			NA			NA			NA			NA		
2,4,6-Trichlorophenol	6.1	4.9	4.9	U	5.1	5.1	U	4.8	4.8	U	4.8	4.8	U	NA			NA			NA			NA			NA			NA		
2,4-Dichlorophenol	110	9.7	9.7	U	10	10	U	9.6	9.6	U	9.6	9.6	U	NA			NA			NA			NA			NA			NA		
2,4-Dimethylphenol	730	9.7	9.7	U	10	10	U	9.6	9.6	U	9.6	9.6	U	NA			NA			NA			NA			NA			NA		
2,4-Dinitrophenol	73	19	19	U	20	20	U	19	19	U	19	19	U	NA			NA			NA			NA			NA			NA		
2,6-Dichlorophenol	NA	4.9	4.9	U	5.1	5.1	U	4.8	4.8	U	4.8	4.8	U	NA			NA			NA			NA			NA			NA		
2-Chlorophenol	180	4.9	4.9	U	5.1	5.1	U	4.8	4.8	U	4.8	4.8	U	NA			NA			NA			NA			NA			NA		
2-Methylphenol	NA	1.9	1.9	U	2	2	U	1.9	1.9	U	1.9	1.9	U	NA			NA			NA			NA			NA			NA		
2-Nitrophenol	NA	9.7	9.7	U	10	10	U	9.6	9.6	U	9.6	9.6	U	NA			NA			NA			NA			NA			NA		
4-Nitrophenol	NA	19	19	U	20	20	U	19	19	U	19	19	U	NA			NA			NA			NA			NA			NA		
3 & 4 Methylphenol	NA	1.9	1.9	U	2	2	U	1.9	1.9	U	1.9	1.9	U	NA			NA			NA			NA			NA			NA		
4,6-Dinitro-2-methylphenol	NA	19	19	U	20	20	U	19	19	U	19	19	U	NA			NA			NA			NA			NA			NA		
4-Chloro-3-methylphenol	NA	9.7	9.7	U	10	10	U	9.6	9.6	U	9.6	9.6	U	NA			NA			NA			NA			NA			NA		
Benzoic acid	150,000	19	19	UJ	20	20	UJ	19	19	UJ	19	19	UJ	NA			NA			NA			NA			NA			NA		
Pentachlorophenol	1	9.7	9.7	U	10	10	U	9.6	9.6	U	9.6	9.6	U	NA			NA			NA			NA			NA			NA		
Phenol	11,000	4.9	4.9	U	5.1	5.1	U	4.8	4.8	U	4.8	4.8	U	NA			NA			NA			NA			NA			NA		
Explosives (µg/L)																															
1,3,5-Trinitrobenzene	1,100	0.22	0.22	U	0.22	0.22	U	0.21	0.21	U	0.16	0.16	UL	NA			NA			NA			NA			NA			NA		
1,3-Dinitrobenzene	3.7	0.22	0.22	U	0.22	0.22	U	0.21	0.21	U	0.16	0.16	UL	NA			NA			NA			NA			NA			NA		
2,4,6-Trinitrotoluene	2.2	0.22	0.22	U	0.22	0.22	U	0.21	0.21	U	0.16	0.16	UL	NA			NA			NA			NA			NA			NA		
2,4-Dinitrotoluene	73	0.43	0.43	U	1.1	0.43		0.4	0.4	U	0.31	0.31	UL	NA			NA			NA			NA			NA			NA		
2,6-Dinitrotoluene	37	0.43	0.43	U	1.1	0.43		0.4	0.4	U	0.31	0.31	UL	NA			NA			NA			NA			NA			NA		
2,4/2,6-Dinitrotoluene mixture	0.099	0.43		U	**2.2**			0.4		U	0.31		UL	NA			NA			NA			NA			NA			NA		
2-Amino-4,6-dinitrotoluene	73	0.43	0.43	U	0.43	0.43	U	0.4	0.4	U	0.31	0.31	UL	NA			NA			NA			NA			NA			NA		
2-Nitrotoluene	0.31	0.43	0.43	U	**0.35**	0.43	J	0.4	0.4	U	0.31	0.31	UL	NA			NA			NA			NA			NA			NA		
3-Nitrotoluene	NA	0.43	0.43	U	0.43	0.43	U	0.4	0.4	U	0.31	0.31	UL	NA			NA			NA			NA			NA			NA		

Table 9 (continued)
AOPC-16 Groundwater Analytical Data, February 2009

Field ID / Date Collected	MCL/ RSL[1]	BAOPC16-GWMW01 2.13.09			BAOPC16-GWMW02 2.13.09			BAOPC16-GWMW03 2.13.09			BAOPC16-DUP01-021309 2.13.09			BAOPC16-GWMW02 2.20.09			BAOPC16-GWMW03 2.20.09			BAOPC16-DUP01-022009 2.20.09			BAOPC16-GWMW02-02 2.25.09			BAOPC16-GWMW03-02 2.25.09			BAOPC16-DUP03-022509 2.25.09		
		Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
4-Amino-2,6-dinitrotoluene	73	0.43	0.43	U	0.43	0.43	U	0.4	0.4	U	0.31	0.31	UL	NA			NA			NA			NA			NA			NA		
HMX	1,800	0.43	0.43	U	0.43	0.43	U	0.4	0.4	U	0.31	0.31	UL	NA			NA			NA			NA			NA			NA		
Nitrobenzene	3.40	0.22	0.22	U	0.22	0.22	U	0.21	0.21	U	0.16	0.16	UL	NA			NA			NA			NA			NA			NA		
4-Nitrotoluene	NA	0.43	0.43	U	0.43	0.43	U	0.4	0.4	U	0.31	0.31	UL	NA			NA			NA			NA			NA			NA		
Tetryl	150	0.54	0.54	U	0.55	0.55	U	0.5	0.5	U	0.39	0.39	UL	NA			NA			NA			NA			NA			NA		
RDX	0.61	0.22	0.22	U	0.22	0.22	U	0.21	0.21	U	0.16	0.16	UL	NA			NA			NA			NA			NA			NA		
MNX	NA	0.22	0.22	U	0.22	0.22	U	0.21	0.21	U	0.16	0.16	UL	NA			NA			NA			NA			NA			NA		
DNX	NA	0.28	0.28	U	0.28	0.28	U	0.26	0.26	U	0.2	0.2	UL	NA			NA			NA			NA			NA			NA		
TNX	NA	0.28	0.28	U	0.28	0.28	U	0.26	0.26	U	0.2	0.2	UL	NA			NA			NA			NA			NA			NA		
Metals (µg/L)																															
Aluminum	37,000	2,100	100	K	NA			NA			NA			50	100	J	100	100	U	100	100	U	150	100	K	550	100	K	560	100	K
Antimony	6	0.89	2	B	NA			NA			NA			2	2	U	2	2	U	0.8	2	B	0.48	2	J	2	2	U	3	2	
Arsenic	10	0.36	1	J	NA			NA			NA			0.26	1	J	1	1	U	1	1	U	0.18	1	B	0.32	1	B	0.33	1	B
Barium	2,000	50	2.5		NA			NA			NA			42	2.5		12	2.5		12	2.5		57	2.5		16	2.5		17	2.5	
Beryllium	4	0.41	1	J	NA			NA			NA			1	1	U	1	1	U	1	1	U	0.47	1	J	1	1	U	1	1	U
Cadmium	5	0.5	0.5	U	NA			NA			NA			0.5	0.5	U	0.5	0.5	U	0.5	0.5	U	0.5	0.5	U	0.5	0.5	U	0.5	0.5	U
Calcium	NA	2,100	200		NA			NA			NA			8,500	200		2,200	200		2,400	200		7,400	200	L	2,100	200	JL	2,000	200	L
Chromium	NA	1.3	5	J	NA			NA			NA			5	5	U	5	5	U	5	5	U	0.91	5	J	2.3	5	J	1.8	5	J
Cobalt	11	5.2	1		NA			NA			NA			8.7	1		1.8	1		1.8	1		6.4	1		3.9	1		4.2	1	
Copper	1,300	0.68	2	J	NA			NA			NA			0.54	2	J	0.83	2	J	0.76	2	J	1.1	2	J	2.2	2		2	2	
Iron	26,000	890	100	K	NA			NA			NA			960	100		38	100	J	100	100	U	100	100	K	310	100	K	280	100	K
Lead	15	6.8	0.5		NA			NA			NA			0.5	0.5	B	0.1	0.5	B	0.09	0.5	B	1	0.5		1.1	0.5		0.99	0.5	
Magnesium	NA	1,400	200		NA			NA			NA			3,100	200		680	200		780	200		2,800	200		720	200		700	200	
Manganese	880	170	2.5		NA			NA			NA			240	2.5		42	2.5		46	2.5		180	2.5		42	2.5		46	2.5	
Mercury	2	0.3	0.3	U	NA			NA			NA			0.3	0.3	U	0.3	0.3	U	0.3	0.3	U	0.3	0.3	U	0.3	0.3	U	0.3	0.3	U
Molybdenum	180	NA			NA			NA			NA			1.7	4	J	3.3	4	J	4	4		NA			NA			NA		
Nickel	730	3.4	2		NA			NA			NA			7.5	2		2.3	2		2.4	2		3.9	2		3.1	2		3.1	2	
Potassium	NA	1,600	500		NA			NA			NA			3,700	500		5,000	500		5,000	500		3,600	500		6,000	500		5,900	500	
Selenium	50	0.57	2.5	J	NA			NA			NA			2.5	2.5	U	2.5	2.5	U	2.5	2.5	U	2.5	2.5	U	0.63	2.5	J	0.75	2.5	J
Silver	180	0.5	0.5	U	NA			NA			NA			0.5	0.5	U	0.5	0.5	U	0.5	0.5	U	0.5	0.5	U	0.5	0.5	U	0.5	0.5	U
Sodium	NA	6,000	200		NA			NA			NA			12,000	200		16,000	200		16,000	200		8,700	200		20,000	200		20,000	200	
Thallium	2	2	2	U	NA			NA			NA			2	2	U	2	2	U	2	2	U	2	2	U	2	2	U	2	2	U
Vanadium	260	1.4	5	B	NA			NA			NA			5	5	U	0.68	5	J	0.73	5	J	0.67	5	J	1.1	5	J	1.2	5	J
Zinc	11,000	6.1	20	B	NA			NA			NA			11	20	B	23	20	J	13	20	B	7.9	20	J	24	20		26	20	

Notes:
Samples analyzed by TestAmerica in Chicago, IL
[1] September 2008 Tap Water RSL/MCL Table
NA = not applicable
RL = Reporting Limit
Qual = Qualifier
J = Estimated
K = Analyte is present, may be biased high
L = Analyte is present, may be biased low
B = Not detected above level reported in blank
JL = Estimated, biased low
AOPC = area of potential concern
ID = identification
RSL = Regional Screening Level
MCL = Maximum Contaminant Level

U = Nondetect
UL = Not detected, quantitation high
mg/L = milligram per liter
µg/L = microgram per liter
Shading = analyte detected
Box, Bold, and Shading = MCL/RSL exceedance
HMX = Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
RDX = 1,3,5-Trinitroperhydro-1,3,5-triazine
MNX = hexahydro-1-nitroso-3,5-dinitro-1,3,5-triazine
DNX = 3,4-dinitrophenol
TNX = hexahydro-1,3,5-trinitroso-1,3,5-triazine

Source: HydroGeoLogic, Inc, 2009. Final Investigation Summary Report, Area of Potential Concern 16 (AOPC-16), Engineering Proving Ground, Fort Belvoir, Virginia.

Table 10
AOPC-16 Groundwater Analytical Data, June 2009

Field ID / Date Collected	MCL/ RSL[1]	AOPC16-MW01 6.29.09			AOPC16-DUP01 6.29.09			AOPC16-MW02 6.25.09			AOPC16-MW02 7.1.09			AOPC16-MW03 2.26.09			AOPC16-MW03 7.1.09			AOPC16-MW04 6.26.09			AOPC16-MW05 6.26.09			AOPC16-MW06 6.26.09		
		Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
VOCs (µg/L)																												
1,1,1-Trichloroethane	200	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
1,1,2,2-Tetrachloroethane	0.067	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
1,1,2-Trichloro-1,2,2-trifluoroethane	59,000	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
1,1,2-Trichloroethane	5	1	1	UJ	1	1	UJ	1	1	UJ	NA			1	1	UJ	NA			1	1	UJ	1	1	UJ	1	1	UJ
1,1-Dichloroethane	2.4	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
1,1-Dichloroethene	7	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
1,2,4-Trichlorobenzene	70	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
1,2-Dibromo-3-Chloropropane	0.2	2.6	2.6	U	2.6	2.6	U	2.6	2.6	U	NA			2.6	2.6	U	NA			2.6	2.6	U	2.6	2.6	U	2.6	2.6	U
1,2-Dibromoethane	0.05	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
1,2-Dichlorobenzene	600	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
1,2-Dichloroethane	5	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
1,2-Dichloropropane	5	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
1,3-Dichlorobenzene	NA	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
1,4-Dichlorobenzene	75	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
2-Butanone (MEK)	7,100	5	5	U	5	5	U	5	5	U	NA			5	5	U	NA			5	5	U	5	5	U	5	5	U
2-Hexanone	NA	5	5	U	5	5	U	5	5	U	NA			5	5	U	NA			5	5	U	5	5	U	5	5	U
4-Methyl-2-pentanone (MIBK)	2,000	5	5	U	5	5	U	5	5	U	NA			5	5	U	NA			5	5	U	5	5	U	5	5	U
Acetone	22,000	5	5	U	5	5	U	5	5	U	NA			5	5	U	NA			9	5	U	5	5	U	5	5	U
Benzene	5	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
Bromodichloromethane	1.1	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
Bromoform	8.5	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
Bromomethane	8.7	1.4	1.4	U	1.4	1.4	U	1.4	1.4	U	NA			1.4	1.4	U	NA			1.4	1.4	U	1.4	1.4	U	1.4	1.4	U
Carbon disulfide	1,000	5	5	U	5	5	U	5	5	U	NA			5	5	U	NA			5	5	U	5	5	U	5	5	U
Carbon tetrachloride	5	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
Chlorobenzene	100	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
Chloroethane	NA	1.4	1.4	U	1.4	1.4	U	1.4	1.4	U	NA			1.4	1.4	U	NA			1.4	1.4	U	1.4	1.4	U	1.4	1.4	U
Chloroform	0.19	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
Chloromethane	1.8	1	1	U	1.1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
cis-1,2-Dichloroethene	70	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
cis-1,3-Dichloropropene	NA	1	1	UJ	1	1	UJ	1	1	UJ	NA			1	1	UJ	NA			1	1	UJ	1	1	UJ	1	1	UJ
Cyclohexane	13,000	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
Dibromochloromethane	0.8	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
Dichlorodifluoromethane	390	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
Ethylbenzene	700	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
Isopropylbenzene	NA	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
m&p-Xylene	NA	2	2	U	2	2	U	2	2	U	NA			2	2	U	NA			2	2	U	2	2	U	2	2	U
Methyl acetate	37,000	2	2	UL	2	2	UL	2	2	UL	NA			2	2	UL	NA			2	2	UL	2	2	UL	2	2	UL
Methyl tert-butyl ether	12	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
Methylcyclohexane	NA	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
Methylene Chloride	5	3	3	U	3	3	U	3	3	U	NA			3	3	U	NA			3	3	U	3	3	U	3	3	U
o-Xylene	1,400	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
Styrene	100	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
Tetrachloroethene	5	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U

Table 10 (continued)
AOPC-16 Groundwater Analytical Data, June 2009

Field ID / Date Collected	MCL/ RSL[1]	AOPC16-MW01 6.29.09			AOPC16-DUP01 6.29.09			AOPC16-MW02 6.25.09			AOPC16-MW02 7.1.09			AOPC16-MW03 2.26.09			AOPC16-MW03 7.1.09			AOPC16-MW04 6.26.09			AOPC16-MW05 6.26.09			AOPC16-MW06 6.26.09		
		Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
Toluene	1,000	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
trans-1,2-Dichloroethene	100	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
trans-1,3-Dichloropropene	NA	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
Trichloroethene	5	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
Trichlorofluoromethane	1,300	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
Vinyl chloride	2	1	1	U	1	1	U	1	1	U	NA			1	1	U	NA			1	1	U	1	1	U	1	1	U
Xylenes, Total	10,000	2	2	U	2	2	U	2	2	U	NA			2	2	U	NA			2	2	U	2	2	U	2	2	U
SVOCs (µg/L)																												
1,1'-Biphenyl	1,800	4.7	4.7	U	4.7	4.7	U	NA			4.8	4.8	U	4.7	4.7	U	NA			4.8	4.8	UL	5	5	UL	4.7	4.7	U
1,2,4-Trichlorobenzene	70	1.9	1.9	U	1.9	1.9	U	NA			1.9	1.9	U	1.9	1.9	U	NA			1.9	1.9	UL	2	2	UL	1.9	1.9	U
1,2-Dichlorobenzene	600	1.9	1.9	U	1.9	1.9	U	NA			1.9	1.9	U	1.9	1.9	U	NA			1.9	1.9	UL	2	2	UL	1.9	1.9	U
1,2-Diphenylhydrazine	0.08	4.7	4.7	U	4.7	4.7	U	NA			4.8	4.8	U	4.7	4.7	U	NA			4.8	4.8	UL	5	5	UL	4.7	4.7	U
1,3-Dichlorobenzene	NA	1.9	1.9	U	1.9	1.9	U	NA			1.9	1.9	U	1.9	1.9	U	NA			1.9	1.9	UL	2	2	UL	1.9	1.9	U
1,4-Dichlorobenzene	75	1.9	1.9	U	1.9	1.9	U	NA			1.9	1.9	U	1.9	1.9	U	NA			1.9	1.9	UL	2	2	UL	1.9	1.9	U
1,4-Dioxane	6.1	19	19	U	19	19	U	NA			19	19	UJ	19	19	U	NA			19	19	UL	20	20	UL	19	19	U
2,2'-oxybis[1-chloropropane]	NA	1.9	1.9	U	1.9	1.9	U	NA			1.9	1.9	U	1.9	1.9	U	NA			1.9	1.9	UL	2	2	UL	1.9	1.9	U
2,4-Dinitrotoluene	73	1.3	1.3	U	1.3	1.3	U	NA			1.3	1.3	U	1.3	1.3	U	NA			1.3	1.3	UL	1.4	1.4	UL	1.3	1.3	U
2,6-Dinitrotoluene	37	0.47	0.47	U	0.47	0.47	U	NA			0.72	0.48		0.47	0.47	U	NA			0.48	0.48	UL	0.5	0.5	UL	0.47	0.47	U
2,4/2,6-Dinitrotoluene mixture	0.099	1.3		U	1.3		U	NA			**0.72**			1.3		U	NA			1.3		UL	1.4		UL	1.3		U
2-Chloronaphthalene	2,900	1.9	1.9	U	1.9	1.9	U	NA			1.9	1.9	U	1.9	1.9	U	NA			1.9	1.9	UL	2	2	UL	1.9	1.9	U
2-Methylnaphthalene	150	0.47	0.47	U	0.47	0.47	U	NA			0.48	0.48	U	0.47	0.47	U	NA			0.48	0.48	UL	0.5	0.5	UL	0.47	0.47	U
2-Nitroaniline	NA	4.7	4.7	U	4.7	4.7	U	NA			4.8	4.8	U	4.7	4.7	U	NA			4.8	4.8	UL	5	5	UL	4.7	4.7	U
3,3'-Dichlorobenzidine	0.15	4.7	4.7	U	4.7	4.7	U	NA			4.8	4.8	U	4.7	4.7	U	NA			4.8	4.8	UL	5	5	UL	4.7	4.7	U
3-Nitroaniline	3.2	9.4	9.4	U	9.4	9.4	U	NA			9.6	9.6	U	9.4	9.4	U	NA			9.5	9.5	UL	9.9	9.9	UL	9.4	9.4	U
4-Bromophenyl phenyl ether	NA	4.7	4.7	U	4.7	4.7	U	NA			4.8	4.8	U	4.7	4.7	U	NA			4.8	4.8	UL	5	5	UL	4.7	4.7	U
4-Chloroaniline	1.2	9.4	9.4	U	9.4	9.4	U	NA			9.6	9.6	U	9.4	9.4	U	NA			9.5	9.5	UL	9.9	9.9	UL	9.4	9.4	U
4-Chlorophenyl phenyl ether	NA	4.7	4.7	U	4.7	4.7	U	NA			4.8	4.8	U	4.7	4.7	U	NA			4.8	4.8	UL	5	5	UL	4.7	4.7	U
4-Nitroaniline	3.2	9.4	9.4	U	9.4	9.4	U	NA			9.6	9.6	U	9.4	9.4	U	NA			9.5	9.5	UL	9.9	9.9	UL	9.4	9.4	U
Acenaphthene	2,200	0.94	0.94	U	0.94	0.94	U	NA			0.96	0.96	U	0.94	0.94	U	NA			0.95	0.95	UL	0.99	0.99	UL	0.94	0.94	U
Acenaphthylene	NA	0.94	0.94	U	0.94	0.94	U	NA			0.96	0.96	U	0.94	0.94	U	NA			0.95	0.95	UL	0.99	0.99	UL	0.94	0.94	U
Acetophenone	3,700	4.7	4.7	U	4.7	4.7	U	NA			4.8	4.8	U	4.7	4.7	U	NA			4.8	4.8	UL	5	5	UL	4.7	4.7	U
Aniline	12	19	19	U	19	19	U	NA			19	19	U	19	19	U	NA			19	19	UL	20	20	UL	19	19	U
Anthracene	11,000	0.94	0.94	U	0.94	0.94	U	NA			0.96	0.96	U	0.94	0.94	U	NA			0.95	0.95	UL	0.99	0.99	UL	0.94	0.94	U
Atrazine	3	4.7	4.7	U	4.7	4.7	U	NA			4.8	4.8	U	4.7	4.7	U	NA			4.8	4.8	UL	5	5	UL	4.7	4.7	U
Benzaldehyde	3,700	9.4	9.4	U	9.4	9.4	U	NA			9.6	9.6	U	9.4	9.4	U	NA			9.5	9.5	UL	9.9	9.9	UL	9.4	9.4	U
Benzidine	0.000094	38	38	U	38	38	U	NA			38	38	U	38	38	U	NA			38	38	UL	40	40	UL	38	38	U
Benzo[a]anthracene	0.029	0.19	0.19	U	0.19	0.19	U	NA			0.19	0.19	U	0.19	0.19	U	NA			0.19	0.19	UL	0.2	0.2	UL	0.19	0.19	U
Benzo[a]pyrene	0.2	0.19	0.19	U	0.19	0.19	U	NA			0.19	0.19	U	0.19	0.19	U	NA			0.19	0.19	UL	0.2	0.2	UL	0.19	0.19	U
Benzo[b]fluoranthene	0.029	0.19	0.19	U	0.19	0.19	U	NA			0.19	0.19	U	0.19	0.19	U	NA			0.19	0.19	UL	0.2	0.2	UL	0.19	0.19	U
Benzo[g,h,i]perylene	NA	0.94	0.94	U	0.94	0.94	U	NA			0.96	0.96	U	0.94	0.94	U	NA			0.95	0.95	UL	0.99	0.99	UL	0.94	0.94	U
Benzo[k]fluoranthene	0.29	0.24	0.24	U	0.24	0.24	U	NA			0.24	0.24	U	0.24	0.24	U	NA			0.24	0.24	UL	0.25	0.25	UL	0.24	0.24	U
Benzyl alcohol	18,000	19	19	U	19	19	U	NA			19	19	U	19	19	U	NA			19	19	UL	20	20	UL	19	19	U
Butyl benzyl phthalate	35	1.9	1.9	U	1.9	1.9	U	NA			1.9	1.9	U	1.9	1.9	U	NA			1.9	1.9	UL	2	2	UL	1.9	1.9	U
Bis(2-chloroethoxy)methane	110	1.9	1.9	U	1.9	1.9	U	NA			1.9	1.9	U	1.9	1.9	U	NA			1.9	1.9	UL	2	2	UL	1.9	1.9	U
Bis(2-chloroethyl)ether	0.012	1.9	1.9	U	1.9	1.9	U	NA			1.9	1.9	U	1.9	1.9	U	NA			1.9	1.9	UL	2	2	UL	1.9	1.9	U
Bis(2-ethylhexyl) phthalate	6	9.4	9.4	U	9.4	9.4	U	NA			9.6	9.6	U	9.4	9.4	U	NA			9.5	9.5	UL	9.9	9.9	UL	9.4	9.4	U
Caprolactam	18,000	9.4	9.4	R	9.4	9.4	R	NA			9.6	9.6	R	9.4	9.4	R	NA			9.5	9.5	R	9.9	9.9	R	9.4	9.4	R
Carbazole	NA	4.7	4.7	U	4.7	4.7	U	NA			4.8	4.8	U	4.7	4.7	U	NA			4.8	4.8	UL	5	5	UL	4.7	4.7	U

Table 10 (continued)
AOPC-16 Groundwater Analytical Data, June 2009

Field ID / Date Collected	MCL/ RSL[1]	AOPC16-MW01 6.29.09			AOPC16-DUP01 6.29.09			AOPC16-MW02 6.25.09			AOPC16-MW02 7.1.09			AOPC16-MW03 2.26.09			AOPC16-MW03 7.1.09			AOPC16-MW04 6.26.09			AOPC16-MW05 6.26.09			AOPC16-MW06 6.26.09		
		Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
Chrysene	2.9	0.47	0.47	U	0.47	0.47	U	NA			0.48	0.48	U	0.47	0.47	U	NA			0.48	0.48	UL	0.5	0.5	UL	0.47	0.47	U
Dibenz(a,h)anthracene	0.0029	0.28	0.28	U	0.28	0.28	U	NA			0.29	0.29	U	0.28	0.28	U	NA			0.29	0.29	UL	0.3	0.3	UL	0.28	0.28	U
Dibenzofuran	NA	1.9	1.9	U	1.9	1.9	U	NA			1.9	1.9	U	1.9	1.9	U	NA			1.9	1.9	UL	2	2	UL	1.9	1.9	U
Diethyl phthalate	29,000	1.9	1.9	U	1.9	1.9	U	NA			1.2	1.9	J	1.9	1.9	U	NA			1.4	1.9	J	2	2	UL	1.1	1.9	J
Dimethyl phthalate	NA	1.9	1.9	U	1.9	1.9	U	NA			1.9	1.9	U	1.9	1.9	U	NA			1.9	1.9	UL	2	2	UL	1.9	1.9	U
Di-n-butyl phthalate	NA	4.7	4.7	U	4.7	4.7	U	NA			4.8	4.8	U	4.7	4.7	U	NA			0.64	4.8	J	5	5	UL	0.73	4.7	J
Di-n-octyl phthalate	NA	9.4	9.4	U	9.4	9.4	U	NA			9.6	9.6	U	9.4	9.4	U	NA			9.5	9.5	UL	9.9	9.9	UL	9.4	9.4	U
Fluoranthene	1,500	0.94	0.94	U	0.94	0.94	U	NA			0.96	0.96	U	0.94	0.94	U	NA			0.95	0.95	UL	0.99	0.99	UL	0.94	0.94	U
Fluorene	1,500	0.94	0.94	U	0.94	0.94	U	NA			0.96	0.96	U	0.94	0.94	U	NA			0.95	0.95	UL	0.99	0.99	UL	0.94	0.94	U
Hexachlorobenzene	1	0.47	0.47	U	0.47	0.47	U	NA			0.48	0.48	U	0.47	0.47	U	NA			0.48	0.48	UL	0.5	0.5	UL	0.47	0.47	U
Hexachlorobutadiene	0.86	4.7	4.7	U	4.7	4.7	U	NA			4.8	4.8	U	4.7	4.7	U	NA			4.8	4.8	UL	5	5	UL	4.7	4.7	U
Hexachlorocyclopentadiene	50	19	19	U	19	19	U	NA			19	19	UJ	19	19	U	NA			19	19	UL	20	20	UL	19	19	U
Hexachloroethane	4.8	4.7	4.7	U	4.7	4.7	U	NA			4.8	4.8	U	4.7	4.7	U	NA			4.8	4.8	UL	5	5	UL	4.7	4.7	U
Indeno[1,2,3-cd]pyrene	0.029	0.24	0.24	U	0.24	0.24	U	NA			0.24	0.24	U	0.24	0.24	U	NA			0.24	0.24	UL	0.25	0.25	UL	0.24	0.24	U
Isophorone	71	1.9	1.9	U	1.9	1.9	U	NA			1.9	1.9	U	1.9	1.9	U	NA			1.9	1.9	UL	2	2	UL	1.9	1.9	U
Naphthalene	0.14	**0.16**	0.94	B	0.94	0.94	U	NA			0.96	0.96	U	0.94	0.94	U	NA			0.95	0.95	UL	0.99	0.99	UL	0.94	0.94	U
Nitrobenzene	3.4	0.94	0.94	U	0.94	0.94	U	NA			0.96	0.96	U	0.94	0.94	U	NA			0.95	0.95	UL	0.99	0.99	UL	0.94	0.94	U
N-Nitrosodimethylamine	0.00042	9.4	9.4	U	9.4	9.4	U	NA			9.6	9.6	U	9.4	9.4	U	NA			9.5	9.5	UL	9.9	9.9	UL	9.4	9.4	U
N-Nitrosodi-n-propylamine	0.0096	0.47	0.47	U	0.47	0.47	U	NA			0.48	0.48	U	0.47	0.47	U	NA			0.48	0.48	UL	0.5	0.5	UL	0.47	0.47	U
N-Nitrosodiphenylamine	14	0.94	0.94	UJ	0.94	0.94	UJ	NA			0.96	0.96	UJ	0.94	0.94	UJ	NA			0.95	0.95	UJ	0.99	0.99	UJ	0.94	0.94	UJ
Phenanthrene	NA	0.94	0.94	U	0.94	0.94	U	NA			0.96	0.96	U	0.94	0.94	U	NA			0.95	0.95	UL	0.99	0.99	UL	0.94	0.94	U
Pyrene	1,100	0.94	0.94	U	0.94	0.94	U	NA			0.96	0.96	U	0.94	0.94	U	NA			0.95	0.95	UL	0.99	0.99	UL	0.94	0.94	U
Pyridine	37	19	19	U	19	19	U	NA			19	19	U	19	19	U	NA			19	19	UL	20	20	UL	19	19	U
2,4,5-Trichlorophenol	3,700	9.4	9.4	U	9.4	9.4	U	NA			9.6	9.6	U	9.4	9.4	U	NA			9.5	9.5	U	9.9	9.9	U	9.4	9.4	U
2,4,6-Trichlorophenol	6.1	4.7	4.7	U	4.7	4.7	U	NA			4.8	4.8	U	4.7	4.7	U	NA			4.8	4.8	U	5	5	U	4.7	4.7	U
2,4-Dichlorophenol	110	9.4	9.4	U	9.4	9.4	U	NA			9.6	9.6	U	9.4	9.4	U	NA			9.5	9.5	U	9.9	9.9	U	9.4	9.4	U
2,4-Dimethylphenol	730	9.4	9.4	U	9.4	9.4	U	NA			9.6	9.6	U	9.4	9.4	U	NA			9.5	9.5	U	9.9	9.9	U	9.4	9.4	U
2,4-Dinitrophenol	73	19	19	U	19	19	U	NA			19	19	U	19	19	U	NA			19	19	U	20	20	U	19	19	U
2,6-Dichlorophenol	NA	4.7	4.7	U	4.7	4.7	U	NA			4.8	4.8	U	4.7	4.7	U	NA			4.8	4.8	U	5	5	U	4.7	4.7	U
2-Chlorophenol	180	4.7	4.7	U	4.7	4.7	U	NA			4.8	4.8	U	4.7	4.7	U	NA			4.8	4.8	U	5	5	U	4.7	4.7	U
2-Methylphenol	NA	1.9	1.9	U	1.9	1.9	U	NA			1.9	1.9	U	1.9	1.9	U	NA			1.9	1.9	U	2	2	U	1.9	1.9	U
2-Nitrophenol	NA	9.4	9.4	U	9.4	9.4	U	NA			9.6	9.6	U	9.4	9.4	U	NA			9.5	9.5	U	9.9	9.9	U	9.4	9.4	U
4-Nitrophenol	NA	19	19	U	19	19	U	NA			19	19	U	19	19	U	NA			19	19	U	20	20	U	19	19	U
3 & 4 Methylphenol	NA	1.9	1.9	U	1.9	1.9	U	NA			1.9	1.9	U	1.9	1.9	U	NA			1.9	1.9	U	2	2	U	1.9	1.9	U
4,6-Dinitro-2-methylphenol	NA	19	19	U	19	19	U	NA			19	19	U	19	19	U	NA			19	19	U	20	20	U	19	19	U
4-Chloro-3-methylphenol	NA	9.4	9.4	U	9.4	9.4	U	NA			9.6	9.6	U	9.4	9.4	U	NA			9.5	9.5	U	9.9	9.9	U	9.4	9.4	U
Benzoic acid	150,000	19	19	U	19	19	U	NA			19	19	U	19	19	U	NA			19	19	U	20	20	U	19	19	U
Pentachlorophenol	1	9.4	9.4	U	9.4	9.4	U	NA			9.6	9.6	U	9.4	9.4	U	NA			9.5	9.5	U	9.9	9.9	U	9.4	9.4	U
Phenol	11,000	4.7	4.7	U	4.7	4.7	U	NA			4.8	4.8	U	4.7	4.7	U	NA			4.8	4.8	U	5	5	U	4.7	4.7	U
Explosives (µg/L)																												
1,3,5-Trinitrobenzene	1,100	0.16	0.16	U	0.16	0.16	U	NA			0.18	0.18	UJ	NA			0.19	0.19	UJ	NA			0.16	0.16	U	0.16	0.16	U
1,3-Dinitrobenzene	3.7	0.16	0.16	U	0.16	0.16	U	NA			0.18	0.18	UJ	NA			0.19	0.19	UJ	NA			0.16	0.16	U	0.16	0.16	U
2,4,6-Trinitrotoluene	2.2	0.16	0.16	U	0.16	0.16	U	NA			0.18	0.18	UJ	NA			0.19	0.19	UJ	NA			0.16	0.16	U	0.16	0.16	U
2,4-Dinitrotoluene	73	0.31	0.31	U	0.31	0.31	U	NA			1.0	0.34	J	NA			0.37	0.37	UJ	NA			0.2	0.31	J	0.31	0.31	U
2,6-Dinitrotoluene	37	0.31	0.31	U	0.31	0.31	U	NA			0.91	0.34	J	NA			0.37	0.37	UJ	NA			0.31	0.31	U	0.31	0.31	U
2,4/2,6-Dinitrotoluene mixture	0.099	0.31		U	0.31		U	NA			**1.91**			NA			0.37		UJ	NA			**0.2**		J	0.31		U
2-Amino-4,6-dinitrotoluene	73	0.31	0.31	U	0.31	0.31	U	NA			0.34	0.34	UJ	NA			0.37	0.37	UJ	NA			0.31	0.31	U	0.31	0.31	U
2-Nitrotoluene	0.31	0.31	0.31	U	0.31	0.31	U	NA			0.34	0.34	UJ	NA			0.37	0.37	UJ	NA			0.31	0.31	U	0.31	0.31	U

Table 10 (continued)
AOPC-16 Groundwater Analytical Data, June 2009

Field ID / Date Collected	MCL/ RSL[1]	AOPC16-MW01 6.29.09			AOPC16-DUP01 6.29.09			AOPC16-MW02 6.25.09			AOPC16-MW02 7.1.09			AOPC16-MW03 2.26.09			AOPC16-MW03 7.1.09			AOPC16-MW04 6.26.09			AOPC16-MW05 6.26.09			AOPC16-MW06 6.26.09		
		Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
3-Nitrotoluene	NA	0.31	0.31	U	0.31	0.31	U	NA			0.34	0.34	UJ	NA			0.37	0.37	UJ	NA			0.31	0.31	U	0.31	0.31	U
4-Amino-2,6-dinitrotoluene	73	0.31	0.31	U	0.31	0.31	U	NA			0.34	0.34	UJ	NA			0.37	0.37	UJ	NA			0.31	0.31	U	0.31	0.31	U
HMX	1,800	0.31	0.31	U	0.31	0.31	U	NA			0.34	0.34	UJ	NA			0.37	0.37	UJ	NA			0.31	0.31	U	0.31	0.31	U
Nitrobenzene	3.40	0.16	0.16	U	0.16	0.16	U	NA			0.18	0.18	UJ	NA			0.19	0.19	UJ	NA			0.16	0.16	U	0.16	0.16	U
4-Nitrotoluene	NA	0.31	0.31	U	0.31	0.31	U	NA			0.34	0.34	UJ	NA			0.37	0.37	UJ	NA			0.31	0.31	U	0.31	0.31	U
Tetryl	150	0.39	0.39	U	0.39	0.39	U	NA			0.43	0.43	UJ	NA			0.46	0.46	UJ	NA			0.39	0.39	U	0.39	0.39	U
RDX	0.61	0.16	0.16	U	0.16	0.16	U	NA			0.18	0.18	UJ	NA			0.19	0.19	UJ	NA			0.16	0.16	U	0.16	0.16	U
MNX	NA	0.16	0.16	U	0.16	0.16	U	NA			0.18	0.18	U	NA			0.19	0.19	U	NA			0.16	0.16	U	0.16	0.16	U
DNX	NA	0.2	0.2	U	0.2	0.2	U	NA			0.22	0.22	U	NA			0.24	0.24	U	NA			0.2	0.2	U	0.2	0.2	U
TNX	NA	0.2	0.2	U	0.2	0.2	U	NA			0.22	0.22	U	NA			0.24	0.24	U	NA			0.2	0.2	U	0.2	0.2	U

Notes:
Samples analyzed by TestAmerica in Chicago, IL
[1] September 2008 Tap Water RSL/MCL Table
NA = not applicable
µg/L = microgram per liter
* = Maximum background level
J = Estimated
UJ = Estimated non-detect
R = Rejected
Bold and Shading = Detected above MCL/RSL
AOPC = area of potential concern
ID = identification
MCL = Maximum Contaminant Level
RSL = Regional Screening Level
HMX = Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
RDX = 1,3,5-Trinitroperhydro-1,3,5-triazine
MNX = hexahydro-1-nitroso-3,5-dinitro-1,3,5-triazine
DNX = 3,4-dinitrophenol
TNX = hexahydro-1,3,5-trinitroso-1,3,5-triazine

U = Non-detect
UL = Not detected, quantitation high
RL = Reporting Limit
Qual = Qualifier
= Detection

Source: HydroGeoLogic, Inc, 2009. Final Investigation Summary Report, Area of Potential Concern 16 (AOPC-16), Engineering Proving Ground, Fort Belvoir, Virginia.

Table 11
AOPC-17 Soil Chemical Testing Results

Field ID / Date Collected	Residential RSL	Industrial RSL	Background	SSL	BA17-SWN03-01 3.18.09		BA17-SWN03-02 3.18.09		BA17-SWN03-03 3.18.09		BA17-SWS03-01 3.18.09		BA17-SWS03-02 3.18.09		BA17-SWS03-03 3.18.09		BA17-SWW03-01 3.18.09		BA17-SWE03-01 3.18.09		BA17-DUP01-031809 3.18.09	
					Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Explosives (µg/kg)																						
1,3,5-Trinitrobenzene	2,200,000	27,000,000	NA	52,000	99	U	100	U	100	U	100	U	100	U	99	U	100	U	99	U	99	U
1,3-Dinitrobenzene	6,100	62,000	NA	46	99	U	100	U	100	U	100	U	100	U	99	U	100	U	99	U	99	U
2,4,6-Trinitrotoluene	19,000	79,000	NA	174	99	UJ	100	U	100	U	100	U	100	U	99	U	100	U	99	U	99	U
2,4-Dinitrotoluene	120,000	1,200,000	NA	1,360	99	U	100	U	100	U	100	U	100	U	99	U	100	U	99	U	99	U
2,6-Dinitrotoluene	61,000	620,000	NA	680	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U
2,4/2,6-Dinitrotoluene (Mixture of Isomers)	710	2,500	NA	1.86																		
2-Amino-4,6-dinitrotoluene	150,000	2,000,000	NA	580	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U
2-Nitrotoluene	2,900	13,000	NA	5	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U
3-Nitrotoluene	1,200,000	12,000,000	NA	12,000	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U
4-Amino-2,6-dinitrotoluene	150,000	1,900,000	NA	580	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U
4-Nitrotoluene	30,000	110,000	NA	68	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U
HMX	3,800,000	49,000,000	NA	142,000	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U
Nitrobenzene	31,000	280,000	NA	40	99	U	100	U	100	U	100	U	100	U	99	U	100	U	99	U	99	U
Tetryl	240,000	2,500,000	NA	13,000	250	U	250	U	250	U	250	U	250	U	250	U	250	U	250	U	250	U
RDX	5,500	24,000	NA	7.2	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U
MNX	NA	NA	NA	NA	99	UJ	100	U	100	U	100	U	100	U	99	U	100	U	99	U	99	U
DNX	NA	NA	NA	NA	120	U	120	U	120	U	120	U	120	U	120	U	120	U	120	U	120	U
TNX	NA	NA	NA	NA	120	U	120	U	120	U	120	U	120	U	120	U	120	U	120	U	120	U
Metals (mg/kg)																						
Aluminum	77,000	990,000	NA	1,100,000	**13,000**		**15,000**		**15,000**		**18,000**	J	**16,000**		**13,000**		**12,000**		**15,000**		**14,000**	
Antimony	31	410	NA	5.4	**0.39**	J	**0.76**	J	**0.52**	J	**0.51**	J	**0.41**	J	2.40	UL	2.20	UL	**0.45**	J	2.20	UL
Arsenic	0.39	1.6	7.3	5.8	**3.20**		**3.20**		**2.80**		**3.80**	J	**2.80**		**2.90**		**1.80**		**3.20**		**3**	
Barium	15,000	190,000	112	1,640	**56**		**44**		**36**		**30**	J	**21**		**28**		**28**		**37**		**36**	
Beryllium	160	2,000	NA	64	**0.70**	J	**0.70**	J	**0.67**	J	**0.84**	J	**0.77**	J	**0.56**	J	**1.10**	J	**0.74**	J	**0.68**	J
Cadmium	70	810	2	7.6	**0.14**	J	**0.086**	J	0.24	U	0.22	U	**0.063**	J	**0.05**	J	0.22	U	**0.055**	J	**0.05**	J
Calcium	NA	NA	NA	NA	**290**		**200**		**130**		**97**	J	**140**		**310**		**120**		**190**		**180**	
Chromium	39*	200	80.8	42	**11**		**12**		**13**		**16**	J	**12**		**11**		**4.80**		**13**		**12**	
Cobalt	23	300	NA	9.8	**2.20**		**2**		**2**		**1.80**	J	**1.10**		**1.40**		**1.30**		**2**		**2**	
Copper	3,100	41,000	NA	920	**12**		**13**		**4.90**		**5.20**	J	**4.70**		**4.50**		**2.30**		**5.10**		**5.70**	
Iron	55,000	720,000	NA	12,800	**17,000**		**13,000**		**15,000**		**19,000**	J	**14,000**		**13,000**		**7,200**		**16,000**		**14,000**	
Lead	400	800	107	280	**34**		**24**		**15**		**11**	J	**11**		**9.90**		**16**		**18**		**18**	
Magnesium	NA	NA	NA	NA	**300**	J	**350**	J	**330**	J	**380**	J	**270**	J	**300**	J	**170**	J	**360**	J	**340**	J
Manganese	1,800	23,000	NA	1140	**450**		**340**		**160**		**98**	J	**61**		**140**		**180**		**180**		**170**	
Nickel	1,600	20,000	0.4	960	**4.20**		**3.50**		**3.30**		**3.80**	J	**2.80**		**3**		**1.50**		**3.40**		**3.80**	
Potassium	NA	NA	NA	NA	**420**	J	**460**	J	**460**	J	**570**	J	**500**	J	**430**	J	**580**	J	**520**	J	**480**	J
Selenium	390	5,100	NA	5.2	1.40	U	1.40	U	1.50	U	1.30	U	1.30	U	1.40	U	1.30	U	1.50	U	1.30	U
Silver	390	5,100	NA	32	0.56	U	0.60	U	0.61	U	0.54	U	0.55	U	0.59	U	0.55	U	0.61	U	0.55	U
Sodium	NA	NA	0.58	NA	110	U	120	U	120	U	110	U	110	U	120	U	110	U	120	U	110	U
Thallium	5.1	66	NA	2.8	1.70	U	1.80	U	1.80	U	1.60	U	1.70	U	1.80	U	1.70	U	1.80	U	1.70	U
Vanadium	550	7,200	NA	5200	**21**		**24**		**23**		**29**	J	**22**		**21**		**9.60**		**24**		**22**	
Zinc	23,000	310,000	NA	13600	**150**	J	**18**	J	**15**	J	**13**	J	**15**	J	**14**	J	**6.20**	J	**29**	J	**31**	J
Mercury	23**	310	NA	2	**0.12**		**0.073**		**0.06**		**0.059**		**0.043**		**0.06**		**0.042**		**0.057**		**0.068**	

Table 11 (continued)
AOPC-17 Soil Chemical Testing Results

Field ID / Date Collected	Residential RSL	Industrial RSL	Background	SSL	BA17-DUP02-031809 3.18.09		BA17-FL-01 3.18.09		BA17-FL-02 3.18.09		BA17-FL-03 3.18.09		BA17-FL-04 3.18.09		BA17-DUP01-042309 4.23.09		BA17-WP1 4.23.09		BA17-WP2 4.23.09	
					Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Explosives (µg/kg)																				
1,3,5-Trinitrobenzene	2,200,000	27,000,000	NA	52,000	100	U	98	U	99	U	99	U	99	U	99	U	98	U	98	U
1,3-Dinitrobenzene	6,100	62,000	NA	46	100	U	98	U	99	U	99	U	99	U	99	U	98	U	98	U
2,4,6-Trinitrotoluene	19,000	79,000	NA	174	100	U	98	UJ	99	UJ	99	UJ	99	UJ	99	U	98	U	98	U
2,4-Dinitrotoluene	120,000	1,200,000	NA	1,360	100	U	98	U	99	U	99	U	99	U	99	U	98	U	98	U
2,6-Dinitrotoluene	61,000	620,000	NA	680	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U
2,4/2,6-Dinitrotoluene (Mixture of Isomers)	710	2,500	NA	1.86																
2-Amino-4,6-dinitrotoluene	150,000	2,000,000	NA	580	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U
2-Nitrotoluene	2,900	13,000	NA	5	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U
3-Nitrotoluene	1,200,000	12,000,000	NA	12,000	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U
4-Amino-2,6-dinitrotoluene	150,000	1,900,000	NA	580	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U
4-Nitrotoluene	30,000	110,000	NA	68	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U
HMX	3,800,000	49,000,000	NA	142,000	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U
Nitrobenzene	31,000	280,000	NA	40	100	U	98	U	99	U	99	U	99	U	99	U	98	U	98	U
Tetryl	240,000	2,500,000	NA	13,000	250	U	240	U	250	U	250	U	250	U	250	U	250	U	250	U
RDX	5,500	24,000	NA	7.2	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U
MNX	NA	NA	NA	NA	100	U	98	UJ	99	UJ	99	UJ	99	UJ	99	U	98	U	98	U
DNX	NA	NA	NA	NA	120	U	120	U	120	U	120	U	120	U	120	U	120	U	120	U
TNX	NA	NA	NA	NA	120	U	120	U	120	U	120	U	120	U	120	U	120	U	120	U
Metals (mg/kg)																				
Aluminum	77,000	990,000	NA	1,100,000	**6,300**	J	**17,000**		**13,000**		**15,000**		**15,000**		**11,000**	J	**16,000**	J	**13,000**	
Antimony	31	410	NA	5.4	2.40	UL	**0.33**	J	**0.44**	J	**0.43**	J	**0.35**	J	2.20	UL	**2.50**	J	**0.60**	J
Arsenic	0.39	1.6	7.3	5.8	**1.40**	J	**3.30**		**2.80**		**2.90**		**3**		**2.20**	J	**2.90**	J	**2.70**	
Barium	15,000	190,000	112	1,640	**9.10**	J	**22**		**31**		**30**		**32**		**23**		**23**		**27**	
Beryllium	160	2,000	NA	64	**0.29**	J	**0.72**	J	**0.64**	J	**0.64**	J	**0.72**	J	**0.43**	J	**0.70**	J	**0.54**	
Cadmium	70	810	2	7.6	**0.05**	J	0.22	U	**0.05**	J	0.22	U	**0.041**	J	0.22	U	0.26	U	0.23	U
Calcium	NA	NA	NA	NA	**56**	J	**72**		**320**		**140**		**160**		**81**	J	**80**	J	**100**	J
Chromium	39*	200	80.8	42	**5.10**	J	**13**		**11**		**12**		**12**		**10**		**12**		**12**	
Cobalt	23	300	NA	9.8	**0.52**	J	**1.20**		**1.40**		**1.70**		**1.60**		**1.40**		**1.40**		**1.50**	
Copper	3,100	41,000	NA	920	**1.80**	J	**4.80**		**7.10**		**5.20**		**5**		**3.70**		**4**		**4.10**	
Iron	55,000	720,000	NA	12,800	**6,200**	J	**16,000**		**13,000**		**14,000**		**14,000**		**11,000**	J	**14,000**	J	**13,000**	
Lead	400	800	107	280	**3.80**	J	**9**		**15**		**12**		**14**		**8.30**	J	**10**	J	**9.50**	J
Magnesium	NA	NA	NA	NA	**130**	J	**260**	J	**320**	J	**330**	J	**350**	J	**260**		**290**		**280**	
Manganese	1,800	23,000	NA	1140	**28**	J	**33**		**210**		**120**		**120**		**77**	J	**62**	J	**80**	L
Nickel	1,600	20,000	0.4	960	**1.30**	J	**3.10**		**3**		**3.30**		**3.40**		**2.60**		**3.10**		**2.80**	
Potassium	NA	NA	NA	NA	**180**	J	**420**	J	**480**	J	**450**	J	**490**	J	**380**	J	**470**	J	**410**	K
Selenium	390	5,100	NA	5.2	1.40	U	1.30	U	1.30	U	1.30	U	1.30	U	**0.38**	J	1.60	U	1.40	U
Silver	390	5,100	NA	32	0.59	U	0.55	U	0.56	U	0.54	U	0.56	U	0.55	U	0.65	U	0.58	U
Sodium	NA	NA	0.58	NA	120	U	110	U	110	U	110	U	110	U	**9.70**	J	**14**	J	**12**	J
Thallium	5.1	66	NA	2.8	1.80	U	1.60	U	**0.47**	J	**0.44**	J	1.70	U	**0.28**	J	**0.50**	J	1.70	U
Vanadium	550	7,200	NA	5200	**9.60**	J	**26**		**21**		**22**		**23**		**18**	J	**23**	J	**21**	
Zinc	23,000	310,000	NA	13600	**4.60**	J	**17**	J	**63**	J	**19**	J	**24**	J	**10**		**11**		**11**	
Mercury	23**	310	NA	2	**0.066**		**0.07**		**0.069**		0.059		**0.064**		**0.035**		**0.039**		**0.034**	

Notes:
J = The analyte was detected at the reported concentration; the quantitation is an estimate.
UL= Undetected Low biased
K = unkown bias
U = Not detected. The associated number indicates the analyte RL.
UJ = Estimated non-detect
µg/kg = microgram per kilogram
mg/kg = milligram per kilogram
NA = not applicable
Qual = Qualifier
ID = identification

AOPC = area of potential concern
RL = Reporting Limit
RSL = Regional Screening Level, data obtained from USEPA, September 12, 2008
SSL = Soil Screening Level, SSL (Sept 2008) RSL table using a dilution attenuation factor of 20 (MCL-based number used, when none exists then RSL-based number used).
USEPA = United States Environmental Protection Agency
MCL = Maximum Contaminant Level
Bold = Confirmed identification. The analyte was positively identified at the reported concentration.
Bold, Box and Shading = Confirmed identification above the industrial soil RSL.
* = value is from Chromium VI
** = value is from Mercuric Chloride

HMX = Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
RDX = 1,3,5-Trinitroperhydro-1,3,5-triazine
DNX = 3,4-dinitrophenol
TNX = hexahydro-1,3,5-trinitroso-1,3,5-triazine
MNX = hexahydro-1-nitroso-3,5-dinitro-1,3,5-triazine

Source: HydroGeoLogic, Inc, 2009. Final Investigation Summary Report, Areas of Potential Concern 17 and 18, Engineering Proving Ground, Fort Belvoir, Virginia.

Table 12
AOPC-18 Soil Testing Results

FIELD ID / DATE COLLECTED	Residential RSL	Industrial RSL	Background	SSL	BA18-SWE02-01 3.18.09		BA18-SWN02-01 3.18.09		BA18-SWS02-01 3.18.09		BA18-SWW02-01 3.18.09		BA18-DUP01-042309 4.23.09		BA18-WP1 4.23.09		BA18-DUP01-031809 3.18.09		BA18-FL-01 3.18.09	
					Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Explosives (µg/kg)																				
1,3,5-Trinitrobenzene	2,200,000	27,000,000	NA	52,000	100	U	100	U	98	U	100	U	99	U	99	U	98	U	100	U
1,3-Dinitrobenzene	6,100	62,000	NA	46	100	U	100	U	98	U	100	U	99	U	99	U	98	U	100	U
2,4,6-Trinitrotoluene	19,000	79,000	NA	174	100	U	100	U	98	U	100	U	99	U	99	U	98	U	100	U
2,4-Dinitrotoluene	120,000	1,200,000	NA	1,360	100	U	100	U	98	U	100	U	99	U	99	U	98	U	100	U
2,6-Dinitrotoluene	61,000	620,000	NA	680	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U
2,4/2,6-Dinitrotoluene (Mixture of Isomers)	710	2,500	NA	1.86																
2-Amino-4,6-dinitrotoluene	150,000	2,000,000	NA	580	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U
2-Nitrotoluene	2,900	13,000	NA	5	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U
3-Nitrotoluene	1,200,000	12,000,000	NA	12,000	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U
4-Amino-2,6-dinitrotoluene	150,000	1,900,000	NA	580	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U
4-Nitrotoluene	30,000	110,000	NA	68	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U
HMX	3,800,000	49,000,000	NA	142,000	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U
Nitrobenzene	31,000	280,000	NA	40	100	U	100	U	98	U	100	U	99	U	99	U	98	U	100	U
Tetryl	240,000	2,500,000	NA	13,000	250	U	250	U	250	U	250	U	250	U	250	U	240	U	250	U
RDX	5,500	24,000	NA	7.2	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U
MNX	NA	NA	NA	NA	100	U	100	U	98	U	100	U	99	U	99	U	98	U	100	U
DNX	NA	NA	NA	NA	120	U	120	U	120	U	120	U	120	U	120	U	120	U	120	U
TNX	NA	NA	NA	NA	120	U	120	U	120	U	120	U	120	U	120	U	120	U	120	U
Metals (mg/kg)																				
Aluminum	77,000	990,000	NA	1,100,000	**27,000**		**24,000**		**15,000**		**23,000**		**21,000**		**22,000**		**24,000**		**24,000**	
Antimony	31	410	NA	5.4	**0.65**	J	**0.67**	J	**0.46**	J	**0.40**	J	**0.49**	J	2.30	U	**0.39**	J	**0.60**	J
Arsenic	0.39	1.6	7.3	5.8	**5.60**		**5.20**		**3.50**		**4.60**		**4.60**		**4.60**		**4.60**		**5.30**	
Barium	15,000	190,000	112	1,640	**40**		**31**		**39**		**28**		**28**		**28**		**27**		**35**	
Beryllium	160	2,000	NA	64	**0.58**		**0.52**		**0.41**	J	**0.45**	J	**0.51**		**0.53**		**0.45**	J	**0.52**	
Cadmium	70	810	2	7.6	0.25	U	**0.24**	U	**0.15**	J	**0.067**	J	0.25	U	0.23	U	**0.074**	J	**0.085**	J
Calcium	NA	NA	NA	NA	**100**		**100**		**330**		**66**		**150**		**110**	J	**62**		**97**	
Chromium	39*	200	80.8	42	**24**		**20**		**14**		**18**		**18**		**17**		**19**		**22**	
Cobalt	23	300	NA	9.8	**2**		**1.40**		**2.60**		**1.30**		**1.80**		**1.30**	J	**1.30**		**1.60**	
Copper	3,100	41,000	NA	920	**12**		**11**		**9.40**		**11**		**10**		**10**		**11**		**13**	
Iron	55,000	720,000	NA	12,800	**32,000**		**31,000**		**18,000**		**28,000**		**27,000**		**26,000**		**29,000**		**31,000**	
Lead	400	800	107	280	**13**		**16**		**28**		**13**		**18**		**16**		**13**		**15**	
Magnesium	NA	NA	NA	NA	**630**		**500**		**550**		**540**		**480**		**480**		**540**		**530**	
Manganese	1,800	23,000	NA	1140	**41**		**51**		**120**		**43**		**87**		**49**		**43**		**45**	
Nickel	1,600	20,000	0.4	960	**4.60**		**3.80**		**4.50**		**3.60**		**3.40**		**3.20**		**3.60**		**4.10**	
Potassium	NA	NA	NA	NA	**860**	K	**770**	K	**580**	K	**820**	K	**720**		**750**		**830**	K	**750**	K
Selenium	390	5,100	NA	5.2	**0.89**	J	**0.75**	J	**0.60**	J	1.40	U	**0.56**	J	**0.36**	J	**0.56**	J	**0.58**	J
Silver	390	5,100	NA	32	0.62	U	0.59	U	0.58	U	0.58	U	0.61	U	0.58	U	0.62	U	0.62	U
Sodium	NA	NA	0.58	NA	120	U	120	U	120	U	120	U	**31**	J	**17**	J	120	U	120	U
Thallium	5.1	66	NA	2.8	**0.67**	J	**0.44**	J	1.70	U	**0.46**	J	**0.36**	J	**0.30**	J	**0.52**	J	**0.65**	J
Vanadium	550	7,200	NA	5200	**45**		**41**		**27**		**38**		**38**		**36**		**39**		**43**	
Zinc	23,000	310,000	NA	13600	**20**	J	**22**	J	**33**	J	**23**	J	**23**		**17**	J	**23**	J	**20**	J
Mercury	23**	310	NA	2	**0.053**		**0.054**		**0.046**		**0.044**		**0.055**		**0.037**	J	**0.038**		**0.061**	

Notes:
J = The analyte was detected at the reported concentration; the quantitation is an estimate.
K = unkown bias
U = Not detected. The associated number indicates the analyte RL.
µg/kg = microgram per kilogram
mg/kg = milligram per kilogram
NA = not applicable
Qual = Qualifier
RL = Reporting Limit
AOPC = area of potential concern
ID = identification
USEPA = United States Environmental Protection Agency

MCL = Maximum Contaminant Level
RSL = Regional Screening Level, RSL data obtained from U.S. EPA, September 12, 2008
SSL = Soil Screening Level, SSL (Sept 2008) RSL table using a dilution attenuation factor of 20 (MCL-based number used, when none exists then RSL-based number used).
Bold = Confirmed identification. The analyte was positively identified at the reported concentration.
Bold, Box and Shading = Confirmed identification above the industrial soil RSL.
* = value is from Chromium VI
** = value is from Mercuric Chloride
HMX = Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
RDX = 1,3,5-Trinitroperhydro-1,3,5-triazine
MNX = hexahydro-1-nitroso-3,5-dinitro-1,3,5-triazine
DNX = 3,4-dinitrophenol

TNX = hexahydro-1,3,5-trinitroso-1,3,5-triazine

Source: HydroGeoLogic, Inc, 2009. Final Investigation Summary Report, Areas of Potential Concern 17 and 18, Engineering Proving Ground, Fort Belvoir, Virginia.

Table 13
AOPC-19 Soil Chemical Testing Results - Pit in Grid 2O-16

Field ID Date Collected	Residential RSL	Industrial RSL	Background	SSL	BA19A-SWNE03-02 05.13.09		BA19A-SWSW03-01 05.13.09		BA19A-SWSW03-02 05.13.09		BA19A-SWNW03-01 05.13.09		BA19A-DUP01-051309 05.13.09		BA19A-SWNE03-01 05.13.09		BA19A-SP-01 05.13.09	
					Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Explosives (µg/kg)																		
1,3,5-Trinitrobenzene	2,200,000	27,000,000	NA	52,000	99	U	99	U	98	U	95	U	98	U	95	U	96	U
1,3-Dinitrobenzene	6,100	62,000	NA	46	99	U	99	U	98	U	95	U	98	U	95	U	96	U
2,4,6-Trinitrotoluene	19,000	79,000	NA	174	99	U	99	U	98	U	95	U	98	U	95	U	96	U
2,4-Dinitrotoluene***	710	2,500	NA	1.86	99	U	99	U	98	U	95	U	98	U	95	U	96	U
2,6-Dinitrotoluene***	710	2,500	NA	1.86	200	U	200	U	200	U	190	U	200	U	190	U	190	U
2-Amino-4,6-dinitrotoluene	150,000	2,000,000	NA	580	200	U	200	U	200	U	190	U	200	U	190	U	190	U
2-Nitrotoluene	2,900	13,000	NA	5	200	U	200	U	200	U	190	U	200	U	190	U	190	U
3-Nitrotoluene	1,200,000	12,000,000	NA	12,000	200	U	200	U	200	U	190	U	200	U	190	U	190	U
4-Amino-2,6-dinitrotoluene	150,000	1,900,000	NA	580	200	U	200	U	200	U	190	U	200	U	190	U	190	U
4-Nitrotoluene	30,000	110,000	NA	68	200	U	200	U	200	U	190	U	200	U	190	U	190	U
HMX	3,800,000	49,000,000	NA	142,000	200	U	200	U	200	U	190	U	200	U	190	U	190	U
Nitrobenzene	31,000	280,000	NA	40	99	U	99	U	98	U	95	U	98	U	95	U	96	U
Tetryl	240,000	2,500,000	NA	13,000	250	U	250	U	250	U	240	U	240	U	240	U	240	U
RDX	5,500	24,000	NA	7.2	200	U	200	U	200	U	190	U	200	U	190	U	190	U
MNX	NA	NA	NA	NA	99	U	99	U	98	U	95	U	98	U	95	U	96	U
DNX	NA	NA	NA	NA	120	U	120	U	120	U	120	U	120	U	120	U	120	U
TNX	NA	NA	NA	NA	120	U	120	U	120	U	120	U	120	U	120	U	120	U
Metals (mg/kg)																		
Aluminum	77,000	990,000	NA	1,100,000	**25,000**		**23,000**		**15,000**		**15,000**		**15,000**		**23,000**		**19,000**	
Antimony	31	410	NA	5.4	2.2	UL	**0.56**	J	2.2	UL	2	UL	2.4	UL	2.3	UL	2.4	UL
Arsenic	0.39	1.6	7.3	5.8	**5.4**		**4.6**		**3.6**		**3.5**		**3.9**		**5.4**		**3.7**	
Barium	15,000	190,000	112	1,640	**44**	J	**34**	J	**37**	J	**32**	J	**34**	J	**42**	J	**39**	J
Beryllium	160	200	NA	64	**0.53**		**0.65**		**0.39**	J	**0.45**		**0.39**	J	**0.46**		0.57	
Cadmium	70	810	2	7.6	**0.065**	J	0.22	U	0.22	U	0.2	U	0.24	U	**0.11**	J	**0.12**	J
Calcium	NA	NA	NA	NA	**160**	J	**130**	J	**190**	J	**110**	J	**110**	J	**190**	J	**230**	J
Chromium	39*	2,000	80.8	42	**23**		**20**		**17**		**16**		**16**		**24**		**17**	
Cobalt	23	300	NA	9.8	**2.5**		**2**		**2.3**		**2.2**		**1.9**		**1.7**		**1.8**	
Copper	3,100	41,000	NA	920	**11**	J	**26**	J	**17**	J	**8.8**	J	**7.6**	J	**17**	J	**31**	J
Iron	55,000	720,000	NA	12,800	**33,000**		**25,000**		**21,000**		**23,000**		**22,000**		**33,000**		**23,000**	
Lead	400	800	107	280	**11**	J	**18**	J	**15**	J	**11**	J	**9.9**	J	**17**	J	**42**	J
Magnesium	NA	NA	NA	NA	**700**	J	**560**	J	**570**	J	**490**	J	**490**	J	**600**	J	**510**	J
Manganese	1,800	23,000	NA	1140	**56**	J	**37**	J	**69**	J	**92**	J	**65**	J	**49**	J	**68**	J
Nickel	1,600	20,000	NA	960	**5.2**		**3.8**		**4.1**		**4.1**		**3.5**		**4.4**		**4.3**	
Potassium	NA	NA	NA	NA	**830**	K	**710**	K	**550**	K	**530**	K	**530**	K	**760**	K	**670**	K
Selenium	390	5,100	1.6	5.2	**0.33**	J	**0.46**	J	1.3	U	1.2	U	1.4	U	1.4	U	1.4	U
Silver	390	5,100	0.58	32	0.56	U	0.56	U	0.56	U	0.5	U	0.59	U	0.56	U	0.6	U
Sodium	NA	NA	NA	NA	**23**	J	**22**	J	**20**	J	**14**	J	**14**	J	**27**	J	**18**	J
Thallium	5.1	66	NA	2.8	**0.26**	J	1.7	U	1.7	U	1.5	U	1.8	U	1.7	U	**0.37**	J
Vanadium	550	7,200	NA	5200	**48**		**39**		**34**		**34**		**33**		**50**		**33**	
Zinc	23,000	310,000	NA	13600	**19**	J	**19**	J	**23**	J	**16**	J	**15**	J	**79**	J	**100**	J
Mercury	23**	310	0.4	2	**0.058**		**0.072**		**0.045**		**0.065**	J	**0.045**	J	**0.065**		**0.057**	K

Table 13 (continued)
AOPC-19 Soil Chemical Testing Results - Pit in Grid 2O-16

Field ID					BA19A-SP-02		BA19A-SP-03		BA19A-SWSE03-01		BA19A-FL-01		BA19A-FL-02		BA19A-FL-03		BA19A-DUP01-051409	
Date Collected	Residential RSL	Industrial RSL	Background	SSL	05.13.09		05.13.09		05.13.09		05.14.09		05.14.09		05.14.09		05.14.09	
					Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Explosives (µg/kg)																		
1,3,5-Trinitrobenzene	2,200,000	27,000,000	NA	52,000	100	U	96	U	99	U	100	U	99	U	100	U	100	U
1,3-Dinitrobenzene	6,100	62,000	NA	46	100	U	96	U	99	U	100	U	99	U	100	U	100	U
2,4,6-Trinitrotoluene	19,000	79,000	NA	174	100	U	96	U	99	U	100	U	99	U	100	U	100	U
2,4-Dinitrotoluene***	710	2,500	NA	1.86	100	U	96	U	99	U	100	U	99	U	100	U	100	U
2,6-Dinitrotoluene***	710	2,500	NA	1.86	200	U	190	U	200	U	200	U	200	U	200	U	200	U
2-Amino-4,6-dinitrotoluene	150,000	2,000,000	NA	580	200	U	190	U	200	U	200	U	200	U	200	U	200	U
2-Nitrotoluene	2,900	13,000	NA	5	200	U	190	U	200	U	200	U	200	U	200	U	200	U
3-Nitrotoluene	1,200,000	12,000,000	NA	12,000	200	U	190	U	200	U	200	U	200	U	200	U	200	U
4-Amino-2,6-dinitrotoluene	150,000	1,900,000	NA	580	200	U	190	U	200	U	200	U	200	U	200	U	200	U
4-Nitrotoluene	30,000	110,000	NA	68	200	U	190	U	200	U	200	U	200	U	200	U	200	U
HMX	3,800,000	49,000,000	NA	142,000	200	U	190	U	200	U	200	U	200	U	200	U	200	U
Nitrobenzene	31,000	280,000	NA	40	100	U	96	U	99	U	100	U	99	U	100	U	100	U
Tetryl	240,000	2,500,000	NA	13,000	250	U	240	U	250	U	250	U	250	U	250	U	250	U
RDX	5,500	24,000	NA	7.2	200	U	190	U	200	U	200	U	200	U	200	U	200	U
MNX	NA	NA	NA	NA	100	U	96	U	99	U	100	U	99	U	100	U	100	U
DNX	NA	NA	NA	NA	120	U	120	U	120	U	120	U	120	U	120	U	120	U
TNX	NA	NA	NA	NA	120	U	120	U	120	U	120	U	120	U	120	U	120	U
Metals (mg/kg)																		
Aluminum	77,000	990,000	NA	1,100,000	**17,000**		**15,000**		**16,000**		**15,000**		**19,000**		**9,200**		**11,000**	
Antimony	31	410	NA	5.4	2.5	UL	2.1	UL	4.6	L	0.36	B	0.67	B	0.55	B	0.36	B
Arsenic	0.39	1.6	7.3	5.8	**3.7**		**3.1**		**3.9**		**3.5**		**3.2**		**1.3**	J	**1.6**	J
Barium	15,000	190,000	112	1,640	**32**	J	**44**	J	**47**	J	**32**	J	**39**	J	**10**	J	**13**	J
Beryllium	160	200	NA	64	**0.59**		**0.51**		**0.47**		**0.45**	J	**0.57**		**0.47**		**0.55**	
Cadmium	70	810	2	7.6	**0.3**		**0.14**	J	**0.065**	J	0.24	U	0.27	U	0.23	U	0.25	U
Calcium	NA	NA	NA	NA	**360**	J	**270**	J	**210**	J	**220**		**340**		**360**	J	**480**	J
Chromium	39*	2,000	80.8	42	**14**		**13**		**18**		**15**		**15**		**4.5**	J	**5.7**	J
Cobalt	23	300	NA	9.8	**1.7**		**1.5**		**2.7**		**1.8**		**1.5**		**0.35**	J	**0.46**	J
Copper	3,100	41,000	NA	920	**14**	J	**27**	J	**23**	J	**13**	J	**13**	J	**3.6**	J	**3.8**	J
Iron	55,000	720,000	NA	12,800	**18,000**		**18,000**		**23,000**		**20,000**		**19,000**		**8,100**	J	**10,000**	J
Lead	400	800	107	280	**14**	J	**17**	J	**27**	J	**14**	J	**12**	J	**5.7**	J	**6.7**	J
Magnesium	NA	NA	NA	NA	**450**	J	**440**	J	**590**	J	**450**		**490**		**180**		**220**	
Manganese	1,800	23,000	NA	1140	**88**	J	**67**	J	**120**	J	**73**		**67**		**21**		**23**	J
Nickel	1,600	20,000	NA	960	**3.5**		**3.5**		**4.2**		**3.4**		**3.5**		**0.88**	J	**1.2**	J
Potassium	NA	NA	NA	NA	**580**	K	**530**	K	**550**	K	**540**		**640**		**310**		**360**	
Selenium	390	5,100	1.6	5.2	1.5	U	1.3	U	1.3	U	**0.36**	J	**0.47**	J	1.4	U	1.5	U
Silver	390	5,100	0.58	32	0.62	U	0.53	U	0.55	U	0.61	U	0.68	U	0.57	U	0.62	U
Sodium	NA	NA	NA	NA	**17**	J	**15**	J	**17**	J	**17**	J	18	J	**9.1**	J	**10**	J
Thallium	5.1	66	NA	2.8	1.8	U	1.6	U	**0.22**	J	1.8	U	2	U	**1.7**	U	**1.9**	U
Vanadium	550	7,200	NA	5200	**27**		**25**		**34**		**32**		**28**		**9.3**	J	**12**	J
Zinc	23,000	310,000	NA	13600	**54**	J	**80**	J	**40**	J	**31**	J	**40**	J	**8.5**	J	**9.2**	J
Mercury	23**	310	0.4	2	**0.039**	K	**0.067**	K	**0.15**	K	0.047		**0.039**		0.027	U	0.027	U

Notes:
J = The analyte was detected at the reported concentration; the quantitation is an estimate.
UL= Undected Low biased
K = unkown bias
U = Not detected. The associated number indicates the analyte RL.
B = Compound found in blank and sample
L = Analyte is present, may be biased low
µg/kg = microgram per kilogram
mg/kg = milligram per kilogram
NA = not applicable
Qual = Qualifier
RL = Reporting Limit

AOPC = area of potential concern
ID = identification
USEPA = United States Environmental Protection Agency
MCL = Maximum Contaminant Level
RSL = Regional Screening Level
SSL = Soil Screening Level
Bold = Confirmed identification. The analyte was positively identified at the reported concentration.
Bold, Box and Shading = Confirmed identification above the industrial soil RSL.
RSL data obtained from U.S. EPA, September 12, 2008
SSL (Sept 2008) RSL table using a dilution attenuation factor of 20 (MCL-based number used, when none exists then RSL-based number used).

* = value is from Chromium VI
** = value is from Mercuric Chloride
*** = screening values are for 2,4/2,6-Dinitrotaluene mixture
HMX = Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
RDX = 1,3,5-Trinitroperhydro-1,3,5-triazine
MNX = hexahydro-1-nitroso-3,5-dinitro-1,3,5-triazine
DNX = 3,4-dinitrophenol
TNX = hexahydro-1,3,5-trinitroso-1,3,5-triazine

Source: HydroGeoLogic, Inc, 2009. Final Investigation Summary Report, Area of Potential Concern 19, Engineering Proving Ground, Fort Belvoir, Virginia.

Table 14
AOPC-19 Soil Chemical Testing Results - Pit in Grid 2P-16

Field ID / Date Collected	Residential RSL	Industrial RSL	Background	SSL	BA19B-SP-01 05.13.09		BA19B-SP-02 05.13.09		BA19B-SP-03 05.13.09		BA19B-SWNE03-01 05.13.09		BA19B-SWSW03-01 05.13.09		BA19B-SWSE03-01 05.13.09		BA19B-SWSE03-02 05.13.09	
					Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Explosives (µg/kg)																		
1,3,5-Trinitrobenzene	2,200,000	27,000,000	NA	52,000	96	U	98	U	98	U	98	U	95	U	89	U	98	U
1,3-Dinitrobenzene	6,100	62,000	NA	46	96	U	98	U	98	U	98	U	95	U	89	U	98	U
2,4,6-Trinitrotoluene	19,000	79,000	NA	174	96	U	98	U	98	U	98	U	95	U	89	U	98	U
2,4-Dinitrotoluene***	710	2,500	NA	1.86	96	U	98	U	98	U	98	U	95	U	89	U	98	U
2,6-Dinitrotoluene***	710	2,500	NA	1.86	190	U	200	U	200	U	200	U	190	U	180	U	200	U
2-Amino-4,6-dinitrotoluene	150,000	2,000,000	NA	580	190	U	200	U	200	U	200	U	190	U	180	U	200	U
2-Nitrotoluene	2,900	13,000	NA	5	190	U	200	U	200	U	200	U	190	U	180	U	200	U
3-Nitrotoluene	1,200,000	12,000,000	NA	12,000	190	U	200	U	200	U	200	U	190	U	180	U	200	U
4-Amino-2,6-dinitrotoluene	150,000	1,900,000	NA	580	190	U	200	U	200	U	200	U	190	U	180	U	200	U
4-Nitrotoluene	30,000	110,000	NA	68	190	U	200	U	200	U	200	U	190	U	180	U	200	U
HMX	3,800,000	49,000,000	NA	142,000	190	U	200	U	200	U	200	U	190	U	180	U	200	U
Nitrobenzene	31,000	280,000	NA	40	96	U	98	U	98	U	98	U	95	U	89	U	98	U
Tetryl	240,000	2,500,000	NA	13,000	240	U	240	U	250	U	250	U	240	U	220	U	250	U
RDX	5,500	24,000	NA	7.2	190	U	200	U	200	U	200	U	190	U	180	U	200	U
MNX	NA	NA	NA	NA	96	U	98	U	98	U	98	U	95	U	89	U	98	U
DNX	NA	NA	NA	NA	120	U	120	U	120	U	120	U	120	U	110	U	120	U
TNX	NA	NA	NA	NA	120	U	120	U	120	U	120	U	120	U	110	U	120	U
Metals (mg/kg)																		
Aluminum	77,000	990,000	NA	1,100,000	**19,000**		**15,000**		**19,000**		**20,000**		**15,000**		**23,000**		**15,000**	
Antimony	31	410	NA	5.4	2.4	UL	**0.37**	J	3	L	2.3	UL	2.3	UL	2.3	UL	2.3	UL
Arsenic	0.39	1.6	7.3	5.8	**3.9**		**3.6**		**4.3**		**4**		**3**		**5**		**3.4**	
Barium	15,000	190,000	112	1,640	**33**	J	**57**	J	**38**	J	**39**	J	**36**	J	**31**	J	**27**	J
Beryllium	160	200	NA	64	**0.61**		**0.5**		**0.66**		**0.56**		**0.43**	J	**0.65**		0.48	
Cadmium	70	810	2	7.6	**0.06**	J	0.25	U	**0.2**	J	**0.27**		**0.1**	J	0.23	U	0.23	U
Calcium	NA	NA	NA	NA	**220**	J	**190**	J	**260**	J	**220**	J	**190**	J	**180**	J	**190**	J
Chromium	39*	2,000	80.8	42	**16**		**16**		**18**		**17**		**13**		**18**		**14**	
Cobalt	23	300	NA	9.8	**1.7**		**2**		**1.7**		**1.9**		**1.6**		**1.3**		**1.4**	
Copper	3,100	41,000	NA	920	**14**	J	**13**	J	**27**	J	**11**	J	**16**	J	**8.3**	J	**8.8**	J
Iron	55,000	720,000	NA	12,800	**24,000**		**24,000**		**27,000**		**23,000**		**19,000**		**21,000**		**17,000**	
Lead	400	800	107	280	**14**	J	**20**	J	**21**	J	**13**	J	**11**	J	**7.9**	J	**9.5**	J
Magnesium	NA	NA	NA	NA	**510**	J	**430**	J	**550**	J	**540**	J	**440**	J	**580**	J	**450**	J
Manganese	1,800	23,000	NA	1140	**71**	J	**210**	J	**71**	J	**80**	J	**66**	J	**23**	J	**46**	J
Nickel	1,600	20,000	NA	960	**3.7**		**3.6**		**4.1**		**4**		**3.6**		**3.7**		**3.4**	
Potassium	NA	NA	NA	NA	**600**	K	**490**	K	**620**	K	**710**	K	**590**	K	**780**	K	**570**	K
Selenium	390	5,100	1.6	5.2	**0.44**	J	1.5	U	1.5	U	1.4	U	1.4	U	**0.37**	J	1.4	U
Silver	390	5,100	0.58	32	0.59	U	0.61	U	0.63	U	0.58	U	0.59	U	0.58	U	0.57	U
Sodium	NA	NA	NA	NA	**23**	J	**16**	J	**29**	J	**18**	J	**27**	J	**19**	J	**15**	J
Thallium	5.1	66	NA	2.8	1.8	U	**0.3**	J	1.9	U	1.7	U	1.8	U	1.8	U	1.7	U
Vanadium	550	7,200	NA	5200	**35**		**32**		**38**		**34**		**26**		**34**		**26**	
Zinc	23,000	310,000	NA	13600	**24**	J	**22**	J	**54**	J	**23**	J	**36**	J	**17**	J	**24**	J
Mercury	23**	310	0.4	2	**0.052**		**0.064**		**0.056**		**0.043**		**0.031**		**0.058**		**0.047**	

Table 14 (continued)
AOPC-19 Soil Chemical Testing Results - Pit in Grid 2P-16

Field ID Date Collected	Residential RSL	Industrial RSL	Background	SSL	BA19B-SWNW03-01 05.13.09		BA19B-DUP01-051309 05.13.09		BA19B-SWNW03-02 05.13.09		BA19B-FL-01 05.14.09		BA19B-DUP01-051409 05.14.09		BA19B-FL-02 05.14.09		BA19B-FL-03 05.14.09	
					Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Explosives (µg/kg)																		
1,3,5-Trinitrobenzene	2,200,000	27,000,000	NA	52,000	100	U	100	U	99	U	100	U	100	U	99	U	99	U
1,3-Dinitrobenzene	6,100	62,000	NA	46	100	U	100	U	99	U	100	U	100	U	99	U	99	U
2,4,6-Trinitrotoluene	19,000	79,000	NA	174	100	U	100	U	99	U	100	U	100	U	99	U	99	U
2,4-Dinitrotoluene***	710	2,500	NA	1.86	100	U	100	U	99	U	100	U	100	U	99	U	99	U
2,6-Dinitrotoluene***	710	2,500	NA	1.86	200	U	200	U	200	U	200	U	200	U	200	U	200	U
2-Amino-4,6-dinitrotoluene	150,000	2,000,000	NA	580	200	U	200	U	200	U	200	U	200	U	200	U	200	U
2-Nitrotoluene	2,900	13,000	NA	5	200	U	200	U	200	U	200	U	200	U	200	U	200	U
3-Nitrotoluene	1,200,000	12,000,000	NA	12,000	200	U	200	U	200	U	200	U	200	U	200	U	200	U
4-Amino-2,6-dinitrotoluene	150,000	1,900,000	NA	580	200	U	200	U	200	U	200	U	200	U	200	U	200	U
4-Nitrotoluene	30,000	110,000	NA	68	200	U	200	U	200	U	200	U	200	U	200	U	200	U
HMX	3,800,000	49,000,000	NA	142,000	200	U	200	U	200	U	200	U	200	U	200	U	200	U
Nitrobenzene	31,000	280,000	NA	40	100	U	100	U	99	U	100	U	100	U	99	U	99	U
Tetryl	240,000	2,500,000	NA	13,000	250	U	250	U	250	U	250	U	250	U	250	U	250	U
RDX	5,500	24,000	NA	7.2	200	U	200	U	200	U	200	U	200	U	200	U	200	U
MNX	NA	NA	NA	NA	100	U	100	U	99	U	100	U	100	U	99	U	99	U
DNX	NA	NA	NA	NA	120	U	120	U	120	U	120	U	120	U	120	U	120	U
TNX	NA	NA	NA	NA	120	U	120	U	120	U	120	U	120	U	120	U	120	U
Metals (mg/kg)																		
Aluminum	77,000	990,000	NA	1,100,000	**23,000**		**20,000**		**22,000**		**14,000**		**17,000**		**11,000**		**26,000**	
Antimony	31	410	NA	5.4	**0.46**	J	2.5	UL	2.3	UL	0.38	B	0.71	B	0.53	B	0.75	B
Arsenic	0.39	1.6	7.3	5.8	**4.4**		**3.8**		**4.1**		**3.1**		**3.8**		**2.8**		**5.1**	
Barium	15,000	190,000	112	1,640	**31**	J	**24**	J	**28**	J	**38**	J	**49**	J	**25**	J	**29**	J
Beryllium	160	200	NA	64	**0.61**		**0.59**		**0.7**		**0.43**	J	**0.49**	J	**0.34**	J	**1.2**	
Cadmium	70	810	2	7.6	0.24	U	0.25	U	0.23	U	0.25	U	0.25	U	0.22	U	0.25	U
Calcium	NA	NA	NA	NA	**120**	J	**71**	J	**86**	J	**420**	J	**180**	J	**170**		**230**	
Chromium	39*	2,000	80.8	42	**19**	J	**15**	J	**17**		**17**		**17**		**21**		**27**	
Cobalt	23	300	NA	9.8	**1.3**	J	**0.99**	J	**1.2**		**2.1**		**2.1**		**1.2**		**1.7**	
Copper	3,100	41,000	NA	920	**6.6**	J	**5.1**	J	**8.2**	J	**11**	J	**8.5**	J	**26**	J	**9.7**	J
Iron	55,000	720,000	NA	12,800	**22,000**		**19,000**		**22,000**		**20,000**		**24,000**		**17,000**		**38,000**	
Lead	400	800	107	280	**7.6**	J	**7.5**	J	**8.7**	J	**12**	J	**12**	J	**14**	J	**12**	J
Magnesium	NA	NA	NA	NA	**560**	J	**460**	J	**520**	J	**450**		**500**		**320**		**570**	
Manganese	1,800	23,000	NA	1140	**23**	J	**19**	J	**26**	J	**90**		**81**		**39**		**34**	
Nickel	1,600	20,000	NA	960	**3.7**	J	**2.9**	J	**3.6**		**3.7**		**3.7**		**2.2**		**3.4**	
Potassium	NA	NA	NA	NA	**740**	K	**620**	K	**730**	K	**450**		**550**		**360**		**690**	
Selenium	390	5,100	1.6	5.2	**0.4**	J	1.5	U	1.4	U	**0.43**	J	**0.58**	J	**0.52**	J	**0.79**	J
Silver	390	5,100	0.58	32	0.61	U	0.62	U	0.57	U	0.63	U	0.63	U	0.55	U	0.63	U
Sodium	NA	NA	NA	NA	**19**	J	**17**	J	**26**	J	**16**	J	**19**	J	**14**	J	**23**	J
Thallium	5.1	66	NA	2.8	1.8	U	1.9	U	1.7	U	1.9	U	0.28	J	1.7	U	0.6	J
Vanadium	550	7,200	NA	5200	**35**		**30**		**33**		**31**		**37**		**25**		**53**	
Zinc	23,000	310,000	NA	13600	**12**	J	**14**	J	**17**	J	**27**	J	**15**	J	**46**	J	**23**	J
Mercury	23**	310	0.4	2	**0.053**	J	**0.083**	J	**0.022**	J	**0.038**		**0.041**		**0.054**		**0.046**	

Notes:
J = The analyte was detected at the reported concentration; the quantitation is an estimate.
UL= Undected Low biased
K = unkown bias
U = Not detected. The associated number indicates the analyte RL.
B = Compound found in blank and sample
µg/kg = microgram per kilogram
mg/kg = milligram per kilogram
NA = not applicable
Qual = Qualifier
RL = Reporting Limit

AOPC = area of potential concern
ID = identification
USEPA = United States Environmental Protection Agency
MCL = Maximum Contaminant Level
RSL = Regional Screening Level
SSL = Soil Screening Level
Bold = Confirmed identification. The analyte was positively identified at the reported concentration.
Bold, Box and Shading = Confirmed identification above the industrial soil RSL.
RSL data obtained from U.S. EPA, September 12, 2008
SSL (Sept 2008) RSL table using a dilution attenuation factor of 20 (MCL-based number used, when none exists then RSL-based number used).

* = value is from Chromium VI
** = value is from Mercuric Chloride
*** = screening values are for 2,4/2,6-Dinitrotaluene mixture
HMX = Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
RDX = 1,3,5-Trinitroperhydro-1,3,5-triazine
MNX = hexahydro-1-nitroso-3,5-dinitro-1,3,5-triazine
DNX = 3,4-dinitrophenol
TNX = hexahydro-1,3,5-trinitroso-1,3,5-triazine

Source: HydroGeoLogic, Inc, 2009. Final Investigation Summary Report, Area of Potential Concern 19, Engineering Proving Ground, Fort Belvoir, Virginia.

FIGURES

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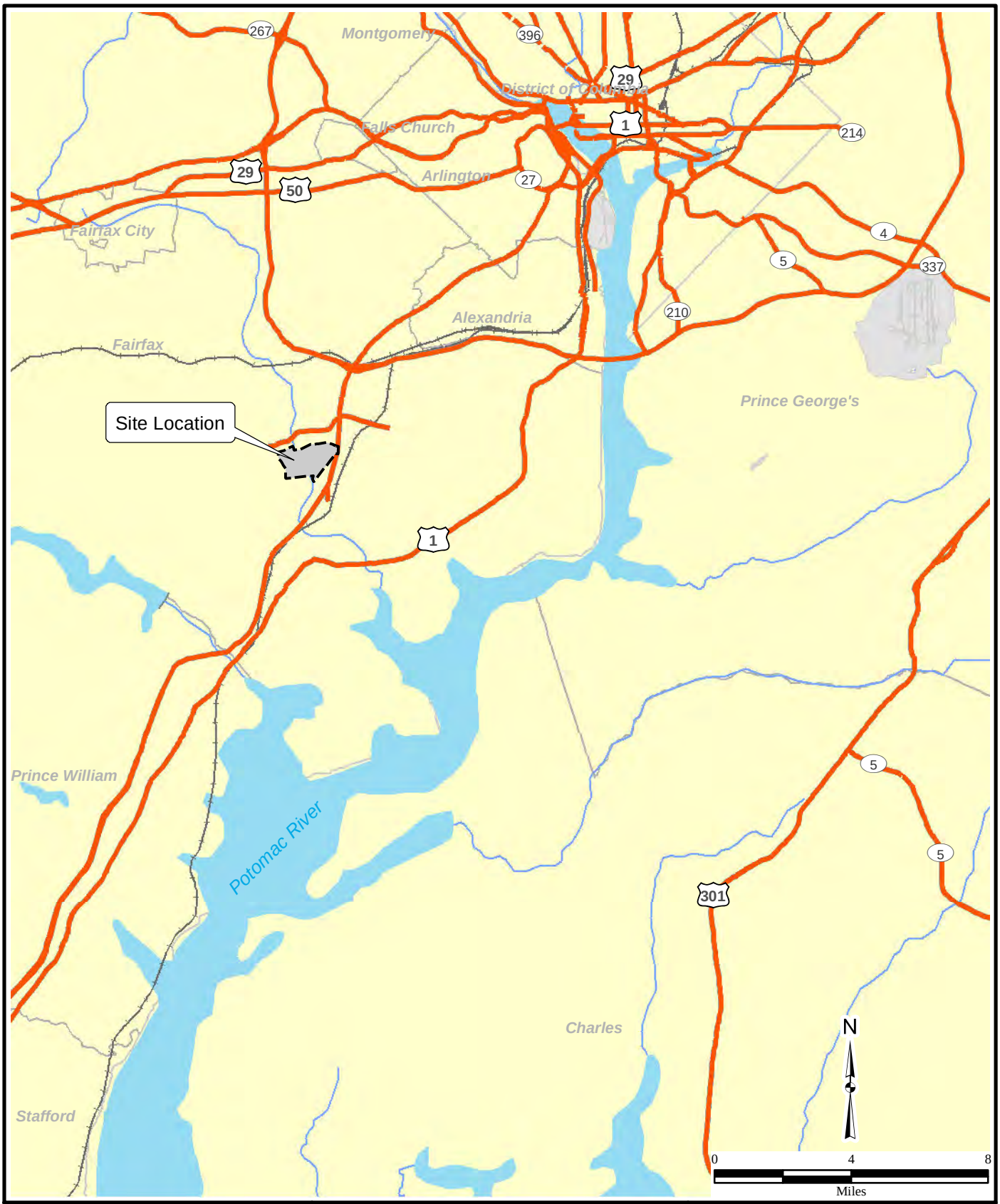

\\Gst-srv-01\hglgis\Ft_Belvoir\DD\
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5/9/2014 AW
Map Source: HGL, ESRI Data

HGL HydroGeoLogic, Inc

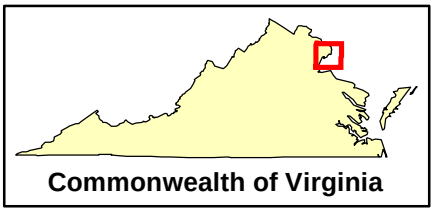


Figure 1
General Site Location

Figure 2
Fort Belvoir North Area Layout

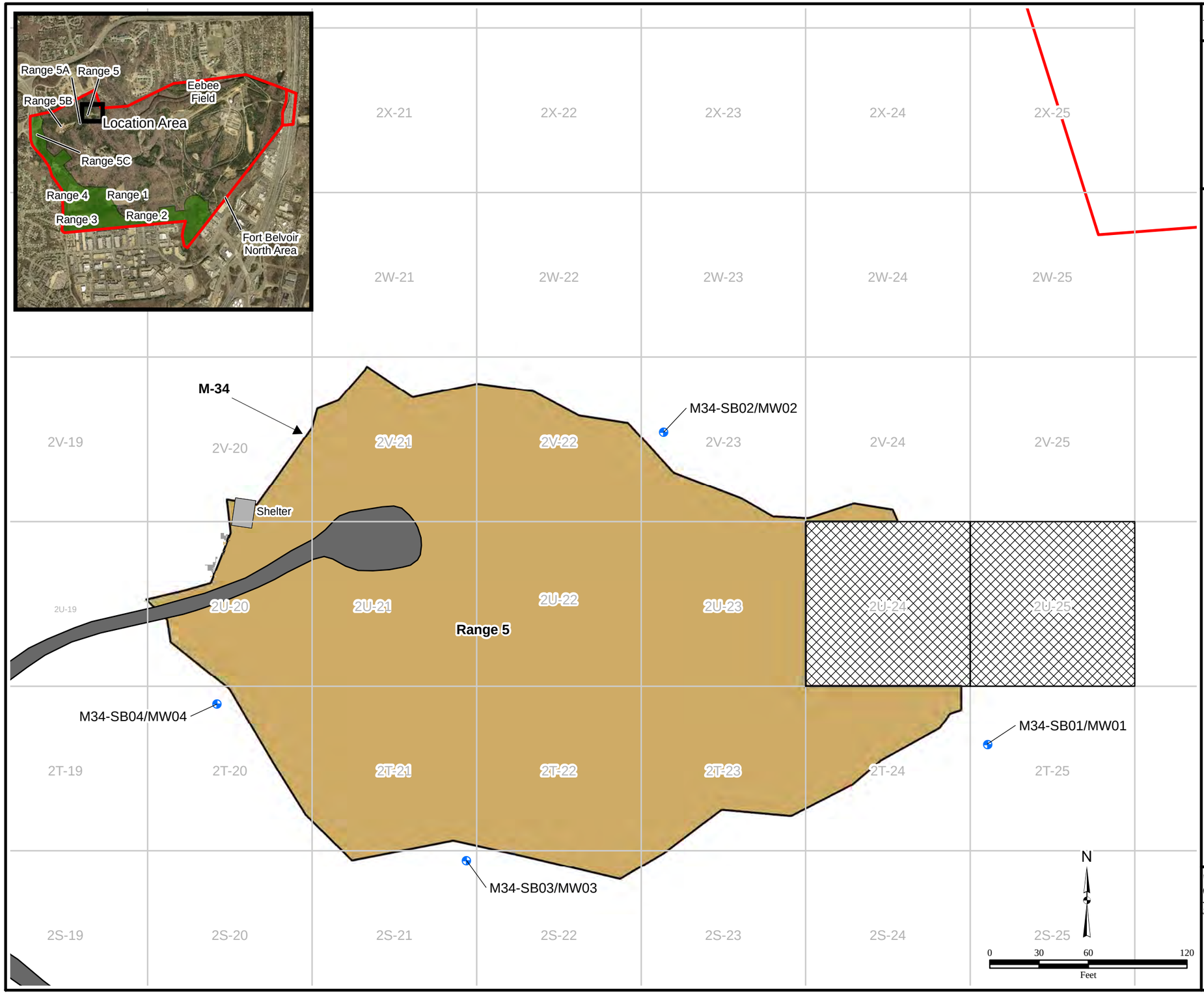
Legend

- Fort Belvoir North Area Site Boundary
- Accotink Creek
- Fairfax County Parkway Extension Right-of-Way

Note:
All map information was obtained from the USACE-provided GIS database or a map provided by Fort Belvoir titled "4402_EPG cleared ranges."

\\Gst-srv-01\hglgis\Ft_Belvoir\DD\(02)EPG_Area_Overview.mxd
5/9/2014 PDB
Source: USACE, USGS National Map, 2002

HGL HydroGeoLogic, Inc



HGL—Decision Document, Seven Sites Fort Belvoir North Area
US Army Garrison—Fort Belvoir, VA

Figure 3
M-34 Location

Legend

- Monitoring Well
- M34-SB02/MW02 — Sample Identification
- Fort Belvoir North Area Site Boundary
- Unpaved Road
- M-34 Boundary
- Range
- Grids 2U-24/2U-25 are excluded from M-34 and are being investigated separately.
- Building
- 2V-25 — MEC Clearance Grid

Note:
MEC=munitions and explosives of concern

\\Gst-srv-01\hglgis\Ft_Belvoir\DD\(03)SWMU_M-34.mxd
5/15/2014 ARW
Source: HGL GIS Database

HGL HydroGeoLogic, Inc.

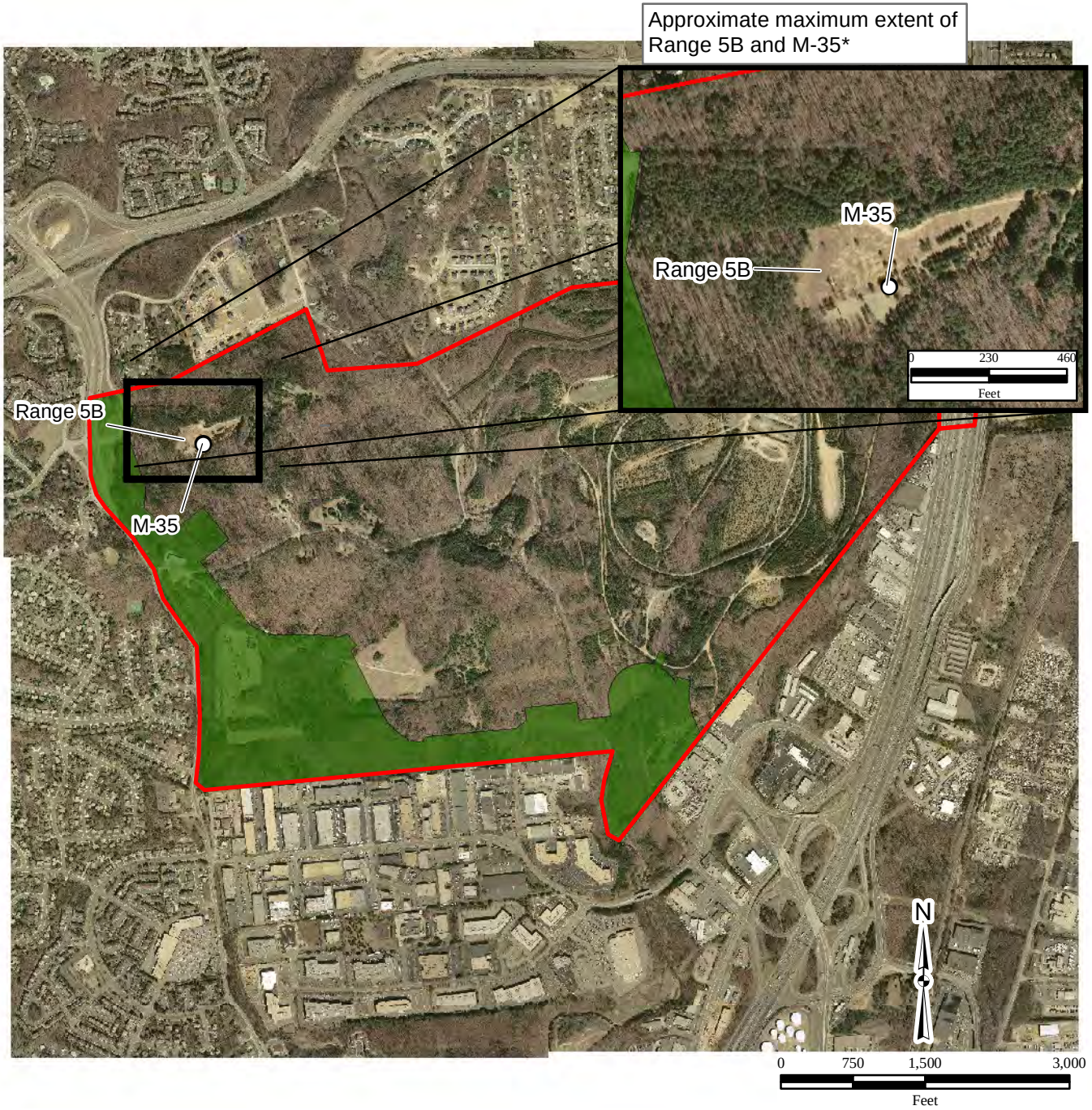


Figure 4
M-35
Location and Extent

Legend

Fort Belvoir
North Area Boundary

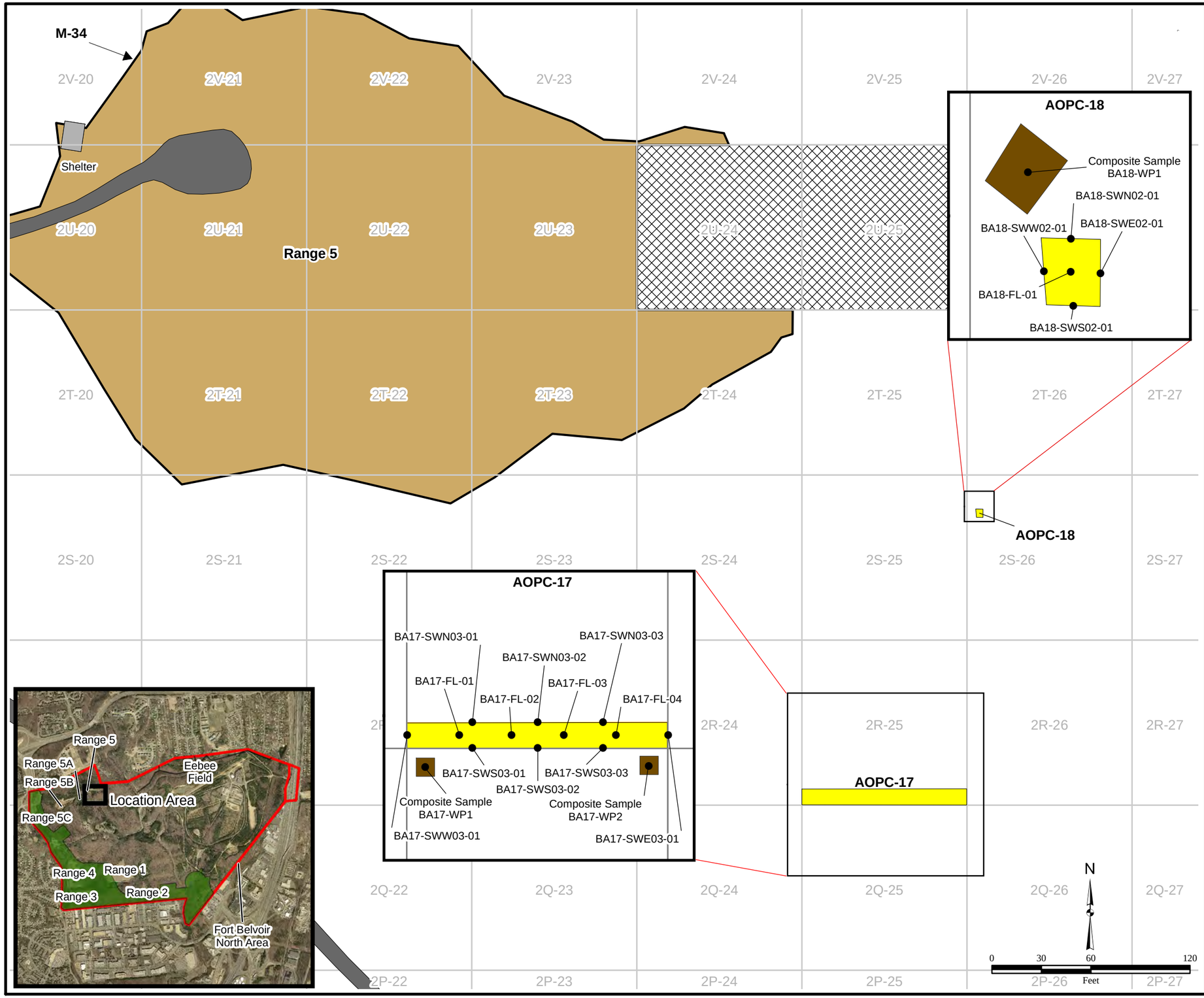
Fairfax County Parkway
Right of way

Note:
All shown boundaries and locations were obtained from USACE-provided GIS database or a map provided by Fort Belvoir titled "4402_EPG cleared ranges."
Area of Range 5B is approximate.
* Maximum extent was estimated from 1961 aerial photograph.

\\Gst-srv-01\hglgis\Ft_Belvoir\DD\(04)SWMU_M-35.mxd
5/9/2014 ARW
Source: USACE,
USGS National Map, 2002

HGL HydroGeoLogic, Inc

Figure 5
AOPC-17 and AOPC-18



Legend

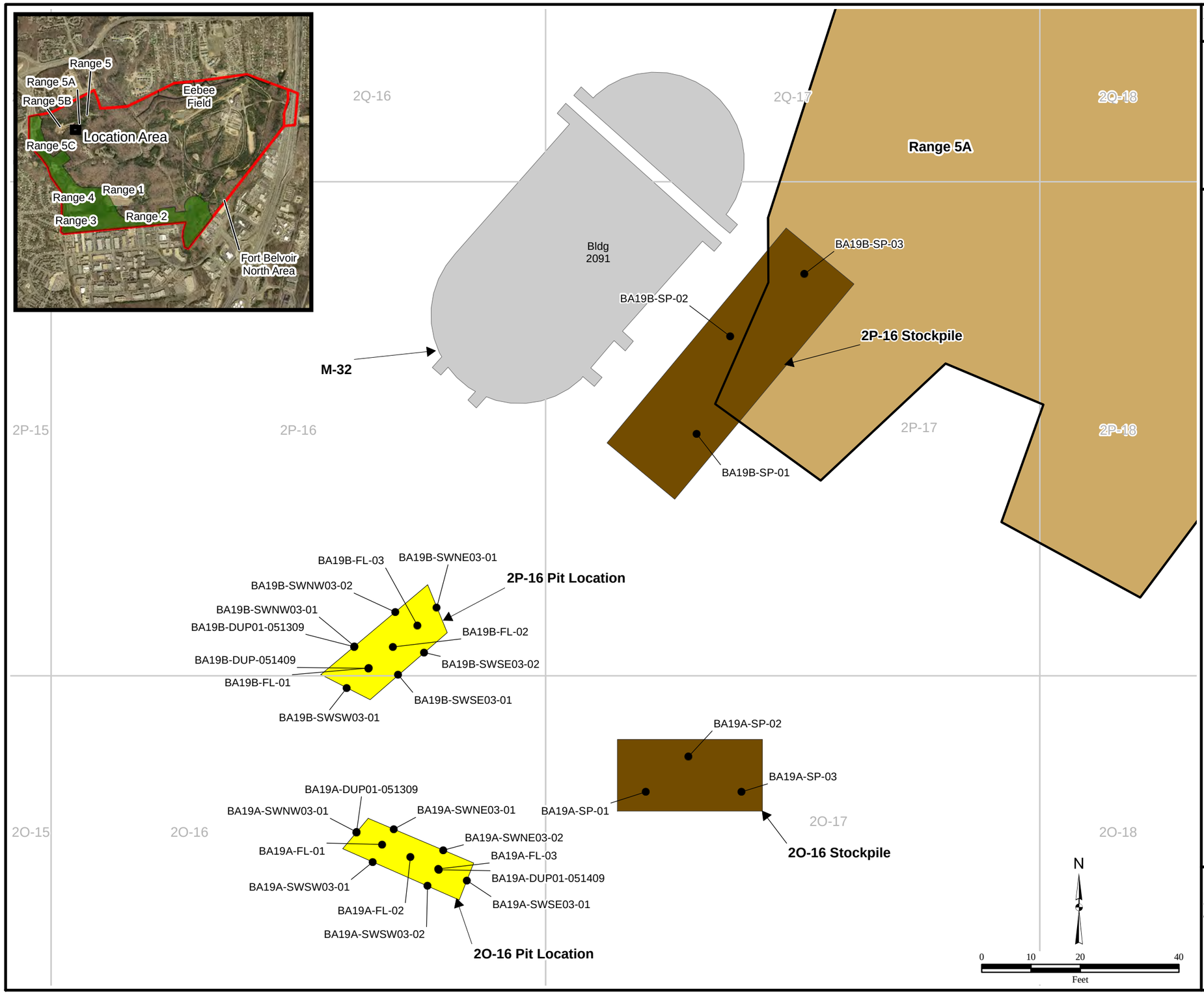
▲	Soil Sample
BA18-SWN02-01	Sample Identification
	Area of Potential Concern (AOPC) Pit
	Unpaved Road
	Stockpile
	M-34 Boundary
	Range
	Grids 2U-24/2U-25 are excluded from M-34 and are being investigated separately.
	Building
2S-26	MEC Clearance Grid

Note:
MEC=munitions and explosives of concern

\\Gst-srv-01\hglgis\Ft_Belvoir\DD
(05)AOPC-17_AOPC-18_Sample_Locs.mxd
5/15/2014 ARW
Source: HGL GIS Database

HGL HydroGeoLogic, Inc

Figure 6
AOPC-19
Sample Locations



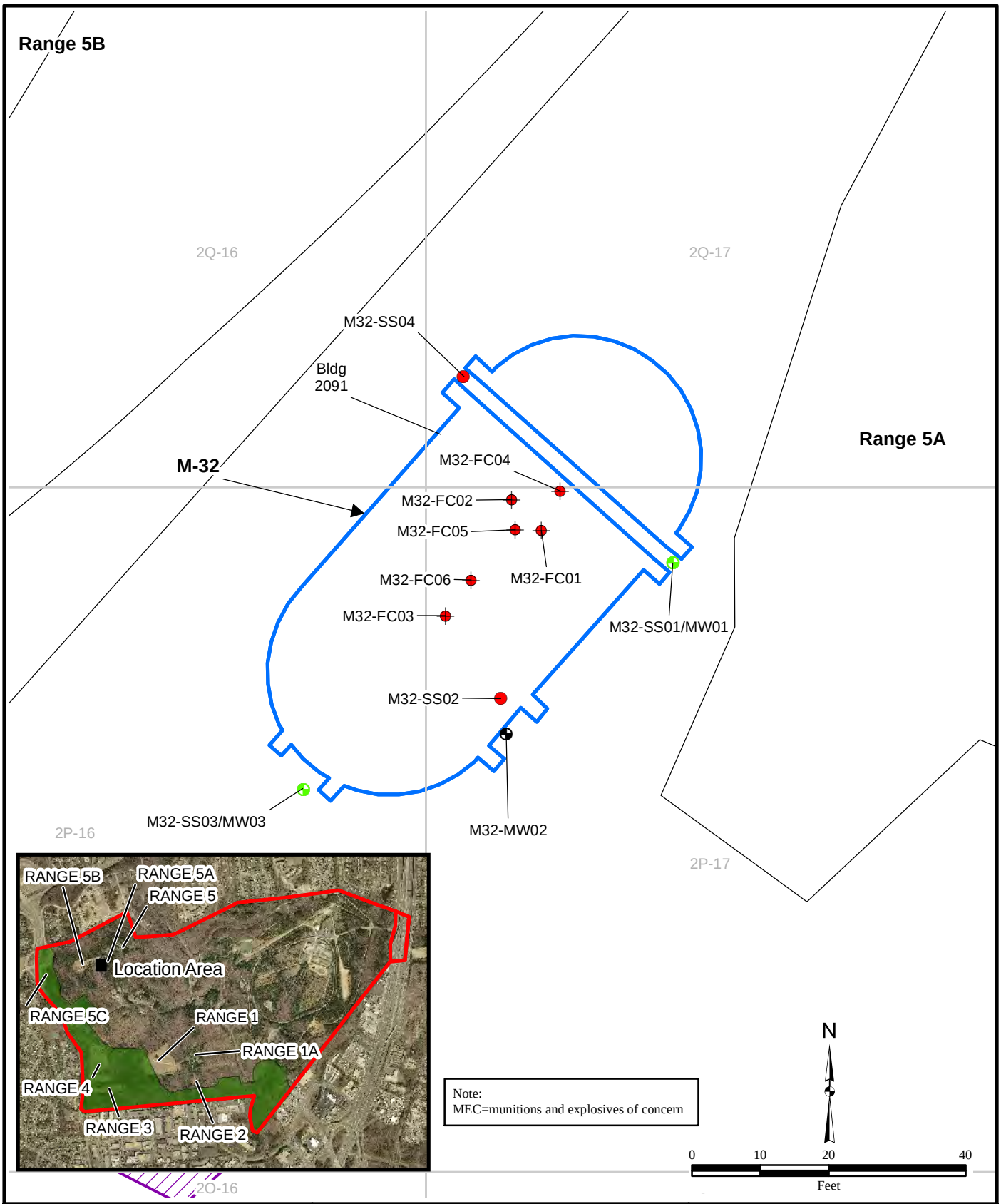
Legend

- Soil Sample
- BA19B-SP-03 — Sample Identification
- Area of Potential Concern (AOPC) Pit
- Stockpile
- Bunker
- Range
- 2P-18 — MEC Clearance Grid

Note:
MEC=munitions and explosives of concern

\\Gst-srv-01\hglgis\Ft_Belvoir\DD\(06)Sample_Loc.mxd
5/15/2014 ARW
Source: HGL GIS Database

HGL HydroGeoLogic, Inc.

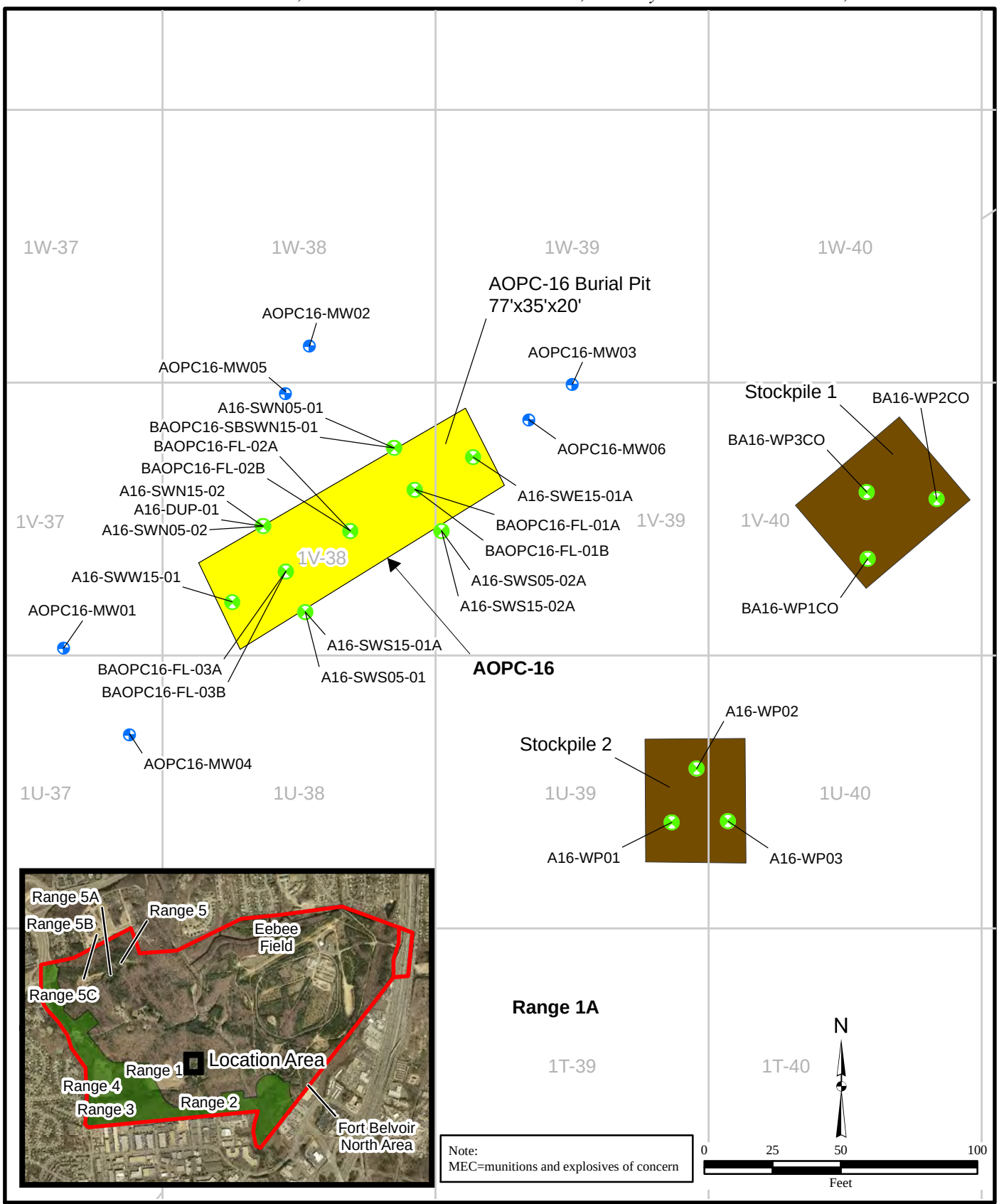


\\Gst-srv-01\hglgis\Ft_Belvoir\DD
(07)M-32_Planned_Sample_Loc.mxd
5/9/2014 ARW
Source: HGL GIS Database

Legend

- Monitoring Well
- Surface Soil Sample/Temporary Monitoring Well
- Surface Soil Sample Collected by HGL
- Surface Soil Sample Collected by Others
- M32-MW02 Sample Identification
- 2P-17 MEC Clearance Grid

Figure 7
Sample Locations
M-32



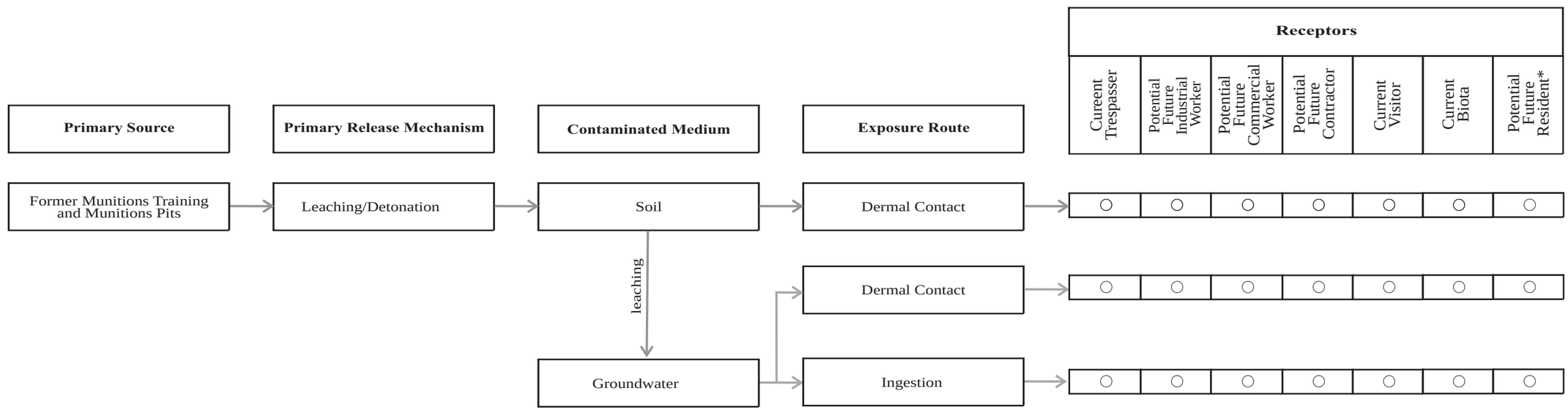
\\Gst-srv-01\hglgis\Ft_Belvoir\DD\
(08)AOPC16_Sample_Loc.mxd
5/15/2014 ARW
Source: HGL GIS Database

HGL HydroGeoLogic, Inc

Legend

- Monitoring Well
- General Location of 3-Point Composite Sample
- A16-WP01 Sample Identification
- Area of Potential Concern (AOPC) Pit
- Stockpile
- 1T-39 MEC Clearance Grid

Figure 8
AOPC-16
Location
and Sample Location



Notes:
*Residential receptor is hypothetical and unlikely because land use controls (LUCs) are being established for all sites in the Fort Belvoir North Area (FBNA) due to the potential for munitions and explosives of concern. LUCs will be established for FBNA as whole in a separate decision document.

AOPC=Area of potential concern

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6/12/2014 ARW
Source: HGL

Legend

Complete Exposure Route

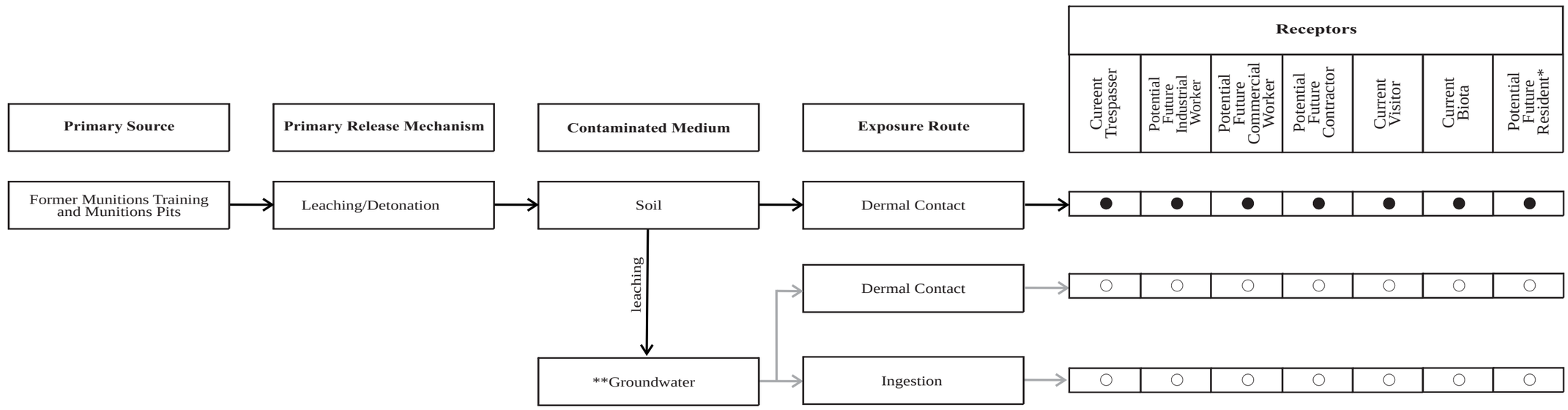
Incomplete Exposure Route

Complete Exposure Pathway

Incomplete Exposure Pathway

HGL—Decision Document, Seven Sites Fort Belvoir North Area
US Army Garrison—Fort Belvoir, VA

Figure 9
Conceptual Site Model for Sites M-35, AOPC-17, AOPC-18, and AOPC-19



Notes:
*Residential receptor is hypothetical and unlikely because land use controls (LUCs) are being established for all sites in the Fort Belvoir North Area (FBNA) due to the potential for munitions and explosives of concern. LUCs will be established for FBNA as whole in a separate decision document.
**Groundwater is not used at any site, all pathways from groundwater are incomplete. M-32 groundwater does have actionable levels of contamination. M-32 groundwater is being addressed in a separate decision document with site M-33 groundwater.

AOPC=Area of potential concern

\\Gst-srv-01\hglgis\Ft_Belvoir\DD (10)ConceptualSiteModel.cdr
6/12/2014 ARW
Source: HGL

Legend

● Complete Exposure Route
○ Incomplete Exposure Route
→ Complete Exposure Pathway
→ Incomplete Exposure Pathway

HGL—Decision Document, Seven Sites Fort Belvoir North Area
US Army Garrison—Fort Belvoir, VA

Figure 10
Conceptual Site Model for Sites M-32, M-34, and AOPC-16

APPENDIX A
NO FURTHER ACTION
CONCURRENCE DOCUMENTATION

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U.S. EPA ACCEPTANCE OF M-32, M-34, AOPC-17/18 AND AOPC-19 NO FURTHER ACTION RECOMMENDATIONS

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

September 14, 2009

Certified Mail
Return Receipt Requested

Mr. Patrick McLaughlin
US Army Garrison, Fort Belvoir
Directorate of Public and Logistics
Environmental and Natural Resources Division
9430 Jackon Loop, Suite 100
Fort Belvoir, VA 22060-5116

Dear Mr. McLaughlin:

The US Environmental Protection Agency (EPA) has reviewed the Environmental Investigation Reports for the following units:

- Solid Waste Management Unit M-32, Building 2091, dated May 2009
- Solid Waste Management Unit M- 34, Waste Ordnance Pit at Range 5, Technical Memorandum/Addendum, dated May 27, 2009
- Areas of Potential Concern 17/18 and 19, Pits near Range 5 and 5a, dated June 2009
- Petroleum Storage Area 2000, dated December 2007
- EPG Sampling Strategy Report, dated June 2009

EPA approves these reports and agrees with your recommendation of no further action.

If you have any questions, feel free to contact me at 215-814-3434.

Sincerely,

Wanda Martinez, Project Manager
Office of Materials Management

cc: Luis Pizarro, EPA
Wade Smith, VADEQ
Marcia Kicos, US Army Garrison, Fort Belvoir

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U.S. EPA ACCEPTANCE OF M-35
NO FURTHER ACTION RECOMMENDATION

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Iseri, David

From: Martinez.Wanda@epamail.epa.gov
Sent: Friday, October 30, 2009 1:44 PM
To: Iseri, David
Cc: carfagno, amy; Mortensen, Amy M Miss CTR USA IMCOM; Iseri, David; Coulters, Francis J LTC NG USA; Kivimaki, Kevin W Mr CTR USA IMCOM; Cremeans, Lyla D USA; Kicos, Marcia G CIV USA IMCOM; Smith,Wade
Subject: Re: No Further Action Request memorandum - SWMU M-35 Fort Belvoir- Contract W91ZLK-05-D-0010 T.O. 0001

EPA and VADEQ have reviewed this report and accept the recommendation of no further action. Thanks

"Iseri, David" <diseri@hgl.com>

10/01/2009 05:01 PM

To Wanda Martinez/R3/USEPA/US@EPA

cc "carfagno, amy" <amy.carfagno@us.army.mil>, "Mortensen, Amy M Miss CTR USA IMCOM" <amy.mortensen@us.army.mil>, "Coulters, Francis J LTC NG USA" <francis.coulters@us.army.mil>, "Kivimaki, Kevin W Mr CTR USA IMCOM" <Kevin.W.Kivimaki@us.army.mil>, "Cremeans, Lyla D USA" <lyla.d.cremeans@us.army.mil>, "Kicos, Marcia G CIV USA IMCOM" <marcia.g.kicos@us.army.mil>, "Smith,Wade" <Wade.Smith@deq.virginia.gov>, "Iseri, David" <diseri@hgl.com>

Subject No Further Action Request memorandum - SWMU M-35 Fort Belvoir- Contract W91ZLK-05-D-0010 T.O. 0001

Good afternoon, Ms. Martinez.

Fort Belvoir ENRD has directed us to forward you the attached memorandum that describes the history of SWMU M-35 and requests your consideration of a finding of no-further-action for this site. Please forward your comments on this memorandum to ENRD and us. We will work expeditiously to resolve any issues.

Thanks,

David A. Iseri, PMP, P.G.
Sr. Project Manager
HydroGeoLogic, Inc.
11107 Sunset Hills Road, Suite 400
Reston, VA 20190
Office 703-326-7831
FAX 703-471-4180

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please promptly notify the sender by reply e-mail and immediately delete this
message from your system.[attachment "SWMU_M-35_Tech_Memo_10_1_09.pdf"
deleted by Wanda Martinez/R3/USEPA/US]

U.S. EPA ACCEPTANCE OF AOPC-16
NO FURTHER ACTION RECOMMENDATION

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Iseri, David

From: Martinez.Wanda@epamail.epa.gov
Sent: Wednesday, August 26, 2009 1:07 PM
To: Iseri, David
Cc: carfagno, amy; Mortensen, Amy M Miss CTR USA IMCOM; Iseri, David; Coulters, Francis J LTC NG USA; Sperka, Jonathan; Kivimaki, Kevin W Mr CTR USA IMCOM; Cremeans, Lyla D USA; Kicos, Marcia G CIV USA IMCOM; Smith,Wade
Subject: Re: Fort Belvoir AOPC-16 Draft Final ISR Contract No. W91ZLK-05-D-0010 T.O. 0001
Attachments: AOPC_16_Revised_Draft_Final_ISR.pdf

EPA has reviewed this report and it is acceptable. Thanks

Wanda Martinez
Environmental Engineer
EPA Region III
Land and Chemicals Division
Office of Materials Management
215-814-3434

"Iseri, David" <diseri@hgl.com>

08/12/2009 04:16 PM

To Wanda Martinez/R3/USEPA/US@EPA, "Smith,Wade" <Wade.Smith@deq.virginia.gov>

cc "Coulters, Francis J LTC NG USA" <francis.coulters@us.army.mil>, "carfagno, amy" <amy.carfagno@us.army.mil>, "Cremeans, Lyla D USA" <lyla.d.cremeans@us.army.mil>, "Iseri, David" <diseri@hgl.com>, "Kicos, Marcia G CIV USA IMCOM" <marcia.g.kicos@us.army.mil>, "Kivimaki, Kevin W Mr CTR USA IMCOM" <Kevin.W.Kivimaki@us.army.mil>, "Mortensen, Amy M Miss CTR USA IMCOM" <amy.mortensen@us.army.mil>, "Sperka, Jonathan" <jsperka@hgl.com>

Subject Fort Belvoir AOPC-16 Draft Final ISR Contract No. W91ZLK-05-D-0010 T.O. 0001

Good afternoon, Ms. Martinez.

Fort Belvoir ENRD has requested that I forward the Draft Final AOPC-16 ISR document to you for EPA's review. That document is attached. As you may recall this is a revised draft that incorporates the results of testing three new wells that were installed as an outcome of our conversations. A quantitative risk assessment is also included as well as soil screening level (SSL) calculations. Please note that the validation narrative has been omitted due to size. If you require that appendix please let me know and we will transmit it to you on a CD.

Please direct your comments to Fort Belvoir ENRD and copy me. We are always available to help clarify issues you may encounter during your review.

Thanks,

David A. Iseri, PMP, P.G.
Sr. Project Manager
HydroGeoLogic, Inc.
11107 Sunset Hills Road, Suite 400
Reston, VA 20190

Office 703-326-7831
FAX 703-471-4180

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