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18 September 2008

John Kennedy, P.E.  
Pennsylvania Department of Environmental Protection  
2 East Main Street  
Norristown, PA 19401-4915

W.O. No. 14356.001.001.0003

Re: Stadium Area Contaminant Profiles and  
Soil and Groundwater Analytical Results  
Rivertown at Chester Project  
Chester, Pennsylvania

Dear Mr. Kennedy:

Attached please find four copies of the above referenced document for your use and review. The attached document provides a profile of the soil and groundwater contaminants of concern as they relate to construction activities that include earth disturbance associated with construction of the stadium. The data and information included in this summary document were derived from current environmental investigations conducted by Weston Solutions, Inc. (WESTON®) and others, as well as historical investigations conducted by others. A pathway elimination approach under a Site Specific Standard will be used to remediate the Stadium Area. The pathway elimination approach will consist of placing two feet of clean fill over the Stadium Area and installing vapor barriers beneath buildings where conditions warrant. This summary document is intended to provide an overview of both the current and historical investigative findings in the Stadium Area in order to allow the reader to quickly gain an understanding of the nature and distribution of contaminants present in the soil and groundwater in the Stadium Area as they relate to the major earth disturbance activities associated with construction of the stadium. This document is not intended as a substitute for the Remedial Investigation Report (RI) that will follow.

A Soil and Groundwater Management Plan was previously submitted to the Department as part of the NPDES permit application that outlines the procedures to be followed for the handling/disposition and disposal of contaminated materials encountered during construction, as well as engineering controls associated with street cleaning, dust control, vapor/odor control, traffic control and routing and air monitoring. The protocols and procedures outlined in this document will ensure that site operations are conducted in accordance with applicable regulations and guidance and that engineering and monitoring controls are in place to prevent any potential offsite impacts. In addition to the protocols and procedures prescribed in the Soil and Groundwater Management Plan, a pathway elimination approach will be used to remediate the Stadium Area. This remedial approach will further limit the potential for any offsite impacts



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PADEP

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by minimizing the exposure of contaminants in the subsurface that could otherwise result if more intrusive remedial approaches were used.

We look forward to continuing to work with the Department and the community on this important revitalization project in order to provide a much needed economic boost to both the City of Chester and the surrounding community. Please do not hesitate to contact me at (610) 701-7291 or by email at [s.johnson@westonsolutions.com](mailto:s.johnson@westonsolutions.com) if you have any questions or require additional information regarding the above referenced documents.

Very truly yours,

WESTON SOLUTIONS, INC.

A handwritten signature in black ink, appearing to read "S.E. Johnson", written in a cursive style.

S.E. Johnson  
Senior Project Manager

cc: M. Hare (BPG)  
W. Schwandt (BPG)  
J. Groth (BPG)  
J. Motwani (WESTON)

**DRAFT**

**STADIUM AREA CONTAMINANT PROFILES  
AND  
SOIL AND GROUNDWATER ANALYTICAL RESULTS  
  
RIVERTOWN AT CHESTER PROJECT  
CHESTER, PENNSYLVANIA**

September 2008

Prepared for

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## INTRODUCTION

This summary report provides a profile of the contaminants of concern for both soil and groundwater present in the Stadium Area as they relate to construction activities that include earth disturbance associated with the stadium construction. The data and information included in this summary were derived from current environmental investigations conducted by Weston Solutions, Inc. (WESTON) and others as well as historical environmental investigations conducted by others. The WESTON and historical sample locations are shown on Figure 1. A pathway elimination approach under a Site Specific Standard will be used to remediate the Stadium Area. The pathway elimination approach will consist of placing two feet of clean fill over the Stadium Area and installing vapor barriers beneath buildings where conditions warrant. This document is intended to provide an overview of both the current and historical investigative findings in the Stadium Area in order to allow the reader to quickly gain a comprehensive understanding of the nature and distribution of contaminants present in the soil and groundwater in the Stadium Area. This document is not intended as a substitute for the comprehensive Remedial Investigation Report (RI) required for Act 2 closure that will follow.

# **1. COMBINED SEWER OVERFLOW (CSO)**

## **1.1 PHYSICAL DESCRIPTION**

The proposed interim combined sewer overflow (CSO) will run along Seaport Drive from Reaney Street to Jeffrey Street and will then run parallel to Jeffrey Street toward the Delaware River, the point of discharge for the CSO. To assist with planned excavation activities, cross section A-A' was constructed coincident to the CSO to show the expected subsurface conditions along the CSO transect. Cross section A-A' is shown on Figure 2 along with a plan view of the cross section profile. The information depicted on cross section A-A' was obtained from the investigation conducted by WESTON in July and August 2008 and from previous investigations conducted on the Stadium Area.

As shown on CSO cross section A-A', the topography along the transect is relatively flat, with surface elevations (referenced to NAVD 88) ranging between 12 and 14 ft along Seaport Drive and dropping to below 10 ft toward the Delaware River. The subsurface material encountered during the various investigations consists primarily of fill although in some of the deeper borings alluvial deposits were penetrated. The depth below existing grade to the zone of saturation varies from between 9.5 ft and 12.5 ft along Seaport Drive to less than 8 ft near the Delaware River.

## **1.2 SURFACE SOIL**

Surface soil samples were collected from the 0-2 ft interval at all soil boring locations during the WESTON investigation. The soil analytical results for those samples collected from borings located in proximity to the CSO transect are summarized in Table 1. Table 1 also includes the soil results obtained from previous investigations.

Although trace levels of several compounds were reported for surface soil samples, as shown in Table 1, the only constituents detected at notable concentrations include the SVOCs benzo(a)pyrene and dibenz(a,h)anthracene, with a maximum reported concentrations of 16 mg/kg and 3.3 mg/kg, respectively, in the sample collected from

boring WW-01, and the metal arsenic, which was detected at a concentration of 14 mg/kg in the sample collected from boring WB-121. SVOCs detected at minor concentrations include benzo(a)anthracene, benzo(b)fluoranthene, benzo(g,h,i)perylene, chrysene, fluoranthene, and pyrene. VOCs detected at minor concentrations include cumene, ethylbenzene, and xylenes.

### **1.3 SUBSURFACE SOIL**

A review of Table 1 shows that the VOCs 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene were detected in the sample collected from 11 ft in boring WB-67. The reported concentrations for the two compounds were 70 mg/kg and 21 mg/kg, respectively. Other VOCs detected at minor concentrations in the WB-67 sample include cumene, ethylbenzene, and xylenes.

### **1.4 GROUNDWATER**

Observations recorded during the course of the WESTON subsurface investigation indicated no visual evidence of contamination. However, a petroleum odor was noted near the water table during the installation of soil boring GP-24 during the PECO remedial investigation conducted by Brown & Caldwell in 1998 and 1999. This soil boring is located near existing well CSO-1 which, along with monitoring wells CSO-2 and CSO-3, was installed by Pennoni earlier this year. Additional wells located along the CSO transect include monitoring wells WW-1 and WW-8 which were installed by WESTON in July 2008. The WESTON groundwater samples were submitted to Hampton-Clarke/Veritech Laboratory located in Fairfield, New Jersey where they were analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), herbicides, pesticides, arsenic and lead. The Pennoni groundwater samples were submitted to STL located in Pittsburgh, Pennsylvania where they were analyzed for VOCs, SVOCs, metals, pesticides, herbicides and PCBs.

The groundwater analytical results for the CSO transect are summarized in Table 2. SVOCs were detected in the groundwater sample collected from well CSO-2. The SVOCs include benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene,

benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, 2-methylnaphthalene, and acenaphthene. Manganese was detected in samples collected from wells CSO-1, CSO-2, and CSO-3 at concentrations ranging from 3,250 µg/L to 25,800 µg/L. Notable VOCs detected include benzene and toluene. Benzene concentrations were reported for samples collected from monitoring wells CSO-1, WW-1 and WW-8 at 9.7 µg/L, 62 µg/L, and 75 µg/L, respectively. Toluene was detected at a concentration of 2,100 µg/L in one water sample collected from the UST excavation performed in the vicinity of borings B-1 through B-9 near the Delaware River (see Figure 1 for boring locations).

## **2. UTILITY CORRIDOR**

### **2.1 PHYSICAL DESCRIPTION**

The utility corridor runs northeast to southwest along Seaport Drive from Reaney Street to Highland Avenue. Cross section B-B' (Figure 3) was constructed along the length of the corridor to show the expected subsurface conditions along the corridor transect. The location of cross section B-B' is also shown on Figure 3. The information depicted on cross section B-B' was obtained from the investigation conducted by WESTON in July and August 2008 and from previous investigations conducted in this area.

As shown on cross section B-B', the topography along the transect is relatively flat, with surface elevations ranging from 12 ft along the northeastern end of Seaport Drive to 19 ft toward Highland Avenue. The subsurface material encountered during the investigations consists primarily of fill material. The depth below existing grade to the zone of saturation ranges from between 9.5 ft and 12.5 ft along the northeastern end of Seaport Drive, rises to less than 8 ft near the center of the transect, and deepens again toward Highland Avenue where it is encountered at approximately 13 ft in the vicinity of boring WB-003.

### **2.2 SURFACE SOIL**

The analytical results for surface soil samples collected by WESTON along the utility corridor in July 2008 are summarized in Table 3 along with the soil sampling results obtained during earlier investigations. The surface soil sampling results indicate limited contamination. Notable SVOC detections include naphthalene, with a reported concentration of 130 mg/kg at boring WB-026, and benzo(a)pyrene, which was present at a concentration of 6.9 mg/kg at WB-003. Arsenic was detected at a maximum concentration of 49 mg/kg at location WB-009. Lead was detected at a maximum concentration of 560 mg/kg at location WB—023.

VOCs detected in surface soil samples along the utility corridor include 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and benzene. The highest concentrations reported for these compounds were detected in the surface soil sample collected from boring WB-026 which is located on that portion of the utility corridor adjacent to the former PICCO/Chem Clear facility. Other VOCs detected at this location include benzene, ethylbenzene, n-propylbenzene, xylenes, and toluene.

## 2.3 SUBSURFACE SOIL

The subsurface analytical results for soil samples collected by WESTON in July 2008 and by previous investigators are also summarized in Table 3. The analytical results show that VOCs, SVOCs, and the metals arsenic and lead are present in the subsurface soils along the utility corridor.

SVOCs present include benzo(a) anthracene, benzo(a)pyrene, benzo(b)fluoranthene, carbazole, dibenz(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene, which were detected at their highest concentrations in the sample collected from the 8-9 ft interval at location WB-001 on the southwestern end of the line of profile, and naphthalene. The maximum concentration reported for naphthalene was 1,400 mg/kg in the 8-9 ft sample collected at location WB-022.

Arsenic and lead were detected at maximum concentrations of 110 mg/kg and 4,200 mg/kg, respectively, in the 7-8 ft sample collected from boring WB-008.

The highest concentrations of VOCs were reported for the soil samples collected along the portion of the utility corridor adjacent to the former PICCO/Clear Chem facility. During the WESTON investigation, staining and petroleum odors were noted in the subsurface soils in this area. The analytical results obtained for soil samples collected from those locations where contamination was observed showed concentrations of 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, benzene, and ethylbenzene. The highest concentrations reported for 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene were 520 mg/kg and 170 mg/kg, respectively, in the 7-8 ft sample from boring WB-027. Benzene

and ethylbenzene were detected at maximum concentrations of 51 mg/kg and 340 mg/kg, respectively, in the 8-9 ft sample from boring WB-018.

## 2.4 GROUNDWATER

The subsurface investigation conducted by WESTON in July 2008 provided significant observational evidence of groundwater contamination, including the presence of LNAPL, along that portion of the utility corridor bordering the former PICCO/Chem Clear facility. The evidence, consisting of strong odors, high OVM readings, oily product, and staining, was recorded for all WESTON borings shown on cross section B-B' (Figure 4) within the transect interval bounded by borings WB-015 and WB-068. The depth to the saturated zone in this interval ranges from 7.5 ft to 10.5 ft. This information corroborates the results obtained from previous investigations demonstrating the contamination in the subsurface in the vicinity of the former PICCO/Chem Clear facility.

During the PECO remedial investigation conducted in 1998 and 1999 by Brown & Caldwell, LNAPL was found in monitoring wells MW-1 and MW-9 at maximum thicknesses of 0.19 ft and 1.08 ft, respectively. Specific VOCs detected in wells MW-1 and MW-9 include benzene and ethylbenzene. The highest concentrations reported for these compounds in MW-1 were 970 µg/L and 910 µg/L, respectively, while for MW-9 they were 58 µg/L and 780 µg/L. SVOC detections include 2-methylnaphthalene, benzo(a)anthracene, benzo(a)pyrene, chrysene, and naphthalene. Naphthalene was detected at a concentration of 2,500 µg/L in the March 1995 sample collected from MW-1. The groundwater analytical results are summarized in Table 4.

### **3. SEWER FORCE MAIN**

#### **3.1 PHYSICAL DESCRIPTION**

The proposed sewer force main runs from the Stadium Area, where it branches off from the Stadium force main, toward the southwest across the former PICCO/Chem Clear property and The Wharf office building parking lot. Immediately in front of The Wharf, the sewer force main turns northwestward toward Seaport Drive then runs parallel to Seaport Drive toward Highland Avenue. To show subsurface conditions, cross section C-C' was constructed along the profile shown in Figure 4. Since that portion of the sewer force main running along Seaport Drive is coincident with the utility corridor and is shown on cross section B-B' (Figure 3), it is not reproduced here.

The topography along cross section C-C' is dominated by the fill pile located on the former PICCO/Chem Clear property immediately southwest of the Stadium Area. The fill pile was placed in this area by PennDOT as a result of the construction of US Highway 291 and has previously been classified as clean fill by PADEP. Soil samples collected from borings located in the fill pile area were collected beneath the fill pile. As shown on Figure 4, the ground surface elevation on the fill pile reaches a maximum of 30 ft in the vicinity of boring WB-063 and drops off to elevations ranging from 9 ft to 12 ft along both ends of the profile. As expected, the depth to the top of the zone of saturation is greatest under the fill pile where it is greater than 18 ft. Along the northeastern portion of the profile (in the Stadium Area), the depth to groundwater is between 7 ft and 8 ft. In the vicinity of The Wharf and adjacent parking areas, the depth to groundwater ranges from 5 ft to 9 ft.

#### **3.2 SURFACE SOIL**

The analytical results for surface soil samples collected by WESTON along the proposed sewer force main in July 2008 are summarized in Table 5 along with the soil sampling results obtained from earlier investigations. The surface sampling results indicate the presence of trace concentrations of surface soil contamination along the sewer force main

transect. Notable SVOC detections include naphthalene, with a maximum concentration of 310 mg/kg at boring WB-118, and benzo(a)pyrene, which was present at a concentration of 6.9 mg/kg at WB-003. Arsenic and lead were reported were detected at maximum concentrations of 380 mg/kg and 410 mg/kg, respectively, at location WB-112.

### 3.3 SUBSURFACE SOIL

The subsurface analytical results for soil samples collected by WESTON in July 2008 and by previous investigators are also summarized in Table 5. The analytical results show that VOCs, SVOCs, and the metals arsenic and lead are present in the subsurface soils along the sewer force main transect.

Notable SVOC detections include benzo(a) anthracene, benzo(a)pyrene, benzo(b)fluoranthene, carbazole, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene, which were detected at their highest concentrations in the sample collected from the 8-9 ft interval at location WB-001, and naphthalene. The maximum concentration reported for naphthalene was 12,000 mg/kg in the 7-8 ft sample collected at location WB-118. The SVOCs 1,1-biphenyl and 2-methylnaphthalene were also detected in the WB-118 sample at concentrations of 270 mg/kg and 2,600 mg/kg, respectively.

Arsenic and lead were detected at maximum concentrations of 110 mg/kg and 4,200 mg/kg, respectively, in the 7-8 ft sample collected from boring WB-008.

The highest concentrations of VOCs were reported for the soil samples collected along the portion of the proposed sewer force main traversing the former PICCO/Clear Chem property. During the WESTON investigation, significant staining, petroleum odors, and residual product were noted in the subsurface soils in this area. The analytical results obtained for soil samples collected from those locations where contamination was observed included the following VOCs: 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, benzene, ethylbenzene, n-propylbenzene, tetrachloroethene (PCE), and toluene. The highest concentrations reported for 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene were 3,300 mg/kg and 1,400 mg/kg, respectively, in the 7 ft sample from boring WB-040. Benzene, ethylbenzene, n-propylbenzene, PCE, and toluene were detected at

maximum concentrations in the 7-8 ft sample from boring WB-118. The reported concentrations for the petroleum-related compounds benzene, ethylbenzene, n-propylbenzene, and toluene were 810 mg/kg, 1,900 mg/kg, 310 mg/kg, and 2,300 mg/kg, respectively. The concentration reported for the chlorinated solvent PCE was 3.9 mg/kg.

### 3.4 GROUNDWATER

The subsurface investigation conducted by WESTON in July 2008 provided significant field evidence of groundwater contamination, including the presence of LNAPL, along that portion of the sewer force main traversing the former PICCO/Chem Clear property including the parking area to the northeast of The Wharf. The evidence, consisting of strong odors, high OVM readings, oily product, and staining, was recorded for all WESTON borings shown on cross section C-C' (Figure 5) within the transect interval bounded by borings WB-114 and WB-120. Depths to the saturated zone within this interval range from 19 ft under the fill pile to 5 ft in the vicinity of boring WB-039.

Groundwater samples were collected from piezometers installed at the WESTON boring locations WB-056 and WB-118 shown on Figures 1 and 5. The piezometers are identified as WP-056 and WP-118. The groundwater analytical results are summarized in Table 6. A review of Table 6 shows that notable levels of VOCs and SVOCs are present in the shallow groundwater along the proposed sewer force main on the former PICCO/Chem Clear property. SVOC detections include 1,1-biphenyl, 2-methylnaphthalene and naphthalene which were present at concentrations of 900 µg/L (WP-118), 10,000 µg/L (WP-056) and 39,000 µg/L (WP-118), respectively. VOC detections include 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, benzene, cumene, ethylbenzene, m,p-xylene, o-xylene and toluene. The highest concentrations reported for these compounds were detected in the WP-118 groundwater sample where they ranged from 46,000 µg/L for 1,3,5-trimethylbenzene to 140,000 µg/L for m,p-xylene. Benzene was detected at a concentration of 81,000 µg/L.

## 4. EARTH DISTURBANCE AREAS

### 4.1 PHYSICAL DESCRIPTION

The earth disturbance areas are located immediately southwest of the Jeffery Street between Seaport Drive and the Delaware River. The dominant topographic feature here is the fill pile which reaches a height of over 30 ft in some areas. The fill pile was placed in this area by PennDOT as a result of the construction of US Highway 291 and has previously been classified as clean fill by PADEP. The following discussions pertain to the soil conditions beneath the fill pile. The earth disturbance areas southwest of Jeffery Street are highlighted on Figure 5.

### 4.2 SURFACE SOIL

Numerous soil surface samples were collected in these areas by WESTON in August 2008 and by others during previous investigations. The soil analytical results obtained from these investigations are summarized in Table 7.

Contaminants detected in the surface soils within the earth disturbance areas include VOCs, SVOCs, and metals. The SVOCs include 2-methylnaphthalene, acenaphthene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, fluoranthene, fluorine, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene, and pyrene. The highest reported concentrations for these compounds were found in the sample collected from boring WB-074.

The metals detected include arsenic, chromium and lead. Arsenic was detected at a maximum concentration of 75 mg/kg at WB-075, chromium at 100 mg/kg at boring NTSB-I-1, and lead at 1,200 mg/kg, 1,500 mg/kg, and 1,800 mg/kg at WB-074, WB-064 and WB-075, respectively.

VOC detections include 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene, which were detected at maximum concentrations of 210 mg/kg and 70 mg/kg, respectively, in the soil sample collected from WB-074. Other VOCs include 1,4-dioxane, benzene,

ethylbenzene, toluene, and xylenes (total) which were detected at their highest concentrations in the sample collected from boring SB-111-2.

## **5. STADIUM FORCE MAIN**

### **5.1 PHYSICAL DESCRIPTION**

The proposed stadium force main encircles much of the footprint of the planned soccer stadium. Cross section D-D' (Figure 6) was constructed to show the subsurface conditions that will be encountered during excavation activities. The location of cross section D-D' is also shown on Figure 6.

The topography shown on cross section D-D' is relatively flat with only 5 ft of vertical relief along the entire profile. Ground surface elevations range from 7.7 ft at boring WB-096 near the Delaware River to 13.5 ft at WB-085 along Seaport Drive. Depth to the top of the zone of saturation ranges between 7 ft and 12.5 ft.

### **5.2 SURFACE SOIL**

The WESTON subsurface investigation conducted in the Stadium Area in July 2008 included the advancement of numerous soil borings and the installation of monitoring wells WW-05 and WW-06 at locations proximal to the stadium force main. The soil analytical results obtained by WESTON during this investigation and the results obtained from previous investigations are summarized in Table 8.

A review of Table 8 shows that there is limited surface soil contamination in the vicinity of the proposed stadium force main. Although trace levels of several compounds were reported, the only notable detections include two metals, lead and arsenic, and one SVOC, benzo(a)pyrene. The highest reported concentrations for lead and arsenic were 780 mg/kg and 230 mg/kg, respectively, from the sample collected from boring WB-097. Benzo(a)pyrene was detected at a maximum concentration of 6.9 mg/kg at location WB-123.

### 5.3 SUBSURFACE SOIL

As shown on Table 8, the only notable detections in subsurface soil samples (collected from the 2-12 ft interval) include lead and the SVOCs naphthalene and benzo(a)pyrene. The highest reported concentration for lead was 295 mg/kg, in the 2-4 ft sample collected from boring B29. Benzo(a)pyrene and naphthalene were detected at maximum concentrations of 11 mg/kg (11-12 ft sample from WB-096) and 210 (7-8 ft sample from WB-097), respectively.

### 5.4 GROUNDWATER

The visual evidence obtained during WESTON's subsurface investigation indicated little to no groundwater contamination in this area. However, a very slight petroleum odor was noted near the water table during the installation of soil boring WB-096.

The analytical results obtained for groundwater samples collected by WESTON from wells WW-05 and WW-06 in August 2008 demonstrate that impacts to groundwater quality as a result of historical activities are minimal. Notable detections include the SVOCs benzo(a)anthracene, benzo(b)fluoranthene, and chrysene which were detected at concentrations of 2.1 µg/L, 2.2 µg/L and 2.0 µg/L, respectively, in the groundwater sample collected from well WW-05. A groundwater sample collected from nearby monitoring well RIMW-07 during the PECO remedial investigation contained no BTEX or PAH compounds. The groundwater analytical results are summarized in Table 9.

## **6. STADIUM AREA**

### **6.1 PHYSICAL DESCRIPTION**

The topography across the Stadium Area is relatively flat with approximately 6.3 ft of vertical relief. Ground surface elevations range from 7.2 ft at monitoring well WW-05 near the Delaware River to 13.5 ft at WB-085 along Seaport Drive. Depth to the top of the zone of saturation ranges between 7 ft and 12.5 ft. The location of the Stadium Area is shown in Figure 7.

### **6.2 SURFACE SOIL**

The WESTON subsurface investigation conducted in the Stadium Area in July 2008 included the advancement of numerous soil borings and the installation of monitoring wells WW-01 through WW-06. The soil analytical results obtained by WESTON during this investigation and the results obtained from previous investigations are summarized in Table 10.

A review of Table 10 shows that there is limited surface soil contamination in the Stadium Area. Although trace levels of several compounds were reported for surface soil samples, the only constituents detected at notable concentrations include three metals, arsenic, chromium, and lead, and one SVOC, benzo(a)pyrene. The highest reported concentrations for lead and arsenic were 780 mg/kg and 230 mg/kg, respectively, from the sample collected from boring WB-097. Chromium was detected at maximum concentrations of 104 mg/kg and 134 mg/kg at locations SS-24 and B-30, respectively. Benzo(a)pyrene was detected at a maximum concentration of 7.1 mg/kg at location GP-23.

### **6.3 SUBSURFACE SOIL**

As shown on Table 10, the only notable detections in subsurface soil samples (collected from the 2-19 ft interval) include the metals arsenic, iron and chromium and the SVOCs naphthalene and benzo(a)pyrene. The highest reported concentration for arsenic was 211 mg/kg, in the sample collected from boring B-12. Iron was detected at a maximum concentration of 218,500 mg/kg in

the 2-4 ft sample collected from boring B-17. The maximum chromium concentration, 198 mg/kg, was detected in the 5-10 ft sample collected from boring B-30. Benzo(a)pyrene and naphthalene were detected at maximum concentrations of 11 mg/kg (11-12 ft sample from WB-096) and 210 (7-8 ft sample from WB-097), respectively.

## **6.4 GROUNDWATER**

The analytical results obtained for groundwater samples collected by WESTON from wells WW-01 through WW-06 in August 2008 demonstrate that impacts to groundwater quality as a result of historical activities are minimal. Notable detections include the SVOCs 2-methylnaphthalene, acenaphthene, anthracene, benzo(a)anthracene, benzo(b)fluoranthene, carbazole, chrysene, fluoranthene, fluorine, naphthalene, phenanthrene, and pyrene which were detected at maximum concentrations in the groundwater sample collected from well WW-05, and benzene, which was detected in the WW-01 sample at a concentration of 62 µg/L. The groundwater analytical results are summarized in Table 11.

**Table 9**  
**Stadium Force Main**  
**Detected Analytical Results - Groundwater**

|                            |            |          |   |          |   |
|----------------------------|------------|----------|---|----------|---|
|                            | Station:   | WW05     |   | WW06     |   |
|                            | Field      |          |   |          |   |
|                            | Sample ID: | WW05     |   | WW06     |   |
|                            | Date:      | 8/5/2008 |   | 8/5/2008 |   |
| Analyte                    | Units:     |          |   |          |   |
| ACENAPHTHENE (BNA)         | ug/l       | 2        | U | 4.9      |   |
| BENZO(A)ANTHRACENE (BNA)   | ug/l       | 2.1      |   | 2        | U |
| BENZO(B)FLUORANTHENE (BNA) | ug/l       | 2.2      |   | 2        | U |
| CHRYSENE (BNA)             | ug/l       | 2        |   | 2        | U |
| FLUORANTHENE (BNA)         | ug/l       | 4.5      |   | 2.8      |   |
| FLUORENE (BNA)             | ug/l       | 2        | U | 3.4      |   |
| PHENANTHRENE (BNA)         | ug/l       | 2.5      |   | 5.7      |   |
| PYRENE (BNA)               | ug/l       | 4.5      |   | 2.4      |   |
| TURBIDITY                  | NTUs       | 260      |   | 60       |   |
| ARSENIC                    | ug/l       | 8.5      |   | 7.5      | U |

**Table 10**  
**Stadium Area**  
**Detected Analytical Results - Soils**

| Analyte                     | Station:  |            | B12     |           | B12      |          | B12     |         | B-14      |           | B16      |         | B18     |         | B18       |          | B18      |          | B16     |         | B-21    |         | B22     |         | B26     |         | B28     |         | B26     |         | B-27    |         | B-29    |         | B30     |       | B30  |   |
|-----------------------------|-----------|------------|---------|-----------|----------|----------|---------|---------|-----------|-----------|----------|---------|---------|---------|-----------|----------|----------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------|------|---|
|                             | Field ID: | Sample ID: | B12-0-5 | B12-13-18 | B12-2-10 | B-14-6-8 | B16-0-5 | B18-0-5 | B18-13-18 | B18-13-18 | B16-5-10 | B-21-10 | B22-4-6 | B26-0-5 | B28-13-18 | B26-5-10 | B-27-7.9 | B-29-2.4 | B30-0-5 | B30-0-5 | B30-0-5 | B30-0-5 | B30-0-5 | B30-0-5 | B30-0-5 | B30-0-5 | B30-0-5 | B30-0-5 | B30-0-5 | B30-0-5 | B30-0-5 | B30-0-5 | B30-0-5 | B30-0-5 | B30-0-5 |       |      |   |
|                             | Date:     | Depth:     | 0-5     | 13-18     | 5-10     | 6-8      | 0-5     | 0-5     | 0-5       | 13-18     | 13-18    | 5-10    | 10-10   | 4-6     | 0-5       | 13-18    | 5-10     | 7-9      | 2-4     | 0-5     | 0-5     | 0-5     | 0-5     | 0-5     | 0-5     | 0-5     | 0-5     | 0-5     | 0-5     | 0-5     | 0-5     | 0-5     | 0-5     | 0-5     | 0-5     | 0-5   | 0-5  |   |
| Units:                      |           |            |         |           |          |          |         |         |           |           |          |         |         |         |           |          |          |          |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |       |      |   |
| 1,1-BIPHENYL                | mg/kg     | -          | -       | -         | -        | -        | -       | -       | -         | -         | -        | -       | -       | -       | -         | -        | -        | -        | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -     |      |   |
| 1,4-DICHLOROBENZENE (BNA)   | mg/kg     | 0.4        | U       | 0.4       | U        | 0.43     | U       | 0.4     | U         | 0.39      | U        | -       | 0.42    | U       | -         | 0.44     | U        | 0.44     | U       | 0.44    | U       | -       | -       | -       | 0.42    | U       | 0.42    | U       | 0.42    | U       | 0.39    | U       | 0.41    | U       | 0.4     | U     | 0.37 | U |
| 2,4-DICHLOROPHENOL          | mg/kg     | 0.4        | U       | 0.4       | U        | 0.43     | U       | 0.4     | U         | 0.39      | U        | -       | 0.42    | U       | -         | 0.44     | U        | 0.64     | U       | -       | -       | -       | -       | -       | 0.42    | U       | 0.42    | U       | 0.39    | U       | 0.41    | U       | 0.4     | U       | -       | 0.37  | U    |   |
| 2-METHYLNAPHTHALENE (BNA)   | mg/kg     | 0.4        | U       | 0.4       | U        | 0.43     | U       | 0.4     | U         | 0.39      | U        | -       | 0.42    | U       | -         | 0.44     | U        | 0.42     | U       | 0.44    | U       | -       | -       | -       | 0.42    | U       | 0.42    | U       | 0.39    | U       | 0.41    | U       | 0.4     | U       | -       | 0.37  | U    |   |
| 3,4-METHYLNAPHTHALENE (BNA) | mg/kg     | 0.042      | J       | 0.4       | J        | 0.034    | J       | 0.4     | J         | 0.021     | J        | -       | 0.013   | J       | -         | 0.016    | J        | 0.013    | J       | -       | -       | -       | -       | -       | 0.027   | J       | 0.026   | J       | 0.0066  | J       | 0.063   | J       | 0.09    | J       | -       | 0.11  | J    |   |
| 4-CHLORANILINE              | mg/kg     | -          | -       | -         | -        | -        | -       | -       | -         | -         | -        | -       | -       | -       | -         | -        | -        | -        | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |       |      |   |
| 4-METHYLPHENOL (P-CRESOL)   | mg/kg     | 0.4        | U       | 0.4       | J        | 0.012    | J       | 0.4     | U         | 0.39      | U        | -       | 0.42    | U       | -         | 0.44     | U        | 0.44     | U       | 0.44    | U       | -       | -       | -       | 0.42    | U       | 0.42    | U       | 0.39    | U       | 0.41    | U       | 0.4     | U       | -       | 0.37  | U    |   |
| ACEANAPHTHENE (BNA)         | mg/kg     | 0.0066     | J       | 0.4       | J        | 0.017    | J       | -       | -         | 0.069     | J        | -       | 0.029   | J       | -         | 0.034    | J        | 0.44     | U       | -       | -       | -       | -       | -       | 0.42    | U       | 0.03    | J       | 0.78    | U       | 0.01    | J       | 0.089   | J       | -       | 0.37  | U    |   |
| ACEANAPHTHYLENE (BNA)       | mg/kg     | 0.041      | J       | 0.4       | J        | 0.1      | J       | 0.4     | J         | 0.021     | J        | -       | 0.023   | J       | -         | 0.024    | J        | 0.44     | U       | 0.44    | U       | -       | -       | -       | 0.01    | J       | 0.022   | J       | 0.39    | U       | 0.41    | U       | 0.077   | J       | -       | 0.043 | J    |   |
| ANTHRACENE (BNA)            | mg/kg     | 0.07       | J       | 0.017     | J        | 0.26     | J       | 0.4     | U         | 0.11      | J        | -       | 0.091   | J       | -         | 0.1      | J        | 0.44     | U       | -       | -       | -       | -       | -       | 0.01    | J       | 0.071   | J       | 0.021   | J       | 0.39    | U       | 0.41    | U       | 0.36    | J     | -    |   |
| BENZO(A)ANTHRACENE (BNA)    | mg/kg     | 0.3        | J       | 0.04      | U        | 0.9      | J       | 0.04    | U         | 0.34      | U        | -       | 0.23    | U       | -         | 0.24     | U        | 0.032    | J       | 0.031   | J       | -       | -       | -       | 0.055   | U       | 0.14    | U       | 0.039   | U       | 0.01    | J       | 1.2     | U       | -       | 0.27  | U    |   |
| BENZO(A)PYRENE (BNA)        | mg/kg     | 0.26       | U       | 0.04      | U        | 0.86     | U       | 0.04    | U         | 0.28      | U        | -       | 0.21    | U       | -         | 0.21     | U</      |          |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |       |      |   |

Table 10

|                                      | Station:         | B12       | B12       | B12      | B14      | B16       | B18       | B18       | B18       | B-21     | B22       | B26       | B26         | B28      | B-27     | B-29     | B30       | B30       |      |   |  |
|--------------------------------------|------------------|-----------|-----------|----------|----------|-----------|-----------|-----------|-----------|----------|-----------|-----------|-------------|----------|----------|----------|-----------|-----------|------|---|--|
|                                      | Field Sample ID: | B12-0-5   | B12-13-18 | B12-5-10 | B-14_6-8 | B16-0-5   | B18-0-5   | B18-13-18 | B18-5-10  | B-21_10  | B22-4-6   | B26-0-5   | B26-13-18.8 | B28-5-10 | B-27_7-9 | B-29_2-4 | B30-0-5   | B30-0-5   |      |   |  |
|                                      | Date:            | 3/20/2008 | 13 - 18   | 5 - 10   | 7/9/2008 | 3/20/2008 | 3/19/2008 | 13 - 18.8 | 3/19/2008 | 7/9/2008 | 3/18/2008 | 3/19/2008 | 13 - 18.8   | 5 - 10   | 7 - 9    | 2 - 4    | 3/20/2008 | 3/24/2008 |      |   |  |
|                                      | Depth:           | 0 - 5     | 13 - 18   | 5 - 10   | 6 - 8    | 0 - 5     | 0 - 5     | 13 - 18.8 | 5 - 10    | 10 - 10  | 4 - 6     | 0 - 5     | 13 - 18.8   | 5 - 10   | 7 - 9    | 2 - 4    | 0 - 5     | 0 - 5     |      |   |  |
| Analyte                              | Units:           |           |           |          |          |           |           |           |           |          |           |           |             |          |          |          |           |           |      |   |  |
| SILVER                               | mg/kg            | 0.34      | U         | 0.36     | U        | 0.33      | U         | 0.35      | U         | 0.32     | U         | 0.35      | U           | 0.33     | U        | 0.28     | U         | 0.39      | B    |   |  |
| SODIUM                               | mg/kg            | 392       | B         | 94.8     | U        | 260       | B         | 97.6      | B         | 166      | B         | -         | 104         | B        | 393      | B        | 249       | B         | 172  | B |  |
| THALLIUM                             | mg/kg            | 17        | U         | 1.1      | U        | 1.2       | U         | 1.2       | U         | 1.3      | U         | -         | 1.2         | U        | 1.1      | U        | 1.1       | U         | 1.6  | U |  |
| VANADIUM                             | mg/kg            | 27.8      | *         | 7        | B *      | 30.1      | *         | 35.2      | B         | 24.7     | B         | 16        | 42.9        | 20.7     | 9        | B        | 35        | B         | 83.3 | * |  |
| ZINC                                 | mg/kg            | 136       | 18.5      | 129      | 44.4     | 95.5      | 75.8      | 53.8      | *         | 66       | *         | 49.3      | 46.7        | 29.9     | *        | 11.7     | 282       | 48.6      | 48.6 |   |  |
| ACENAPHTHENE (PAHS)                  | mg/kg            | -         | -         | -        | -        | -         | -         | -         | -         | -        | -         | -         | -           | -        | -        | -        | -         | -         | -    |   |  |
| ACENAPHTHYLENE (PAHS)                | mg/kg            | -         | -         | -        | -        | -         | -         | -         | -         | -        | -         | -         | -           | -        | -        | -        | -         | -         | -    |   |  |
| ANTHRACENE (PAHS)                    | mg/kg            | -         | -         | -        | -        | -         | -         | -         | -         | -        | -         | -         | -           | -        | -        | -        | -         | -         | -    |   |  |
| BENZO(A)ANTHRACENE (PAHS)            | mg/kg            | -         | -         | -        | -        | -         | -         | -         | -         | -        | -         | -         | -           | -        | -        | -        | -         | -         | -    |   |  |
| BENZO(A)PYRENE (PAHS)                | mg/kg            | -         | -         | -        | -        | -         | -         | -         | -         | -        | -         | -         | -           | -        | -        | -        | -         | -         | -    |   |  |
| BENZO(B)FLUORANTHENE (PAHS)          | mg/kg            | -         | -         | -        | -        | -         | -         | -         | -         | -        | -         | -         | -           | -        | -        | -        | -         | -         | -    |   |  |
| BENZO(G,H)PERYLENE (PAHS)            | mg/kg            | -         | -         | -        | -        | -         | -         | -         | -         | -        | -         | -         | -           | -        | -        | -        | -         | -         | -    |   |  |
| BENZO(K)FLUORANTHENE (PAHS)          | mg/kg            | -         | -         | -        | -        | -         | -         | -         | -         | -        | -         | -         | -           | -        | -        | -        | -         | -         | -    |   |  |
| CHRYSENE (PAHS)                      | mg/kg            | -         | -         | -        | -        | -         | -         | -         | -         | -        | -         | -         | -           | -        | -        | -        | -         | -         | -    |   |  |
| DIBENZ(A,H)ANTHRACENE (PAHS)         | mg/kg            | -         | -         | -        | -        | -         | -         | -         | -         | -        | -         | -         | -           | -        | -        | -        | -         | -         | -    |   |  |
| FLUORENE (PAHS)                      | mg/kg            | -         | -         | -        | -        | -         | -         | -         | -         | -        | -         | -         | -           | -        | -        | -        | -         | -         | -    |   |  |
| INDENO(1,2,3-CD)PYRENE (PAHS)        | mg/kg            | -         | -         | -        | -        | -         | -         | -         | -         | -        | -         | -         | -           | -        | -        | -        | -         | -         | -    |   |  |
| NAPHTHALENE (PAHS)                   | mg/kg            | -         | -         | -        | -        | -         | -         | -         | -         | -        | -         | -         | -           | -        | -        | -        | -         | -         | -    |   |  |
| PHENANTHRENE (PAHS)                  | mg/kg            | -         | -         | -        | -        | -         | -         | -         | -         | -        | -         | -         | -           | -        | -        | -        | -         | -         | -    |   |  |
| PYRENE (PAHS)                        | mg/kg            | -         | -         | -        | -        | -         | -         | -         | -         | -        | -         | -         | -           | -        | -        | -        | -         | -         | -    |   |  |
| TOTAL PAHS                           | mg/kg            | -         | -         | -        | -        | -         | -         | -         | -         | -        | -         | -         | -           | -        | -        | -        | -         | -         | -    |   |  |
| AROCLOL-1248                         | ug/kg            | 81        | U         | 80       | U        | 66        | U         | 81        | U         | 90       | U         | 84        | U           | 76       | U        | 83       | U         | 74        | U    | - |  |
| AROCLOL-1260                         | ug/kg            | 81        | U         | 80       | U        | 86        | U         | 81        | U         | 90       | U         | 84        | U           | 78       | U        | 83       | U         | 140       | U    | - |  |
| AROCLOL-1268                         | ug/kg            | 81        | U         | 80       | U        | 86        | U         | 81        | U         | 90       | U         | 84        | U           | 76       | U        | 83       | U         | 79        | U    | - |  |
| 4,4-DDO (PEST)                       | mg/kg            | 0.0081    | U         | 0.008    | U        | 0.0066    | U         | 0.0081    | U         | 0.0081   | P *       | 0.0036    | P *         | 0.0084   | U        | 0.0083   | U         | 0.0014    | P    |   |  |
| 4,4-DDT (PEST)                       | mg/kg            | 0.0081    | U         | 0.008    | U        | 0.0066    | U         | 0.0081    | U         | 0.0072   | J         | 0.0038    | J           | 0.0084   | U        | 0.0083   | U         | 0.0016    | J    |   |  |
| BETA-BHC (PEST)                      | mg/kg            | 0.0069    | P         | 0.008    | U        | 0.0066    | U         | 0.0081    | U         | 0.009    | U         | 0.0084    | J           | 0.0084   | U        | 0.0083   | U         | 0.0061    | J    |   |  |
| DELTA-BHC (PEST)                     | mg/kg            | 0.0081    | U         | 0.008    | U        | 0.0066    | U         | 0.0081    | U         | 0.009    | U         | 0.0084    | U           | 0.0084   | U        | 0.0083   | U         | 0.0074    | U    |   |  |
| CHLORDANE (PEST)                     | mg/kg            | 0.0081    | U         | 0.008    | U        | 0.0066    | U         | 0.0081    | U         | 0.0079   | U         | 0.0084    | U           | 0.0084   | U        | 0.0083   | U         | 0.0074    | U    |   |  |
| DELTA-BHC (PEST)                     | mg/kg            | 0.0016    | P         | 0.008    | U        | 0.0066    | U         | 0.0081    | U         | 0.005    | P *       | 0.0028    | P *         | 0.0084   | U        | 0.0083   | U         | 0.0024    | P    |   |  |
| DELDRIN (PEST)                       | mg/kg            | 0.002     | P         | 0.008    | U        | 0.0066    | U         | 0.0081    | U         | 0.0011   | P         | 0.001     | P *         | 0.0084   | U        | 0.0083   | U         | 0.0074    | U    |   |  |
| ENDOSULFAN SULFATE (PEST)            | mg/kg            | 0.0066    | P         | 0.008    | U        | 0.0066    | P         | 0.0081    | U         | 0.0063   | P         | 0.002     | P *         | 0.0084   | U        | 0.0083   | U         | 0.0074    | U    |   |  |
| ENDRIN (PEST)                        | mg/kg            | 0.0022    | P         | 0.008    | U        | 0.0066    | U         | 0.0081    | U         | 0.0079   | U         | 0.001     | U           | 0.0084   | U        | 0.0083   | U         | 0.0074    | U    |   |  |
| ENDRIN ALDEHYDE (PEST)               | mg/kg            | 0.0023    | P         | 0.008    | U        | 0.0066    | U         | 0.0081    | U         | 0.0032   | P         | 0.0064    | J           | 0.0084   | U        | 0.0083   | U         | 0.0074    | U    |   |  |
| ENDRIN KETONE (PEST)                 | mg/kg            | 0.0037    | P         | 0.008    | U        | 0.0022    | P         | 0.0081    | U         | 0.0062   | P         | 0.0055    | P *         | 0.0084   | U        | 0.0083   | U         | 0.0074    | U    |   |  |
| GAMMA BHC (LINDANE) (PEST)           | mg/kg            | 0.0081    | U         | 0.008    | U        | 0.0026    | P         | 0.0081    | U         | 0.0079   | U         | 0.001     | U           | 0.0084   | U        | 0.0083   | U         | 0.0074    | U    |   |  |
| HEPTACHLOR (PEST)                    | mg/kg            | 0.0081    | U         | 0.008    | U        | 0.0066    | U         | 0.0081    | U         | 0.0079   | U         | 0.001     | U           | 0.0084   | U        | 0.0083   | U         | 0.0074    | U    |   |  |
| METHOXYCHLOR (PEST)                  | mg/kg            | 0.034     | P         | 0.0017   | P        | 0.0084    | P         | 0.0081    | U         | 0.028    | P         | 0.0013    | P *         | 0.0084   | U        | 0.0083   | U         | 0.0074    | U    |   |  |
| DIESEL RANGE ORGANICS                | mg/kg            | -         | -         | -        | -        | -         | -         | -         | -         | -        | -         | -         | -           | -        | -        | -        | -         | -         | -    |   |  |
| TOTAL DRO                            | mg/kg            | -         | -         | -        | -        | -         | -         | -         | -         | -        | -         | -         | -           | -        | -        | -        | -         | -         | -    |   |  |
| TOTAL BTX                            | mg/kg            | -         | -         | -        | -        | -         | -         | -         | -         | -        | -         | -         | -           | -        | -        | -        | -         | -         | -    |   |  |
| TOTAL PETROLEUM HYDROCARBONS         | mg/kg            | 0.0059    | U         | 0.0057   | U        | 0.0061    | U         | 0.0052    | U         | 0.0068   | U         | 0.0061    | U           | 0.0057   | U        | 0.0056   | U         | 0.0055    | U    |   |  |
| 1,1-DICHLOROETHANE                   | mg/kg            | -         | -         | -        | -        | -         | -         | -         | -         | -        | -         | -         | -           | -        | -        | -        | -         | -         | -    |   |  |
| 1,2,4-TRIMETHYLBENZENE               | mg/kg            | 0.0012    | U         | 0.0011   | U        | 0.0012    | U         | 0.001     | U         | 0.0014   | U         | 0.0012    | U           | 0.0011   | U        | 0.0011   | U         | 0.0011    | U    |   |  |
| 1,2-DICHLOROPROPANE                  | mg/kg            | -         | -         | -        | -        | -         | -         | -         | -         | -        | -         | -         | -           | -        | -        | -        | -         | -         | -    |   |  |
| 1,3,5-TRIMETHYLBENZENE (MESITYLENE)  | mg/kg            | 0.0059    | U         | 0.0057   | U        | 0.0061    | U         | 0.0021    | J         | 0.0058   | U         | 0.0061    | U           | 0.0057   | U        | 0.0056   | U         | 0.0055    | U    |   |  |
| 2-BUTANONE                           | mg/kg            | -         | -         | -        | -        | -         | -         | -         | -         | -        | -         | -         | -           | -        | -        | -        | -         | -         | -    |   |  |
| ACETONE                              | mg/kg            | -         | -         | -        | -        | -         | -         | -         | -         | -        | -         | -         | -           | -        | -        | -        | -         | -         | -    |   |  |
| CHLOROTOLUENE                        | mg/kg            | 0.0059    | U         | 0.032    | B        | 0.0039    | J         | 0.024     | B         | 0.0058   | U         | 0.0061    | J           | 0.0057   | U        | 0.0056   | U         | 0.0055    | U    |   |  |
| ACETONE                              | mg/kg            | -         | -         | -        | -        | -         | -         | -         | -         | -        | -         | -         | -           | -        | -        | -        | -         | -         | -    |   |  |
| BENZENE (VOA)                        | mg/kg            | 0.0059    | U         | 0.0011   | U        | 0.0012    | U         | 0.001     | U         | 0.0012   | U         | 0.0012    | U           | 0.0011   | U        | 0.0011   | U         | 0.0011    | U    |   |  |
| CARBON DISULFIDE                     | mg/kg            | 0.0059    | U         | 0.001    | J        | 0.001     | J         | 0.0052    | U         | 0.0058   | U         | 0.0061    | U           | 0.0057   | U        | 0.0056   | U         | 0.0055    | U    |   |  |
| CHLOROFORM                           | mg/kg            | 0.0059    | U         | 0.0057   | U        | 0.0061    | U         | 0.0052    | U         | 0.0058   | U         | 0.0061    | U           | 0.0057   | U        | 0.0056   | U         | 0.0055    | U    |   |  |
| CUMENE                               | mg/kg            | -         | -         | -        | -        | -         | -         | -         | -         | -        | -         | -         | -           | -        | -        | -        | -         | -         | -    |   |  |
| ETHYLBENZENE (VOA)                   | mg/kg            | 0.0048    | U         | 0.0046   | U        | 0.0049    | U         | 0.0042    | U         | 0.0046   | U         | 0.0048    | U           | 0.0046   | U        | 0.0044   | U         | 0.0044    | U    |   |  |
| M-P-XYLENE (SUM OF ISOMERS) (VOA)    | mg/kg            | -         | -         | -        | -        | -         | -         | -         | -         | -        | -         | -         | -           | -        | -        | -        | -         | -         | -    |   |  |
| METHYLBENZENE (SUM OF ISOMERS) (VOA) | mg/kg            | 0.0048    | B         | 0.006    | B        | 0.0015    | J         | 0.0032    | J         | 0.0018   | J         | 0.0018    | J           | 0.0018   | J        | 0.0018   | J         | 0.0018    | J    |   |  |
| METHYLBENZENE (SUM OF ISOMERS) (VOA) | mg/kg            | 0.0048    | B         | 0.006    | B        | 0.0015    | J         | 0.0032    | J         | 0.0018   | J         | 0.0018    | J           | 0.0018   | J        | 0.0018   | J         | 0.0018    | J    |   |  |

Table 10  
Stadium Area  
Detected Analytical Results - Soils

| Analyte               | Station:<br>Field<br>Sample ID:<br>Date:<br>Depth: | B12       |       | B12       |       | B12       |      | B14      |     | B16       |     | B18       |     | B18       |       | B18       |        | B21      |        | B22       |     | B26       |        | B26         |        | B26       |        | B27       |        | B-29      |        | B30       |        | B30 |  |
|-----------------------|----------------------------------------------------|-----------|-------|-----------|-------|-----------|------|----------|-----|-----------|-----|-----------|-----|-----------|-------|-----------|--------|----------|--------|-----------|-----|-----------|--------|-------------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----|--|
|                       |                                                    | B12-0.5   |       | B12-13-18 |       | B12-5-10  |      | B-14 5-8 |     | B16-0.5   |     | B18-0.5   |     | B18-13-18 |       | B18-5-10  |        | B-21 10  |        | B22-4-6   |     | B26-0.5   |        | B26-13-18.8 |        | B26-5-10  |        | B-27 7-9  |        | B-29 2-4  |        | B30-0.5   |        |     |  |
|                       |                                                    | 3/20/2008 |       | 3/20/2008 |       | 3/20/2008 |      | 7/9/2008 |     | 3/20/2008 |     | 3/19/2008 |     | 3/19/2008 |       | 3/19/2008 |        | 7/9/2008 |        | 3/18/2008 |     | 3/19/2008 |        | 3/19/2008   |        | 3/19/2008 |        | 7/11/2008 |        | 7/11/2008 |        | 3/20/2008 |        |     |  |
|                       |                                                    | 0-5       | 13-18 | 0-5       | 13-18 | 0-5       | 5-10 | 0-5      | 6-8 | 0-5       | 0-5 | 0-5       | 0-5 | 13-18     | 13-18 | 5-10      | 5-10   | 10-10    | 4-6    | 0-5       | 0-5 | 13-18.8   | 5-10   | 5-10        | 7-9    | 2-4       | 0-5    | 0-5       | 0-5    | 0-5       | 0-5    | 0-5       |        |     |  |
| Units:                |                                                    |           |       |           |       |           |      |          |     |           |     |           |     |           |       |           |        |          |        |           |     |           |        |             |        |           |        |           |        |           |        |           |        |     |  |
| N-PROPYLBENZENE       | mg/kg                                              | -         | -     | -         | -     | -         | -    | -        | -   | -         | -   | -         | -   | -         | -     | -         | -      | -        | -      | -         | -   | -         | -      | -           | -      | -         | -      | -         | -      | -         | -      | -         | -      |     |  |
| O-XYLENE (VOA)        | mg/kg                                              | -         | -     | -         | -     | -         | -    | -        | -   | -         | -   | -         | -   | -         | -     | -         | -      | -        | -      | -         | -   | -         | -      | -           | -      | -         | -      | -         | -      | -         | -      | -         | -      |     |  |
| TOLUENE (VOA)         | mg/kg                                              | 0.0059    | U     | 0.0057    | U     | 0.0061    | U    | 0.0052   | U   | 0.0058    | U   | 0.0083    | U   | -         | 0.008 | U         | 0.0064 | U        | 0.0068 | U         | 0.5 | J         | 0.0061 | U           | 0.0063 | U         | 0.0057 | U         | 0.0056 | U         | 0.0059 | U         | 0.0055 | U   |  |
| XYLENES (TOTAL) (VOA) | mg/kg                                              | 0.0059    | U     | 0.0057    | U     | 0.0061    | U    | 0.0052   | U   | 0.0058    | U   | 0.0083    | U   | -         | 0.006 | U         | 0.0064 | U        | 0.0068 | U         | 1.9 |           | 0.0061 | U           | 0.0063 | U         | 0.0057 | U         | 0.0056 | U         | 0.0059 | U         | 0.0055 | U   |  |

Notes:  
B - Parameter was also detected in a corresponding laboratory blank  
E - Reported value is estimated due to the presence of matrix interference  
J - Reported value is above the MDL but below the estimated quantitation limit and is therefore estimated  
N - Tentative identification. Consider present.  
U - Not detected