CLEANUP ACTION REPORT
SPOKANE CONVENTION CENTER EXPANSION
SPOKANE, WASHINGTON

AUGUST 11, 2006

FOR
SPOKANE PUBLIC FACILITIES DISTRICT

GeoEngineers

File No. 0110-047-07

GeoEngineers

August 11, 2006

Spokane Public Facilities District
720 West Mallon
Spokane, Washington 99201

Attention: Matt Walker

This letter transmits two copies of our "Cleanup Action Report, Spokane Convention Center Expansion," Spokane, Washington.

Our services were completed in general accordance with Purchase Order 04-12, Change Order No. 8, dated April 11, 2006. Written authorization for our study was provided on April 17, 2006.

We appreciate the opportunity to provide these services. Please contact the undersigned should you have any questions or require additional information.

Sincerely,

GeoEngineers, Inc.

Bruce D. Williams
Principal

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Spokane Convention Center Expansion
Spokane, Washington
File No. 0110-047-07

August 11, 2006

Prepared for:

Spokane Public Facilities District
720 West Mallon
Spokane, Washington 99201

Attention: Matt Walker, AIA

Prepared by:

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SPOKANE CONVENTION CENTER EXPANSION
SPOKANE, WASHINGTON
FOR
SPOKANE PUBLIC FACILITIES DISTRICT

1.0 INTRODUCTION

1.1 GENERAL

This draft report summarizes the cleanup action performed by Spokane Public Facilities District (SPFD) at the Spokane Convention Center Expansion (CCX) located northwest of the intersection of Division Street and Spokane Falls Boulevard in Spokane, Washington. The location of the site is shown on the Vicinity Map, Figure 1.

Previous work indicated shallow soil at several locations of the site was contaminated with metals and petroleum hydrocarbons at levels exceeding applicable regulatory cleanup levels [Washington State Department of Ecology (Ecology) Model Toxics Control Act (MTCA) Method A]. In addition, previous sampling results indicated groundwater contained contaminants at levels exceeding cleanup levels.

Spokane Public Facilities District has entered Ecology's Voluntary Cleanup Program (VCP) with the goal of achieving a "no-further-action" designation for the site. The cleanup action was completed in accordance with the Corrective Action Plan (CAP) and appropriate state regulations including MTCA (Chapter 173-340, Washington Administrative Code [WAC]).

The cleanup action described in this report includes: (1) excavating and removing soil from locations where concentrations of contaminants of concern (COC) exceeded MTCA method A cleanup levels; (2) removing contaminated soil from the site; (3) capping the contaminated soil at select locations with building structures or asphalt concrete pavement; (4) managing groundwater removed during construction; and (5) implementing institutional controls in the form of post-construction soil management procedures and a restrictive covenant to be attached to the deed of the property. The cleanup action was performed between approximately July 26, 2004 and March 15, 2006.

1.2 SPECIFIC SCOPE OF SERVICES

The purpose of our scope of services was to assist the SPFD with selecting and implementing a cleanup action that met Ecology approval. The scope of services in this report correspond to the activities specified in the CAP (dated April 19, 2004). Our specific scope of services included the following:

1. Provided regulatory liaison services between Ecology and SPFD during construction activities.
2. Provided compliance air monitoring services during construction. This included monitoring for particulate contaminants in the construction zone (work areas) and along the site perimeter using real-time portable particulate monitors. Additionally, particulate air monitoring samples were collected and submitted for analysis of polycyclic aromatic hydrocarbons (PAHs), and metals (arsenic, cadmium, lead, and mercury).
3. Observed and documented excavation activities in contaminated areas of the site. We assisted the contractor with visually identifying zones of contaminated and non-contaminated soil (for waste reduction purposes).

4. Collected 56 waste characterization soil samples, of which 43 were submitted for laboratory analyses for disposal profiling purposes.
5. Collect post-excavation soil samples. In general, one soil sample was collected for every 50-foot by 50-foot area assumed to be non-contaminated and about every 100-foot by 100-foot area of the site assumed to be contaminated.
6. Coordinated with the city of Spokane municipal wastewater department to obtain approval to discharge dewatering water to the combined sewer system present at the site.
7. Evaluated the possibility of disposing dewatering water to an existing swale located north of the Doubletree Hotel and west of the East-West Arbor. We evacuated and conducted a performance test on a drywell located in the swale. Two soil samples were collected adjacent to the drywell and analyzed for diesel- and oil-range hydrocarbons, PAHs, and metals.
8. Measured depth to water and collected samples from five on-site groundwater monitoring wells. Samples were submitted to North Creek Analytical (NCA) of Spokane, Washington for analysis of total metals, carcinogenic polycyclic aromatic hydrocarbons (cPAH), and diesel- and oil-range total petroleum hydrocarbons. Results of groundwater monitoring and sampling were submitted to Ecology under separate cover as data was developed.
9. Prepared a Soil Management Plan for future development of the site.

2.0 SITE DESCRIPTION

2.1 GENERAL

This section describes the physical location and description, surface and subsurface conditions, and historical background of the site; and independent and regulatory actions leading up to implementation of the cleanup action.

2.2 LOCATION AND SITE DESCRIPTION

The site is located northwest of the intersection of Division Street and Spokane Falls Boulevard in Spokane, Washington, in the northeast ¼ of the southeast ¼ of Section 18, Township 25 North, Range 43 East. The site comprises about 5.6 acres bounded on the north by the Spokane River and the Centennial Trail, on the south by Spokane Falls Boulevard, on the west by the existing Spokane Convention Center building, and on the east by Division Street.

2.3 SITE CONDITIONS

2.3.1 Surface Conditions

The site is relatively level, and currently occupied by the recently constructed addition to the Spokane Convention Center. The addition consists of a multi-story exhibit hall building with an integrated parking garage. Except for landscaped areas, the site is not vegetated. The northern boundary of the site lies approximately 30 feet south of the Spokane River.

2.3.2 Subsurface Conditions

Soil

Subsurface conditions are generally characterized by 2 to 11 feet of soil overlying shallow basalt bedrock. The thicknesses of soil and depths to bedrock vary across the site. Soil generally consists of dark brown,

fine to coarse gravel with sand and variable amounts of silt, before construction activities began, previous construction debris including concrete, bricks, black cinder material, and railroad ties were observed beneath the site. Angular basalt cobbles are present in some areas; these are presumed to be "shot rock" placed as fill during previous construction activities. Fill was observed extending to depths of up to 11 feet below ground surface during construction activities. Native soil is present beneath the fill in parts of the north and west portions of the site, and in isolated pockets across the remainder of the site. Native soil varies from light brown silt in the northern portion of the site to light brown, fine to coarse gravel with sand and silt where present across the remainder of the site. Numerous brick roads and concrete footings were encountered during construction. These structures were removed, where necessary, to permit construction; others were left in place and currently are covered by the new structure.

Groundwater

Depth to groundwater is about 7 to 10 feet below site grade. Shallow groundwater flow direction generally is to the north-northwest toward the Spokane River. Groundwater chemical impacts associated with the site are summarized in our Groundwater Monitoring Report dated August 26, 2005.

2.4 SITE BACKGROUND

Historical uses of the site include: residential, industrial, commercial, and medical services. Residential dwellings were located in the central portion of the site. The W.R. Marvin's Planing Mill (also called King Sash and Door) was present in the north portion of the site. The original Sacred Heart Hospital was located in the western portion of the site. By 1901, the planing mill was removed and the Great Northern Railroad (GNR) had constructed a long, narrow building for use as a railroad freight off-loading terminal in the central and northern portion of the site. In addition, the GNR constructed its mainline across the northern portion of the site. The property might have been extended into the river by shoreline filling during this period. This mainline entered the site east of the existing C.I. Shenanigans Restaurant, crossed the site east to west, and exited the site across a railroad trestle that crossed the Spokane River near the northwest portion of the site.

By about 1910, a junkyard and a paint shop (Richfield Oil Paint) were present along the southern portion of the site. Later, in about 1914, the GNR purchased and demolished the Sacred Heart Hospital and laid railroad tracks south of the freight terminal. At about this same time, Union Pacific (UP), Oregon Washington Railroad and Navigation (OWR&N) and the Milwaukee Railroad constructed a jointly-owned set of railroad tracks across the southern portion of the property. A portion of these tracks led to an elevated railroad viaduct that passed west through Spokane to the Union Station depot formerly located west of the current Convention Center. Other tracks stayed at grade beneath the viaduct.

At about this same time, Washington Water Power (WWP) constructed a small electrical substation near the western portion of the site. Also, the Division Street Spokane River crossing was elevated such that railroad traffic could pass beneath the bridge. From the mid-1910's until 1974, the site was used primarily by the railroads and supporting industry for purposes that included freight loading and off-loading and mainline rail pass-through for GNR, UP, OWR&N, and Milwaukee Railroad. Several small businesses that specialized in freight distribution operated on site during this period.

In the early 1970's, railroad use at the site ended. Former railroad property was acquired by private and public transactions. The railroad infrastructure was removed or buried and construction started on the Sheraton Hotel. The Spokane Convention Center was constructed in about 1974. The western and northern portions of the site were used for carnival grounds during the 1974 World's Fair (Expo 74). Following Expo 74, most of the carnival grounds were converted to parking areas.

In the mid- to late-1970s, the former Azteca restaurant building was constructed. In about 1980, the C.I. Shenanigans Restaurant building was constructed. site use has remained relatively unchanged with the exception of the early 1990s demolition of the WWP substation, and the addition of the Ag-Trade center expansion to the Spokane Convention Center in the late-1980s. As a condition of this earlier convention center expansion, the City of Spokane constructed a park-like area in the northwest portion of the site and placed an art work titled the "East-West Arbor" in this location.

3.0 CLEANUP ACTIVITIES

3.1 GENERAL

Cleanup activities were conducted concurrently with the earthwork portion of the Convention Center Expansion project. Work was conducted by Hoffman-Bouten Joint Venture (HBJV), under subcontract to SPFD. GeoEngineers provided environmental monitoring during cleanup activities. Cleanup activities were conducted between July 26, 2004 and March 15, 2006 and consisted of excavating and stockpiling contaminated soil, removing some contaminated soil from the site, capping remaining contaminated soil (that soil which was not removed) with building structures or impervious pavement, managing groundwater removed during construction, and implementing institutional controls. GeoEngineers collected soil samples to document site cleanup activities and characterize soil for off-site disposal, monitored air quality during cleanup activities, and decommissioned three monitoring wells. The following sections describe these activities in detail.

3.2 REMOVAL OR ENCAPSULATION OF CONTAMINATED SOIL

Soil generated during excavation of footings, electrical trenches, drilled shafts, and rough grading was stockpiled on site. A portion of the stockpiled soil was used during construction for backfilling footings, grade beams, electrical trenches beneath concrete pavements and slabs-on-grade. Soil that was not suitable for construction purposes was sampled and analyzed for total lead, which served as an indicator chemical for disposal purposes. If total lead concentrations exceeding 3,000 milligrams per kilogram (mg/kg), those samples would have been further analyzed for Toxic Characteristic Leaching Procedures (TCLP) lead to assess if disposed waste classified as dangerous waste. None of the samples analyzed contained lead concentrations exceeding 3,000 mg/kg, therefore no samples were analyzed for TCLP lead. Contaminated soil was then transported by truck to the Graham Road landfill, located in Spokane County, for disposal.

Fifty-six soil samples were obtained, including 46 samples from excavation stockpiles, 6 confirmation samples from building subgrade areas, and 2 from utility trench walls. Of these 56 samples, 39 from the stockpiles, two at subgrade, and two trench wall samples were submitted for chemical analyses. Results of soil sample analyses are presented in Appendix C, "Summary of Chemical Analytical Results – Soil."

Compliance monitoring as detailed in the CAP involved collecting post-excavation confirmation samples of soil at excavation limits. Samples were to be collected in a 50-foot grid pattern in areas where contaminated soil was removed, and a 100-foot grid pattern in areas where contaminated soil was suspected to remain. However, during excavation, contaminated soil was encountered at greater depths than originally anticipated, extending to bedrock in many parts of the site. Uncontaminated native soil was encountered in isolated pockets, rather than as a unit or layer. Ecology relaxed the requirement for confirmation sampling because the remaining contaminated soil remaining on the site was subsequently covered with building structures or impervious pavement. Confirmation sample collection was suspended after October 7, 2004.

Water and sewer trenches were backfilled with uncontaminated soil (defined in this report as soil with analytical concentrations less than MTCA Method A cleanup criteria) imported to the site from the Moon Rock pit in Airway Heights, Washington. As stipulated by Ecology, contaminated soil was not used to backfill water and sewer trenches. Contaminated soil left undisturbed or reused for construction purposes has been covered either by the building structure or asphalt concrete pavement.

3.3 GROUNDWATER MANAGEMENT

Construction activities resulted in contacting and moving potentially contaminated groundwater. Discharge to the municipal sewer was not necessary because the quantity of groundwater brought to the surface during construction was less than anticipated during planning stages. Alternatively, groundwater was treated by pumping it to settling storage tanks on site and allowing it to settle in two 18,000-gallon storage tanks (weir tanks) plumbed in series. After allowing the water to settle for a short period, samples were obtained and analyzed for those parameters specified by the city of Spokane Wastewater Treatment Plant. Treated water was discharged from the Weir tanks to a drywell located near the northwest corner of the site, as approved by Ecology's Underground Injection Control Program. Saturated sediment that settled to the bottom of the Weir tanks was removed using a vacuum truck and disposed at the Graham Road Landfill.

3.4 AIR QUALITY MONITORING

GeoEngineers conducted periodic monitoring of air quality to assess if workers or the public were exposed to airborne contaminants as a result of construction activities. Air monitoring consisted of (1) two rounds of personnel breathing space monitoring; and (2) periodic measurement of air quality along the site perimeter. Air monitoring procedures are discussed in the following sections.

3.4.1 Personnel Monitoring

Worker breathing space monitoring was conducted on August 19, 2004, and again on September 10, 2004. Samples of air were collected using battery-powered pumps and filter media worn by selected employees in the work areas. Field blank samples were also collected on the downwind side of the site. Filter media were shipped to a subcontracted laboratory and analyzed for heavy metals and polycyclic aromatic hydrocarbons. Five samples were collected on August 19, 2004 and 10 were collected on September 10, 2004. Results of air sample analyses are presented in Table 3, "Summary of Chemical Analytical Results - Air."

3.4.2 Site Perimeter Monitoring

A series of 10 air monitoring stations were established along the site perimeter to measure general particulate levels and the presence of volatile organic compounds (VOC). Seven stations were located on the north and east (prevailing downwind) sides of the site; three were located on the south and west (upwind) sides of the site. Air quality data was collected and recorded at each station using a particulate meter and a photoionization detector (PID) consistently to measure VCC levels. Particulate and VOC levels along the site perimeter generally were negligible. Particulate readings ranged from zero to 2.6 milligram per cubic meter (mg/m^3), with the action level being 5.0 mg/m^3. PID readings were zero.

3.5 WELL ABANDONMENT

Before CCX project construction, five monitoring wells were located on site, including MW-SH01, MW-SH-02, MW-SH19, MW-SH20, and MW-213. Three monitoring wells (MW-SH02, MW-SH19, and

MW-SH20) were decommissioned on August 16, 2004, in accordance with Washington Administrative Code (WAC) 173-160. Two supplemental monitoring wells, designated MW-214 and MW-215, were installed on November 9, 2004.

4.0 INSTITUTIONAL CONTROLS

4.1 RESTRICTIVE COVENANT FOR SOIL AND GROUNDWATER USE

The SPFD will record a restrictive covenant to the deed to the property, which informs potential future property users or purchasers of the presence of contaminated material beneath the site and prohibits domestic use of groundwater at the site. This activity is required because COCs exceeding MTCA Method A and Method B cleanup levels remain on site.

4.2 POST CONSTRUCTION SOIL MANAGEMENT PLAN

Appendix A to this report includes a Soil Management Plan that specifies procedures to: (1) inspect and maintain the cover (cap) over the contaminated soil; (2) notify and protect utility workers that might encounter contaminated soil beneath the cap; and (3) repair the cap if breached.

Uncontaminated imported fill soil was used to backfill water supply, sanitary sewer, and storm sewer trenches during construction. The purpose of using imported soil is to minimize the potential for workers to be exposed to contaminated soil during future work on these utilities.

Contaminated soil derived from on-site excavation was reused as backfill in electrical trenches, under the assumption that repair work on electrical utilities is typically accomplished by pulling new wiring through existing conduits. However, if excavation of electrical trenches should be necessary, the following procedures must be followed: (1) Ecology must be notified before the protective cap is breached; (2) workers must be notified of potential exposure to contaminated soil; (3) workers must be OSHA-HAZWOPER trained; and (4) the protective cap must be repaired and maintained following completion of work.

5.0 CONCLUSIONS

The cleanup was conducted as an independent remediation action under the Voluntary Cleanup Program administered by Ecology's Toxics Cleanup Program. The cleanup action was carried out in accordance with the Corrective Action Plan (CAP) and appropriate state regulations including the Washington State Model Toxics Cleanup Act (MTCA). This report has been prepared in accordance with the CAP. In our opinion, the cleanup action is complete and a NFA designation should be issued by Ecology.

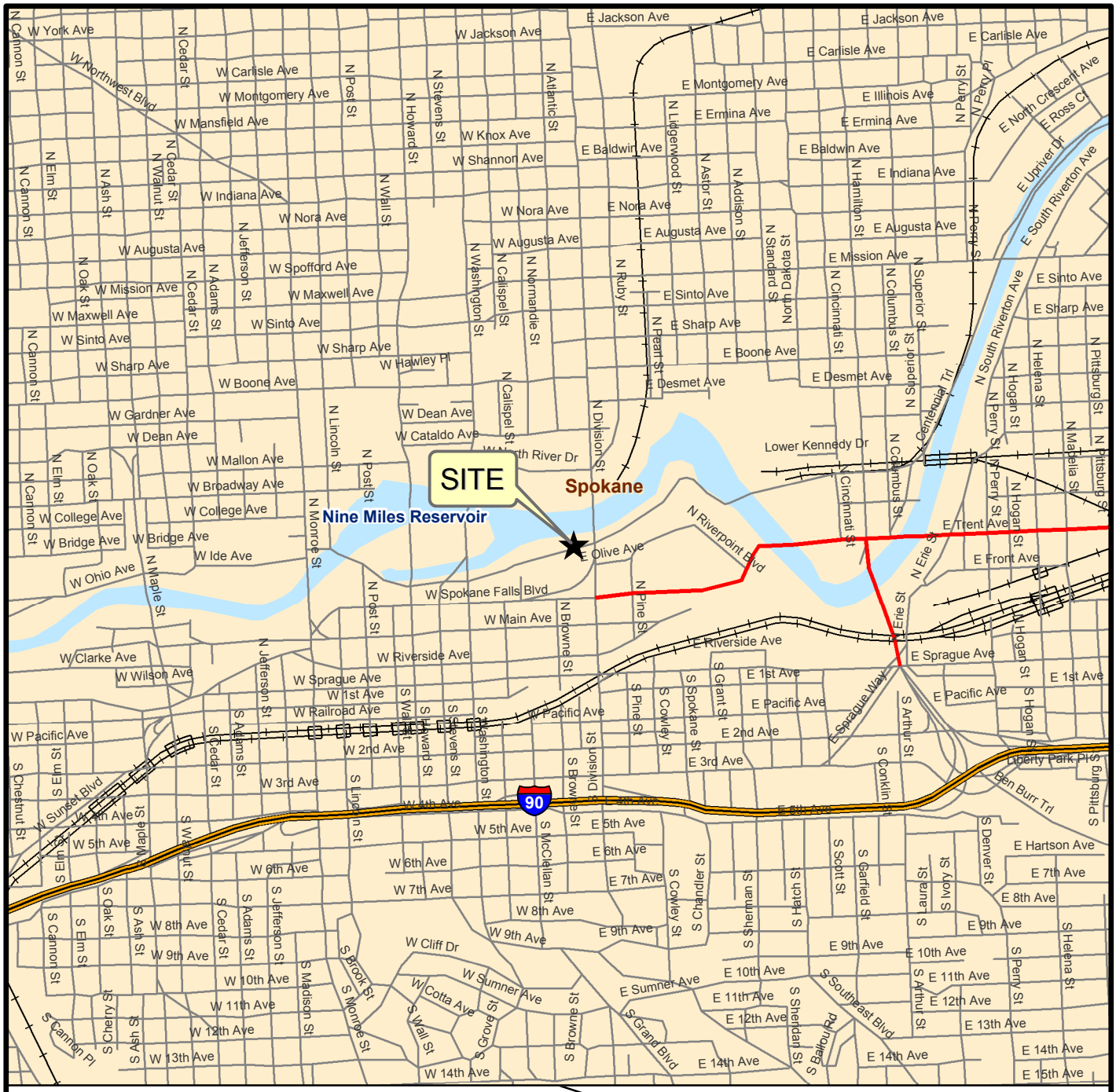
6.0 LIMITATIONS

We have prepared this report for use by Spokane Public Facilities District and the Washington State Department of Ecology for the Convention Center Expansion site in Spokane, Washington.

Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted practices in the field of environmental engineering in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

Please refer to Appendix D titled Report Limitations and Guidelines for Use for additional information pertaining to use of this report.



Data Sources: Interstates, state routes, and roads from TIGER 2000.
County boundaries, cities, and waterbodies from Department of Ecology.

All locations are approximate.

Lambert Conformal Conic
Washington State Plane North
North American Datum 1983

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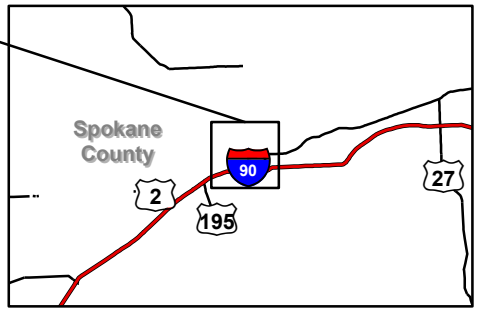

Note: This drawing is for informational purposes. It is intended to assist in showing features discussed in an attached document.

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VICINITY MAP

FIGURE 1

Office: TAC Path: P Drive QC\011004707\GIS\011004707_FIG-1.mxd Map Revised: June 08, 2005

APPENDIX A
SOIL MANAGEMENT PLAN

GeoEngineers

August 11, 2006

Spokane Public Facilities District
720 West Mallon
Spokane, Washington 99202

Attention: Matt Walker, AIA

Subject: Soil Management Plan for Potentially Impacted Soil
Spokane Convention Center Expansion
Spokane, Washington
File No. 0110-047-07

INTRODUCTION

This letter presents a Soil Management Plan (Plan) for the Spokane Public Facilities District (SPFD) for potentially impacted soil that could be encountered during future construction activities at the Spokane Convention Center Expansion (CCX) site. The site is located northwest of the intersection of Division Street and Spokane Falls Boulevard in Spokane, Washington. The site is shown relative to surrounding physical features in Figure 1.

The site includes an approximate 100,000-square-foot exhibit hall with a parking structure at the lower level. The expansion also included an elevated, enclosed walkway between the exhibit hall and the existing convention center expansion to the existing convention center, the construction of which was recently completed. This plan is intended for use by the SPFD and their contractors, for the handling and disposal of potentially contaminated soil encountered during future construction activities at the site. As described in the Cleanup Action Report (CAP), soil generated during construction of the building foundation contained concentration of analytes exceeding the cleanup levels provided in the Washington State Department of Ecology (Ecology) Model Toxics Cleanup Act Method A (MTCA).

This Plan for potentially impacted soil addresses the identification, characterization, handling, and off-site disposal of potentially contaminated soil that cannot be reused on site because concentrations of contaminants greater than applicable cleanup levels. The deed restriction to be issued by Ecology will not allow reuse of groundwater encountered at the site, therefore this plan only addresses soil identification, characterization, handling, and off-site disposal.

Specifically, this plan provides procedures to: (1) inspect and maintain the cover (cap) over the contaminated soil; (2) notify and protect utility workers that might encounter contaminated soil beneath the cap; and (3) repair the cap if breached.

AREAS OF POTENTIAL CONCERN

Cleanup activities by GeoEngineers were conducted concurrently with the earthwork portion of the CCX project between approximately July 26, 2004 and March 15, 2006. Activities consisted of excavating and stockpiling contaminated soil, removing contaminated soil from the site, capping with building structures

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or impervious pavement where contaminated soil was not removed from the site, and implementing institutional controls.

Soil generated during excavation of footings, utility trenches, drilled shafts, and rough grading was stockpiled on site. A portion of the stockpiled soil was used during construction for backfilling footings, grade beams, and electrical trenches. Soil that was not suitable for construction purposes was sampled and analyzed for total lead, which served as an indicator chemical for disposal purposes. Contaminated soil was then transported by truck to the Graham Road landfill, in Spokane County, for disposal.

It is our understanding that future construction could take place in areas of the site known to contain soil contaminated with metals and/or cPAHs above MTCA cleanup levels. Such areas include, but are not limited to, electrical trenches, and those capped with asphalt concrete pavement or the CCX building expansion. The following provides guidelines for management of the cap as well as recommendations in the event the integrity of the cap is improvised:

1. Inspect and maintain the asphalt concrete pavement – The SPFD or their designated representative should periodically inspect the asphalt throughout the CCX site. If excessive cracking or general deterioration is observed, then repair should be completed as soon as possible.
2. If cracking or deterioration of the asphalt is noted as discussed above, or if future construction involves demolition of the cap, it is imperative to notify and protect the workers who will potentially be exposed to contaminated soil. Those workers should become familiar with the contents of the Cleanup Action Report (CAR). We further recommend GeoEngineers be retained by SPFD to collect soil samples from below the cap and submit for applicable analyses.

CONTAMINANTS OF POTENTIAL CONCERN AND CLEANUP STANDARDS

Based on GeoEngineers' involvement at the site, the potential contaminants of concern for the site have been identified as metals and carcinogenic polycyclic aromatic hydrocarbons (cPAHs). For the purpose of this Plan, the MTCA Method A cleanup level for unrestricted land uses will be used for determining cleanup objectives for metals and cPAHs in soil.

HANDLING AND DISPOSITION PLAN FOR SOIL

This Plan is intended to provide guidance to SPFD's contractors and consultants regarding (1) identification, (2) characterization, (3) handling, and (4) disposal of contaminated soil and that may be encountered during future construction activities at the site.

IDENTIFICATION OF POTENTIALLY CONTAMINATED SOIL

1. Contractor personnel will review this Plan to familiarize themselves with the potentially contaminated soil at the site.
2. An environmental consultant will be present on site when the contractor is excavating in identified areas of interest and/or if contamination is otherwise encountered to assist in the identification of potentially contaminated soil.
3. An environmental consultant will observe and document excavation activities and advise the contractor regarding segregation of potentially contaminated media.

4. If the contractor observes excavated soil that exhibits one or more of the following field screening characteristics
   - staining,
   - chemical or petroleum odors, and/or
   - a sheen when placed in contact with water, then the soil shall be identified as potentially contaminated and will be handled and characterized as described below. Note that the absence of these physical characteristics does not necessarily imply that the soil does not contain contaminants.
5. The SPFD should notify an environmental consultant to assist the contractor in segregating the potentially contaminated soil. An environmental consultant will use field screening techniques, including visual, sheen and headspace vapor methods (using a photoionization detector), to classify or segregate the soil and/or to select samples for chemical analyses.
6. Chemical testing of representative samples of the segregated potentially contaminated soil will be performed as described below.

HANDLING AND CHARACTERIZATION OF POTENTIALLY CONTAMINATED SOIL

1. As appropriate, the contractors shall use trained and certified personnel for excavation activities per OSHA and Washington Department of Labor and Industries standards (HAZWOP) and shall be responsible for monitoring the health and safety of their employees. The contractors shall work closely with an environmental consultant in identifying potentially impacted materials as they are encountered during work at the site, and shall be responsible for appropriately handling potentially impacted material pursuant to the methods and procedures outlined in this document.
2. The extent of excavation of contaminated soil will be determined in the field based on field screening. Once the decision is made to terminate excavation, confirmation soil samples will be collected consistent with MTCA requirements to document soil concentrations remaining in the excavation.
3. Potentially contaminated soil will be segregated and secured on-site pending chemical analyses for waste characterization. The contractor will secure potentially contaminated soil by placing it either in (1) a designated stockpile area that is lined and covered by durable plastic sheeting and bermed to control runoff, or (2) in labeled drums, roll-off containers, or other covered containers. Access to the secured soil will be restricted by fencing or other physical barriers to prevent unauthorized personnel from contacting the soil. The contractor will comply with Best Management Practices for erosion and sediment control.
4. Potentially contaminated soil should be sampled by a representative of an environmental consultant. Soil samples will be submitted for chemical analyses to identify reuse or disposal options. The frequency of sampling and selected chemical analyses will be in accordance with Ecology regulations and guidance.

DISPOSITION OPTIONS FOR SOIL

1. Soil with contaminant concentrations less than MTCA Method A cleanup levels for industrial properties will be reused on site if suitable for foundation, utility or pavement support.
2. Soil with contaminant concentrations greater than MTCA Method A cleanup levels for industrial properties, or soil that cannot be reused on site as previously allowed by Ecology for electrical

trenches and beneath asphalt and slabs-on-grade, will be transported off site for permitted disposal. Waste characterization chemical analytical results will be used to obtain approval for off-site disposal of the soil at a permitted landfill or recycling facility.

3. Transport and disposal of soil will be in accordance with local, state and federal regulations.
4. The SPFD will be responsible for off-site disposal of contaminated soil or dangerous waste originating from the CCX site.

LIMITATIONS

This letter has been prepared for the exclusive use of the Spokane Public Facilities District and their authorized agents. No other party may rely on the product of our services unless we agree in advance and in writing to such reliance. Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted environmental science practices in this area at the time this letter was prepared. No warranty or other conditions, express or implied, should be understood.

This letter was developed based on our review of information provided by others and our understanding of conditions at the property. No study can wholly eliminate uncertainty regarding environmental conditions at a property. There is always a potential that areas of contamination exist that were not identified during the past studies. Further evaluation of such potential would require additional research, subsurface exploration, sampling and/or testing. We appreciate the opportunity to be of service to the Spokane Public Facilities District. Please call if you require more information or have questions regarding this letter.

Respectfully submitted,

GeoEngineers, Inc.

Matthew Blankenship, LG
Senior Geologist

Bruce Williams
Principal

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APPENDIX C
LABORATORY DATA

APPENDIX B
FIELD METHODOLOGY

APPENDIX B
FIELD METHODOLOGY

INTRODUCTION

This appendix describes the field procedures used during the soil sampling and analyses. The sampling procedures included the following:

- Collection of soil samples;
- Field screening methods;
- Decontamination procedures; and
- Handling of investigation-derived waste;

SOIL SAMPLE COLLECTION

Soil samples were collected from the site for purposes of classifying soil type, contaminant field screening and subsequent analytical testing. A representative from our staff examined and classified the soil encountered and prepared a detailed log of each exploration. Soil was visually classified in general accordance with American Society for Testing and Materials (ASTM) D 2488-90.

Samples of soil encountered were obtained at the surface and from stockpiles located throughout the site. Sampling was conducted by hand using a stainless steel spoon. Sampling equipment was cleaned between each sampling attempt with a Liquinox wash and a distilled water rinse.

A portion of each soil sample was immediately transferred to laboratory-provided glass jars. The sample containers were filled completely to minimize headspace in the containers. The soil samples were kept cool in the field and during transport to the analytical laboratory. The remaining portion of each sample was retained for soil classification and field screening. Based on field screening results, specific samples from each exploration were selected for chemical analysis. Each soil sample analyzed was denoted in our exploration logs. At least one soil sample from each exploration was submitted for chemical analysis. Chain-of-custody procedures were followed during transport of the soil samples to the laboratory.

FIELD SCREENING OF SOIL SAMPLES

Our field representative performed field screening tests on the soil samples obtained from the soil explorations. Field screening results are used as a general guideline to assess areas of possible petroleum-related contamination. In addition, field screening results are used to aid in the selection of soil samples for chemical analysis. The field screening methods used include (1) visual screening, (2) water sheen screening, and (3) headspace vapor screening using a Photovac MicroTIP PID calibrated to isobutylene. The results of headspace and sheen screening are included on the exploration logs.

Visual screening consists of observing soil for stains indicative of petroleum-related contamination. Visual screening is generally more effective when contamination is related to heavy petroleum hydrocarbons, such as motor oil, or when hydrocarbon concentrations are high. Water sheen and headspace vapor screening are more sensitive screening methods that are effective at detecting contamination at concentrations less than regulatory cleanup guidelines.

Water sheen screening involves placing soil in a pan of water and observing the water surface for signs of sheen. Sheen screening may detect both volatile and nonvolatile petroleum hydrocarbons. Sheens observed are classified as follows:

No Sheen (NS)	No visible sheen on the water surface.
Slight Sheen (SS)	Light, colorless, dull sheen; spread is irregular, not rapid; sheen dissipates rapidly. Natural organic matter in the soil may produce a slight sheen.
Moderate Sheen (MS)	Light to heavy sheen; may have some color/iridescence; spread is irregular to flowing, may be rapid; few remaining areas of no sheen on the water surface.
Heavy Sheen (HS)	Heavy sheen with color/iridescence; spread is rapid; entire water surface may be covered with sheen.

Headspace vapor screening involves placing a soil sample in a plastic sample bag. Air is captured in the bag, and the bag is shaken to expose the soil to the air trapped in the bag. Headspace vapor screening targets volatile petroleum hydrocarbon compounds. In this application, the PID measures concentration of organic vapors ionizable by a 10.6 electron volt (ev) lamp in the range between 1.0 and 2,000 parts per million (ppm), with a resolution of +/- 2 ppm.

Field screening results are site- and exploration-specific. The effectiveness of field screening varies with temperature, moisture content, organic content, soil type and type and age of contaminant. The presence or absence of a sheen or headspace vapors does not necessarily indicate the presence or absence of petroleum hydrocarbons.

DECONTAMINATION PROCEDURES

The objective of the decontamination procedure was to minimize the potential for cross-contamination between individual samples. A designated decontamination area was established for decontamination of drilling equipment and reusable sampling equipment.

Sampling equipment, including water level measurement instruments, were decontaminated in accordance with the following procedures before each sampling attempt or measurement.

1. Brush equipment with a wire brush, if necessary, to remove large particulate matter.
2. Rinse with potable tap water.
3. Wash with non-phosphate detergent solution (Liquinox and potable tap water).
4. Rinse with potable tap water.
5. Rinse with distilled water.

HANDLING OF INVESTIGATION-DERIVED WASTE

Investigation-derived waste (IDW), mainly decontamination water, was placed in U.S. Department of Transportation (DOT)-approved 55-gallon drums. Each drum was labeled with the project name, exploration number, general contents, and date. The drummed IDW was stored on-site pending analysis and disposal.

Disposable items, such as sample tubing, gloves and protective overalls, paper towels, etc., were placed in plastic bags after use and deposited in trash receptacles for disposal.

Summary of Chemical Analytical Results - Soil[1]

Spokane Convention Center
Spokane, Washington

Sample Number	Date Sampled	GRPH[2] (mg/kg)	DRPH[3] (mg/kg)	ORPH[3] (mg/kg)	PAHs[4] (mg/kg)		Metals[5] Arsenic (mg/kg)	Cadmium (mg/kg)	Mercury (mg/kg)	Lead (mg/kg)	PCBs[6] (ug/kg)	VOCs[7] (mg/kg)
SS1-072804SP	07/28/04	NT	NT	NT	NT		NT	NT	NT	**291**	NT	NT
SS2-072804SP	07/28/04	NT	NT	NT	NT		NT	NT	NT	157	NT	NT
SS3-072804SP	07/28/04	NT	NT	NT	NT		NT	NT	NT	171	NT	NT
SS1-081904SP	08/19/04	<20	<50	<100	Anthracene	0.0365	9.83	<0.200	<0.0200	26.4	NT	NT
					Benzo (a) anthracene	**0.0953**						
					Benzo (a) pyrene	**0.0967**						
					Benzo (b) fluoranthene	**0.0568**						
					Benzo (ghi) perylene	0.0147						
					Benzo (k) fluoranthene	**0.0589**						
					Chrysene	**0.0841**						
					Fluoranthene	**0.1680**						
					Indeno (1,2,3-cd) pyrene	**0.0329**						
					Phenanthrene	0.0582						
					Pyrene	0.135						
					All others non-detect							
SS2-081904SP	08/19/04	<20	<50	<100	Anthracene	0.0179	5.53	<0.200	<0.0200	62.3	NT	NT
					Benzo (a) anthracene	**0.102**						
					Benzo (a) pyrene	**0.100**						
					Benzo (b) fluoranthene	**0.068**						
					Benzo (k) fluoranthene	**0.0565**						
					Chrysene	0.0844						
					Fluoranthene	0.182						
					Indeno (1,2,3-cd) pyrene	**0.0222**						
					Phenanthrene	0.0815						
					Pyrene	0.145						
					All others non-detect							
SS3-081904SP	08/19/04	<20	<50	200	**Benzo (a) anthracene**	**0.215**	5.04	<0.200	<0.0200	27.1	NT	NT
					Benzo (a) pyrene	**0.164**						
					Benzo (b) fluoranthene	**0.116**						
					Chrysene	**0.144**						
					Fluoranthene	0.289						
					Phenanthrene	0.159						
					Pyrene	0.258						
					All others non-detect							

Sample Number	Date Sampled	GRPH[2] (mg/kg)	DRPH[3] (mg/kg)	ORPH[3] (mg/kg)	PAHs[4] (mg/kg)		Metals[5] Arsenic (mg/kg)	Cadmium (mg/kg)	Mercury (mg/kg)	Lead (mg/kg)	PCBs[6] (ug/kg)	VOCs[7] (mg/kg)
SS4-081904SP	08/19/04	<20	<50	<100	Acenaphthene	0.0567	4.73	<0.200	<0.0200	58.9	NT	NT
SS4-081904SP cont.					Anthracene	0.199						
					Benzo (a) anthracene	**0.457**						
					Benzo (a) pyrene	**0.380**						
					Benzo (b) fluoranthene	**0.270**						
					Benzo (k) fluoranthene	**0.238**						
					Chrysene	**0.400**						
					Fluoranthene	0.913						
					Fluorene	0.0426						
					Indeno (1,2,3-cd) pyrene	**0.0879**						
					Phenanthrene	0.542						
					Pyrene	0.729						
					All others non-detect							
SS5-081904SP	08/19/04	<20	<50	<100	Anthracene	0.0971	5.37	<0.200	<0.0200	82.3	NT	NT
					Benzo (a) anthracene	**0.137**						
					Benzo (a) pyrene	**0.159**						
					Benzo (b) fluoranthene	**0.0999**						
					Benzo (ghi) perylene	0.0531						
					Benzo (k) fluoranthene	**0.106**						
					Chrysene	**0.144**						
					Dibenzo (a,h) anthracene	**0.0120**						
					Fluoranthene	0.285						
					Indeno (1,2,3-cd) pyrene	**0.0567**						
					Phenanthrene	0.122						
					Pyrene	0.232						
					All others non-detect							
SS1-082004SP	08/20/04	NT	NT	NT	NT		NT	NT	NT	119	NT	NT
SS2-082004SP	08/20/04	NT	NT	NT	NT		NT	NT	NT	77.2	NT	NT
SS3-082004SP	08/20/04	NT	NT	NT	NT		NT	NT	NT	22.1	NT	NT
SS1-082304SP	08/23/04	NT	NT	NT	NT		NT	NT	NT	**1,980**	NT	NT
SS2-082304SP	08/23/04	NT	NT	NT	NT		NT	NT	NT	46.9	NT	NT
SS1-082404SP	08/24/04	NT	NT	NT	NT		NT	NT	NT	**1,150**	NT	NT
SS2-082404SP	08/24/04	NT	NT	NT	NT		NT	NT	NT	**1,760**	NT	NT
SS1-082504SP	08/25/04	NT	NT	NT	NT		NT	NT	NT	**340**	NT	NT
SS2-082504SP	08/25/04	NT	NT	NT	NT		NT	NT	NT	**868**	NT	NT
SS3-082504SP	08/25/04	NT	NT	NT	NT		NT	NT	NT	**831**	NT	NT
SS4-082504SP	08/25/04	<20	<50	<100	Benzo (a) anthracene	0.0211	4.03	<0.200	<0.0200	10.1	NT	NT
					Fluoranthene	0.0134						
					Phenanthrene	0.0338						

Sample Number	Date Sampled	GRPH[2] (mg/kg)	DRPH[3] (mg/kg)	ORPH[3] (mg/kg)	PAHs[4] (mg/kg)		Metals[5] Arsenic (mg/kg)	Cadmium (mg/kg)	Mercury (mg/kg)	Lead (mg/kg)	PCBs[6] (ug/kg)	VOCs[7] (mg/kg)
					All others non-detect							
SS5-082504SP	08/25/04	<20	<50	120	Acenaphthene	0.0283	4.10	0.258	<0.0200	292	NT	NT
					Anthracene	0.140						
					Benzo (a) anthracene	**0.387**						
					Benzo (a) pyrene	**0.435**						
					Benzo (b) fluoranthene	**0.256**						
					Benzo (ghi) perylene	0.346						
					Benzo (k) fluoranthene	**0.249**						
					Chrysene	**0.414**						
					Dibenzo (a,h) anthracene	**0.108**						
					Fluoranthene	0.920						
					Fluorene	0.0283						
					Indeno (1,2,3-cd) pyrene	**0.220**						
					Phenanthrene	0.524						
					Pyrene	0.871						
					All others non-detect							
SS6-082504SP	08/25/04	<20	<50	<100	Anthracene	0.0473	3.96	<0.200	<0.0200	18.7	NT	NT
					Benzo (a) anthracene	**0.120**						
					Benzo (a) pyrene	**0.113**						
					Benzo (b) fluoranthene	**0.0571**						
					Benzo (ghi) perylene	0.0905						
					Benzo (k) fluoranthene	**0.0654**						
					Chrysene	**0.0445**						
					Dibenzo (a,h) anthracene	**0.0264**						
					Fluoranthene	0.251						
					Indeno (1,2,3-cd) pyrene	**0.0585**						
					Phenanthrene	0.174						
					Pyrene	0.232						
					All others non-detect							
SS1-082604SP	08/26/04	NT	NT	NT	NT		NT	NT	NT	**873**	NT	NT
SS1-090104TR	09/04/04	NT	NT	NT	1-Methylnapthalene	1.34	NT	NT	NT	NT	All non-detect	NT
					Acenaphthene	4.53						
					Anthracene	7.42						
					Benzo (a) anthracene	**10.9**						
					Benzo (a) pyrene	**11.0**						
					Benzo (b) fluoranthene	**6.46**						
					Benzo (ghi) perylene	6.68						
					Benzo (k) fluoranthene	**6.38**						
					Chrysene	**11.7**						

Sample Number	Date Sampled	GRPH[2] (mg/kg)	DRPH[3] (mg/kg)	ORPH[3] (mg/kg)	PAHs[4] (mg/kg)		Metals[5]				PCBs[6] (ug/kg)	VOCs[7] (mg/kg)
							Arsenic (mg/kg)	Cadmium (mg/kg)	Mercury (mg/kg)	Lead (mg/kg)		
					Dibenzo (a,h) anthracene	**2.52**						
SS1-090104TR cont.					Fluoranthene	30.9						
					Fluorene	3.71						
					Indeno (1,2,3-cd) pyrene	**5.27**						
					Naphthalene	3.93						
					Phenanthrene	35.8						
					Pyrene	30.4						
					All others non-detect							
SS1-090204TR	09/02/04	<20	<50	<100	Fluoranthene	0.0131	4.82	<0.200	<0.0200	8.27	NT	NT
					Pyrene	0.0103						
					All others non-detect							
SS1-090304SP	09/03/04	NT	NT	NT	NT		NT	NT	NT	29.6	NT	NT
SS2-090304SP	09/03/04	NT	NT	NT	NT		NT	NT	NT	113	NT	NT
SS3-090304SP	09/03/04	NT	NT	NT	NT		NT	NT	NT	36.0	NT	NT
SS4-090304SP	09/03/04	NT	NT	NT	NT		NT	NT	NT	**265**	NT	NT
SS5-090304SP	09/03/04	NT	NT	NT	NT		NT	NT	NT	183	NT	NT
SS1-092304SG	09/23/04	<20	<50	170	NT		NT	NT	NT	NT	NT	NT
SS2-092304SG	09/23/04	<20	<50	<100	NT		NT	NT	NT	NT	NT	NT
SS-1-1004004SP	10/04/04	NT	NT	NT	NT		NT	NT	NT	60.9	NT	NT
SS-2-100404SP	10/04/04	NT	NT	NT	NT		NT	NT	NT	92.5	NT	NT
SS1102504SP	10/25/04	NT	NT	NT	NT		NT	NT	NT	**493**	NT	NT
SS2-111004SP	11/10/04	NT	NT	NT	NT		NT	NT	NT	48.4	NT	NT
SS1-120704SP	12/07/04	<20	100	700	**Benzo (a) anthracene**	**0.173**	7.73	0.235	0.180	80.7	NT	NT
					Benzo (a) pyrene	**0.226**						
					Benzo (b) fluoranthene	**0.218**						
					Benzo (ghi) perylene	0.324						
					Benzo (k) fluoranthene	**0.241**						
					Chrysene	**0.301**						
					Dibenzo (a,h) anthracene	**0.173**						
					Fluoranthene	0.535						
					Indeno (1,2,3-cd) pyrene	**0.264**						
					Phenanthrene	0.414						
					Pyrene	0.708						
					All others non-detect							
SS1-071905SP	07/19/05	NT	NT	NT	NT		NT	NT	NT	159	NT	NT
SS2-071905SP	07/19/05	NT	NT	NT	NT		NT	NT	NT	221	NT	NT
SS3-071905SP	07/19/05	NT	NT	NT	NT		NT	NT	NT	174	NT	NT
SS4-071905SP	07/19/05	NT	NT	NT	NT		NT	NT	NT	**273**	NT	NT
S-1	03/02/06	NT	<9.04	<22.6	Benzo (a) anthracene	0.0202	14.9	<0.215	<0.100	16.6	NT	All non-detect

Sample Number	Date Sampled	GRPH[2] (mg/kg)	DRPH[3] (mg/kg)	ORPH[3] (mg/kg)	PAHs[4] (mg/kg)		Metals[5]				PCBs[6] (ug/kg)	VOCs[7] (mg/kg)
							Arsenic (mg/kg)	Cadmium (mg/kg)	Mercury (mg/kg)	Lead (mg/kg)		
					Benzo (a) pyrene	0.0231						
S-1 cont.					Benzo (b) fluoranthene	0.0245						
					Benzo (ghi) perylene	0.0224						
					Benzo (k) fluoranthene	0.0216						
					Chrysene	0.0238						
					Fluoranthene	0.0426						
					Indeno (1,2,3-cd) pyrene	0.0188						
					Phenanthrene	0.0180						
					Pyrene	0.0303						
					All others non-detect							
S-2	03/02/06	NT	<10.9	27.2	Benzo (a) anthracene	0.0164	16.3	<0.217	<0.100	18.2	NT	All non-detect
					Benzo (a) pyrene	0.0225						
					Benzo (b) fluoranthene	0.0280						
					Benzo (ghi) perylene	0.0157						
					Benzo (k) fluoranthene	0.0184						
					Chrysene	0.0205						
					Fluoranthene	0.0348						
					Indeno (1,2,3-cd) pyrene	0.0157						
					Phenanthrene	0.0150						
					Pyrene	0.0191						
					All others non-detect							
S-3	03/02/06	NT	<10.9	<27.1	Benzo (b) fluoranthene	0.0118	17.3	<0.217	<0.100	11.0	NT	All non-detect
					Chrysene	0.0118						
					Fluoranthene	0.0215						
					Pyrene	0.0173						
					All others non-detect							
MTCA[8] Method A cleanup levels		100	2,000	2,000	0.1 for Benzo (a) pyrene		20	2	20	250	1,000	NA

Notes:

[1]Chemical analyses conducted by North Creek Analytical of Spokane, Washington.

[2]GRPH = Gasoline-range petroleum hydrocarbons by Northwest Method NWTPH-G.

[3]Diesel- (DRPH) and heavy oil-(ORPH) range petroleum hydrocarbons by Northwest Method NWTPH-D with Silica Gel Cleanup.

[4]Polynuclear aromatic compounds (PAHs) by GC/MS with Selected Ion Monitoring.

[5]Metals by EPA 6010/7000 Series Methods.

[6]Polychlorinated biphenyls (PCBs) by EPA Method 8081.

[7]Volatile organic compounds (VOCs) by EPA Method 8260B.

[8]MTCA = Washington State, Model Toxics Control Act, Method A Cleanup levels

mg/kg = milligrams per kilogram

µg/kg = micrograms per kilogram

Sample Number	Date Sampled	GRPH[2] (mg/kg)	DRPH[3] (mg/kg)	ORPH[3] (mg/kg)	PAHs[4] (mg/kg)	Metals[5]				PCBs[6] (ug/kg)	VOCs[7] (mg/kg)
						Arsenic (mg/kg)	Cadmium (mg/kg)	Mercury (mg/kg)	Lead (mg/kg)		

NT = not tested

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APPENDIX D
REPORT LIMITATIONS AND GUIDELINES FOR USE

APPENDIX D
REPORT LIMITATIONS AND GUIDELINES FOR USE[1]

This Appendix provides information to help you manage your risks with respect to the use of this report.

ENVIRONMENTAL SERVICES ARE PERFORMED FOR SPECIFIC PURPOSES, PERSONS AND PROJECTS

This report has been prepared for the exclusive use of Spokane Public Facilities District, their authorized agents and regulatory agencies. This report is not intended for use by others, and the information contained herein is not applicable to other sites.

GeoEngineers structures our services to meet the specific needs of our clients. For example, an environmental site assessment study conducted for a property owner may not fulfill the needs of a prospective purchaser of the same property. Because each environmental study is unique, each environmental report is unique, prepared solely for the specific client and project site. No one except Spokane Public Facilities District should rely on this environmental report without first conferring with GeoEngineers. This report should not be applied for any purpose or project except the one originally contemplated.

THIS ENVIRONMENTAL REPORT IS BASED ON A UNIQUE SET OF PROJECT-SPECIFIC FACTORS

This report has been prepared for the Convention Center Expansion site. GeoEngineers considered a number of unique, project-specific factors when establishing the scope of services for this project and report. Unless GeoEngineers specifically indicates otherwise, do not rely on this report if it was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

If important changes are made after the date of this report, GeoEngineers should be given the opportunity to review our interpretations and recommendations and provide written modifications or confirmation, as appropriate.

RELIANCE CONDITIONS FOR THIRD PARTIES

Our report was prepared for the exclusive use of our Client. No other party may rely on the product of our services unless we agree in advance to such reliance in writing. This is to provide our firm with reasonable protection against open-ended liability claims by third parties with whom there would otherwise be no contractual limits to their actions. Within the limitations of scope, schedule and budget, our services have been executed in accordance with our Agreement with the Client and generally accepted environmental practices in this area at the time this report was prepared.

[1] Developed based on material provided by ASFE, Professional Firms Practicing in the Geosciences; www.asfe.org.

ENVIRONMENTAL REGULATIONS ARE ALWAYS EVOLVING

Some substances may be present in the site vicinity in quantities or under conditions that may have led, or may lead, to contamination of the subject site, but are not included in current local, state or federal regulatory definitions of hazardous substances or do not otherwise present current potential liability. GeoEngineers cannot be responsible if the standards for appropriate inquiry, or regulatory definitions of hazardous substance, change or if more stringent environmental standards are developed in the future.

SUBSURFACE CONDITIONS CAN CHANGE

This environmental report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time, by manmade events such as construction on or adjacent to the site, by new releases of hazardous substances, or by natural events such as floods, earthquakes, slope instability or groundwater fluctuations. Always contact GeoEngineers before applying this report to determine if it is still applicable.

SOIL AND GROUNDWATER END USE

The cleanup levels referenced in this report are site- and situation-specific. The cleanup levels may not be applicable for other sites or for other on-site uses of the affected media (soil and/or groundwater). Note that hazardous substances may be present in some of the site soil and/or groundwater at detectable concentrations that are less than the referenced cleanup levels. GeoEngineers should be contacted prior to the export of soil or groundwater from the subject site or reuse of the affected media on site to evaluate the potential for associated environmental liabilities. We cannot be responsible for potential environmental liability arising out of the transfer of soil and/or groundwater from the subject site to another location or its reuse on site in instances that we were not aware of or could not control.

MOST ENVIRONMENTAL FINDINGS ARE PROFESSIONAL OPINIONS

Our interpretations of subsurface conditions are based on field observations and chemical analytical data from widely spaced sampling locations at the site. site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. GeoEngineers reviewed field and laboratory data and then applied our professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ – sometimes significantly – from those indicated in this report. Our report, conclusions and interpretations should not be construed as a warranty of the subsurface conditions.

DO NOT REDRAW THE EXPLORATION LOGS

Environmental scientists prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in an environmental report should never be redrawn for inclusion in other design drawings. Only photographic or electronic reproduction is acceptable, but recognize that separating logs from the report can elevate risk.

READ THESE PROVISIONS CLOSELY

Some clients, design professionals and contractors may not recognize that the geoscience practices (geotechnical engineering, geology and environmental science) are far less exact than other engineering and natural science disciplines. This lack of understanding can create unrealistic expectations that could lead to disappointments, claims and disputes. GeoEngineers includes these explanatory "limitations"

provisions in our reports to help reduce such risks. Please confer with GeoEngineers if you are unclear how these "Report Limitations and Guidelines for Use" apply to your project or site.

GEOTECHNICAL, GEOLOGIC AND GEOENVIRONMENTAL REPORTS SHOULD NOT BE INTERCHANGED

The equipment, techniques and personnel used to perform an environmental study differ significantly from those used to perform a geotechnical or geologic study and vice versa. For that reason, a geotechnical engineering or geologic report does not usually relate any environmental findings, conclusions or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. Similarly, environmental reports are not used to address geotechnical or geologic concerns regarding a specific project.

BIOLOGICAL POLLUTANTS

GeoEngineers' Scope of Work specifically excludes the investigation, detection, or assessment of the presence of Biological Compounds which are Pollutants in or around any structure. Accordingly, this report includes no interpretations, recommendations, findings, or conclusions for the purpose of detecting, assessing, or abating Biological Pollutants. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria, and viruses, and/or any of their byproducts.