

GIS REGISTRY

Cover Sheet

March, 2010
(RR 5367)

Source Property Information

CLOSURE DATE: Sep 3, 2010

BRRTS #: 02-57-554924

ACTIVITY NAME: BAAP Parcel K4 Post Demo & Sewer Removal Site

PROPERTY ADDRESS:

MUNICIPALITY: Baraboo

PARCEL ID #:

FID #:

DATCP #:

COMM #:

*WTM COORDINATES:

X: 540810 Y: 322885

** Coordinates are in
WTM83, NAD83 (1991)*

WTM COORDINATES REPRESENT:

- Approximate Center Of Contaminant Source
 Approximate Source Parcel Center

Please check as appropriate: (BRRTS Action Code)

Contaminated Media:

Groundwater Contamination > ES (236)

Contamination in ROW

Off-Source Contamination

*(note: for list of off-source properties
see "Impacted Off-Source Property" form)*

Soil Contamination > *RCL or **SSRCL (232)

Contamination in ROW

Off-Source Contamination

*(note: for list of off-source properties
see "Impacted Off-Source Property" form)*

Land Use Controls:

N/A (Not Applicable)

Soil: maintain industrial zoning (220)

*(note: soil contamination concentrations
between non-industrial and industrial levels)*

Structural Impediment (224)

Site Specific Condition (228)

Cover or Barrier (222)

*(note: maintenance plan for
groundwater or direct contact)*

Vapor Mitigation (226)

Maintain Liability Exemption (230)

*(note: local government unit or economic
development corporation was directed to
take a response action)*

Monitoring Wells:

Are all monitoring wells properly abandoned per NR 141? (234)

Yes No N/A

** Residual Contaminant Level*

*** Site Specific Residual Contaminant Level*

This Adobe Fillable form is intended to provide a list of information that is required for evaluation for case closure. It is to be used in conjunction with Form 4400-202, Case Closure Request. The closure of a case means that the Department has determined that no further response is required at that time based on the information that has been submitted to the Department.

NOTICE: Completion of this form is mandatory for applications for case closure pursuant to ch. 292, Wis. Stats. and ch. NR 726, Wis. Adm. Code, including cases closed under ch. NR 746 and ch. NR 726. The Department will not consider, or act upon your application, unless all applicable sections are completed on this form and the closure fee and any other applicable fees, required under ch. NR 749, Wis. Adm. Code, Table 1 are included. It is not the Department's intention to use any personally identifiable information from this form for any purpose other than reviewing closure requests and determining the need for additional response action. The Department may provide this information to requesters as required by Wisconsin's Open Records law [ss. 19.31 - 19.39, Wis. Stats.].

BRRTS #: 02-57-554924 PARCEL ID #: K4
ACTIVITY NAME: BAAP Parcel K4 Post-Demo & Sewer Removal WTM COORDINATES: X: 540810 Y: 322885

CLOSURE DOCUMENTS (the Department adds these items to the final GIS packet for posting on the Registry)

- Closure Letter**
- Maintenance Plan** (if activity is closed with a land use limitation or condition (land use control) under s. 292.12, Wis. Stats.)
- Continuing Obligation Cover Letter** (for property owners affected by residual contamination and/or continuing obligations)
- Conditional Closure Letter**
- Certificate of Completion (COC)** (for VPLE sites)

SOURCE LEGAL DOCUMENTS

- Deed:** The most recent deed as well as legal descriptions, for the **Source Property** (where the contamination originated). Deeds for other, off-source (off-site) properties are located in the **Notification** section.
Note: If a property has been purchased with a land contract and the purchaser has not yet received a deed, a copy of the land contract which includes the legal description shall be submitted instead of the most recent deed. If the property has been inherited, written documentation of the property transfer should be submitted along with the most recent deed.
- Certified Survey Map:** A copy of the certified survey map or the relevant section of the recorded plat map for those properties where the legal description in the most recent deed refers to a certified survey map or a recorded plat map. (lots on subdivided or platted property (e.g. lot 2 of xyz subdivision)).
Figure #: **Title:**
- Signed Statement:** A statement signed by the Responsible Party (RP), which states that he or she believes that the attached legal description accurately describes the correct contaminated property.

MAPS (meeting the visual aid requirements of s. NR 716.15(2)(h))

Maps must be no larger than 11 x 17 inches unless the map is submitted electronically.

- Location Map:** A map outlining all properties within the contaminated site boundaries on a U.S.G.S. topographic map or plat map in sufficient detail to permit easy location of all parcels. If groundwater standards are exceeded, include the location of all potable wells within 1200 feet of the site.
Note: Due to security reasons municipal wells are not identified on GIS Packet maps. However, the locations of these municipal wells must be identified on Case Closure Request maps.
Figure #: 1 **Title: Site Location Map**
- Detailed Site Map:** A map that shows all relevant features (buildings, roads, individual property boundaries, contaminant sources, utility lines, monitoring wells and potable wells) within the contaminated area. This map is to show the location of all contaminated public streets, and highway and railroad rights-of-way in relation to the source property and in relation to the boundaries of groundwater contamination exceeding a ch. NR 140 Enforcement Standard (ES), and/or in relation to the boundaries of soil contamination exceeding a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Levels (SSRCL) as determined under s. NR 720.09, 720.11 and 720.19.
Figure #: 3 **Title: Soil Sample Locations**
- Soil Contamination Contour Map:** For sites closing with residual soil contamination, this map is to show the location of all contaminated soil and a single contour showing the horizontal extent of each area of contiguous residual soil contamination that exceeds a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Level (SSRCL) as determined under s. NR 720.09, 720.11 and 720.19.
Figure #: **Title:**

BRRTS #: 02-57-554924

ACTIVITY NAME: BAAP Parcel K4 Post-Demo & Sewer Removal

MAPS (continued)

- Geologic Cross-Section Map:** A map showing the source location and vertical extent of residual soil contamination exceeding a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Level (SSRCL). If groundwater contamination exceeds a ch. NR 140 Enforcement Standard (ES) when closure is requested, show the source location and vertical extent, water table and piezometric elevations, and locations and elevations of geologic units, bedrock and confining units, if any.

Figure #: **Title:**

Figure #: **Title:**

- Groundwater Isoconcentration Map:** For sites closing with residual groundwater contamination, this map shows the horizontal extent of all groundwater contamination exceeding a ch. NR140 Preventive Action Limit (PAL) and an Enforcement Standard (ES). Indicate the direction and date of groundwater flow, based on the most recent sampling data.

Note: This is intended to show the total area of contaminated groundwater.

Figure #: **Title:**

- Groundwater Flow Direction Map:** A map that represents groundwater movement at the site. If the flow direction varies by more than 20° over the history of the site, submit 2 groundwater flow maps showing the maximum variation in flow direction.

Figure #: **Title:**

Figure #: **Title:**

TABLES (meeting the requirements of s. NR 716.15(2)(h)(3))

Tables must be no larger than 11 x 17 inches unless the table is submitted electronically. Tables must not contain shading and/or cross-hatching. The use of **BOLD** or *ITALICS* is acceptable.

- Soil Analytical Table:** A table showing remaining soil contamination with analytical results and collection dates.
Note: This is one table of results for the contaminants of concern. Contaminants of concern are those that were found during the site investigation, that remain after remediation. It may be necessary to create a new table to meet this requirement.

Table #: Tbls 1 **Title:** Soil Samle Analytical Results

- Groundwater Analytical Table:** Table(s) that show the most recent analytical results and collection dates, for all monitoring wells and any potable wells for which samples have been collected.

Table #: **Title:**

- Water Level Elevations:** Table(s) that show the previous four (at minimum) water level elevation measurements/dates from all monitoring wells. If present, free product is to be noted on the table.

Table #: **Title:**

IMPROPERLY ABANDONED MONITORING WELLS

For each monitoring well not properly abandoned according to requirements of s. NR 141.25 include the following documents.

Note: *If the site is being listed on the GIS Registry for only an improperly abandoned monitoring well you will only need to submit the documents in this section for the GIS Registry Packet.*

- Not Applicable**

- Site Location Map:** A map showing all surveyed monitoring wells with specific identification of the monitoring wells which have not been properly abandoned.

Note: *If the applicable monitoring wells are distinctly identified on the Detailed Site Map this Site Location Map is not needed.*

Figure #: **Title:**

- Well Construction Report:** Form 4440-113A for the applicable monitoring wells.

- Deed:** The most recent deed as well as legal descriptions for each property where a monitoring well was not properly abandoned.

- Notification Letter:** Copy of the notification letter to the affected property owner(s).

BRRTS #: 02-57-554924

ACTIVITY NAME: BAAP Parcel K4 Post-Demo & Sewer Removal

NOTIFICATIONS

Source Property

Not Applicable

- Letter To Current Source Property Owner:** If the source property is owned by someone other than the person who is applying for case closure, include a copy of the letter notifying the current owner of the source property that case closure has been requested.
- Return Receipt/Signature Confirmation:** Written proof of date on which confirmation was received for notifying current source property owner.

Off-Source Property

Group the following information per individual property and label each group according to alphabetic listing on the "Impacted Off-Source Property" attachment.

Not Applicable

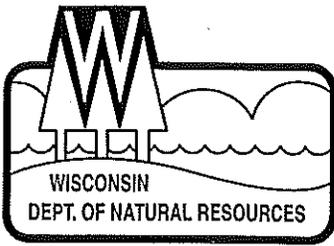
- Letter To "Off-Source" Property Owners:** Copies of all letters sent by the Responsible Party (RP) to owners of properties with groundwater exceeding an Enforcement Standard (ES), and to owners of properties that will be affected by a land use control under s. 292.12, Wis. Stats.

Note: Letters sent to off-source properties regarding residual contamination must contain standard provisions in Appendix A of ch. NR 726.

Number of "Off-Source" Letters:

- Return Receipt/Signature Confirmation:** Written proof of date on which confirmation was received for notifying any off-source property owner.
- Deed of "Off-Source" Property:** The most recent deed(s) as well as legal descriptions, for all affected deeded **off-source property(ies)**. This does not apply to right-of-ways.
Note: If a property has been purchased with a land contract and the purchaser has not yet received a deed, a copy of the land contract which includes the legal description shall be submitted instead of the most recent deed. If the property has been inherited, written documentation of the property transfer should be submitted along with the most recent deed.
- Letter To "Governmental Unit/Right-Of-Way" Owners:** Copies of all letters sent by the Responsible Party (RP) to a city, village, municipality, state agency or any other entity responsible for maintenance of a public street, highway, or railroad right-of-way, within or partially within the contaminated area, for contamination exceeding a groundwater Enforcement Standard (ES) and/or soil exceeding a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Level (SSRCL).

Number of "Governmental Unit/Right-Of-Way Owner" Letters:



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor
Matthew J. Frank, Secretary
Lloyd L. Eagan, Regional Director

South Central Region Headquarters
3911 Fish Hatchery Road
Fitchburg, Wisconsin 53711-5397
Telephone 608-275-3266
FAX 608-275-3338
TTY Access via relay - 711

September 3, 2010

Ms. Joan Kenney, Installation Director
Badger Army Ammunition Plant
2 Badger Road
Baraboo, WI 53913-5000

Subject: Final Case Closure for the BAAP –Parcel K4 Post-Demolition and Sewer Removal Site; Sauk County; BRRTS Number 02-57-554924

Dear Ms. Kenney:

On September 1, 2010, the Department's South Central Region Closure Committee reviewed your request for closure of the case described above. This committee reviews environmental remediation cases for compliance with state rules and statutes to maintain consistency in the closure of these cases.

Based on the correspondence and data provided, it appears that your case meets the requirements of ch. NR 726, Wisconsin Administrative Code. The Department considers this case closed and no further investigation or remediation is required at this time. Note that this closure applies to the soil excavation areas near accounts #8009-00, 8014-00, and 8018-00 identified in the letter reports "Sewer Removal/Remedial Action in Parcel K4 – WDNR Closure Request", dated January 5, 2010, and "Parcel K4 Closure Request", dated August 20, 2010. No action is required for the underground process and sanitary sewer line removal.

Please be aware that this case may be reopened pursuant to s. NR 726.09, Wisconsin Administrative Code, if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety or welfare, or the environment.

GIS Registry

The conditions of case closure described below require that this site be listed on the DNR Remediation and Redevelopment GIS Registry. The specific reason for this listing is that residual soil contamination exists that must be properly managed should it be excavated or removed from the vicinity of soil sample location K4-SS-1.

A copy of this letter and the information that was submitted with your closure request application will be included on the GIS Registry. To review the sites on the GIS Registry web page, visit the RR Sites Map page at <http://dnr.wi.gov/org/aw/rr/gis/index.htm>

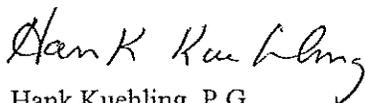
Residual Soil Contamination

Residual soil contamination remains in the area of the removed sanitary sewer line in the vicinity of soil sample location K4-SS-1 at a depth of 4.5 feet. If this soil is excavated in the future, then, pursuant to ch. NR 718 or, if applicable, ch. 289, Stats., and chs. 500 to 536, the property owner at the time of excavation must sample and analyze the excavated soil to determine if residual contamination remains. If sampling confirms that contamination is present, the property owner at the time of excavation must determine whether the material would be considered solid or hazardous waste and ensure that any storage, treatment or disposal is in compliance with

applicable standards and rules. In addition, all current and future owners and occupants of the property must be aware that excavation of the contaminated soil may pose an inhalation or other direct contact hazard and, as a result, special precautions may need to be taken to prevent a direct contact health threat to humans.

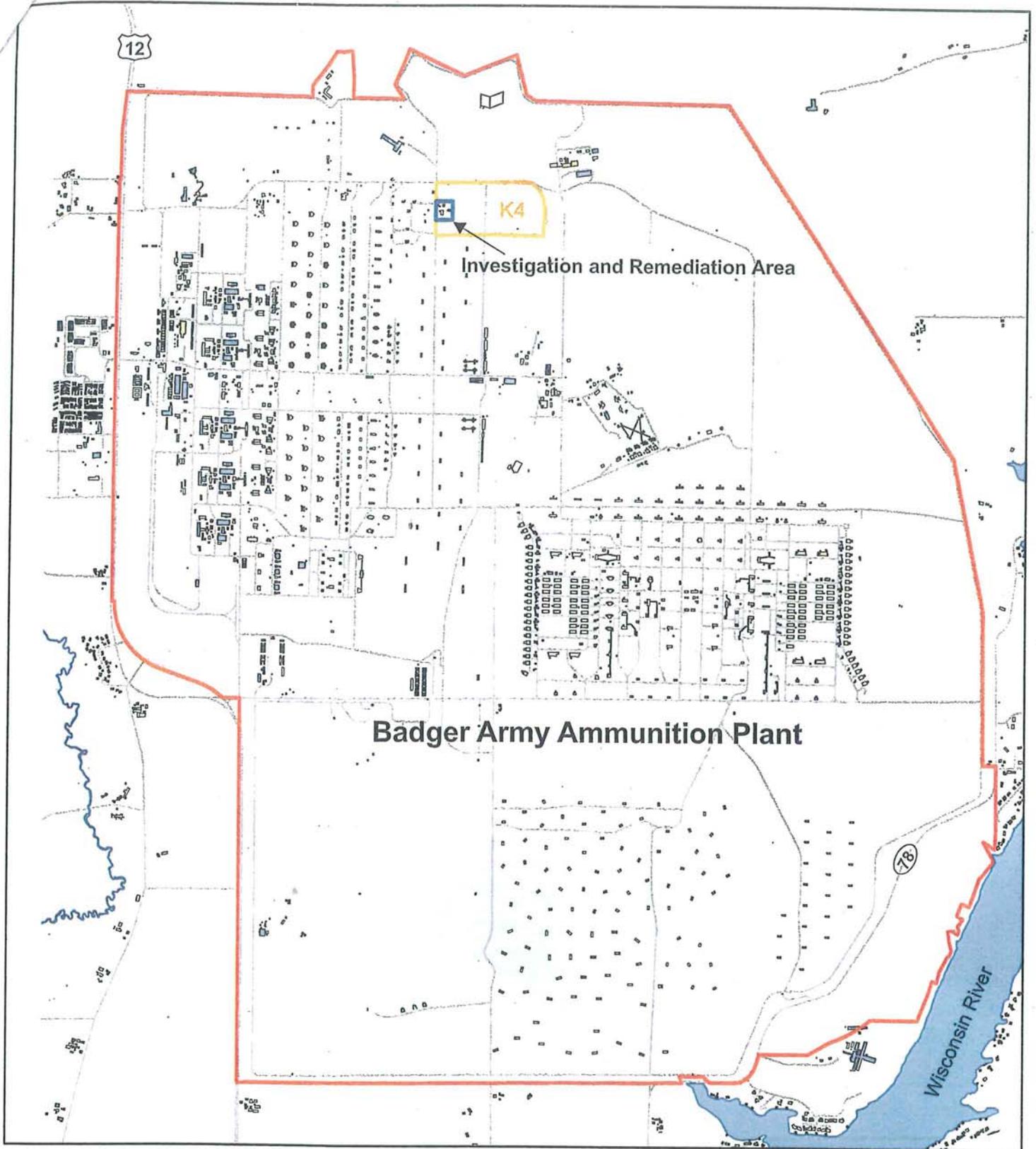
The Department appreciates your efforts to restore the environment at this site. If you have any questions regarding this closure decision or anything outlined in this letter, please contact me at the address included above or as indicated below.

Sincerely,



Hank Kuehling, P.G.
Remediation & Redevelopment Program Hydrogeologist
(608) 275-3286
harlan.kuehling@wisconsin.gov

c (via e-mail): Clair Ruenger – SpecPro, Inc.
Laura Olah – CSWAB

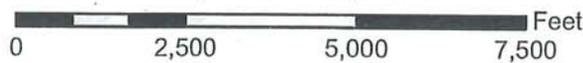


Legend

- Badger Army Ammunition Plant Boundary
- Investigation and Remediation Area
- Parcel Boundary
- Paved Road
- Existing Building
- Former Building Footprint

Figure 1
Site Location Map
Sewer Removal/Remedial Investigation
- Parcel K4
Badger Army Ammunition Plant

Map Scale: 1:32,000



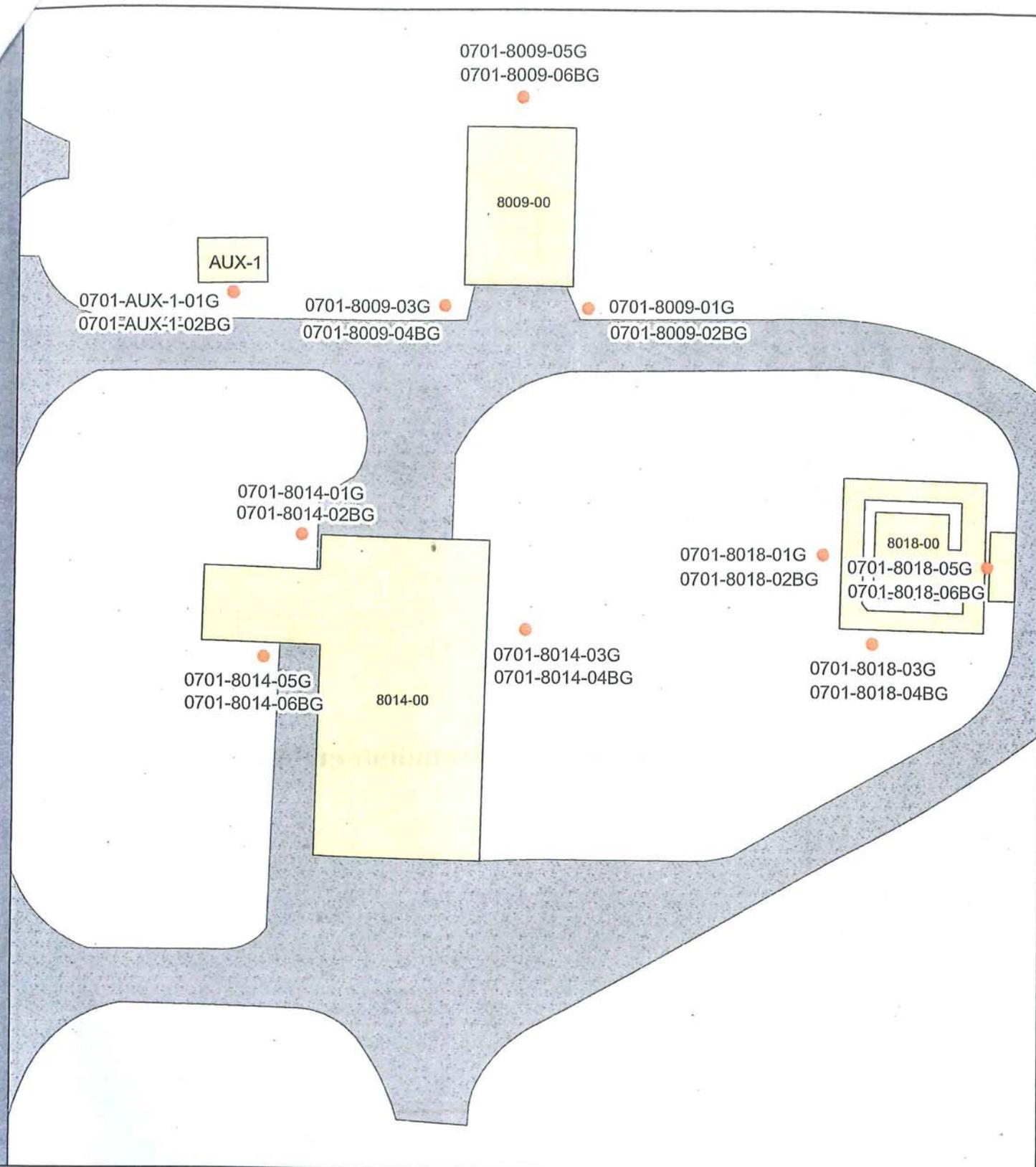
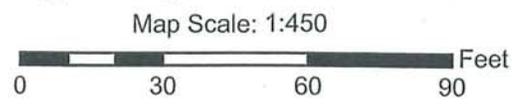
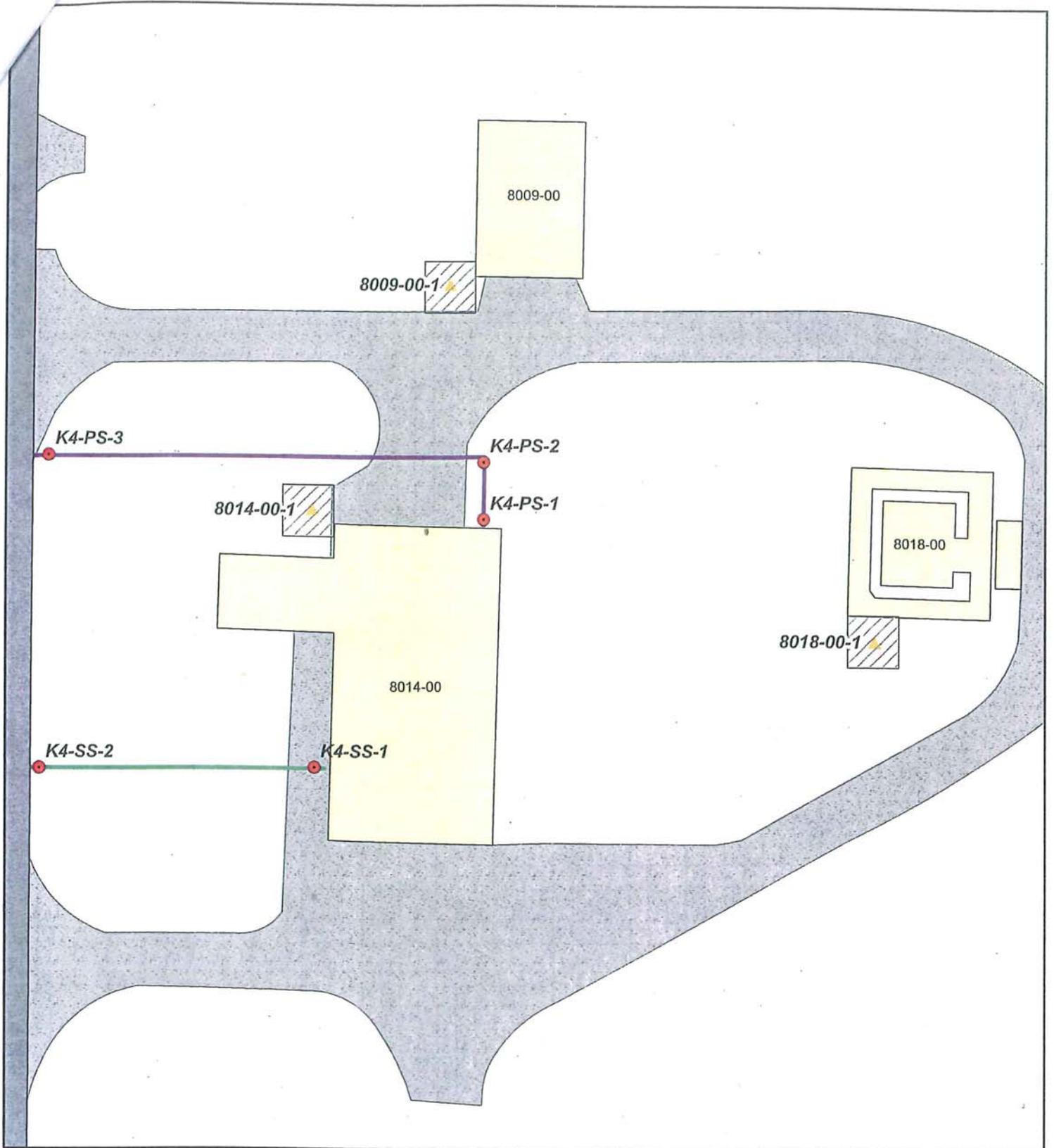


Figure 2

Post-Demo Soil Sample Locations
 Sewer Removal/Remedial Investigation
 - Parcel K4
 Badger Army Ammunition Plant

- Legend**
- 207 Post-Demo Soil Sample Location
 - Asphalt Paved Road
 - Asphalt Paved Parking
 - Former Building Footprint
 - 8014-00 Building Account #





Legend

-  Post Remedial Soil Scrape Sample Location
-  Sewer Removal Sample Location
-  Sanitary Sewer Main
-  Process Sewer Main
-  Asphalt Paved Road
-  Asphalt Paved Parking
-  Former Building Footprint
-  Soil Scrape Extent
- 8014-00 Building Account #

Figure 3

**Soil Sample Locations
Sewer Removal/Remedial Investigation
- Parcel K4
Badger Army Ammunition Plant**

Map Scale: 1:450



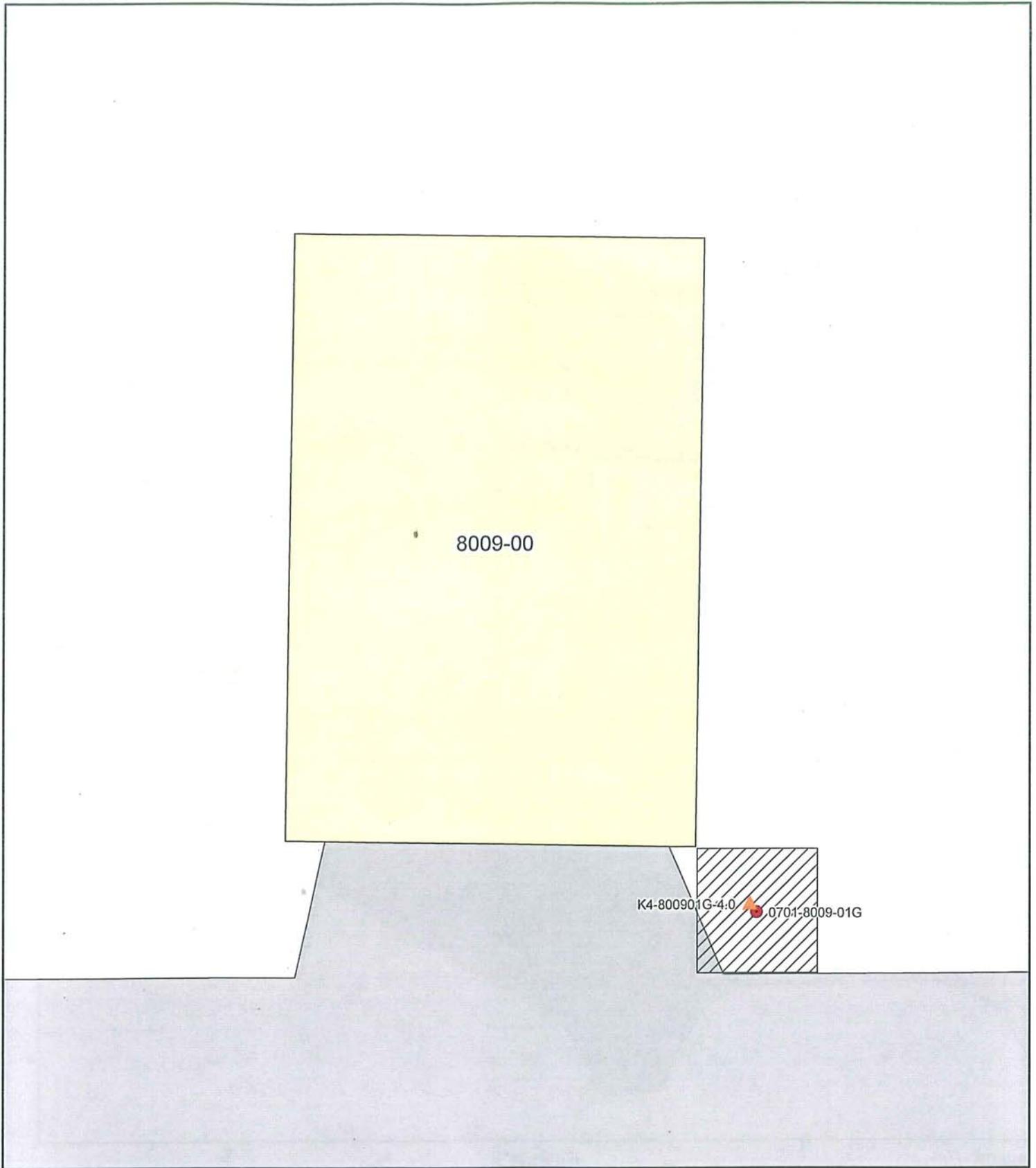


Figure 1

Remedial Soil Excavation Location
Parcel K4 Closure Request
Badger Army Ammunition Plant

1 inch = 10 feet



Legend

-  Remedial Action Sample Location
-  Post Demolition Investigation Sample Location
-  Soil Excavation Extent
-  Paved Parking
-  Former Building Footprint With Account #



Table 1
Soil Sample Analytical Results (Revised)
Sewer Removal/Remedial Investigation - Parcel K4
Badger Army Ammunition Plant

Sample ID	Phase of Work	Status	Date Sampled	Sample Depth (feet bgs)	Total Arsenic (mg/kg)	Benzo(a)anthracene (mg/kg)	Benzo(b)fluoranthene (mg/kg)	Benzo(a)pyrene (mg/kg)	Dibenz(a,h)anthracene mg/kg	Indeno(1,2,3-cd)pyrene (mg/kg)
Account #8009-00										
0701-8009-01G	Post-Demo	Remaining	6/19/07	0 - 0.5	<1.1 (D)	<0.035	<0.035	<0.035	<0.035	<0.035
0701-8009-02BG	Post-Demo	Remaining	6/19/07	4.0	NA	<0.038	<0.038	<0.038	<0.038	<0.038
0701-8009-03G	Post-Demo	Removed	6/19/07	0 - 0.5	6.9 (D)	0.372	0.567	0.429	0.074 (J)	0.297
0701-8009-04BG	Post-Demo	Remaining	6/19/07	4.0	NA	<0.040	<0.040	<0.040	<0.040	<0.040
0701-8009-05G	Post-Demo	Remaining	6/19/07	0 - 0.5	6.0 (D)	<0.038	<0.038	<0.038	<0.038	<0.038
0701-8009-06BG	Post-Demo	Remaining	6/19/07	4.0	NA	<0.040	<0.040	<0.040	<0.040	<0.040
8009-00-1	Remedial	Remaining	8/17/09	1.0	NA	0.074 (J, SL)	0.075 (J, MH, SL)	0.079 (J, SL)	<0.155 (SL)	0.463 (J, SL)
Account #8014-00										
0701-8014-01G	Post-Demo	Removed	6/19/07	0 - 0.5	<1.1 (D)	1.04	0.859	0.411	0.043 (J)	0.194
0701-8014-02BG	Post-Demo	Remaining	6/19/07	4.0	NA	0.051 (J)	0.067 (J)	<0.043	<0.043	<0.043
0701-8014-03G	Post-Demo	Remaining	6/19/07	0 - 0.5	<1.0 (D)	<0.034	<0.034	<0.034	<0.034	<0.034
0701-8014-04BG	Post-Demo	Remaining	6/19/07	4.0	NA	<0.042	<0.042	<0.042	<0.042	<0.042
0701-8014-05G	Post-Demo	Remaining	6/19/07	0 - 0.5	<1.1 (D)	<0.035	<0.035	<0.035	<0.035	<0.035
0701-8014-06BG	Post-Demo	Remaining	6/19/07	4.0	NA	<0.043	<0.043	<0.043	<0.043	<0.043
8014-00-1	Remedial	Remaining	8/17/09	1.0	NA	0.164 (J, SL)	0.427 (SL)	0.136 (J, SL)	<0.157 (SL)	0.501 (J, SL)
Account #8018-00										
0701-8018-01G	Post-Demo	Remaining	6/19/07	0 - 0.5	6.5 (D)	<0.036	<0.036	<0.036	<0.036	<0.036
0701-8018-02BG	Post-Demo	Remaining	6/19/07	4.0	NA	<0.040	<0.040	<0.040	<0.040	<0.040
0701-8018-03G	Post-Demo	Removed	6/19/07	0 - 0.5	21.1	<0.037	<0.037	<0.037	<0.037	<0.037
0701-8018-04BG	Post-Demo	Remaining	6/19/07	4.0	NA	<0.046	<0.046	<0.046	<0.046	<0.046
0701-8018-05G	Post-Demo	Remaining	6/19/07	0 - 0.5	2.4 (D, J)	<0.037	<0.037	<0.037	<0.037	<0.037
0701-8018-06BG	Post-Demo	Remaining	6/19/07	4.0	NA	<0.042	<0.042	<0.042	<0.042	<0.042
8018-00-1	Remedial	Remaining	8/17/09	1.0	2.7 (D, J)	NA	NA	NA	NA	NA
Account Aux-1										
0701-Aux-1-01G	Post-Demo	Remaining	6/19/07	0 - 0.5	7.0 (D)	<0.037	<0.037	<0.037	<0.037	<0.037
0701-Aux-1-02BG	Post-Demo	Remaining	6/19/07	4.0	NA	<0.038	<0.038	<0.038	<0.038	<0.038
Sewer Removal/Remedial Investigation Sampling Results										
K4-SS-1	Investigative	Remaining	8/19/09	4.5	NA	2.94 (SL)	4.33 (SL)	3.24 (SL)	0.494 (J, SL)	2.29 (SL)
United States Environmental Protection Agency Regional Screening Level (USEPA RSL)					22*	0.15	0.15	0.015	0.015	0.15
Background Concentration					10	NSE	NSE	NSE	NSE	NSE

Bold text identifies regulatory exceedance
Note that other Polycyclic Aromatic Hydrocarbons (PAH) compounds were reported in sample K4-SS-1 that are not listed on this table
bgs - Below ground surface
mg/kg - Milligrams per kilogram
Samples that reported no detection for analytical parameters tested are not listed in table
NA - Not analyzed
MH - Matrix Spike and/or Matrix Spike Duplicate recovery exceeded the upper control limit
D - Elevated limit of detection (LOD) and limit of quantitation (LOQ) are due to dilution/volume of the sample
SL - Surrogate recovery was below the lower control limit. Analytical results for this parameter should be considered estimate
J - Analytical result is between LOD and LOQ
NSE - No standard established
* USEPA RSL was not established as cleanup objective for BAAAP. Background concentration is remedial objective for arsenic