DEPARTMENT OF THE ARMY
NEW YORK DISTRICT, CORPS OF ENGINEERS
JACOB K. JAVITS FEDERAL BUILDING
NEW YORK, N.Y. 10278-0090
August 19, 2013

REPLY TO
ATTENTION OF

Programs and Project Management Division

New York State Department of Environmental Conservation
Division of Environmental Remediation,
Bureau of Eastern Remedial Action
c/o Ms. Heather Bishop
625 Broadway, 11th Floor
Albany, New York 12233-7015

AUG 26 2013

RE: PROPOSED PLAN FOR AREAS OF CONCERN (AOCs) 6 and 9 – FORMER SCHENECTADY ARMY DEPOT – VOORHEESVILLE AREA (FSADVA), GUILDERLAND, NEW YORK

Dear Ms. Bishop:

Enclosed for your review and retention is the *Final Proposed Plan—Areas of Concern 6 and 9 – Former Schenectady Army Depot, Guilderland, New York,* dated August 2013 *(Formerly Used Defense Site C02NY000203).*

The report addresses AOC 6 (Waste Water Treatment Plant Area) and AOC 9 (Building 60 Area), and updates the remedial investigation report (dated September 2007) to include a comparison of previous soil investigation data with current New York State Department of Environmental Conservation Part 375 soil clean up objectives.

Subsequent to your review and solicitation of public comments on this plan, we intend to issue the decision document for AOCs 6 and 9. A public meeting is planned for Tuesday, September 24, 2013 at the Guilderland Public Library to discuss this *Proposed Plan.*

Please contact me at (917) 790-8235 if you have any questions regarding this matter.

Sincerely,

Gregory J. Goepfert

Gregory J. Goepfert
Project Manager

Encls.

cc: Northeastern Industrial Park, (Mr. Steve Porter, Esq.), 1 CD
State of New York, Department of Health (Ms. Bridget Callaghan), 2 hard copies, 2 CDs
Albany County Health Department (Mr. Ronald Groves), 1 CD
U. S. Army Corps of Engineers, CEHNC-EMS (Mr. Thomas Georgian), 1 CD
U. S. Army Corps of Engineers, CENAB-EN-HT (Mr. Hamid Rafiee), 1 hard copy, 1 CD
Community Co-Chair, Restoration Advisory Board (Mr. Ted Ausfeld), 1 CD
Community Co-Chair, Restoration Advisory Board (Mr. Charles Rielly), 1 CD

FINAL

PROPOSED PLAN
FOR
AREAS OF CONCERN 6 and 9
FORMER SCHENECTADY ARMY DEPOT-
VOORHEESVILLE AREA
GUILDERLAND, NEW YORK

PREPARED FOR:

U.S. ARMY CORPS OF ENGINEERS

Contract No. W912DY-08-D-0003

Delivery Order No. 0007

Formerly Used Defense Site Number C02NY0002

PREPARED BY:

PARSONS

August 2013

FINAL

PROPOSED PLAN

FOR
AREAS OF CONCERN 6 and 9
FORMER SCHENECTADY ARMY DEPOT – VOORHEESVILLE AREA (SADVA)
GUILDERLAND, NEW YORK

FUDS Property Number C02NY0002

Prepared For:

US Army Corps of Engineers

New York District

Prepared By:

PARSONS

301 Plainfield Road, Suite 350
Syracuse, New York 13212

AUGUST 2013

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GLOSSARY

ACDH	Albany County Department of Health
Analyte	A chemical being tested for in a laboratory test
AOC	Area of Concern
BEHP	bis(2-Ethylhexyl)phthalate
C&D	construction and demolition – a type of landfill
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act – a statute, commonly known as "Superfund," that provides broad Federal authority to respond directly to releases or threatened releases of hazardous substances, pollutants, or contaminants that may endanger public health or the environment
Conceptual Model	The understanding of how the site contamination may migrate through various soil and water media and reach potential receptors – such as site workers or local residents
COPCs	contaminates of potential concern
DNSC	Defense National Stockpile Center – a Federal agency that stores commodities critical to national defense
DOA	Department of the Army
DoD	Department of Defense
EIS	Environmental Impact Statement - A document required of federal agencies by the National Environmental Policy Act for major projects or legislative proposals significantly affecting the environment
Glacial till	a dense mixture of soil and rock deposited by glaciers
GSA	General Services Administration
GURA	Guilderland Urban Renewal Agency
HHRA	Human Health Risk Assessment – an evaluation of the risk posed to humans from exposure to contaminants
HIs	hazard indices – measurements of noncancer risk to human health
NEIP	Northeastern Industrial Park – current name for the property that was formerly the Schenectady Army Depot – Voorheesville Area
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation – regulatory body for environmental issues in New York State
NYSDOH	New York State Department of Health – regulatory body for health issues in New York State
PCBs	polychlorinated biphenyls - A group of toxic, persistent chemicals used in electrical transformers and capacitors for insulating purposes, and in gas pipeline systems as lubricant

GLOSSARY (CONTINUED)

PAH	polycyclic aromatic hydrocarbons – a class of semivolatile compounds
RI	Remedial Investigation – a site characterization to assess soil, sediment, surface water, air and groundwater quality
DD	Decision Document – The Department of Defense has adopted the term Decision Document for the documentation of remedial action (RA) decisions at non-National Priorities List (NPL) FUDS Properties. The decision document shall address the following: Purpose, Site Risk, Remedial Alternatives, Public/Community Involvement, Declaration, and Approval and Signature.RSL Regional Screening Levels – health risk-based concentrations for soil and groundwater published by United States Environmental Protection Agency
SADVA	Schenectady Army Depot – Voorheesville Area
SLERA	screening-level ecological risk assessment – an abbreviated form of an ecological risk assessment that assesses the health of plants and animals at a site
STARS	Spill Technology and Remediation Series
SVOCs	semivolatile organic compounds – a class of organic chemicals
SW	surface water
TAL	Target Analyte List – list of inorganic compounds designated by United States Environmental Protection Agency
TCL	Target Compound List - list of organic compounds designated by United States Environmental Protection Agency
TP	test pit – an excavation in the soil to identify buried wastes
TPH	total petroleum hydrocarbons
USACE	United States Army Corps of Engineers - A Federal agency whose authority includes response to releases or threatened releases of hazardous substances, pollutants, or contaminants at formerly used defense sites
USEPA	United States Environmental Protection Agency - A Federal agency, whose mission is to protect human health and the environment
UST	underground storage tanks
VOC	volatile organic compound
WWTP	waste water treatment plant

SECTION 1

INTRODUCTION

This Proposed Plan (hereinafter, "Proposed Plan") was prepared to satisfy Section 117(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) also known as Superfund. This Proposed Plan explains the history of the former Schenectady Army Depot – Voorheesville Area (SADVA) as well as the type and extent of contamination found at Areas of Concern (AOCs) 6 and 9 – the Former Wastewater Treatment Plant and Building 60 Area, respectively. The primary purpose of this Proposed Plan is to summarize the proposed actions for AOCs 6 and 9 selected by the U.S. Army Corps of Engineers (USACE).

This Proposed Plan concerns the Department of Defense (DoD) use of the former SADVA during the period that DoD owned and operated the site. The former SADVA site is currently a privately-owned industrial park known as the Northeastern Industrial Park (NEIP). This Proposed Plan does not address any environmental impacts that may be associated with the current use of the site. In other words, this Proposed Plan only concerns DoD contamination.

To summarize, the USACE has conducted a thorough remedial investigation, pursuant to CERCLA, of AOCs 6 and 9 with regard to the DoD's former use of the site. Based on that investigation, USACE believes that a response action is not warranted. Although there were some elevated contaminant concentrations in a few samples, the human health and ecological risk levels at this industrial site are below the unacceptable threshold range accepted by the United States Environmental Protection Agency (USEPA). Accordingly, we propose not to conduct a response action at AOCs 6 and 9.

Consistent with Section 117(a) of CERCLA, USACE encourages the public to participate in the Proposed Plan process for AOCs 6 and 9 at SADVA. Information on how to participate in the decision-making process is presented in Section 7 of this plan. A Decision Document will be issued after reviewing and considering and responding to comments submitted during the public comment period. This Proposed Plan may be modified based on any new information acquired during this designated public comment period. Therefore, the public is encouraged to review and comment on this Proposed Plan.

This Proposed Plan summarizes information that can be found in greater detail in the supporting documents listed in the Administrative Record file for this site. The Administrative Record file can be examined at the following locations:

- Voorheesville Public Library
  51 School Road
  Voorheesville, NY 12186-9697
  (518) 765-2791

SECTION 2

SITE BACKGROUND

2.1 SITE LOCATION

SADVA is located south of New York State (NYS) Route 146 and east of County Route 201, approximately one-quarter mile southeast of the Village of Guilderland Center, Albany County, New York. The site is approximately 3 miles north of Voorheesville, 3 miles west of Guilderland, and 11 miles west of Albany. Figure 1 shows the site location and vicinity. The SADVA site is now a privately-owned commercial/industrial complex known as the NEIP.

2.2 SITE SETTING

The SADVA originally included approximately 650 acres, most of which was surrounded by a chain-link fence topped with barbed wire (Figure 2). A separate tract of approximately 40 acres, located west of County Route 201, was also included in the SADVA and has been designated AOC 2. The SADVA was primarily a warehouse and storage complex set on leveled and paved grounds. The area south of the SADVA warehouse complex borders New York State Department of Environmental Conservation (NYSDEC) Wetland V-19, and contains AOC 5 (Voorheesville Depot), and confirmed and suspected disposal areas including AOC 1 (U.S. Army Southern Landfill), AOC 4 (Construction and Demolition (C&D) Landfill), and AOC 7 (Triangular Disposal Area). The area north of the warehouse complex contains AOC 3 (Burn Pit Area), AOC 6 (Waste Water Treatment Plant), and AOC 9 (Building 60 Area). AOC 8 is the Black Creek.

Black Creek (AOC 8) enters the SADVA between AOC 1 and AOC 5 and flows northward along the eastern side of the SADVA (Figures 1 and 2). A perimeter ditch collects water from the southern and western sides of the SADVA and discharges into Black Creek. The Town of Guilderland Central School is located adjacent to the northwest portion of the SADVA on School Road.

The New York State Bureau of Watershed Management and the NYSDEC have classified the section of Black Creek adjacent to SADVA as a Class C stream. Even though other factors may limit the use for that purpose, Class C waters are suitable for fishing, fish propagation, and primary and secondary contact recreation. Black Creek flows north and joins the Bozen Kill, which enters the Watervliet Reservoir. The Watervliet Reservoir is a Class A water body which is suitable for drinking, culinary or food processing, and all other uses. The Watervliet Reservoir water supply serves a population of over 40,000 people. The municipal water supply system in the vicinity of SADVA was developed after SADVA operations ended. The public used domestic wells before the municipal water system was installed. Individuals were known to withdraw water from Black Creek just south of the Bozen Kill (Town of Guilderland, 2000). That stretch of the Black Creek is classified as a Class B waterway by the NYSDEC. Class B waters are suitable for primary contact recreation and for any other uses except: drinking water supply source and culinary or food processing purposes.

Most residences in the site vicinity are served by municipal drinking water from Watervliet Reservoir; however, at the time of the remedial investigation (RI), the homes east of SADVA were still on private, residential wells. Public water supply pipelines run along County Route 146 between State Route 201 and Ostrander Road, and along State Route 201 at least as far as the railroad tracks west of the intersection of Ostrander Road and State Route 201. The municipal water supply lines extend approximately 1,500 feet west along Meadowdale Road (Route 202). Homes west and southwest of SADVA, along the rest of Meadowdale Road, Frederick Road, and Hawes Road use private wells as a drinking water source, as do homes northwest of the intersection of State Route 201 and County Route 146 (Town of Guilderland, 2000). The NEIP and the Guilderland Central School are supplied with potable water by the Town of Guilderland Water Department. However, the school continues to use wells on its property to irrigate the athletic fields and school grounds.

2.3 SITE HISTORY

The DoD held ownership of the SADVA property from 1941 until 1969. The site was originally constructed as a regulating station and a holding and reconsignment point in 1941, and later it became a general Army depot. The principal mission of the installation was the receipt, storage, maintenance, and distribution of supply items for the Department of the Army (DOA). Prior to construction of the facility in 1941, the land use was agricultural. In 1963, approximately 40 acres on the west side of Route 201 were sold to a private party, and that parcel has been used as a residence since that time. That parcel was formerly the Bivouac Area/Post Commander's Landfill and has been designated AOC 2. In 1969 SADVA was closed, and 35.5 acres were transferred to the U.S. General Services Administration (GSA). This parcel became the Defense National Stockpile Center (DNSC) Voorheesville Depot (AOC 5). The rest of the SADVA property was sold to the Town of Guilderland Urban Renewal Agency (GURA). GURA leased the property to the Galesi Group, Inc., which established the NEIP. Galesi took ownership of the NEIP property in 1993. The NEIP has been operated as an industrial park since 1969. Various open spaces and buildings are leased to tenants. The majority of the tenants have used the leased space for storage of goods. Some of the tenants have performed manufacturing operations in their leased space. The Galesi Group has constructed several structures at the NEIP since 1969.

A comprehensive site history was developed from available site records and other DoD documentation for the period 1941 to 1969; that information can be found in the Final Archival Search Report (EAEST, 2003). The Final Archival Search Report includes an analysis of historical aerial photos for SADVA. The site history and aerial photo analysis were among the tools and information used to identify the AOCs being investigated during the RI. The Archival Search Report information has been supplemented and/or confirmed by recent interviews with former SADVA employees, which were conducted during the RI.

AOC 6 is the area near the former SADVA wastewater treatment plant (WWTP). Figure 3 is a site plan of AOC 6 and the former WWTP area. The Town of Guilderland used the former SADVA WWTP prior to the construction of a new township WWTP between 1993 and 1995. The Final Archival Search Report shows the footprint of the former WWTP as it was configured in 1943 to 1945. The former SADVA WWTP consisted of two sand beds, two sludge beds, one sedimentation tank, one chlorination building and one 500,000-gallon water storage tank. The footprint of the new Town of Guilderland WWTP is situated over the former SADVA WWTP. The new WWTP includes a 10,000-square foot building and a 1-million gallon pre-stressed concrete water storage tank. Upgrades and improvements included complete renovations to the offices, control room, electrical room, chemical feed areas, generator room, laboratory and rest rooms (Uwmarx.com, 2005).

AOC 9 is the area near Building 60, located in the northeast corner of the former SADVA (Figure 4). Figure 4 is a site plan for the AOC 9 area. Building 60 was formerly used by the DoD for vehicle maintenance and had seven underground storage tanks (USTs). Petroleum contamination was encountered in February 1998 during excavation at Building 60 by a tenant of the site. The excavation activities were initiated for the construction of three buildings located just north of Building 60. A site visit was conducted on February 23, 1998 by members of the USACE and the NYSDEC.

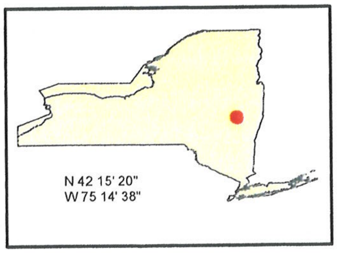
Based on the site visit by the USACE and NYSDEC, the USACE's Rapid Response Team was mobilized to the site on March 2, 1998 to characterize the nature and extent of soil contamination. Based on the results of the chemical analyses, volatile organic compounds (VOCs) and semivolatile compounds (SVOCs) were identified as the contaminants of potential concern in this area.

The Rapid Response Team also dug four test pits in an area where USTs were suspected to exist. During the excavation activities, no evidence was found to indicate that USTs still existed in this area. However, documentation of tank closure and removal has not been found.

During test pit excavations, a 12-inch clay pipe that originated at the oil/water separator and ended near Black Creek was removed. The clay pipe appeared to be an abandoned storm sewer, which acted as a discharge from the oil/water separator to Black Creek.

The Building 60 Area was subsequently designated AOC 9 and included in the SADVA RI. The objective was to further assess soils along the path of the former clay discharge pipe to identify the presence or absence of residual contamination. In addition, groundwater monitoring wells were sampled to assess the presence or absence of groundwater contamination.

A remedial investigation for the SADVA, including AOCs 6 and 9, was initiated in 2000 and completed in 2007.



The photo mosaic above, downloaded from the New York State Geospatial Clearinghouse, is a false color infrared image. One characteristic of this type of image is that most healthy vegetation (with the exclusion of many conifer species) appears in red instead of green. The "redness" indicates vegetation density, type and whether growing on dry land or in a swamp. Grasslands appear light red, deciduous trees and croplands appear red, and coniferous forests appear dark red or maroon. Paved areas and buildings can appear bluish green.

N
W E
S

0 320 640 1,280 1,920 2,560
Feet

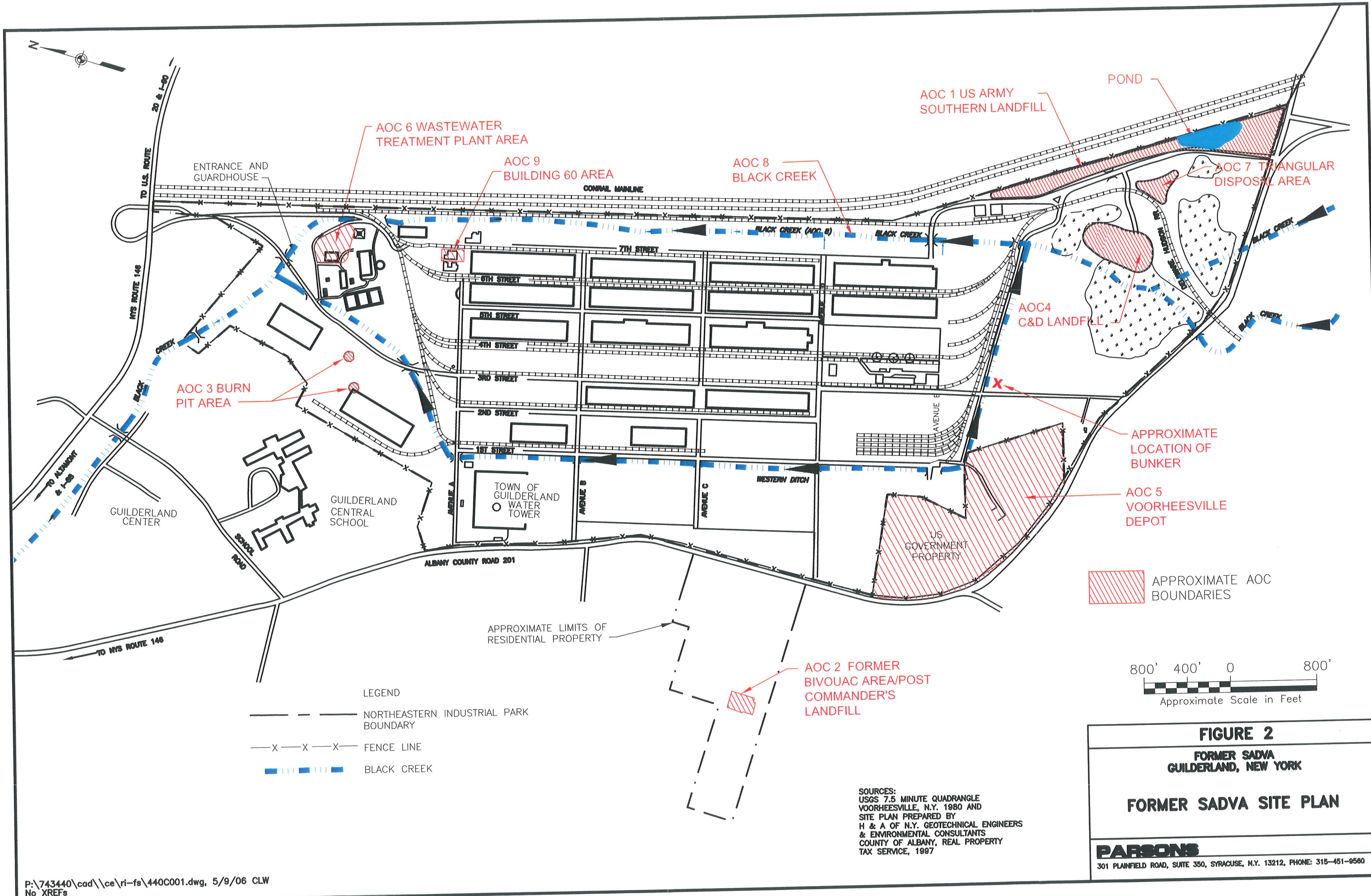
FIGURE 1

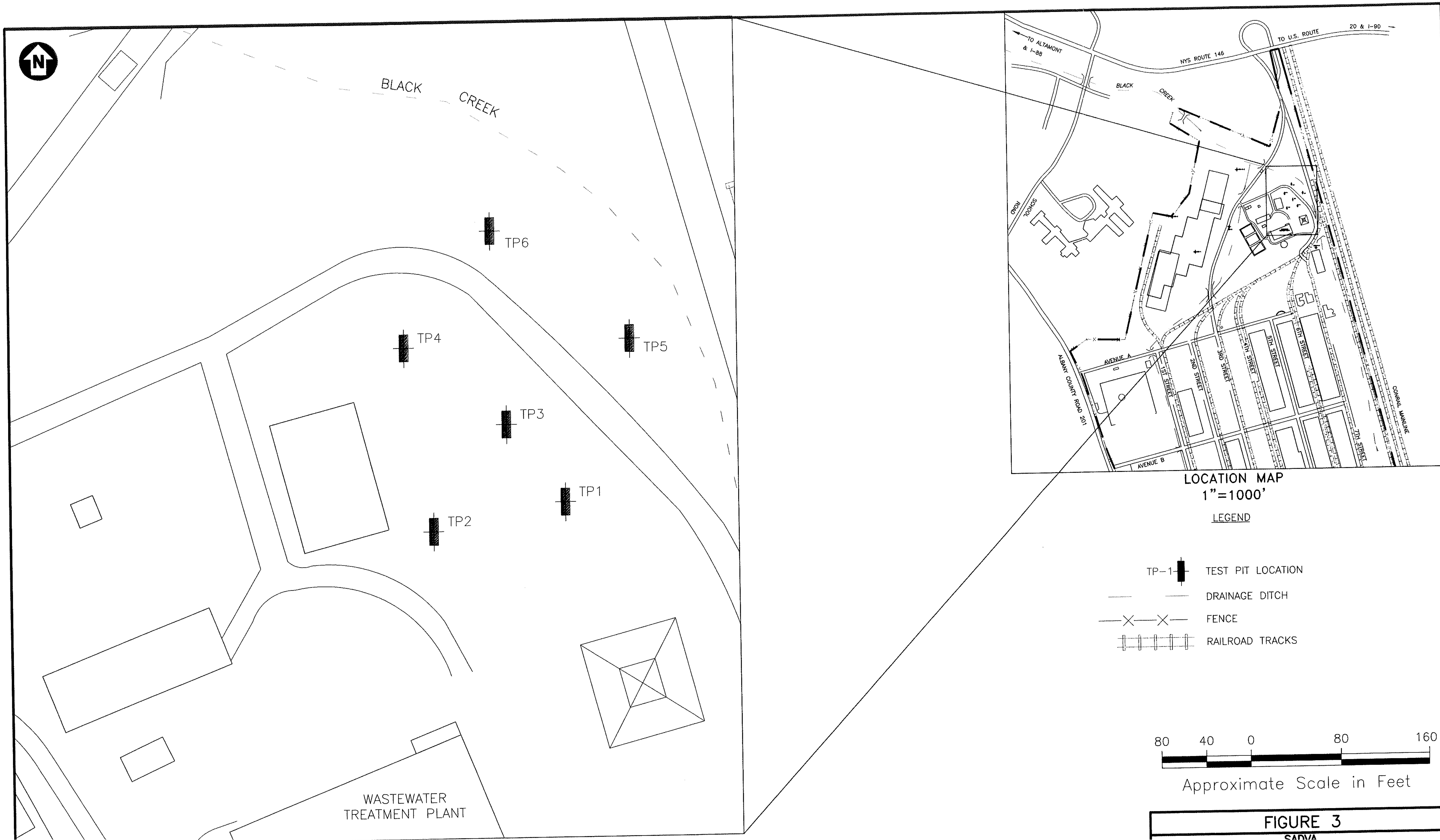
SADVA
Guilderland, New York

SITE AND VICINITY

PARSONS

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 PHONE: (315) 451-9560


N
20 & I-90
TO U.S. ROUTE
NYS ROUTE 146
ENTRANCE AND GUARDHOUSE
AOC 6 WASTEWATER TREATMENT PLANT AREA
AOC 9 BUILDING 60 AREA
CONRAIL MAINLINE
AOC 8 BLACK CREEK
AOC 1 US ARMY SOUTHERN LANDFILL
POND
AOC 7 TRIANGULAR DISPOSAL AREA
BLACK CREEK (AOC 8)
BLACK CREEK
7TH STREET
6TH STREET
5TH STREET
4TH STREET
3RD STREET
2ND STREET
1ST STREET
AOC4 C&D LANDFILL
HUDSON RD.
AOC 3 BURN PIT AREA
APPROXIMATE LOCATION OF BUNKER
AVENUE E
AVENUE A
AVENUE B
AVENUE C
WESTERN DITCH
AOC 5 VOORHEESVILLE DEPOT
TOWN OF GUILDERLAND WATER TOWER
GUILDERLAND CENTRAL SCHOOL
GUILDERLAND CENTER
TO ALTAMONT & I-88
SCHOOL ROAD
ALBANY COUNTY ROAD 201
US GOVERNMENT PROPERTY
APPROXIMATE AOC BOUNDARIES
TO NYS ROUTE 146
APPROXIMATE LIMITS OF RESIDENTIAL PROPERTY
AOC 2 FORMER BIVOUAC AREA/POST COMMANDER'S LANDFILL
800' 400' 0 800'
Approximate Scale in Feet
LEGEND
NORTHEASTERN INDUSTRIAL PARK BOUNDARY
FENCE LINE
BLACK CREEK
SOURCES:
USGS 7.5 MINUTE QUADRANGLE
VOORHEESVILLE, N.Y. 1980 AND
SITE PLAN PREPARED BY
H & A OF N.Y. GEOTECHNICAL ENGINEERS
& ENVIRONMENTAL CONSULTANTS
COUNTY OF ALBANY, REAL PROPERTY
TAX SERVICE, 1997
FIGURE 2
FORMER SADVA
GUILDERLAND, NEW YORK
FORMER SADVA SITE PLAN
PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315-451-9560
P:\743440\cad\\ce\ri-fs\440C001.dwg, 5/9/06 CLW
No XREFs



SOURCE: USACE, 1999.

FIGURE 3

SADVA
GUILDERLAND, NEW YORK

AOC 6
SITE PLAN

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315-451-9560

FILE NAME: P:\743440 (SADVA)\CAD\CE\RI-FS\AOC6-C001.DWG
PLOT DATE: 9/22/2010 12:28 PM PLOTTED BY: RUSSO, JILL

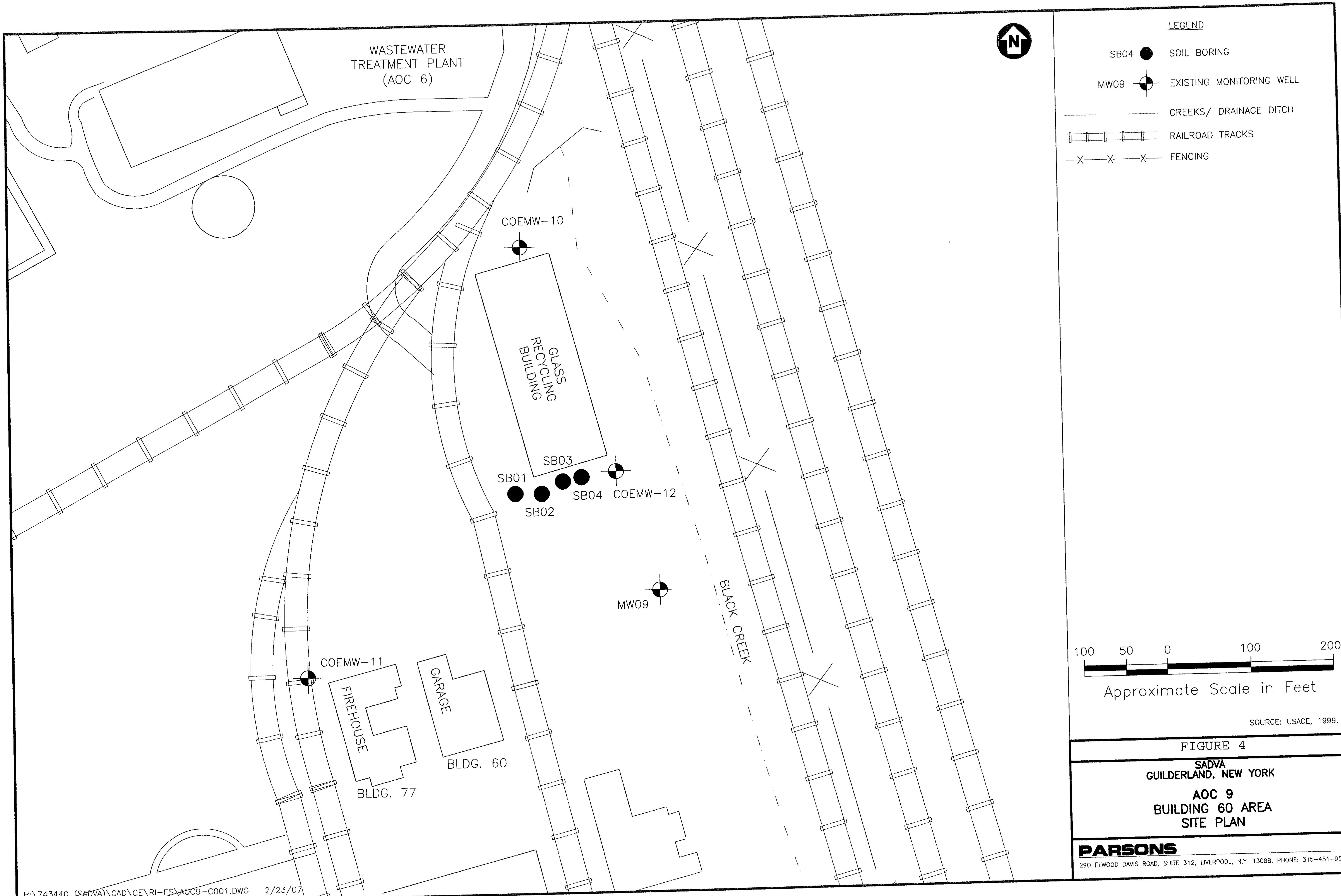


FIGURE 4

SADVA
GUILDERLAND, NEW YORK

AOC 9
BUILDING 60 AREA
SITE PLAN

PARSONS
290 ELWOOD DAVIS ROAD, SUITE 312, LIVERPOOL, N.Y. 13088, PHONE: 315-451-9560

SECTION 3

SITE CHARACTERISTICS

3.1 REMEDIAL INVESTIGATION AT AOC 6

Prior to commencing the RI, the site conceptual model for AOC 6 was based on limited data from the interpretation of aerial photographs (EAEST, 2003 and ACEMC, 1980). One to two fill areas were identified outside the footprint of the current WWTP. These former fill areas are located between the current WWTP and Black Creek. The pre-RI conceptual model for AOC 6 was based on wastes being buried beneath the ground surface. Any harmful substances present in the waste could migrate downward to groundwater, where migration offsite could occur. Discharge of groundwater to Black Creek is also a possible migration pathway.

The objective of the remedial investigation at AOC 6 was to identify whether buried wastes were present in the areas identified on historical aerial photographs, and if present, the nature and extent of contamination. Laboratory analysis of soil samples supplemented the visual findings from test pit excavations and documented the presence or absence of potential contamination.

A series of test pits were excavated to provide visual documentation of the presence or absence of fill. Historical aerial photos were used to identify the locations for the test pits. If fill materials were present, or the area appeared to have been disturbed, at least one soil sample was collected from each test pit to determine the nature and extent of contamination. Five soil samples and one field duplicate sample were collected and analyzed for Target Compound List (TCL) VOCs, SVOCs, and pesticides/polychlorinated biphenyls (PCBs), and Target Analyte List (TAL) metals.

3.1.1 Soil Sample Results for AOC 6

The soil results presented on Table 1 have been compared to the New York State Part 375 soil cleanup objectives, which are risk-based criteria for protection of human health and are specific to industrial land use. The current site use is industrial and is anticipated to remain industrial in the future, based on the Master Plan for the NEIP. Therefore, the Part 375 industrial soil cleanup objectives have been used as preliminary risk screening levels to identify contaminants of potential concern in the human health risk assessment.

Six test pits were excavated as shown on Figure 3. A thin, charred soil layer with dark staining was observed below the topsoil layer in TP1. A dark soil layer was observed below the topsoil layer in TP2 and TP3, corresponding to the charred soil layer observed in TP1. All three test pits were located in the same general area. A hardpan layer that graded into glacial till was observed below the charred soil layer at TP1, TP2 and TP3. The hardpan layer was immediately beneath the topsoil at TP4, TP5 and TP6. No other indications of fill or potential contamination were observed.

All concentrations of organic compounds and metals detected in the soil samples were below the preliminary risk screening levels (Table 1).

3.1.2 Remedial Investigation Conclusions for AOC 6

The overall objective of the remedial investigation at AOC 6 was to determine if fill material was present and to determine if potential DoD contaminants of potential concern were present. Six soil samples were analyzed from six test pits. No visual evidence of fill material was observed. Charred soil was observed in one test pit and stained soil was observed in two other test pits from the same shallow soil horizon. All soil concentrations were below the preliminary risk screening levels. USACE's remedial investigation concluded that there were no obvious signs of waste sources that warrant further investigation in this area.

3.2 REMEDIAL INVESTIGATIONS AT AOC 9

3.2.1 1998-1999 USACE Remedial Investigation

Petroleum contamination was encountered in February 1998 during excavation at the NEIP. The excavation activities were initiated for the construction of three buildings located just north of Buildings 60 and 77. A site visit was conducted on February 23, 1998 by members of the USACE and the NYSDEC. Review of previous investigations and site maps indicated that the Building 60 Area had been used by the DoD for vehicle maintenance and contained a total of seven large USTs. USACE believes that the tanks were removed; however, no documentation or soil sample results are available for confirmation, and NYSDEC has no records of underground storage tank removals in their files.

Based on the site visit by the USACE and NYSDEC, the USACE's Rapid Response Team was mobilized to the site on March 2, 1998 to characterize the nature and extent of soil contamination. The Rapid Response Team excavated areas of suspected contamination and stockpiled the soil for testing and disposal. In addition, test pits were dug around the footprint of the buildings being constructed to ensure that additional contamination was not present. A total of ten test pits were dug, including an area around an oil/water separator. The oil/water separator and some pipelines were removed. Confirmatory soil sampling and analysis were completed by USACE in 1999 to demonstrate that all contamination had been removed from the oil/water separator and contaminated soil removal area (see Table 2).

Surface water that collected in the excavation pits was pumped into a 6,500-gallon storage tank for testing/disposal. Soil, surface water, and sludge from the pipelines were tested for VOCs, SVOCs, PCBs, total petroleum hydrocarbons (TPH) gasoline and diesel range organics, and metals in compliance with the NYSDEC Spill Technology and Remediation Series (STARS) Memo #1: Petroleum-Contaminated Soil Guidance Policy, dated August 1992. Based on the results of the chemical analyses, VOCs and SVOCs were identified as the contaminants of potential concern in this area.

The Rapid Response Team also dug four test pits in an area where USTs were suspected to exist. During the excavation activities, no evidence was found to indicate that USTs still existed in this area. However, documentation of tank closure and removal has not been found.

During test pit excavations, a 12-inch clay pipe that originated at the oil/water separator and ended near Black Creek was removed. The clay pipe appeared to be an abandoned storm sewer, which acted as a discharge from the oil/water separator to Black Creek.

In addition to the characterization of soils near Building 60, the overall quality of Black Creek was examined. Sediment and surface water samples were collected to evaluate the potential impact from petroleum-related contamination in the Building 60 Area.

The analytical results indicated that Black Creek surface water quality in the Building 60 Area was not adversely impacted at the time the samples were collected in 1998. However, the Black Creek sediments in the Building 60 Area contained lead. There was insufficient background or upstream data to definitively distinguish source area concentrations from background concentrations. It is possible that the former discharge pipe from the oil/water separator contributed to the lead concentration within Black Creek; however, the results were inconclusive. A 2007 RI for the entire SADVA included additional characterization of the entire stretch of Black Creek throughout its course through SADVA. Those data have been addressed as part of AOC 8, and no significant site-related impacts on surface water and sediment quality were identified (Parsons, 2007).

3.2.2 2007 Remedial Investigation

USACE's RI completed in 2007 was designed to follow-up on the results of the USACE work that began in 1998. USACE's remedial investigation at AOC 9 was focused on the groundwater and soil migration pathways.

The potential source area for AOC 9 was the oil/water separator, which had been removed, as were the impacted soils as identified by contamination in the 1999 soil samples (see Table 2). The areas where contamination was removed were subsequently characterized by USACE via sampling and analysis of the residual soils. Those samples showed that the contamination had been fully removed (see Table 2 for the confirmatory sample results).

The storm sewer pipeline leading from the oil/water separator to Black Creek was also removed by USACE in 1999. The remaining potential source area was residual contamination in the soil that may have originated from pipeline leaks. This is the potential area of contamination that was characterized during USACE's 2007 RI. The potential contaminant migration pathways are lateral migration to the creek via the soil and pipeline backfill, and downward migration to the groundwater table.

The objective of USACE's 2007 RI was to assess the nature and extent of soil and groundwater contamination at AOC 9. Soil along the former 12-inch clay sewer route was characterized to assess whether residual contamination exists. Groundwater in the vicinity of AOC 9 was characterized to assess whether contaminants are present and are migrating toward Black Creek.

3.2.3 Soil Sample Results from AOC 9

Table 2 presents the analytical results of soil samples collected in 2000 as part of the RI finalized in 2007, and samples collected in 1998 during the USACE Investigation that was finalized in 1999. Soil sample results were compared to preliminary risk screening levels and background concentrations.

Soil borings (SB) SB01 through SB04 were drilled along the path of the former 12-inch sewer line. The borings were continuously sampled to 10 feet below the ground surface. Two soil samples from each boring were collected and analyzed for TCL VOCs, SVOCs and TAL metals. Samples were to be chosen for laboratory analysis based on visual or other field evidence of contamination (*i.e.,* oily appearance, sheens, etc.), and from deeper zones to determine the vertical extent of contamination. However, there was no field evidence of contamination observed in the soil samples.

The soil sample data from the 2007 RI and the 1999 USACE investigation have been compared to the preliminary risk screening levels for industrial land use (Table 2). Given the current industrial land use, the industrial soil criteria are used for comparison at AOC 9.

All VOC concentrations were below the industrial preliminary risk screening levels.

In two surface soils from the 1999 USACE investigation, the concentration of benzo(a)pyrene exceeded the industrial preliminary risk screening level. Benzo(a)pyrene is one of a class of compounds known as polycyclic aromatic hydrocarbons (PAHs). All metals concentrations were below the industrial preliminary risk screening levels.

3.2.4 Groundwater Results for AOC 9

The groundwater investigation scope included sampling of four monitoring wells in the vicinity of AOC 9 (MW-9, COEMW-10, COEMW-11, and COEMW-12) to characterize shallow groundwater quality. Groundwater samples were analyzed for TCL VOCs, SVOCs and TAL metals.

Groundwater depths were measured in the four permanent monitoring wells at AOC 9 on August 16 and August 17, 2000 (Table 3). The relative groundwater elevations measured in August 2000 show localized groundwater flow is eastward toward Black Creek. This is consistent with the groundwater flow direction based on groundwater elevations measured by the USACE in January 1999 (Figure 5).

Four groundwater samples were collected from the wells in the vicinity of AOC 9 in August 2000. VOCs were not detected above Class GA groundwater standards in the four groundwater samples (Table 4). NYSDEC Class GA groundwater standards are considered preliminary risk screening levels. The best usage of Class GA waters is as a source of potable water supply. Class GA waters are fresh groundwater. The Class GA groundwater classification is assigned by NYSDEC to all the fresh groundwater in New York State.

Two SVOCs were detected slightly above preliminary risk screening levels in COEMW-11 and MW-9; bis(2-Ethylhexyl)phthalate (BEHP) was detected at 7.6 ug/L in MW-9 and phenol was detected at 4.4 ug/L in COEMW-11. Even though these two compounds are typical laboratory contaminants at the low concentrations reported, they were carried forward into the human health risk assessment (see Section 5).

Five metals were detected above preliminary risk screening levels in various groundwater samples collected in August 2000. MW-9, located downgradient of Building 60 (Garage) and Building 77 (Firehouse) had the greatest number of metals above preliminary risk screening levels (four). The concentrations of arsenic, iron, and manganese in MW-9 were above groundwater standards and were higher than other groundwater concentrations in the area. Iron was detected above groundwater standards in all four samples and sodium was detected above groundwater standards in three samples.

MW-9 was redeveloped and sampled in July 2004. Samples for total metals (unfiltered) and dissolved metals (filtered) were collected using low-flow sampling techniques to minimize turbidity in the samples. Arsenic was not detected in either sample from MW-9 (Table 5). The concentrations of iron, manganese, and sodium were above preliminary risk screening levels in both the total metals and dissolved metals samples. However, the concentrations in 2004 were lower than the 2000 results. The 2004 results were similar to the concentration ranges detected in COEMW-12 in 2000.

3.2.5 Remedial Investigation Conclusions for AOC 9

Only two soil sample concentrations of benzo(a)pyrene exceeded the preliminary risk screening levels.

The groundwater results for AOC 9 are not indicative of impacts associated with the former USTs or oil/water separator. Lead, VOCs and SVOCs are the typical indicators associated with petroleum products and these analytes are not present at elevated concentrations in the AOC 9 wells; however, the concentrations of several metals were above preliminary risk screening levels.

The COPCs carried forward from the RI are PAHs in soil and metals in groundwater.

TABLE 1
SADVA AOC 6
ANALYTES DETECTED IN SOIL SAMPLES

Former Schenectady Army Depot
Remedial Investigation
AOC 6 Test Pit Soil Data
Detected Compound Summary

CAS NO.	COMPOUND	Background Ranges	NYSDEC Part 375 Industrial Soil Cleanup Objectives	SAMPLE ID:	AOC6-TP01A	AOC6-TP02A	Dup of 02A AOC6-TP12A	AOC6-TP03A	AOC6-TP04A	AOC6-TP05B	AOC6-TP06A
				LAB ID:	COH170209001	COH170215001	COH170215002	COH170215003	COH170215004	COH170215005	COH170215006
				DEPTH:	1'	1'	1'	1'	1'	2'	1'
				SOURCE:	STL Pittsburgh	STL Pittsburgh	STL Pittsburgh	STL Pittsburgh	STL Pittsburgh	STL Pittsburgh	STL Pittsburgh
				SDG:	SADVA11	SADVA13	SADVA13	SADVA13	SADVA13	SADVA13	SADVA13
				MATRIX:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				SAMPLED:	8/15/2000	8/15/2000	8/15/2000	8/15/2000	8/15/2000	8/15/2000	8/15/2000
				VALIDATED:	11/5/2000	11/7/2000	11/7/2000	11/7/2000	11/7/2000	11/7/2000	11/7/2000
				UNITS:							
	VOLATILES										
67-64-1	Acetone	ND - 3.1	1,000,000	ug/kg	ND	ND	ND	4 J	ND	ND	ND
	SEMIVOLATILES										
56-55-3	Benzo(a)anthracene	ND - 410	11,000	ug/kg	15 J	20 J	33 J	ND	34 J	ND	15 J
50-32-8	Benzo(a)pyrene	ND - 550	1,100	ug/kg	14 J	24 J	44 J	ND	43 J	ND	21 J
205-99-2	Benzo(b)fluoranthene	ND - 620	11,000	ug/kg	72 J	45 J	73 J	10 J	39 J	ND	33 J
207-08-9	Benzo(k)fluoranthene	ND - 550	110,000	ug/kg	ND	36 J	65 J	ND	48 J	ND	30 J
218-01-9	Chrysene	ND - 680	110,000	ug/kg	230 J	41 J	68 J	ND	49 J	ND	31 J
53-70-3	Dibenz(a,h)anthracene	ND - 55	1,100	ug/kg	ND	ND	13 J	ND	ND	ND	ND
193-39-5	Indeno(1,2,3-cd)pyrene	ND - 230	11,000	ug/kg	11 J	28 J	52 J	ND	30 J	ND	18 J
191-24-2	Benzo(ghi)perylene	ND - 210	1,000,000	ug/kg	14 J	29 J	56 J	ND	31 J	ND	20 J
206-44-0	Fluoranthene	ND - 940	1,000,000	ug/kg	48 J	37 J	52 J	ND	39 J	ND	22 J
91-20-3	Naphthalene	ND	1,000,000	ug/kg	23 J	ND	ND	ND	ND	ND	ND
85-01-8	Phenanthrene	ND - 480	1,000,000	ug/kg	59 J	13 J	21 J	ND	ND	ND	ND
129-00-0	Pyrene	ND - 750	1,000,000	ug/kg	50 J	30 J	55 J	ND	40 J	ND	22 J
	PESTICIDES										
72-55-9	4,4'-DDE	ND - 9.4	120,000	ug/kg	0.22 JN	0.91 J	0.27 J	ND	2.7	ND	ND
72-54-8	4,4'-DDD	ND - 1.2	180,000	ug/kg	ND	ND	ND	ND	1.2 J	ND	ND
50-29-3	4,4'-DDT	0.61 - 15	94,000	ug/kg	ND	1 J	ND	ND	2.2	ND	ND
5103-71-9	alpha-Chlordane	ND - 0.93	47,000	ug/kg	ND	ND	ND	ND	0.43 J	ND	ND
	PCBs										
	None Detected	ND	25,000	ug/kg	ND	ND	ND	ND	ND	ND	ND
	METALS										
7429-90-5	Aluminum	780 - 12800	NA	mg/kg	7280	7280	14200	11200	10700	11500	9940
7440-36-0	Antimony	0.2 - 0.59	NA	mg/kg	0.96 J	0.96 J	0.16 J	ND	ND	ND	ND
7440-38-2	Arsenic	4.3 - 16.4	16	mg/kg	8.3	8.3	8.7	7.3	5.6	4.8	6.1
7440-39-3	Barium	33 - 104	10,000	mg/kg	50.3	50.3	59.5	49.9	52.3	63.4	42
7440-41-7	Beryllium	0.38 - 0.67	2,700	mg/kg	0.95	0.95	0.76	0.68	0.55 J	0.72	0.58 J
7440-43-9	Cadmium	0.21 - 0.52	60	mg/kg	0.18 J	0.18 J	0.22 J	0.12 J	0.37 J	0.14 J	0.19 J
7440-70-2	Calcium	1280 - 46600	NA	mg/kg	11900	11900	8910	3600	12000	1860	27000
7440-47-3	Chromium	9.3 - 17.5	6,800	mg/kg	15.7	15.7	19.3	16.1	16.4	15.7	14.1
7440-48-4	Cobalt	5.3 - 12.2	NA	mg/kg	10.5	10.5	17.6	15.2	11.5	15.4	10.4
7440-50-8	Copper	13.4 - 26.9	10,000	mg/kg	26.6 J	26.6 J	36.1	28.2	33.6	22.6	21.3
7439-89-6	Iron	14100 - 25700	NA	mg/kg	21200	21200	35000	28400	25500	28600	24600
7439-92-1	Lead	16.5 - 60.8	3,900	mg/kg	26.6	26.6	17.3	19.3	23.3	11.5	14.4
7439-95-4	Magnesium	2150 - 13100	NA	mg/kg	4140	4140	7560	5170	5560	5350	10700
7439-96-5	Manganese	197 - 875	10,000	mg/kg	332	332	525	453	494	210	383
7439-97-6	Mercury	0.039 - 0.095	6	mg/kg	0.19 J	0.19 J	0.062	0.04	0.14	0.023 J	0.025 J
7440-02-0	Nickel	10.6 - 24.8	10,000	mg/kg	23.6	23.6	36	25.2	23.2	29.6	19.7
7440-09-7	Potassium	443 - 1660	NA	mg/kg	912	912	1400 J	900 J	884 J	865 J	872 J
7782-49-2	Selenium	0.44 - 1.2	6,800	mg/kg	1.5	1.5	ND	0.36 J	0.27 J	ND	ND
7440-22-4	Silver	0.16 - 0.17	6,800	mg/kg	0.11 U	ND	0.17 J	ND	0.39 J	ND	ND
7440-23-5	Sodium	28.7 - 619	NA	mg/kg	79.1 J	79.1 J	76.2 J	83.3 J	93.8 J	78.1 J	86.1 J
7440-28-0	Thallium	ND - 0.67	NA	mg/kg	0.62 J	0.62 J	0.87 J	ND	ND	ND	ND
7440-62-2	Vanadium	13.7 - 24	NA	mg/kg	21 J	21 J	23.4	20.8	18.7	23.3	19.1
7440-66-6	Zinc	46-134	10,000	mg/kg	79.4	79.4	96.9 J	63 J	89.3 J	58.8 J	59.1 J

ND - Not Detected; reporting limit is not known.
J - Estimate Value

Concentration above NYSDEC Part 375 Industrial Soil Criteria and sitewide background.
Concentration above sitewide background only.

PARSONS

TABLE 2
SADVA AOC 9
ANALYTES DETECTED IN SOIL SAMPLES

					Remedial Investigation Sampling (2000) - Samples from exploratory borings							
Former Schenectady Army Depot Remedial Investigation AOC 9 Soil Boring Data Detected Compound Summary				SAMPLE ID:	AOC9-SB01C	AOC9-SB01E	AOC9-SB02C	AOC9-SB02E	AOC9-SB03B	AOC9-SB03E	AOC9-SB04C	AOC9-SB04E
				LAB ID:	C0H030310001	C0H030310002	C0H020218005	C0H020218006	C0H020218003	C0H020218004	C0H020218001	C0H020218002
				DEPTH:	4'	9'	4'	9'	3'	9'	4'	9'
				SOURCE:	TL Pittsburgh	STL Pittsburgh	STL Pittsburgh	STL Pittsburgh	STL Pittsburgh	STL Pittsburgh	STL Pittsburgh	STL Pittsburgh
				SDG:	SADVA10	SADVA10	SADVA8	SADVA8	SADVA8	SADVA8	SADVA8	SADVA8
			NYSDEC Part 375 Industrial Soil Cleanup Objectives	MATRIX:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				SAMPLED:	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000
		Background		VALIDATED:	#########	#########	#########	#########	#########	#########	#########	10/20/2000
CAS NO.	COMPOUND	Ranges		UNITS:								
	VOLATILES											
67-64-1	Acetone	ND - 3.1	1,000,000	ug/kg	ND	ND	51 J	ND	ND	ND	ND	ND
74-83-9	Bromomethane	ND	NC	ug/kg	R	R	R	R	R	R	R	R
78-93-3	2-Butanone	ND	1,000,000	ug/kg	ND	R	R	ND	R	R	ND	R
	Carbon Disulfide	ND	NC	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND
75-00-3	Chloroethane	ND	NC	ug/kg	ND	R	R	ND	R	R	ND	R
67-66-3	Chloroform	ND	700,000	ug/kg	ND	ND	ND	ND	5.9	ND	ND	ND
108-10-1	4-Methyl-2-pentanone	ND	NC	ug/kg	R	ND	ND	R	ND	ND	R	ND
108-88-3	Toluene	ND	1,000,000	ug/kg	ND	4.5 J	8.2	ND	1.8 J	2.8 J	ND	2 J
1330-20-7	Total Xylenes	ND	1,000,000	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND
79-01-6	Trichloroethene	ND	400,000	ug/kg	ND	ND	ND	ND	10	ND	ND	ND
	SEMIVOLATILES											
117-81-7	bis(2-Ethylhexyl) phthalate	ND	NC	ug/kg	ND	ND	160 J	120 J	190 J	65 J	410	110 J
	Butylbenzyl phthalate	ND	NC	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND
	Diethylphthalate	ND	NC	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND
	Di-N-Butylphthalate	ND	NC	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND
132-64-9	Dibenzofuran	ND	NC	ug/kg	ND	ND	ND	ND	30 J	ND	ND	ND
108-95-2	Phenol	ND	1,000,000	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND
	CPAHs											
56-55-3	Benzo(a)anthracene	ND - 410	11,000	ug/kg	110 J	ND	77 J	ND	39 J	ND	37 J	ND
50-32-8	Benzo(a)pyrene	ND - 550	1,100	ug/kg	120 J	ND	61 J	ND	ND	ND	ND	ND
205-99-2	Benzo(b)fluoranthene	ND - 620	11,000	ug/kg	140 J	ND	73 J	ND	40 J	ND	73 J	ND
207-08-9	Benzo(k)fluoranthene	ND - 550	110,000	ug/kg	130 J	ND	60 J	ND	32 J	ND	ND	ND
218-01-9	Chrysene	ND - 680	110,000	ug/kg	240 J	ND	92 J	ND	54 J	ND	56 J	ND
53-70-3	Dibenz(a,h)anthracene	ND - 55	1,100	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND
193-39-5	Indeno(1,2,3-cd)pyrene	ND - 230	11,000	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND
	NPAHs											
91-57-6	2-Methylnaphthalene	ND	NC	ug/kg	ND	ND	ND	ND	ND	ND	27 J	ND
83-32-9	Acenaphthene	ND	1,000,000	ug/kg	ND	ND	ND	ND	48 J	ND	ND	ND
	Acenaphthylene	ND	1,000,000	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND
120-12-7	Anthracene	ND - 61	1,000,000	ug/kg	ND	ND	38 J	ND	29 J	ND	ND	ND
	Benzo(ghi)perylene	ND - 210	1,000,000	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND
206-44-0	Fluoranthene	ND - 940	1,000,000	ug/kg	170 J	ND	230 J	ND	120 J	ND	83 J	ND
86-73-7	Fluorene	ND - 23	1,000,000	ug/kg	ND	ND	ND	ND	51 J	ND	ND	ND
	Naphthalene	ND	1,000,000	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND
85-01-8	Phenanthrene	ND - 480	1,000,000	ug/kg	ND	ND	150 J	ND	200 J	ND	79 J	ND
129-00-0	Pyrene	ND - 750	1,000,000	ug/kg	140 J	ND	210 J	ND	100 J	ND	67 J	ND

TABLE 2
SADVA AOC 9
ANALYTES DETECTED IN SOIL SAMPLES

Former Schenectady Army Depot
Remedial Investigation
AOC 9 Soil Boring Data
Detected Compound Summary

					Remedial Investigation Sampling (2000) - Samples from exploratory borings							
				SAMPLE ID:	OC9-SB01C	AOC9-SB01E	AOC9-SB02C	AOC9-SB02E	AOC9-SB03B	AOC9-SB03E	AOC9-SB04C	AOC9-SB04E
				LAB ID:	C0H030310001	C0H030310002	C0H020218005	C0H020218006	C0H020218003	C0H020218004	C0H020218001	C0H020218002
				DEPTH:	4'	9'	4'	9'	3'	9'	4'	9'
				SOURCE:	TL Pittsburgh	STL Pittsburgh	STL Pittsburgh	STL Pittsburgh	STL Pittsburgh	STL Pittsburgh	STL Pittsburgh	STL Pittsburgh
				SDG:	SADVA10	SADVA10	SADVA8	SADVA8	SADVA8	SADVA8	SADVA8	SADVA8
			NYSDEC Part 375 Industrial Soil Cleanup Objectives	MATRIX:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				SAMPLED:	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000
		Background Ranges		VALIDATED:	#########	#########	#########	#########	#########	#########	#########	10/20/2000
CAS NO.	COMPOUND			UNITS:								
	METALS											
7429-90-5	Aluminum	780 - 12800	NC	mg/kg	6500	13000	12800	10100	10700	14300	13300	17900
7440-36-0	Antimony	0.2 - 0.59	NC	mg/kg	0.28 J	0.34 J	0.19 J	0.44 J	0.36 J	0.62 J	0.36 J	0.29 J
7440-38-2	Arsenic	4.3 - 16.4	16	mg/kg	7.9	6.4	4.3	3	9.5	8.3	6.3	2.8
7440-39-3	Barium	33 - 104	10,000	mg/kg	55.8	72.7	67.8	93.3	72	111	104	121
7440-41-7	Beryllium	0.38 - 0.67	2,700	mg/kg	0.36 J	0.84	0.68	0.56 J	0.63	1.1	0.95	0.91
7440-43-9	Cadmium	0.21 - 0.52	60	mg/kg	0.84	0.16 J	0.12 J	0.12 J	0.25 J	0.098 J	0.22 J	0.34 J
7440-70-2	Calcium	1280 - 46600	NC	mg/kg	83700	25500	12900 J	92700 J	33500 J	9170 J	21600 J	134000 J
7440-47-3	Chromium	9.3 - 17.5	6,800	mg/kg	10.1 J	14.1 J	14.8	14.6	18	16.5	16.8	17.9
7440-48-4	Cobalt	5.3 - 12.2	NC	mg/kg	6.8	13.4	13.7	7.1	15.7	14.4	11	8
7440-50-8	Copper	13.4 - 26.9	10,000	mg/kg	23	24.1	18.6 J	13.5 J	33.5 J	28.2 J	25.4 J	18.3 J
7439-89-6	Iron	14100 - 25700	NC	mg/kg	15500	30900	22600 J	18300 J	28500 J	34000 J	27800 J	23100 J
7439-92-1	Lead	16.5 - 60.8	3,900	mg/kg	98.8 J	8.4 J	9.8	7	19.5	10	16.6	9.4
7439-95-4	Magnesium	2150 - 13100	NC	mg/kg	22000	7940	4030	9510	7150	5660	4760	9240
7439-96-5	Manganese	197 - 875	10,000	mg/kg	323	464	286 J	309 J	585 J	409 J	500 J	254 J
7439-97-6	Mercury	0.039 - 0.095	6	mg/kg	0.017 J	0.028 J	0.045 J	0.019 J	0.055 J	0.019 J	0.043 J	0.022 J
7440-02-0	Nickel	10.6 - 24.8	10,000	mg/kg	15.9 J	23.8 J	16.2	16.9	35.3	27.8	28.3	20.3
7440-09-7	Potassium	443 - 1660	NC	mg/kg	885 J	1180 J	920	880	1290	913	1090	2210
7440-22-4	Silver	0.16 - 0.17	6,800	mg/kg	0.13 J	ND	ND	0.12 J	0.16 J	ND	0.13 J	ND
7440-23-5	Sodium	28.7 -619	NC	mg/kg	167 J	284 J	128 J	206 J	365 J	2540	2630	3600
7440-28-0	Thallium	ND - 0.67	NC	mg/kg	0.85 J	0.86 J	ND	ND	ND	ND	ND	0.9 J
7440-62-2	Vanadium	13.7 - 24	NC	mg/kg	32.5 J	25.9 J	21 J	16.2 J	20.4 J	29.8 J	27.3 J	25.4 J
7440-66-6	Zinc	46-134	10,000	mg/kg	496	62.5	42.8	53	68.7	68	67.9	63.4

R - Result rejected during data validation
CPAH - Carcinogenic Polynuclear Aromatic Hydrocarbon.
NPAH - Noncarcinogenic Polynuclear Aromatic Hydrocarbon.
NA - Not Analyzed
ND - Not Detected; the reporting limits are unknown.
J - Estimated concentration
Concentration above NYSDEC Part 375 Industrial Soil Criteria.

3-8

TABLE 2
SADVA AOC 9
ANALYTES DETECTED IN SOIL SAMPLES

Former Schenectady Army Depot
Remedial Investigation
AOC 9 Soil Boring Data
Detected Compound Summary

					Focused Groundwater/Surface Water Investigation (USACE, 1999) - Surface soil and subsurface soil samples from monitoring well borings									
				SAMPLE ID:	BS-MW-10-01	BS-MW-10-10	BS-MW-11-5	BS-MW-11-10	BS-MW-12-8	BS-MW-12-11	BS-MW-12-16 Duplicate of BS-MW-12-8	SS1	SS2	SS3
				LAB ID:										
				DEPTH:	0-2'	10-12'	4-6'	8-10'	6-8'	10-12'				
				SOURCE:										
				SDG:										
			NYSDEC Part 375 Industrial Soil Cleanup Objectives	MATRIX:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SURFACE SOIL	SURFACE SOIL	SURFACE SOIL
				SAMPLED:	8/20/1998	8/20/1998	8/20/1998	8/20/1998	8/20/1998	8/20/1998	8/20/1998	8/20/1998	8/20/1998	8/20/1998
		Background		VALIDATED:										
CAS NO.	COMPOUND	Ranges		UNITS:										
	VOLATILES													
67-64-1	Acetone	ND - 3.1	1,000,000	ug/kg	16 J	111	17	8.1	91	10 J	70	364	258	104
74-83-9	Bromomethane	ND	NC	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
78-93-3	2-Butanone	ND	1,000,000	ug/kg	ND	13 J	ND	ND	10 J	ND	9.4 J	25 J	21 J	ND
	Carbon Disulfide	ND	NC	ug/kg	1.6	9	3.7 J	ND	18	ND	4	40	16	ND
75-00-3	Chloroethane	ND	NC	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
67-66-3	Chloroform	ND	700,000	ug/kg	ND	ND	ND	ND	ND	ND	ND	1 J	1 J	ND
108-10-1	4-Methyl-2-pentanone	ND	NC	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
108-88-3	Toluene	ND	1,000,000	ug/kg	0.14 J	0.51 J	0.97 J	0.37 J	0.32 J	0.48 J	0.42 J	1 J	1 J	1 J
1330-20-7	Total Xylenes	ND	1,000,000	ug/kg	0.27 J	0.98 J	0.46 J	0.25 J	ND	ND	0.32 J	ND	ND	ND
79-01-6	Trichloroethene	ND	400,000	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	SEMIVOLATILES													
117-81-7	bis(2-Ethylhexyl) phthalate	ND	NC	ug/kg	52 J	114	104	91	110	213	247	582	419	163
	Butylbenzyl phthalate	ND	NC	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	116 J	ND
	Diethylphthalate	ND	NC	ug/kg	ND	ND	ND	ND	ND	ND	120 J	ND	ND	ND
	Di-N-Butylphthalate	ND	NC	ug/kg	ND	67 J	167 J	2000	100 J	88 J	333	ND	435	222 J
132-64-9	Dibenzofuran	ND	NC	ug/kg	ND	ND	ND	ND	ND	ND	ND	89 J	226	63 J
108-95-2	Phenol	ND	1,000,000	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	155 J	ND
	CPAHs				ND	ND		ND	ND	ND	ND	ND	ND	ND
56-55-3	Benzo(a)anthracene	ND - 410	11,000	ug/kg	42 J	ND	78	ND	ND	ND	ND	1290	2420	1130
50-32-8	Benzo(a)pyrene	ND - 550	1,100	ug/kg	43 J	ND	104	ND	ND	ND	ND	1420	2580	1220
205-99-2	Benzo(b)fluoranthene	ND - 620	11,000	ug/kg	70 J	36 J	156	ND	ND	ND	ND	2000	4190	1610
207-08-9	Benzo(k)fluoranthene	ND - 550	110,000	ug/kg	ND	ND	42 J	ND	ND	ND	ND	745	1770	704
218-01-9	Chrysene	ND - 680	110,000	ug/kg	52 J	26 J	108	ND	ND	ND	ND	1620	2900	1480
53-70-3	Dibenz(a,h)anthracene	ND - 55	1,100	ug/kg	ND	ND	ND	ND	ND	ND	ND	273	274	259
193-39-5	Indeno(1,2,3-cd)pyrene	ND - 230	11,000	ug/kg	23 J	ND	70 J	ND	ND	ND	ND	1110	952	944
	NPAHs							ND	ND	ND	ND			
91-57-6	2-Methylnaphthalene	ND	NC	ug/kg	ND	ND	111	ND	ND	ND	ND	ND	ND	65 J
83-32-9	Acenaphthene	ND	1,000,000	ug/kg	ND	ND	ND	ND	ND	ND	ND	182	500	146 J
	Acenaphthylene	ND	1,000,000	ug/kg	ND	ND	ND	ND	ND	ND	ND	80 J	124 J	ND
120-12-7	Anthracene	ND - 61	1,000,000	ug/kg	29 J	ND	40 J	ND	ND	ND	ND	400	919	333
	Benzo(ghi)perylene	ND - 210	1,000,000	ug/kg	ND	ND	122	ND	ND	ND	ND	1000	774	907
206-44-0	Fluoranthene	ND - 940	1,000,000	ug/kg	120	41 J	167	ND	ND	ND	ND	2550	4680	2410
86-73-7	Fluorene	ND - 23	1,000,000	ug/kg	ND	ND	ND	ND	ND	ND	ND	156 J	403	120 J
	Naphthalene	ND	1,000,000	ug/kg	ND	ND	73	ND	ND	ND	ND	93 J	210	ND
85-01-8	Phenanthrene	ND - 480	1,000,000	ug/kg	61 J	ND	156	ND	ND	ND	ND	1490	3230	1370
129-00-0	Pyrene	ND - 750	1,000,000	ug/kg	130	34 J	156	ND	ND	ND	ND	2360	4190	2220

TABLE 2
SADVA AOC 9
ANALYTES DETECTED IN SOIL SAMPLES

Former Schenectady Army Depot
Remedial Investigation
AOC 9 Soil Boring Data
Detected Compound Summary

CAS NO.	COMPOUND	Background Ranges	NYSDEC Part 375 Industrial Soil Cleanup Objectives		Focused Groundwater/Surface Water Investigation (USACE, 1999) - Surface soil and subsurface soil samples from monitoring well borings									
				SAMPLE ID:	BS-MW-10-01	BS-MW-10-10	BS-MW-11-5	BS-MW-11-10	BS-MW-12-8	BS-MW-12-11	BS-MW-12-16 Duplicate of BS-MW-12-8	SS1	SS2	SS3
				LAB ID:										
				DEPTH:	0-2'	10-12'	4-6'	8-10'	6-8'	10-12'				
				SOURCE:										
				SDG:										
				MATRIX:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SURFACE SOIL	SURFACE SOIL	SURFACE SOIL
				SAMPLED:	8/20/1998	8/20/1998	8/20/1998	8/20/1998	8/20/1998	8/20/1998	8/20/1998	8/20/1998	8/20/1998	8/20/1998
				VALIDATED:										
				UNITS:										
	METALS													
7429-90-5	Aluminum	780 - 12800	NC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7440-36-0	Antimony	0.2 - 0.59	NC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7440-38-2	Arsenic	4.3 - 16.4	16	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7440-39-3	Barium	33 - 104	10,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7440-41-7	Beryllium	0.38 - 0.67	2,700	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7440-43-9	Cadmium	0.21 - 0.52	60	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7440-70-2	Calcium	1280 - 46600	NC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7440-47-3	Chromium	9.3 - 17.5	6,800	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7440-48-4	Cobalt	5.3 - 12.2	NC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7440-50-8	Copper	13.4 - 26.9	10,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7439-89-6	Iron	14100 - 25700	NC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7439-92-1	Lead	16.5 - 60.8	3,900	mg/kg	14.6	16.2	13.8	11.2	16.6	10.3	14	136	129	171
7439-95-4	Magnesium	2150 - 13100	NC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7439-96-5	Manganese	197 - 875	10,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7439-97-6	Mercury	0.039 - 0.095	6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7440-02-0	Nickel	10.6 - 24.8	10,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7440-09-7	Potassium	443 - 1660	NC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7440-22-4	Silver	0.16 - 0.17	6,800	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7440-23-5	Sodium	28.7 -619	NC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7440-28-0	Thallium	ND - 0.67	NC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7440-62-2	Vanadium	13.7 - 24	NC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7440-66-6	Zinc	46-134	10,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

R - Result rejected during data validation
CPAH - Carcinogenic Polynuclear Aromatic Hydrocarbon.
NPAH - Noncarcinogenic Polynuclear Aromatic Hydrocarbon.
NA - Not Analyzed
ND - Not Detected; the reporting limits are unknown.
J - Estimated concentration
Concentration above NYSDEC Part 375 Industrial Soil Criteria.

TABLE 2
SADVA AOC 9
ANALYTES DETECTED IN SOIL SAMPLES

Former Schenectady Army Depot Remedial Investigation AOC 9 Soil Boring Data Detected Compound Summary					Immediate Response Action (USACE, 1998) - Confirmatory soil samples from contaminated soil removal excavations		
				SAMPLE ID:	EP-H-01-01	CON-EP-A-01-01	CON-OW-01-01
				LAB ID:			
				DEPTH:			
				SOURCE:			
				SDG:			
				MATRIX:	SOIL	SOIL	SOIL
				SAMPLED:	3/2/1998	3/2/1998	3/2/1998
				VALIDATED:			
CAS NO.	COMPOUND	Background Ranges	NYSDEC Part 375 Industrial Soil Cleanup Objectives	UNITS:			
	VOLATILES						
67-64-1	Acetone	ND - 3.1	1,000,000	ug/kg	ND	ND	ND
74-83-9	Bromomethane	ND	NC	ug/kg	ND	ND	ND
78-93-3	2-Butanone	ND	1,000,000	ug/kg	ND	ND	ND
	Carbon Disulfide	ND	NC	ug/kg	ND	ND	ND
75-00-3	Chloroethane	ND	NC	ug/kg	ND	ND	ND
67-66-3	Chloroform	ND	700,000	ug/kg	ND	ND	ND
108-10-1	4-Methyl-2-pentanone	ND	NC	ug/kg	ND	ND	ND
108-88-3	Toluene	ND	1,000,000	ug/kg	ND	ND	1.3
1330-20-7	Total Xylenes	ND	1,000,000	ug/kg	ND	ND	ND
79-01-6	Trichloroethene	ND	400,000	ug/kg	ND	ND	ND
	SEMIVOLATILES						
117-81-7	bis(2-Ethylhexyl) phthalate	ND	NC	ug/kg	ND	ND	ND
	Butylbenzyl phthalate	ND	NC	ug/kg	ND	ND	ND
	Diethylphthalate	ND	NC	ug/kg	ND	ND	ND
	Di-N-Butylphthalate	ND	NC	ug/kg	ND	ND	ND
132-64-9	Dibenzofuran	ND	NC	ug/kg	ND	ND	ND
108-95-2	Phenol	ND	1,000,000	ug/kg	ND	ND	ND
	CPAHs						
56-55-3	Benzo(a)anthracene	ND - 410	11,000	ug/kg	ND	ND	ND
50-32-8	Benzo(a)pyrene	ND - 550	1,100	ug/kg	ND	ND	ND
205-99-2	Benzo(b)fluoranthene	ND - 620	11,000	ug/kg	ND	ND	ND
207-08-9	Benzo(k)fluoranthene	ND - 550	110,000	ug/kg	ND	ND	ND
218-01-9	Chrysene	ND - 680	110,000	ug/kg	ND	ND	ND
53-70-3	Dibenz(a,h)anthracene	ND - 55	1,100	ug/kg	ND	ND	ND
193-39-5	Indeno(1,2,3-cd)pyrene	ND - 230	11,000	ug/kg	ND	ND	ND
	NPAHs						
91-57-6	2-Methylnaphthalene	ND	NC	ug/kg	ND	ND	ND
83-32-9	Acenaphthene	ND	1,000,000	ug/kg	ND	ND	ND
	Acenaphthylene	ND	1,000,000	ug/kg	ND	ND	ND
120-12-7	Anthracene	ND - 61	1,000,000	ug/kg	ND	ND	ND
	Benzo(ghi)perylene	ND - 210	1,000,000	ug/kg	ND	ND	ND
206-44-0	Fluoranthene	ND - 940	1,000,000	ug/kg	ND	ND	ND
86-73-7	Fluorene	ND - 23	1,000,000	ug/kg	ND	ND	ND
	Naphthalene	ND	1,000,000	ug/kg	ND	ND	ND
85-01-8	Phenanthrene	ND - 480	1,000,000	ug/kg	ND	ND	ND
129-00-0	Pyrene	ND - 750	1,000,000	ug/kg	ND	ND	ND

TABLE 2
SADVA AOC 9
ANALYTES DETECTED IN SOIL SAMPLES

Former Schenectady Army Depot Remedial Investigation AOC 9 Soil Boring Data Detected Compound Summary					Immediate Response Action (USACE, 1998) - Confirmatory soil samples from contaminated soil removal excavations		
				SAMPLE ID:	EP-H-01-01	CON-EP-A-01-01	CON-OW-01-01
				LAB ID:			
				DEPTH:			
				SOURCE:			
				SDG:			
				MATRIX:	SOIL	SOIL	SOIL
				SAMPLED:	3/2/1998	3/2/1998	3/2/1998
				VALIDATED:			
CAS NO.	COMPOUND	Background Ranges	NYSDEC Part 375 Industrial Soil Cleanup Objectives	UNITS:			
	METALS						
7429-90-5	Aluminum	780 - 12800	NC	mg/kg	12,000	14,000	8,400
7440-36-0	Antimony	0.2 - 0.59	NC	mg/kg	ND	ND	ND
7440-38-2	Arsenic	4.3 - 16.4	16	mg/kg	2.3	4.2	5.1
7440-39-3	Barium	33 - 104	10,000	mg/kg	130	110	54
7440-41-7	Beryllium	0.38 - 0.67	2,700	mg/kg	0.85	0.92	ND
7440-43-9	Cadmium	0.21 - 0.52	60	mg/kg	4.3	ND	ND
7440-70-2	Calcium	1280 - 46600	NC	mg/kg	11,000	16,000	24,000
7440-47-3	Chromium	9.3 - 17.5	6,800	mg/kg	16	15	11
7440-48-4	Cobalt	5.3 - 12.2	NC	mg/kg	9.8	11	8.8
7440-50-8	Copper	13.4 - 26.9	10,000	mg/kg	25	28	21
7439-89-6	Iron	14100 - 25700	NC	mg/kg	23,000	27,000	20,000
7439-92-1	Lead	16.5 - 60.8	3,900	mg/kg	13	10	12
7439-95-4	Magnesium	2150 - 13100	NC	mg/kg	5,300	6,200	7,100
7439-96-5	Manganese	197 - 875	10,000	mg/kg	450	570	430
7439-97-6	Mercury	0.039 - 0.095	6	mg/kg	ND	ND	ND
7440-02-0	Nickel	10.6 - 24.8	10,000	mg/kg	24	27	19
7440-09-7	Potassium	443 - 1660	NC	mg/kg	1,500	1,100	780
7440-22-4	Silver	0.16 - 0.17	6,800	mg/kg	ND	ND	ND
7440-23-5	Sodium	28.7 -619	NC	mg/kg	350	140	210
7440-28-0	Thallium	ND - 0.67	NC	mg/kg	0.37	0.56	0.48
7440-62-2	Vanadium	13.7 - 24	NC	mg/kg	ND	20	19
7440-66-6	Zinc	46-134	10,000	mg/kg	70	58	50

R - Result rejected during data validation
CPAH - Carcinogenic Polynuclear Aromatic Hydrocarbon.
NPAH - Noncarcinogenic Polynuclear Aromatic Hydrocarbon.
NA - Not Analyzed
ND - Not Detected; the reporting limits are unknown.
J - Estimated concentration
Concentration above NYSDEC Part 375 Industrial Soil Criteria.

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TABLE 3
SADVA AOC 9
GROUNDWATER ELEVATION DATA

Wells	Elevation TOC*	Elevation Ground*	Screen Depth**	ROUND 1 Date	ROUND 1 Depth to Water**	ROUND 1 Groundwater Elevation*	ROUND 2 Date	ROUND 2 Depth to Water**	ROUND 2 Groundwater Elevation*
AOC-9									
MW-9	MNP	321.32	MNP	8/16/2000	10.60	310.72	1/99	MNP	311.75 ACE
COEMW-10	324.33	321.83	4-14	8/16/2000	9.77	312.06	1/99	MNP	312.16 ACE
COEMW-11	322.91	320.51	5.3-15.3	8/16/2000	5.50	315.01	1/99	MNP	317.57 ACE
COEMW-12	MNP	322***	10-15	8/17/2000	7.80	314.20	1/99	MNP	311.77 ACE

ACE - Information from USACE Focused Groundwater/Surface Water Investigation

* Elevation in feet above mean sea level.

** Depth in feet below ground surface

*** Elevation estimated from cross-section provided in USACE report.

MNP - Measurement not provided by USACE report.

TABLE 4
SADVA AOC 9
ANALYTES DETECTED IN GROUNDWATER SAMPLES (2000)

Former Schenectady Army Depot Remedial Investigation AOC 9 Groundwater Data Detected Compound Summary		NYSDEC Class GA Ground Water Standards/Guidance Values	SAMPLE ID: LAB ID: SOURCE: SDG: MATRIX: SAMPLED: VALIDATED:	AOC9-COEMW-10 C0H180282002 STL Pittsburgh SADVA14 WATER 8/16/2000 11/2/2000	AOC9-COEMW-11 C0H180282001 STL Pittsburgh SADVA14 WATER 8/16/2000 11/2/2000	AOC9-COEMW-12 C0H180282005 STL Pittsburgh SADVA14 WATER 8/17/2000 11/2/2000	AOC9-MW9 C0H170224005 STL Pittsburgh SADVA14 WATER 8/16/2000 11/2/2000
CAS NO.	COMPOUND		UNITS:				
	VOLATILES						
67-64-1	Acetone	50 (G)	ug/L	ND	ND	2.4 J	2.2 J
78-93-3	2-Butanone	50 (G)	ug/L	R	R	R	R
	SEMIVOLATILES						
117-81-7	bis(2-Ethylhexyl) phthalate	5	ug/L	ND	4.1 J	ND	7.6 J
108-95-2	Phenol	1	ug/L	ND	4.4 J	ND	ND
	METALS						
7429-90-5	Aluminum	NS	ug/L	461	738	7300	6010
7440-38-2	Arsenic	25	ug/L	ND	ND	ND	69.7
7440-39-3	Barium	1000	ug/L	48.2 J	25.2 J	62.1 J	127 J
7440-41-7	Beryllium	3 (G)	ug/L	ND	ND	0.17 J	0.58 J
7440-43-9	Cadmium	5	ug/L	ND	ND	2.3 J	ND
7440-70-2	Calcium	NS	ug/L	209000	90700	75800	131000
7440-47-3	Chromium	50	ug/L	ND	ND	10 J	6.9 J
7440-48-4	Cobalt	NS	ug/L	ND	ND	3.4 J	6.8 J
7440-50-8	Copper	200	ug/L	ND	ND	31.9	3.4 J
7439-89-6	Iron	300	ug/L	500	505	8240	53800
7439-92-1	Lead	25	ug/L	ND	ND	6.6	2.2 J
7439-95-4	Magnesium	35000 (G)	ug/L	51100	2740 J	30500	30400
7439-96-5	Manganese	300	ug/L	32.5	124	330	823
7439-97-6	Mercury	0.7	ug/L	ND	0.052 J	0.046 J	ND
7440-09-7	Potassium	NS	ug/L	606 J	3940 J	2530 J	2710 J
7782-49-2	Selenium	10	ug/L	ND	2.2 J	2.3 J	2.3 J
7440-23-5	Sodium	20000	ug/L	17000	32300	251000	29800
7440-62-2	Vanadium	NS	ug/L	4.3 J	3.5 J	15.2 J	18.2 J
7440-66-6	Zinc	2000 (G)	ug/L	ND	ND	646	15.5 J

(G) - Guidance Value.
J - Estimated Value
NA - Not Analyzed
R - Rejected during data validation.
[shaded box] Concentration above Class GA Groundwater Standards
ND - Analyte was not detected; the reporting limit is unknown.

TABLE 5
SADVA AOC 9
ANALYTES DETECTED IN GROUNDWATER SAMPLES (2004)

USACE-Schenectady Depot Validated Groundwater Analytical Data AOC 9		NYSDEC Class GA Ground Water Standards/Guidance Values	Sample ID: Lab Sample ID Source: SDG: Matrix: Sampled: Validated:	MW9-TOT-AOC-9 C4G240150001 STL Pittsburgh C4G240150 WATER 7/23/2004 9/19/2004	MW9-FIL-AOC-9 C4G240150002 STL Pittsburgh C4G240150 WATER 7/23/2004 9/19/2004
CAS NO.	COMPOUND		UNITS:		
	METALS				
7429-90-5	Aluminum	NS	ug/L	69.3 J	37.9 J
7440-38-2	Arsenic	25	ug/L	ND	ND
7440-39-3	Barium	1000	ug/L	41.2 J	41.9 J
7440-41-7	Beryllium	3 (G)	ug/L	0.92 J	1.1 J
7440-70-2	Calcium	NS	ug/L	94200	94100
7440-47-3	Chromium	50	ug/L	0.93 U	1 J
7440-48-4	Cobalt	NS	ug/L	0.53 U	0.85 J
7439-89-6	Iron	300	ug/L	1870	25300
7439-95-4	Magnesium	35000 (G)	ug/L	21900	21700
7439-96-5	Manganese	300	ug/L	332	425
7440-02-0	Nickel	100	ug/L	1.2 U	2.9 J
7440-09-7	Potassium	NS	ug/L	359 J	376 J
7440-22-4	Silver	50	ug/L	0.43 J	0.55 J
7440-23-5	Sodium	20000	ug/L	23700	24000
7440-62-2	Vanadium	NS	ug/L	1 U	1.3 J
7440-66-6	Zinc	2000 (G)	ug/L	2.8 J	8.3 J

(G) - Guidance Value
U = Analyte not detected; the number is the detection limit.
J - Estimated Value

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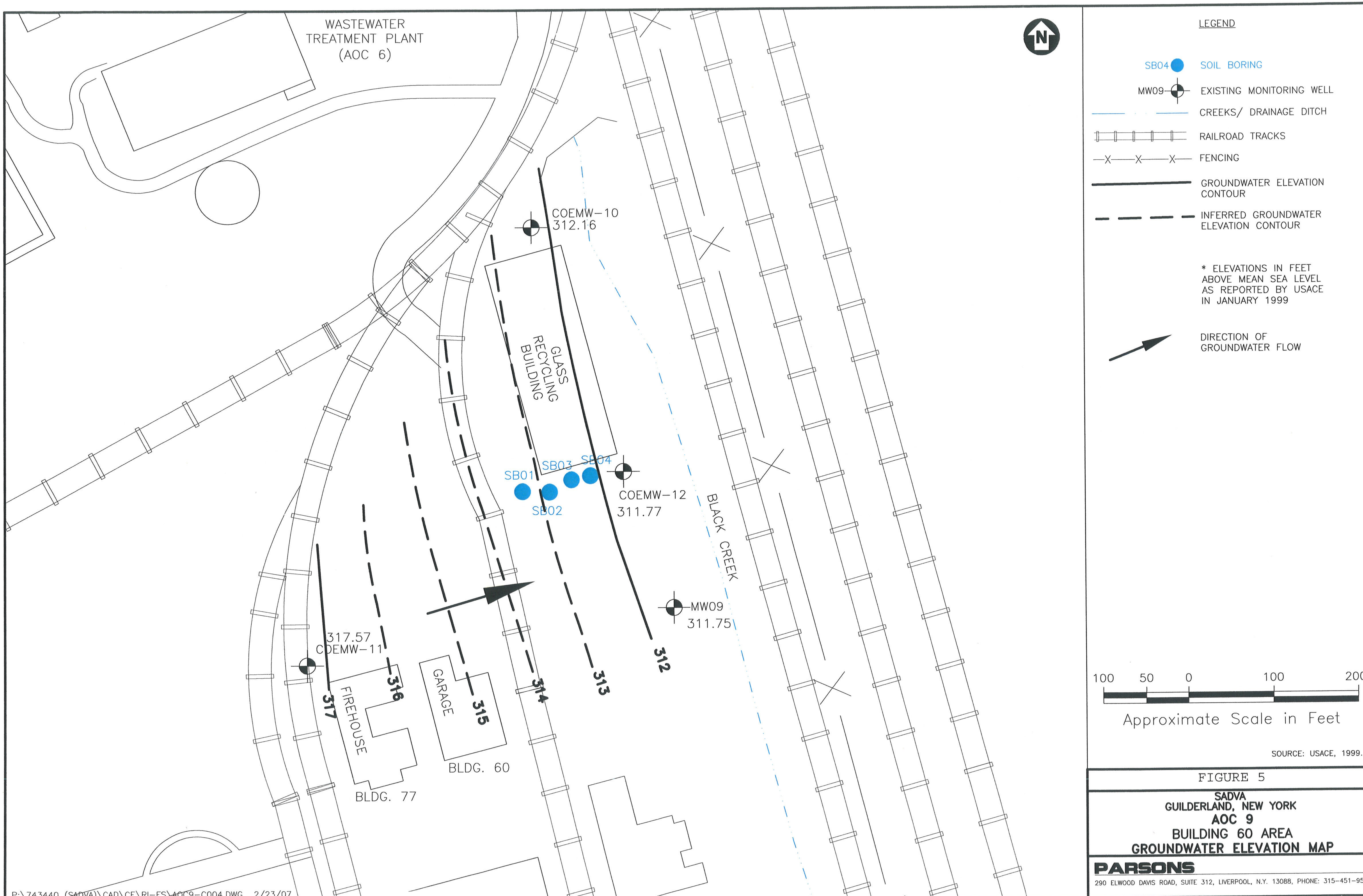

FIGURE 5

SADVA
GUILDERLAND, NEW YORK
AOC 9
BUILDING 60 AREA
GROUNDWATER ELEVATION MAP

PARSONS
290 ELWOOD DAVIS ROAD, SUITE 312, LIVERPOOL, N.Y. 13088, PHONE: 315-451-9560

SECTION 4

SCOPE AND ROLE

This Proposed Plan concerns the DoD's use of the former SADVA, and whether unacceptable risks remain due to DoD's contaminants that would require a response action under CERCLA. The site is currently a privately-owned industrial park known as the NEIP. This Proposed Plan does not address hazardous substances / contaminants disposed of by parties other than the DoD.

This particular Proposed Plan addresses AOC 6 - the Former Wastewater Treatment Plant, and AOC 9 – the Building 60 area; it does not include or apply to any other areas of concern at SADVA. The purpose of the Proposed Plan is to summarize activities performed to date to investigate and evaluate the need for remedial action at AOCs 6 and 9. The need for remedial action under the Formerly Used Defense Sites program will be driven by the presence of unacceptable risks to human health and the environment, if any, posed by the DoD's hazardous substances at AOCs 6 and 9.

SECTION 5

SUMMARY OF SITE RISKS

The quantitative human health risk assessment (HHRA) and qualitative screening level ecological risk assessment (SLERA) have been prepared as part of a Supplemental RI for AOC 9 (Parsons, 2013). A SLERA has been prepared for AOC 6. The specific objective of the HHRA is to provide a quantitative evaluation of the risk to human receptors as a result of exposure to soil and groundwater at AOC 9. The HHRA quantifies the potential risk to human health associated with exposure to these environmental media. The SLERA was focused on AOCs 6 and 9, to assess risk to ecological receptors from exposure to surface soil, sediments and surface water.

5.1 QUALITATIVE ECOLOGICAL RISK ASSESSMENT

During the RI, a SLERA was conducted for AOCs 6 and 9 to evaluate potential adverse impacts to the ecological receptors at SADVA due to the presence of certain organic compounds and metals above applicable criteria in soil, sediment and surface water at SADVA. The objective of the SLERA was to evaluate whether unacceptable adverse risks may be present. This objective was met by characterizing ecological plant and animal communities at or near the site, defining and describing the contaminants present in the environmental media at the site, and identifying the potential pathways for exposure to contaminants at the site. The information used in the SLERA was largely taken from the Generic Environmental Impact Statement (EIS) prepared for the NEIP (Galesi Group, 2005), supplemented by the RI sampling data and site visits by risk assessment professionals. NYSDEC reviewed and approved the SLERA, as part of the overall approval of the 2007 SADVA RI Report.

The qualitative ecological risk assessment for the SADVA site, which included assessment of AOCs 6 and 9, concluded that although there are chemicals in various media onsite that pose a potential risk to aquatic and terrestrial wildlife, the SADVA site appears to support wildlife typical for the area and for the commercial/industrial setting that the site has retained for over 60 years. On that basis, no further action was recommended.

5.2 HUMAN HEALTH RISK ASSESSMENT

The HHRA is based on AOCs 6 and 9 remaining as industrial land use. The Master Plan for the NEIP calls for the AOCs 6 and 9 remaining industrial for the foreseeable future.

A quantitative HHRA was not conducted specifically for AOC 6, because all soil sample concentrations were below the preliminary risk screening levels for industrial land use. The HHRA for AOC 9 uses the results of the samples collected for USACE's 2007 RI and the 1999 USACE investigation and removal action.

Risk assessment techniques and methods developed or recognized by the USACE and the USEPA were used for this HHRA. The quantitative HHRA is intended to satisfy USACE requirements for risk assessments during RI projects. As recommended by USACE, the quantitative HHRA used a phased baseline human health risk assessment approach to quantify potential risk. USEPA Regional Screening Levels (RSLs) and other screening values were used for the risk analyses.

The objective of the risk characterization is to evaluate the likelihood of carcinogenic risks and adverse noncarcinogenic health effects occurring as a result of exposure to contaminants of potential concern (COPCs). The potential for carcinogenic risks and noncarcinogenic health effects of COPCs are evaluated by USACE separately because of differences in the processes by which these health effects are believed to occur. Carcinogenic risks were calculated by USACE for those COPCs with evidence of carcinogenicity and for which carcinogenic toxicity values are available. Noncarcinogenic health effects were evaluated by USACE for the COPCs for which noncarcinogenic toxicity values are available.

The COPCs carried into the HHRA from the RI are PAHs for soil and metals for groundwater. The HHRA also includes a separate risk screening process, and that process identified metals in subsurface soils as being additional COPCs. The vapor intrusion pathway was considered in the risk assessments associated with the RIs for AOCs 6 and 9. VOCs were not identified as COPCs. Therefore, the exposure assessment portion of the risk assessment concluded that there were no complete exposure pathways and thus no risk associated with inhalation of volatiles. Therefore, no further evaluation of volatiles was conducted.

To characterize potential noncarcinogenic effects, USACE made comparisons between projected intakes of substances and reference doses or reference concentrations. To characterize potential carcinogenic effects, USACE calculated the incremental probability of an individual developing cancer over a lifetime from projected intakes and chemical-specific carcinogenic potency factors. USACE calculated risks separately for surface soil and mixed soil (consisting of mixture of surface and subsurface soil) because some receptors, such as trespassers are only expected to be exposed to surface soil. Construction/excavation workers could be exposed to mixed soil during their work activities.

The noncancer hazard index for future construction/excavation workers at AOC 9 is less than 1. The hazard index is not greater than 1; therefore, there are no hazards due to exposure to mixed soils at AOC 9.

The carcinogenic risks for commercial industrial workers are estimated to be 1×10^{-5}. The carcinogenic risks for adolescent trespasser are estimated to be 2×10^{-6}. These estimates of carcinogenic risk are within the USEPA's carcinogenic risk cumulative risk goal of 1×10^{-6} to 1×10^{-4}; therefore, there are no unacceptable carcinogenic risks due to exposure to surface soils at AOC 9.

The carcinogenic risks for future construction/excavation workers are estimated to be 1×10^{-6}. All these estimates of carcinogenic risk for onsite current and future receptors at AOC 9 are within or are less than the carcinogenic risk cumulative risk goal of 1×10^{-6} to 1×10^{-4}; therefore, there are no unacceptable carcinogenic risks due to exposure to PAHs in mixed soils at the AOC 9 expected.

SECTION 6

SUMMARY OF FINDINGS AND PROPOSAL OF NO ACTION

The USACE has conducted a thorough remedial investigation, pursuant to CERCLA, of AOCs 6 and 9 with regard to the DoD's former use of the site. Based on that investigation, a response action is not warranted. There are no unacceptable risks to human health or the environment at AOCs 6 and 9 related to DoD's use of the site. Accordingly, USACE proposes not to conduct a response action at AOCs 6 and 9.

SECTION 7

COMMUNITY PARTICIPATION

The public is strongly encouraged to review and comment on this Proposed Plan. If any significant new information or public comments are received during the public comment period, the Proposed Plan for no further action may be modified to acknowledge new information.

A public comment period will begin on August 28, 2013 and extend to September 30, 2013. Notice of the public comment period will be printed in local newspapers. In addition, the public comment period will include a public meeting during which the USACE and NYSDEC will provide an overview of the site and investigation findings, answer questions, and accept public comments on the Proposed Plan.

The public meeting will be held within the public comment period at a time and location to be announced.

Comments on the Proposed Plan will be summarized and responses will be provided in the Responsiveness Summary Section of a Decision Document (DD). To submit written comments or obtain further information, please contact the following representative:

U. S. Army Corps of Engineers, New York District
Attn: Gregory. J. Goepfert, CENAN-PP-E, Room 1811
26 Federal Plaza
New York, NY 10278
(917) 790-8235

SECTION 8

REFERENCES

ACDH, 1988. Albany County Department of Health, letter dated January 10, 1983.

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