

Health and Safety Guidance
Document
Wills Wharf Office Project

Baltimore Works Site
Baltimore, Maryland

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For:
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1.0

INTRODUCTION

This Health and Safety (H&S) Guidance Document has been prepared as part of the Detailed Development Plan (DDP) for the Wills Wharf Office Project (Project). The Project is planned for a portion of the former AlliedSignal Baltimore Works Site (Site), located in Baltimore, Maryland. Harbor Point Development LLC (HPD) is the Project Owner and Developer (also referred to herein as “Owner” or “Developer”).

The Site is located on a peninsula on the northeast shore of the Patapsco River of the Inner Harbor in the Fells Point section of Baltimore City (Figure 1). Historical operations at the Site resulted in impacts to soil and groundwater from hexavalent chromium (CrVI). Honeywell International Inc. (Honeywell), which acquired AlliedSignal, is responsible for operating and maintaining an Environmental Remediation System (ERS) that addresses the chromium impacted soil and groundwater at the Site.

1.1

PURPOSE

This Guidance Document is intended to address worker safety related to potential exposure to environmental constituents of concern (e.g., chromium, polycyclic aromatic hydrocarbons [PAHs], etc.) during the Project. This document is solely intended to provide guidance to Contractors during the bidding and submittal processes by identifying environmental contaminant issues that Contractors at a minimum should address in their own Health and Safety Plan (HASP). The Guidance Document is not intended to be inclusive of all health and safety issues that may be encountered at the Project, such as those associated with general construction activities.

It is the sole responsibility of Contractors to prepare and implement their own HASP in accordance with all applicable federal, state, and local regulations and standards of care. This Guidance Document is not intended to be and shall not be used as a Project-specific HASP by any Contractor engaged at the Project. Contractors are required to prepare their own HASP. The Developer or its consultants are not responsible for reviewing or approving the completeness or measures specified in the Contractor-Specified HASPs.

In the event that a conflict in procedures or requirements exists between this H&S Guidance Document and any contractor-specific HASP, the procedures or requirements that are most protective of human health will be applied. In addition, this Guidance Document is not applicable to

routine operations, monitoring, and maintenance work undertaken by Honeywell pursuant to the operation and maintenance of the ERS.

1.2 **BACKGROUND**

The Site consists of three Areas:

1. Area 1 is the principal location of the former AlliedSignal (now Honeywell) Baltimore Works Site, which included chromium processing production and support buildings on an area that covered approximately 14 acres;
2. Areas 2 and 3 were used for various industrial and warehousing operations, including chromate ore storage (Area 2) and brass foundry casting, oil blending and storage, coating/plastics production, lumber storage and foundry (Area 3, comprises Silver North and Silver South properties). Areas 2 and 3 currently include the Thames Street Wharf (TSW) Office Building and its associated parking lots, where construction was completed in 2010. The Project will not disturb the TSW Office Building or Area 3.

As noted previously, Honeywell is responsible for operating and maintaining the ERS that addresses the chromium impacted soil and groundwater at the Site. The ERS is a multi-component remedy that addresses Area 1, Area 2 and Area 3. The Project will only disturb the following ERS components:

1. Area 1 -
 - a. Multimedia Cap (MMC) in Area 1;
 - b. Perimeter Toe Drain;
 - c. Hydraulic Barrier (HB);
 - d. Head Maintenance System.
2. Area 2 - Layered Soil Cap (LSC);
3. Area 3 - Soil Cap on the former Silver North and Silver South parcels.

The majority of the Project will occur in the western region of Area 2, south of Point Street (formerly Block Street). The construction of Wills Street as part of the Project will involve a limited area along the southeastern portion of Area 1. The Project does not contemplate construction in Area 3. The Project will also include other non-designated areas that are outside of Area 1 or Area 2 but within the Project's limits of disturbance (LOD). The DDP drawing set identified the LOD for the Project.

The principal contaminant of concern in Area 1 is CrVI. Historical sampling and analysis data from Areas 2 and 3 has identified mainly metals (lead and chromium) and several polycyclic aromatic hydrocarbons (PAHs) above MDE's Residential and Non-Residential Cleanup Standards (RCs and NRCs, respectively). Some groundwater sampling has also identified elevated chromium concentrations, although the primary area with chromium impacts is on Area 1.

In January 2015, additional environmental sampling and analysis were performed by others relevant to Point Street Apartments & Garage Project being developed by HPD to the north of the Project, which resulted in additional data for Area 3 and adjacent land to the west. These results are summarized in a report titled Soil Evaluation; Point Street Apartments & Garage, dated January 16, 2015 (Appendix A). Some total chromium concentrations were higher than Maryland's published typical background values; however, no detectable CrVI concentrations were reported. The PAH benzo(a)pyrene was reported above the MDE RCs, but below the NRCs. Note that the report is not specific to the Project but addresses work performed adjacent to the Project; as such it provides some recent information on the types of contaminants that may be encountered within the Project LOD.

1.3 APPLICABILITY

For the purposes of this Guidance Document, and pursuant to the DDP, special precautions are associated with "intrusive activities" at the Project. Intrusive activities occur any time there is disturbance or exposure of the surface immediately below the MMC synthetic layers inside the Hydraulic Barrier (HB) in Area 1 or the upper geotextile, which was constructed as part of the Layered Soil Cap (LSC) in Area 2. This Guidance Document is also applicable for excavation or exposure below any warning layer (such as a geotextile layer or snow fence) encountered in non-designated areas within the Project's LOD.

For personnel that are directly involved in those subsurface activities described above, contractors should prepare their own Project-specific HASP in accordance with 29 CFR 1910.120(b), and contractor's employees for these tasks should be trained in accordance with 29 CFR 1910.120(e)(3)(i).

PROJECT PERSONNEL AND RESPONSIBILITIES

Contractors shall designate and assign appropriately trained and qualified personnel to fulfill the following responsibilities for implementation of its Project-specific HASP. These titles and the names of the individuals assigned should be included in the written HASP:

- Contractor's Project Manager (PM) – The PM will serve as the Contractor's principal point of contact for Project-related decisions and communication;
- Contractor's Project Health and Safety Coordinator (HSC) – The HSC will be responsible for preparing and overseeing implementation of the Project-specific HASP, as well as updating the HASP as conditions warrant. The HSC will be consulted by the Contractor's PM or field personnel whenever site conditions may require modification to the Contractor's HASP.
- Contractor's Site Safety Officer (SSO) – The SSO or designee will be responsible for ensuring that the Contractor's HASP is properly implemented by contractor's employees and subcontractors. The SSO will serve as the primary point of contact for communications between Contractor's field personnel and management. The SSO will be responsible for notifying the PM and the HSC of field conditions that may require modification to the HASP. It is the responsibility of the SSO or designee to ensure that site personnel are in conformance with the level of personal protection equipment (PPE) specified by the Contractor's HASP.

3.0

SITE CONTROL MEASURES

The Contractor's written Project-specific HASP must describe how site control will be maintained. The Contractor should ensure through the assigned SSO that site control is maintained by establishing egress and ingress points for work activities and modifying them, as appropriate, as the Project and work areas progress. The Contractor's HASP should ensure that the Project is properly secured at all times to restrict unauthorized access by visitors or other personnel.

The Contractor must ensure that visitors not engaged in Project work will be provided with the appropriate level of PPE and escorted at all times while on Site by the SSO or designee. The Contractor should implement controls for all on-site personnel such that smoking, eating, drinking, or other activities that promote hand to mouth contact are only permitted in designated clean area(s), the locations of which will be determined by the Contractor's SSO.

4.0 PERSONNEL TRAINING BY THE CONTRACTOR

4.1 OVERVIEW

The Contractor's Project-specific HASP must describe what training is necessary to safely conduct the specific job and what types of employees receive training. The Contractor will distribute its HASP to appropriate employees and its subcontractors involved in the Project. Prior to commencing with the fieldwork, the Contractor's SSO should discuss the contents of the HASP with Contractor's workers and subcontractor employees. The SSO shall maintain documentation of specialty training provided for his role and the Contractor's employees based on their specific work task and responsibility. These documents shall be made available to the Owner or Owner's representative if requested.

It is the responsibility of the Contractor to ensure that its employees and subcontractors engaged in implementation of Project activities comply with the applicable OSHA regulations in 29 CFR 1910 and 29 CFR 1926. The general recommendations of this HASP Guidance with regarding to personnel training are presented in Section 1.3 – Applicability.

Pursuant to 29 CFR 1910.120, hazardous waste site workers shall, at the time of job assignment, have received a minimum of 40 hours of initial health and safety training for hazardous waste site operations. Personnel who have not met the requirements for initial training or are not "current" in their training should not be allowed to work during any site activities in which they may be exposed to environmental hazards. For a site worker to be considered "current" for training purposes, their date of last training (initial, refresher, or manager/supervisory) must be within the last twelve months.

Completion of an accredited Health and Safety Training Course for Hazardous Waste Operations or an approved equivalent will fulfill the requirements of this section. Where on-site training is necessary, the Contractor's SSO will conduct the training.

Prior to commencement of field activities, personnel assigned to the Project should be provided with training to specifically address the activities, procedures, monitoring, and equipment for the Project operations. It will include Project layout, hazards, and emergency services at the Project, and will highlight the provisions contained within the HASP. This training will also allow field workers to clarify anything they

do not understand and to reinforce their responsibilities regarding safety and operations for their particular activity.

The site-specific training should also provide information regarding potential health hazards specific to the site contaminants, the likelihood of exposure, and the precautionary measures (including PPE and air and medical monitoring procedures) to be implemented to protect against these hazards. Additional training, if required for completion of field tasks during the Project, will be identified and provided as the work progresses.

4.2 *SITE-SPECIFIC TRAINING*

Prior to commencement of field activities, personnel assigned to the Project should be provided with training to specifically address the activities, procedures, monitoring, and equipment for the Project operations. It will include Project layout, hazards, and emergency services at the Project, and will highlight the provisions contained within the Contractor's HASP. This training will also allow field workers to clarify anything they do not understand and to reinforce their responsibilities regarding safety and operations for their particular activity.

The site-specific training should also provide information regarding potential health hazards specific to the site contaminants (i.e., CrVI, certain metals, PAHs), the likelihood of exposure, and the precautionary measures (including personal protective equipment [PPE] and air and medical monitoring procedures) to be implemented to protect against these hazards.

It is the Contractor's responsibility to determine which employees may potentially be in contact with contaminated subsurface soils and groundwater, and their level of training required. It is anticipated that the workers with the following job descriptions may potentially come into contact with contaminated media and must have the appropriate health and safety training:

- Backhoe Operators;
- Vacuum Truck or Pump Operators;
- Truck Drivers;

- Laborers/Spotters;
- Drillers and driller's helpers (e.g., drilling foundation piles, monitoring well abandonment).

4.3 *ADDITIONAL TRAINING*

Additional training, if required for completion of field tasks during the Project, will be identified and provided by the Contractor as the work progresses.

4.4 *ON-SITE SAFETY BRIEFINGS*

Periodic on-site health and safety briefings should be performed by the Contractor's SSO, as necessary, to assist site personnel in safely conducting their work activities. It is recommended that the briefings be performed on a daily basis and documented. The briefings should include information on new operations to be conducted, or changes in work practices or the site's environmental conditions. The briefings should also provide a forum to facilitate conformance with health and safety

5.0 ***COMMUNICATION AND REVIEW OF SITE-SPECIFIC HASP PLAN (HAZARD COMMUNICATION)***

An initial review of the Contractor's Project-specific HASP will be held with its workers either prior to mobilization or after mobilization. This review shall occur prior to commencing with the applicable work described in Section 1.3 at the site to communicate HASP details and answer questions to individuals working at the site.

It is the Contractor's responsibility to keep the Project-specific HASP on site and assessable to all employees, as well as keeping it up to date and current with site conditions.

5.1 ***DAILY SAFETY MEETINGS***

Daily tailgate safety meetings will be led by the SSO each morning to review work practices for the day and to discuss safety related issues. The meetings should include information on new operations to be conducted, or changes in work practices or site conditions. Any new hazard or safety information will be disseminated at the daily tailgate safety meeting or as needed throughout the day and documented.

6.0

MEDICAL MONITORING

Each contractor, with assistance from an appropriate and qualified occupational health physician, is responsible for compliance with medical monitoring as it relates to hazardous waste site duties under 29 CFR 1910.120(f). This may include initial and periodic medical examinations. Each contractor shall have such records available to the owner and owner's representative upon request. Each contractor is responsible for assessing the applicability of medical monitoring for its employees for the Project. Medical "fit-for-duty" certifications shall be maintained on Site for all HAZWOPER workers.

7.0 HAZARD IDENTIFICATION CONTROL

7.1 HAZARD IDENTIFICATION PROCESS

Prior to initiating any new Project activity or when there is a change in site conditions, the SSO will assist Project team members in completing and documenting a Job Hazard Analysis (JHA). A copy of the JHA form that may be used by the Contractor is located in Appendix B.

7.2 GENERAL HAZARDS

A variety of physical hazards may be present onsite during work activities. These may include, slip/trips/falls associated with rubble, debris, uneven terrain or slippery conditions. In addition, hazards associated with heavy equipment operation, working near excavations, the use of hand and power tools, electrical hazards, and handling of hazardous materials. Although these hazards are identified, this HASP guidance is not intended to address all general physical hazards of a construction site. A list of typical general safe work practices are provided in Section 15.0.

7.3 CHEMICAL HAZARDS

Chromium, hexavalent chromium, lead and PAHs may be present in soil and/or groundwater at the Project. Chemicals may be introduced into the body by ingestion, inhalation, or absorption through the skin. Since not all chemicals have the same level of toxicity, the length of time for the exposure and the concentration of the chemical are important in determining the potential risk to onsite workers. Inhalation and skin contact are the most common routes of entry for the type of work that is contemplated for this site. Chemicals can be introduced into the body by ingestion when chemicals present on the hands are transferred to food or cigarettes.

Based on this information, intrusive activities in Area 1 and 2 or subsurface activities in the non-designated areas below any warning layers (such as a geotextile layer or snow fence) associated with the Project could potentially involve chromium, lead, and/or PAHs.

FIELD ACTIVITIES

The following activities are anticipated to be performed for the Project.

- Continuous operation of the Transfer Station and HMS including the storage and transfer contaminated groundwater;
- Installation of erosion and sediment controls;
- Demolition of asphalt paving;
- Exposing portions of the MMC synthetic materials;
- Excavation, temporary storage and transportation of clean and contaminated soils and water;
- Sheet Pile and Foundation Pipe Pile driving;
- Foundation Pile Drilling;
- Concrete forming;
- Installation of clean fill, aggregates, and synthetic materials;
- Installation of utilities in clean fill;
- Backfill and surface grading;
- Vibration monitoring; and
- HMS modifications.

9.0

SITE PERSONNEL

Workers with the following job descriptions will be engaged in activities conducted at the site:

- Backhoe Operators;
- Vacuum Truck or Pump Operators;
- Truck Drivers;
- Laborers/Spotters;
- Drillers and driller's helpers.

Other visitors to the Project will also occur and will be addressed appropriately in the Contractor's Project-specific HASP.

PERSONAL PROTECTIVE EQUIPMENT

Level D is the expected level of protection for this construction work. However, it is the responsibility of the Contractor to review the Project documents in order to make its own determination as to the appropriate level of PPE for its personnel and subcontractors, as well as applicable action levels for use of more protective PPE. At a minimum, Level D PPE consists of the following:

- Coveralls or long sleeve shirts and long pants, unless otherwise directed by the SSO;
- Outer protective work gloves at a minimum for all hazardous or potentially hazardous material handling activities that may occur during site activities;
- As a conservative measure, workers that may routinely come into contact with groundwater (e.g., workers in the trench making the utility line connections) should be in poly-coated Tyvek, (Modified Level D) or similar chemical resistant suit, chemical resistant gloves and boots;
- Steel-toed work boots;
- Hard Hat, where appropriate;
- Safety Glasses; and
- High visibility outer ware or safety vest.
- Options, as required;
 - o Disposable outer boots;
 - o Hearing protection; and
 - o Chemical Resistant gloves.

Contractors performing intrusive operations into known or potential chromium impacted areas must address specific air/personal air monitoring requirements for hexavalent chromium in accordance with either 29 CFR 1910.1026 or 1926.1126. Prior to initiating any new Project activity or when there is a change in site conditions, an additional JHA will be completed. A copy of the JHA form is located in Appendix B.

Personal Protective Equipment requirements are provided in Table 9-1, below.

Table 10-1 Personal Protection Equipment Requirements

PPE Level	Ensemble Components	Anticipated Use
<p>Level D</p> <p>Should be worn only as a work uniform and not in any area with respiratory or skin hazards. It provides minimal protection against chemical hazards.</p>	<ul style="list-style-type: none"> • Long pants and shirt with sleeves. • Safety-toed footwear. • Safety glasses with molded side shields. • Hard hat. • Work gloves • Hearing protection if hazard is present 	<ul style="list-style-type: none"> • Demolition of concrete structures and asphalt paving. • Excavation, temporary stock pile and transportation of soils. • Installation of clean fill, aggregates, and synthetic materials. • Installation of utilities in clean fill area. • Air monitoring. • Backfill and surface grading. • Pile driving. • Concrete forming. • Dewatering.

PPE Level	Ensemble Components	Anticipated Use
<p><i>Modified Level D</i></p>	<p>Level D and the following:</p> <ul style="list-style-type: none"> • Disposable poly-coated Tyvek coveralls. • Safety-toed rubber boots or disposal boot covers over shoes. • Thin nitrile gloves. • Green nitrile gloves over thin nitrile gloves when primary gloves may tear or puncture. 	<p>Any of the above-referenced tasks in which there is moderate potential for skin contact with chromium impacted soil and/or water and for all activities involving direct contact with chromium impacted soils located beneath the multimedia cap.</p>
<p><i>Level C</i></p> <p>Should be worn when the criteria for using air-purifying respirators are met, and a lesser level of skin protection is needed.</p>	<p>Level D or Modified Level D and the following:</p> <ul style="list-style-type: none"> • Full-face air purifying respirator with combination dust organic vapor cartridges at least rated N-100 or better. If second action level surpassed • Half-face air purifying respirator with combination dust organic vapor cartridges at least rated N-100 or better. If first action level surpassed 	<p>Any of the above-referenced tasks in which there is moderate potential for skin contact with chromium soil and air monitoring data indicate a need for respiratory protection.</p>

PPE Level	Ensemble Components	Anticipated Use
<p><i>Level B</i></p> <p>Should be worn when the highest level of respiratory protection is needed, but a lesser level of skin protection is needed.</p>	<p>Not anticipated to be required</p>	<p>Tasks requiring Level B PPE are not anticipated during this Project. If Level B PPE is needed, as determined by the SSO and/or the Project Health and Safety Coordinator, the HASP will be revised.</p>
<p><i>Level A</i></p> <p>Should be worn when the highest level of respiratory, skin, and eye protection is needed.</p>	<p>Not anticipated to be required</p>	<p>Tasks requiring Level A PPE are not anticipated during this Project. If Level A PPE is needed, as determined by the SSO and/or the Project Health and Safety Coordinator, the HASP will be revised.</p>

The type of respiratory protection required will be based on the results of ambient air monitoring, the results of any models used to predict ambient air concentrations, and the professional judgment of either the SSO or the Project Health and Safety Coordinator (HSC). Respiratory protection requirements are outlined on Table 10-1.

As required by 29 CFR 1910.134, *Respiratory Protection*, a cartridge change-out schedule will be developed based on either the results of ambient air monitoring, the results of any models used to predict ambient air concentration or the professional judgment of the Project HSC. The Site-specific dust action levels utilized for this HASP were developed from the data collected during the Pre-Construction Air Monitoring Study, conducted from 23 April through 22 June 2013 for the Exelon Project, and the results of air monitoring performed during the Exelon Project. The results of construction air monitoring are presented in the October 2015 report *Harbor Point Area 1, Phase 1 Development Construction Report*. This report is voluminous and available upon request.

The soil data indicates that the soil CrVI concentration presents conditions requiring exposure monitoring for the Project during intrusive activities. Construction air monitoring is described in the Construction Air Monitoring Plan (CAMP), which is available upon request. The action levels in the CAMP, which reflect those established during the Exelon Project, are more conservative than the OSHA requirements and as such are protective of both perimeter receptors and those workers involved in intrusive work on the Project. Exceedance of an action level requires augmenting dust suppression activities at the Project. See Section 13 for additional discussion on air monitoring and action levels.

12.0

DECONTAMINATION PROCEDURES

Decontamination involves the orderly controlled removal of contaminants from both personnel and equipment. The purpose of decontamination procedures is to prevent the spreading of contaminated materials into uncontaminated areas. All site personnel should limit contact with contaminated soil, groundwater or equipment in order to reduce the need for extensive decontamination. Decontamination only applies to site personnel and equipment that contact contaminated media.

12.1

EQUIPMENT DECONTAMINATION

All contaminated tools and equipment will be decontaminated within the Project's LOD using appropriate methods. The Project DDP has established a sealed container area/decontamination pad.

Dry decontamination procedures will consist of thoroughly brushing or wiping down tools and equipment. Wet decontamination will consist of thoroughly scrubbing and cleaning tools with a designated cleaning solution. All wipes, pads or towels will be containerized. All decontamination fluids will be drummed and temporarily stored within the limits of the sealed container storage area shown in the drawings prepared for the DDP for proper off-site disposal.

Equipment and materials used in the decontamination process may include the following:

- High pressure/hot water cleaning using only potable water/fire water;
- Phosphate-free detergent;
- Five-gallon bucket;
- Potable water;
- Distilled water;
- Paper towels; and
- Brushes.

12.2

PERSONNEL DECONTAMINATION

Decontamination is required for all workers exiting a contaminated area. Personnel may re-enter the Support Zone only after undergoing the decontamination procedures. Personnel shall remove all contaminated PPE and containerize it in drums. All work boots are to be decontaminated using a secured boot brush mounted over disposable plastic sheeting. All personnel shall remove any inner clothing that is contaminated and redress. All personnel must wash face and hands before taking breaks, eating and at the end of the work shift. All PPE and wash water drums will be disposed properly.

Emergency decontamination for a life threatening medical emergency will consist of removal of the victim's outer protective clothing or equipment to the extent where life saving procedures/medical treatment can be performed. Final decontamination can be postponed until emergency medical attention is received. The emergency medical personnel must be advised of the potential contamination.

13.0 *AIR MONITORING*

The potential exposure pathways of concern are incidental inhalation, ingestion or dermal contact with chromium, CrVI, lead and PAHs from soil/debris/dust. Therefore, measures will be followed during soil/debris handling to eliminate the potential exposure pathway. Particular attention to dust suppression activities will be required should COPR be encountered.

13.1 *PROCEDURES*

Based on the site characteristics and nature of the Project, the potential exposure pathway of concern is incidental ingestion, inhalation, or dermal contact via airborne dust. Air monitoring for particulates will be performed during specific construction-related activities at the Project, pursuant to the CAMP. As discussed in the CAMP, real-time air monitors (RAMs) will be used for evaluating particulate concentrations around the Project perimeter (Figure 2) during specific intrusive construction activities and at the work zone in Area 1 under certain conditions.

Based on the RAMs, dust suppression measures will be followed when elevated dust levels occur, or Project activities may be shut down temporarily. The CAMP should be consulted for additional details regarding air monitoring procedures, sampling and analysis methods, response procedures, reporting, etc. The Project Material Handling and Management Plan (MHMP, available upon request) describes best management practices (BMPs) to be implemented at the Project for dust control.

13.2 *ACTION LEVELS*

Actions levels have been established in the CAMP, and reflect the Project's environmental characteristics as well as prior construction activities on the overall Harbor Point site, specifically for the Exelon Project. For this Project, the fixed perimeter air monitors (when required) will be set to trigger an audible alarm at a Total Particulate Matter (Total PM) concentration of 150 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). This value is equivalent to the National Ambient Air Quality Standard and is 1/100th of the OSHA nuisance dust standard of 15 milligrams per cubic meter (mg/m^3); therefore, this value is highly conservative. Note that the approximate threshold for visible dust is $1 \text{ mg}/\text{m}^3$.

At the work zone in Area 1, the mobile work zone air monitor (when required) will be set to trigger an audible alarm at a Total PM concentration of $68 \mu\text{g}/\text{m}^3$. This work zone action level was established from the Preconstruction Air Monitoring program performed for the completed Exelon Project. The work zone action level may be adjusted based on certain weather conditions. The CAMP provides additional details regarding air monitoring procedures, sampling and analysis methods, response procedures, reporting, etc.

If an alarm is triggered, dust control measures will be implemented in accordance with the CAMP. Follow-up steps may be necessary if dust control measures are not successful in reducing the dust levels, as discussed in the CAMP, potentially including an upgrade to Level C PPE with respirators.

Using the previously detected on-site soil concentrations, the OSHA Permissible Exposure Limits (PELs) for hexavalent chromium or other detected compounds could only be exceeded if the nuisance dust PEL is exceeded by several to many orders of magnitude. Therefore, these action levels provide a highly conservative guideline for air monitoring. The real-time total particulate air monitoring is being performed as a surrogate for chromium monitoring.

14.0 *THERMAL STRESS*

14.1 *HEAT STRESS*

Heat stress is caused by a combination of factors such as temperature, humidity, type of work being performed, and use of personal protective equipment including protective clothing. Heat stress tends to increase body temperature, heart rate, and sweating. The key to preventing heat stress is education of personnel relative to the hazards associated with working in the heat and implementation of proper controls and work practices. Table 14-1 summarizes heat stress disorders and prevention/first aid issues.

When the temperature is above 80° Fahrenheit (F), the SSO will monitor both the temperature and the humidity throughout the day in order to determine the Heat Index. The National Weather Service has developed a Heat Index that combines the ambient temperature and humidity into a value that reflects how hot it really feels. This Heat Index can be used to determine the risk associated with working outdoors during the hot months of the year. To use the heat index chart (Table 14-2), read the temperature at the left and humidity across the top, the Heat Index is where the two intersect. For example, with a temperature of 96 and a humidity of 50%, the Heat Index is 108.

The SSO will also inform site workers when the Heat Index Risk Level, as defined on Table 14-3, reaches Danger and/or Extreme Danger; the following additional precautions may be implemented at the discretion of the SSO based on factors such as use of Tyvek coveralls and the physical activity associated with each task. The following actions or work practices will be implemented, as practical, as part of the Heat Stress Management Program.

- Designated areas will be used for site workers to take breaks and for eating;
- If possible, physically demanding and strenuous tasks may be scheduled for the cooler parts of the day;
- Site workers will be required to drink 6-8 ounces of cool water or electrolyte replacement drinks every 60 minutes. Diabetics should use caution when using electrolyte replacement drinks to replenish fluids as these drinks may have high sugar content;

- Site workers taking prescription medications should check with their doctor or other medical professional regarding the interaction between working in hot environments and their medications;
- SSO will more closely observe site workers, especially those working in Tyvek coveralls or performing strenuous job tasks;
- Implement worker rotation during strenuous or physically demanding job tasks; and
- SSO will implement a work-rest cycle.

Table 14-1 Heat Stress Disorders

Disorder	Symptoms	Cause	Prevention/First Aid
Heat Rash or Prickly Heat	<ul style="list-style-type: none"> ◆ Rash ◆ Itching 	<ul style="list-style-type: none"> ◆ Hot, humid conditions ◆ Sweat doesn't evaporate easily ◆ Sweat ducts become clogged 	<ul style="list-style-type: none"> ◆ Ointments ◆ Keep skin clean and dry ◆ Good daily personal hygiene
Heat Cramps	<ul style="list-style-type: none"> ◆ Sudden onset of muscle cramps usually in legs or arms ◆ Hot, moist skin ◆ Normal pulse ◆ Normal or slightly elevated temperature 	<ul style="list-style-type: none"> ◆ Loss of water (sweating) ◆ Loss of electrolytes ◆ Replacing water but not electrolytes 	<ul style="list-style-type: none"> ◆ Move into shade ◆ Loosen clothing ◆ Drink tepid electrolyte drinks or water ◆ Seek medical assistance if conditions persist

Disorder	Symptoms	Cause	Prevention/First Aid
Heat Exhaustion	<ul style="list-style-type: none"> ◆ Pale, clammy skin ◆ Profuse perspiration ◆ Thirst from dehydration ◆ Weakness ◆ Headache ◆ Nausea ◆ Loss of coordination 	<ul style="list-style-type: none"> ◆ Overexertion ◆ Excessive loss of water and electrolytes 	<ul style="list-style-type: none"> ◆ Move into shade ◆ Remove PPE ◆ Loosen street clothing ◆ Cool by applying damp cool compresses or ice packs ◆ Drink tepid electrolyte drinks or water ◆ Summon medical assistance
Heat Stroke	<ul style="list-style-type: none"> ◆ Elevated temperature (>103F) ◆ Flushed, hot, dry skin ◆ Absence of sweating ◆ Delirious ◆ Rapid pulse ◆ Nausea ◆ Headache ◆ Dizziness ◆ Unconsciousness 	<ul style="list-style-type: none"> ◆ Failure of body's cooling (sweating) mechanism 	<ul style="list-style-type: none"> ◆ Summon medical assistance immediately ◆ Move to shade ◆ Remove PPE ◆ Loosen street clothing ◆ Cool by fanning or applying damp compress or ice packs

Table 14-2 Heat Index Chart

		Relative Humidity (%)													
		40	45	50	55	60	65	70	75	80	85	90	95	100	
Temperature (F)	110	136													
	108	130	137												
	106	124	130	137											
	104	119	124	131	137										
	102	114	119	124	130	137									
	100	109	114	118	124	129	136								
	98	105	109	113	117	123	128	134							
	96	101	104	108	112	116	121	126	132						
	94	97	100	102	106	110	114	119	124	129	136				
	92	94	96	99	101	105	108	112	116	121	126	131			
	90	91	93	95	97	100	103	106	109	113	117	122	127	132	
	88	88	89	91	93	95	98	100	103	106	110	113	117	121	
	86	85	87	88	89	91	93	95	97	100	102	106	108	112	
	84	83	84	85	86	88	89	90	92	94	96	98	100	103	
	82	81	82	83	84	84	85	86	88	89	90	91	93	95	
	80	80	80	81	81	82	82	83	84	84	85	86	86	87	

Table 14-3 Heat Index Risk Level and Associated Health Effects

Heat Index	Associated Risk
>130	<i>Extreme Danger</i> Heat stroke highly likely with continued exposure
105-130	<i>Danger</i> Heat exhaustion and heat cramps likely and heat stroke possible with prolonged exposure and/or physical activity
90-105	<i>Extreme Caution</i> Heat cramps and heat exhaustion possible with prolonged exposure and/or physical activity
80-90	<i>Caution</i> Fatigue possible with prolonged exposure and/or physical activity

Notes:

- Heat Index values were devised for shady, light wind conditions. Exposure to full sun may increase these values by up to 15°.
- Heat Index values were devised for the general public wearing typical lightweight summer clothing. Acclimatized workers may be able to work under conditions with a slightly higher Heat Index.
- The use of personal protective equipment, including clothing increases the heat stress load on the body.

The work-rest cycle outlined below in Table 14-4 may be implemented based on the professional judgment of the Contractor’s SSO and/or HSC.

Table 14-4 Work-Rest Cycle

Heat Index	Risk Level	Work-Rest Cycle
> 130	Extreme Danger	15 minute break every 30 minutes
105-130	Danger	15 minute break every 60 minutes

Heat Index	Risk Level	Work-Rest Cycle
90-105	Extreme Caution	15 minute break every 90 minutes
80-90	Caution	15 minute break every 120 minutes

14.2 *COLD STRESS*

Cold stress situations may be encountered at the site. If lower than normal temperatures (i.e., less than 35°F) are forecasted the following information will be utilized. Most cold related worker fatalities have resulted from failure to escape low environmental air temperatures, or from immersion in low temperature water. The two most prominent adverse effects from exposure to cold temperatures are frostbite and hypothermia. A person qualified in first aid or a professional medical provider should administer treatment for cold related injuries. The single most important aspect of life-threatening hypothermia is a drop in the deep-core body temperature. Response to cold stress will be based on Cold Stress section of the ACGIH TLV booklet.

14.2.1 *Frostbite*

Frostbite occurs when the extremities do not get sufficient heat from the central body stores. The fluids around the cells of the body tissues freeze from exposure to low temperatures. This condition can result in damage to, and loss of, tissue. The most vulnerable areas are the nose, cheeks, ears, fingers, and toes. Damage from frostbite can occur in either the outer layers of skin or in the tissue beneath these layers and can be serious, resulting in scarring, tissue death, permanent loss of movement, or amputation.

14.2.2 *Hypothermia*

This is the most severe form of cold stress and results from a drop in the body's core temperature. Hypothermia can occur in relatively mild temperatures if there is a wind and the person's clothing becomes wet. The symptoms of hypothermia are:

- First, uncontrollable shivering and the sensation of the cold;
- Heartbeat slows and may become irregular;

- Pulse weakens and blood pressure changes;
- As the body's core temperature drops, other signs may include cool skin, slow irregular breathing, and apparent exhaustion;
- When core temperatures are in the mid-range, the victim may become listless, confused, exhibit severe shivering, or develop severe pain in the extremities; and
- Final signs are a significant drop in blood pressure, fatigue, and shallow respiration.

14.2.3 *Control Measures for Cold Stress*

Worker comfort will be monitored and increased layers of PPE or modesty clothing worn under the PPE may be required to minimize cold stress for those persons working inside a building. For those workers performing tasks outside a building when ambient temperature falls below 36°F, the following guidelines should be used:

- If wind chill is a factor, shielding the work area or providing employees an outer windbreak layer garment will reduce the cooling effect of the wind;
- Extremities, ears, toes, and nose will be protected from extreme cold by protective clothing;
- Employees performing light work and whose clothing may become wet will wear an outer layer of clothing that is impermeable to water;
- Employees performing moderate to heavy work and whose clothing may become wet will wear an outer layer of clothing that is water repellent; and
- Outer garments must provide for ventilation to prevent wetting of inner clothing by sweat.

Workers who become immersed in water or whose clothing becomes wet will immediately be provided a change of clothing and be treated for hypothermia if necessary. If the clothing becomes wet from sweating, the employees may finish the task that caused the sweating before changing into dry clothes. Metal handles of tools and control bars will be covered by thermal insulating materials when temperatures fall below 30°F.

Whenever a site becomes covered with snow or ice, eye wear providing employees' protection against ultraviolet light, glare, and blowing ice crystals shall be worn.

When conducting work in air temperatures below 35° F, the following practices shall be followed:

- If the clothing of an employee is expected to become wet, the outer layers of clothing must be impermeable to water;
- If an employee's underclothing becomes wet it must be changed immediately. If the clothing becomes wet from sweating, the employee may finish the task that caused the sweating before changing into dry clothing;
- Employees will be provided a warm area (65° F or above) to change from work clothing into street clothing and for breaks;
- Hot liquids, such as soups, warm drinks, etc. shall be provided in the break area. The intake of caffeine containing products shall be discouraged due to their diuretic and circulatory effects;
- If appropriate, approved space heaters may be provided in the work area to warm the hands, feet, etc;
- The buddy system shall be practiced. Any employee observed with signs of cold stress shall immediately proceed to the break area;
- Employees will be reminded to layer their clothing, i.e., wear thinner, lighter clothing next to the body with heavier clothing layered outside the inner clothing;
- Avoid overdressing when going into warm areas or when performing activities that are strenuous. This could potentially lead to heat stress situations;
- Auxiliary heated versions of hand wear, footwear, etc., can be used in lieu of mittens, insulated socks, etc. if extremely cold conditions exist;
- Employees handling liquids with high evaporation rates (gasoline, hexane, alcohol, etc.) shall take special precautions to avoid soaking of clothing with the liquids because of the added danger of cold injury caused by evaporative cooling;

- Work shall be arranged in such a way that sitting still or standing for long periods is minimized; and
- If the air temperature is 20° F or below the hands shall be protected by mittens or gloves prior to contact with cold surfaces such as metal, etc.

Air temperature is not the only factor to be considered while evaluating cold stress situations. Wind chill cooling rate and the cooling power of air are critical factors. The higher the wind speed the greater the risk of experiencing cold related injuries. For exposed skin, continuous exposure should not be permitted when the air speed and temperature result in an equivalent chill temperature of -25° F or less.

15.0 *SAFE WORK PRACTICES AND STANDARD OPERATING PROCEDURES*

15.1 *GENERAL SAFE PROVISIONS*

For Contractor's convenience, key regulations (including construction-related regulations) that may apply to the Project activities are listed below. Contractors are responsible for ensuring that their Project-specific HASP addresses the issues and regulations applicable to their respective scopes of work for the Project.

- Hazardous Waste Site Operations (29 CFR 1910.120);
- Construction Activities (29 CFR 1926);
- Hazard Communication (29 CFR 1910.1200 & 29 CFR 1926.59);
- Personal Protective Equipment (29 CFR 1920.132 & 29 CFR 1926.95);
- Fire Protection (29 CFR 1910.39 & 29 CFR 1926.150);
- Excavations (29 CFR 1926 Subpart P);
- Powered Hand Tools (29 CFR 1910.242 & 29 CFR 1926.301);
- Electrical Safety (29 CFR Subpart S & 29 CFR 1926.400-449);
- Fall Protection (29 CFR 1926 Subpart M);
- Walking Working Surfaces (29 CFR 1910.22);
- Welding (29 CFR 1910.251 & 29 CFR 1926.350-354);
- Earthmoving Equipment (29 CFR 1926.602);
- Hazardous Energy Control (29 CFR 1910.147);
- Sanitation (29 CFR 1926.51);
- Scaffolding (29 CFR 1910.28 & 29 CFR 1926.450-454);

- Confined Space Entry (29 CFR 1910.146);
- Occupational Noise Exposure (29 CFR 1910.95);
- Eye and Face Protection (29 CFR 1910.133);
- Respiratory Protection (29 CFR 1910.134).

15.1.1 *Smoking and Eating Areas*

Smoking will only be allowed in designated areas. Upon mobilization at the site, the SSO will establish smoking areas per site-specific or client-specific requirements. Individuals caught smoking outside the designated smoking areas will be subject to disciplinary action up to and including immediate termination.

Upon mobilization at the site, the SSO will establish eating and break areas per site-specific or client-specific requirements. Eating will only be allowed in the designated areas and the areas will be maintained in a clean and sanitary condition.

15.1.2 *Sanitation and Potable Water*

Containers used for drinking water will be equipped with a tap and capable of being tightly closed. In addition, the container will be labeled as “Drinking Water” or “Potable Water.” Disposal cups will be stored in a sanitary condition and a receptacle for disposing of the cups will be near-by.

Potable and non-potable water containers and portable toilets (if used) will comply with OSHA 29 CFR 1910.141 requirements.

15.1.3 *Temporary Facilities*

All temporary facilities will be maintained in a clean and sanitary condition to discourage the entrance of rodents or vermin. If rodents or vermin become an issue, the Contractor’s SSO will be responsible for implementing an extermination program per site-specific or client-specific guidelines.

Trailers and other temporary structures used as field offices or for storage will be anchored with rods and cables or by steel straps to ground anchors. The anchor system will be designed to withstand winds and must meet applicable state or local regulations for the anchoring of mobile

trailer homes. Use of standard anchoring systems to anchor structures is not permitted in Area 1 due to potential damage to the MMC. Methods designed to avoid impacting the MMC will be used to secure structures.

15.1.4 *First Aid Station*

A designated area must be readily accessible to employees. Signs shall be posted indicating the location for the first aid station and name of designated first aid provider(s). The sign should be in the form of a symbol that does not require workers to have language skills to understand it.

15.1.5 *Eye Wash Stations*

The location of each eyewash station must be identified with a highly visible sign. The sign should be in the form of a symbol that does not require workers to have language skills to understand it. Eye wash stations must be inspected monthly.

The following standard operating procedures will be adhered to at all times:

- All personnel entering the site must check in with the SSO;
- All individuals entering the site must demonstrate to the SSO that they have been adequately trained as defined in Section 4;
- All individuals must be familiar with emergency communication methods and how to summon emergency assistance;
- Use of alcoholic beverages before, during operations, or immediately after hours is absolutely forbidden. Alcohol can reduce the ability to detoxify compounds absorbed into the body as the result of minor exposures and may have negative effects with exposure to other chemicals. In addition, alcoholic beverages will dehydrate the body and intensify the effects of heat stress;
- Horseplay of any type is forbidden;
- All unsafe conditions will be immediately reported to the SSO, who will document such conditions in the field log. The SSO will be responsible for ensuring that the unsafe condition is corrected as quickly as possible;
- No smoking, eating, chewing gum or tobacco, taking medication, or applying cosmetics in the Contamination Reduction Zone or the Exclusion Zone. Wash hands and face thoroughly prior to conducting the activities in the Support Zone;
- Smoking, matches, and lighters are only allowed in the designated smoking area;
- Avoid contact with potentially contaminated substances. Avoid, whenever possible, kneeling on the ground, or leaning or sitting on trucks, equipment or the ground. Do not place equipment on potentially contaminated surfaces;

- If PPE becomes torn or saturated with contaminated material, immediately leave the Exclusion Zone, go through the decontamination steps, and replace the affected PPE. Additionally, wash any exposed skin thoroughly with soap and water.

17.0 ***SAFE WORK PRACTICES***

17.1 ***PRE-EXCAVATION***

Prior to mobilizing to the field, the Contractor's PM will be responsible for ensuring a Subsurface Clearance Checklist is followed, including verifying that the following issues have been adequately addressed.

- Contacting the Maryland's One Call or equivalent utility locator service to identify underground pipelines, utility lines, and fiber optic cable;
- Contacting appropriate municipality to identify underground sewer lines;
- Contacting posted pipeline companies;
- Contacting client to identify underground pipelines or other obstructions;
- Contacting client to notify Honeywell, the MDE and the EPA that excavation to the synthetic layers, or through the synthetic layers is about to occur. The anticipated date of the beginning of excavation will also be stated.

17.2 ***FALL PROTECTION***

In the event that Project team members and/or subcontractors are working more than six feet above grade and are not protected by handrails, complete floor decking or working on approved access ways, fall protection equipment will be required.

The distance above grade is measured from the employee's feet to the grade or approved work surface. Fall protection equipment will consist of an ANSI-approved full-body harness and shock-absorbing (or retractable) lanyard with double-locking d-rings.

Acceptable anchor points to which the lanyard may be attached includes, but are not limited to, the following:

- Structural beams at least six-inches in depth for one or more persons in a completed structure;

- Pipes at least four-inches in diameter for one person;
- Pipes at least six-inches in diameter for two people;
- Nozzles at least three-inches for one person;
- Nozzles greater than three-inches for two people; and
- Permanent platform handrail post below mid-rail for one person.

17.3 *WEATHER-RELATED EVENTS*

Weather-related events that may impact field work include, but are not limited to, rain, thunder, lightning, flash flooding, high winds and tornados. The SSO will be responsible for determining what site work can be performed safely in the rain and at what point work will cease due to either quality or safety issues. In the event of thunder and/or lightning, all work will be suspended until 15 minutes have elapsed from the last clap of thunder or flash of lightning.

17.3.1 *Lightning Safety for Outdoor Workers*

Safety and productivity are not mutually compatible, so one must be chosen over the other. Easy choice: SAFETY FIRST! Lightning has visited most all outdoor work environments. Anticipate a high-risk situation and move to a low-risk location.

Lightning safety awareness is a priority at every outdoor facility and operation. Education is the single most important means to achieving lightning safety. The following steps are suggested:

- Monitor weather conditions in the early morning hours. Local weather forecasts -- from The Weather Channel or NOAA Weather Radio or other notably reliable source -- should be noted 24 hours prior to scheduled activities. An inexpensive portable weather radio is recommended for obtaining timely storm data.
- Suspension and resumption of work activities should be planned in advance. Understanding of SAFE shelters is essential. SAFE evacuation sites include:
 - Fully enclosed metal vehicles with windows up;
 - Substantial buildings;

- Low ground -- seek cover in clumps of bushes; and
 - Trees of uniform height, such as a forest.
- UNSAFE SHELTER AREAS include all outdoor metal objects, like power poles, fences and gates, high mast light poles, metal bleachers, electrical equipment, mowing and road machinery. AVOID solitary trees. AVOID water. AVOID open fields. AVOID high ground and caves.
 - Lightning's distance from you is easy to calculate: If you hear thunder, the associated lightning is within audible range ... about 6-8 miles away. The distance from Strike A to Strike B also can be 6-8 miles. Suspend activities, allowing sufficient time to get to shelter. Of course, different distances to safety will determine different times to suspend activities. A good lightning safety motto is:
 - *If you can see it (lightning), flee it; if you can hear it (thunder), clear it.*
 - If you feel your hair standing on end, and/or hear "crackling noises," you are in lightning's electric field. If caught outside during close-in lightning, immediately remove metal objects (including baseball cap), place your feet together, duck your head, and crouch down low in baseball catcher's stance with hands on knees.
 - Wait a minimum of 30 minutes from the last observed lightning or thunder before resuming activities. Be extra cautious during this phase as the storm may not be over.
 - People who have been struck by lightning do not carry an electrical charge and are safe to handle. Apply first aid immediately if you are qualified to do so. Get emergency help promptly.

During rain, lightning and/or thunder events, site workers should seek shelter in either a building or vehicle. In the event of a tornado, site workers should seek shelter in a building, except trailers, or in a low-lying area.

17.3.2

Noise

Employees performing any noisy task, such as but not limited to, operating heavy equipment, using power tools, or employees working nearby the person performing the task will wear hearing protection consisting of either earplugs or earmuffs. Personnel operating heavy equipment, such as pile driving equipment and excavators with hoe-ram attachments will also wear hearing protection. Hearing protection will be used as directed by the Contractor's SSO, however a general rule of thumb is that hearing protection must be worn if normal speech cannot be understood within an arm's length of the person talking.

18.0

CONFINED SPACE ENTRY PROCEDURES

Entry into existing confined spaces is strictly forbidden by untrained personnel and without a confined space permit issued by the Site Safety Officer. If a Project task or activity involves entry into a permit-required confined space or if there is a question as to whether or not a job task or activity involves a permit-required confined space, the work will not proceed until the Contractor's PM or SSO contacts the Contractor's HSC for assistance.

SPILL CONTAINMENT PROGRAM

The spill containment program for this Project will involve the use of preventative measures in order to reduce the potential for environmental releases. These preventative measures will include the following:

- Equipment inspection;
- Staging equipment on containment pads;
- Secondary containment for fuel storage tanks; and
- General housekeeping practices; and
- Appropriately sized and stocked spill/release kits/containers.

If Project activities involve the use of drums or other containers, the drums or containers will meet the appropriate DOT regulations and will be inspected and their integrity assured prior to being moved. Operations will be organized so as to minimize drum or container movement. Drums or containers that cannot be moved without failure will be over-packed into an appropriate container.

Additionally, refer to the Project-specific Spill Prevention and Response Plan (SPRP) prepared as part of the Project DDP. The SPRP is available upon request.

20.0

SITE COMMUNICATION

Telephones and two-way radios will be used for communication between the Project team and the client. Cell phones may be used as part of the communication method. However, cell phones cannot be used while driving any type of vehicle.

21.0 ***EMERGENCY RESPONSE PLAN***

This section describes possible contingencies and emergency procedures to be implemented at the site.

Pre-emergency planning consists of this emergency response plan, assigning emergency functions to on-site personnel, training of personnel as necessary, and ensuring that emergency procedures and equipment are in place. Such emergency equipment should include, at a minimum, first aid supplies, fire extinguishers, a non-phosphate soap and water solution and potable water rinse, and potable water for eye washing.

21.1 ***PERSONNEL ROLES AND LINES OF AUTHORITY***

The Contractor's SSO has primary responsibility for site evacuation and notification in the event of an emergency situation. This includes taking appropriate measures to ensure the safety of site personnel and the public. Possible actions may involve the evacuation of personnel from the site area and ensuring that corrective measures have been implemented, appropriate authorities notified, and follow-up reports completed. If the SSO is not available, the Contractor's Health and Safety Coordinator will assume these responsibilities. Subcontractors are responsible for assisting the SSO in their mission within the parameters of their scope of work.

21.2 ***EVACUATION ROUTES AND PROCEDURES***

In the event of an emergency, it is important to be aware of the prevailing wind direction and evacuate upwind or crosswind.

21.3 ***ASSEMBLY POINTS***

The Contractor shall identify primary and secondary Assembly Points for its staff in the event of an emergency. For example, the primary Assembly Point could be in front of the construction trailer. In the event of an emergency requiring evacuation to an Assembly Point, the Contractor's SSO will be responsible to account for the presence of all Project team members and subcontractors on-site at the time of the emergency.

22.0

EMERGENCY RESPONSE

If an employee working in a contaminated area is injured, first-aid procedures should be followed, and if necessary, the injured person will be transported to the nearest medical facility. Some common first-aid procedures are summarized below; however, these should be considered general recommendations, only.

- Eye Exposure – Wash the eyes immediately at the emergency eyewash station for at least 15 minutes, using large amounts of water and lifting the lower and upper lids occasionally to help flush the eye. Do not rub eyes or keep eyes tightly closed. Obtain medical attention immediately.
- Skin Exposure – Use copious amounts of soap and water to wash/rinse the affected area thoroughly, then provide appropriate medical attention. For reddened or blistered skin, consult a physician.
- Ingestion – Do not induce vomiting. Call poison control center or seek medical help.
- Inhalation – Move the person to fresh air. If breathing has stopped, perform artificial respiration. Obtain medical attention as soon as possible.

22.1

NOTIFICATION OF SITE EMERGENCIES

The Contractor must have systems in place for responding to all emergencies. The written HASP should note the potential emergencies associated with this specific Project and describe methods anticipated to perform the following:

- Notify appropriate individuals, authorities, and/or health care facilities of the site activities and anticipated duration prior to the mobilization of equipment;
- Ensure that, at a minimum, the following safety and monitoring equipment is available at the site: first aid supplies, fire extinguishers, a non-phosphate soap and water solution and potable water rinse, and potable water for eye washing;

- Ensure that a sufficient number of cellular telephones are present during site activities for emergency response and office communications. If deemed appropriate by the SSO or HSC, two-way radios may also be used on site for communication among workers;
- Have working knowledge of all safety equipment available at the site;
- Ensure that a map, which details the most direct route to the nearest hospital, is readily available with the emergency telephone numbers;
- The Contractor's HASP shall contain a list of emergency response telephone numbers. This list will be maintained at the work site by the SSO or his designee in a readily accessible location for use in case of an emergency.

22.2

DIRECTIONS TO THE NEAREST HOSPITAL

The Contractor's Project-specific HASP will include a map and written directions to the Johns Hopkins Hospital Emergency Entrance located at 1800 Orleans Street. The SSO will identify site egress routes during the daily briefing prior to commencement of that day's work. A map showing the hospital is in Appendix C.

23.0

EVACUATION PROCEDURES

Where site evacuation could possibly be a health and safety consideration, the Contractor's Project-specific HASP should define the primary evacuation route and also identify an alternate evacuation route based on the scheduled site operations. The two routes will be established independent of each other in the event of an obstruction on a particular route. A system should be in place to ensure that employees can easily evacuate the work area. It is recommended that daily evacuation routes will be reviewed with site workers at the start of each day.

INCIDENT REPORTING PROCEDURE

In the event that a health and safety incident occurs, it is imperative that specific reporting procedures be followed so that appropriate corrective action can be taken by the Contractor's HSC and PM for the duration of the Project. The Contractor's HASP must define methods by which accidents are reported, investigated, and prevented in the future. It is recommended that the Contractor's PM and the HSC investigate the facility/site conditions to determine: (1) the severity of the incident; (2) the cause of the incident; (3) the means to prevent the incident from recurring; and, (4) personnel responsible for implementing the corrective action.

The following additional personnel shall be identified in the Contractor's Project-specific HASP and notified within a reasonable timeframe, but this should be no later than 1 hour after any incident.

- Jonathan Flesher, HPD, (cell: 443-463-3937
- Matt Gillis, CH2M Hill, (cell: 757-636-1289);
- Chris French, Honeywell (cell: 973-216-7506)

The Contractor's HASP will include an incident reporting form so that consistent and appropriate information is obtained regarding employee exposures or accidents. The form will be filed at the Contractor's office with the employee's medical and safety records to serve as documentation of the incident and the actions taken. An example incident reporting form is found in Appendix E.

INCIDENT INVESTIGATIONS

All safety events, including incidents, will be recorded and documented within 24 hours of an incident. All incidents will be reported to Bill Berlett (see above) and investigated in a timely manner. Incidents will require entry into the Honeywell Event Tracking System by CH2M Hill. The Safety Team will schedule the investigation and include the SSO, the Project Manager, Project supervision (subcontractors, and client), the injured/involved employee(s) and the Project Health and Safety Coordinator. Root cause analysis will be performed to assess the apparent cause and identify corrective measures to be implemented to prevent re-occurrence. The last page of the Incident Form is used to document the investigation.

26.0

MATERIAL SAFETY DATA SHEETS

Sample Material Safety Data Sheets (MSDSs) for the notable Project contaminants are presented in Appendix D. The contractors' HASPs should include these MSDSs and any other hazardous chemicals brought to, used, stored, or otherwise identified at the site in conjunction with the Project.

27.0***ON-SITE HEALTH AND SAFETY LOG BOOK***

The Contractor's SSO or designee will maintain an on-site health and safety log book in which daily site conditions, activities, meetings, personnel, and significant events will be recorded by the Contractor. Calibration records and personnel monitoring results, if available, will also be recorded in field log book. The original log book will be maintained by the Contractor. Appendix E includes a daily meeting summary form.

CERTIFICATION OF FAMILIARITY WITH PLAN BY SITE PERSONNEL

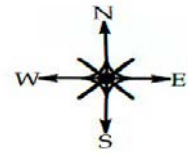
By signing below, signee certifies that they have read, understand and will abide by the contents of this HASP.

Name	Signature	Company	Date

Figures

DRAFT

Figure 1
Site Location Map
Wills Wharf Office Project
Baltimore, Maryland



Approximate
Project Location

1300 Thames
Street (Thames
Street Wharf
Office Building)

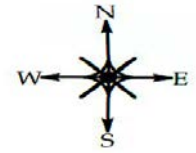
301 ft

1994

Imagery Date: 10/23/2014 lat 39.280095° lon -76.598028° elev 14 ft eye alt 1355 ft

Google earth

Figure 2
Construction Perimeter Fixed Air Monitoring Locations
Wills Wharf Office Project
Baltimore, Maryland



PWAM - Perimeter Wills Air Monitor, locations are approximate.

Appendix A
Point Street Apartments & Garage, January
16, 2015, by GTA USA, LLC

DRAFT



SOIL EVALUATION

POINT STREET APARTMENTS & GARAGE

**Harbor Point
Baltimore, Maryland**

January 16, 2015

Prepared for:

Block Street Apartments, LLC

1300 Thames Street, Suite 10
Baltimore, Maryland 21231

Attn: Mr. Jonathan Flesher

Prepared by:

GTA USA, LLC

Geotechnical and Environmental Consultants

14280 Park Center Drive, Suite A
Laurel, Maryland 20707
(410) 792-9446 or (301) 470-4470
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GTA Project No: 141040USA

GTA USA, LLC

GEOTECHNICAL AND
ENVIRONMENTAL CONSULTANTS



January 16, 2015

Block Street Apartments, LLC
1300 Thames Street, Suite 10
Baltimore, Maryland 21231

Attn: Mr. Jonathan Flesher

Re: Soil Evaluation
Point Street Apartments & Garage
Harbor Point
Baltimore, Maryland

Dear Mr. Flesher:

In accordance with our agreement dated December 19, 2014, GTA USA, LLC (GTA) has performed a soil evaluation at the above referenced site ("subject property"), which consists of an approximately 1-block portion of Point Street (a.k.a., Block Street) between Wills Street and Philpot Street, and portions of surface parking lots adjacently north and northwest of the 1300 Thames Street Wharf Building on the Harbor Point development in Baltimore, Maryland. The subject property contains an asphalt paved street and parking lot. GTA's evaluation consisted of soil borings, soil sampling, field screening, and laboratory analysis.


This report transmits GTA's findings. Should you have any questions regarding this report, or should you require additional information, please contact our office at (410) 792-9446.

Sincerely,

GTA USA, LLC



Scott W. Cumming
Project Manager



Samuel J. Stevenson
Associate

141040USA

S:\Project Files\2014\141040USA Point Street Apartments\Doc\ESA\ENV 141040USA Point Street Apartments Soil Evaluation.docx

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- Appendix B Soil Boring Logs (*14 pages*)
- Appendix C Laboratory Analysis Reports (*127 pages*)

SOIL EVALUATION

POINT STREET APARTMENTS & GARAGE HARBOR POINT BALTIMORE, MARYLAND JANUARY 16, 2015

1.0 INTRODUCTION

1.1 Purpose

At the request of Block Street Apartments, LLC (Client), GTA USA, LLC (GTA) has performed a soil evaluation at the Point Street Apartments & Garage site at Harbor Point, in Baltimore, Maryland (the “subject property”). This evaluation was performed for general site characterization and pursuant to the Maryland Department of the Environment’s (MDE’s) comments, dated November 18, 2014, in response to the Voluntary Cleanup Program (VCP) application package. This Work Plan also addresses a request from the USEPA for additional soil sampling in Area 3, north of the northern VCP boundary. Furthermore, the collected data will be used to prepare the development-related plans regarding air monitoring, materials handling and management, and health and safety.

1.2 Scope of Services

GTA’s scope of services consisted of the advancement of 14 soil borings and collection and laboratory analysis of soil and groundwater samples, pursuant to two work plans discussed in *Section 3.1*. GTA’s scope of services was developed based on GTA’s professional experience, and with consideration of various guidance documents, including those prepared by the United States Environmental Protection Agency (USEPA), the Maryland Department of the Environment (MDE), and ASTM International, including *ASTM E1903-11 Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process*.

1.3 Limitations

GTA’s conclusions regarding this site have been based on observations of existing conditions and an interpretation of site history and site usage data, professional experience in the area with similar projects, and generally accepted professional environmental practice under

similar circumstances. The conclusions reached regarding the conditions of this site do not represent a warranty that all areas within the site are of a similar quality as may be inferred from observable site conditions, available site history, samples, analysis results, etc. Site conditions were inferred from the observations, field screening, and laboratory analysis of samples obtained at specific locations and on specific dates. These conditions may not remain consistent through the passage of time. Please be advised that no environmental site assessment can wholly eliminate uncertainty regarding the potential for environmental liability in connection with the property. GTA's evaluation and analysis are intended to reduce, but not eliminate, the potential for conditions that result in liability for the Client.

This report was prepared by GTA for the sole and exclusive use of Block Street Apartments, LLC. GTA acknowledges that this document is being submitted to the MDE and USEPA and will be part of the public record, and that these agencies are expected to use this report as part of their review process. Use and reproduction of this report by any other person without the express written permission of GTA and Block Street Apartments, LLC is at the sole risk of the user.

2.0 BACKGROUND

2.1 Site Description

The subject property consists of an approximately 1-block portion of Point Street (a.k.a., Block Street) between Wills Street and Philpot Street, and portions of surface parking lots adjacently north and northwest of the 1300 Thames Street Wharf Building on the Harbor Point development in Baltimore, Maryland. The subject property contains an asphalt paved street and parking lot. A *Site Location Map* for the subject property is presented as *Figure 1*, and a *2011 Aerial Photograph* is included as *Figure 2*.

2.2 Proposed Development

Based on the current development plans, portions of the subject property will be excavated for the Point Street Apartments & Garage development. Based on the current grading and development plans, approximately 1,500 cubic yards of soil will be cut from the

development area. These cuts will be necessary to achieve the planned grades and to accommodate pile caps, stone base, one elevator sump, one storm-filter vault, and utility trenches along the Point Street right-of-way (ROW) for water, natural gas, electricity, sanitary sewer, and storm drain. It should be noted that the development plans are still being refined; therefore, the planned excavation depths and quantities may still change.

The deepest excavation for the building will be roughly 10 feet or greater below ground surface (bgs) for the elevator sump located approximately at GTA-6. Approximately 66 pile cap excavations will be necessary, to depths ranging from 3 feet bgs on the southern portion of the development area, to 7 feet bgs on the northwestern portion. Utility excavations will range from approximately 6 feet bgs on the western end of Point Street to approximately 10 feet bgs on the eastern end of Point Street.

During construction activities, these soils will be subject to the site-specific Materials Handling & Management Plan (MHMP) that is currently being prepared, and the soils will be properly disposed off-site.

2.3 Site History

The subject property is part of the overall Harbor Point development, which was the location of the former AlliedSignal Baltimore Works Site, mainly west of the subject property. The overall property consists of three Areas: 1, 2, and 3. Area 1 is the principal site of Honeywell's (formerly AlliedSignal) Baltimore Works Facility, which included chromium processing production and support buildings on an area that covered approximately 14 acres. The subject property activities described herein do not involve Area 1.

Prior to acquisition by Honeywell, Areas 2 and 3 were used for various industrial and warehousing operations. Both Areas 2 and 3 are required to be capped. The subject property is not located on Area 3; however, portions of the subject property are located on Area 3. In addition, the subsequent processing of the site through the MDE Voluntary Cleanup Program resulted in a cap requirement throughout this area. Therefore, for the purposes of environmental

capping, a cap consistent with Area 3 is being assumed for the entire project boundary that lies outside of Areas 1 and 2, which includes the entire Point Street Apartment & Garage development.

3.0 SUBSURFACE EVALUATION

3.1 Sampling Rationale

Two work plans were prepared in December 2014 and affect the sampling and analysis activities described herein. The first, prepared by GTA, is titled *Work Plan for Environmental Sampling; Point Street Apartments & Garage*, dated December 19, 2014. The GTA Work Plan pertains to the proposed construction of the Point Street Apartments & Garage site.

The second work plan, titled *Work Plan to Collect Soil and Water Samples from Proposed Utility Corridors at Harbor Point, Baltimore, Maryland*, was prepared by ERM and is dated December 14, 2014. The ERM Work Plan specifically pertains to proposed utilities along Dock Street and Point Street related to the ongoing Exelon Building and Plaza Garage construction activities to the west and northwest. The ERM work plan included the collection and analysis of additional soil samples and two planned groundwater samples. Although the ERM Work Plan is not the subject of this report, both Work Plans were implemented concurrently. As a result, some overlap of sample identification nomenclature occurred, and additional analysis results beyond the scope of the GTA Work Plan are cited herein. In addition, the attached laboratory analysis reports (*Appendix C*) include the results relevant to both work plans.

The scope of work included performing soil borings, and collecting, field screening, and analyzing soil samples to further evaluate soil impacts. Soil borings were located within the proposed Point Street Apartments & Garage development, which will undergo various degrees of excavation as described in *Section 2.2*. The collected data can be used to evaluate future excavation-related waste profiling, to assess potential worker exposure concerns, and to develop specific health and safety measures.

Pursuant to the GTA work plan, GTA proposed to retain 28 grab soil samples and two composite soil samples for laboratory analysis. However, some additional sampling and analysis were performed in order to incorporate the ERM work plan efforts. The actual sampling and analysis matrix is presented as *Table 1, Sample Matrix*.

3.2 Soil Evaluation

On January 2, 2015, GTA personnel advanced 14 direct-push (Geoprobe[®]) soil borings on the subject property, to depths up to approximately ten feet below ground surface (bgs). Ten borings were performed in the parking lot adjacently north and northwest of the 1300 Thames Street Wharf building (GTA-1 through GTA-10) and four borings were performed along the Point Street corridor (GTA-11 through GTA-14). The boring locations are depicted on the attached *Sample Location Plan (Figure 3)*.

The soil borings were field located using existing site features (e.g. tree lines, fence lines, and existing structures). Prior to the drilling activities, GTA contacted Miss Utility, compared the proposed boring locations to utility plans provided by the Client, and contracted a private utility locating service in an attempt to avoid buried utilities. *Site Photographs* taken during the field activities are presented as *Appendix A*.

The Geoprobe[®] utilizes a Macro-Core[®] MC5 Soil Sampler that of a stainless steel cutting shoe, which is threaded onto a steel barrel that contains a dedicated, disposable plastic liner. The Macro-Core sampling tube containing the liner is driven to the desired depth, continuously collecting a soil core. The tube is then extracted from the borehole, the cutting shoe is removed, and the liner is removed, revealing the intact soil core. Based on the use of the plastic liner, decontamination procedures were limited to decontamination of the cutting shoe. Decontamination materials were containerized in a 55-gallon drum that was left on-site pending the receipt of laboratory analysis results. Disposal arrangements will be made at a later date.

The surface composition of the boring locations consisted of an asphalt paved street and parking lot, and base gravel. Visual observation of the borings indicated that the pavement is

underlain by sands and gravels, silty sands, lean clays, and silts to 10 feet bgs. *Boring Logs* are included as *Appendix B*.

At the conclusion of the direct push operations, the boreholes were backfilled with granular bentonite and the surface was repaired with asphalt as appropriate. The unused soil cores were containerized in a 55-gallon drums that was left on-site pending the receipt of laboratory analysis results. Disposal arrangements will be made at a later date.

3.2.1 Soil Screening

Continuous soil cores were collected in each boring, and were field screened using a photoionization detector (PID), which is capable of detecting volatile organic vapors, such as those typically associated with petroleum and some solvents. A portion of each soil core was placed in sealed plastic bags for field screening with the PID, and a portion was placed in laboratory-provided sample containers and retained for possible laboratory analysis. No petroleum odors were detected or elevated PID readings observed in the in the samples.

GTA also retained select soil samples that were visually suspect for hexavalent chromium using disposable nitrile gloves and placed a portion of each sample in a glass jar for field screening using 1,5-diphenylcarbazide (DPC). The field screening indicated potential hexavalent chromium impacts at GTA-6 (4 to 4.75 feet bgs), GTA-9 (3 to 3.5 feet bgs), and GTA-12 (5 to 5.5 feet bgs). Samples from these soil intervals were submitted for hexavalent chromium analysis, as summarized in *Table 2, Soil Analysis Summary*.

3.2.2 Soil Sampling

Select grab soil samples from specific depths and composite waste characterization samples were retained for laboratory analysis as indicated in *Table 1, Sample Matrix*. The soil samples were placed into clean, laboratory-provided containers, stored in an iced cooler, and transported to Phase Separation Science, Inc. (PSS)

laboratory, under Chain of Custody documentation. A copy of the laboratory report, which includes the Chain of Custody document, is included in *Appendix C*.

The grab soil samples were submitted with the instructions to analyze for one or more of the following:

- Total Chromium by USEPA Method 6020A;
- Hexavalent Chromium by USEPA Method 7196A;
- Semi-Volatile Organic Compounds (SVOCs) plus Tentatively Identified Compounds (TICs) by USEPA Method 8270C;
- Priority Pollutant Metals by USEPA Method 6020A;
- Volatile Organic Compounds (VOCs) by USEPA Method 8260B; and
- Total Petroleum Hydrocarbons (TPH) Gasoline Range Organics (GRO) by USEPA Method 8015C.

The waste characterization composite samples were submitted with the instructions to analyze for the following:

- Full Toxicity Characterization Leaching Process (TCLP) analyses by USEPA Method SW-846 including:
 - TCLP Organochlorine Pesticides by USEPA Method 8081B;
 - TCLP Chlorinated Herbicides by USEPA Method 8151A;
 - TCLP VOCs by United States Environmental Protection Agency (USEPA) Method 8260B;
 - TCLP SVOCs plus Pyridine by USEPA Method 8270C; and
 - TCLP Metals by USEPA Method 6020A;
- RCRA Characteristics (Ignitability, Corrosivity, Reactivity) by USEPA Methods 1020A, 7.3, 7.3CN, and 9045D.
- SVOCs by USEPA Method 8270C;
- Polychlorinated Biphenyls (PCBs) by USEPA Method 8082A;
- TPH Diesel Range Organics (DRO) by USEPA Method 8015C;
- Oil and Grease by USEPA Method 9071B; and
- RCRA Metals by USEPA Method 6020A.

3.2.3 Soil Analysis Results

The soil analysis results are summarized in *Table 2 (Soil Analysis Summary)*, and *Table 3 (Waste Characterization Analysis)*. *Table 2* also compares the results to the Maryland Department of the Environment's (MDE's) Residential Cleanup Standard

(RCS), as presented in MDE's *Cleanup Standards for Soil and Groundwater; June 2008; Interim Final Guidance (Update No. 2.1)*. Metals results in *Table 2* were also compared to the Anticipated Typical Concentration (ATC) for soil in central Maryland.

Detections of various compounds were reported in the soil samples, as presented in *Table 2*. Of note, none of the samples contained detectable concentrations of hexavalent chromium.

The composite samples also contained detections of various compounds, as summarized in *Table 3*. The analysis results do not suggest that the soil would be considered characteristic hazardous waste in a waste disposal scenario.

3.3 Groundwater Evaluation

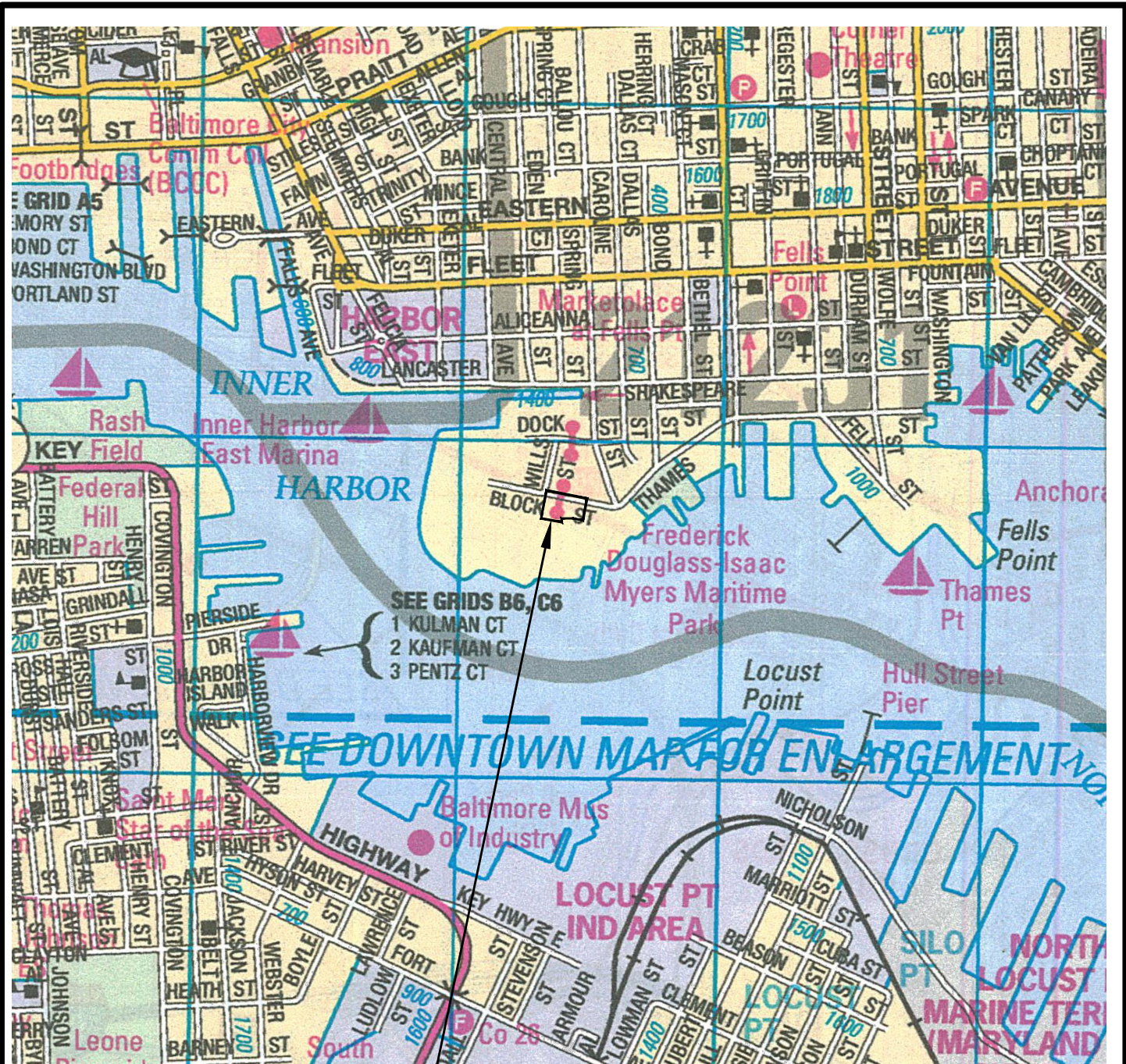
In conjunction with the ERM work plan, GTA installed temporary groundwater monitoring point GTA-11 (following the collection of soil samples) so groundwater levels could be gauged and groundwater samples could be collected. The monitoring point consisted of 10 feet of 1-inch diameter PVC well screen to grade. No groundwater was present in GTA-11.

4.0 SUMMARY

GTA performed 14 soil borings to further evaluate the subsurface conditions on the subject property. Soil borings encountered sands and gravels, silty sands, lean clays, and silts to 10 feet bgs. GTA collected and analyzed 35 grab soil samples and two composite soil samples. The results did not indicate detectable hexavalent chromium. The primary environmental impacts identified in the soil samples were related to SVOCs.

******* END OF REPORT *******

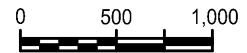
FIGURES



Approximate Subject Property Boundary

Notes

Map Copyright © ADC The Map People, (800) 829-6277
 Permitted Use Number 21006238



Approximate Scale
 1 inch = 1,000 feet



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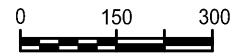
POINT STREET
APARTMENTS & GARAGE
 BALTIMORE, MARYLAND
SITE LOCATION MAP



Approximate Subject
Property Boundary

Notes

1. Base map image obtained from Google Earth.



Approximate Scale
1 inch = 300 feet



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POINT STREET
APARTMENTS & GARAGE

BALTIMORE, MARYLAND

2011 AERIAL PHOTOGRAPH

PROJECT: 141040USA

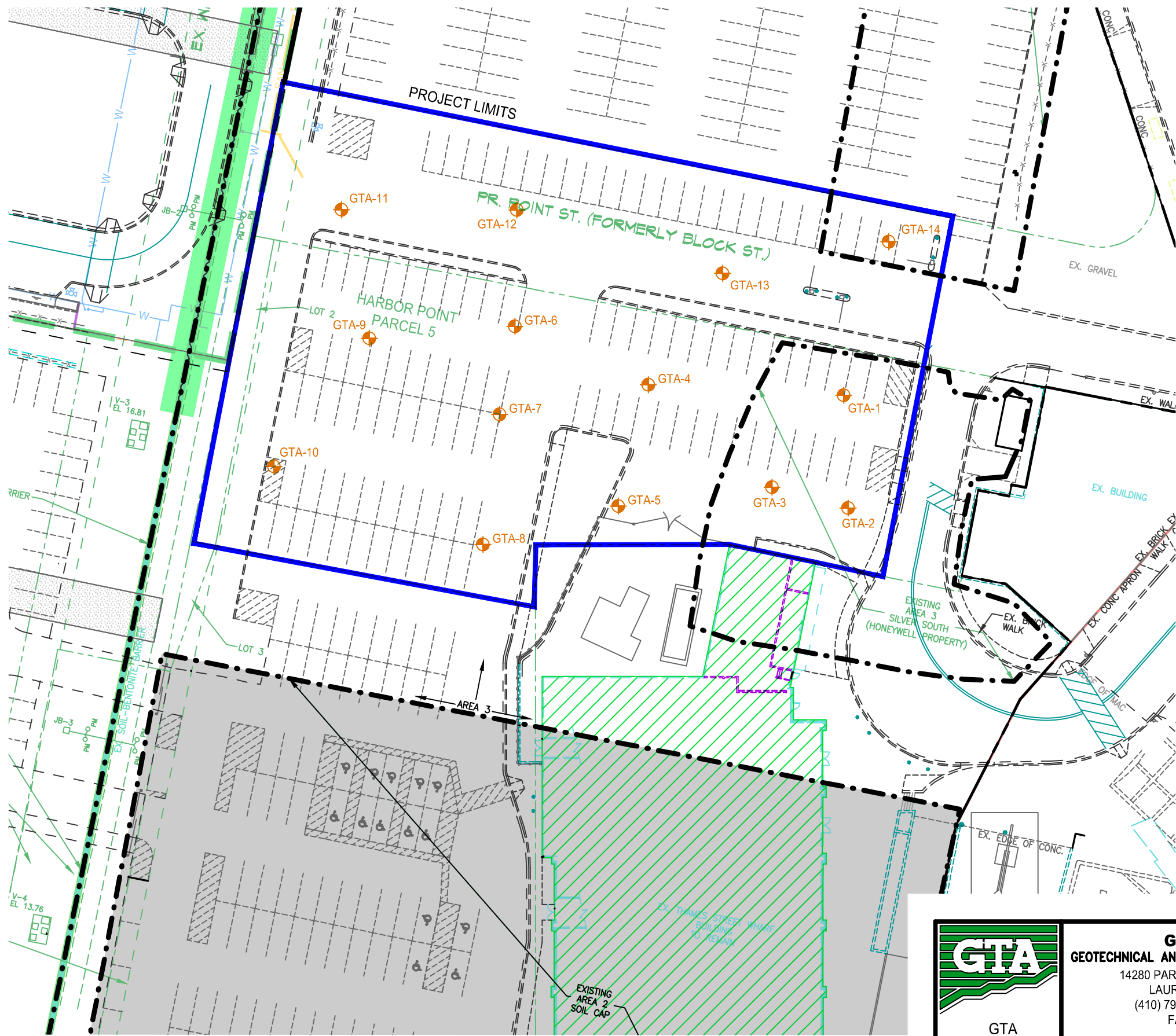
DATE: January 2015

SCALE: 1" = 300'


DESIGN BY: SWC

REVIEW BY: SJS

FIGURE: 2

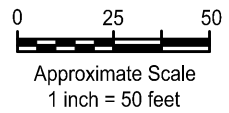


Legend

GTA-1  Identification and approximate location of direct-push soil borings advanced by GTA on January 2, 2015.

Notes

1. Base map was adapted from electronic site plans prepared and provided by Morris & Ritchie Associates, inc.



GTA
USA, LLC

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POINT STREET
APARTMENTS & GARAGE
 BALTIMORE, MARYLAND

BORING LOCATION PLAN

TABLES

**Table 1
Analysis Matrix**

Media	Area of Concern	Sample/ Location ID	Depth (feet bgs)	Analysis/USEPA Method							
				PP Metals	Total Chromium	Hexavalent Chromium	SVOCs	VOCs	TPH GRO	Waste Profiling Parameters ^{1,2}	
				Method 6020	Method 6020	Method 7196	Method 8270	Method 8260	Method 8015		
Soil	Area 3 Inside Lot 2	GTA-1	1-2		✓	✓	✓				
			2-4		✓	✓					
		GTA-2	1-2		✓	✓	✓				
			2-4		✓	✓					
		GTA-3	1-2		✓	✓	✓				
			2-4		✓	✓					
	Outside the Formal Areas 2 and 3 Inside Lot 2	GTA-4	0-2		✓	✓					
			2-4		✓	✓					
		GTA-5	0-2		✓	✓					
			2-4		✓	✓					
		GTA-6	0-2		✓	✓					
			4-4.75			✓					
			7-9			✓					
		GTA-7	0-2		✓	✓					
			5-7		✓	✓					
		GTA-8	0-2		✓	✓					
			2-4		✓	✓					
		GTA-9	0-2		✓	✓					
			3-3.5			✓					
			5-7			✓					
	GTA-10	0-2		✓	✓						
		3-4					✓	✓			
		2-4		✓	✓						
		0-1	✓	✓	✓	✓	✓	✓			
	Outside the Formal Areas 2 and 3 Point Street ROW	GTA-11	0-2			✓					
			4-6			✓					
			6-7	✓	✓	✓	✓	✓	✓		
		GTA-12	0-2			✓					
			5-5.5			✓					
		GTA-13	0-2			✓					
	1-2		✓	✓	✓	✓	✓	✓			
	8-10			✓							
	Area 3 Point Street	GTA-14	0-2			✓					
	8-10				✓						
	Waste Profile for Building Footprint	GTA-COMP-1	Composite from GTA-1, GTA-5, GTA-6, GTA-10							✓	
	Waste Profile for Point Street ROW	GTA-COMP-2	Composite from GTA-11, GTA-12, GTA- 13, GTA-14							✓	

Notes

¹ Non-volatile waste profiling parameters include SVOCs, TPH DRO, Full TCLP, PCBs RCRA Characteristics (Ignitability, Corrosivity, Reactivity), Oil & Grease, and RCRA Metals.

² Volatile waste profiling parameters will be analyzed from the sample interval exhibiting the highest PID reading or other strongest indication of contamination, and the sample will be collected using TerraCores or similar. Volatile waste profiling parameters include VOCs and TPH GRO.



Table 3
Waste Characterization Analysis

Analyte	GTA-COMP-1	GTA-COMP-2
TCLP SVOCs		
All compounds	--	--
TCLP Organochlorine Pesticides		
All compounds	--	--
TCLP Chlorinated Herbicides		
All compounds	--	--
TCLP Metals		
Arsenic	--	--
Barium	--	--
Cadmium	--	--
Calcium	--	--
Chromium	--	--
Lead	0.075	0.13
Mercury	--	--
Selenium	--	--
Silver	--	--
TCLP VOCs		
All compounds	--	--
SVOCs		
Anthracene	--	0.37
Benzo(a)anthracene	--	1.7
Benzo(a)pyrene	--	1.5
Benzo(b)fluoranthene	--	1.7
Benzo(g,h,i)perylene	--	0.75
Benzo(k)fluoranthene	--	1.4
Bis(2-Ethylhexyl)phthalate	--	0.33
Chrysene	--	1.8
Dibenz(a,h)anthracene	--	0.46
Fluoranthene	--	2.3
Indeno(1,2,3-cd)pyrene	--	1.0
Phenanthrene	--	1.4
Pyrene	--	2.7
Dihydrocyclopenta(cd)pyrene, 3,4- (a TIC)	--	0.59
Remaining SVOCs	--	--
TPH		
TPH DRO	12	51
PCBs		
All PCBs	--	--
Oil and Grease		
Oil and Grease, Total Recovered	--	78
RCRA Metals		
Arsenic	3.0	9.0
Barium	54	140
Cadmium	--	--
Chromium	25	120
Lead	22	460
Mercury	--	0.18
Selenium	--	--
Silver	--	--
RCRA Characteristics		
Flash Point (Degrees Fahrenheit)	> 200	> 200
Reactive Sulfide	--	--
Reactive Cyanide	--	--
pH (standard units)	7.4	7.7

Notes:

Samples collected on January 2, 2015
TCLP results in milligrams per liter (mg/L)
Results in milligrams per kilogram (mg/kg), or parts per million (ppm), unless otherwise indicated
-- = Not detected at or above the laboratory's reporting limit
TCLP = Toxicity Characteristic Leaching Procedure
SVOCs = Semi-Volatile Organic Compounds
PCBs = Polychlorinated Biphenyls
VOCs = Volatile Organic Compounds
TPH = Total Petroleum Hydrocarbons
DRO = Diesel Range Organics
TIC = Tentatively Identified Compound



APPENDIX A
Site Photographs

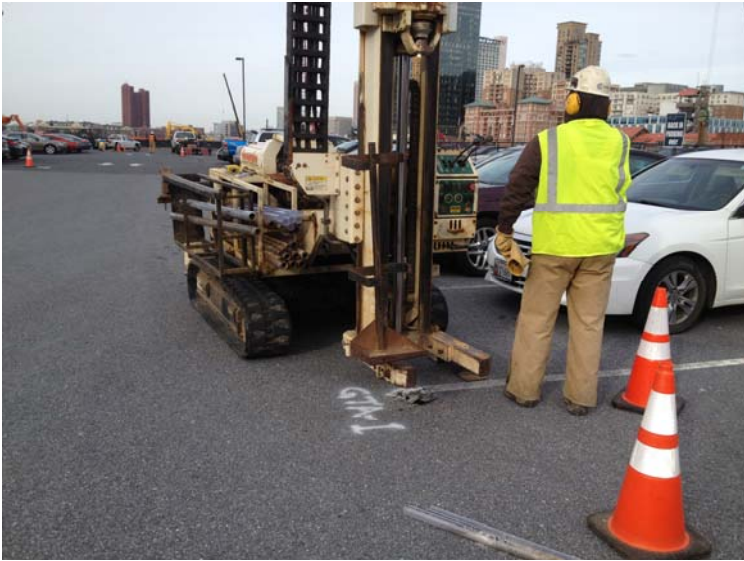


Photo 1: View of Geoprobe advancing boring GTA-1.



Photo 2: View of soil core collected from boring GTA-1.



Photo 3: View of soil core collected from boring GTA-3.



Photo 4: View of soil core collected from boring GTA-9.



Photo 5: View of soil core collected from boring GTA-11.



Photo 6: View of soil core collected from boring GTA-13.



Photo 7: View of soil core collected from boring GTA-14.



Photo 8: View of Geoprobe advancing boring GTA-13.

APPENDIX B
Soil Boring Logs

LOG OF BORING NO. GTA-1

Sheet 1 of 1

PROJECT: **Point Street Apartments & Garage**
 PROJECT NO.: **141040USA**
 PROJECT LOCATION: **Harbor Point, Baltimore, MD 21231**

WATER LEVEL (ft):
 DATE:
 CAVED (ft):

DATE STARTED: **2015-01-02**
 DATE COMPLETED: **2015-01-02**
 DRILLING CONTRACTOR: **GSI Mid-Atlantic, Inc.**
 DRILLER: **Jeff Green**
 DRILLING METHOD: **Direct Push**
 SAMPLING METHOD: **Macro-Core MC5**

WATER ENCOUNTERED DURING DRILLING (ft) **Dry**
 GROUND SURFACE ELEVATION:
 DATUM:
 EQUIPMENT: **Geoprobe 6620**
 LOGGED BY: **LMD**
 CHECKED BY: **SJS**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	PID Reading	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	
								DESCRIPTION	REMARKS
	0.0	3		0.0	0			ASPHALT.	
	0.3	12	0	-0.3				Brown and tan, moist, Silty SAND with gravel.	
	1.3	42	0	-1.3				Brown, tan and white, moist, Silty SAND with gravel.	GTA-1 (1-2) Soil sample collected at 10:05.
					2				GTA-1 (2-4) Soil sample collected at 10:07.
					4				
	4.8	3	0	-4.8				Brown and red, moist, Silty SAND, trace wood fragments.	
			0	-5.0				Bottom of boring at 5'.	
					6				
					8				
					10				
					12				

NOTES: **No Marker Fabric Observed.**



GEO-TECHNOLOGY ASSOCIATES, INC.
 14280 Park Center Drive, Suite A
 Laurel, MD 20707

LOG OF BORING NO. GTA-1

Sheet 1 of 1

LOG OF BORING NO. GTA-2

Sheet 1 of 1

PROJECT: **Point Street Apartments & Garage**
 PROJECT NO.: **141040USA**
 PROJECT LOCATION: **Harbor Point, Baltimore, MD 21231**

WATER LEVEL (ft):
 DATE:
 CAVED (ft):

DATE STARTED: **2015-01-02**
 DATE COMPLETED: **2015-01-02**
 DRILLING CONTRACTOR: **GSI Mid-Atlantic, Inc.**
 DRILLER: **Jeff Green**
 DRILLING METHOD: **Direct Push**
 SAMPLING METHOD: **Macro-Core MC5**

WATER ENCOUNTERED DURING DRILLING (ft) **Dry**
 GROUND SURFACE ELEVATION:
 DATUM:
 EQUIPMENT: **Geoprobe 6620**
 LOGGED BY: **LMD**
 CHECKED BY: **SJS**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	PID Reading	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION		REMARKS
								DESCRIPTION		
	0.0	3		0.0	0			ASPHALT.		GTA-2 (1-2) Soil sample collected at 10:20.
	0.3	18	0	-0.3				Brown, black and white, moist, Silty SAND with gravel.		
	1.8	6	0	-1.8	2			White, dry, crushed concrete.		GTA-2 (2-4) Soil sample collected at 10:22.
	2.3	21	0	-2.3				Black, tan and white, moist Silty SAND with gravel and trace brick fragments.		
	4.0	3	0	-4.0	4			BRICK.		
	4.3	9	0	-4.3				Brown, moist, sandy SILT, trace clay.		
			0	-5.0	5			Bottom of boring at 5'.		
					6					
					8					
					10					
					12					

NOTES: **No Marker Fabric Observed.**



GEO-TECHNOLOGY ASSOCIATES, INC.

14280 Park Center Drive, Suite A
 Laurel, MD 20707

LOG OF BORING NO. GTA-2

Sheet 1 of 1

LOG OF BORING NO. GTA-3

PROJECT: **Point Street Apartments & Garage**
 PROJECT NO.: **141040USA**
 PROJECT LOCATION: **Harbor Point, Baltimore, MD 21231**

WATER LEVEL (ft): _____
 DATE: _____
 CAVED (ft): _____

DATE STARTED: **2015-01-02**
 DATE COMPLETED: **2015-01-02**
 DRILLING CONTRACTOR: **GSI Mid-Atlantic, Inc.**
 DRILLER: **Jeff Green**
 DRILLING METHOD: **Direct Push**
 SAMPLING METHOD: **Macro-Core MC5**

WATER ENCOUNTERED DURING DRILLING (ft) **Dry**
 GROUND SURFACE ELEVATION:
 DATUM:
 EQUIPMENT: **Geoprobe 6620**
 LOGGED BY: **SWC**
 CHECKED BY: **SJS**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	PID Reading	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	
								DESCRIPTION	REMARKS
	0.0	3		0.0	0			ASPHALT.	GTA-3 (1-2) Soil sample collected at 11:10. GTA-3 (2-4) Soil sampled collected at 11:15.
	0.3	27	0	-0.3				Yellowish gray, moist, Silty SAND with gravel.	
	2.5	9	0	-2.5	2			Brown and gray, moist, Silty SAND.	
	3.3	3	0	-3.3				CONCRETE.	
	3.5	6	0	-3.5				Dark gray to black, moist, Silty SAND with brick.	
			0	-4.0	4			Bottom of boring at 4'.	
					6				
					8				
					10				
					12				

NOTES: **No Marker Fabric Observed.**



GEO-TECHNOLOGY ASSOCIATES, INC.
 14280 Park Center Drive, Suite A
 Laurel, MD 20707

LOG OF BORING NO. GTA-3

LOG OF BORING NO. GTA-4

PROJECT: **Point Street Apartments & Garage**
 PROJECT NO.: **141040USA**
 PROJECT LOCATION: **Harbor Point, Baltimore, MD 21231**

WATER LEVEL (ft): ∇ _____ ∇ _____ ∇ _____
 DATE: _____
 CAVED (ft): _____

DATE STARTED: **2015-01-02**
 DATE COMPLETED: **2015-01-02**
 DRILLING CONTRACTOR: **GSI Mid-Atlantic, Inc.**
 DRILLER: **Jeff Green**
 DRILLING METHOD: **Direct Push**
 SAMPLING METHOD: **Macro-Core MC5**

WATER ENCOUNTERED DURING DRILLING (ft) **Dry**
 GROUND SURFACE ELEVATION:
 DATUM:
 EQUIPMENT: **Geoprobe 6620**
 LOGGED BY: **SWC**
 CHECKED BY: **SJS**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	PID Reading	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	
								DESCRIPTION	REMARKS
	0.0	3		0.0	0				
	0.3	21	0	-0.3				ASPHALT. GRAVEL.	GTA-4 (0-2) Soil sample collected at 10:50. GTA-4 (2-4) Soil sample collected at 10:55.
	2.0	9	0	-2.0	2			Brown, moist, Lean CLAY with gravel. Black marker fabric observed at lower contact (2.75 feet bgs).	
	2.8	6	0	-2.8				Brown, gray, black, moist, SILT with gravel; trace brick and concrete.	
	3.3	21	0	-3.3				Brown, moist, Silty SAND with gravel.	
			0	-5.0	4			Bottom of boring at 5'.	
					6				
					8				
					10				
					12				

NOTES: **Black marker fabric observed at 2.75 feet bgs.**



GEO-TECHNOLOGY ASSOCIATES, INC.
 14280 Park Center Drive, Suite A
 Laurel, MD 20707

LOG OF BORING NO. GTA-4

LOG OF BORING NO. GTA-5

Sheet 1 of 1

PROJECT: **Point Street Apartments & Garage**
 PROJECT NO.: **141040USA**
 PROJECT LOCATION: **Harbor Point, Baltimore, MD 21231**

WATER LEVEL (ft):
 DATE:
 CAVED (ft):

DATE STARTED: **2015-01-02**
 DATE COMPLETED: **2015-01-02**
 DRILLING CONTRACTOR: **GSI Mid-Atlantic, Inc.**
 DRILLER: **Jeff Green**
 DRILLING METHOD: **Direct Push**
 SAMPLING METHOD: **Macro-Core MC5**

WATER ENCOUNTERED DURING DRILLING (ft) **Dry**
 GROUND SURFACE ELEVATION:
 DATUM:
 EQUIPMENT: **Geoprobe 6620**
 LOGGED BY: **LMD**
 CHECKED BY: **SJS**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	PID Reading	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
	0.0	3	0	0.0	0			ASPHALT.	GTA-5 (0-2) Soil sample collected at 10:35
	0.3	54	0	-0.3				Tan, moist, Silty SAND with gravel.	
					2				GTA-5 (2-4) Soil sample collected at 10:37.
					4				
	4.8	3	0	-4.8				Greenish and black, moist, Gravel. Black marker fabric observed at 4.75 feet bgs.	
			0	-5.0				Bottom of boring at 5'.	
					6				
					8				
					10				
					12				

NOTES: **Black marker fabric observed at 4.75 feet bgs.**



GEO-TECHNOLOGY ASSOCIATES, INC.
 14280 Park Center Drive, Suite A
 Laurel, MD 20707

LOG OF BORING NO. GTA-5

Sheet 1 of 1

LOG OF BORING NO. GTA-6

Sheet 1 of 1

PROJECT: **Point Street Apartments & Garage**
 PROJECT NO.: **141040USA**
 PROJECT LOCATION: **Harbor Point, Baltimore, MD 21231**

WATER LEVEL (ft): ∇ _____ ∇ _____ ∇ _____
 DATE: _____
 CAVED (ft): _____

DATE STARTED: **2015-01-02**
 DATE COMPLETED: **2015-01-02**
 DRILLING CONTRACTOR: **GSI Mid-Atlantic, Inc.**
 DRILLER: **Jeff Green**
 DRILLING METHOD: **Direct Push**
 SAMPLING METHOD: **Macro-Core MC5**

WATER ENCOUNTERED DURING DRILLING (ft) **Dry**
 GROUND SURFACE ELEVATION:
 DATUM:
 EQUIPMENT: **Geoprobe 6620**
 LOGGED BY: **LMD**
 CHECKED BY: **SJS**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	PID Reading	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION		REMARKS
	0.0	3	0	0.0	0			ASPHALT.		GTA-6 (0-2) Soil sample collected at 09:35.
	0.3	39	0	-0.3				White, dry, crushed concrete.		
					2					
	3.5	6	0	-3.5				Light brown, moist, Sandy SILT, with gravel. Black marker fabric observed at lower contact (4 feet bgs) .		GTA-6 (4-4.75) Soil sample collected at 16:08.
	4.0	6	0	-4.0	4			Greenish and black, moist, Silty SAND with gravel. DPC screening sample.		
	4.5	6	0	-4.5				Black, moist, Silty SAND.		
	5.0	24	0	-5.0				White, green, and brown, moist, Silty SAND with gravel.		
					6					
	7.0	36	0	-7.0				Brown, moist, Sandy SILT, trace clay.		GTA-6 (7-9) Soil sample collected at 09:37.
					8					
					10			Bottom of boring at 10'.		
			0	-10.0						
					12					

NOTES: **Black marker fabric observed at 4.0 feet bgs.**



GEO-TECHNOLOGY ASSOCIATES, INC.

14280 Park Center Drive, Suite A
 Laurel, MD 20707

LOG OF BORING NO. GTA-6

Sheet 1 of 1

LOG OF BORING NO. GTA-7

PROJECT: **Point Street Apartments & Garage**
 PROJECT NO.: **141040USA**
 PROJECT LOCATION: **Harbor Point, Baltimore, MD 21231**

WATER LEVEL (ft): ∇ _____ ∇ _____ ∇ _____
 DATE: _____
 CAVED (ft): _____

DATE STARTED: **2015-01-02**
 DATE COMPLETED: **2015-01-02**
 DRILLING CONTRACTOR: **GSI Mid-Atlantic, Inc.**
 DRILLER: **Don Marchese**
 DRILLING METHOD: **Direct Push**
 SAMPLING METHOD: **Macro-Core MC5**

WATER ENCOUNTERED DURING DRILLING (ft) **Dry**
 GROUND SURFACE ELEVATION: _____
 DATUM: _____
 EQUIPMENT: **Geoprobe 5410**
 LOGGED BY: **SWC**
 CHECKED BY: **SJS**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	PID Reading	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
	0.0	4.8	0	0.0	0			ASPHALT.	GTA-7 (0-2) Soil sample collected at 10:00.
	0.4	14.4	0	-0.4			GRAVEL.		
	1.6	10.8	0	-1.6	2		Light brown, moist, Lean CLAY with gravel. Black marker fabric observed at lower contact (2.5 feet bgs).		
	2.5	6	0	-2.5			Greenish gray, moist, Silty SAND and gravel.		
	3.0	12	0	-3.0			Dark brown, moist, SILT with concrete and brick (red).		
	4.0	30	0	-4.0	4		Dark brown to black, moist, silty SAND with gravel.		
	6.5	18	0	-6.5	6		Light brown, moist, Lean CLAY.		
			0	-8.0	8		Bottom of boring at 8'.		
					10				
					12				GTA-7 (5-7) Soil sample collected at 10:05.

NOTES: **Black marker fabric observed at 2.5 feet bgs.**



GEO-TECHNOLOGY ASSOCIATES, INC.
 14280 Park Center Drive, Suite A
 Laurel, MD 20707

LOG OF BORING NO. GTA-7

LOG OF BORING NO. GTA-8

PROJECT: **Point Street Apartments & Garage**
 PROJECT NO.: **141040USA**
 PROJECT LOCATION: **Harbor Point, Baltimore, MD 21231**

WATER LEVEL (ft): _____
 DATE: _____
 CAVED (ft): _____

DATE STARTED: **2015-01-02**
 DATE COMPLETED: **2015-01-02**
 DRILLING CONTRACTOR: **GSI Mid-Atlantic, Inc.**
 DRILLER: **Don Marchese**
 DRILLING METHOD: **Direct Push**
 SAMPLING METHOD: **Macro-Core MC5**

WATER ENCOUNTERED DURING DRILLING (ft) **Dry**
 GROUND SURFACE ELEVATION: _____
 DATUM: _____
 EQUIPMENT: **Geoprobe 5410**
 LOGGED BY: **SWC**
 CHECKED BY: **SJS**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	PID Reading	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	
								DESCRIPTION	REMARKS
	0.0	3	0	0.0	0			ASPHALT.	GTA-8 (0-2) Soil sample collected at 10:20.
	0.3	25.8	0	-0.3				GRAVEL.	
					2				GTA-8 (2-4) Soil sample collected at 10:30.
	2.4	7.2	0	-2.4				Light brown, moist, Lean CLAY with gravel. Black marker fabric observed at lower contact (3 feet bgs).	
	3.0	6	0	-3.0				Greenish gray, moist, Silty SAND.	
	3.5	6	0	-3.5				Dark brown to black, moist, SILT with gravel and brick fragments.	
			0	-4.0	4			Bottom of boring at 4'.	
					6				
					8				
					10				
					12				

NOTES: **Black marker fabric observed at 3 feet bgs.**



GEO-TECHNOLOGY ASSOCIATES, INC.
 14280 Park Center Drive, Suite A
 Laurel, MD 20707

LOG OF BORING NO. GTA-8

LOG OF BORING NO. GTA-9

PROJECT: **Point Street Apartments & Garage**
 PROJECT NO.: **141040USA**
 PROJECT LOCATION: **Harbor Point, Baltimore, MD 21231**

WATER LEVEL (ft): ∇ _____ ∇ _____ ∇ _____
 DATE: _____
 CAVED (ft): _____

DATE STARTED: **2015-01-02**
 DATE COMPLETED: **2015-01-02**
 DRILLING CONTRACTOR: **GSI Mid-Atlantic, Inc.**
 DRILLER: **Don Marchese**
 DRILLING METHOD: **Direct Push**
 SAMPLING METHOD: **Macro-Core MC5**

WATER ENCOUNTERED DURING DRILLING (ft) **Dry**
 GROUND SURFACE ELEVATION: _____
 DATUM: _____
 EQUIPMENT: **Geoprobe 5410**
 LOGGED BY: **SWC**
 CHECKED BY: **SJS**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	PID Reading	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	
								DESCRIPTION	REMARKS
	0.0	6	0	0.0	0			ASPHALT.	GTA-9 (0-2) Soil sample collected at 09:05
	0.5	18	0	-0.5				CONCRETE.	
	2.0	6	0	-2.0	2			BASE STONE.	
	2.5	6	0	-2.5				Orangish brown, moist, SILT with red brick.	GTA-9 (3-3.5) Soil sample collected at 16:04.
	3.0	30	0	-3.0				Brown, moist, SILT. DPC screening sample.	
	5.5	18	0	-5.5	6			Light brown, moist SILT with CLAY.	GTA-9 (5-7) Soil sample collected at 09:15.
			0	-7.0	7			Bottom of boring at 7'.	

NOTES: **No Marker Fabric Observed.**



GEO-TECHNOLOGY ASSOCIATES, INC.

14280 Park Center Drive, Suite A
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LOG OF BORING NO. GTA-9

LOG OF BORING NO. GTA-10

Sheet 1 of 1

PROJECT: **Point Street Apartments & Garage**
 PROJECT NO.: **141040USA**
 PROJECT LOCATION: **Harbor Point, Baltimore, MD 21231**

WATER LEVEL (ft):
 DATE:
 CAVED (ft):

DATE STARTED: **2015-01-02**
 DATE COMPLETED: **2015-01-02**
 DRILLING CONTRACTOR: **GSI Mid-Atlantic, Inc.**
 DRILLER: **Jeff Green**
 DRILLING METHOD: **Direct Push**
 SAMPLING METHOD: **Macro-Core MC5**

WATER ENCOUNTERED DURING DRILLING (ft) **Dry**
 GROUND SURFACE ELEVATION:
 DATUM:
 EQUIPMENT: **Geoprobe 6620**
 LOGGED BY: **LMD**
 CHECKED BY: **SJS**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	PID Reading	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	
								DESCRIPTION	REMARKS
	0.0	3	0	0.0	0			ASPHALT.	GTA-10 (0-2) Soil sample collected at 08:45. GTA-10 (2-4) Soil sample collected at 08:47. GTA-10 (3-4) Soil sample collected at 15:05.
	0.3	27	0	-0.3				Brown, moist, Silty SAND, with gravel. Black marker fabric observed at lower contact (2.5 feet bgs).	
					2				
	2.5	3	0	-2.5				Black, moist, Silty SAND.	
	2.8	9	0	-2.8				Brown, moist, Silty SAND.	
	3.5	3	0	-3.5				Black and green, moist, Silty SAND.	
	3.8	6	0	-3.8	4			Tan, moist, SAND and GRAVEL.	
	4.3	9	0	-4.3				Black and red, moist, Sandy SILT.	
			0	-5.0				Bottom of boring at 5'.	
					6				
					8				
					10				
					12				

NOTES: **Black marker fabric observed at 2.5 feet bgs.**



GEO-TECHNOLOGY ASSOCIATES, INC.

14280 Park Center Drive, Suite A
 Laurel, MD 20707

LOG OF BORING NO. GTA-10

Sheet 1 of 1

LOG OF BORING NO. GTA-11

Sheet 1 of 1

PROJECT: **Point Street Apartments & Garage**
 PROJECT NO.: **141040USA**
 PROJECT LOCATION: **Harbor Point, Baltimore, MD 21231**

WATER LEVEL (ft): ∇ Dry ∇ Dry ∇ _____
 DATE: 1/2/15 1/5/15 _____
 CAVED (ft): _____

DATE STARTED: **2015-01-02**
 DATE COMPLETED: **2015-01-02**
 DRILLING CONTRACTOR: **GSI Mid-Atlantic, Inc.**
 DRILLER: **Jeff Green**
 DRILLING METHOD: **Direct Push**
 SAMPLING METHOD: **Macro-Core MC5**

WATER ENCOUNTERED DURING DRILLING (ft) **Dry**
 GROUND SURFACE ELEVATION: _____
 DATUM: _____
 EQUIPMENT: **Geoprobe 6620**
 LOGGED BY: **SWC**
 CHECKED BY: **SJS**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	PID Reading	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION		REMARKS
	0.0	6	0	0.0	0			ASPHALT and CONCRETE.		GTA-11 (0-2) Soil sample collected at 13:44. GTA-11 (0-1) Soil sample collected at 13:40.
	0.5	6	0	-0.5				White quartz, GRAVEL and SAND.		
	1.0	30	0	-1.0				Brown, moist, SILT, trace CLAY, trace gravel. Wood fragments at 3'.		
					2					
	3.5	30	0	-3.5	4			Brown, moist, Lean CLAY, trace sand and gravel.		GTA-11 (4-6) Soil sample collected at 13:46.
	6.0	6	0	-6.0	6			Greenish gray, moist, SAND.		GTA-11 (6-7) Soil sample collected at 14:00.
	6.5	15	0	-6.5				Brown, moist, SAND.		
	7.8	27	0	-7.8	8			Brown, moist, SAND with gravel.		
			0	-10.0	10			Bottom of boring at 10'.		
					12					

NOTES: **No Marker Fabric Observed.**



GEO-TECHNOLOGY ASSOCIATES, INC.

14280 Park Center Drive, Suite A
 Laurel, MD 20707

LOG OF BORING NO. GTA-11

Sheet 1 of 1

LOG OF BORING NO. GTA-12

PROJECT: **Point Street Apartments & Garage**
 PROJECT NO.: **141040USA**
 PROJECT LOCATION: **Harbor Point, Baltimore, MD 21231**

WATER LEVEL (ft): ∇ _____ ∇ _____ ∇ _____
 DATE: _____
 CAVED (ft): _____

DATE STARTED: **2015-01-02**
 DATE COMPLETED: **2015-01-02**
 DRILLING CONTRACTOR: **GSI Mid-Atlantic, Inc.**
 DRILLER: **Jeff Green**
 DRILLING METHOD: **Direct Push**
 SAMPLING METHOD: **Macro-Core MC5**

WATER ENCOUNTERED DURING DRILLING (ft) **Dry**
 GROUND SURFACE ELEVATION:
 DATUM:
 EQUIPMENT: **Geoprobe 6620**
 LOGGED BY: **LMD**
 CHECKED BY: **SJS**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	PID Reading	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	
								DESCRIPTION	REMARKS
	0.0	3	0	0.0	0			ASPHALT.	GTA-12 (0-2) Soil sample collected at 13:12.
	0.3	45	0	-0.3				White, moist, Silty SAND with gravel.	
	4.0	12	0	-4.0	4			Black and tan, Silty SAND with gravel.	GTA-12 (4-6) Soil sample collected at 13:10.
	5.0	6	0	-5.0				Gray, moist, Silty SAND. DPC screening sample.	GTA-12 (5-5.5) Soil sample collected at 16:02.
	5.5	6	0	-5.5				Black and gray, Silty SAND with gravel.	
	6.0	48	0	-6.0	6			Brown, black, and tan, Silty SAND with gravel.	
			0	-10.0	10			Bottom of boring at 10'	
					12				

NOTES: **No Marker Fabric Observed.**



GEO-TECHNOLOGY ASSOCIATES, INC.
 14280 Park Center Drive, Suite A
 Laurel, MD 20707

LOG OF BORING NO. GTA-12

LOG OF BORING NO. GTA-13

Sheet 1 of 1

PROJECT: **Point Street Apartments & Garage**
 PROJECT NO.: **141040USA**
 PROJECT LOCATION: **Harbor Point, Baltimore, MD 21231**

WATER LEVEL (ft):
 DATE:
 CAVED (ft):

DATE STARTED: **2015-01-02**
 DATE COMPLETED: **2015-01-02**
 DRILLING CONTRACTOR: **GSI Mid-Atlantic, Inc.**
 DRILLER: **Jeff Green**
 DRILLING METHOD: **Direct Push**
 SAMPLING METHOD: **Macro-Core MC5**

WATER ENCOUNTERED DURING DRILLING (ft) **Dry**
 GROUND SURFACE ELEVATION:
 DATUM:
 EQUIPMENT: **Geoprobe 6620**
 LOGGED BY: **LMD**
 CHECKED BY: **SJS**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	PID Reading	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION		REMARKS
	0.0	3	0	0.0	0			ASPHALT.		GTA-13 (0-2) Soil sample collected at 11:35.
	0.3	21	0	-0.3				White, moist, Silty SAND with gravel.		
										GTA-13 (1-2) Soil sample collected at 11:30.
	2.0	3	0	-2.0	2			Brown, wet, Silty SAND with gravel.		
	2.3	33	0	-2.3				Brown, wet, Sandy SILT.		
										GTA-13 (8-10) Soil sample collected at 11:37.
	5.0	9	0	-5.0	4			Brown, wet, Silty SAND with gravel.		
	5.8	30	0	-5.8	6			Brown, wet, Sandy SILT.		
										GTA-13 (8-10) Soil sample collected at 11:37.
	8.3	21	0	-8.3	8			Brown, moist, micaceous, Silty SAND.		
			0	-10.0	10			Bottom of boring at 10'.		
					12					

NOTES: **No Marker Fabric Observed.**



GEO-TECHNOLOGY ASSOCIATES, INC.

14280 Park Center Drive, Suite A
 Laurel, MD 20707

LOG OF BORING NO. GTA-13

Sheet 1 of 1

LOG OF BORING NO. GTA-14

Sheet 1 of 1

PROJECT: **Point Street Apartments & Garage**
 PROJECT NO.: **141040USA**
 PROJECT LOCATION: **Harbor Point, Baltimore, MD 21231**

WATER LEVEL (ft): ∇ _____ ∇ _____ ∇ _____
 DATE: _____
 CAVED (ft): _____

DATE STARTED: **2015-01-02**
 DATE COMPLETED: **2015-01-02**
 DRILLING CONTRACTOR: **GSI Mid-Atlantic, Inc.**
 DRILLER: **Jeff Green**
 DRILLING METHOD: **Direct Push**
 SAMPLING METHOD: **Macro-Core MC5**

WATER ENCOUNTERED DURING DRILLING (ft) **Dry**
 GROUND SURFACE ELEVATION:
 DATUM:
 EQUIPMENT: **Geoprobe 6620**
 LOGGED BY: **SWC**
 CHECKED BY: **SJS**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	PID Reading	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	
								DESCRIPTION	REMARKS
	0.0	6	0	0.0	0			ASPHALT.	GTA-14 (0-2) Soil sample collected at 14:40.
	0.5	18	0	-0.5				Light brown, dry, Silty SAND with gravel.	
	2.0	3	0	-2.0	2			Black, moist, SILT.	
	2.3	15	0	-2.3				Black, moist, Silty SAND with gravel.	
	3.5	42	0	-3.5	4			Gray and yellowish gray, moist, SAND with gravel, trace oyster shells.	
	7.0	12	0	-7.0	6			Yellowish gray and red, moist, SAND with brick fragments.	
	8.0	24	0	-8.0	8			Reddish brown, moist, sand and gravel.	
				-10.0	10			Bottom of boring at 10'.	
					12				

NOTES: **No Marker Fabric Observed.**



GEO-TECHNOLOGY ASSOCIATES, INC.

14280 Park Center Drive, Suite A
 Laurel, MD 20707

LOG OF BORING NO. GTA-14

Sheet 1 of 1

APPENDIX C
Laboratory Analysis Reports

Analytical Report for

GTA - Laurel

Certificate of Analysis No.: 15010509

Project Manager: Sam Stevenson

Project Name : 141040 USA

Project Location: Baltimore City



January 12, 2015

Phase Separation Science, Inc.

6630 Baltimore National Pike

Baltimore, MD 21228

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PHASE SEPARATION SCIENCE, INC.



January 12, 2015

Sam Stevenson
GTA - Laurel
14280 Park Center Dr., Ste. A
Laurel, MD 20707

Reference: PSS Work Order(s) No: **15010509**
Project Name: 141040 USA
Project Location: Baltimore City

Dear Sam Stevenson :

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Work Order(s) numbered **15010509**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on February 9, 2015. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal
Laboratory Manager



Sample Summary
Client Name: GTA - Laurel
Project Name: 141040 USA

Work Order Number(s): 15010509

The following samples were received under chain of custody by Phase Separation Science (PSS) on 01/05/2015 at 12:08 pm

Lab Sample Id	Sample Id	Matrix	Date/Time Collected
15010509-001	GTA-1 (1-2)	SOIL	01/02/15 10:05
15010509-002	GTA-1 (2-4)	SOIL	01/02/15 10:07
15010509-003	GTA-2 (1-2)	SOIL	01/02/15 10:20
15010509-004	GTA-2 (2-4)	SOIL	01/02/15 10:22
15010509-005	GTA-3 (1-2)	SOIL	01/02/15 11:10
15010509-006	GTA-3 (2-4)	SOIL	01/02/15 11:15
15010509-007	GTA-4 (0-2)	SOIL	01/02/15 10:50
15010509-008	GTA-4 (2-4)	SOIL	01/02/15 10:55
15010509-009	GTA-5 (0-2)	SOIL	01/02/15 10:35
15010509-010	GTA-5 (2-4)	SOIL	01/02/15 10:37
15010509-011	GTA-6 (0-2)	SOIL	01/02/15 09:35
15010509-012	GTA-6 (7-9)	SOIL	01/02/15 09:37
15010509-013	GTA-7 (0-2)	SOIL	01/02/15 10:00
15010509-014	GTA-7 (5-7)	SOIL	01/02/15 10:05
15010509-015	GTA-8 (0-2)	SOIL	01/02/15 10:20
15010509-016	GTA-8 (2-4)	SOIL	01/02/15 10:30
15010509-017	GTA-9 (0-2)	SOIL	01/02/15 09:05
15010509-018	GTA-9 (5-7)	SOIL	01/02/15 09:15
15010509-019	GTA-10 (0-2)	SOIL	01/02/15 08:45
15010509-020	GTA-10 (2-4)	SOIL	01/02/15 08:47
15010509-021	GTA-11 (0-2)	SOIL	01/02/15 13:44
15010509-022	GTA-11 (4-6)	SOIL	01/02/15 13:46
15010509-023	GTA-12 (0-2)	SOIL	01/02/15 13:12
15010509-024	GTA-12 (4-6)	SOIL	01/02/15 13:10
15010509-025	GTA-13 (0-2)	SOIL	01/02/15 11:35
15010509-026	GTA-13 (8-10)	SOIL	01/02/15 11:37
15010509-027	GTA-14 (0-2)	SOIL	01/02/15 14:40
15010509-028	GTA-14 (8-10)	SOIL	01/02/15 14:42
15010509-029	GTA-6 (4-4.75)	SOIL	01/02/15 16:08
15010509-030	GTA-12 (5-5.5)	SOIL	01/02/15 16:02
15010509-031	GTA-9 (3-3.5)	SOIL	01/02/15 16:04
15010509-032	B-1 (4-5)	SOIL	01/02/15 15:45
15010509-033	B-2 (5-6)	SOIL	01/02/15 16:00
15010509-034	GTA-10 (3-4)	SOIL	01/02/15 15:05
15010509-035	GTA-11 (0-1)	SOIL	01/02/15 13:40
15010509-036	GTA-11 (6-7)	SOIL	01/02/15 14:00
15010509-037	GTA-13 (1-2)	SOIL	01/02/15 11:30
15010509-038	GTA-COMP-1	SOIL	01/02/15 15:35
15010509-039	GTA-COMP-1	SOIL	01/02/15 15:35
15010509-040	GTA-COMP-2	SOIL	01/02/15 15:35
15010509-041	GTA-COMP-2	SOIL	01/02/15 15:35
15010509-042	B-COMP	SOIL	01/02/15 16:00
15010509-043	B-COMP	SOIL	01/02/15 16:00



Sample Summary

Client Name: GTA - Laurel
Project Name: 141040 USA

Work Order Number(s): 15010509

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminants, and part 141.3, for the secondary drinking water contaminants.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].

Standard Flags/Abbreviations:

- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- C Results Pending Final Confirmation.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- J The target analyte was positively identified below the reporting limit but greater than the LOD.
- LOD Limit of Detection. An estimate of the minimum amount of a substance that an analytical process can reliably detect.
An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit.
- U Not detected.

Certifications:

NELAP Certifications: PA 68-03330, VA 460156
State Certifications: MD 179, WV 303
Regulated Soil Permit: P330-12-00268
NSWC USCG Accepted Laboratory
LDBE MWAA LD1997-0041-2015

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509
GTA - Laurel, Laurel, MD
 January 12, 2015

Project Name: 141040 USA
 Project Location: Baltimore City

Sample ID: GTA-1 (1-2)	Date/Time Sampled: 01/02/2015 10:05	PSS Sample ID: 15010509-001
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 91

VCP Metals : Chromium

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium	34	mg/kg	2.6		1	01/06/15	01/07/15 12:55	1034

Chromium, Hexavalent

Analytical Method: SW-846 7196 A

Preparation Method: SW3060A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.1		1	01/05/15	01/05/15 10:26	1053

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: GTA-1 (1-2)	Date/Time Sampled: 01/02/2015 10:05	PSS Sample ID: 15010509-001
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 91

MDE TCL Semivolatile Organic
 Compounds + TICs

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
Acenaphthylene	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
Acetophenone	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
Anthracene	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
Benzo(a)anthracene	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
Benzo(a)pyrene	75	ug/kg	26		1	01/06/15	01/07/15 10:54	1014
Benzo(b)fluoranthene	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
Benzo(g,h,i)perylene	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
Benzo(k)fluoranthene	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
Biphenyl (Diphenyl)	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
Butyl benzyl phthalate	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
bis(2-chloroethoxy) methane	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
bis(2-chloroethyl) ether	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
bis(2-chloroisopropyl) ether	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
bis(2-ethylhexyl) phthalate	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
4-Bromophenylphenyl ether	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
Di-n-butyl phthalate	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
Carbazole	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
4-Chloro-3-methylphenol	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
4-Chloroaniline	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
2-Chloronaphthalene	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
2-Chlorophenol	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
4-Chlorophenyl phenyl ether	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
Chrysene	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
Dibenz(a,h)anthracene	ND	ug/kg	26		1	01/06/15	01/07/15 10:54	1014
Dibenzofuran	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
3,3-Dichlorobenzidine	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
2,4-Dichlorophenol	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
Diethyl phthalate	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509
GTA - Laurel, Laurel, MD
 January 12, 2015

Project Name: 141040 USA
 Project Location: Baltimore City

Sample ID: GTA-1 (1-2) **Date/Time Sampled: 01/02/2015 10:05** **PSS Sample ID: 15010509-001**
Matrix: SOIL **Date/Time Received: 01/05/2015 12:08** **% Solids: 91**

MDE TCL Semivolatile Organic
 Compounds + TICs

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Dimethyl phthalate	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
2,4-Dimethylphenol	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
4,6-Dinitro-2-methyl phenol	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
2,4-Dinitrophenol	ND	ug/kg	370		1	01/06/15	01/07/15 10:54	1014
2,4-Dinitrotoluene	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
2,6-Dinitrotoluene	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
Fluoranthene	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
Fluorene	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
Hexachlorobenzene	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
Hexachlorobutadiene	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
Hexachlorocyclopentadiene	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
Hexachloroethane	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
Indeno(1,2,3-c,d)pyrene	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
Isophorone	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
2-Methylnaphthalene	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
2-Methylphenol	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
3&4-Methylphenol	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
Naphthalene	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
4-Nitroaniline	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
3-Nitroaniline	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
2-Nitroaniline	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
Nitrobenzene	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
2-Nitrophenol	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
4-Nitrophenol	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
N-Nitrosodi-n-Propylamine	ND	ug/kg	74		1	01/06/15	01/07/15 10:54	1014
N-Nitrosodiphenylamine	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
Di-n-octyl phthalate	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
Pentachlorophenol	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
Phenanthrene	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509
GTA - Laurel, Laurel, MD
 January 12, 2015

Project Name: 141040 USA
 Project Location: Baltimore City

Sample ID: GTA-1 (1-2)	Date/Time Sampled: 01/02/2015 10:05	PSS Sample ID: 15010509-001
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 91

MDE TCL Semivolatile Organic Compounds + TICs Analytical Method: SW-846 8270 C Preparation Method: SW3550C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Phenol	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
Atrazine	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
Pyrene	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
Pyridine	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
Caprolactam	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
2,4,6-Trichlorophenol	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014
2,4,5-Trichlorophenol	ND	ug/kg	190		1	01/06/15	01/07/15 10:54	1014

Sample ID: GTA-1 (2-4)	Date/Time Sampled: 01/02/2015 10:07	PSS Sample ID: 15010509-002
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 87

VCP Metals : Chromium Analytical Method: SW-846 6020 A Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium	37	mg/kg	2.2		1	01/06/15	01/07/15 13:25	1034

Chromium, Hexavalent Analytical Method: SW-846 7196 A Preparation Method: SW3060A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.1		1	01/05/15	01/05/15 10:26	1053

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509
GTA - Laurel, Laurel, MD
 January 12, 2015

Project Name: 141040 USA
 Project Location: Baltimore City

Sample ID: GTA-2 (1-2)	Date/Time Sampled: 01/02/2015 10:20	PSS Sample ID: 15010509-003
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 90

VCP Metals : Chromium

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium	24	mg/kg	1.9		1	01/06/15	01/07/15 13:31	1034

Chromium, Hexavalent

Analytical Method: SW-846 7196 A

Preparation Method: SW3060A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.1		1	01/05/15	01/05/15 10:26	1053

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: GTA-2 (1-2) **Date/Time Sampled: 01/02/2015 10:20** **PSS Sample ID: 15010509-003**
Matrix: SOIL **Date/Time Received: 01/05/2015 12:08** **% Solids: 90**

MDE TCL Semivolatile Organic
Compounds + TICs

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
Acenaphthylene	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
Acetophenone	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
Anthracene	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
Benzo(a)anthracene	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
Benzo(a)pyrene	ND	ug/kg	260		10	01/06/15	01/07/15 11:24	1014
Benzo(b)fluoranthene	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
Benzo(g,h,i)perylene	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
Benzo(k)fluoranthene	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
Biphenyl (Diphenyl)	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
Butyl benzyl phthalate	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
bis(2-chloroethoxy) methane	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
bis(2-chloroethyl) ether	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
bis(2-chloroisopropyl) ether	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
bis(2-ethylhexyl) phthalate	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
4-Bromophenylphenyl ether	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
Di-n-butyl phthalate	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
Carbazole	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
4-Chloro-3-methylphenol	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
4-Chloroaniline	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
2-Chloronaphthalene	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
2-Chlorophenol	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
4-Chlorophenyl phenyl ether	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
Chrysene	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
Dibenz(a,h)anthracene	ND	ug/kg	260		10	01/06/15	01/07/15 11:24	1014
Dibenzofuran	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
3,3-Dichlorobenzidine	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
2,4-Dichlorophenol	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
Diethyl phthalate	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: GTA-2 (1-2)	Date/Time Sampled: 01/02/2015 10:20	PSS Sample ID: 15010509-003
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 90

MDE TCL Semivolatile Organic
 Compounds + TICs

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Dimethyl phthalate	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
2,4-Dimethylphenol	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
4,6-Dinitro-2-methyl phenol	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
2,4-Dinitrophenol	ND	ug/kg	3,800		10	01/06/15	01/07/15 11:24	1014
2,4-Dinitrotoluene	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
2,6-Dinitrotoluene	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
Fluoranthene	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
Fluorene	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
Hexachlorobenzene	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
Hexachlorobutadiene	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
Hexachlorocyclopentadiene	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
Hexachloroethane	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
Indeno(1,2,3-c,d)pyrene	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
Isophorone	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
2-Methylnaphthalene	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
2-Methylphenol	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
3&4-Methylphenol	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
Naphthalene	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
4-Nitroaniline	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
3-Nitroaniline	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
2-Nitroaniline	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
Nitrobenzene	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
2-Nitrophenol	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
4-Nitrophenol	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
N-Nitrosodi-n-Propylamine	ND	ug/kg	760		10	01/06/15	01/07/15 11:24	1014
N-Nitrosodiphenylamine	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
Di-n-octyl phthalate	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
Pentachlorophenol	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
Phenanthrene	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: GTA-2 (1-2)	Date/Time Sampled: 01/02/2015 10:20	PSS Sample ID: 15010509-003
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 90

MDE TCL Semivolatile Organic
Compounds + TICs

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Phenol	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
Atrazine	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
Pyrene	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
Pyridine	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
Caprolactam	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
2,4,6-Trichlorophenol	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014
2,4,5-Trichlorophenol	ND	ug/kg	1,900		10	01/06/15	01/07/15 11:24	1014

Sample ID: GTA-2 (2-4)	Date/Time Sampled: 01/02/2015 10:22	PSS Sample ID: 15010509-004
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 90

VCP Metals : Chromium

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium	140	mg/kg	2.6		1	01/06/15	01/07/15 14:09	1034

Chromium, Hexavalent

Analytical Method: SW-846 7196 A

Preparation Method: SW3060A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.1		1	01/05/15	01/05/15 10:26	1053

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509
GTA - Laurel, Laurel, MD
 January 12, 2015

Project Name: 141040 USA
 Project Location: Baltimore City

Sample ID: GTA-3 (1-2)	Date/Time Sampled: 01/02/2015 11:10	PSS Sample ID: 15010509-005
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 93

VCP Metals : Chromium

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	<u>Result</u>	<u>Units</u>	<u>RL</u>	<u>Flag</u>	<u>Dil</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>
Chromium	19	mg/kg	1.9		1	01/06/15	01/07/15 14:15	1034

Chromium, Hexavalent

Analytical Method: SW-846 7196 A

Preparation Method: SW3060A

	<u>Result</u>	<u>Units</u>	<u>RL</u>	<u>Flag</u>	<u>Dil</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>
Chromium, Hexavalent	ND	mg/kg	1.1		1	01/05/15	01/05/15 10:26	1053

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CERTIFICATE OF ANALYSIS

No: 15010509

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: GTA-3 (1-2)	Date/Time Sampled: 01/02/2015 11:10	PSS Sample ID: 15010509-005
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 93

MDE TCL Semivolatile Organic
Compounds + TICs

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
Acenaphthylene	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
Acetophenone	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
Anthracene	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
Benzo(a)anthracene	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
Benzo(a)pyrene	57	ug/kg	25		1	01/06/15	01/07/15 08:29	1014
Benzo(b)fluoranthene	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
Benzo(g,h,i)perylene	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
Benzo(k)fluoranthene	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
Biphenyl (Diphenyl)	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
Butyl benzyl phthalate	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
bis(2-chloroethoxy) methane	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
bis(2-chloroethyl) ether	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
bis(2-chloroisopropyl) ether	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
bis(2-ethylhexyl) phthalate	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
4-Bromophenylphenyl ether	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
Di-n-butyl phthalate	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
Carbazole	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
4-Chloro-3-methylphenol	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
4-Chloroaniline	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
2-Chloronaphthalene	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
2-Chlorophenol	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
4-Chlorophenyl phenyl ether	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
Chrysene	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
Dibenz(a,h)anthracene	ND	ug/kg	25		1	01/06/15	01/07/15 08:29	1014
Dibenzofuran	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
3,3-Dichlorobenzidine	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
2,4-Dichlorophenol	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
Diethyl phthalate	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: GTA-3 (1-2)	Date/Time Sampled: 01/02/2015 11:10	PSS Sample ID: 15010509-005
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 93

MDE TCL Semivolatile Organic
Compounds + TICs

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Dimethyl phthalate	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
2,4-Dimethylphenol	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
4,6-Dinitro-2-methyl phenol	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
2,4-Dinitrophenol	ND	ug/kg	360		1	01/06/15	01/07/15 08:29	1014
2,4-Dinitrotoluene	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
2,6-Dinitrotoluene	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
Fluoranthene	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
Fluorene	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
Hexachlorobenzene	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
Hexachlorobutadiene	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
Hexachlorocyclopentadiene	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
Hexachloroethane	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
Indeno(1,2,3-c,d)pyrene	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
Isophorone	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
2-Methylnaphthalene	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
2-Methylphenol	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
3&4-Methylphenol	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
Naphthalene	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
4-Nitroaniline	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
3-Nitroaniline	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
2-Nitroaniline	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
Nitrobenzene	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
2-Nitrophenol	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
4-Nitrophenol	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
N-Nitrosodi-n-Propylamine	ND	ug/kg	72		1	01/06/15	01/07/15 08:29	1014
N-Nitrosodiphenylamine	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
Di-n-octyl phthalate	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
Pentachlorophenol	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
Phenanthrene	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509
GTA - Laurel, Laurel, MD
 January 12, 2015

Project Name: 141040 USA
 Project Location: Baltimore City

Sample ID: GTA-3 (1-2) **Date/Time Sampled: 01/02/2015 11:10** **PSS Sample ID: 15010509-005**
Matrix: SOIL **Date/Time Received: 01/05/2015 12:08** **% Solids: 93**

MDE TCL Semivolatile Organic Compounds + TICs Analytical Method: SW-846 8270 C Preparation Method: SW3550C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Phenol	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
Atrazine	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
Pyrene	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
Pyridine	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
Caprolactam	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
2,4,6-Trichlorophenol	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014
2,4,5-Trichlorophenol	ND	ug/kg	180		1	01/06/15	01/07/15 08:29	1014

Sample ID: GTA-3 (2-4) **Date/Time Sampled: 01/02/2015 11:15** **PSS Sample ID: 15010509-006**
Matrix: SOIL **Date/Time Received: 01/05/2015 12:08** **% Solids: 86**

VCP Metals : Chromium Analytical Method: SW-846 6020 A Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium	150	mg/kg	2.7		1	01/06/15	01/07/15 14:21	1034

Chromium, Hexavalent Analytical Method: SW-846 7196 A Preparation Method: SW3060A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.2		1	01/05/15	01/05/15 10:26	1053

Sample ID: GTA-4 (0-2) **Date/Time Sampled: 01/02/2015 10:50** **PSS Sample ID: 15010509-007**
Matrix: SOIL **Date/Time Received: 01/05/2015 12:08** **% Solids: 94**

VCP Metals : Chromium Analytical Method: SW-846 6020 A Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium	9.3	mg/kg	2.6		1	01/06/15	01/07/15 14:27	1034

Chromium, Hexavalent Analytical Method: SW-846 7196 A Preparation Method: SW3060A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.0		1	01/05/15	01/05/15 10:26	1053

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509
GTA - Laurel, Laurel, MD
 January 12, 2015

Project Name: 141040 USA
 Project Location: Baltimore City

Sample ID: GTA-4 (2-4)	Date/Time Sampled: 01/02/2015 10:55	PSS Sample ID: 15010509-008
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 92

VCP Metals : Chromium Analytical Method: SW-846 6020 A Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium	38	mg/kg	2.7		1	01/06/15	01/07/15 14:32	1034

Chromium, Hexavalent Analytical Method: SW-846 7196 A Preparation Method: SW3060A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.1		1	01/05/15	01/05/15 10:26	1053

Sample ID: GTA-5 (0-2)	Date/Time Sampled: 01/02/2015 10:35	PSS Sample ID: 15010509-009
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 89

VCP Metals : Chromium Analytical Method: SW-846 6020 A Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium	17	mg/kg	2.7		1	01/06/15	01/07/15 14:38	1034

Chromium, Hexavalent Analytical Method: SW-846 7196 A Preparation Method: SW3060A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.1		1	01/05/15	01/05/15 10:26	1053

Sample ID: GTA-5 (2-4)	Date/Time Sampled: 01/02/2015 10:37	PSS Sample ID: 15010509-010
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 86

VCP Metals : Chromium Analytical Method: SW-846 6020 A Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium	43	mg/kg	2.0		1	01/06/15	01/07/15 14:44	1034

Chromium, Hexavalent Analytical Method: SW-846 7196 A Preparation Method: SW3060A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.2		1	01/06/15	01/07/15 12:50	1053

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509
GTA - Laurel, Laurel, MD
 January 12, 2015

Project Name: 141040 USA
 Project Location: Baltimore City

Sample ID: GTA-6 (0-2)	Date/Time Sampled: 01/02/2015 09:35	PSS Sample ID: 15010509-011
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 92

VCP Metals : Chromium Analytical Method: SW-846 6020 A Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium	10	mg/kg	2.5		1	01/06/15	01/07/15 14:50	1034

Chromium, Hexavalent Analytical Method: SW-846 7196 A Preparation Method: SW3060A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.1		1	01/06/15	01/07/15 12:50	1053

Sample ID: GTA-6 (7-9)	Date/Time Sampled: 01/02/2015 09:37	PSS Sample ID: 15010509-012
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 86

VCP Metals : Chromium Analytical Method: SW-846 6020 A Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium	35	mg/kg	2.7		1	01/06/15	01/07/15 14:56	1034

Chromium, Hexavalent Analytical Method: SW-846 7196 A Preparation Method: SW3060A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.1		1	01/06/15	01/07/15 12:50	1053

Sample ID: GTA-7 (0-2)	Date/Time Sampled: 01/02/2015 10:00	PSS Sample ID: 15010509-013
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 89

VCP Metals : Chromium Analytical Method: SW-846 6020 A Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium	31	mg/kg	2.5		1	01/06/15	01/07/15 15:26	1034

Chromium, Hexavalent Analytical Method: SW-846 7196 A Preparation Method: SW3060A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.1		1	01/06/15	01/07/15 12:50	1053

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No: 15010509
GTA - Laurel, Laurel, MD
 January 12, 2015

Project Name: 141040 USA
 Project Location: Baltimore City

Sample ID: GTA-7 (5-7)	Date/Time Sampled: 01/02/2015 10:05	PSS Sample ID: 15010509-014
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 82

VCP Metals : Chromium Analytical Method: SW-846 6020 A Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium	47	mg/kg	2.7		1	01/06/15	01/07/15 15:32	1034

Chromium, Hexavalent Analytical Method: SW-846 7196 A Preparation Method: SW3060A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	2.4		2	01/06/15	01/07/15 12:50	1053

Sample ID: GTA-8 (0-2)	Date/Time Sampled: 01/02/2015 10:20	PSS Sample ID: 15010509-015
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 93

VCP Metals : Chromium Analytical Method: SW-846 6020 A Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium	7.9	mg/kg	2.1		1	01/06/15	01/07/15 15:38	1034

Chromium, Hexavalent Analytical Method: SW-846 7196 A Preparation Method: SW3060A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.1		1	01/06/15	01/07/15 12:50	1053

Sample ID: GTA-8 (2-4)	Date/Time Sampled: 01/02/2015 10:30	PSS Sample ID: 15010509-016
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 90

VCP Metals : Chromium Analytical Method: SW-846 6020 A Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium	29	mg/kg	2.0		1	01/07/15	01/08/15 13:58	1034

Chromium, Hexavalent Analytical Method: SW-846 7196 A Preparation Method: SW3060A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.1		1	01/06/15	01/07/15 12:50	1053

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No: 15010509
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 January 12, 2015

Project Name: 141040 USA
 Project Location: Baltimore City

Sample ID: GTA-9 (0-2)	Date/Time Sampled: 01/02/2015 09:05	PSS Sample ID: 15010509-017
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 94

VCP Metals : Chromium

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium	4.6	mg/kg	2.5		1	01/07/15	01/08/15 14:28	1034

Chromium, Hexavalent

Analytical Method: SW-846 7196 A

Preparation Method: SW3060A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.1		1	01/06/15	01/07/15 12:50	1053

Sample ID: GTA-9 (5-7)	Date/Time Sampled: 01/02/2015 09:15	PSS Sample ID: 15010509-018
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 83

VCP Metals : Chromium

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium	29	mg/kg	2.4		1	01/07/15	01/08/15 14:34	1034

Chromium, Hexavalent

Analytical Method: SW-846 7196 A

Preparation Method: SW3060A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.2		1	01/06/15	01/07/15 12:50	1053

Sample ID: GTA-10 (0-2)	Date/Time Sampled: 01/02/2015 08:45	PSS Sample ID: 15010509-019
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 88

VCP Metals : Chromium

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium	17	mg/kg	2.1		1	01/07/15	01/08/15 14:40	1034

Chromium, Hexavalent

Analytical Method: SW-846 7196 A

Preparation Method: SW3060A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.1		1	01/06/15	01/07/15 12:50	1053

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 January 12, 2015

Project Name: 141040 USA
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Sample ID: GTA-10 (2-4)	Date/Time Sampled: 01/02/2015 08:47	PSS Sample ID: 15010509-020
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 88

VCP Metals : Chromium Analytical Method: SW-846 6020 A Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium	18	mg/kg	2.5		1	01/07/15	01/08/15 14:46	1034

Chromium, Hexavalent Analytical Method: SW-846 7196 A Preparation Method: SW3060A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.1		1	01/06/15	01/07/15 12:50	1053

Sample ID: GTA-11 (0-2)	Date/Time Sampled: 01/02/2015 13:44	PSS Sample ID: 15010509-021
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 89

Chromium, Hexavalent Analytical Method: SW-846 7196 A Preparation Method: SW3060A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.1		1	01/06/15	01/07/15 12:50	1053

Sample ID: GTA-11 (4-6)	Date/Time Sampled: 01/02/2015 13:46	PSS Sample ID: 15010509-022
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 90

Chromium, Hexavalent Analytical Method: SW-846 7196 A Preparation Method: SW3060A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.1		1	01/06/15	01/07/15 12:50	1053

Sample ID: GTA-12 (0-2)	Date/Time Sampled: 01/02/2015 13:12	PSS Sample ID: 15010509-023
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 97

Chromium, Hexavalent Analytical Method: SW-846 7196 A Preparation Method: SW3060A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.0		1	01/06/15	01/07/15 12:50	1053

Sample ID: GTA-12 (4-6)	Date/Time Sampled: 01/02/2015 13:10	PSS Sample ID: 15010509-024
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 88

Chromium, Hexavalent Analytical Method: SW-846 7196 A Preparation Method: SW3060A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.1		1	01/06/15	01/07/15 12:50	1053

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 January 12, 2015

Project Name: 141040 USA
 Project Location: Baltimore City

Sample ID: GTA-13 (0-2) **Date/Time Sampled: 01/02/2015 11:35** **PSS Sample ID: 15010509-025**
Matrix: SOIL **Date/Time Received: 01/05/2015 12:08** **% Solids: 96**

Chromium, Hexavalent Analytical Method: SW-846 7196 A Preparation Method: SW3060A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.0		1	01/07/15	01/08/15 12:30	1053

Sample ID: GTA-13 (8-10) **Date/Time Sampled: 01/02/2015 11:37** **PSS Sample ID: 15010509-026**
Matrix: SOIL **Date/Time Received: 01/05/2015 12:08** **% Solids: 93**

Chromium, Hexavalent Analytical Method: SW-846 7196 A Preparation Method: SW3060A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.1		1	01/07/15	01/08/15 12:30	1053

Sample ID: GTA-14 (0-2) **Date/Time Sampled: 01/02/2015 14:40** **PSS Sample ID: 15010509-027**
Matrix: SOIL **Date/Time Received: 01/05/2015 12:08** **% Solids: 87**

Chromium, Hexavalent Analytical Method: SW-846 7196 A Preparation Method: SW3060A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.1		1	01/07/15	01/08/15 12:30	1053

Sample ID: GTA-14 (8-10) **Date/Time Sampled: 01/02/2015 14:42** **PSS Sample ID: 15010509-028**
Matrix: SOIL **Date/Time Received: 01/05/2015 12:08** **% Solids: 96**

Chromium, Hexavalent Analytical Method: SW-846 7196 A Preparation Method: SW3060A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.0		1	01/07/15	01/08/15 12:30	1053

Sample ID: GTA-6 (4-4.75) **Date/Time Sampled: 01/02/2015 16:08** **PSS Sample ID: 15010509-029**
Matrix: SOIL **Date/Time Received: 01/05/2015 12:08** **% Solids: 93**

Chromium, Hexavalent Analytical Method: SW-846 7196 A Preparation Method: SW3060A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.1		1	01/07/15	01/08/15 12:30	1053

Sample ID: GTA-12 (5-5.5) **Date/Time Sampled: 01/02/2015 16:02** **PSS Sample ID: 15010509-030**
Matrix: SOIL **Date/Time Received: 01/05/2015 12:08** **% Solids: 96**

Chromium, Hexavalent Analytical Method: SW-846 7196 A Preparation Method: SW3060A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.0		1	01/07/15	01/08/15 12:30	1053

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No: 15010509
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 January 12, 2015

Project Name: 141040 USA
 Project Location: Baltimore City

Sample ID: GTA-9 (3-3.5)	Date/Time Sampled: 01/02/2015 16:04	PSS Sample ID: 15010509-031
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 96

Chromium, Hexavalent Analytical Method: SW-846 7196 A Preparation Method: SW3060A

	<u>Result</u>	<u>Units</u>	<u>RL</u>	<u>Flag</u>	<u>Dil</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>
Chromium, Hexavalent	ND	mg/kg	1.0		1	01/07/15	01/08/15 12:30	1053

Sample ID: B-1 (4-5)	Date/Time Sampled: 01/02/2015 15:45	PSS Sample ID: 15010509-032
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 65

Chromium, Hexavalent Analytical Method: SW-846 7196 A Preparation Method: SW3060A

	<u>Result</u>	<u>Units</u>	<u>RL</u>	<u>Flag</u>	<u>Dil</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>
Chromium, Hexavalent	ND	mg/kg	3.1		2	01/07/15	01/08/15 12:30	1053

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CERTIFICATE OF ANALYSIS

No: 15010509

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: B-2 (5-6)	Date/Time Sampled: 01/02/2015 16:00	PSS Sample ID: 15010509-033
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 90

PP Metals (VCP RLs)

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.5		1	01/07/15	01/09/15 14:34	1034
Arsenic	2.7	mg/kg	0.51		1	01/07/15	01/09/15 14:34	1034
Beryllium	ND	mg/kg	2.5		1	01/07/15	01/09/15 14:34	1034
Cadmium	ND	mg/kg	2.5		1	01/07/15	01/09/15 14:34	1034
Chromium	47	mg/kg	2.5		1	01/07/15	01/09/15 14:34	1034
Copper	11	mg/kg	2.5		1	01/07/15	01/09/15 14:34	1034
Lead	13	mg/kg	2.5		1	01/07/15	01/09/15 14:34	1034
Mercury	ND	mg/kg	0.10		1	01/07/15	01/09/15 14:34	1034
Nickel	9.8	mg/kg	2.5		1	01/07/15	01/09/15 14:34	1034
Selenium	ND	mg/kg	2.5		1	01/07/15	01/09/15 14:34	1034
Silver	ND	mg/kg	2.5		1	01/07/15	01/09/15 14:34	1034
Thallium	ND	mg/kg	0.51		1	01/07/15	01/09/15 14:34	1034
Zinc	23	mg/kg	10		1	01/07/15	01/09/15 14:34	1034

Chromium, Hexavalent

Analytical Method: SW-846 7196 A

Preparation Method: SW3060A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.1		1	01/07/15	01/08/15 12:30	1053

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	01/06/15	01/06/15 18:27	1035

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No: 15010509

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: B-2 (5-6)	Date/Time Sampled: 01/02/2015 16:00	PSS Sample ID: 15010509-033
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 90

MDE TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5035A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
Chloromethane	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
Vinyl Chloride	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
Bromomethane	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
Chloroethane	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
Acetone	50	ug/kg	16		1	01/06/15	01/06/15 15:03	1011
Cyclohexane	ND	ug/kg	16		1	01/06/15	01/06/15 15:03	1011
Trichlorofluoromethane	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
1,1-Dichloroethene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
Methylene Chloride	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
trans-1,2-Dichloroethene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
Methyl-t-butyl ether	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
1,1-Dichloroethane	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
2-Butanone	ND	ug/kg	16		1	01/06/15	01/06/15 15:03	1011
cis-1,2-Dichloroethene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
Bromochloromethane	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
Chloroform	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
1,1,1-Trichloroethane	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
1,2-Dichloroethane	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
Carbon Tetrachloride	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
Benzene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
1,2-Dichloropropane	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
Carbon Disulfide	ND	ug/kg	8.2		1	01/06/15	01/06/15 15:03	1011
Methylcyclohexane	ND	ug/kg	16		1	01/06/15	01/06/15 15:03	1011
Trichloroethene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
Methyl Acetate	ND	ug/kg	16		1	01/06/15	01/06/15 15:03	1011
Bromodichloromethane	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
cis-1,3-Dichloropropene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
4-Methyl-2-Pentanone	ND	ug/kg	16		1	01/06/15	01/06/15 15:03	1011

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CERTIFICATE OF ANALYSIS

No: 15010509

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: B-2 (5-6)	Date/Time Sampled: 01/02/2015 16:00	PSS Sample ID: 15010509-033
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 90

MDE TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5035A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
1,1,2-Trichloroethane	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
Toluene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
2-Hexanone	ND	ug/kg	16		1	01/06/15	01/06/15 15:03	1011
1,2-Dibromoethane	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
Dibromochloromethane	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
Bromoform	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
Tetrachloroethene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
Chlorobenzene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
Ethylbenzene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
m,p-Xylenes	ND	ug/kg	8.2		1	01/06/15	01/06/15 15:03	1011
Styrene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
o-Xylene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
Isopropylbenzene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
1,3-Dichlorobenzene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
1,4-Dichlorobenzene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
1,2-Dichlorobenzene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
1,2-Dibromo-3-Chloropropane	ND	ug/kg	33		1	01/06/15	01/06/15 15:03	1011
1,2,4-Trichlorobenzene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
Naphthalene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011
1,2,3-Trichlorobenzene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:03	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: B-2 (5-6)	Date/Time Sampled: 01/02/2015 16:00	PSS Sample ID: 15010509-033
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 90

MDE TCL Semivolatile Organic
Compounds + TICs

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
Acenaphthylene	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
Acetophenone	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
Anthracene	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
Benzo(a)anthracene	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
Benzo(a)pyrene	ND	ug/kg	260		10	01/06/15	01/07/15 11:55	1014
Benzo(b)fluoranthene	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
Benzo(g,h,i)perylene	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
Benzo(k)fluoranthene	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
Biphenyl (Diphenyl)	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
Butyl benzyl phthalate	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
bis(2-chloroethoxy) methane	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
bis(2-chloroethyl) ether	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
bis(2-chloroisopropyl) ether	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
bis(2-ethylhexyl) phthalate	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
4-Bromophenylphenyl ether	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
Di-n-butyl phthalate	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
Carbazole	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
4-Chloro-3-methylphenol	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
4-Chloroaniline	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
2-Chloronaphthalene	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
2-Chlorophenol	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
4-Chlorophenyl phenyl ether	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
Chrysene	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
Dibenz(a,h)anthracene	ND	ug/kg	260		10	01/06/15	01/07/15 11:55	1014
Dibenzofuran	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
3,3-Dichlorobenzidine	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
2,4-Dichlorophenol	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
Diethyl phthalate	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: B-2 (5-6)	Date/Time Sampled: 01/02/2015 16:00	PSS Sample ID: 15010509-033
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 90

MDE TCL Semivolatile Organic
 Compounds + TICs

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Dimethyl phthalate	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
2,4-Dimethylphenol	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
4,6-Dinitro-2-methyl phenol	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
2,4-Dinitrophenol	ND	ug/kg	3,700		10	01/06/15	01/07/15 11:55	1014
2,4-Dinitrotoluene	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
2,6-Dinitrotoluene	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
Fluoranthene	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
Fluorene	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
Hexachlorobenzene	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
Hexachlorobutadiene	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
Hexachlorocyclopentadiene	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
Hexachloroethane	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
Indeno(1,2,3-c,d)pyrene	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
Isophorone	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
2-Methylnaphthalene	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
2-Methylphenol	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
3&4-Methylphenol	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
Naphthalene	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
4-Nitroaniline	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
3-Nitroaniline	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
2-Nitroaniline	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
Nitrobenzene	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
2-Nitrophenol	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
4-Nitrophenol	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
N-Nitrosodi-n-Propylamine	ND	ug/kg	730		10	01/06/15	01/07/15 11:55	1014
N-Nitrosodiphenylamine	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
Di-n-octyl phthalate	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
Pentachlorophenol	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
Phenanthrene	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509
GTA - Laurel, Laurel, MD
 January 12, 2015

Project Name: 141040 USA
 Project Location: Baltimore City

Sample ID: B-2 (5-6)	Date/Time Sampled: 01/02/2015 16:00	PSS Sample ID: 15010509-033
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 90

MDE TCL Semivolatile Organic
 Compounds + TICs

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Phenol	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
Atrazine	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
Pyrene	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
Pyridine	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
Caprolactam	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
2,4,6-Trichlorophenol	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014
2,4,5-Trichlorophenol	ND	ug/kg	1,800		10	01/06/15	01/07/15 11:55	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509
GTA - Laurel, Laurel, MD
 January 12, 2015

Project Name: 141040 USA
 Project Location: Baltimore City

Sample ID: GTA-10 (3-4)	Date/Time Sampled: 01/02/2015 15:05	PSS Sample ID: 15010509-034
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 92

Total Petroleum Hydrocarbons-GRO	Analytical Method: SW-846 8015C	Preparation Method: 5030
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	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	01/06/15	01/06/15 18:56	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: GTA-10 (3-4)	Date/Time Sampled: 01/02/2015 15:05	PSS Sample ID: 15010509-034
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 92

MDE TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5035A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
Chloromethane	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
Vinyl Chloride	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
Bromomethane	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
Chloroethane	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
Acetone	22	ug/kg	17		1	01/06/15	01/06/15 15:32	1011
Cyclohexane	ND	ug/kg	17		1	01/06/15	01/06/15 15:32	1011
Trichlorofluoromethane	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
1,1-Dichloroethene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
Methylene Chloride	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
trans-1,2-Dichloroethene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
Methyl-t-butyl ether	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
1,1-Dichloroethane	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
2-Butanone	ND	ug/kg	17		1	01/06/15	01/06/15 15:32	1011
cis-1,2-Dichloroethene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
Bromochloromethane	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
Chloroform	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
1,1,1-Trichloroethane	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
1,2-Dichloroethane	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
Carbon Tetrachloride	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
Benzene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
1,2-Dichloropropane	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
Carbon Disulfide	ND	ug/kg	8.3		1	01/06/15	01/06/15 15:32	1011
Methylcyclohexane	ND	ug/kg	17		1	01/06/15	01/06/15 15:32	1011
Trichloroethene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
Methyl Acetate	ND	ug/kg	17		1	01/06/15	01/06/15 15:32	1011
Bromodichloromethane	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
cis-1,3-Dichloropropene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
4-Methyl-2-Pentanone	ND	ug/kg	17		1	01/06/15	01/06/15 15:32	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: GTA-10 (3-4)	Date/Time Sampled: 01/02/2015 15:05	PSS Sample ID: 15010509-034
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 92

MDE TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5035A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
1,1,2-Trichloroethane	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
Toluene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
2-Hexanone	ND	ug/kg	17		1	01/06/15	01/06/15 15:32	1011
1,2-Dibromoethane	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
Dibromochloromethane	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
Bromoform	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
Tetrachloroethene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
Chlorobenzene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
Ethylbenzene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
m,p-Xylenes	ND	ug/kg	8.3		1	01/06/15	01/06/15 15:32	1011
Styrene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
o-Xylene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
Isopropylbenzene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
1,3-Dichlorobenzene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
1,4-Dichlorobenzene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
1,2-Dichlorobenzene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
1,2-Dibromo-3-Chloropropane	ND	ug/kg	33		1	01/06/15	01/06/15 15:32	1011
1,2,4-Trichlorobenzene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
Naphthalene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011
1,2,3-Trichlorobenzene	ND	ug/kg	4.1		1	01/06/15	01/06/15 15:32	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509
GTA - Laurel, Laurel, MD
 January 12, 2015

Project Name: 141040 USA
 Project Location: Baltimore City

Sample ID: GTA-11 (0-1)	Date/Time Sampled: 01/02/2015 13:40	PSS Sample ID: 15010509-035
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 94

PP Metals (VCP RLs)

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.4		1	01/07/15	01/09/15 14:40	1034
Arsenic	0.76	mg/kg	0.47		1	01/07/15	01/09/15 14:40	1034
Beryllium	ND	mg/kg	2.4		1	01/07/15	01/09/15 14:40	1034
Cadmium	ND	mg/kg	2.4		1	01/07/15	01/09/15 14:40	1034
Chromium	5.1	mg/kg	2.4		1	01/07/15	01/09/15 14:40	1034
Copper	18	mg/kg	2.4		1	01/07/15	01/09/15 14:40	1034
Lead	3.4	mg/kg	2.4		1	01/07/15	01/09/15 14:40	1034
Mercury	ND	mg/kg	0.094		1	01/07/15	01/09/15 14:40	1034
Nickel	3.5	mg/kg	2.4		1	01/07/15	01/09/15 14:40	1034
Selenium	ND	mg/kg	2.4		1	01/07/15	01/09/15 14:40	1034
Silver	ND	mg/kg	2.4		1	01/07/15	01/09/15 14:40	1034
Thallium	ND	mg/kg	0.47		1	01/07/15	01/09/15 14:40	1034
Zinc	ND	mg/kg	9.4		1	01/07/15	01/09/15 14:40	1034

Chromium, Hexavalent

Analytical Method: SW-846 7196 A

Preparation Method: SW3060A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.1		1	01/07/15	01/08/15 12:30	1053

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	01/06/15	01/06/15 19:26	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: GTA-11 (0-1)	Date/Time Sampled: 01/02/2015 13:40	PSS Sample ID: 15010509-035
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 94

MDE TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5035A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
Chloromethane	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
Vinyl Chloride	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
Bromomethane	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
Chloroethane	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
Acetone	19	ug/kg	19		1	01/06/15	01/06/15 16:02	1011
Cyclohexane	ND	ug/kg	19		1	01/06/15	01/06/15 16:02	1011
Trichlorofluoromethane	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
1,1-Dichloroethene	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
Methylene Chloride	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
trans-1,2-Dichloroethene	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
Methyl-t-butyl ether	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
1,1-Dichloroethane	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
2-Butanone	ND	ug/kg	19		1	01/06/15	01/06/15 16:02	1011
cis-1,2-Dichloroethene	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
Bromochloromethane	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
Chloroform	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
1,1,1-Trichloroethane	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
1,2-Dichloroethane	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
Carbon Tetrachloride	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
Benzene	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
1,2-Dichloropropane	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
Carbon Disulfide	ND	ug/kg	9.6		1	01/06/15	01/06/15 16:02	1011
Methylcyclohexane	ND	ug/kg	19		1	01/06/15	01/06/15 16:02	1011
Trichloroethene	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
Methyl Acetate	ND	ug/kg	19		1	01/06/15	01/06/15 16:02	1011
Bromodichloromethane	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
cis-1,3-Dichloropropene	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
4-Methyl-2-Pentanone	ND	ug/kg	19		1	01/06/15	01/06/15 16:02	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: GTA-11 (0-1)	Date/Time Sampled: 01/02/2015 13:40	PSS Sample ID: 15010509-035
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 94

MDE TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5035A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
1,1,2-Trichloroethane	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
Toluene	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
2-Hexanone	ND	ug/kg	19		1	01/06/15	01/06/15 16:02	1011
1,2-Dibromoethane	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
Dibromochloromethane	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
Bromoform	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
Tetrachloroethene	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
Chlorobenzene	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
Ethylbenzene	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
m,p-Xylenes	ND	ug/kg	9.6		1	01/06/15	01/06/15 16:02	1011
Styrene	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
o-Xylene	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
Isopropylbenzene	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
1,3-Dichlorobenzene	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
1,4-Dichlorobenzene	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
1,2-Dichlorobenzene	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
1,2-Dibromo-3-Chloropropane	ND	ug/kg	38		1	01/06/15	01/06/15 16:02	1011
1,2,4-Trichlorobenzene	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
Naphthalene	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011
1,2,3-Trichlorobenzene	ND	ug/kg	4.8		1	01/06/15	01/06/15 16:02	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: GTA-11 (0-1)	Date/Time Sampled: 01/02/2015 13:40	PSS Sample ID: 15010509-035
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 94

MDE TCL Semivolatile Organic
 Compounds + TICs

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
Acenaphthylene	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
Acetophenone	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
Anthracene	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
Benzo(a)anthracene	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
Benzo(a)pyrene	43	ug/kg	24		1	01/06/15	01/07/15 08:59	1014
Benzo(b)fluoranthene	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
Benzo(g,h,i)perylene	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
Benzo(k)fluoranthene	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
Biphenyl (Diphenyl)	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
Butyl benzyl phthalate	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
bis(2-chloroethoxy) methane	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
bis(2-chloroethyl) ether	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
bis(2-chloroisopropyl) ether	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
bis(2-ethylhexyl) phthalate	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
4-Bromophenylphenyl ether	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
Di-n-butyl phthalate	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
Carbazole	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
4-Chloro-3-methylphenol	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
4-Chloroaniline	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
2-Chloronaphthalene	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
2-Chlorophenol	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
4-Chlorophenyl phenyl ether	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
Chrysene	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
Dibenz(a,h)anthracene	ND	ug/kg	24		1	01/06/15	01/07/15 08:59	1014
Dibenzofuran	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
3,3-Dichlorobenzidine	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
2,4-Dichlorophenol	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
Diethyl phthalate	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: GTA-11 (0-1)	Date/Time Sampled: 01/02/2015 13:40	PSS Sample ID: 15010509-035
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 94

MDE TCL Semivolatile Organic
 Compounds + TICs

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Dimethyl phthalate	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
2,4-Dimethylphenol	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
4,6-Dinitro-2-methyl phenol	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
2,4-Dinitrophenol	ND	ug/kg	350		1	01/06/15	01/07/15 08:59	1014
2,4-Dinitrotoluene	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
2,6-Dinitrotoluene	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
Fluoranthene	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
Fluorene	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
Hexachlorobenzene	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
Hexachlorobutadiene	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
Hexachlorocyclopentadiene	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
Hexachloroethane	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
Indeno(1,2,3-c,d)pyrene	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
Isophorone	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
2-Methylnaphthalene	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
2-Methylphenol	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
3&4-Methylphenol	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
Naphthalene	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
4-Nitroaniline	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
3-Nitroaniline	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
2-Nitroaniline	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
Nitrobenzene	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
2-Nitrophenol	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
4-Nitrophenol	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
N-Nitrosodi-n-Propylamine	ND	ug/kg	70		1	01/06/15	01/07/15 08:59	1014
N-Nitrosodiphenylamine	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
Di-n-octyl phthalate	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
Pentachlorophenol	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
Phenanthrene	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: GTA-11 (0-1) **Date/Time Sampled: 01/02/2015 13:40** **PSS Sample ID: 15010509-035**
Matrix: SOIL **Date/Time Received: 01/05/2015 12:08** **% Solids: 94**

MDE TCL Semivolatile Organic
Compounds + TICs

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Phenol	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
Atrazine	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
Pyrene	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
Pyridine	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
Caprolactam	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
2,4,6-Trichlorophenol	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014
2,4,5-Trichlorophenol	ND	ug/kg	170		1	01/06/15	01/07/15 08:59	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509
GTA - Laurel, Laurel, MD
 January 12, 2015

Project Name: 141040 USA
 Project Location: Baltimore City

Sample ID: GTA-11 (6-7)	Date/Time Sampled: 01/02/2015 14:00	PSS Sample ID: 15010509-036
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 88

PP Metals (VCP RLs)

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.4		1	01/07/15	01/09/15 15:17	1034
Arsenic	5.2	mg/kg	0.48		1	01/07/15	01/09/15 15:17	1034
Beryllium	ND	mg/kg	2.4		1	01/07/15	01/09/15 15:17	1034
Cadmium	ND	mg/kg	2.4		1	01/07/15	01/09/15 15:17	1034
Chromium	130	mg/kg	2.4		1	01/07/15	01/09/15 15:17	1034
Copper	33	mg/kg	2.4		1	01/07/15	01/09/15 15:17	1034
Lead	96	mg/kg	2.4		1	01/07/15	01/09/15 15:17	1034
Mercury	0.85	mg/kg	0.096		1	01/07/15	01/09/15 15:17	1034
Nickel	18	mg/kg	2.4		1	01/07/15	01/09/15 15:17	1034
Selenium	ND	mg/kg	2.4		1	01/07/15	01/09/15 15:17	1034
Silver	ND	mg/kg	2.4		1	01/07/15	01/09/15 15:17	1034
Thallium	ND	mg/kg	0.48		1	01/07/15	01/09/15 15:17	1034
Zinc	60	mg/kg	9.6		1	01/07/15	01/09/15 15:17	1034

Chromium, Hexavalent

Analytical Method: SW-846 7196 A

Preparation Method: SW3060A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.1		1	01/07/15	01/08/15 12:30	1053

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	01/06/15	01/06/15 19:55	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: GTA-11 (6-7)	Date/Time Sampled: 01/02/2015 14:00	PSS Sample ID: 15010509-036
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 88

MDE TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5035A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
Chloromethane	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
Vinyl Chloride	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
Bromomethane	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
Chloroethane	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
Acetone	23	ug/kg	18		1	01/06/15	01/06/15 16:32	1011
Cyclohexane	ND	ug/kg	18		1	01/06/15	01/06/15 16:32	1011
Trichlorofluoromethane	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
1,1-Dichloroethene	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
Methylene Chloride	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
trans-1,2-Dichloroethene	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
Methyl-t-butyl ether	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
1,1-Dichloroethane	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
2-Butanone	ND	ug/kg	18		1	01/06/15	01/06/15 16:32	1011
cis-1,2-Dichloroethene	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
Bromochloromethane	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
Chloroform	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
1,1,1-Trichloroethane	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
1,2-Dichloroethane	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
Carbon Tetrachloride	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
Benzene	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
1,2-Dichloropropane	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
Carbon Disulfide	ND	ug/kg	9.0		1	01/06/15	01/06/15 16:32	1011
Methylcyclohexane	ND	ug/kg	18		1	01/06/15	01/06/15 16:32	1011
Trichloroethene	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
Methyl Acetate	ND	ug/kg	18		1	01/06/15	01/06/15 16:32	1011
Bromodichloromethane	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
cis-1,3-Dichloropropene	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
4-Methyl-2-Pentanone	ND	ug/kg	18		1	01/06/15	01/06/15 16:32	1011

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CERTIFICATE OF ANALYSIS

No: 15010509

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: GTA-11 (6-7)	Date/Time Sampled: 01/02/2015 14:00	PSS Sample ID: 15010509-036
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 88

MDE TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5035A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
1,1,2-Trichloroethane	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
Toluene	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
2-Hexanone	ND	ug/kg	18		1	01/06/15	01/06/15 16:32	1011
1,2-Dibromoethane	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
Dibromochloromethane	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
Bromoform	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
Tetrachloroethene	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
Chlorobenzene	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
Ethylbenzene	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
m,p-Xylenes	ND	ug/kg	9.0		1	01/06/15	01/06/15 16:32	1011
Styrene	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
o-Xylene	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
Isopropylbenzene	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
1,3-Dichlorobenzene	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
1,4-Dichlorobenzene	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
1,2-Dichlorobenzene	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
1,2-Dibromo-3-Chloropropane	ND	ug/kg	36		1	01/06/15	01/06/15 16:32	1011
1,2,4-Trichlorobenzene	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
Naphthalene	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011
1,2,3-Trichlorobenzene	ND	ug/kg	4.5		1	01/06/15	01/06/15 16:32	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: GTA-11 (6-7)	Date/Time Sampled: 01/02/2015 14:00	PSS Sample ID: 15010509-036
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 88

MDE TCL Semivolatile Organic
Compounds + TICs

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
Acenaphthylene	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
Acetophenone	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
Anthracene	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
Benzo(a)anthracene	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
Benzo(a)pyrene	72	ug/kg	27		1	01/06/15	01/07/15 05:56	1014
Benzo(b)fluoranthene	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
Benzo(g,h,i)perylene	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
Benzo(k)fluoranthene	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
Biphenyl (Diphenyl)	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
Butyl benzyl phthalate	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
bis(2-chloroethoxy) methane	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
bis(2-chloroethyl) ether	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
bis(2-chloroisopropyl) ether	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
bis(2-ethylhexyl) phthalate	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
4-Bromophenylphenyl ether	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
Di-n-butyl phthalate	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
Carbazole	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
4-Chloro-3-methylphenol	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
4-Chloroaniline	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
2-Chloronaphthalene	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
2-Chlorophenol	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
4-Chlorophenyl phenyl ether	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
Chrysene	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
Dibenz(a,h)anthracene	ND	ug/kg	27		1	01/06/15	01/07/15 05:56	1014
Dibenzofuran	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
3,3-Dichlorobenzidine	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
2,4-Dichlorophenol	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
Diethyl phthalate	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: GTA-11 (6-7)	Date/Time Sampled: 01/02/2015 14:00	PSS Sample ID: 15010509-036
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 88

MDE TCL Semivolatile Organic
 Compounds + TICs

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Dimethyl phthalate	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
2,4-Dimethylphenol	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
4,6-Dinitro-2-methyl phenol	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
2,4-Dinitrophenol	ND	ug/kg	380		1	01/06/15	01/07/15 05:56	1014
2,4-Dinitrotoluene	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
2,6-Dinitrotoluene	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
Fluoranthene	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
Fluorene	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
Hexachlorobenzene	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
Hexachlorobutadiene	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
Hexachlorocyclopentadiene	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
Hexachloroethane	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
Indeno(1,2,3-c,d)pyrene	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
Isophorone	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
2-Methylnaphthalene	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
2-Methylphenol	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
3&4-Methylphenol	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
Naphthalene	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
4-Nitroaniline	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
3-Nitroaniline	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
2-Nitroaniline	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
Nitrobenzene	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
2-Nitrophenol	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
4-Nitrophenol	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
N-Nitrosodi-n-Propylamine	ND	ug/kg	76		1	01/06/15	01/07/15 05:56	1014
N-Nitrosodiphenylamine	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
Di-n-octyl phthalate	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
Pentachlorophenol	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
Phenanthrene	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509
GTA - Laurel, Laurel, MD
 January 12, 2015

Project Name: 141040 USA
 Project Location: Baltimore City

Sample ID: GTA-11 (6-7)	Date/Time Sampled: 01/02/2015 14:00	PSS Sample ID: 15010509-036
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 88

MDE TCL Semivolatile Organic
 Compounds + TICs

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Phenol	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
Atrazine	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
Pyrene	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
Pyridine	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
Caprolactam	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
2,4,6-Trichlorophenol	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014
2,4,5-Trichlorophenol	ND	ug/kg	190		1	01/06/15	01/07/15 05:56	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509
GTA - Laurel, Laurel, MD
 January 12, 2015

Project Name: 141040 USA
 Project Location: Baltimore City

Sample ID: GTA-13 (1-2) **Date/Time Sampled: 01/02/2015 11:30** **PSS Sample ID: 15010509-037**
Matrix: SOIL **Date/Time Received: 01/05/2015 12:08** **% Solids: 97**

PP Metals (VCP RLs)

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.5		1	01/07/15	01/09/15 15:23	1034
Arsenic	0.75	mg/kg	0.50		1	01/07/15	01/09/15 15:23	1034
Beryllium	ND	mg/kg	2.5		1	01/07/15	01/09/15 15:23	1034
Cadmium	ND	mg/kg	2.5		1	01/07/15	01/09/15 15:23	1034
Chromium	4.4	mg/kg	2.5		1	01/07/15	01/09/15 15:23	1034
Copper	ND	mg/kg	2.5		1	01/07/15	01/09/15 15:23	1034
Lead	3.3	mg/kg	2.5		1	01/07/15	01/09/15 15:23	1034
Mercury	ND	mg/kg	0.10		1	01/07/15	01/09/15 15:23	1034
Nickel	ND	mg/kg	2.5		1	01/07/15	01/09/15 15:23	1034
Selenium	ND	mg/kg	2.5		1	01/07/15	01/09/15 15:23	1034
Silver	ND	mg/kg	2.5		1	01/07/15	01/09/15 15:23	1034
Thallium	ND	mg/kg	0.50		1	01/07/15	01/09/15 15:23	1034
Zinc	ND	mg/kg	10		1	01/07/15	01/09/15 15:23	1034

Chromium, Hexavalent

Analytical Method: SW-846 7196 A

Preparation Method: SW3060A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.0		1	01/07/15	01/08/15 12:30	1053

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	100		1	01/06/15	01/06/15 20:25	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: GTA-13 (1-2)	Date/Time Sampled: 01/02/2015 11:30	PSS Sample ID: 15010509-037
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 97

MDE TCL Volatile Organic Compounds
Prep Method SW5030.

Analytical Method: SW-846 8260 B

Preparation Method: 5035A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
Chloromethane	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
Vinyl Chloride	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
Bromomethane	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
Chloroethane	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
Acetone	ND	ug/kg	21		1	01/07/15	01/07/15 15:08	1011
Cyclohexane	ND	ug/kg	21		1	01/07/15	01/07/15 15:08	1011
Trichlorofluoromethane	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
1,1-Dichloroethene	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
Methylene Chloride	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
trans-1,2-Dichloroethene	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
Methyl-t-butyl ether	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
1,1-Dichloroethane	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
2-Butanone	ND	ug/kg	21		1	01/07/15	01/07/15 15:08	1011
cis-1,2-Dichloroethene	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
Bromochloromethane	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
Chloroform	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
1,1,1-Trichloroethane	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
1,2-Dichloroethane	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
Carbon Tetrachloride	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
Benzene	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
1,2-Dichloropropane	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
Carbon Disulfide	ND	ug/kg	10		1	01/07/15	01/07/15 15:08	1011
Methylcyclohexane	ND	ug/kg	21		1	01/07/15	01/07/15 15:08	1011
Trichloroethene	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
Methyl Acetate	ND	ug/kg	21		1	01/07/15	01/07/15 15:08	1011
Bromodichloromethane	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
cis-1,3-Dichloropropene	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
4-Methyl-2-Pentanone	ND	ug/kg	21		1	01/07/15	01/07/15 15:08	1011

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CERTIFICATE OF ANALYSIS

No: 15010509

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: GTA-13 (1-2)	Date/Time Sampled: 01/02/2015 11:30	PSS Sample ID: 15010509-037
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 97

MDE TCL Volatile Organic Compounds
Prep Method SW5030.

Analytical Method: SW-846 8260 B

Preparation Method: 5035A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
1,1,2-Trichloroethane	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
Toluene	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
2-Hexanone	ND	ug/kg	21		1	01/07/15	01/07/15 15:08	1011
1,2-Dibromoethane	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
Dibromochloromethane	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
Bromoform	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
Tetrachloroethene	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
Chlorobenzene	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
Ethylbenzene	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
m,p-Xylenes	ND	ug/kg	10		1	01/07/15	01/07/15 15:08	1011
Styrene	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
o-Xylene	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
Isopropylbenzene	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
1,3-Dichlorobenzene	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
1,4-Dichlorobenzene	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
1,2-Dichlorobenzene	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
1,2-Dibromo-3-Chloropropane	ND	ug/kg	42		1	01/07/15	01/07/15 15:08	1011
1,2,4-Trichlorobenzene	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
Naphthalene	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011
1,2,3-Trichlorobenzene	ND	ug/kg	5.2		1	01/07/15	01/07/15 15:08	1011

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CERTIFICATE OF ANALYSIS

No: 15010509
GTA - Laurel, Laurel, MD
 January 12, 2015

Project Name: 141040 USA
 Project Location: Baltimore City

Sample ID: GTA-13 (1-2) **Date/Time Sampled: 01/02/2015 11:30** **PSS Sample ID: 15010509-037**
Matrix: SOIL **Date/Time Received: 01/05/2015 12:08** **% Solids: 97**

MDE TCL Semivolatile Organic
 Compounds + TICs

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
Acenaphthylene	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
Acetophenone	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
Anthracene	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
Benzo(a)anthracene	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
Benzo(a)pyrene	ND	ug/kg	24		1	01/06/15	01/07/15 06:27	1014
Benzo(b)fluoranthene	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
Benzo(g,h,i)perylene	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
Benzo(k)fluoranthene	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
Biphenyl (Diphenyl)	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
Butyl benzyl phthalate	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
bis(2-chloroethoxy) methane	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
bis(2-chloroethyl) ether	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
bis(2-chloroisopropyl) ether	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
bis(2-ethylhexyl) phthalate	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
4-Bromophenylphenyl ether	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
Di-n-butyl phthalate	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
Carbazole	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
4-Chloro-3-methylphenol	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
4-Chloroaniline	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
2-Chloronaphthalene	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
2-Chlorophenol	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
4-Chlorophenyl phenyl ether	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
Chrysene	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
Dibenz(a,h)anthracene	ND	ug/kg	24		1	01/06/15	01/07/15 06:27	1014
Dibenzofuran	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
3,3-Dichlorobenzidine	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
2,4-Dichlorophenol	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
Diethyl phthalate	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509
GTA - Laurel, Laurel, MD
 January 12, 2015

Project Name: 141040 USA
 Project Location: Baltimore City

Sample ID: GTA-13 (1-2) **Date/Time Sampled: 01/02/2015 11:30** **PSS Sample ID: 15010509-037**
Matrix: SOIL **Date/Time Received: 01/05/2015 12:08** **% Solids: 97**

MDE TCL Semivolatile Organic
 Compounds + TICs

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Dimethyl phthalate	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
2,4-Dimethylphenol	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
4,6-Dinitro-2-methyl phenol	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
2,4-Dinitrophenol	ND	ug/kg	340		1	01/06/15	01/07/15 06:27	1014
2,4-Dinitrotoluene	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
2,6-Dinitrotoluene	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
Fluoranthene	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
Fluorene	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
Hexachlorobenzene	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
Hexachlorobutadiene	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
Hexachlorocyclopentadiene	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
Hexachloroethane	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
Indeno(1,2,3-c,d)pyrene	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
Isophorone	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
2-Methylnaphthalene	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
2-Methylphenol	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
3&4-Methylphenol	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
Naphthalene	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
4-Nitroaniline	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
3-Nitroaniline	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
2-Nitroaniline	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
Nitrobenzene	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
2-Nitrophenol	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
4-Nitrophenol	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
N-Nitrosodi-n-Propylamine	ND	ug/kg	69		1	01/06/15	01/07/15 06:27	1014
N-Nitrosodiphenylamine	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
Di-n-octyl phthalate	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
Pentachlorophenol	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
Phenanthrene	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509
GTA - Laurel, Laurel, MD
 January 12, 2015

Project Name: 141040 USA
 Project Location: Baltimore City

Sample ID: GTA-13 (1-2)	Date/Time Sampled: 01/02/2015 11:30	PSS Sample ID: 15010509-037
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 97

MDE TCL Semivolatile Organic
 Compounds + TICs

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Phenol	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
Atrazine	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
Pyrene	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
Pyridine	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
Caprolactam	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
2,4,6-Trichlorophenol	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014
2,4,5-Trichlorophenol	ND	ug/kg	170		1	01/06/15	01/07/15 06:27	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509
GTA - Laurel, Laurel, MD
 January 12, 2015

Project Name: 141040 USA
 Project Location: Baltimore City

Sample ID: GTA-COMP-1	Date/Time Sampled: 01/02/2015 15:35	PSS Sample ID: 15010509-038
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 87

Oil and Grease Analytical Method: EPA 9071 B-Modified

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Oil & Grease, Total Recovered	ND	mg/kg	57		1	01/09/15	01/09/15 13:36	1022

RCRA Metals Analytical Method: SW-846 6020 A Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Arsenic	3.0	mg/kg	0.55		1	01/07/15	01/09/15 15:29	1034
Barium	54	mg/kg	2.7		1	01/07/15	01/09/15 15:29	1034
Cadmium	ND	mg/kg	2.7		1	01/07/15	01/09/15 15:29	1034
Chromium	25	mg/kg	2.7		1	01/07/15	01/09/15 15:29	1034
Lead	22	mg/kg	2.7		1	01/07/15	01/09/15 15:29	1034
Mercury	ND	mg/kg	0.11		1	01/07/15	01/09/15 15:29	1034
Selenium	ND	mg/kg	2.7		1	01/07/15	01/09/15 15:29	1034
Silver	ND	mg/kg	2.7		1	01/07/15	01/09/15 15:29	1034

Total Petroleum Hydrocarbons - DRO Analytical Method: SW-846 8015 C Preparation Method: SW3550C
HF - Heavier fuel/oil pattern observed in sample.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	12	mg/kg	11	HF	1	01/06/15	01/08/15 15:26	1044

Polychlorinated Biphenyls Analytical Method: SW-846 8082 A Preparation Method: SW3550C
 Clean up Method: SW846 3665A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.057		1	01/06/15	01/08/15 13:37	1029
PCB-1221	ND	mg/kg	0.057		1	01/06/15	01/08/15 13:37	1029
PCB-1232	ND	mg/kg	0.057		1	01/06/15	01/08/15 13:37	1029
PCB-1242	ND	mg/kg	0.057		1	01/06/15	01/08/15 13:37	1029
PCB-1248	ND	mg/kg	0.057		1	01/06/15	01/08/15 13:37	1029
PCB-1254	ND	mg/kg	0.057		1	01/06/15	01/08/15 13:37	1029
PCB-1260	ND	mg/kg	0.057		1	01/06/15	01/08/15 13:37	1029

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CERTIFICATE OF ANALYSIS

No: 15010509

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: GTA-COMP-1	Date/Time Sampled: 01/02/2015 15:35	PSS Sample ID: 15010509-038
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 87

TCL Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
Acenaphthylene	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
Acetophenone	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
Anthracene	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
Atrazine	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
Benzo(a)anthracene	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
Benzo(a)pyrene	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
Benzo(b)fluoranthene	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
Benzo(g,h,i)perylene	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
Benzo(k)fluoranthene	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
Biphenyl (Diphenyl)	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
Butyl benzyl phthalate	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
bis(2-chloroethoxy) methane	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
bis(2-chloroethyl) ether	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
bis(2-chloroisopropyl) ether	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
bis(2-ethylhexyl) phthalate	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
4-Bromophenylphenyl ether	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
Di-n-butyl phthalate	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
Carbazole	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
Caprolactam	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
4-Chloro-3-methyl phenol	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
4-Chloroaniline	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
2-Chloronaphthalene	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
2-Chlorophenol	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
4-Chlorophenyl Phenyl ether	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
Chrysene	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
Dibenz(a,h)Anthracene	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
Dibenzofuran	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
3,3-Dichlorobenzidine	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
2,4-Dichlorophenol	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: GTA-COMP-1	Date/Time Sampled: 01/02/2015 15:35	PSS Sample ID: 15010509-038
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 87

TCL Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Diethyl phthalate	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
Dimethyl phthalate	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
2,4-Dimethylphenol	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
4,6-Dinitro-2-methyl phenol	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
2,4-Dinitrophenol	ND	ug/kg	380		1	01/06/15	01/07/15 07:58	1014
2,4-Dinitrotoluene	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
2,6-Dinitrotoluene	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
Fluoranthene	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
Fluorene	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
Hexachlorobenzene	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
Hexachlorobutadiene	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
Hexachlorocyclopentadiene	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
Hexachloroethane	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
Isophorone	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
2-Methylnaphthalene	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
2-Methyl phenol	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
3&4-Methylphenol	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
Naphthalene	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
2-Nitroaniline	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
3-Nitroaniline	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
4-Nitroaniline	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
Nitrobenzene	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
2-Nitrophenol	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
4-Nitrophenol	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
N-Nitrosodi-n-propyl amine	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
N-Nitrosodiphenylamine	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
Di-n-octyl phthalate	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
Pentachlorophenol	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
Phenanthrene	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014

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CERTIFICATE OF ANALYSIS

No: 15010509
GTA - Laurel, Laurel, MD
 January 12, 2015

Project Name: 141040 USA
 Project Location: Baltimore City

Sample ID: GTA-COMP-1 **Date/Time Sampled: 01/02/2015 15:35** **PSS Sample ID: 15010509-038**
Matrix: SOIL **Date/Time Received: 01/05/2015 12:08** **% Solids: 87**

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Phenol	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
Pyrene	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
Pyridine	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
2,4,5-Trichlorophenol	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014
2,4,6-Trichlorophenol	ND	ug/kg	190		1	01/06/15	01/07/15 07:58	1014

Sample ID: GTA-COMP-1 **Date/Time Sampled: 01/02/2015 15:35** **PSS Sample ID: 15010509-038**
Matrix: SOIL **Date/Time Received: 01/05/2015 12:08**

Flash Point Analytical Method: SW-846 1020 A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Flash Point	> 200	Deg F	70.0		1	01/05/15	01/05/15 15:44	1022

Reactive Sulfide Analytical Method: SW-846 7.3

Sulfide reported on a Percent Solids result of 89%.

	Result	Units	RL	Flag		Prepared	Analyzed	Analyst
Sulfide	ND	ppm	6.3			01/10/15	01/10/15 16:45	4001

Reactive Cyanide Analytical Method: SW-846 7.3CN

Cyanide reported on a Percent Solids result of 89%.

	Result	Units	RL	Flag		Prepared	Analyzed	Analyst
Cyanide, Reactive	ND	ppm	10.0			01/12/15	01/12/15 08:43	4001

pH in Non-Aqueous Matrixes Analytical Method: SW-846 9045 D

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
pH	7.4	SU			1	01/06/15	01/06/15 08:10	1047

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CERTIFICATE OF ANALYSIS

No: 15010509
GTA - Laurel, Laurel, MD
 January 12, 2015

Project Name: 141040 USA
 Project Location: Baltimore City

Sample ID: GTA-COMP-1 **Date/Time Sampled: 01/02/2015 15:35** **PSS Sample ID: 15010509-039**
Matrix: SOIL **Date/Time Received: 01/05/2015 12:08**

TCLP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	TCLP Limit	Prepared	Analyzed	Analyst
Arsenic	ND	mg/L	0.050		1	5	01/07/15	01/07/15 17:33	1034
Barium	ND	mg/L	1.0		1	100	01/07/15	01/07/15 17:33	1034
Cadmium	ND	mg/L	0.050		1	1	01/07/15	01/07/15 17:33	1034
Chromium	ND	mg/L	0.050		1	5	01/07/15	01/07/15 17:33	1034
Lead	0.075	mg/L	0.050		1	5	01/07/15	01/07/15 17:33	1034
Mercury	ND	mg/L	0.0020		1	0.2	01/07/15	01/07/15 17:33	1034
Selenium	ND	mg/L	0.050		1	1	01/07/15	01/07/15 17:33	1034
Silver	ND	mg/L	0.050		1	5	01/07/15	01/07/15 17:33	1034

TCLP Organochlorine Pesticides

Analytical Method: SW-846 8081 B

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	TCLP Limit	Prepared	Analyzed	Analyst
Gamma-BHC (Lindane)	ND	mg/L	0.00013		1	0.4	01/07/05	01/07/05 16:15	1029
Heptachlor	ND	mg/L	0.00013		1	0.008	01/07/05	01/07/05 16:15	1029
Heptachlor Epoxide	ND	mg/L	0.00013		1	0.008	01/07/05	01/07/05 16:15	1029
Endrin	ND	mg/L	0.00013		1	0.02	01/07/05	01/07/05 16:15	1029
Methoxychlor	ND	mg/L	0.00013		1	10	01/07/05	01/07/05 16:15	1029
Toxaphene	ND	mg/L	0.0033		1	0.5	01/07/05	01/07/05 16:15	1029
Chlordane	ND	mg/L	0.0033		1	0.03	01/07/05	01/07/05 16:15	1029

TCLP Chlorinated Herbicides

Analytical Method: SW-846 8151 A

Preparation Method: 8151A

	Result	Units	RL	Flag	Dil	TCLP Limit	Prepared	Analyzed	Analyst
2,4-D	ND	mg/L	0.010		10	10	01/08/05	01/08/05 20:05	1029
2,4,5-TP (Silvex)	ND	mg/L	0.0010		10	1	01/08/05	01/08/05 20:05	1029

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CERTIFICATE OF ANALYSIS

No: 15010509
GTA - Laurel, Laurel, MD
 January 12, 2015

Project Name: 141040 USA
 Project Location: Baltimore City

Sample ID: GTA-COMP-1 **Date/Time Sampled: 01/02/2015 15:35** **PSS Sample ID: 15010509-039**
Matrix: SOIL **Date/Time Received: 01/05/2015 12:08**

TCLP Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	TCLP Limit	Prepared	Analyzed	Analyst
Vinyl chloride	ND	mg/L	0.10		100	0.2	01/08/15	01/08/15 17:26	1011
1,1-Dichloroethene	ND	mg/L	0.10		100	0.7	01/08/15	01/08/15 17:26	1011
2-Butanone (MEK)	ND	mg/L	1.0		100	200	01/08/15	01/08/15 17:26	1011
Chloroform	ND	mg/L	0.10		100	6	01/08/15	01/08/15 17:26	1011
1,2-Dichloroethane	ND	mg/L	0.10		100	0.5	01/08/15	01/08/15 17:26	1011
Carbon tetrachloride	ND	mg/L	0.10		100	0.5	01/08/15	01/08/15 17:26	1011
Benzene	ND	mg/L	0.10		100	0.5	01/08/15	01/08/15 17:26	1011
Trichloroethene	ND	mg/L	0.10		100	0.5	01/08/15	01/08/15 17:26	1011
Tetrachloroethene	ND	mg/L	0.10		100	0.7	01/08/15	01/08/15 17:26	1011
Chlorobenzene	ND	mg/L	0.10		100	100	01/08/15	01/08/15 17:26	1011
1,4-Dichlorobenzene	ND	mg/L	0.10		100	7.5	01/08/15	01/08/15 17:26	1011

TCLP Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	TCLP Limit	Prepared	Analyzed	Analyst
2,4-Dinitrotoluene	ND	mg/L	0.010		1	0.13	01/07/15	01/08/15 04:51	1014
Hexachlorobenzene	ND	mg/L	0.010		1	0.13	01/07/15	01/08/15 04:51	1014
Hexachlorobutadiene	ND	mg/L	0.010		1	0.5	01/07/15	01/08/15 04:51	1014
Hexachloroethane	ND	mg/L	0.010		1	3	01/07/15	01/08/15 04:51	1014
2-Methylphenol	ND	mg/L	0.010		1	200	01/07/15	01/08/15 04:51	1014
3&4-Methylphenol	ND	mg/L	0.010		1	200	01/07/15	01/08/15 04:51	1014
Nitrobenzene	ND	mg/L	0.010		1	2	01/07/15	01/08/15 04:51	1014
Pentachlorophenol	ND	mg/L	0.010		1	100	01/07/15	01/08/15 04:51	1014
Pyridine	ND	mg/L	0.010		1	5	01/07/15	01/08/15 04:51	1014
2,4,6-Trichlorophenol	ND	mg/L	0.010		1	2	01/07/15	01/08/15 04:51	1014
2,4,5-Trichlorophenol	ND	mg/L	0.010		1	400	01/07/15	01/08/15 04:51	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509
GTA - Laurel, Laurel, MD
 January 12, 2015

Project Name: 141040 USA
 Project Location: Baltimore City

Sample ID: GTA-COMP-2	Date/Time Sampled: 01/02/2015 15:35	PSS Sample ID: 15010509-040
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 90

Oil and Grease Analytical Method: EPA 9071 B-Modified

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Oil & Grease, Total Recovered	78	mg/kg	55		1	01/09/15	01/09/15 13:36	1022

RCRA Metals Analytical Method: SW-846 6020 A Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Arsenic	9.0	mg/kg	0.45		1	01/07/15	01/08/15 15:46	1034
Barium	140	mg/kg	2.2		1	01/07/15	01/09/15 15:35	1034
Cadmium	ND	mg/kg	2.2		1	01/07/15	01/08/15 15:46	1034
Chromium	120	mg/kg	2.2		1	01/07/15	01/08/15 15:46	1034
Lead	460	mg/kg	22		10	01/07/15	01/12/15 13:57	1034
Mercury	0.18	mg/kg	0.089		1	01/07/15	01/08/15 15:46	1034
Selenium	ND	mg/kg	2.2		1	01/07/15	01/08/15 15:46	1034
Silver	ND	mg/kg	2.2		1	01/07/15	01/08/15 15:46	1034

Total Petroleum Hydrocarbons - DRO Analytical Method: SW-846 8015 C Preparation Method: SW3550C
HF - Heavier fuel/oil pattern observed in sample.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	51	mg/kg	11	HF	1	01/06/15	01/08/15 15:48	1044

Polychlorinated Biphenyls Analytical Method: SW-846 8082 A Preparation Method: SW3550C
 Clean up Method: SW846 3665A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.055		1	01/06/15	01/08/15 14:06	1029
PCB-1221	ND	mg/kg	0.055		1	01/06/15	01/08/15 14:06	1029
PCB-1232	ND	mg/kg	0.055		1	01/06/15	01/08/15 14:06	1029
PCB-1242	ND	mg/kg	0.055		1	01/06/15	01/08/15 14:06	1029
PCB-1248	ND	mg/kg	0.055		1	01/06/15	01/08/15 14:06	1029
PCB-1254	ND	mg/kg	0.055		1	01/06/15	01/08/15 14:06	1029
PCB-1260	ND	mg/kg	0.055		1	01/06/15	01/08/15 14:06	1029

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CERTIFICATE OF ANALYSIS

No: 15010509

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: GTA-COMP-2	Date/Time Sampled: 01/02/2015 15:35	PSS Sample ID: 15010509-040
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 90

TCL Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
Acenaphthylene	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
Acetophenone	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
Anthracene	370	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
Atrazine	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
Benzo(a)anthracene	1,700	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
Benzo(a)pyrene	1,500	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
Benzo(b)fluoranthene	1,700	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
Benzo(g,h,i)perylene	750	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
Benzo(k)fluoranthene	1,400	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
Biphenyl (Diphenyl)	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
Butyl benzyl phthalate	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
bis(2-chloroethoxy) methane	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
bis(2-chloroethyl) ether	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
bis(2-chloroisopropyl) ether	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
bis(2-ethylhexyl) phthalate	330	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
4-Bromophenylphenyl ether	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
Di-n-butyl phthalate	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
Carbazole	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
Caprolactam	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
4-Chloro-3-methyl phenol	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
4-Chloroaniline	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
2-Chloronaphthalene	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
2-Chlorophenol	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
4-Chlorophenyl Phenyl ether	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
Chrysene	1,800	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
Dibenz(a,h)Anthracene	460	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
Dibenzofuran	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
3,3-Dichlorobenzidine	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
2,4-Dichlorophenol	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014

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CERTIFICATE OF ANALYSIS

No: 15010509

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: GTA-COMP-2	Date/Time Sampled: 01/02/2015 15:35	PSS Sample ID: 15010509-040
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 90

TCL Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Diethyl phthalate	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
Dimethyl phthalate	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
2,4-Dimethylphenol	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
4,6-Dinitro-2-methyl phenol	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
2,4-Dinitrophenol	ND	ug/kg	370		1	01/06/15	01/07/15 09:30	1014
2,4-Dinitrotoluene	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
2,6-Dinitrotoluene	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
Fluoranthene	2,300	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
Fluorene	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
Hexachlorobenzene	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
Hexachlorobutadiene	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
Hexachlorocyclopentadiene	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
Hexachloroethane	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
Indeno(1,2,3-c,d)Pyrene	1,000	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
Isophorone	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
2-Methylnaphthalene	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
2-Methyl phenol	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
3&4-Methylphenol	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
Naphthalene	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
2-Nitroaniline	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
3-Nitroaniline	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
4-Nitroaniline	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
Nitrobenzene	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
2-Nitrophenol	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
4-Nitrophenol	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
N-Nitrosodi-n-propyl amine	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
N-Nitrosodiphenylamine	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
Di-n-octyl phthalate	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
Pentachlorophenol	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
Phenanthrene	1,400	ug/kg	180		1	01/06/15	01/07/15 09:30	1014

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CERTIFICATE OF ANALYSIS

No: 15010509

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: GTA-COMP-2	Date/Time Sampled: 01/02/2015 15:35	PSS Sample ID: 15010509-040
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 90

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Phenol	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
Pyrene	2,700	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
Pyridine	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
2,4,5-Trichlorophenol	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
2,4,6-Trichlorophenol	ND	ug/kg	180		1	01/06/15	01/07/15 09:30	1014
3,4-Dihydrocyclopenta(cd)pyrene (a (TIC))	590	ug/kg	180		1	01/06/15	01/07/15 09:30	1014

Sample ID: GTA-COMP-2	Date/Time Sampled: 01/02/2015 15:35	PSS Sample ID: 15010509-040
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	

Flash Point Analytical Method: SW-846 1020 A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Flash Point	> 200	Deg F	70.0		1	01/05/15	01/05/15 15:44	1022

Reactive Sulfide Analytical Method: SW-846 7.3

Sulfide reported on a Percent Solids result of 88%.

	Result	Units	RL	Flag	Prepared	Analyzed	Analyst
Sulfide	ND	ppm	6.3		01/10/15	01/10/15 16:45	4001

Reactive Cyanide Analytical Method: SW-846 7.3CN

Cyanide reported on a Percent Solids result of 88%.

	Result	Units	RL	Flag	Prepared	Analyzed	Analyst
Cyanide, Reactive	ND	ppm	10.0		01/12/15	01/12/15 08:43	4001

pH in Non-Aqueous Matrixes Analytical Method: SW-846 9045 D

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
pH	7.7	SU			1	01/06/15	01/06/15 08:10	1047

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CERTIFICATE OF ANALYSIS

No: 15010509
GTA - Laurel, Laurel, MD
 January 12, 2015

Project Name: 141040 USA
 Project Location: Baltimore City

Sample ID: GTA-COMP-2 **Date/Time Sampled: 01/02/2015 15:35** **PSS Sample ID: 15010509-041**
Matrix: SOIL **Date/Time Received: 01/05/2015 12:08**

TCLP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	TCLP Limit	Prepared	Analyzed	Analyst
Arsenic	ND	mg/L	0.050		1	5	01/07/15	01/07/15 18:02	1034
Barium	ND	mg/L	1.0		1	100	01/07/15	01/07/15 18:02	1034
Cadmium	ND	mg/L	0.050		1	1	01/07/15	01/07/15 18:02	1034
Chromium	ND	mg/L	0.050		1	5	01/07/15	01/07/15 18:02	1034
Lead	0.13	mg/L	0.050		1	5	01/07/15	01/07/15 18:02	1034
Mercury	ND	mg/L	0.0020		1	0.2	01/07/15	01/07/15 18:02	1034
Selenium	ND	mg/L	0.050		1	1	01/07/15	01/07/15 18:02	1034
Silver	ND	mg/L	0.050		1	5	01/07/15	01/07/15 18:02	1034

TCLP Organochlorine Pesticides

Analytical Method: SW-846 8081 B

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	TCLP Limit	Prepared	Analyzed	Analyst
Gamma-BHC (Lindane)	ND	mg/L	0.00013		1	0.4	01/07/05	01/07/05 22:19	1029
Heptachlor	ND	mg/L	0.00013		1	0.008	01/07/05	01/07/05 22:19	1029
Heptachlor Epoxide	ND	mg/L	0.00013		1	0.008	01/07/05	01/07/05 22:19	1029
Endrin	ND	mg/L	0.00013		1	0.02	01/07/05	01/07/05 22:19	1029
Methoxychlor	ND	mg/L	0.00013		1	10	01/07/05	01/07/05 22:19	1029
Toxaphene	ND	mg/L	0.0033		1	0.5	01/07/05	01/07/05 22:19	1029
Chlordane	ND	mg/L	0.0033		1	0.03	01/07/05	01/07/05 22:19	1029

TCLP Chlorinated Herbicides

Analytical Method: SW-846 8151 A

Preparation Method: 8151A

	Result	Units	RL	Flag	Dil	TCLP Limit	Prepared	Analyzed	Analyst
2,4-D	ND	mg/L	0.010		10	10	01/08/05	01/08/05 19:33	1029
2,4,5-TP (Silvex)	ND	mg/L	0.0010		10	1	01/08/05	01/08/05 19:33	1029

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CERTIFICATE OF ANALYSIS

No: 15010509
GTA - Laurel, Laurel, MD
 January 12, 2015

Project Name: 141040 USA
 Project Location: Baltimore City

Sample ID: GTA-COMP-2 **Date/Time Sampled: 01/02/2015 15:35** **PSS Sample ID: 15010509-041**
Matrix: SOIL **Date/Time Received: 01/05/2015 12:08**

TCLP Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	TCLP Limit	Prepared	Analyzed	Analyst
Vinyl chloride	ND	mg/L	0.10		100	0.2	01/08/15	01/08/15 18:00	1011
1,1-Dichloroethene	ND	mg/L	0.10		100	0.7	01/08/15	01/08/15 18:00	1011
2-Butanone (MEK)	ND	mg/L	1.0		100	200	01/08/15	01/08/15 18:00	1011
Chloroform	ND	mg/L	0.10		100	6	01/08/15	01/08/15 18:00	1011
1,2-Dichloroethane	ND	mg/L	0.10		100	0.5	01/08/15	01/08/15 18:00	1011
Carbon tetrachloride	ND	mg/L	0.10		100	0.5	01/08/15	01/08/15 18:00	1011
Benzene	ND	mg/L	0.10		100	0.5	01/08/15	01/08/15 18:00	1011
Trichloroethene	ND	mg/L	0.10		100	0.5	01/08/15	01/08/15 18:00	1011
Tetrachloroethene	ND	mg/L	0.10		100	0.7	01/08/15	01/08/15 18:00	1011
Chlorobenzene	ND	mg/L	0.10		100	100	01/08/15	01/08/15 18:00	1011
1,4-Dichlorobenzene	ND	mg/L	0.10		100	7.5	01/08/15	01/08/15 18:00	1011

TCLP Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	TCLP Limit	Prepared	Analyzed	Analyst
2,4-Dinitrotoluene	ND	mg/L	0.010		1	0.13	01/07/15	01/08/15 05:21	1014
Hexachlorobenzene	ND	mg/L	0.010		1	0.13	01/07/15	01/08/15 05:21	1014
Hexachlorobutadiene	ND	mg/L	0.010		1	0.5	01/07/15	01/08/15 05:21	1014
Hexachloroethane	ND	mg/L	0.010		1	3	01/07/15	01/08/15 05:21	1014
2-Methylphenol	ND	mg/L	0.010		1	200	01/07/15	01/08/15 05:21	1014
3&4-Methylphenol	ND	mg/L	0.010		1	200	01/07/15	01/08/15 05:21	1014
Nitrobenzene	ND	mg/L	0.010		1	2	01/07/15	01/08/15 05:21	1014
Pentachlorophenol	ND	mg/L	0.010		1	100	01/07/15	01/08/15 05:21	1014
Pyridine	ND	mg/L	0.010		1	5	01/07/15	01/08/15 05:21	1014
2,4,6-Trichlorophenol	ND	mg/L	0.010		1	2	01/07/15	01/08/15 05:21	1014
2,4,5-Trichlorophenol	ND	mg/L	0.010		1	400	01/07/15	01/08/15 05:21	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509
GTA - Laurel, Laurel, MD
 January 12, 2015

Project Name: 141040 USA
 Project Location: Baltimore City

Sample ID: B-COMP	Date/Time Sampled: 01/02/2015 16:00	PSS Sample ID: 15010509-042
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 86

Oil and Grease Analytical Method: EPA 9071 B-Modified

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Oil & Grease, Total Recovered	230	mg/kg	58		1	01/09/15	01/09/15 13:36	1022

RCRA Metals Analytical Method: SW-846 6020 A Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Arsenic	4.4	mg/kg	0.54		1	01/07/15	01/08/15 15:52	1034
Barium	86	mg/kg	2.7		1	01/07/15	01/09/15 15:41	1034
Cadmium	ND	mg/kg	2.7		1	01/07/15	01/08/15 15:52	1034
Chromium	660	mg/kg	27		10	01/07/15	01/12/15 14:04	1034
Lead	150	mg/kg	2.7		1	01/07/15	01/08/15 15:52	1034
Mercury	0.35	mg/kg	0.11		1	01/07/15	01/08/15 15:52	1034
Selenium	ND	mg/kg	2.7		1	01/07/15	01/08/15 15:52	1034
Silver	ND	mg/kg	2.7		1	01/07/15	01/09/15 15:41	1034

Total Petroleum Hydrocarbons - DRO Analytical Method: SW-846 8015 C Preparation Method: SW3550C
HF - Heavier fuel/oil pattern observed in sample.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	36	mg/kg	12	HF	1	01/06/15	01/08/15 16:10	1044

Polychlorinated Biphenyls Analytical Method: SW-846 8082 A Preparation Method: SW3550C
 Clean up Method: SW846 3665A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.056		1	01/06/15	01/08/15 14:35	1029
PCB-1221	ND	mg/kg	0.056		1	01/06/15	01/08/15 14:35	1029
PCB-1232	ND	mg/kg	0.056		1	01/06/15	01/08/15 14:35	1029
PCB-1242	ND	mg/kg	0.056		1	01/06/15	01/08/15 14:35	1029
PCB-1248	ND	mg/kg	0.056		1	01/06/15	01/08/15 14:35	1029
PCB-1254	ND	mg/kg	0.056		1	01/06/15	01/08/15 14:35	1029
PCB-1260	ND	mg/kg	0.056		1	01/06/15	01/08/15 14:35	1029

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: B-COMP	Date/Time Sampled: 01/02/2015 16:00	PSS Sample ID: 15010509-042
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 86

TCL Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
Acenaphthylene	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
Acetophenone	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
Anthracene	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
Atrazine	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
Benzo(a)anthracene	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
Benzo(a)pyrene	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
Benzo(b)fluoranthene	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
Benzo(g,h,i)perylene	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
Benzo(k)fluoranthene	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
Biphenyl (Diphenyl)	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
Butyl benzyl phthalate	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
bis(2-chloroethoxy) methane	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
bis(2-chloroethyl) ether	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
bis(2-chloroisopropyl) ether	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
bis(2-ethylhexyl) phthalate	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
4-Bromophenylphenyl ether	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
Di-n-butyl phthalate	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
Carbazole	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
Caprolactam	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
4-Chloro-3-methyl phenol	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
4-Chloroaniline	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
2-Chloronaphthalene	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
2-Chlorophenol	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
4-Chlorophenyl Phenyl ether	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
Chrysene	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
Dibenz(a,h)Anthracene	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
Dibenzofuran	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
3,3-Dichlorobenzidine	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
2,4-Dichlorophenol	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: B-COMP	Date/Time Sampled: 01/02/2015 16:00	PSS Sample ID: 15010509-042
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 86

TCL Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Diethyl phthalate	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
Dimethyl phthalate	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
2,4-Dimethylphenol	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
4,6-Dinitro-2-methyl phenol	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
2,4-Dinitrophenol	ND	ug/kg	380		1	01/06/15	01/07/15 10:01	1014
2,4-Dinitrotoluene	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
2,6-Dinitrotoluene	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
Fluoranthene	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
Fluorene	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
Hexachlorobenzene	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
Hexachlorobutadiene	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
Hexachlorocyclopentadiene	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
Hexachloroethane	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
Isophorone	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
2-Methylnaphthalene	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
2-Methyl phenol	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
3&4-Methylphenol	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
Naphthalene	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
2-Nitroaniline	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
3-Nitroaniline	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
4-Nitroaniline	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
Nitrobenzene	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
2-Nitrophenol	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
4-Nitrophenol	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
N-Nitrosodi-n-propyl amine	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
N-Nitrosodiphenylamine	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
Di-n-octyl phthalate	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
Pentachlorophenol	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
Phenanthrene	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509
GTA - Laurel, Laurel, MD
 January 12, 2015

Project Name: 141040 USA
 Project Location: Baltimore City

Sample ID: B-COMP	Date/Time Sampled: 01/02/2015 16:00	PSS Sample ID: 15010509-042
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	% Solids: 86

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Phenol	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
Pyrene	220	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
Pyridine	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
2,4,5-Trichlorophenol	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014
2,4,6-Trichlorophenol	ND	ug/kg	190		1	01/06/15	01/07/15 10:01	1014

Sample ID: B-COMP	Date/Time Sampled: 01/02/2015 16:00	PSS Sample ID: 15010509-042
Matrix: SOIL	Date/Time Received: 01/05/2015 12:08	

Flash Point Analytical Method: SW-846 1020 A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Flash Point	> 200	Deg F	70.0		1	01/05/15	01/05/15 15:44	1022

Reactive Sulfide Analytical Method: SW-846 7.3

Sulfide reported on a Percent Solids result of 86%.

	Result	Units	RL	Flag	Prepared	Analyzed	Analyst
Sulfide	ND	ppm	6.2		01/10/15	01/10/15 16:45	4001

Reactive Cyanide Analytical Method: SW-846 7.3CN

Cyanide reported on a Percent Solids result of 86%.

	Result	Units	RL	Flag	Prepared	Analyzed	Analyst
Cyanide, Reactive	ND	ppm	10.0		01/12/15	01/12/15 08:43	4001

pH in Non-Aqueous Matrixes Analytical Method: SW-846 9045 D

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
pH	9.6	SU			1	01/06/15	01/06/15 08:10	1047

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509
GTA - Laurel, Laurel, MD
 January 12, 2015

Project Name: 141040 USA
 Project Location: Baltimore City

Sample ID: B-COMP **Date/Time Sampled: 01/02/2015 16:00** **PSS Sample ID: 15010509-043**
Matrix: SOIL **Date/Time Received: 01/05/2015 12:08**

TCLP Metals Analytical Method: SW-846 6020 A Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	TCLP Limit	Prepared	Analyzed	Analyst
Arsenic	ND	mg/L	0.050		1	5	01/07/15	01/07/15 18:08	1034
Barium	ND	mg/L	1.0		1	100	01/07/15	01/07/15 18:08	1034
Cadmium	ND	mg/L	0.050		1	1	01/07/15	01/07/15 18:08	1034
Chromium	ND	mg/L	0.050		1	5	01/07/15	01/07/15 18:08	1034
Lead	0.057	mg/L	0.050		1	5	01/07/15	01/07/15 18:08	1034
Mercury	ND	mg/L	0.0020		1	0.2	01/07/15	01/07/15 18:08	1034
Selenium	ND	mg/L	0.050		1	1	01/07/15	01/07/15 18:08	1034
Silver	ND	mg/L	0.050		1	5	01/07/15	01/07/15 18:08	1034

TCLP Organochlorine Pesticides Analytical Method: SW-846 8081 B Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	TCLP Limit	Prepared	Analyzed	Analyst
Gamma-BHC (Lindane)	ND	mg/L	0.00013		1	0.4	01/07/05	01/07/05 16:43	1029
Heptachlor	ND	mg/L	0.00013		1	0.008	01/07/05	01/07/05 16:43	1029
Heptachlor Epoxide	ND	mg/L	0.00013		1	0.008	01/07/05	01/07/05 16:43	1029
Endrin	ND	mg/L	0.00013		1	0.02	01/07/05	01/07/05 16:43	1029
Methoxychlor	ND	mg/L	0.00013		1	10	01/07/05	01/07/05 16:43	1029
Toxaphene	ND	mg/L	0.0033		1	0.5	01/07/05	01/07/05 16:43	1029
Chlordane	ND	mg/L	0.0033		1	0.03	01/07/05	01/07/05 16:43	1029

TCLP Chlorinated Herbicides Analytical Method: SW-846 8151 A Preparation Method: 8151A

	Result	Units	RL	Flag	Dil	TCLP Limit	Prepared	Analyzed	Analyst
2,4-D	ND	mg/L	0.010		10	10	01/08/05	01/08/05 18:26	1029
2,4,5-TP (Silvex)	ND	mg/L	0.0010		10	1	01/08/05	01/08/05 18:26	1029

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010509
GTA - Laurel, Laurel, MD
 January 12, 2015

Project Name: 141040 USA
 Project Location: Baltimore City

Sample ID: B-COMP **Date/Time Sampled: 01/02/2015 16:00** **PSS Sample ID: 15010509-043**
Matrix: SOIL **Date/Time Received: 01/05/2015 12:08**

TCLP Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	TCLP Limit	Prepared	Analyzed	Analyst
Vinyl chloride	ND	mg/L	0.10		100	0.2	01/08/15	01/08/15 18:34	1011
1,1-Dichloroethene	ND	mg/L	0.10		100	0.7	01/08/15	01/08/15 18:34	1011
2-Butanone (MEK)	ND	mg/L	1.0		100	200	01/08/15	01/08/15 18:34	1011
Chloroform	ND	mg/L	0.10		100	6	01/08/15	01/08/15 18:34	1011
1,2-Dichloroethane	ND	mg/L	0.10		100	0.5	01/08/15	01/08/15 18:34	1011
Carbon tetrachloride	ND	mg/L	0.10		100	0.5	01/08/15	01/08/15 18:34	1011
Benzene	ND	mg/L	0.10		100	0.5	01/08/15	01/08/15 18:34	1011
Trichloroethene	ND	mg/L	0.10		100	0.5	01/08/15	01/08/15 18:34	1011
Tetrachloroethene	ND	mg/L	0.10		100	0.7	01/08/15	01/08/15 18:34	1011
Chlorobenzene	ND	mg/L	0.10		100	100	01/08/15	01/08/15 18:34	1011
1,4-Dichlorobenzene	ND	mg/L	0.10		100	7.5	01/08/15	01/08/15 18:34	1011

TCLP Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	TCLP Limit	Prepared	Analyzed	Analyst
2,4-Dinitrotoluene	ND	mg/L	0.010		1	0.13	01/07/15	01/08/15 06:22	1014
Hexachlorobenzene	ND	mg/L	0.010		1	0.13	01/07/15	01/08/15 06:22	1014
Hexachlorobutadiene	ND	mg/L	0.010		1	0.5	01/07/15	01/08/15 06:22	1014
Hexachloroethane	ND	mg/L	0.010		1	3	01/07/15	01/08/15 06:22	1014
2-Methylphenol	ND	mg/L	0.010		1	200	01/07/15	01/08/15 06:22	1014
3&4-Methylphenol	ND	mg/L	0.010		1	200	01/07/15	01/08/15 06:22	1014
Nitrobenzene	ND	mg/L	0.010		1	2	01/07/15	01/08/15 06:22	1014
Pentachlorophenol	ND	mg/L	0.010		1	100	01/07/15	01/08/15 06:22	1014
Pyridine	ND	mg/L	0.010		1	5	01/07/15	01/08/15 06:22	1014
2,4,6-Trichlorophenol	ND	mg/L	0.010		1	2	01/07/15	01/08/15 06:22	1014
2,4,5-Trichlorophenol	ND	mg/L	0.010		1	400	01/07/15	01/08/15 06:22	1014



Case Narrative Summary

Client Name: GTA - Laurel

Project Name: 141040 USA

Work Order Number(s): 15010509

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

The analyses of chlorine, pH, dissolved oxygen, temperature and sulfite for drinking water and non-potable samples tested for compliance have a maximum holding time of 15 minutes. As such, all laboratory analyses for these analytes exceed holding times.

Sample Receipt:

Additional sample quantity for GRO on GTA-10(3-4) received at 14:45 on 1/5/15, temp was 9 degrees C on receipt.

Analyses associated with analyst code 4001 were performed by ALS Group USA, Corp. - PA - PA 22-00293 VA 460157

Analytical:

Chromium, Hexavalent

Batch: 119514

Matrix spike recoveries fell outside acceptance limits but results for the laboratory control sample were within limits. As such the data may be valid for use. Additional characterization determinations to indicate the sample's reducing/oxidizing nature may be useful in the interpretation of the spike data.

Batch: 119541

Matrix spike recoveries fell outside acceptance limits but results for the laboratory control sample were within limits. As such the data may be valid for use. Additional characterization determinations to indicate the sample's reducing/oxidizing nature may be useful in the interpretation of the spike data.

TCL Semivolatile Organic Compounds

Batch: 119576

15010509-033 surrogate recovery outside of QC limits due to sample matrix.

15010509-003 and 15010509-033 were analyzed at a 10X because the extract was viscous and dark in color.

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.

EPA 9071 B-Modified: Oil & Grease, Total Recovered



Analytical Data Package Information Summary

Work Order(s): 15010509

Report Prepared For: GTA - Laurel, Laurel, MD

Project Name: 141040 USA

Project Manager: Sam Stevenson

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
ASTM D2216 05	GTA-1 (1-2)	Initial	15010509-001	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	GTA-1 (2-4)	Initial	15010509-002	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	GTA-2 (1-2)	Initial	15010509-003	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	GTA-2 (2-4)	Initial	15010509-004	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	GTA-3 (1-2)	Initial	15010509-005	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	GTA-3 (2-4)	Initial	15010509-006	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	GTA-4 (0-2)	Initial	15010509-007	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	GTA-4 (2-4)	Initial	15010509-008	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	GTA-5 (0-2)	Initial	15010509-009	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	GTA-5 (2-4)	Initial	15010509-010	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	GTA-6 (0-2)	Initial	15010509-011	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	GTA-6 (7-9)	Initial	15010509-012	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	GTA-7 (0-2)	Initial	15010509-013	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	GTA-7 (5-7)	Initial	15010509-014	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	GTA-8 (0-2)	Initial	15010509-015	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	GTA-8 (2-4)	Initial	15010509-016	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	GTA-9 (0-2)	Initial	15010509-017	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	GTA-9 (5-7)	Initial	15010509-018	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	GTA-10 (0-2)	Initial	15010509-019	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	GTA-10 (2-4)	Initial	15010509-020	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	GTA-11 (0-2)	Initial	15010509-021	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	GTA-11 (4-6)	Initial	15010509-022	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	GTA-12 (0-2)	Initial	15010509-023	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	GTA-12 (4-6)	Initial	15010509-024	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	GTA-13 (0-2)	Initial	15010509-025	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	GTA-13 (8-10)	Initial	15010509-026	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	GTA-14 (0-2)	Initial	15010509-027	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	GTA-14 (8-10)	Initial	15010509-028	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
GTA-6 (4-4.75)	Initial	15010509-029	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04	



Analytical Data Package Information Summary

Work Order(s): 15010509

Report Prepared For: GTA - Laurel, Laurel, MD

Project Name: 141040 USA

Project Manager: Sam Stevenson

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
ASTM D2216 05	GTA-12 (5-5.5)	Initial	15010509-030	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	GTA-9 (3-3.5)	Initial	15010509-031	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	B-1 (4-5)	Initial	15010509-032	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	B-2 (5-6)	Initial	15010509-033	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	GTA-10 (3-4)	Initial	15010509-034	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	GTA-11 (0-1)	Initial	15010509-035	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	GTA-11 (6-7)	Initial	15010509-036	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	GTA-13 (1-2)	Initial	15010509-037	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	GTA-COMP-1	Initial	15010509-038	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	GTA-COMP-2	Initial	15010509-040	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
	B-COMP	Initial	15010509-042	1047	S	119489	119489	01/02/2015	01/05/2015 15:04	01/05/2015 15:04
EPA 9071 B-Modified	GTA-COMP-1	Initial	15010509-038	1022	S	119606	119606	01/02/2015	01/09/2015 13:36	01/09/2015 13:36
	GTA-COMP-2	Initial	15010509-040	1022	S	119606	119606	01/02/2015	01/09/2015 13:36	01/09/2015 13:36
	B-COMP	Initial	15010509-042	1022	S	119606	119606	01/02/2015	01/09/2015 13:36	01/09/2015 13:36
	119606-1-BKS	BKS	119606-1-BKS	1022	S	119606	119606	-----	01/09/2015 13:36	01/09/2015 13:36
	119606-1-BLK	BLK	119606-1-BLK	1022	S	119606	119606	-----	01/09/2015 13:36	01/09/2015 13:36
	119606-1-BSD	BSD	119606-1-BSD	1022	S	119606	119606	-----	01/09/2015 13:36	01/09/2015 13:36
	Soil Disposal S	MS	15010517-005 S	1022	S	119606	119606	01/05/2015	01/09/2015 13:36	01/09/2015 13:36
	Soil Disposal SD	MSD	15010517-005 SD	1022	S	119606	119606	01/05/2015	01/09/2015 13:36	01/09/2015 13:36
SW-846 1020 A	GTA-COMP-1	Initial	15010509-038	1022	S	119511	119511	01/02/2015	01/05/2015 15:44	01/05/2015 15:44
	GTA-COMP-2	Initial	15010509-040	1022	S	119511	119511	01/02/2015	01/05/2015 15:44	01/05/2015 15:44
	B-COMP	Initial	15010509-042	1022	S	119511	119511	01/02/2015	01/05/2015 15:44	01/05/2015 15:44
SW-846 6020 A	B-2 (5-6)	Initial	15010509-033	1034	S	53723	119633	01/02/2015	01/07/2015 14:19	01/09/2015 14:34
	GTA-11 (0-1)	Initial	15010509-035	1034	S	53723	119633	01/02/2015	01/07/2015 14:19	01/09/2015 14:40
	GTA-11 (6-7)	Initial	15010509-036	1034	S	53723	119633	01/02/2015	01/07/2015 14:19	01/09/2015 15:17
	GTA-13 (1-2)	Initial	15010509-037	1034	S	53723	119633	01/02/2015	01/07/2015 14:19	01/09/2015 15:23
SW-846 6020 A	GTA-COMP-2	Initial	15010509-040	1034	S	53723	119602	01/02/2015	01/07/2015 14:19	01/08/2015 15:46



Analytical Data Package Information Summary

Work Order(s): 15010509

Report Prepared For: GTA - Laurel, Laurel, MD

Project Name: 141040 USA

Project Manager: Sam Stevenson

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 6020 A	B-COMP	Initial	15010509-042	1034	S	53723	119602	01/02/2015	01/07/2015 14:19	01/08/2015 15:52
	53723-1-BKS	BKS	53723-1-BKS	1034	S	53723	119602	-----	01/07/2015 14:19	01/08/2015 13:22
	53723-1-BLK	BLK	53723-1-BLK	1034	S	53723	119602	-----	01/07/2015 14:19	01/08/2015 13:15
	7th & Lawrence JA S	MS	15010502-001 S	1034	S	53723	119602	01/05/2015	01/07/2015 14:19	01/08/2015 13:34
	7th & Lawrence JA SD	MSD	15010502-001 SD	1034	S	53723	119602	01/05/2015	01/07/2015 14:19	01/08/2015 13:40
	GTA-COMP-1	Initial	15010509-038	1034	S	53723	119633	01/02/2015	01/07/2015 14:19	01/09/2015 15:29
	GTA-COMP-2	Reanalysis	15010509-040	1034	S	53723	119633	01/02/2015	01/07/2015 14:19	01/09/2015 15:35
	B-COMP	Reanalysis	15010509-042	1034	S	53723	119633	01/02/2015	01/07/2015 14:19	01/09/2015 15:41
	7th & Lawrence JA S	MS	15010502-001 S	1034	S	53723	119633	01/05/2015	01/07/2015 14:19	01/09/2015 14:10
	7th & Lawrence JA SD	MSD	15010502-001 SD	1034	S	53723	119633	01/05/2015	01/07/2015 14:19	01/09/2015 14:16
	GTA-COMP-2	Reanalysis	15010509-040	1034	S	53723	119639	01/02/2015	01/07/2015 14:19	01/12/2015 13:57
	B-COMP	Reanalysis	15010509-042	1034	S	53723	119639	01/02/2015	01/07/2015 14:19	01/12/2015 14:04
SW-846 6020 A	GTA-COMP-1	Initial	15010509-039	1034	W	53709	119572	01/02/2015	01/07/2015 09:02	01/07/2015 17:33
	GTA-COMP-2	Initial	15010509-041	1034	W	53709	119572	01/02/2015	01/07/2015 09:02	01/07/2015 18:02
	B-COMP	Initial	15010509-043	1034	W	53709	119572	01/02/2015	01/07/2015 09:02	01/07/2015 18:08
	53709-1-BKS	BKS	53709-1-BKS	1034	W	53709	119572	-----	01/07/2015 09:02	01/07/2015 16:44
	53709-1-BLK	BLK	53709-1-BLK	1034	W	53709	119572	-----	01/07/2015 09:02	01/07/2015 16:14
	143190089 S	MS	14123101-001 S	1034	W	53709	119572	12/17/2014	01/07/2015 09:02	01/07/2015 16:56
	143190089 SD	MSD	14123101-001 SD	1034	W	53709	119572	12/17/2014	01/07/2015 09:02	01/07/2015 17:02
SW-846 6020 A	GTA-1 (1-2)	Initial	15010509-001	1034	S	53700	119570	01/02/2015	01/06/2015 12:13	01/07/2015 12:55
	GTA-1 (2-4)	Initial	15010509-002	1034	S	53700	119570	01/02/2015	01/06/2015 12:13	01/07/2015 13:25
	GTA-2 (1-2)	Initial	15010509-003	1034	S	53700	119570	01/02/2015	01/06/2015 12:13	01/07/2015 13:31
	GTA-2 (2-4)	Initial	15010509-004	1034	S	53700	119570	01/02/2015	01/06/2015 12:13	01/07/2015 14:09
	GTA-3 (1-2)	Initial	15010509-005	1034	S	53700	119570	01/02/2015	01/06/2015 12:13	01/07/2015 14:15
	GTA-3 (2-4)	Initial	15010509-006	1034	S	53700	119570	01/02/2015	01/06/2015 12:13	01/07/2015 14:21
	GTA-4 (0-2)	Initial	15010509-007	1034	S	53700	119570	01/02/2015	01/06/2015 12:13	01/07/2015 14:27
	GTA-4 (2-4)	Initial	15010509-008	1034	S	53700	119570	01/02/2015	01/06/2015 12:13	01/07/2015 14:32
	GTA-5 (0-2)	Initial	15010509-009	1034	S	53700	119570	01/02/2015	01/06/2015 12:13	01/07/2015 14:38



Analytical Data Package Information Summary

Work Order(s): 15010509

Report Prepared For: GTA - Laurel, Laurel, MD

Project Name: 141040 USA

Project Manager: Sam Stevenson

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 6020 A	GTA-5 (2-4)	Initial	15010509-010	1034	S	53700	119570	01/02/2015	01/06/2015 12:13	01/07/2015 14:44
	GTA-6 (0-2)	Initial	15010509-011	1034	S	53700	119570	01/02/2015	01/06/2015 12:13	01/07/2015 14:50
	GTA-6 (7-9)	Initial	15010509-012	1034	S	53700	119570	01/02/2015	01/06/2015 12:13	01/07/2015 14:56
	GTA-7 (0-2)	Initial	15010509-013	1034	S	53700	119570	01/02/2015	01/06/2015 12:13	01/07/2015 15:26
	GTA-7 (5-7)	Initial	15010509-014	1034	S	53700	119570	01/02/2015	01/06/2015 12:13	01/07/2015 15:32
	GTA-8 (0-2)	Initial	15010509-015	1034	S	53700	119570	01/02/2015	01/06/2015 12:13	01/07/2015 15:38
	53700-1-BKS	BKS	53700-1-BKS	1034	S	53700	119570	-----	01/06/2015 12:13	01/07/2015 12:49
	53700-1-BLK	BLK	53700-1-BLK	1034	S	53700	119570	-----	01/06/2015 12:13	01/07/2015 12:43
	GTA-1 (1-2) S	MS	15010509-001 S	1034	S	53700	119570	01/02/2015	01/06/2015 12:13	01/07/2015 13:01
	GTA-1 (1-2) SD	MSD	15010509-001 SD	1034	S	53700	119570	01/02/2015	01/06/2015 12:13	01/07/2015 13:07
	GTA-8 (2-4)	Initial	15010509-016	1034	S	53723	119602	01/02/2015	01/07/2015 14:19	01/08/2015 13:58
	GTA-9 (0-2)	Initial	15010509-017	1034	S	53723	119602	01/02/2015	01/07/2015 14:19	01/08/2015 14:28
	GTA-9 (5-7)	Initial	15010509-018	1034	S	53723	119602	01/02/2015	01/07/2015 14:19	01/08/2015 14:34
	GTA-10 (0-2)	Initial	15010509-019	1034	S	53723	119602	01/02/2015	01/07/2015 14:19	01/08/2015 14:40
	GTA-10 (2-4)	Initial	15010509-020	1034	S	53723	119602	01/02/2015	01/07/2015 14:19	01/08/2015 14:46
SW-846 7.3	GTA-COMP-1	Initial	15010509-038	4001	S	119641	119641	01/02/2015	01/10/2015 16:45	01/10/2015 16:45
	GTA-COMP-2	Initial	15010509-040	4001	S	119641	119641	01/02/2015	01/10/2015 16:45	01/10/2015 16:45
	B-COMP	Initial	15010509-042	4001	S	119641	119641	01/02/2015	01/10/2015 16:45	01/10/2015 16:45
SW-846 7.3CN	GTA-COMP-1	Initial	15010509-038	4001	S	119641	119641	01/02/2015	01/12/2015 08:43	01/12/2015 08:43
	GTA-COMP-2	Initial	15010509-040	4001	S	119641	119641	01/02/2015	01/12/2015 08:43	01/12/2015 08:43
	B-COMP	Initial	15010509-042	4001	S	119641	119641	01/02/2015	01/12/2015 08:43	01/12/2015 08:43
SW-846 7196 A	GTA-1 (1-2)	Initial	15010509-001	1053	S	53684	119488	01/02/2015	01/05/2015 14:52	01/05/2015 10:26
	GTA-1 (2-4)	Initial	15010509-002	1053	S	53684	119488	01/02/2015	01/05/2015 14:52	01/05/2015 10:26
	GTA-2 (1-2)	Initial	15010509-003	1053	S	53684	119488	01/02/2015	01/05/2015 14:52	01/05/2015 10:26
	GTA-2 (2-4)	Initial	15010509-004	1053	S	53684	119488	01/02/2015	01/05/2015 14:52	01/05/2015 10:26
	GTA-3 (1-2)	Initial	15010509-005	1053	S	53684	119488	01/02/2015	01/05/2015 14:52	01/05/2015 10:26
	GTA-3 (2-4)	Initial	15010509-006	1053	S	53684	119488	01/02/2015	01/05/2015 14:52	01/05/2015 10:26
	GTA-4 (0-2)	Initial	15010509-007	1053	S	53684	119488	01/02/2015	01/05/2015 14:52	01/05/2015 10:26



Analytical Data Package Information Summary

Work Order(s): 15010509

Report Prepared For: GTA - Laurel, Laurel, MD

Project Name: 141040 USA

Project Manager: Sam Stevenson

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 7196 A	GTA-4 (2-4)	Initial	15010509-008	1053	S	53684	119488	01/02/2015	01/05/2015 14:52	01/05/2015 10:26
	GTA-5 (0-2)	Initial	15010509-009	1053	S	53684	119488	01/02/2015	01/05/2015 14:52	01/05/2015 10:26
	53684-1-BKS	BKS	53684-1-BKS	1053	S	53684	119488	-----	01/05/2015 14:52	01/05/2015 10:26
	53684-1-BLK	BLK	53684-1-BLK	1053	S	53684	119488	-----	01/05/2015 14:52	01/05/2015 10:26
	HA-07 D	MD	14123120-001 D	1053	S	53684	119488	12/18/2014	01/05/2015 14:52	01/05/2015 10:26
	HA-07 S	MS	14123120-001 S	1053	S	53684	119488	12/18/2014	01/05/2015 14:52	01/05/2015 10:26
	GTA-5 (2-4)	Initial	15010509-010	1053	S	53693	119514	01/02/2015	01/06/2015 08:22	01/07/2015 12:50
	GTA-6 (0-2)	Initial	15010509-011	1053	S	53693	119514	01/02/2015	01/06/2015 08:22	01/07/2015 12:50
	GTA-6 (7-9)	Initial	15010509-012	1053	S	53693	119514	01/02/2015	01/06/2015 08:22	01/07/2015 12:50
	GTA-7 (0-2)	Initial	15010509-013	1053	S	53693	119514	01/02/2015	01/06/2015 08:22	01/07/2015 12:50
	GTA-7 (5-7)	Initial	15010509-014	1053	S	53693	119514	01/02/2015	01/06/2015 08:22	01/07/2015 12:50
	GTA-8 (0-2)	Initial	15010509-015	1053	S	53693	119514	01/02/2015	01/06/2015 08:22	01/07/2015 12:50
	GTA-8 (2-4)	Initial	15010509-016	1053	S	53693	119514	01/02/2015	01/06/2015 08:22	01/07/2015 12:50
	GTA-9 (0-2)	Initial	15010509-017	1053	S	53693	119514	01/02/2015	01/06/2015 08:22	01/07/2015 12:50
	GTA-9 (5-7)	Initial	15010509-018	1053	S	53693	119514	01/02/2015	01/06/2015 08:22	01/07/2015 12:50
	GTA-10 (0-2)	Initial	15010509-019	1053	S	53693	119514	01/02/2015	01/06/2015 08:22	01/07/2015 12:50
	GTA-10 (2-4)	Initial	15010509-020	1053	S	53693	119514	01/02/2015	01/06/2015 08:22	01/07/2015 12:50
	GTA-11 (0-2)	Initial	15010509-021	1053	S	53693	119514	01/02/2015	01/06/2015 08:22	01/07/2015 12:50
	GTA-11 (4-6)	Initial	15010509-022	1053	S	53693	119514	01/02/2015	01/06/2015 08:22	01/07/2015 12:50
	GTA-12 (0-2)	Initial	15010509-023	1053	S	53693	119514	01/02/2015	01/06/2015 08:22	01/07/2015 12:50
	GTA-12 (4-6)	Initial	15010509-024	1053	S	53693	119514	01/02/2015	01/06/2015 08:22	01/07/2015 12:50
	53693-1-BKS	BKS	53693-1-BKS	1053	S	53693	119514	-----	01/06/2015 08:22	01/07/2015 12:50
	53693-1-BLK	BLK	53693-1-BLK	1053	S	53693	119514	-----	01/06/2015 08:22	01/07/2015 12:50
	GTA-6 (0-2) D	MD	15010509-011 D	1053	S	53693	119514	01/02/2015	01/06/2015 08:22	01/07/2015 12:50
	GTA-6 (0-2) S	MS	15010509-011 S	1053	S	53693	119514	01/02/2015	01/06/2015 08:22	01/07/2015 12:50
	GTA-13 (0-2)	Initial	15010509-025	1053	S	53708	119541	01/02/2015	01/07/2015 08:34	01/08/2015 12:30
	GTA-13 (8-10)	Initial	15010509-026	1053	S	53708	119541	01/02/2015	01/07/2015 08:34	01/08/2015 12:30
	GTA-14 (0-2)	Initial	15010509-027	1053	S	53708	119541	01/02/2015	01/07/2015 08:34	01/08/2015 12:30
	GTA-14 (8-10)	Initial	15010509-028	1053	S	53708	119541	01/02/2015	01/07/2015 08:34	01/08/2015 12:30



Analytical Data Package Information Summary

Work Order(s): 15010509

Report Prepared For: GTA - Laurel, Laurel, MD

Project Name: 141040 USA

Project Manager: Sam Stevenson

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 7196 A	GTA-6 (4-4.75)	Initial	15010509-029	1053	S	53708	119541	01/02/2015	01/07/2015 08:34	01/08/2015 12:30
	GTA-12 (5-5.5)	Initial	15010509-030	1053	S	53708	119541	01/02/2015	01/07/2015 08:34	01/08/2015 12:30
	GTA-9 (3-3.5)	Initial	15010509-031	1053	S	53708	119541	01/02/2015	01/07/2015 08:34	01/08/2015 12:30
	B-1 (4-5)	Initial	15010509-032	1053	S	53708	119541	01/02/2015	01/07/2015 08:34	01/08/2015 12:30
	B-2 (5-6)	Initial	15010509-033	1053	S	53708	119541	01/02/2015	01/07/2015 08:34	01/08/2015 12:30
	GTA-11 (0-1)	Initial	15010509-035	1053	S	53708	119541	01/02/2015	01/07/2015 08:34	01/08/2015 12:30
	GTA-11 (6-7)	Initial	15010509-036	1053	S	53708	119541	01/02/2015	01/07/2015 08:34	01/08/2015 12:30
	GTA-13 (1-2)	Initial	15010509-037	1053	S	53708	119541	01/02/2015	01/07/2015 08:34	01/08/2015 12:30
	53708-1-BKS	BKS	53708-1-BKS	1053	S	53708	119541	-----	01/07/2015 08:34	01/08/2015 12:30
	53708-1-BLK	BLK	53708-1-BLK	1053	S	53708	119541	-----	01/07/2015 08:34	01/08/2015 12:30
	GTA-13 (0-2) D	MD	15010509-025 D	1053	S	53708	119541	01/02/2015	01/07/2015 08:34	01/08/2015 12:30
	GTA-13 (0-2) S	MS	15010509-025 S	1053	S	53708	119541	01/02/2015	01/07/2015 08:34	01/08/2015 12:30
SW-846 8015 C	GTA-COMP-1	Initial	15010509-038	1044	S	53707	119603	01/02/2015	01/06/2015 17:13	01/08/2015 15:26
	GTA-COMP-2	Initial	15010509-040	1044	S	53707	119603	01/02/2015	01/06/2015 17:13	01/08/2015 15:48
	B-COMP	Initial	15010509-042	1044	S	53707	119603	01/02/2015	01/06/2015 17:13	01/08/2015 16:10
	53707-1-BKS	BKS	53707-1-BKS	1044	S	53707	119603	-----	01/06/2015 17:13	01/08/2015 14:20
	53707-1-BLK	BLK	53707-1-BLK	1044	S	53707	119603	-----	01/06/2015 17:13	01/08/2015 13:59
	53707-1-BSD	BSD	53707-1-BSD	1044	S	53707	119603	-----	01/06/2015 17:13	01/08/2015 14:42
	GTA-COMP-1 S	MS	15010509-038 S	1044	S	53707	119603	01/02/2015	01/06/2015 17:13	01/08/2015 17:37
	GTA-COMP-1 SD	MSD	15010509-038 SD	1044	S	53707	119603	01/02/2015	01/06/2015 17:13	01/08/2015 17:58
SW-846 8015C	B-2 (5-6)	Initial	15010509-033	1035	S	53706	119535	01/02/2015	01/06/2015 12:52	01/06/2015 18:27
	GTA-10 (3-4)	Initial	15010509-034	1035	S	53706	119535	01/02/2015	01/06/2015 12:52	01/06/2015 18:56
	GTA-11 (0-1)	Initial	15010509-035	1035	S	53706	119535	01/02/2015	01/06/2015 12:52	01/06/2015 19:26
	GTA-11 (6-7)	Initial	15010509-036	1035	S	53706	119535	01/02/2015	01/06/2015 12:52	01/06/2015 19:55
	GTA-13 (1-2)	Initial	15010509-037	1035	S	53706	119535	01/02/2015	01/06/2015 12:52	01/06/2015 20:25
	53706-2-BKS	BKS	53706-2-BKS	1035	S	53706	119535	-----	01/06/2015 12:52	01/06/2015 15:59
	53706-2-BLK	BLK	53706-2-BLK	1035	S	53706	119535	-----	01/06/2015 12:52	01/06/2015 13:57
	B-2 (5-6) S	MS	15010509-033 S	1035	S	53706	119535	01/02/2015	01/06/2015 12:52	01/06/2015 23:51



Analytical Data Package Information Summary

Work Order(s): 15010509

Report Prepared For: GTA - Laurel, Laurel, MD

Project Name: 141040 USA

Project Manager: Sam Stevenson

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 8015C	B-2 (5-6) SD	MSD	15010509-033 SD	1035	S	53706	119535	01/02/2015	01/06/2015 12:52	01/07/2015 00:20
SW-846 8081 B	GTA-COMP-1	Initial	15010509-039	1029	W	53705	119578	01/02/2015	01/06/2015 13:34	01/07/2005 16:15
	GTA-COMP-2	Initial	15010509-041	1029	W	53705	119578	01/02/2015	01/06/2015 13:34	01/07/2005 22:19
	B-COMP	Initial	15010509-043	1029	W	53705	119578	01/02/2015	01/06/2015 13:34	01/07/2005 16:43
	53705-1-BKS	BKS	53705-1-BKS	1029	W	53705	119578	-----	01/06/2015 13:34	01/07/2005 14:51
	53705-1-BLK	BLK	53705-1-BLK	1029	W	53705	119578	-----	01/06/2015 13:34	01/07/2005 14:23
	53705-1-BSD	BSD	53705-1-BSD	1029	W	53705	119578	-----	01/06/2015 13:34	01/07/2005 15:19
	143120299 S	MS	14123102-001 S	1029	W	53705	119578	12/17/2014	01/06/2015 13:34	01/07/2005 15:47
SW-846 8082 A	GTA-COMP-1	Initial	15010509-038	1029	S	53703	119599	01/02/2015	01/06/2015 13:02	01/08/2015 13:37
	GTA-COMP-2	Initial	15010509-040	1029	S	53703	119599	01/02/2015	01/06/2015 13:02	01/08/2015 14:06
	B-COMP	Initial	15010509-042	1029	S	53703	119599	01/02/2015	01/06/2015 13:02	01/08/2015 14:35
	53703-1-BKS	BKS	53703-1-BKS	1029	S	53703	119599	-----	01/06/2015 13:02	01/08/2015 11:37
	53703-1-BLK	BLK	53703-1-BLK	1029	S	53703	119599	-----	01/06/2015 13:02	01/08/2015 11:08
	53703-1-BSD	BSD	53703-1-BSD	1029	S	53703	119599	-----	01/06/2015 13:02	01/08/2015 12:09
	GTA-COMP-1 S	MS	15010509-038 S	1029	S	53703	119599	01/02/2015	01/06/2015 13:02	01/08/2015 12:38
	GTA-COMP-1 SD	MSD	15010509-038 SD	1029	S	53703	119599	01/02/2015	01/06/2015 13:02	01/08/2015 13:07
SW-846 8151 A	GTA-COMP-1	Initial	15010509-039	1029	W	53740	119608	01/02/2015	01/08/2015 14:41	01/08/2005 20:05
	GTA-COMP-2	Initial	15010509-041	1029	W	53740	119608	01/02/2015	01/08/2015 14:41	01/08/2005 19:33
	B-COMP	Initial	15010509-043	1029	W	53740	119608	01/02/2015	01/08/2015 14:41	01/08/2005 18:26
	53740-1-BKS	BKS	53740-1-BKS	1029	W	53740	119608	-----	01/08/2015 14:41	01/08/2005 16:47
	53740-1-BLK	BLK	53740-1-BLK	1029	W	53740	119608	-----	01/08/2015 14:41	01/08/2005 16:15
	53740-1-BSD	BSD	53740-1-BSD	1029	W	53740	119608	-----	01/08/2015 14:41	01/08/2005 17:21
	GTA-COMP-1 S	MS	15010509-039 S	1029	W	53740	119608	01/02/2015	01/08/2015 14:41	01/08/2005 17:53
SW-846 8260 B	GTA-COMP-1	Initial	15010509-039	1011	W	53748	119595	01/02/2015	01/08/2015 09:35	01/08/2015 17:26
	GTA-COMP-2	Initial	15010509-041	1011	W	53748	119595	01/02/2015	01/08/2015 09:35	01/08/2015 18:00
	B-COMP	Initial	15010509-043	1011	W	53748	119595	01/02/2015	01/08/2015 09:35	01/08/2015 18:34
	53748-1-BKS	BKS	53748-1-BKS	1011	W	53748	119595	-----	01/08/2015 09:35	01/08/2015 11:09



Analytical Data Package Information Summary

Work Order(s): 15010509

Report Prepared For: GTA - Laurel, Laurel, MD

Project Name: 141040 USA

Project Manager: Sam Stevenson

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 8260 B	53748-1-BLK	BLK	53748-1-BLK	1011	W	53748	119595	-----	01/08/2015 09:35	01/08/2015 12:52
	GTA-COMP-1 S	MS	15010509-039 S	1011	W	53748	119595	01/02/2015	01/08/2015 09:35	01/08/2015 19:42
	GTA-COMP-1 SD	MSD	15010509-039 SD	1011	W	53748	119595	01/02/2015	01/08/2015 09:35	01/08/2015 20:16
SW-846 8260 B	B-2 (5-6)	Initial	15010509-033	1011	S	53718	119546	01/02/2015	01/06/2015 09:38	01/06/2015 15:03
	GTA-10 (3-4)	Initial	15010509-034	1011	S	53718	119546	01/02/2015	01/06/2015 09:38	01/06/2015 15:32
	GTA-11 (0-1)	Initial	15010509-035	1011	S	53718	119546	01/02/2015	01/06/2015 09:38	01/06/2015 16:02
	GTA-11 (6-7)	Initial	15010509-036	1011	S	53718	119546	01/02/2015	01/06/2015 09:38	01/06/2015 16:32
	53718-1-BKS	BKS	53718-1-BKS	1011	S	53718	119546	-----	01/06/2015 09:38	01/06/2015 11:51
	53718-1-BLK	BLK	53718-1-BLK	1011	S	53718	119546	-----	01/06/2015 09:38	01/06/2015 11:22
	T-2@8'	MS	15010513-001 S	1011	S	53718	119546	01/02/2015	01/06/2015 09:38	01/06/2015 13:29
	T-2@8'	MSD	15010513-001 SD	1011	S	53718	119546	01/02/2015	01/06/2015 09:38	01/06/2015 13:58
	GTA-13 (1-2)	Initial	15010509-037	1011	S	53732	119569	01/02/2015	01/07/2015 10:20	01/07/2015 15:08
	53732-1-BKS	BKS	53732-1-BKS	1011	S	53732	119569	-----	01/07/2015 10:20	01/07/2015 13:22
	53732-1-BLK	BLK	53732-1-BLK	1011	S	53732	119569	-----	01/07/2015 10:20	01/07/2015 12:53
	B-1 5-6 S	MS	15010610-002 S	1011	S	53732	119569	12/30/2014	01/07/2015 10:20	01/07/2015 15:38
	B-1 5-6 SD	MSD	15010610-002 SD	1011	S	53732	119569	12/30/2014	01/07/2015 10:20	01/07/2015 16:07
SW-846 8270 C	53701-1-BKS	BKS	53701-1-BKS	1014	S	53701	119575	-----	01/06/2015 12:19	01/07/2015 00:20
	53701-1-BSD	BSD	53701-1-BSD	1014	S	53701	119575	-----	01/06/2015 12:19	01/07/2015 00:51
	S-1 S	MS	15010515-001 S	1014	S	53701	119575	12/30/2014	01/06/2015 12:19	01/07/2015 01:21
	S-1 SD	MSD	15010515-001 SD	1014	S	53701	119575	12/30/2014	01/06/2015 12:19	01/07/2015 01:52
	GTA-COMP-1	Initial	15010509-038	1014	S	53701	119576	01/02/2015	01/06/2015 12:19	01/07/2015 07:58
	GTA-COMP-2	Initial	15010509-040	1014	S	53701	119576	01/02/2015	01/06/2015 12:19	01/07/2015 09:30
	B-COMP	Initial	15010509-042	1014	S	53701	119576	01/02/2015	01/06/2015 12:19	01/07/2015 10:01
SW-846 8270 C	GTA-COMP-1	Initial	15010509-039	1014	W	53711	119627	01/02/2015	01/07/2015 09:23	01/08/2015 04:51
	GTA-COMP-2	Initial	15010509-041	1014	W	53711	119627	01/02/2015	01/07/2015 09:23	01/08/2015 05:21
	B-COMP	Initial	15010509-043	1014	W	53711	119627	01/02/2015	01/07/2015 09:23	01/08/2015 06:22
	53711-1-BKS	BKS	53711-1-BKS	1014	W	53711	119627	-----	01/07/2015 09:23	01/08/2015 01:50
	53711-1-BLK	BLK	53711-1-BLK	1014	W	53711	119627	-----	01/07/2015 09:23	01/08/2015 02:50



Analytical Data Package Information Summary

Work Order(s): 15010509

Report Prepared For: GTA - Laurel, Laurel, MD

Project Name: 141040 USA

Project Manager: Sam Stevenson

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 8270 C	53711-1-BSD	BSD	53711-1-BSD	1014	W	53711	119627	-----	01/07/2015 09:23	01/08/2015 02:20
	GTA-COMP-1 S	MS	15010509-039 S	1014	W	53711	119627	01/02/2015	01/07/2015 09:23	01/08/2015 04:20
SW-846 8270 C	GTA-1 (1-2)	Initial	15010509-001	1014	S	53701	119576	01/02/2015	01/06/2015 12:19	01/07/2015 10:54
	GTA-2 (1-2)	Initial	15010509-003	1014	S	53701	119576	01/02/2015	01/06/2015 12:19	01/07/2015 11:24
	GTA-3 (1-2)	Initial	15010509-005	1014	S	53701	119576	01/02/2015	01/06/2015 12:19	01/07/2015 08:29
	B-2 (5-6)	Initial	15010509-033	1014	S	53701	119576	01/02/2015	01/06/2015 12:19	01/07/2015 11:55
	GTA-11 (0-1)	Initial	15010509-035	1014	S	53701	119576	01/02/2015	01/06/2015 12:19	01/07/2015 08:59
	GTA-11 (6-7)	Initial	15010509-036	1014	S	53701	119576	01/02/2015	01/06/2015 12:19	01/07/2015 05:56
	GTA-13 (1-2)	Initial	15010509-037	1014	S	53701	119576	01/02/2015	01/06/2015 12:19	01/07/2015 06:27
SW-846 9045 D	GTA-COMP-1	Initial	15010509-038	1047	S	119513	119513	01/02/2015	01/06/2015 08:10	01/06/2015 08:10
	GTA-COMP-2	Initial	15010509-040	1047	S	119513	119513	01/02/2015	01/06/2015 08:10	01/06/2015 08:10
	B-COMP	Initial	15010509-042	1047	S	119513	119513	01/02/2015	01/06/2015 08:10	01/06/2015 08:10
	GTA-COMP-1 D	MD	15010509-038 D	1047	S	119513	119513	01/02/2015	01/06/2015 08:10	01/06/2015 08:10

PHASE SEPARATION SCIENCE, INC.

QC Summary 15010509

GTA - Laurel

141040 USA

Analytical Method: SW-846 8270 C

Seq Number: 119576

PSS Sample ID: 15010509-001

Matrix: Soil

Prep Method: SW3550C

Date Prep: 01/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	98		60-131	%	01/07/15 10:54
2-Fluorophenol	63		45-108	%	01/07/15 10:54
Nitrobenzene-d5	79		42-131	%	01/07/15 10:54
Phenol-d6	83		48-124	%	01/07/15 10:54
Terphenyl-D14	124		59-137	%	01/07/15 10:54
2,4,6-Tribromophenol	68		46-129	%	01/07/15 10:54

Analytical Method: SW-846 8270 C

Seq Number: 119576

PSS Sample ID: 15010509-003

Matrix: Soil

Prep Method: SW3550C

Date Prep: 01/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	94		60-131	%	01/07/15 11:24
2-Fluorophenol	51		45-108	%	01/07/15 11:24
Nitrobenzene-d5	75		42-131	%	01/07/15 11:24
Phenol-d6	68		48-124	%	01/07/15 11:24
Terphenyl-D14	94		59-137	%	01/07/15 11:24
2,4,6-Tribromophenol	49		46-129	%	01/07/15 11:24

Analytical Method: SW-846 8270 C

Seq Number: 119576

PSS Sample ID: 15010509-005

Matrix: Soil

Prep Method: SW3550C

Date Prep: 01/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	95		60-131	%	01/07/15 08:29
2-Fluorophenol	62		45-108	%	01/07/15 08:29
Nitrobenzene-d5	83		42-131	%	01/07/15 08:29
Phenol-d6	77		48-124	%	01/07/15 08:29
Terphenyl-D14	100		59-137	%	01/07/15 08:29
2,4,6-Tribromophenol	65		46-129	%	01/07/15 08:29

Analytical Method: SW-846 8270 C

Seq Number: 119576

PSS Sample ID: 15010509-033

Matrix: Soil

Prep Method: SW3550C

Date Prep: 01/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	96		60-131	%	01/07/15 11:55
2-Fluorophenol	50		45-108	%	01/07/15 11:55
Nitrobenzene-d5	70		42-131	%	01/07/15 11:55
Phenol-d6	67		48-124	%	01/07/15 11:55
Terphenyl-D14	100		59-137	%	01/07/15 11:55
2,4,6-Tribromophenol	44	*	46-129	%	01/07/15 11:55

PHASE SEPARATION SCIENCE, INC.

QC Summary 15010509

GTA - Laurel
141040 USA

Analytical Method: SW-846 8015C

Seq Number: 119535
PSS Sample ID: 15010509-033

Matrix: Soil

Prep Method: SW5030
Date Prep: 01/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	83		55-142	%	01/06/15 18:27

Analytical Method: SW-846 8260 B

Seq Number: 119546
PSS Sample ID: 15010509-033

Matrix: Soil

Prep Method: SW5035
Date Prep: 01/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	98		80-125	%	01/06/15 15:03
Dibromofluoromethane	112		85-115	%	01/06/15 15:03
Toluene-D8	104		91-109	%	01/06/15 15:03

Analytical Method: SW-846 8015C

Seq Number: 119535
PSS Sample ID: 15010509-034

Matrix: Soil

Prep Method: SW5030
Date Prep: 01/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	83		55-142	%	01/06/15 18:56

Analytical Method: SW-846 8260 B

Seq Number: 119546
PSS Sample ID: 15010509-034

Matrix: Soil

Prep Method: SW5035
Date Prep: 01/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	99		80-125	%	01/06/15 15:32
Dibromofluoromethane	103		85-115	%	01/06/15 15:32
Toluene-D8	104		91-109	%	01/06/15 15:32

Analytical Method: SW-846 8270 C

Seq Number: 119576
PSS Sample ID: 15010509-035

Matrix: Soil

Prep Method: SW3550C
Date Prep: 01/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	98		60-131	%	01/07/15 08:59
2-Fluorophenol	61		45-108	%	01/07/15 08:59
Nitrobenzene-d5	84		42-131	%	01/07/15 08:59
Phenol-d6	81		48-124	%	01/07/15 08:59
Terphenyl-D14	112		59-137	%	01/07/15 08:59
2,4,6-Tribromophenol	72		46-129	%	01/07/15 08:59

PHASE SEPARATION SCIENCE, INC.

QC Summary 15010509

GTA - Laurel

141040 USA

Analytical Method: SW-846 8015C

Seq Number: 119535

PSS Sample ID: 15010509-035

Matrix: Soil

Prep Method: SW5030

Date Prep: 01/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	83		55-142	%	01/06/15 19:26

Analytical Method: SW-846 8260 B

Seq Number: 119546

PSS Sample ID: 15010509-035

Matrix: Soil

Prep Method: SW5035

Date Prep: 01/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	98		80-125	%	01/06/15 16:02
Dibromofluoromethane	104		85-115	%	01/06/15 16:02
Toluene-D8	104		91-109	%	01/06/15 16:02

Analytical Method: SW-846 8270 C

Seq Number: 119576

PSS Sample ID: 15010509-036

Matrix: Soil

Prep Method: SW3550C

Date Prep: 01/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	81		60-131	%	01/07/15 05:56
2-Fluorophenol	56		45-108	%	01/07/15 05:56
Nitrobenzene-d5	76		42-131	%	01/07/15 05:56
Phenol-d6	74		48-124	%	01/07/15 05:56
Terphenyl-D14	91		59-137	%	01/07/15 05:56
2,4,6-Tribromophenol	69		46-129	%	01/07/15 05:56

Analytical Method: SW-846 8015C

Seq Number: 119535

PSS Sample ID: 15010509-036

Matrix: Soil

Prep Method: SW5030

Date Prep: 01/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	82		55-142	%	01/06/15 19:55

Analytical Method: SW-846 8260 B

Seq Number: 119546

PSS Sample ID: 15010509-036

Matrix: Soil

Prep Method: SW5035

Date Prep: 01/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	99		80-125	%	01/06/15 16:32
Dibromofluoromethane	102		85-115	%	01/06/15 16:32
Toluene-D8	105		91-109	%	01/06/15 16:32

PHASE SEPARATION SCIENCE, INC.

QC Summary 15010509

GTA - Laurel

141040 USA

Analytical Method: SW-846 8270 C

Seq Number: 119576

PSS Sample ID: 15010509-037

Matrix: Soil

Prep Method: SW3550C

Date Prep: 01/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	92		60-131	%	01/07/15 06:27
2-Fluorophenol	67		45-108	%	01/07/15 06:27
Nitrobenzene-d5	82		42-131	%	01/07/15 06:27
Phenol-d6	83		48-124	%	01/07/15 06:27
Terphenyl-D14	101		59-137	%	01/07/15 06:27
2,4,6-Tribromophenol	75		46-129	%	01/07/15 06:27

Analytical Method: SW-846 8015C

Seq Number: 119535

PSS Sample ID: 15010509-037

Matrix: Soil

Prep Method: SW5030

Date Prep: 01/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	83		55-142	%	01/06/15 20:25

Analytical Method: SW-846 8260 B

Seq Number: 119569

PSS Sample ID: 15010509-037

Matrix: Soil

Prep Method: SW5035

Date Prep: 01/07/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	100		80-125	%	01/07/15 15:08
Dibromofluoromethane	97		85-115	%	01/07/15 15:08
Toluene-D8	100		91-109	%	01/07/15 15:08

Analytical Method: SW-846 8082 A

Seq Number: 119599

PSS Sample ID: 15010509-038

Matrix: Soil

Prep Method: SW3550C

Date Prep: 01/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	100		11-150	%	01/08/15 13:37
Tetrachloro-m-xylene	83		12-158	%	01/08/15 13:37

PHASE SEPARATION SCIENCE, INC.

QC Summary 15010509

GTA - Laurel

141040 USA

Analytical Method: SW-846 8270 C

Seq Number: 119576

PSS Sample ID: 15010509-038

Matrix: Soil

Prep Method: SW3550C

Date Prep: 01/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	87		60-131	%	01/07/15 07:58
2-Fluorophenol	52		45-108	%	01/07/15 07:58
Nitrobenzene-d5	79		42-131	%	01/07/15 07:58
Phenol-d6	72		48-124	%	01/07/15 07:58
Terphenyl-D14	88		59-137	%	01/07/15 07:58
2,4,6-Tribromophenol	66		46-129	%	01/07/15 07:58

Analytical Method: SW-846 8015 C

Seq Number: 119603

PSS Sample ID: 15010509-038

Matrix: Soil

Prep Method: SW3550C

Date Prep: 01/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	89		42-129	%	01/08/15 15:26

Analytical Method: SW-846 8081 B

Seq Number: 119578

PSS Sample ID: 15010509-039

Matrix: Soil

Prep Method: SW3510C

Date Prep: 01/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	91		36-175	%	01/07/05 16:15
Tetrachloro-m-xylene	69		37-156	%	01/07/05 16:15

Analytical Method: SW-846 8151 A

Seq Number: 119608

PSS Sample ID: 15010509-039

Matrix: Soil

Prep Method: SW8151A_PREP

Date Prep: 01/08/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2,4-Dichlorophenylacetic Acid	112		58-150	%	01/08/05 20:05

PHASE SEPARATION SCIENCE, INC.

QC Summary 15010509

GTA - Laurel

141040 USA

Analytical Method: SW-846 8270 C

Seq Number: 119627

PSS Sample ID: 15010509-039

Matrix: Soil

Prep Method: SW3510C

Date Prep: 01/07/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	78		68-116	%	01/08/15 04:51
2-Fluorophenol	65		57-98	%	01/08/15 04:51
Nitrobenzene-d5	80		58-107	%	01/08/15 04:51
Phenol-d6	81		59-109	%	01/08/15 04:51
Terphenyl-D14	99		69-121	%	01/08/15 04:51
2,4,6-Tribromophenol	61		48-119	%	01/08/15 04:51

Analytical Method: SW-846 8260 B

Seq Number: 119595

PSS Sample ID: 15010509-039

Matrix: Soil

Prep Method: SW5030B

Date Prep: 01/08/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	107		81-133	%	01/08/15 17:26
Dibromofluoromethane	103		84-110	%	01/08/15 17:26
Toluene-D8	103		94-109	%	01/08/15 17:26

Analytical Method: SW-846 8082 A

Seq Number: 119599

PSS Sample ID: 15010509-040

Matrix: Soil

Prep Method: SW3550C

Date Prep: 01/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	113		11-150	%	01/08/15 14:06
Tetrachloro-m-xylene	95		12-158	%	01/08/15 14:06

Analytical Method: SW-846 8270 C

Seq Number: 119576

PSS Sample ID: 15010509-040

Matrix: Soil

Prep Method: SW3550C

Date Prep: 01/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	90		60-131	%	01/07/15 09:30
2-Fluorophenol	57		45-108	%	01/07/15 09:30
Nitrobenzene-d5	75		42-131	%	01/07/15 09:30
Phenol-d6	73		48-124	%	01/07/15 09:30
Terphenyl-D14	102		59-137	%	01/07/15 09:30
2,4,6-Tribromophenol	71		46-129	%	01/07/15 09:30

PHASE SEPARATION SCIENCE, INC.

QC Summary 15010509

GTA - Laurel

141040 USA

Analytical Method: SW-846 8015 C

Seq Number: 119603

PSS Sample ID: 15010509-040

Matrix: Soil

Prep Method: SW3550C

Date Prep: 01/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	82		42-129	%	01/08/15 15:48

Analytical Method: SW-846 8081 B

Seq Number: 119578

PSS Sample ID: 15010509-041

Matrix: Soil

Prep Method: SW3510C

Date Prep: 01/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	108		36-175	%	01/07/05 22:19
Tetrachloro-m-xylene	65		37-156	%	01/07/05 22:19

Analytical Method: SW-846 8151 A

Seq Number: 119608

PSS Sample ID: 15010509-041

Matrix: Soil

Prep Method: SW8151A_PREP

Date Prep: 01/08/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2,4-Dichlorophenylacetic Acid	111		58-150	%	01/08/05 19:33

Analytical Method: SW-846 8270 C

Seq Number: 119627

PSS Sample ID: 15010509-041

Matrix: Soil

Prep Method: SW3510C

Date Prep: 01/07/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	69		68-116	%	01/08/15 05:21
2-Fluorophenol	57		57-98	%	01/08/15 05:21
Nitrobenzene-d5	68		58-107	%	01/08/15 05:21
Phenol-d6	71		59-109	%	01/08/15 05:21
Terphenyl-D14	91		69-121	%	01/08/15 05:21
2,4,6-Tribromophenol	69		48-119	%	01/08/15 05:21

Analytical Method: SW-846 8260 B

Seq Number: 119595

PSS Sample ID: 15010509-041

Matrix: Soil

Prep Method: SW5030B

Date Prep: 01/08/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	106		81-133	%	01/08/15 18:00
Dibromofluoromethane	104		84-110	%	01/08/15 18:00
Toluene-D8	101		94-109	%	01/08/15 18:00

PHASE SEPARATION SCIENCE, INC.

QC Summary 15010509

GTA - Laurel

141040 USA

Analytical Method: SW-846 8082 A

Seq Number: 119599

PSS Sample ID: 15010509-042

Matrix: Soil

Prep Method: SW3550C

Date Prep: 01/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	97		11-150	%	01/08/15 14:35
Tetrachloro-m-xylene	91		12-158	%	01/08/15 14:35

Analytical Method: SW-846 8270 C

Seq Number: 119576

PSS Sample ID: 15010509-042

Matrix: Soil

Prep Method: SW3550C

Date Prep: 01/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	105		60-131	%	01/07/15 10:01
2-Fluorophenol	70		45-108	%	01/07/15 10:01
Nitrobenzene-d5	88		42-131	%	01/07/15 10:01
Phenol-d6	90		48-124	%	01/07/15 10:01
Terphenyl-D14	127		59-137	%	01/07/15 10:01
2,4,6-Tribromophenol	85		46-129	%	01/07/15 10:01

Analytical Method: SW-846 8015 C

Seq Number: 119603

PSS Sample ID: 15010509-042

Matrix: Soil

Prep Method: SW3550C

Date Prep: 01/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	83		42-129	%	01/08/15 16:10

Analytical Method: SW-846 8081 B

Seq Number: 119578

PSS Sample ID: 15010509-043

Matrix: Soil

Prep Method: SW3510C

Date Prep: 01/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	95		36-175	%	01/07/05 16:43
Tetrachloro-m-xylene	71		37-156	%	01/07/05 16:43

Analytical Method: SW-846 8151 A

Seq Number: 119608

PSS Sample ID: 15010509-043

Matrix: Soil

Prep Method: SW8151A_PREP

Date Prep: 01/08/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2,4-Dichlorophenylacetic Acid	116		58-150	%	01/08/05 18:26

PHASE SEPARATION SCIENCE, INC.

QC Summary 15010509

GTA - Laurel

141040 USA

Analytical Method: SW-846 8270 C

Seq Number: 119627

PSS Sample ID: 15010509-043

Matrix: Soil

Prep Method: SW3510C

Date Prep: 01/07/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	76		68-116	%	01/08/15 06:22
2-Fluorophenol	64		57-98	%	01/08/15 06:22
Nitrobenzene-d5	80		58-107	%	01/08/15 06:22
Phenol-d6	80		59-109	%	01/08/15 06:22
Terphenyl-D14	95		69-121	%	01/08/15 06:22
2,4,6-Tribromophenol	57		48-119	%	01/08/15 06:22

Analytical Method: SW-846 8260 B

Seq Number: 119595

PSS Sample ID: 15010509-043

Matrix: Soil

Prep Method: SW5030B

Date Prep: 01/08/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	108		81-133	%	01/08/15 18:34
Dibromofluoromethane	104		84-110	%	01/08/15 18:34
Toluene-D8	102		94-109	%	01/08/15 18:34

F = RPD exceeded the laboratory control limits

X = Recovery of MS, MSD or both outside of QC Criteria

H = Recovery of BS, BSD or both exceeded the laboratory control limits

L = Recovery of BS, BSD or both below the laboratory control limits

PHASE SEPARATION SCIENCE, INC.

QC Summary 15010509

GTA - Laurel

141040 USA

Analytical Method: EPA 9071 B-Modified

Seq Number: 119606

Matrix: Solid

MB Sample Id: 119606-1-BLK

LCS Sample Id: 119606-1-BKS

LCSD Sample Id: 119606-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Oil & Grease, Total Recovered	<49.96	799.4	707.4	88	657.9	82	78-114	7	28	mg/kg	01/09/15 13:36	

Analytical Method: SW-846 6020 A

Seq Number: 119570

Matrix: Solid

Prep Method: SW3050B

Date Prep: 01/06/15

MB Sample Id: 53700-1-BLK

LCS Sample Id: 53700-1-BKS

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Chromium	<2.464	19.71	20.22	103	80-120	mg/kg	01/07/15 12:49	

Analytical Method: SW-846 6020 A

Seq Number: 119572

Matrix: Water

Prep Method: SW3010A

Date Prep: 01/07/15

MB Sample Id: 53709-1-BLK

LCS Sample Id: 53709-1-BKS

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Arsenic	<0.05000	0.4000	0.3668	92	80-120	mg/L	01/07/15 16:44	
Barium	<1.000	2.000	2.490	125	80-120	mg/L	01/07/15 16:44	H
Cadmium	<0.05000	0.4000	0.3825	96	80-120	mg/L	01/07/15 16:44	
Chromium	<0.05000	0.4000	0.3561	89	80-120	mg/L	01/07/15 16:44	
Lead	<0.05000	0.4000	0.4084	102	80-120	mg/L	01/07/15 16:44	
Mercury	<0.002000	0.01000	0.009600	96	80-120	mg/L	01/07/15 16:44	
Selenium	<0.05000	0.4000	0.3846	96	80-120	mg/L	01/07/15 16:44	
Silver	<0.05000	0.4000	0.3742	94	80-120	mg/L	01/07/15 16:44	

Analytical Method: SW-846 6020 A

Seq Number: 119602

Matrix: Solid

Prep Method: SW3050B

Date Prep: 01/07/15

MB Sample Id: 53723-1-BLK

LCS Sample Id: 53723-1-BKS

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Antimony	<2.323	18.58	16.95	91	80-120	mg/kg	01/08/15 13:22	
Arsenic	<0.4646	18.58	16.33	88	80-120	mg/kg	01/08/15 13:22	
Barium	<2.323	18.58	18.93	102	80-120	mg/kg	01/08/15 13:22	
Beryllium	<2.323	18.58	16.75	90	80-120	mg/kg	01/08/15 13:22	
Cadmium	<2.323	18.58	17.19	93	80-120	mg/kg	01/08/15 13:22	
Chromium	<2.323	18.58	17.56	95	80-120	mg/kg	01/08/15 13:22	
Copper	<2.323	18.58	16.92	91	80-120	mg/kg	01/08/15 13:22	
Lead	<2.323	18.58	17.89	96	80-120	mg/kg	01/08/15 13:22	
Mercury	<0.09291	0.4646	0.4088	88	80-120	mg/kg	01/08/15 13:22	
Nickel	<2.323	18.58	18.10	97	80-120	mg/kg	01/08/15 13:22	
Selenium	<2.323	18.58	14.85	80	80-120	mg/kg	01/08/15 13:22	
Silver	<2.323	18.58	18.53	100	80-120	mg/kg	01/08/15 13:22	
Thallium	<1.858	18.58	17.21	93	80-120	mg/kg	01/08/15 13:22	
Zinc	<9.291	18.58	15.41	83	80-120	mg/kg	01/08/15 13:22	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15010509

GTA - Laurel

141040 USA

Analytical Method: SW-846 6020 A

Seq Number: 119570

Parent Sample Id: 15010509-001

Matrix: Soil

MS Sample Id: 15010509-001 S

Prep Method: SW3050B

Date Prep: 01/06/15

MSD Sample Id: 15010509-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chromium	34.17	20.17	46.84	63	48.22	89	75-125	3	30	mg/kg	01/07/15 13:01	X

Analytical Method: SW-846 6020 A

Seq Number: 119633

REBLK Sample Id: 53723-1-BLK

Matrix: Solid

LCS Sample Id: 53723-1-BKS

Prep Method: SW3050B

Date Prep: 01/07/15

Parameter	REBLK Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Antimony	<2.323	18.58	17.24	93	75-125	mg/kg	01/09/15 13:58	
Arsenic	<0.4646	18.58	16.97	91	75-125	mg/kg	01/09/15 13:58	
Barium	<2.323	18.58	18.66	100	75-125	mg/kg	01/09/15 13:58	
Beryllium	<2.323	18.58	17.71	95	75-125	mg/kg	01/09/15 13:58	
Cadmium	<2.323	18.58	17.97	97	75-125	mg/kg	01/09/15 13:58	
Chromium	<2.323	18.58	18.45	99	75-125	mg/kg	01/09/15 13:58	
Copper	<2.323	18.58	18.37	99	75-125	mg/kg	01/09/15 13:58	
Lead	<2.323	18.58	18.84	101	75-125	mg/kg	01/09/15 13:58	
Mercury	<0.09291	0.4646	0.4553	98	75-125	mg/kg	01/09/15 13:58	
Nickel	<2.323	18.58	18.39	99	75-125	mg/kg	01/09/15 13:58	
Selenium	<2.323	18.58	15.53	84	75-125	mg/kg	01/09/15 13:58	
Silver	<2.323	18.58	19.15	103	75-125	mg/kg	01/09/15 13:58	
Thallium	<1.858	18.58	17.71	95	75-125	mg/kg	01/09/15 13:58	
Zinc	<9.291	18.58	16.71	90	75-125	mg/kg	01/09/15 13:58	

Analytical Method: SW-846 7196 A

Seq Number: 119488

MB Sample Id: 53684-1-BLK

Matrix: Solid

LCS Sample Id: 53684-1-BKS

Prep Method: SW3060A

Date Prep: 01/05/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Chromium, Hexavalent	<0.9864	4.932	4.630	94	80-120	mg/kg	01/05/15 10:26	

Analytical Method: SW-846 7196 A

Seq Number: 119514

MB Sample Id: 53693-1-BLK

Matrix: Solid

LCS Sample Id: 53693-1-BKS

Prep Method: SW3060A

Date Prep: 01/06/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Chromium, Hexavalent	<0.9952	4.976	4.021	81	80-120	mg/kg	01/07/15 12:50	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15010509

GTA - Laurel

141040 USA

Analytical Method: SW-846 7196 A

Seq Number: 119541

MB Sample Id: 53708-1-BLK

Matrix: Solid

LCS Sample Id: 53708-1-BKS

Prep Method: SW3060A

Date Prep: 01/07/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Chromium, Hexavalent	<0.9939	4.970	4.232	85	80-120	mg/kg	01/08/15 12:30	

Analytical Method: SW-846 7196 A

Seq Number: 119514

Parent Sample Id: 15010509-011

Matrix: Soil

MD Sample Id: 15010509-011 D

Prep Method: SW3060A

Date Prep: 01/06/15

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Chromium, Hexavalent	<1.084	<1.084	0	20	mg/kg	01/07/15 12:50	U

Analytical Method: SW-846 7196 A

Seq Number: 119541

Parent Sample Id: 15010509-025

Matrix: Soil

MD Sample Id: 15010509-025 D

Prep Method: SW3060A

Date Prep: 01/07/15

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Chromium, Hexavalent	<1.036	<1.036	0	20	mg/kg	01/08/15 12:30	U

Analytical Method: SW-846 7196 A

Seq Number: 119514

Parent Sample Id: 15010509-011

Matrix: Soil

MS Sample Id: 15010509-011 S

Prep Method: SW3060A

Date Prep: 01/06/15

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Chromium, Hexavalent	<1.078	5.391	2.534	47	75-125	mg/kg	01/07/15 12:50	X

Analytical Method: SW-846 7196 A

Seq Number: 119541

Parent Sample Id: 15010509-025

Matrix: Soil

MS Sample Id: 15010509-025 S

Prep Method: SW3060A

Date Prep: 01/07/15

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Chromium, Hexavalent	<1.041	5.206	1.085	21	75-125	mg/kg	01/08/15 12:30	X

Analytical Method: SW-846 9045 D

Seq Number: 119513

Parent Sample Id: 15010509-038

Matrix: Soil

MD Sample Id: 15010509-038 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
pH	7.400	7.400	0	20	SU	01/06/15 08:10	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15010509

GTA - Laurel

141040 USA

Analytical Method: SW-846 8081 B

Seq Number: 119578

MB Sample Id: 53705-1-BLK

Matrix: Water

LCS Sample Id: 53705-1-BKS

Prep Method: SW3510C

Date Prep: 01/06/15

LCSD Sample Id: 53705-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gamma-BHC (Lindane)	<0.00004	0.0002	0.0002238	112	0.0002193	110	60-161	2	20	mg/L	01/07/05 14:51	
Heptachlor	<0.00004	0.0002	0.0002323	116	0.0002241	112	53-153	4	20	mg/L	01/07/05 14:51	
Heptachlor Epoxide	<0.00004	0.0002	0.0002247	112	0.0002195	110	61-154	2	20	mg/L	01/07/05 14:51	
Endrin	<0.00004	0.0002	0.0002328	116	0.0002158	108	54-168	8	20	mg/L	01/07/05 14:51	
Methoxychlor	<0.00004	0.0002	0.0002561	128	0.0002224	111	41-176	14	20	mg/L	01/07/05 14:51	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	112		114		100		36-175	%	01/07/05 14:51
Tetrachloro-m-xylene	71		95		93		37-156	%	01/07/05 14:51

Analytical Method: SW-846 8082 A

Seq Number: 119599

MB Sample Id: 53703-1-BLK

Matrix: Solid

LCS Sample Id: 53703-1-BKS

Prep Method: SW3550C

Date Prep: 01/06/15

LCSD Sample Id: 53703-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
PCB-1016	<0.04921	0.4921	0.4867	99	0.5140	105	62-136	5	25	mg/kg	01/08/15 11:37	
PCB-1260	<0.04921	0.4921	0.4392	89	0.4660	95	56-113	6	25	mg/kg	01/08/15 11:37	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	92		101		100		11-150	%	01/08/15 11:37
Tetrachloro-m-xylene	88		106		103		12-158	%	01/08/15 11:37

Analytical Method: SW-846 8082 A

Seq Number: 119599

Parent Sample Id: 15010509-038

Matrix: Soil

MS Sample Id: 15010509-038 S

Prep Method: SW3550C

Date Prep: 01/06/15

MSD Sample Id: 15010509-038 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
PCB-1016	<0.05662	0.5662	0.5639	100	0.5713	103	44-139	1	30	mg/kg	01/08/15 12:38	
PCB-1260	<0.05662	0.5662	0.5242	93	0.5023	91	19-114	4	30	mg/kg	01/08/15 12:38	

Surrogate	MS Result	MS Flag	MSD Result	MSD Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	105		96		11-150	%	01/08/15 12:38
Tetrachloro-m-xylene	99		103		12-158	%	01/08/15 12:38

PHASE SEPARATION SCIENCE, INC.

QC Summary 15010509

GTA - Laurel

141040 USA

Analytical Method: SW-846 8151 A

Seq Number: 119608

MB Sample Id: 53740-1-BLK

Matrix: Water

LCS Sample Id: 53740-1-BKS

Prep Method: SW8151A_PREP

Date Prep: 01/08/15

LCSD Sample Id: 53740-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
2,4-D	<0.002000	0.01000	0.009863	99	0.01018	102	58-124	3	20	mg/L	01/08/05 16:47	
2,4,5-TP (Silvex)	<0.0002	0.001000	0.000997	100	0.001003	100	52-131	1	20	mg/L	01/08/05 16:47	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
2,4-Dichlorophenylacetic Acid	109		123		121		58-150	%	01/08/05 16:47

Analytical Method: SW-846 8151 A

Seq Number: 119608

Parent Sample Id: 15010509-039

Matrix: Soil

MS Sample Id: 15010509-039 S

Prep Method: SW8151A_PREP

Date Prep: 01/08/15

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
2,4-D	<0.01000	0.05000	0.04783	96	51-124	mg/L	01/08/05 17:53	
2,4,5-TP (Silvex)	<0.001000	0.005000	0.004730	95	48-124	mg/L	01/08/05 17:53	

Surrogate	MS Result	MS Flag	Limits	Units	Analysis Date
2,4-Dichlorophenylacetic Acid	103		58-150	%	01/08/05 17:53

Analytical Method: SW-846 8015 C

Seq Number: 119603

MB Sample Id: 53707-1-BLK

Matrix: Solid

LCS Sample Id: 53707-1-BKS

Prep Method: SW3550C

Date Prep: 01/06/15

LCSD Sample Id: 53707-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-DRO (Diesel Range Organics)	<9.990	33.30	22.93	69	26.05	78	56-117	13	25	mg/kg	01/08/15 14:20	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
o-Terphenyl	96		77		88		42-129	%	01/08/15 14:20

Analytical Method: SW-846 8015 C

Seq Number: 119603

Parent Sample Id: 15010509-038

Matrix: Soil

MS Sample Id: 15010509-038 S

Prep Method: SW3550C

Date Prep: 01/06/15

MSD Sample Id: 15010509-038 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-DRO (Diesel Range Organics)	12.19	38.43	43.93	83	42.12	79	47-114	4	30	mg/kg	01/08/15 17:37	

Surrogate	MS Result	MS Flag	MSD Result	MSD Flag	Limits	Units	Analysis Date
o-Terphenyl	89		90		42-129	%	01/08/15 17:37

PHASE SEPARATION SCIENCE, INC.

QC Summary 15010509

GTA - Laurel

141040 USA

Analytical Method: SW-846 8270 C

Seq Number: 119575

MB Sample Id: 53701-1-BLK

Matrix: Solid

LCS Sample Id: 53701-1-BKS

Prep Method: SW3550C

Date Prep: 01/06/15

LCSD Sample Id: 53701-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Acenaphthene	<166.6	1333	1156	87	1144	86	73-103	1	25	ug/kg	01/07/15 00:20	
Acenaphthylene	<166.6	1333	1140	86	1094	82	73-104	4	25	ug/kg	01/07/15 00:20	
Acetophenone	<166.6	1333	1141	86	1152	87	61-114	1	25	ug/kg	01/07/15 00:20	
Anthracene	<166.6	1333	1172	88	1160	87	74-104	1	25	ug/kg	01/07/15 00:20	
Atrazine	<166.6	1333	5935	445	5851	440	69-131	1	25	ug/kg	01/07/15 00:20	H
Benzo(a)anthracene	<166.6	1333	1246	93	1251	94	78-109	0	25	ug/kg	01/07/15 00:20	
Benzo(a)pyrene	<166.6	1333	1314	99	1260	95	78-117	4	25	ug/kg	01/07/15 00:20	
Benzo(b)fluoranthene	<166.6	1333	1323	99	1312	99	73-119	1	25	ug/kg	01/07/15 00:20	
Benzo(g,h,i)perylene	<166.6	1333	1394	105	1352	102	59-136	3	25	ug/kg	01/07/15 00:20	
Benzo(k)fluoranthene	<166.6	1333	1319	99	1196	90	72-117	10	25	ug/kg	01/07/15 00:20	
Biphenyl (Diphenyl)	<166.6	1333	1148	86	1097	82	79-107	5	25	ug/kg	01/07/15 00:20	
Butyl benzyl phthalate	<166.6	1333	1305	98	1245	94	67-125	5	25	ug/kg	01/07/15 00:20	
bis(2-chloroethoxy) methane	<166.6	1333	1184	89	1119	84	58-106	6	25	ug/kg	01/07/15 00:20	
bis(2-chloroethyl) ether	<166.6	1333	1156	87	1166	88	58-105	1	25	ug/kg	01/07/15 00:20	
bis(2-chloroisopropyl) ether	<166.6	1333	1118	84	1123	84	53-114	0	25	ug/kg	01/07/15 00:20	
bis(2-ethylhexyl) phthalate	<166.6	1333	1296	97	1239	93	54-137	4	25	ug/kg	01/07/15 00:20	
4-Bromophenylphenyl ether	<166.6	1333	1211	91	1176	88	65-110	3	25	ug/kg	01/07/15 00:20	
Di-n-butyl phthalate	<166.6	1333	1166	87	1170	88	61-127	0	25	ug/kg	01/07/15 00:20	
Carbazole	<166.6	1333	1242	93	1248	94	45-121	0	25	ug/kg	01/07/15 00:20	
Caprolactam	<166.6	1333	1131	85	1098	82	59-129	3	25	ug/kg	01/07/15 00:20	
4-Chloro-3-methyl phenol	<166.6	1333	1315	99	1253	94	70-113	5	25	ug/kg	01/07/15 00:20	
4-Chloroaniline	<166.6	1333	1332	100	1305	98	73-103	2	25	ug/kg	01/07/15 00:20	
2-Chloronaphthalene	<166.6	1333	1112	83	1078	81	76-104	3	25	ug/kg	01/07/15 00:20	
2-Chlorophenol	<166.6	1333	1094	82	1109	83	69-97	1	25	ug/kg	01/07/15 00:20	
4-Chlorophenyl Phenyl ether	<166.6	1333	1127	85	1119	84	67-113	1	25	ug/kg	01/07/15 00:20	
Chrysene	<166.6	1333	1224	92	1247	94	78-107	2	25	ug/kg	01/07/15 00:20	
Dibenz(a,h)Anthracene	<166.6	1333	1455	109	1456	109	62-131	0	25	ug/kg	01/07/15 00:20	
Dibenzofuran	<166.6	1333	1152	86	1108	83	72-109	4	25	ug/kg	01/07/15 00:20	
3,3-Dichlorobenzidine	<166.6	1333	1315	99	1344	101	56-128	2	25	ug/kg	01/07/15 00:20	
2,4-Dichlorophenol	<166.6	1333	1223	92	1164	87	75-101	5	25	ug/kg	01/07/15 00:20	
Diethyl phthalate	<166.6	1333	1232	92	1192	90	69-120	3	25	ug/kg	01/07/15 00:20	
Dimethyl phthalate	<166.6	1333	1229	92	1181	89	64-119	4	25	ug/kg	01/07/15 00:20	
2,4-Dimethylphenol	<166.6	1333	1237	93	1194	90	66-98	4	25	ug/kg	01/07/15 00:20	
4,6-Dinitro-2-methyl phenol	<166.6	1333	1206	90	1142	86	63-126	5	25	ug/kg	01/07/15 00:20	
2,4-Dinitrophenol	<333.2	1333	1170	88	1156	87	56-123	1	25	ug/kg	01/07/15 00:20	
2,4-Dinitrotoluene	<166.6	1333	1227	92	1170	88	70-116	5	25	ug/kg	01/07/15 00:20	
2,6-Dinitrotoluene	<166.6	1333	1190	89	1108	83	72-112	7	25	ug/kg	01/07/15 00:20	
Fluoranthene	<166.6	1333	1200	90	1198	90	71-111	0	25	ug/kg	01/07/15 00:20	
Fluorene	<166.6	1333	1154	87	1128	85	75-105	2	25	ug/kg	01/07/15 00:20	
Hexachlorobenzene	<166.6	1333	1182	89	1168	88	72-112	1	25	ug/kg	01/07/15 00:20	
Hexachlorobutadiene	<166.6	1333	1150	86	1099	83	72-100	5	25	ug/kg	01/07/15 00:20	
Hexachlorocyclopentadiene	<166.6	1333	1203	90	1175	88	51-125	2	25	ug/kg	01/07/15 00:20	
Hexachloroethane	<166.6	1333	1076	81	1074	81	69-102	0	25	ug/kg	01/07/15 00:20	
Indeno(1,2,3-c,d)Pyrene	<166.6	1333	1419	106	1405	106	60-130	1	25	ug/kg	01/07/15 00:20	
Isophorone	<166.6	1333	1246	93	1154	87	71-96	8	25	ug/kg	01/07/15 00:20	
2-Methylnaphthalene	<166.6	1333	1169	88	1121	84	70-101	4	25	ug/kg	01/07/15 00:20	
2-Methyl phenol	<166.6	1333	1178	88	1197	90	69-102	2	25	ug/kg	01/07/15 00:20	
3&4-Methylphenol	<166.6	1333	1153	86	1204	90	64-113	4	25	ug/kg	01/07/15 00:20	
Naphthalene	<166.6	1333	1159	87	1125	85	71-99	3	25	ug/kg	01/07/15 00:20	
2-Nitroaniline	<166.6	1333	1250	94	1217	91	71-109	3	25	ug/kg	01/07/15 00:20	
3-Nitroaniline	<166.6	1333	1287	97	1325	100	49-117	3	25	ug/kg	01/07/15 00:20	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15010509

GTA - Laurel

141040 USA

Analytical Method: SW-846 8270 C

Seq Number: 119575

MB Sample Id: 53701-1-BLK

Matrix: Solid

LCS Sample Id: 53701-1-BKS

Prep Method: SW3550C

Date Prep: 01/06/15

LCSD Sample Id: 53701-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
4-Nitroaniline	<166.6	1333	1318	99	1347	101	41-121	2	25	ug/kg	01/07/15 00:20	
Nitrobenzene	<166.6	1333	1179	88	1115	84	66-101	6	25	ug/kg	01/07/15 00:20	
2-Nitrophenol	<166.6	1333	1223	92	1165	88	74-108	5	25	ug/kg	01/07/15 00:20	
4-Nitrophenol	<166.6	1333	1213	91	1182	89	58-125	3	25	ug/kg	01/07/15 00:20	
N-Nitrosodi-n-propyl amine	<166.6	1333	1140	86	1133	85	58-110	1	25	ug/kg	01/07/15 00:20	
N-Nitrosodiphenylamine	<166.6	1333	1170	88	1121	84	70-109	4	25	ug/kg	01/07/15 00:20	
Di-n-octyl phthalate	<166.6	1333	1357	102	1207	91	63-122	12	25	ug/kg	01/07/15 00:20	
Pentachlorophenol	<166.6	1333	1299	97	1272	96	76-114	2	25	ug/kg	01/07/15 00:20	
Phenanthrene	<166.6	1333	1220	92	1210	91	71-103	1	25	ug/kg	01/07/15 00:20	
Phenol	<166.6	1333	1168	88	1193	90	69-109	2	25	ug/kg	01/07/15 00:20	
Pyrene	<166.6	1333	1249	94	1182	89	67-110	6	25	ug/kg	01/07/15 00:20	
Pyridine	<166.6	1333	1106	83	1116	84	60-86	1	25	ug/kg	01/07/15 00:20	
2,4,5-Trichlorophenol	<166.6	1333	1400	105	1292	97	81-112	8	25	ug/kg	01/07/15 00:20	
2,4,6-Trichlorophenol	<166.6	1333	1222	92	1197	90	75-111	2	25	ug/kg	01/07/15 00:20	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
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Analytical Method: SW-846 8270 C

Seq Number: 119627

MB Sample Id: 53711-1-BLK

Matrix: Water

LCS Sample Id: 53711-1-BKS

Prep Method: SW3510C

Date Prep: 01/07/15

LCSD Sample Id: 53711-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
2,4-Dinitrotoluene	<0.005000	0.04000	0.03421	86	0.03223	81	72-109	6	20	mg/L	01/08/15 01:50	
Hexachlorobenzene	<0.005000	0.04000	0.03685	92	0.03485	87	71-115	6	20	mg/L	01/08/15 01:50	
Hexachlorobutadiene	<0.005000	0.04000	0.03453	86	0.03369	84	71-102	2	20	mg/L	01/08/15 01:50	
Hexachloroethane	<0.005000	0.04000	0.03572	89	0.03326	83	63-107	7	20	mg/L	01/08/15 01:50	
2-Methylphenol	<0.005000	0.04000	0.03750	94	0.03437	86	69-103	9	20	mg/L	01/08/15 01:50	
3&4-Methylphenol	<0.005000	0.04000	0.03833	96	0.03490	87	61-115	9	20	mg/L	01/08/15 01:50	
Nitrobenzene	<0.005000	0.04000	0.03567	89	0.03364	84	62-104	6	20	mg/L	01/08/15 01:50	
Pentachlorophenol	<0.005000	0.04000	0.04067	102	0.03735	93	66-121	9	20	mg/L	01/08/15 01:50	
Pyridine	<0.005000	0.04000	0.03512	88	0.03409	85	57-88	3	20	mg/L	01/08/15 01:50	
2,4,6-Trichlorophenol	<0.005000	0.04000	0.03043	76	0.02901	73	71-113	5	20	mg/L	01/08/15 01:50	
2,4,5-Trichlorophenol	<0.005000	0.04000	0.03463	87	0.03257	81	77-112	6	20	mg/L	01/08/15 01:50	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	87		77		77		68-116	%	01/08/15 01:50
2-Fluorophenol	80		83		81		57-98	%	01/08/15 01:50
Nitrobenzene-d5	96		92		90		58-107	%	01/08/15 01:50
Phenol-d6	95		98		96		59-109	%	01/08/15 01:50
Terphenyl-D14	82		103		94		69-121	%	01/08/15 01:50
2,4,6-Tribromophenol	72		88		85		48-119	%	01/08/15 01:50

PHASE SEPARATION SCIENCE, INC.

QC Summary 15010509

GTA - Laurel

141040 USA

Analytical Method: SW-846 8270 C

Seq Number: 119627

Parent Sample Id: 15010509-039

Matrix: Soil

MS Sample Id: 15010509-039 S

Prep Method: SW3510C

Date Prep: 01/07/15

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
2,4-Dinitrotoluene	<0.01000	0.08000	0.06486	81	72-122	mg/L	01/08/15 04:20	
Hexachlorobenzene	<0.01000	0.08000	0.07246	91	71-106	mg/L	01/08/15 04:20	
Hexachlorobutadiene	<0.01000	0.08000	0.06476	81	58-105	mg/L	01/08/15 04:20	
Hexachloroethane	<0.01000	0.08000	0.06494	81	55-107	mg/L	01/08/15 04:20	
2-Methylphenol	<0.01000	0.08000	0.06868	86	61-108	mg/L	01/08/15 04:20	
3&4-Methylphenol	<0.01000	0.08000	0.06934	87	59-108	mg/L	01/08/15 04:20	
Nitrobenzene	<0.01000	0.08000	0.06550	82	63-106	mg/L	01/08/15 04:20	
Pentachlorophenol	<0.01000	0.08000	0.07192	90	52-125	mg/L	01/08/15 04:20	
Pyridine	<0.01000	0.08000	0.06454	81	43-110	mg/L	01/08/15 04:20	
2,4,6-Trichlorophenol	<0.01000	0.08000	0.05860	73	65-113	mg/L	01/08/15 04:20	
2,4,5-Trichlorophenol	<0.01000	0.08000	0.06594	82	68-113	mg/L	01/08/15 04:20	

Surrogate	MS Result	MS Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	82		68-116	%	01/08/15 04:20
2-Fluorophenol	80		57-98	%	01/08/15 04:20
Nitrobenzene-d5	87		58-107	%	01/08/15 04:20
Phenol-d6	96		59-109	%	01/08/15 04:20
Terphenyl-D14	104		69-121	%	01/08/15 04:20
2,4,6-Tribromophenol	83		48-119	%	01/08/15 04:20

Analytical Method: SW-846 8015C

Seq Number: 119535

MB Sample Id: 53706-2-BLK

Matrix: Solid

LCS Sample Id: 53706-2-BKS

Prep Method: SW5030

Date Prep: 01/06/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
TPH-GRO (Gasoline Range Organic)	<98.43	4921	4570	93	60-112	ug/kg	01/06/15 15:59	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	81		97		55-142	%	01/06/15 15:59

Analytical Method: SW-846 8015C

Seq Number: 119535

Parent Sample Id: 15010509-033

Matrix: Soil

MS Sample Id: 15010509-033 S

Prep Method: SW5030

Date Prep: 01/06/15

MSD Sample Id: 15010509-033 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-GRO (Gasoline Range Organic)	<108.9	5447	5615	103	4544	82	36-131	21	30	ug/kg	01/06/15 23:51	

Surrogate	MS Result	MS Flag	MSD Result	MSD Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	129		117		55-142	%	01/06/15 23:51

PHASE SEPARATION SCIENCE, INC.

QC Summary 15010509

GTA - Laurel

141040 USA

Analytical Method: SW-846 8260 B

Seq Number: 119546

MB Sample Id: 53718-1-BLK

Matrix: Solid

LCS Sample Id: 53718-1-BKS

Prep Method: SW5030

Date Prep: 01/06/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Dichlorodifluoromethane	<4.941	59.29	66.42	112	53-144	ug/kg	01/06/15 11:51	
Chloromethane	<4.941	59.29	70.40	119	62-143	ug/kg	01/06/15 11:51	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<4.941	59.29	60.52	102	50-162	ug/kg	01/06/15 11:51	
Vinyl Chloride	<4.941	59.29	63.94	108	61-156	ug/kg	01/06/15 11:51	
Bromomethane	<4.941	59.29	69.68	118	45-199	ug/kg	01/06/15 11:51	
Chloroethane	<4.941	59.29	73.78	124	59-151	ug/kg	01/06/15 11:51	
Acetone	<19.76	59.29	53.36	90	24-197	ug/kg	01/06/15 11:51	
Cyclohexane	<19.76	59.29	61.80	104	50-148	ug/kg	01/06/15 11:51	
Trichlorofluoromethane	<4.941	59.29	62.66	106	54-175	ug/kg	01/06/15 11:51	
1,1-Dichloroethene	<4.941	59.29	64.00	108	60-154	ug/kg	01/06/15 11:51	
Methylene Chloride	<4.941	59.29	59.81	101	56-140	ug/kg	01/06/15 11:51	
trans-1,2-Dichloroethene	<4.941	59.29	63.29	107	60-153	ug/kg	01/06/15 11:51	
Methyl-t-butyl ether	<4.941	59.29	72.54	122	59-133	ug/kg	01/06/15 11:51	
1,1-Dichloroethane	<4.941	59.29	62.29	105	60-148	ug/kg	01/06/15 11:51	
2-Butanone	<19.76	59.29	48.01	81	35-173	ug/kg	01/06/15 11:51	
cis-1,2-Dichloroethene	<4.941	59.29	63.43	107	67-126	ug/kg	01/06/15 11:51	
Bromochloromethane	<4.941	59.29	63.43	107	64-121	ug/kg	01/06/15 11:51	
Chloroform	<4.941	59.29	62.46	105	65-126	ug/kg	01/06/15 11:51	
1,1,1-Trichloroethane	<4.941	59.29	63.22	107	60-145	ug/kg	01/06/15 11:51	
1,2-Dichloroethane	<4.941	59.29	61.76	104	62-127	ug/kg	01/06/15 11:51	
Carbon Tetrachloride	<4.941	59.29	62.48	105	55-152	ug/kg	01/06/15 11:51	
Benzene	<4.941	59.29	63.15	107	69-128	ug/kg	01/06/15 11:51	
1,2-Dichloropropane	<4.941	59.29	65.82	111	66-125	ug/kg	01/06/15 11:51	
Carbon Disulfide	<9.881	59.29	50.80	86	58-153	ug/kg	01/06/15 11:51	
Methylcyclohexane	<19.76	59.29	58.45	99	41-142	ug/kg	01/06/15 11:51	
Trichloroethene	<4.941	59.29	62.08	105	68-130	ug/kg	01/06/15 11:51	
Methyl Acetate	<19.76	59.29	60.41	102	47-151	ug/kg	01/06/15 11:51	
Bromodichloromethane	<4.941	59.29	63.47	107	60-125	ug/kg	01/06/15 11:51	
cis-1,3-Dichloropropene	<4.941	59.29	63.92	108	59-122	ug/kg	01/06/15 11:51	
4-Methyl-2-Pentanone	<19.76	59.29	46.16	78	22-173	ug/kg	01/06/15 11:51	
trans-1,3-Dichloropropene	<4.941	59.29	61.85	104	56-124	ug/kg	01/06/15 11:51	
1,1,2-Trichloroethane	<4.941	59.29	64.67	109	65-120	ug/kg	01/06/15 11:51	
Toluene	<4.941	59.29	63.31	107	66-127	ug/kg	01/06/15 11:51	
2-Hexanone	<19.76	59.29	43.76	74	30-175	ug/kg	01/06/15 11:51	
1,2-Dibromoethane	<4.941	59.29	59.65	101	64-123	ug/kg	01/06/15 11:51	
Dibromochloromethane	<4.941	59.29	58.97	99	55-128	ug/kg	01/06/15 11:51	
Bromoform	<4.941	59.29	55.83	94	46-128	ug/kg	01/06/15 11:51	
Tetrachloroethene	<4.941	59.29	59.50	100	55-145	ug/kg	01/06/15 11:51	
Chlorobenzene	<4.941	59.29	58.62	99	61-124	ug/kg	01/06/15 11:51	
Ethylbenzene	<4.941	59.29	58.64	99	58-130	ug/kg	01/06/15 11:51	
m,p-Xylenes	<9.881	118.6	118.4	100	60-131	ug/kg	01/06/15 11:51	
Styrene	<4.941	59.29	59.09	100	54-123	ug/kg	01/06/15 11:51	
1,1,2,2-Tetrachloroethane	<4.941	59.29	57.03	96	50-134	ug/kg	01/06/15 11:51	
o-Xylene	<4.941	59.29	60.77	102	60-126	ug/kg	01/06/15 11:51	
Isopropylbenzene	<4.941	59.29	59.42	100	52-130	ug/kg	01/06/15 11:51	
1,3-Dichlorobenzene	<4.941	59.29	54.35	92	42-123	ug/kg	01/06/15 11:51	
1,4-Dichlorobenzene	<4.941	59.29	52.85	89	40-121	ug/kg	01/06/15 11:51	
1,2-Dichlorobenzene	<4.941	59.29	54.84	92	38-128	ug/kg	01/06/15 11:51	
1,2-Dibromo-3-Chloropropane	<39.53	59.29	68.42	115	43-149	ug/kg	01/06/15 11:51	
1,2,4-Trichlorobenzene	<4.941	59.29	49.76	84	14-143	ug/kg	01/06/15 11:51	
Naphthalene	<4.941	59.29	50.84	86	30-155	ug/kg	01/06/15 11:51	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15010509

GTA - Laurel
141040 USA

Analytical Method: SW-846 8260 B

Seq Number: 119546

MB Sample Id: 53718-1-BLK

Matrix: Solid

LCS Sample Id: 53718-1-BKS

Prep Method: SW5030

Date Prep: 01/06/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<4.941	59.29	59.06	100	15-144	ug/kg	01/06/15 11:51	
Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date	
4-Bromofluorobenzene	101		100		80-125	%	01/06/15 11:51	
Dibromofluoromethane	98		98		85-115	%	01/06/15 11:51	
Toluene-D8	103		104		91-109	%	01/06/15 11:51	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15010509

GTA - Laurel

141040 USA

Analytical Method: SW-846 8260 B

Seq Number: 119569

MB Sample Id: 53732-1-BLK

Matrix: Solid

LCS Sample Id: 53732-1-BKS

Prep Method: SW5030

Date Prep: 01/07/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Dichlorodifluoromethane	<4.941	59.29	59.27	100	53-144	ug/kg	01/07/15 13:22	
Chloromethane	<4.941	59.29	65.21	110	62-143	ug/kg	01/07/15 13:22	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<4.941	59.29	58.25	98	50-162	ug/kg	01/07/15 13:22	
Vinyl Chloride	<4.941	59.29	58.09	98	61-156	ug/kg	01/07/15 13:22	
Bromomethane	<4.941	59.29	62.81	106	45-199	ug/kg	01/07/15 13:22	
Chloroethane	<4.941	59.29	64.64	109	59-151	ug/kg	01/07/15 13:22	
Acetone	<19.76	59.29	48.25	81	24-197	ug/kg	01/07/15 13:22	
Cyclohexane	<19.76	59.29	57.62	97	50-148	ug/kg	01/07/15 13:22	
Trichlorofluoromethane	<4.941	59.29	60.24	102	54-175	ug/kg	01/07/15 13:22	
1,1-Dichloroethene	<4.941	59.29	58.45	99	60-154	ug/kg	01/07/15 13:22	
Methylene Chloride	<4.941	59.29	56.62	95	56-140	ug/kg	01/07/15 13:22	
trans-1,2-Dichloroethene	<4.941	59.29	58.20	98	60-153	ug/kg	01/07/15 13:22	
Methyl-t-butyl ether	<4.941	59.29	62.14	105	59-133	ug/kg	01/07/15 13:22	
1,1-Dichloroethane	<4.941	59.29	56.79	96	60-148	ug/kg	01/07/15 13:22	
2-Butanone	<19.76	59.29	45.04	76	35-173	ug/kg	01/07/15 13:22	
cis-1,2-Dichloroethene	<4.941	59.29	59.86	101	67-126	ug/kg	01/07/15 13:22	
Bromochloromethane	<4.941	59.29	58.88	99	64-121	ug/kg	01/07/15 13:22	
Chloroform	<4.941	59.29	57.22	97	65-126	ug/kg	01/07/15 13:22	
1,1,1-Trichloroethane	<4.941	59.29	58.13	98	60-145	ug/kg	01/07/15 13:22	
1,2-Dichloroethane	<4.941	59.29	59.04	100	62-127	ug/kg	01/07/15 13:22	
Carbon Tetrachloride	<4.941	59.29	57.15	96	55-152	ug/kg	01/07/15 13:22	
Benzene	<4.941	59.29	58.47	99	69-128	ug/kg	01/07/15 13:22	
1,2-Dichloropropane	<4.941	59.29	60.54	102	66-125	ug/kg	01/07/15 13:22	
Carbon Disulfide	<9.881	59.29	57.35	97	58-153	ug/kg	01/07/15 13:22	
Methylcyclohexane	<19.76	59.29	54.47	92	41-142	ug/kg	01/07/15 13:22	
Trichloroethene	<4.941	59.29	58.55	99	68-130	ug/kg	01/07/15 13:22	
Methyl Acetate	<19.76	59.29	58.20	98	47-151	ug/kg	01/07/15 13:22	
Bromodichloromethane	<4.941	59.29	58.69	99	60-125	ug/kg	01/07/15 13:22	
cis-1,3-Dichloropropene	<4.941	59.29	59.53	100	59-122	ug/kg	01/07/15 13:22	
4-Methyl-2-Pentanone	<19.76	59.29	44.16	74	22-173	ug/kg	01/07/15 13:22	
trans-1,3-Dichloropropene	<4.941	59.29	56.91	96	56-124	ug/kg	01/07/15 13:22	
1,1,2-Trichloroethane	<4.941	59.29	60.34	102	65-120	ug/kg	01/07/15 13:22	
Toluene	<4.941	59.29	59.69	101	66-127	ug/kg	01/07/15 13:22	
2-Hexanone	<19.76	59.29	41.94	71	30-175	ug/kg	01/07/15 13:22	
1,2-Dibromoethane	<4.941	59.29	60.68	102	64-123	ug/kg	01/07/15 13:22	
Dibromochloromethane	<4.941	59.29	58.18	98	55-128	ug/kg	01/07/15 13:22	
Bromoform	<4.941	59.29	56.23	95	46-128	ug/kg	01/07/15 13:22	
Tetrachloroethene	<4.941	59.29	54.74	92	55-145	ug/kg	01/07/15 13:22	
Chlorobenzene	<4.941	59.29	59.84	101	61-124	ug/kg	01/07/15 13:22	
Ethylbenzene	<4.941	59.29	61.12	103	58-130	ug/kg	01/07/15 13:22	
m,p-Xylenes	<9.881	118.6	121.5	102	60-131	ug/kg	01/07/15 13:22	
Styrene	<4.941	59.29	58.80	99	54-123	ug/kg	01/07/15 13:22	
1,1,2,2-Tetrachloroethane	<4.941	59.29	61.15	103	50-134	ug/kg	01/07/15 13:22	
o-Xylene	<4.941	59.29	60.29	102	60-126	ug/kg	01/07/15 13:22	
Isopropylbenzene	<4.941	59.29	60.16	101	52-130	ug/kg	01/07/15 13:22	
1,3-Dichlorobenzene	<4.941	59.29	54.72	92	42-123	ug/kg	01/07/15 13:22	
1,4-Dichlorobenzene	<4.941	59.29	54.39	92	40-121	ug/kg	01/07/15 13:22	
1,2-Dichlorobenzene	<4.941	59.29	56.06	95	38-128	ug/kg	01/07/15 13:22	
1,2-Dibromo-3-Chloropropane	<39.53	59.29	74.14	125	43-149	ug/kg	01/07/15 13:22	
1,2,4-Trichlorobenzene	<4.941	59.29	53.05	89	14-143	ug/kg	01/07/15 13:22	
Naphthalene	<4.941	59.29	55.86	94	30-155	ug/kg	01/07/15 13:22	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15010509

GTA - Laurel

141040 USA

Analytical Method: SW-846 8260 B

Seq Number: 119569

MB Sample Id: 53732-1-BLK

Matrix: Solid

LCS Sample Id: 53732-1-BKS

Prep Method: SW5030

Date Prep: 01/07/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<4.941	59.29	64.21	108	15-144	ug/kg	01/07/15 13:22	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	101		98		80-125	%	01/07/15 13:22
Dibromofluoromethane	97		97		85-115	%	01/07/15 13:22
Toluene-D8	99		100		91-109	%	01/07/15 13:22

Analytical Method: SW-846 8260 B

Seq Number: 119595

MB Sample Id: 53748-1-BLK

Matrix: Water

LCS Sample Id: 53748-1-BKS

Prep Method: SW5030B

Date Prep: 01/08/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Vinyl chloride	<0.001000	0.05000	0.05638	113	64-132	mg/L	01/08/15 11:09	
1,1-Dichloroethene	<0.001000	0.05000	0.05330	107	59-123	mg/L	01/08/15 11:09	
2-Butanone (MEK)	<0.01000	0.05000	0.03926	79	56-133	mg/L	01/08/15 11:09	
Chloroform	<0.001000	0.05000	0.05059	101	71-118	mg/L	01/08/15 11:09	
1,2-Dichloroethane	<0.001000	0.05000	0.05150	103	64-130	mg/L	01/08/15 11:09	
Carbon tetrachloride	<0.001000	0.05000	0.05407	108	74-127	mg/L	01/08/15 11:09	
Benzene	<0.001000	0.05000	0.05316	106	77-122	mg/L	01/08/15 11:09	
Trichloroethene	<0.001000	0.05000	0.05304	106	72-127	mg/L	01/08/15 11:09	
Tetrachloroethene	<0.001000	0.05000	0.04900	98	78-113	mg/L	01/08/15 11:09	
Chlorobenzene	<0.001000	0.05000	0.05112	102	76-116	mg/L	01/08/15 11:09	
1,4-Dichlorobenzene	<0.001000	0.05000	0.05019	100	77-118	mg/L	01/08/15 11:09	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	107		94		81-133	%	01/08/15 11:09
Dibromofluoromethane	102		101		84-110	%	01/08/15 11:09
Toluene-D8	102		102		94-109	%	01/08/15 11:09

PHASE SEPARATION SCIENCE, INC.

QC Summary 15010509

GTA - Laurel

141040 USA

Analytical Method: SW-846 8260 B

Seq Number: 119595

Parent Sample Id: 15010509-039

Matrix: Soil

MS Sample Id: 15010509-039 S

Prep Method: SW5030B

Date Prep: 01/08/15

MSD Sample Id: 15010509-039 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Vinyl chloride	<0.1000	5.000	5.039	101	5.578	112	60-146	10	25	mg/L	01/08/15 19:42	
1,1-Dichloroethene	<0.1000	5.000	4.552	91	5.219	104	50-136	14	25	mg/L	01/08/15 19:42	
2-Butanone (MEK)	<1.000	5.000	4.732	95	4.121	82	47-140	14	25	mg/L	01/08/15 19:42	
Chloroform	<0.1000	5.000	4.809	96	4.954	99	67-130	3	25	mg/L	01/08/15 19:42	
1,2-Dichloroethane	<0.1000	5.000	4.665	93	4.700	94	60-142	1	25	mg/L	01/08/15 19:42	
Carbon tetrachloride	<0.1000	5.000	5.144	103	5.460	109	74-136	6	25	mg/L	01/08/15 19:42	
Benzene	<0.1000	5.000	4.807	96	4.993	100	75-132	4	25	mg/L	01/08/15 19:42	
Trichloroethene	<0.1000	5.000	5.092	102	5.090	102	67-139	0	25	mg/L	01/08/15 19:42	
Tetrachloroethene	<0.1000	5.000	4.903	98	5.127	103	69-126	4	25	mg/L	01/08/15 19:42	
Chlorobenzene	<0.1000	5.000	4.675	94	4.805	96	78-115	3	25	mg/L	01/08/15 19:42	
1,4-Dichlorobenzene	<0.1000	5.000	4.668	93	4.885	98	72-111	5	25	mg/L	01/08/15 19:42	

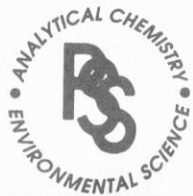
Surrogate	MS Result	MS Flag	MSD Result	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	98		96		81-133	%	01/08/15 19:42
Dibromofluoromethane	106		105		84-110	%	01/08/15 19:42
Toluene-D8	101		100		94-109	%	01/08/15 19:42

F = RPD exceeded the laboratory control limits

X = Recovery of MS, MSD or both outside of QC Criteria

H= Recovery of BS,BSD or both exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits



SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM

PHASE SEPARATION SCIENCE, INC.

www.phaseonline.com
email: info@phaseonline.com

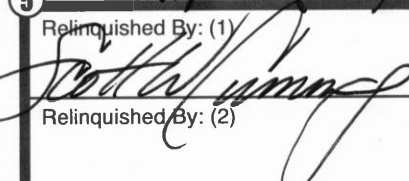
1 *CLIENT: <u>GTA</u> *OFFICE LOC. <u>LAUREL</u>		PSS Work Order #: <u>15010509</u>		PAGE <u>1</u> OF <u>5</u>																																																																																																				
*PROJECT MGR: <u>JAM STEVENSON</u> *PHONE NO.: <u>(410) 792-9446</u>		Matrix Codes: SW=Surface Wtr DW=Drinking Wtr GW=Ground Wtr WW=Waste Wtr O=Oil S=Soil L=Liquid SOL=Solid A=Air WI=Wipe																																																																																																						
EMAIL: <u>sslevenson@gteng.com</u> / <u>scummings@gteng.com</u>		No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	Preservatives Used: <u>ICE</u>																																																																																																				
*PROJECT NAME: <u>141040 USA</u> PROJECT NO.:				Analysis/Method Required ③ *	(Diagonal lines indicating analysis methods)																																																																																																			
SITE LOCATION: <u>BALTIMORE CITY</u> P.O. NO.:																																																																																																								
SAMPLER(S): <u>SWC, LMD</u> DW CERT NO.:																																																																																																								
2 <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>LAB NO.</th> <th>*SAMPLE IDENTIFICATION</th> <th>*DATE (SAMPLED)</th> <th>*TIME (SAMPLED)</th> <th>MATRIX (See Codes)</th> <th>No. CONTAINERS</th> <th>SAMPLE TYPE</th> <th>Analysis/Method Required</th> <th>REMARKS</th> </tr> </thead> <tbody> <tr> <td>1</td> <td><u>GTA-1 (1-2)</u></td> <td><u>1/2/15</u></td> <td><u>10:05</u></td> <td><u>S</u></td> <td><u>1</u></td> <td><u>G</u></td> <td><u>HEXAVALENT CHROMIUM 7196</u></td> <td></td> </tr> <tr> <td>2</td> <td><u>GTA-1 (2-4)</u></td> <td></td> <td><u>10:07</u></td> <td></td> <td></td> <td></td> <td><u>TOTAL CHROMIUM 6020</u></td> <td></td> </tr> <tr> <td>3</td> <td><u>GTA-2 (1-2)</u></td> <td></td> <td><u>10:20</u></td> <td></td> <td></td> <td></td> <td><u>SVOCs + TICs</u></td> <td></td> </tr> <tr> <td>4</td> <td><u>GTA-2 (2-4)</u></td> <td></td> <td><u>10:22</u></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>5</td> <td><u>GTA-3 (1-2)</u></td> <td></td> <td><u>11:10</u></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>6</td> <td><u>GTA-3 (2-4)</u></td> <td></td> <td><u>11:15</u></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>7</td> <td><u>GTA-4 (0-2)</u></td> <td></td> <td><u>10:50</u></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>8</td> <td><u>GTA-4 (2-4)</u></td> <td></td> <td><u>10:55</u></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>9</td> <td><u>GTA-5 (0-2)</u></td> <td></td> <td><u>10:35</u></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>10</td> <td><u>GTA-5 (2-4)</u></td> <td></td> <td><u>10:37</u></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>						LAB NO.	*SAMPLE IDENTIFICATION	*DATE (SAMPLED)	*TIME (SAMPLED)	MATRIX (See Codes)	No. CONTAINERS	SAMPLE TYPE	Analysis/Method Required	REMARKS	1	<u>GTA-1 (1-2)</u>	<u>1/2/15</u>	<u>10:05</u>	<u>S</u>	<u>1</u>	<u>G</u>	<u>HEXAVALENT CHROMIUM 7196</u>		2	<u>GTA-1 (2-4)</u>		<u>10:07</u>				<u>TOTAL CHROMIUM 6020</u>		3	<u>GTA-2 (1-2)</u>		<u>10:20</u>				<u>SVOCs + TICs</u>		4	<u>GTA-2 (2-4)</u>		<u>10:22</u>						5	<u>GTA-3 (1-2)</u>		<u>11:10</u>						6	<u>GTA-3 (2-4)</u>		<u>11:15</u>						7	<u>GTA-4 (0-2)</u>		<u>10:50</u>						8	<u>GTA-4 (2-4)</u>		<u>10:55</u>						9	<u>GTA-5 (0-2)</u>		<u>10:35</u>						10	<u>GTA-5 (2-4)</u>		<u>10:37</u>					
LAB NO.	*SAMPLE IDENTIFICATION	*DATE (SAMPLED)	*TIME (SAMPLED)	MATRIX (See Codes)	No. CONTAINERS	SAMPLE TYPE	Analysis/Method Required	REMARKS																																																																																																
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9	<u>GTA-5 (0-2)</u>		<u>10:35</u>																																																																																																					
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5 Relinquished By: (1) <u>[Signature]</u> Date: <u>1/5/15</u> Time: <u>12:08</u>		Received By: <u>B. Rivera</u>		*Requested TAT (One TAT per COC) <input checked="" type="checkbox"/> 5-Day <input type="checkbox"/> 3-Day <input type="checkbox"/> 2-Day <input type="checkbox"/> Next Day <input type="checkbox"/> Emergency <input type="checkbox"/> Other																																																																																																				
Relinquished By: (2)		Received By:		# of Coolers: <u>1</u> Custody Seal: <u>ABS</u>																																																																																																				
Relinquished By: (3)		Received By:		Data Deliverables Required: COA <input type="checkbox"/> QC <input type="checkbox"/> SUMM <input type="checkbox"/> CLP <input type="checkbox"/> LIKE <input type="checkbox"/> OTHER <input type="checkbox"/>																																																																																																				
Relinquished By: (4)		Received By:		Ice Present: <u>PRES</u> Temp: <u>2°C</u> Shipping Carrier: <u>CLINT</u>																																																																																																				
Special Instructions: <u>TIER 2 PRICING / MDE DETECTION LIMITS OF 0.4 TGL</u>																																																																																																								
DW COMPLIANCE? YES <input type="checkbox"/>		EDD FORMAT TYPE		STATE RESULTS REPORTED TO: MD <input type="checkbox"/> DE <input type="checkbox"/> PA <input type="checkbox"/> VA <input type="checkbox"/> WV <input type="checkbox"/> OTHER																																																																																																				



SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM

PHASE SEPARATION SCIENCE, INC.

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1 *CLIENT: GTA		*OFFICE LOC. LAUREL		PSS Work Order #: 15010509		PAGE 2 OF 5			
*PROJECT MGR: SAM STEVENSON		*PHONE NO.: (410) 772-9446		Matrix Codes: SW=Surface Wtr DW=Drinking Wtr GW=Ground Wtr WW=Waste Wtr O=Oil S=Soil L=Liquid SOL=Solid A=Air WI=Wipe					
EMAIL: sstevenson@gtacng.com		FAX NO: 772-9446		No. CONTAINERS SAMPLE TYPE C = COMP G = GRAB Preservatives Used Analysis/Method Required ICE HEXAVALENT CHROMIUM 7196 TOTAL CHROMIUM 4020					
*PROJECT NAME: 141040USA		PROJECT NO.:							
SITE LOCATION: BALTIMORE CITY								P.O. NO.:	
SAMPLER(S): SWC, LOAD		DW CERT NO.:							
LAB NO.		*SAMPLE IDENTIFICATION						*DATE (SAMPLED)	
		MATRIX (See Codes)				REMARKS			
11	GTA-6 (0-2)		1/2/15	0935	S	1			
12	GTA-6 (7-9)			0937					
13	GTA-7 (0-2)			1000					
14	GTA-7 (5-7)			1005					
15	GTA-8 (0-2)			1020					
16	GTA-8 (2-4)			1030					
17	GTA-9 (0-2)			0905					
18	GTA-9 (5-7)			0915					
19	GTA-10 (0-2)			0845					
20	GTA-10 (2-4)			0847					
5 Relinquished By: (1) 		Date	Time	Received By:		4 *Requested TAT (One TAT per COC)			
		1/5/15	1208	S. Rivera		<input checked="" type="checkbox"/> 5-Day <input type="checkbox"/> 3-Day <input type="checkbox"/> 2-Day <input type="checkbox"/> Next Day <input type="checkbox"/> Emergency <input type="checkbox"/> Other			
Relinquished By: (2)		Date	Time	Received By:		# of Coolers: 1 Custody Seal: ABS Data Deliverables Required: COA QC SUMM CLP LIKE OTHER <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> _____			
						Ice Present: PRES Temp: 20C			
Relinquished By: (3)		Date	Time	Received By:		Shipping Carrier: CLIENT			
						Special Instructions: TIER 2 PRICING / MDE DETECTION LIMITS FOR TCL			
Relinquished By: (4)		Date	Time	Received By:		DW COMPLIANCE? YES <input type="checkbox"/> EDD FORMAT TYPE _____ STATE RESULTS REPORTED TO: <input type="checkbox"/> MD <input type="checkbox"/> DE <input type="checkbox"/> PA <input type="checkbox"/> VA <input type="checkbox"/> WV <input type="checkbox"/> OTHER _____			

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SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM

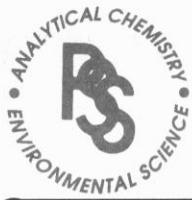
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1 *CLIENT: <u>GTA</u> *OFFICE LOC: <u>LAUREL</u>		PSS Work Order #: <u>15010509</u>		PAGE <u>3</u> OF <u>5</u>																																																																														
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3 Relinquished By: (1) <u>[Signature]</u>		Date	Time	Received By:																																																																														
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Data Deliverables Required: COA QC SUMM CLP LIKE OTHER <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>				Custody Seal: <u>ABS</u>																																																																														
Special Instructions: <u>TIER 2 PRICING / MDE DETECTION LIMITS FOR TCL</u>				Ice Present: <u>YES</u> Temp: <u>2°C</u>																																																																														
DW COMPLIANCE? YES <input type="checkbox"/>				STATE RESULTS REPORTED TO: MD <input type="checkbox"/> DE <input type="checkbox"/> PA <input type="checkbox"/> VA <input type="checkbox"/> WV <input type="checkbox"/> OTHER																																																																														

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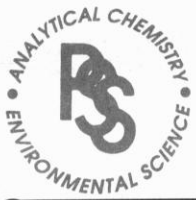
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1 *CLIENT: <u>GTA</u> *OFFICE LOC: <u>LAUREL</u>		PSS Work Order #: <u>15010509</u>		PAGE <u>4</u> OF <u>5</u>																																																									
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EMAIL: <u>ssstevenson@gsaeng.com</u>		No. CONTAINERS C = COMP G = GRAB	SAMPLE TYPE * 3	Preservatives Used Analysis/Method Required <u>HEXAVALENT CHROMIUM 7196</u> <u>PP METALS 6020</u> <u>SVOCs + TICs 8220</u> <u>TCL VOCs 8260</u> <u>TPH GRD 8015</u>	REMARKS																																																								
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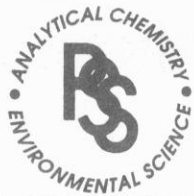


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3 Relinquished By: (1) <u>[Signature]</u> Date: <u>1/5/15</u> Time: <u>1203</u> Received By: <u>S. Rivera</u>		4 *Requested TAT (One TAT per COC) <input type="checkbox"/> 5-Day <input type="checkbox"/> 3-Day <input type="checkbox"/> 2-Day <input type="checkbox"/> Next Day <input type="checkbox"/> Emergency <input type="checkbox"/> Other		# of Coolers: <u>1</u> Custody Seal: <u>ABS</u>																																																																																																																																																																																														
Relinquished By: (2) _____ Date: _____ Time: _____ Received By: _____		Data Deliverables Required: COA <input type="checkbox"/> QC <input type="checkbox"/> SUMM <input type="checkbox"/> CLP <input type="checkbox"/> LIKE <input type="checkbox"/> OTHER _____		Ice Present: <u>PRES</u> Temp: <u>2°C</u> Shipping Carrier: <u>CLIENT</u>																																																																																																																																																																																														
Relinquished By: (3) _____ Date: _____ Time: _____ Received By: _____		Special Instructions: <u>TIER 2 / MBE DETECTION LIMITS FOR TCL</u>																																																																																																																																																																																																
Relinquished By: (4) _____ Date: _____ Time: _____ Received By: _____		DW COMPLIANCE? YES <input type="checkbox"/>		STATE RESULTS REPORTED TO: MD <input type="checkbox"/> DE <input type="checkbox"/> PA <input type="checkbox"/> VA <input type="checkbox"/> WV <input type="checkbox"/> OTHER _____																																																																																																																																																																																														



SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM

PHASE SEPARATION SCIENCE, INC.

www.phaseonline.com
email: info@phaseonline.com

① *CLIENT: GTA		*OFFICE LOC. LAUREL		PSS Work Order #: 15010509			PAGE 1 OF 1								
*PROJECT MGR: Sam STEVENSON		*PHONE NO.: (410) 792-9446		Matrix Codes: SW=Surface Wtr DW=Drinking Wtr GW=Ground Wtr WW=Waste Wtr O=Oil S=Soil L=Liquid SOL=Solid A=Air WI=Wipe											
EMAIL: ssstevenson@gtaeng.com / scumming@gtaeng.com		FAX NO.:		No. CONTAINERS	SAMPLE TYPE	Preservatives Used	Analysis/Method Required	REMARKS							
*PROJECT NAME: 141040 USA		PROJECT NO.:							TPH GPD BUS	C = COMP	G = GRAB				
SITE LOCATION: BALTIMORE CITY		P.O. NO.:											③	*	
SAMPLER(S): SWC LMS		DW CERT NO.:													
LAB NO.	*SAMPLE IDENTIFICATION	*DATE (SAMPLED)	*TIME (SAMPLED)	MATRIX (See Codes)											
34	GTA-10 (3-4)	5/15	15:05	S	I	G	X								
⑤ Relinquished By: (1) <i>[Signature]</i>		Date	Time	Received By: <i>[Signature]</i>		④ *Requested TAT (One TAT per COC)		# of Coolers: 1							
Relinquished By: (2) <i>[Signature]</i>		Date	Time	Received By: <i>[Signature]</i>		<input type="checkbox"/> 5-Day <input type="checkbox"/> 3-Day <input type="checkbox"/> 2-Day <input type="checkbox"/> Next Day <input type="checkbox"/> Emergency <input type="checkbox"/> Other		Custody Seal: ABS							
Relinquished By: (3)		Date	Time	Received By:		Data Deliverables Required: COA <input type="checkbox"/> QC <input type="checkbox"/> SUMM <input type="checkbox"/> CLP <input type="checkbox"/> LIKE <input type="checkbox"/> OTHER <input type="checkbox"/>		Ice Present: PRES Temp: 9°C							
Relinquished By: (4)		Date	Time	Received By:		Special Instructions:		Shipping Carrier: CLIENT							
				DW COMPLIANCE? YES <input type="checkbox"/>		EDD FORMAT TYPE		STATE RESULTS REPORTED TO: MD <input type="checkbox"/> DE <input type="checkbox"/> PA <input type="checkbox"/> VA <input type="checkbox"/> WV <input type="checkbox"/> OTHER <input type="checkbox"/>							



Phase Separation Science, Inc

Sample Receipt Checklist

Work Order #	15010509	Received By	Shirley Rivera
Client Name	GTA - Laurel	Date Received	01/05/2015 12:08:00 PM
Project Name	141040 USA	Delivered By	Client
Disposal Date	02/09/2015	Tracking No	Not Applicable
		Logged In By	Rachel Davis

Shipping Container(s)

No. of Coolers 1

		Ice	Present
Custody Seal(s) Intact?	N/A	Temp (deg C)	2
Seal(s) Signed / Dated?	N/A	Temp Blank Present	No
		Ice	Present
Custody Seal(s) Intact?	N/A	Temp (deg C)	9
Seal(s) Signed / Dated?	N/A	Temp Blank Present	No

Documentation

COC agrees with sample labels?	Yes	Sampler Name	<u>Scott Cumming</u>
Chain of Custody	Yes	MD DW Cert. No.	<u>N/A</u>

Sample Container

Appropriate for Specified Analysis?	Yes	Custody Seal(s) Intact?	Not Applicable
Intact?	Yes	Seal(s) Signed / Dated	Not Applicable
Labeled and Labels Legible?	Yes		

Total No. of Samples Received 43

Total No. of Containers Received 72

Preservation

Metals	(pH<2)	N/A
Cyanides	(pH>12)	N/A
Sulfide	(pH>9)	N/A
TOC, COD, Phenols	(pH<2)	N/A
TOX, TKN, NH3, Total Phos	(pH<2)	N/A
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	N/A
Do VOA vials have zero headspace?		N/A
624 VOC (Rcvd at least one unpreserved VOA vial)		N/A



Phase Separation Science, Inc

Sample Receipt Checklist

Work Order #	15010509	Received By	Shirley Rivera
Client Name	GTA - Laurel	Date Received	01/05/2015 12:08:00 PM
Project Name	141040 USA	Delivered By	Client
Disposal Date	02/09/2015	Tracking No	Not Applicable
		Logged In By	Rachel Davis

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Additional sample quantity for GRO on GTA-10(3-4) received at 14:45 on 1/5/15, temp was 9 degrees C on receipt.

Samples Inspected/Checklist Completed By:

Rachel Davis

Date: 01/05/2015

PM Review and Approval:

Simon Crisp

Date: 01/07/2015

Analytical Report for

GTA - Laurel

Certificate of Analysis No.: 15010508

Project Manager: Sam Stevenson

Project Name : 141040 USA

Project Location: Baltimore City



January 12, 2015

Phase Separation Science, Inc.

6630 Baltimore National Pike

Baltimore, MD 21228

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PHASE SEPARATION SCIENCE, INC.



January 12, 2015

Sam Stevenson
GTA - Laurel
14280 Park Center Dr., Ste. A
Laurel, MD 20707

Reference: PSS Work Order(s) No: **15010508**
Project Name: 141040 USA
Project Location: Baltimore City

Dear Sam Stevenson :

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Work Order(s) numbered **15010508**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on February 9, 2015. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal
Laboratory Manager



Sample Summary
Client Name: GTA - Laurel
Project Name: 141040 USA

Work Order Number(s): 15010508

The following samples were received under chain of custody by Phase Separation Science (PSS) on 01/05/2015 at 12:08 pm

Lab Sample Id	Sample Id	Matrix	Date/Time Collected
15010508-001	B-1 GW	GROUND WATER	01/05/15 09:55

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminants, and part 141.3, for the secondary drinking water contaminants.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].

Standard Flags/Abbreviations:

- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- C Results Pending Final Confirmation.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- J The target analyte was positively identified below the reporting limit but greater than the LOD.
- LOD Limit of Detection. An estimate of the minimum amount of a substance that an analytical process can reliably detect.
An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit.
- U Not detected.

Certifications:

NELAP Certifications: PA 68-03330, VA 460156
State Certifications: MD 179, WV 303
Regulated Soil Permit: P330-12-00268
NSWC USCG Accepted Laboratory
LDBE MWAA LD1997-0041-2015

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 BALTIMORE, MD 21228
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 800-932-9047
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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010508
GTA - Laurel, Laurel, MD
 January 12, 2015

Project Name: 141040 USA
 Project Location: Baltimore City

Sample ID: B-1 GW **Date/Time Sampled: 01/05/2015 09:55** **PSS Sample ID: 15010508-001**
Matrix: GROUND WATER **Date/Time Received: 01/05/2015 12:08**

PP Metals (VCP RLs)

Analytical Method: SW-846 6020 A

Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	5.0		1	01/08/15	01/08/15 16:31	1033
Arsenic	190	ug/L	20		20	01/08/15	01/12/15 14:57	1033
Beryllium	74	ug/L	20		20	01/08/15	01/12/15 14:57	1033
Cadmium	ND	ug/L	20		20	01/08/15	01/12/15 14:57	1033
Chromium	46,000	ug/L	100		100	01/08/15	01/12/15 14:22	1033
Copper	17	ug/L	1.0		1	01/08/15	01/08/15 16:31	1033
Lead	15,000	ug/L	100		100	01/08/15	01/12/15 14:22	1033
Mercury	ND	ug/L	0.20		1	01/08/15	01/08/15 16:31	1033
Nickel	1,400	ug/L	20		20	01/08/15	01/12/15 14:57	1033
Selenium	ND	ug/L	20		20	01/08/15	01/12/15 14:57	1033
Silver	ND	ug/L	1.0		1	01/08/15	01/08/15 16:31	1033
Thallium	ND	ug/L	20		20	01/08/15	01/12/15 14:57	1033
Zinc	4,900	ug/L	400		20	01/08/15	01/12/15 14:57	1033

Chromium, Hexavalent

Analytical Method: SW-846 7196 A

Preparation Method: CR6_PREP

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	ug/L	50		1	01/05/15	01/05/15 13:40	1053

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010508

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: B-1 GW **Date/Time Sampled: 01/05/2015 09:55** **PSS Sample ID: 15010508-001**
Matrix: GROUND WATER **Date/Time Received: 01/05/2015 12:08**

MDE TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B
pH=7

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
Chloromethane	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
Vinyl Chloride	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
Bromomethane	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
Chloroethane	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
Acetone	30	ug/L	10		1	01/06/15	01/07/15 09:35	1011
Cyclohexane	ND	ug/L	10		1	01/06/15	01/07/15 09:35	1011
Trichlorofluoromethane	ND	ug/L	5.0		1	01/06/15	01/07/15 09:35	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
Methylene Chloride	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
Methyl-t-butyl ether	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
2-Butanone	ND	ug/L	10		1	01/06/15	01/07/15 09:35	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
Bromochloromethane	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
Chloroform	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
Carbon Tetrachloride	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
Benzene	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
Methyl Acetate	ND	ug/L	10		1	01/06/15	01/07/15 09:35	1011
Methylcyclohexane	ND	ug/L	10		1	01/06/15	01/07/15 09:35	1011
Trichloroethene	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
Carbon Disulfide	ND	ug/L	10		1	01/06/15	01/07/15 09:35	1011
Bromodichloromethane	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
4-Methyl-2-Pentanone	ND	ug/L	5.0		1	01/06/15	01/07/15 09:35	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010508

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: B-1 GW **Date/Time Sampled: 01/05/2015 09:55** **PSS Sample ID: 15010508-001**
Matrix: GROUND WATER **Date/Time Received: 01/05/2015 12:08**

MDE TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

pH=7

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
Toluene	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
2-Hexanone	ND	ug/L	10		1	01/06/15	01/07/15 09:35	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
Dibromochloromethane	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
Bromoform	ND	ug/L	5.0		1	01/06/15	01/07/15 09:35	1011
Tetrachloroethene	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
Chlorobenzene	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
Ethylbenzene	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
m,p-Xylenes	ND	ug/L	2.0		1	01/06/15	01/07/15 09:35	1011
Styrene	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
o-Xylene	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
Isopropylbenzene	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
1,3-Dichlorobenzene	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
1,2-Dibromo-3-Chloropropane	ND	ug/L	10		1	01/06/15	01/07/15 09:35	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
Naphthalene	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	01/06/15	01/07/15 09:35	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010508

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: B-1 GW **Date/Time Sampled: 01/05/2015 09:55** **PSS Sample ID: 15010508-001**
Matrix: GROUND WATER **Date/Time Received: 01/05/2015 12:08**

TCL Semivolatile Organic Compounds + Analytical Method: SW-846 8270 C Preparation Method: 3510C
 TICs

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
Acenaphthylene	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
Acetophenone	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
Anthracene	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
Caprolactam	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
Biphenyl (Diphenyl)	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
Atrazine	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
Benzo(a)anthracene	ND	ug/L	0.50		1	01/07/15	01/12/15 13:58	1014
Benzo(a)pyrene	ND	ug/L	0.50		1	01/07/15	01/12/15 13:58	1014
Benzo(b)fluoranthene	ND	ug/L	0.50		1	01/07/15	01/12/15 13:58	1014
Benzo(g,h,i)perylene	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
Benzo(k)fluoranthene	ND	ug/L	0.50		1	01/07/15	01/12/15 13:58	1014
Butyl benzyl phthalate	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
bis(2-chloroethoxy) methane	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
bis(2-chloroethyl) ether	ND	ug/L	0.50		1	01/07/15	01/12/15 13:58	1014
bis(2-chloroisopropyl) ether	ND	ug/L	0.50		1	01/07/15	01/12/15 13:58	1014
bis(2-ethylhexyl) phthalate	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
4-Bromophenylphenyl ether	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
Di-n-butyl phthalate	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
Carbazole	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
4-Chloro-3-methyl phenol	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
4-Chloroaniline	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
2-Chloronaphthalene	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
2-Chlorophenol	ND	ug/L	2.0		1	01/07/15	01/12/15 13:58	1014
4-Chlorophenyl phenyl ether	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
Chrysene	ND	ug/L	2.0		1	01/07/15	01/12/15 13:58	1014
Dibenz(a,h)Anthracene	ND	ug/L	0.50		1	01/07/15	01/12/15 13:58	1014
Dibenzofuran	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
3,3-Dichlorobenzidine	ND	ug/L	0.50		1	01/07/15	01/12/15 13:58	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010508

GTA - Laurel, Laurel, MD

January 12, 2015

Project Name: 141040 USA

Project Location: Baltimore City

Sample ID: B-1 GW **Date/Time Sampled: 01/05/2015 09:55** **PSS Sample ID: 15010508-001**
Matrix: GROUND WATER **Date/Time Received: 01/05/2015 12:08**

TCL Semivolatile Organic Compounds + Analytical Method: SW-846 8270 C Preparation Method: 3510C
 TICs

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
2,4-Dichlorophenol	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
Diethyl phthalate	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
Dimethyl phthalate	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
2,4-Dimethylphenol	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
4,6-Dinitro-2-methyl phenol	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
2,4-Dinitrophenol	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
2,4-Dinitrotoluene	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
2,6-Dinitrotoluene	ND	ug/L	2.0		1	01/07/15	01/12/15 13:58	1014
Fluoranthene	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
Fluorene	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
Hexachlorobenzene	ND	ug/L	1.0		1	01/07/15	01/12/15 13:58	1014
Hexachlorobutadiene	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
Hexachlorocyclopentadiene	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
Hexachloroethane	ND	ug/L	2.0		1	01/07/15	01/12/15 13:58	1014
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.50		1	01/07/15	01/12/15 13:58	1014
Isophorone	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
2-Methylnaphthalene	ND	ug/L	2.0		1	01/07/15	01/12/15 13:58	1014
2-Methyl phenol	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
3&4-Methylphenol	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
Naphthalene	ND	ug/L	0.50		1	01/07/15	01/12/15 13:58	1014
4-Nitroaniline	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
3-Nitroaniline	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
2-Nitroaniline	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
Nitrobenzene	ND	ug/L	2.0		1	01/07/15	01/12/15 13:58	1014
2-Nitrophenol	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
4-Nitrophenol	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
N-Nitrosodi-n-propyl amine	ND	ug/L	0.50		1	01/07/15	01/12/15 13:58	1014
N-Nitrosodiphenylamine	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
Di-n-octyl phthalate	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15010508
GTA - Laurel, Laurel, MD
 January 12, 2015

Project Name: 141040 USA
 Project Location: Baltimore City

Sample ID: B-1 GW **Date/Time Sampled: 01/05/2015 09:55** **PSS Sample ID: 15010508-001**
Matrix: GROUND WATER **Date/Time Received: 01/05/2015 12:08**

TCL Semivolatile Organic Compounds + Analytical Method: SW-846 8270 C Preparation Method: 3510C
 TICs

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Pentachlorophenol	ND	ug/L	2.0		1	01/07/15	01/12/15 13:58	1014
Phenanthrene	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
Phenol	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
Pyrene	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
Pyridine	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
2,4,6-Trichlorophenol	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
2,4,5-Trichlorophenol	ND	ug/L	5.0		1	01/07/15	01/12/15 13:58	1014
n-Hexadecanoic acid (TIC)	5.7	ug/L	5.0	J	1	01/07/15	01/12/15 13:58	1014
Octanoic Acid (TIC)	24	ug/L	5.0	J	1	01/07/15	01/12/15 13:58	1014
n-Decanoic acid (TIC)	20	ug/L	5.0	J	1	01/07/15	01/12/15 13:58	1014
Lauric anhydride (TIC)	59	ug/L	5.0	J	1	01/07/15	01/12/15 13:58	1014



Case Narrative Summary

Client Name: GTA - Laurel

Project Name: 141040 USA

Work Order Number(s): 15010508

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

The analyses of chlorine, pH, dissolved oxygen, temperature and sulfite for drinking water and non-potable samples tested for compliance have a maximum holding time of 15 minutes. As such, all laboratory analyses for these analytes exceed holding times.

Sample Receipt:

Metals container received with pH of 7. Sample will be preserved to a pH of <2 in lab.

Analytical:

Chromium, Hexavalent

Batch: 119500

Sample contained dark solids and had an initial pH of 11. The sample was analyzed after filtration at the original pH and after adjustment of the pH to 2. Results for both analyses were not detected.

Matrix spike and/or matrix spike duplicate (MS/MSD) were not recovered; see MS summary form.

Laboratory control sample exceeded control limits; LCS/D was acceptable. See LCS summary form.

TCL Semivolatile Organic Compounds + TICs

Batch: 119645

Matrix spike/ matrix spike duplicate analyses were not performed due to insufficient sample quantity.

Sample Preparation:

TCL Semivolatile Organic Compounds + TICs

Preparation Batch: 53712

'Matrix spike/ matrix spike duplicate analyses were not performed due to insufficient sample quantity.'

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.



Analytical Data Package Information Summary

Work Order(s): 15010508

Report Prepared For: GTA - Laurel, Laurel, MD

Project Name: 141040 USA

Project Manager: Sam Stevenson

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 6020 A	B-1 GW	Initial	15010508-001	1033	W	53729	119598	01/05/2015	01/08/2015 09:22	01/08/2015 16:31
	53729-1-BKS	BKS	53729-1-BKS	1033	W	53729	119598	-----	01/08/2015 09:22	01/08/2015 15:55
	53729-1-BLK	BLK	53729-1-BLK	1033	W	53729	119598	-----	01/08/2015 09:22	01/08/2015 15:49
	GWTP-1-6-15 S	MS	15010613-001 S	1033	W	53729	119598	01/06/2015	01/08/2015 09:22	01/08/2015 16:07
	GWTP-1-6-15 SD	MSD	15010613-001 SD	1033	W	53729	119598	01/06/2015	01/08/2015 09:22	01/08/2015 16:13
	B-1 GW	Reanalysis	15010508-001	1033	W	53729	119640	01/05/2015	01/08/2015 09:22	01/12/2015 14:22
SW-846 7196 A	B-1 GW	Initial	15010508-001	1053	W	53690	119500	01/05/2015	01/05/2015 12:52	01/05/2015 13:40
	53690-1-BKS	BKS	53690-1-BKS	1053	W	53690	119500	-----	01/05/2015 12:52	01/05/2015 13:07
	53690-1-BLK	BLK	53690-1-BLK	1053	W	53690	119500	-----	01/05/2015 12:52	01/05/2015 13:05
	53690-1-BSD	BSD	53690-1-BSD	1053	W	53690	119500	-----	01/05/2015 12:52	01/05/2015 13:09
	B-1 GW S	MS	15010508-001 S	1053	W	53690	119500	01/05/2015	01/05/2015 12:52	01/05/2015 13:17
	B-1 GW SD	MSD	15010508-001 SD	1053	W	53690	119500	01/05/2015	01/05/2015 12:52	01/05/2015 13:19
SW-846 8260 B	B-1 GW	Initial	15010508-001	1011	W	53721	119548	01/05/2015	01/06/2015 21:49	01/07/2015 09:35
	53721-1-BKS	BKS	53721-1-BKS	1011	W	53721	119548	-----	01/06/2015 21:49	01/06/2015 23:32
	53721-1-BLK	BLK	53721-1-BLK	1011	W	53721	119548	-----	01/06/2015 21:49	01/07/2015 00:41
	11526-EFF-12/30 S	MS	14123115-001 S	1011	W	53721	119548	12/30/2014	01/06/2015 21:49	01/07/2015 01:50
	11526-EFF-12/30 SD	MSD	14123115-001 SD	1011	W	53721	119548	12/30/2014	01/06/2015 21:49	01/07/2015 02:25
SW-846 8270 C	B-1 GW	Initial	15010508-001	1014	W	53712	119645	01/05/2015	01/07/2015 09:24	01/12/2015 13:58
	53712-1-BKS	BKS	53712-1-BKS	1014	W	53712	119645	-----	01/07/2015 09:24	01/12/2015 14:58
	53712-1-BLK	BLK	53712-1-BLK	1014	W	53712	119645	-----	01/07/2015 09:24	01/12/2015 14:28
	53712-1-BSD	BSD	53712-1-BSD	1014	W	53712	119645	-----	01/07/2015 09:24	01/12/2015 15:27

PHASE SEPARATION SCIENCE, INC.

QC Summary 15010508

GTA - Laurel

141040 USA

Analytical Method: SW-846 8270 C

Seq Number: 119645

PSS Sample ID: 15010508-001

Matrix: Ground Water

Prep Method: SW3510C

Date Prep: 01/07/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	73		68-116	%	01/12/15 13:58
2-Fluorophenol	59		57-98	%	01/12/15 13:58
Nitrobenzene-d5	83		58-107	%	01/12/15 13:58
Phenol-d6	79		59-109	%	01/12/15 13:58
Terphenyl-D14	91		69-121	%	01/12/15 13:58
2,4,6-Tribromophenol	72		48-119	%	01/12/15 13:58

Analytical Method: SW-846 8260 B

Seq Number: 119548

PSS Sample ID: 15010508-001

Matrix: Ground Water

Prep Method: SW5030B

Date Prep: 01/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	109		81-133	%	01/07/15 09:35
Dibromofluoromethane	102		84-110	%	01/07/15 09:35
Toluene-D8	101		94-109	%	01/07/15 09:35

F = RPD exceeded the laboratory control limits

X = Recovery of MS, MSD or both outside of QC Criteria

H= Recovery of BS,BSD or both exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits

PHASE SEPARATION SCIENCE, INC.

QC Summary 15010508

GTA - Laurel

141040 USA

Analytical Method: SW-846 6020 A

Seq Number: 119598

MB Sample Id: 53729-1-BLK

Matrix: Water

LCS Sample Id: 53729-1-BKS

Prep Method: SW3010A

Date Prep: 01/08/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Antimony	<5.000	40.00	39.42	99	80-120	ug/L	01/08/15 15:55	
Arsenic	<1.000	40.00	36.54	91	80-120	ug/L	01/08/15 15:55	
Beryllium	<1.000	40.00	38.91	97	80-120	ug/L	01/08/15 15:55	
Cadmium	<1.000	40.00	37.81	95	80-120	ug/L	01/08/15 15:55	
Chromium	<1.000	40.00	35.23	88	80-120	ug/L	01/08/15 15:55	
Copper	<1.000	40.00	35.39	88	80-120	ug/L	01/08/15 15:55	
Lead	<1.000	40.00	37.36	93	80-120	ug/L	01/08/15 15:55	
Mercury	<0.2000	1.000	0.8900	89	80-120	ug/L	01/08/15 15:55	
Nickel	<1.000	40.00	35.65	89	80-120	ug/L	01/08/15 15:55	
Selenium	<1.000	40.00	37.47	94	80-120	ug/L	01/08/15 15:55	
Silver	<1.000	40.00	36.24	91	80-120	ug/L	01/08/15 15:55	
Thallium	<1.000	40.00	31.95	80	80-120	ug/L	01/08/15 15:55	
Zinc	<20.00	40.00	37.72	94	80-120	ug/L	01/08/15 15:55	

Analytical Method: SW-846 7196 A

Seq Number: 119500

MB Sample Id: 53690-1-BLK

Matrix: Water

LCS Sample Id: 53690-1-BKS

Prep Method: CR6_PREP

Date Prep: 01/05/15

LCSD Sample Id: 53690-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chromium, Hexavalent	<50.00	200	240	120	181.4	91	85-115	28	20	ug/L	01/05/15 13:07	HF

Analytical Method: SW-846 7196 A

Seq Number: 119500

Parent Sample Id: 15010508-001

Matrix: Ground Water

MS Sample Id: 15010508-001 S

Prep Method: CR6_PREP

Date Prep: 01/05/15

MSD Sample Id: 15010508-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chromium, Hexavalent	<50.00	200	<50.00	0	<50.00	0	85-115	NC	20	ug/L	01/05/15 13:17	X

PHASE SEPARATION SCIENCE, INC.

QC Summary 15010508

GTA - Laurel
141040 USA

Analytical Method: SW-846 8270 C

Seq Number: 119645

MB Sample Id: 53712-1-BLK

Matrix: Water

LCS Sample Id: 53712-1-BKS

Prep Method: SW3510C

Date Prep: 01/07/15

LCSD Sample Id: 53712-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Acenaphthene	<5.000	40.00	33.16	83	31.46	79	75-102	5	20	ug/L	01/12/15 14:58	
Acenaphthylene	<5.000	40.00	31.03	78	30.50	76	74-102	2	20	ug/L	01/12/15 14:58	
Acetophenone	<5.000	40.00	36.43	91	34.56	86	64-108	5	20	ug/L	01/12/15 14:58	
Anthracene	<5.000	40.00	35.05	88	33.27	83	76-104	5	20	ug/L	01/12/15 14:58	
Caprolactam	<5.000	40.00	40.48	101	37.93	95	51-128	7	20	ug/L	01/12/15 14:58	
Biphenyl (Diphenyl)	<5.000	40.00	36.76	92	34.10	85	77-107	8	20	ug/L	01/12/15 14:58	
Benzo(a)anthracene	<0.5000	40.00	38.06	95	34.69	87	78-108	9	20	ug/L	01/12/15 14:58	
Benzo(a)pyrene	<0.5000	40.00	38.86	97	36.63	92	81-114	6	20	ug/L	01/12/15 14:58	
Benzo(b)fluoranthene	<0.5000	40.00	38.68	97	36.84	92	77-116	5	20	ug/L	01/12/15 14:58	
Benzo(g,h,i)perylene	<5.000	40.00	38.27	96	36.58	91	61-137	5	20	ug/L	01/12/15 14:58	
Benzo(k)fluoranthene	<0.5000	40.00	41.74	104	39.72	99	72-117	5	20	ug/L	01/12/15 14:58	
Butyl benzyl phthalate	<5.000	40.00	38.42	96	37.83	95	71-124	2	20	ug/L	01/12/15 14:58	
bis(2-chloroethoxy) methane	<5.000	40.00	35.61	89	34.80	87	56-105	2	20	ug/L	01/12/15 14:58	
bis(2-chloroethyl) ether	<0.5000	40.00	35.82	90	33.75	84	54-107	6	20	ug/L	01/12/15 14:58	
bis(2-chloroisopropyl) ether	<0.5000	40.00	35.85	90	33.48	84	41-120	7	20	ug/L	01/12/15 14:58	
bis(2-ethylhexyl) phthalate	<5.000	40.00	38.98	97	38.54	96	63-133	1	20	ug/L	01/12/15 14:58	
4-Bromophenylphenyl ether	<5.000	40.00	38.85	97	38.45	96	65-109	1	20	ug/L	01/12/15 14:58	
Di-n-butyl phthalate	<5.000	40.00	36.82	92	36.31	91	72-122	1	20	ug/L	01/12/15 14:58	
Carbazole	<5.000	40.00	36.57	91	35.20	88	60-116	4	20	ug/L	01/12/15 14:58	
4-Chloro-3-methyl phenol	<5.000	40.00	35.52	89	34.45	86	65-114	3	20	ug/L	01/12/15 14:58	
4-Chloroaniline	<5.000	40.00	39.17	98	37.52	94	71-103	4	20	ug/L	01/12/15 14:58	
2-Chloronaphthalene	<5.000	40.00	30.99	77	30.27	76	72-108	2	20	ug/L	01/12/15 14:58	
2-Chlorophenol	<2.000	40.00	34.80	87	32.79	82	68-99	6	20	ug/L	01/12/15 14:58	
4-Chlorophenyl phenyl ether	<5.000	40.00	31.26	78	31.62	79	66-110	1	20	ug/L	01/12/15 14:58	
Chrysene	<2.000	40.00	37.72	94	35.81	90	80-104	5	20	ug/L	01/12/15 14:58	
Dibenz(a,h)Anthracene	<0.5000	40.00	39.13	98	35.99	90	64-130	8	20	ug/L	01/12/15 14:58	
Dibenzofuran	<5.000	40.00	31.91	80	30.89	77	72-108	3	20	ug/L	01/12/15 14:58	
3,3-Dichlorobenzidine	<0.5000	40.00	40.56	101	37.91	95	71-112	7	20	ug/L	01/12/15 14:58	
2,4-Dichlorophenol	<5.000	40.00	37.55	94	35.61	89	71-104	5	20	ug/L	01/12/15 14:58	
Diethyl phthalate	<5.000	40.00	31.88	80	30.54	76	71-121	4	20	ug/L	01/12/15 14:58	
Dimethyl phthalate	<5.000	40.00	34.74	87	33.76	84	72-114	3	20	ug/L	01/12/15 14:58	
2,4-Dimethylphenol	<5.000	40.00	33.00	83	31.03	78	68-98	6	20	ug/L	01/12/15 14:58	
4,6-Dinitro-2-methyl phenol	<5.000	40.00	35.00	88	35.33	88	54-130	1	20	ug/L	01/12/15 14:58	
2,4-Dinitrophenol	<5.000	40.00	34.25	86	30.77	77	37-137	11	20	ug/L	01/12/15 14:58	
2,4-Dinitrotoluene	<5.000	40.00	34.86	87	32.96	82	72-109	6	20	ug/L	01/12/15 14:58	
2,6-Dinitrotoluene	<2.000	40.00	31.83	80	30.74	77	72-107	3	20	ug/L	01/12/15 14:58	
Fluoranthene	<5.000	40.00	37.43	94	35.53	89	69-115	5	20	ug/L	01/12/15 14:58	
Fluorene	<5.000	40.00	31.72	79	30.90	77	75-105	3	20	ug/L	01/12/15 14:58	
Hexachlorobenzene	<1.000	40.00	37.44	94	36.12	90	71-115	4	20	ug/L	01/12/15 14:58	
Hexachlorobutadiene	<5.000	40.00	35.15	88	33.37	83	71-102	5	20	ug/L	01/12/15 14:58	
Hexachlorocyclopentadiene	<5.000	40.00	27.15	68	25.73	64	46-134	5	20	ug/L	01/12/15 14:58	
Hexachloroethane	<2.000	40.00	34.10	85	31.98	80	63-107	6	20	ug/L	01/12/15 14:58	
Indeno(1,2,3-c,d)Pyrene	<0.5000	40.00	38.32	96	34.16	85	62-127	11	20	ug/L	01/12/15 14:58	
Isophorone	<5.000	40.00	36.62	92	35.40	89	64-101	3	20	ug/L	01/12/15 14:58	
2-Methylnaphthalene	<2.000	40.00	35.67	89	34.27	86	72-100	4	20	ug/L	01/12/15 14:58	
2-Methyl phenol	<5.000	40.00	37.57	94	35.35	88	69-103	6	20	ug/L	01/12/15 14:58	
3&4-Methylphenol	<5.000	40.00	37.38	93	35.23	88	61-115	6	20	ug/L	01/12/15 14:58	
Naphthalene	<0.5000	40.00	34.81	87	33.13	83	72-99	5	20	ug/L	01/12/15 14:58	
4-Nitroaniline	<5.000	40.00	34.12	85	34.45	86	44-117	1	20	ug/L	01/12/15 14:58	
3-Nitroaniline	<5.000	40.00	36.04	90	33.37	83	61-106	8	20	ug/L	01/12/15 14:58	
2-Nitroaniline	<5.000	40.00	31.85	80	30.81	77	67-108	3	20	ug/L	01/12/15 14:58	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15010508

GTA - Laurel

141040 USA

Analytical Method: SW-846 8270 C

Seq Number: 119645

MB Sample Id: 53712-1-BLK

Matrix: Water

LCS Sample Id: 53712-1-BKS

Prep Method: SW3510C

Date Prep: 01/07/15

LCSD Sample Id: 53712-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Nitrobenzene	<2.000	40.00	35.87	90	34.15	85	62-104	5	20	ug/L	01/12/15 14:58	
2-Nitrophenol	<5.000	40.00	36.04	90	34.96	87	68-111	3	20	ug/L	01/12/15 14:58	
4-Nitrophenol	<5.000	40.00	34.99	87	32.49	81	58-116	7	20	ug/L	01/12/15 14:58	
N-Nitrosodi-n-propyl amine	<0.5000	40.00	35.73	89	33.46	84	54-114	7	20	ug/L	01/12/15 14:58	
N-Nitrosodiphenylamine	<5.000	40.00	37.44	94	32.97	82	71-109	13	20	ug/L	01/12/15 14:58	
Di-n-octyl phthalate	<5.000	40.00	39.28	98	38.84	97	53-138	1	20	ug/L	01/12/15 14:58	
Pentachlorophenol	<2.000	40.00	38.53	96	36.57	91	66-121	5	20	ug/L	01/12/15 14:58	
Phenanthrene	<5.000	40.00	35.43	89	33.94	85	73-103	4	20	ug/L	01/12/15 14:58	
Phenol	<5.000	40.00	37.32	93	35.25	88	65-113	6	20	ug/L	01/12/15 14:58	
Pyrene	<5.000	40.00	37.09	93	35.72	89	71-107	4	20	ug/L	01/12/15 14:58	
Pyridine	<5.000	40.00	30.12	75	30.18	75	57-88	0	20	ug/L	01/12/15 14:58	
2,4,6-Trichlorophenol	<5.000	40.00	31.32	78	30.33	76	71-113	3	20	ug/L	01/12/15 14:58	
2,4,5-Trichlorophenol	<5.000	40.00	29.94	75	30.72	77	77-112	3	20	ug/L	01/12/15 14:58	L

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	96		79		81		68-116	%	01/12/15 14:58
2-Fluorophenol	79		78		80		57-98	%	01/12/15 14:58
Nitrobenzene-d5	91		88		88		58-107	%	01/12/15 14:58
Phenol-d6	91		96		95		59-109	%	01/12/15 14:58
Terphenyl-D14	88		99		98		69-121	%	01/12/15 14:58
2,4,6-Tribromophenol	80		80		81		48-119	%	01/12/15 14:58

PHASE SEPARATION SCIENCE, INC.

QC Summary 15010508

GTA - Laurel

141040 USA

Analytical Method: SW-846 8260 B

Seq Number: 119548

MB Sample Id: 53721-1-BLK

Matrix: Water

LCS Sample Id: 53721-1-BKS

Prep Method: SW5030B

Date Prep: 01/06/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Dichlorodifluoromethane	<1.000	50.00	57.28	115	54-139	ug/L	01/06/15 23:32	
Chloromethane	<1.000	50.00	55.73	111	62-131	ug/L	01/06/15 23:32	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<1.000	50.00	56.80	114	56-126	ug/L	01/06/15 23:32	
Vinyl Chloride	<1.000	50.00	60.68	121	64-132	ug/L	01/06/15 23:32	
Bromomethane	<1.000	50.00	56.09	112	40-147	ug/L	01/06/15 23:32	
Chloroethane	<1.000	50.00	58.24	116	59-132	ug/L	01/06/15 23:32	
Acetone	<10.00	50.00	56.62	113	53-146	ug/L	01/06/15 23:32	
Cyclohexane	<10.00	50.00	57.55	115	46-150	ug/L	01/06/15 23:32	
Trichlorofluoromethane	<5.000	50.00	59.44	119	45-130	ug/L	01/06/15 23:32	
1,1-Dichloroethene	<1.000	50.00	57.07	114	59-123	ug/L	01/06/15 23:32	
Methylene Chloride	<1.000	50.00	56.47	113	61-126	ug/L	01/06/15 23:32	
trans-1,2-Dichloroethene	<1.000	50.00	57.64	115	58-134	ug/L	01/06/15 23:32	
Methyl-t-butyl ether	<1.000	50.00	57.99	116	30-168	ug/L	01/06/15 23:32	
1,1-Dichloroethane	<1.000	50.00	58.78	118	51-136	ug/L	01/06/15 23:32	
2-Butanone	<10.00	50.00	54.20	108	56-133	ug/L	01/06/15 23:32	
cis-1,2-Dichloroethene	<1.000	50.00	59.17	118	77-119	ug/L	01/06/15 23:32	
Bromochloromethane	<1.000	50.00	54.49	109	71-122	ug/L	01/06/15 23:32	
Chloroform	<1.000	50.00	56.07	112	71-118	ug/L	01/06/15 23:32	
1,1,1-Trichloroethane	<1.000	50.00	59.60	119	66-133	ug/L	01/06/15 23:32	
1,2-Dichloroethane	<1.000	50.00	57.28	115	64-130	ug/L	01/06/15 23:32	
Carbon Tetrachloride	<1.000	50.00	59.92	120	74-127	ug/L	01/06/15 23:32	
Benzene	<1.000	50.00	58.56	117	77-122	ug/L	01/06/15 23:32	
1,2-Dichloropropane	<1.000	50.00	59.52	119	75-125	ug/L	01/06/15 23:32	
Methyl Acetate	<10.00	50.00	54.02	108	47-145	ug/L	01/06/15 23:32	
Methylcyclohexane	<10.00	50.00	60.58	121	61-155	ug/L	01/06/15 23:32	
Trichloroethene	<1.000	50.00	59.44	119	72-127	ug/L	01/06/15 23:32	
Carbon Disulfide	<10.00	50.00	58.57	117	62-134	ug/L	01/06/15 23:32	
Bromodichloromethane	<1.000	50.00	55.63	111	76-122	ug/L	01/06/15 23:32	
cis-1,3-Dichloropropene	<1.000	50.00	54.23	108	74-123	ug/L	01/06/15 23:32	
4-Methyl-2-Pentanone	<5.000	50.00	53.31	107	45-145	ug/L	01/06/15 23:32	
trans-1,3-Dichloropropene	<1.000	50.00	54.01	108	73-116	ug/L	01/06/15 23:32	
1,1,2-Trichloroethane	<1.000	50.00	57.79	116	72-128	ug/L	01/06/15 23:32	
Toluene	<1.000	50.00	58.18	116	77-123	ug/L	01/06/15 23:32	
2-Hexanone	<10.00	50.00	51.94	104	56-134	ug/L	01/06/15 23:32	
1,2-Dibromoethane	<1.000	50.00	57.30	115	78-121	ug/L	01/06/15 23:32	
Dibromochloromethane	<1.000	50.00	55.08	110	75-114	ug/L	01/06/15 23:32	
Bromoform	<5.000	50.00	54.93	110	69-115	ug/L	01/06/15 23:32	
Tetrachloroethene	<1.000	50.00	55.16	110	78-113	ug/L	01/06/15 23:32	
Chlorobenzene	<1.000	50.00	56.36	113	76-116	ug/L	01/06/15 23:32	
Ethylbenzene	<1.000	50.00	58.31	117	79-122	ug/L	01/06/15 23:32	
m,p-Xylenes	<2.000	100	113.2	113	78-119	ug/L	01/06/15 23:32	
Styrene	<1.000	50.00	58.04	116	73-118	ug/L	01/06/15 23:32	
1,1,2,2-Tetrachloroethane	<1.000	50.00	52.18	104	71-126	ug/L	01/06/15 23:32	
o-Xylene	<1.000	50.00	56.40	113	79-123	ug/L	01/06/15 23:32	
Isopropylbenzene	<1.000	50.00	54.94	110	80-128	ug/L	01/06/15 23:32	
1,3-Dichlorobenzene	<1.000	50.00	57.84	116	80-122	ug/L	01/06/15 23:32	
1,4-Dichlorobenzene	<1.000	50.00	55.50	111	77-118	ug/L	01/06/15 23:32	
1,2-Dichlorobenzene	<1.000	50.00	54.46	109	80-122	ug/L	01/06/15 23:32	
1,2-Dibromo-3-Chloropropane	<10.00	50.00	51.94	104	59-135	ug/L	01/06/15 23:32	
1,2,4-Trichlorobenzene	<1.000	50.00	52.55	105	72-143	ug/L	01/06/15 23:32	
Naphthalene	<1.000	50.00	50.64	101	46-154	ug/L	01/06/15 23:32	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15010508

GTA - Laurel

141040 USA

Analytical Method: SW-846 8260 B

Seq Number: 119548

MB Sample Id: 53721-1-BLK

Matrix: Water

LCS Sample Id: 53721-1-BKS

Prep Method: SW5030B

Date Prep: 01/06/15

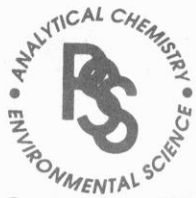
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
1,2,3-Trichlorobenzene	<1.000	50.00	52.09	104	66-140	ug/L	01/06/15 23:32	
Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date	
4-Bromofluorobenzene	110		98		81-133	%	01/06/15 23:32	
Dibromofluoromethane	104		101		84-110	%	01/06/15 23:32	
Toluene-D8	100		101		94-109	%	01/06/15 23:32	

F = RPD exceeded the laboratory control limits

X = Recovery of MS, MSD or both outside of QC Criteria

H= Recovery of BS,BSD or both exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits



SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM

PHASE SEPARATION SCIENCE, INC.

www.phaseonline.com
email: info@phaseonline.com

1 *CLIENT: <i>GTA</i> *OFFICE LOC: <i>LAUREL</i>		PSS Work Order #: <i>15010508</i>		PAGE <i>1</i> OF <i>1</i>																																																																																																															
*PROJECT MGR: <i>SAM STEVENSON</i> *PHONE NO.: <i>(410) 792-9446</i>		Matrix Codes: SW =Surface Wtr DW =Drinking Wtr GW =Ground Wtr WW =Waste Wtr O =Oil S =Soil L =Liquid SOL =Solid A =Air WI =Wipe																																																																																																																	
EMAIL: <i>sstevenson@gaeng.com</i> / <i>scummuz@gaeng.com</i>		No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	Preservatives Used Analysis/Method Required	REMARKS																																																																																																														
*PROJECT NAME: <i>141040 USA</i> PROJECT NO.:																																																																																																																			
SITE LOCATION: <i>BALTIMORE CITY</i> P.O. NO.:																																																																																																																			
SAMPLER(S): <i>SWC</i> DW CERT NO.:																																																																																																																			
2 <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>LAB NO.</th> <th>*SAMPLE IDENTIFICATION</th> <th>*DATE (SAMPLED)</th> <th>*TIME (SAMPLED)</th> <th>MATRIX (See Codes)</th> <th>No. CONTAINERS</th> <th>SAMPLE TYPE</th> <th>Preservatives Used</th> <th>Analysis/Method Required</th> <th>REMARKS</th> </tr> </thead> <tbody> <tr> <td><i>1</i></td> <td><i>B-1 GW</i></td> <td><i>5/15</i></td> <td><i>09:55</i></td> <td><i>GW</i></td> <td><i>6</i></td> <td><i>G</i></td> <td><i>3</i></td> <td><i>TCL VOCs 8260 SVOC + TICs 8270 PP METALS 60205 HEXAVALENT CHROMIUM 7796</i></td> <td></td> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>						LAB NO.	*SAMPLE IDENTIFICATION	*DATE (SAMPLED)	*TIME (SAMPLED)	MATRIX (See Codes)	No. CONTAINERS	SAMPLE TYPE	Preservatives Used	Analysis/Method Required	REMARKS	<i>1</i>	<i>B-1 GW</i>	<i>5/15</i>	<i>09:55</i>	<i>GW</i>	<i>6</i>	<i>G</i>	<i>3</i>	<i>TCL VOCs 8260 SVOC + TICs 8270 PP METALS 60205 HEXAVALENT CHROMIUM 7796</i>																																																																																											
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5 Relinquished By: (1) <i>Scott Summuz</i> Date: <i>5/15</i> Time: <i>1208</i> Received By: <i>S. Rivera</i>		4 *Requested TAT (One TAT per COC) <input checked="" type="checkbox"/> 5-Day <input type="checkbox"/> 3-Day <input type="checkbox"/> 2-Day <input type="checkbox"/> Next Day <input type="checkbox"/> Emergency <input type="checkbox"/> Other		# of Coolers: <i>1</i> Custody Seal: <i>ABS</i>																																																																																																															
Relinquished By: (2) _____ Date: _____ Time: _____ Received By: _____		Data Deliverables Required: COA QC SUMM CLP LIKE OTHER <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> _____		Ice Present: <i>PRES</i> Temp: <i>20C</i> Shipping Carrier: <i>CLIENT</i>																																																																																																															
Relinquished By: (3) _____ Date: _____ Time: _____ Received By: _____		Special Instructions: <i>TIER 2 PRICING / MBE TCL</i>																																																																																																																	
Relinquished By: (4) _____ Date: _____ Time: _____ Received By: _____		DW COMPLIANCE? YES <input type="checkbox"/>		STATE RESULTS REPORTED TO: MD <input type="checkbox"/> DE <input type="checkbox"/> PA <input type="checkbox"/> VA <input type="checkbox"/> WV <input type="checkbox"/> OTHER _____																																																																																																															



Phase Separation Science, Inc

Sample Receipt Checklist

Work Order #	15010508	Received By	Shirley Rivera
Client Name	GTA - Laurel	Date Received	01/05/2015 12:08:00 PM
Project Name	141040 USA	Delivered By	Client
Disposal Date	02/09/2015	Tracking No	Not Applicable
		Logged In By	Rachel Davis

Shipping Container(s)

No. of Coolers 1

		Ice	Present
Custody Seal(s) Intact?	N/A	Temp (deg C)	2
Seal(s) Signed / Dated?	N/A	Temp Blank Present	No

Documentation

COC agrees with sample labels?	Yes	Sampler Name	<u>Scott Cumming</u>
Chain of Custody	Yes	MD DW Cert. No.	<u>N/A</u>

Sample Container

Appropriate for Specified Analysis?	Yes	Custody Seal(s) Intact?	Not Applicable
Intact?	Yes	Seal(s) Signed / Dated	Not Applicable
Labeled and Labels Legible?	Yes		

Total No. of Samples Received 1

Total No. of Containers Received 6

Preservation

Metals	(pH<2)	No
Cyanides	(pH>12)	N/A
Sulfide	(pH>9)	N/A
TOC, COD, Phenols	(pH<2)	N/A
TOX, TKN, NH3, Total Phos	(pH<2)	N/A
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	Yes
Do VOA vials have zero headspace?		Yes
624 VOC (Rcvd at least one unpreserved VOA vial)		N/A

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Metals container received with pH of 7. Sample will be preserved to a pH of <2 in lab.

Samples Inspected/Checklist Completed By:

Rachel Davis

Date: 01/05/2015

PM Review and Approval:

Simon Crisp

Date: 01/07/2015

Appendix B
Job Hazard Analysis Form

DRAFT

Task Steps ¹	Potential Hazards & Consequences ²	Hazard Types ³	Likelihood ⁵	Severity ⁵	RISK ⁵	Controls to Eliminate or Reduce Risks ⁴

ONE JHA PER TASK. SUBCONTRACTORS MUST PROVIDE THEIR OWN JHAS. JHAS SHOULD BE WRITTEN IN PLAIN LANGUAGE AND SHOULD BE NO MORE THAN 2-3 PAGES IN LENGTH. INSERT ADDITIONAL ROWS AS NEEDED ABOVE (MUST MANUALLY COPY AND PASTE FORMULA IN COLUMN H). ROW HEIGHTS MAY NEED TO BE MANUALLY EXPANDED TO VIEW ALL TEXT. LEAVE SEVERAL BLANK OVSIZED ROWS TO ALLOW HANDWRITTEN FIELD ADDITIONS. CAN ALSO DELETE UNNEEDED ROWS TO FIT PAGE(S).

- 1. Each task consists of a set of steps. List and number all the steps in the sequence they are performed. Specify the equipment or other details.
- 2. List potential hazards and consequences - ONE PER ROW. Use numbers and letters for each hazard/impact listed (1a, 1b, etc). Hazards should be described in terms of their specific origin and negative consequences (e.g., instead of "moving equipment", write "injury from getting struck by forklift").
- 3. For each potential hazard, select the hazard type from the following list:
 - H&S - Health & Safety
 - S - Security
 - E - Environmental
 - PL - Property Loss
 - multiple - multiple hazard types
- 4. Describe the specific actions or procedures that will be implemented to eliminate or reduce each hazard. Be clear, concise, and specific. Use objective, observable, and quantified terms (e.g., instead of "use good body positioning," write "don't bend at waist or reach above head"). Use numbers and letters corresponding to listed hazards.
- 5. Select the likelihood of occurrence and severity of each hazard, AFTER implementation of the planned control measures (use the Risk Matrix as a guide). The corresponding risk rating should be calculated by multiplying the likelihood and severity [RISK = Likelihood x Severity]. **A risk rating of > 15 indicates that work cannot continue without additional control measures and approval of Partner-in-Charge.**

WAYS TO ELIMINATE OR REDUCE RISKS (IN ORDER OF PREFERENCE):

ELIMINATE / AVOID --> SUBSTITUTE / MODIFY --> ISOLATE --> ENGINEER / SAFEGUARD --> TRAINING AND PROCEDURES --> WARNING AND ALERT MECHANISMS --> PPE

Risk Matrix

What could go wrong? What is the worst thing that could happen if something goes wrong?

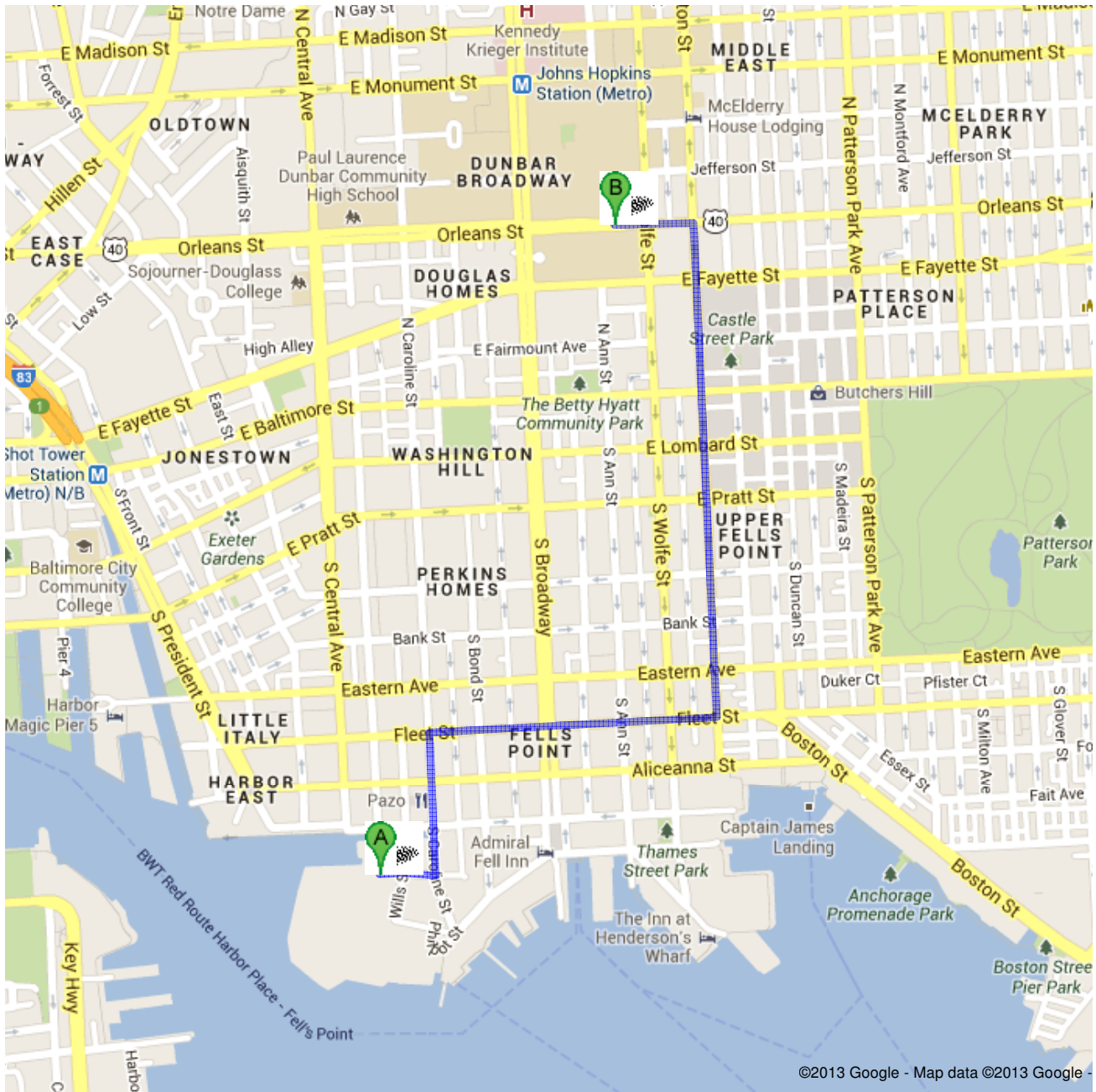
			Hazard Severity				
			1	2	3	4	5
			INSIGNIFICANT negligible or no injury could result	MINOR minor injury requiring only first aid	MODERATE Injury resulting in lost time could occur	HIGH Serious injury or death could occur	VERY HIGH multiple deaths could occur
Likelihood	1	VERY UNLIKELY	1	2	3	4	5
	2	UNLIKELY	2	4	6	8	10
	3	POSSIBLE	3	6	9	12	15
	4	LIKELY	4	8	12	16	20
	5	VERY LIKELY	5	10	15	20	25


Appendix C
Map to Hospital

DRAFT




Directions to 1800 Orleans St, Baltimore, MD 21287
1.6 mi – about 9 mins



 1000 Dock St, Baltimore, MD 21231

-
1. Head **east** on **Dock St** toward **Wills St**
Restricted usage road go 443 ft
total 443 ft
 -  2. Take the 1st left onto **S Caroline St**
About 1 min go 0.2 mi
total 0.3 mi
 -  3. Take the 3rd right onto **Fleet St**
About 2 mins go 0.4 mi
total 0.7 mi
 -  4. Turn left onto **S Washington St**
About 4 mins go 0.7 mi
total 1.5 mi
 -  5. Turn left onto **Orleans St**
Destination will be on the right go 0.1 mi
About 1 min total 1.6 mi

 1800 Orleans St, Baltimore, MD 21287

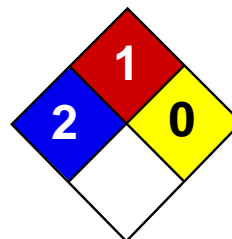
These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

Map data ©2013 Google

Directions weren't right? Please find your route on maps.google.com and click "Report a problem" at the bottom left.

Appendix D
Material Safety Data Sheets
(Example)

DRAFT



Health	2
Fire	1
Reactivity	0
Personal Protection	E

Material Safety Data Sheet Chromium MSDS

Section 1: Chemical Product and Company Identification

Product Name: Chromium

Catalog Codes: SLC4711, SLC3709

CAS#: 7440-47-3

RTECS: GB4200000

TSCA: TSCA 8(b) inventory: Chromium

CI#: Not applicable.

Synonym: Chromium metal; Chrome; Chromium Metal Chips 2" and finer

Chemical Name: Chromium

Chemical Formula: Cr

Contact Information:

Sciencelab.com, Inc.

14025 Smith Rd.

Houston, Texas 77396

US Sales: **1-800-901-7247**

International Sales: **1-281-441-4400**

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call:

1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Chromium	7440-47-3	100

Toxicological Data on Ingredients: Chromium LD50: Not available. LC50: Not available.

Section 3: Hazards Identification

Potential Acute Health Effects:

Hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation. Slightly hazardous in case of ingestion.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: A4 (Not classifiable for human or animal.) by ACGIH, 3 (Not classifiable for human.) by IARC.

MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to kidneys, lungs, liver, upper respiratory tract. Repeated or prolonged exposure to the substance can produce target organs damage.

Section 4: First Aid Measures

Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Skin Contact:

In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation: Not available.

Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition Temperature: 580°C (1076°F)

Flash Points: Not available.

Flammable Limits: Not available.

Products of Combustion: Some metallic oxides.

Fire Hazards in Presence of Various Substances:

Slightly flammable to flammable in presence of open flames and sparks, of heat. Non-flammable in presence of shocks.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions:

SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards:

Moderate fire hazard when it is in the form of a dust (powder) and burns rapidly when heated in flame. Chromium is attacked vigorously by fused potassium chlorate producing vivid incandescence. Pyrophoric chromium unites with nitric oxide with incandescence. Incandescent reaction with nitrogen oxide or sulfur dioxide.

Special Remarks on Explosion Hazards:

Powdered Chromium metal +fused ammonium nitrate may react violently or explosively. Powdered Chromium will explode spontaneously in air.

Section 6: Accidental Release Measures

Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7: Handling and Storage

Precautions:

Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, acids, alkalis.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8: Exposure Controls/Personal Protection

Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection:

Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:

TWA: 0.5 (mg/m³) from ACGIH (TLV) [United States] TWA: 1 (mg/m³) from OSHA (PEL) [United States] TWA: 0.5 (mg/m³) from NIOSH [United States] TWA: 0.5 (mg/m³) [United Kingdom (UK)] TWA: 0.5 (mg/m³) [Canada] Consult local authorities for acceptable exposure limits.

Section 9: Physical and Chemical Properties

Physical state and appearance: Solid. (Metal solid.)

Odor: Odorless.

Taste: Not available.

Molecular Weight: 52 g/mole

Color: Silver-white to Grey.

pH (1% soln/water): Not applicable.

Boiling Point: 2642°C (4787.6°F)

Melting Point: 1900°C (3452°F) +/- !0 deg. C

Critical Temperature: Not available.

Specific Gravity: 7.14 (Water = 1)

Vapor Pressure: Not applicable.

Vapor Density: Not available.

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Not available.

Dispersion Properties: Not available.

Solubility:

Insoluble in cold water, hot water. Soluble in acids (except Nitric), and strong alkalies.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Excess heat, incompatible materials

Incompatibility with various substances: Reactive with oxidizing agents, acids, alkalis.

Corrosivity: Not available.

Special Remarks on Reactivity:

Incompatible with molten Lithium at 180 deg. C, hydrogen peroxide, hydrochloric acid, sulfuric acid, most caustic alkalies and alkali carbonates, potassium chlorate, sulfur dioxide, nitrogen oxide, bromine pentafluoride. It may react violently or ignite with bromine pentafluoride. Chromium is rapidly attacked by fused sodium hydroxide + potassium nitrate. Potentially hazardous incompatibility with strong oxidizers.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Inhalation. Ingestion.

Toxicity to Animals:

LD50: Not available. LC50: Not available.

Chronic Effects on Humans:

CARCINOGENIC EFFECTS: A4 (Not classifiable for human or animal.) by ACGIH, 3 (Not classifiable for human.) by IARC. May cause damage to the following organs: kidneys, lungs, liver, upper respiratory tract.

Other Toxic Effects on Humans:

Hazardous in case of skin contact (irritant), of inhalation. Slightly hazardous in case of ingestion.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans:

May cause cancer based on animal data. There is no evidence that exposure to trivalent chromium causes cancer in man.

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects: May cause skin irritation. Eyes: May cause mechanical eye irritation. Inhalation: May cause irritation of the respiratory tract and mucous membranes of the respiratory tract. Ingestion: May cause gastrointestinal tract irritation with nausea, vomiting, diarrhea. Chronic Potential Health Effects: Inhalation: The effects of chronic exposure include irritation, sneezing, redness of the throat, bronchospasm, asthma, cough, polyps, chronic inflammation, emphysema, chronic bronchitis, pharyngitis, bronchopneumonia, pneumoconiosis. Effects on the nose from chronic chromium exposure include irritation, ulceration, and perforation of the nasal septum. Inflammation and ulceration of the larynx may also occur. Ingestion or Inhalation: Chronic exposure may cause liver and kidney damage.

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The product itself and its products of degradation are not toxic.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations**Waste Disposal:**

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

DOT Classification: Not a DOT controlled material (United States).

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

Section 15: Other Regulatory Information**Federal and State Regulations:**

Connecticut hazardous material survey.: Chromium Illinois toxic substances disclosure to employee act: Chromium Illinois chemical safety act: Chromium New York release reporting list: Chromium Rhode Island RTK hazardous substances: Chromium Pennsylvania RTK: Chromium Minnesota: Chromium Michigan critical material: Chromium Massachusetts RTK: Chromium Massachusetts spill list: Chromium New Jersey: Chromium New Jersey spill list: Chromium Louisiana spill reporting: Chromium California Director's List of Hazardous Substances: Chromium TSCA 8(b) inventory: Chromium SARA 313 toxic chemical notification and release reporting: Chromium CERCLA: Hazardous substances.: Chromium: 5000 lbs. (2268 kg)

Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC):

R40- Limited evidence of carcinogenic effect S36/37/39- Wear suitable protective clothing, gloves and eye/face protection. S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

HMIS (U.S.A.):

Health Hazard: 2

Fire Hazard: 1

Reactivity: 0

Personal Protection: E

National Fire Protection Association (U.S.A.):

Health: 2

Flammability: 1

Reactivity: 0

Specific hazard:

Protective Equipment:

Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Splash goggles.

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

Created: 10/10/2005 08:16 PM

Last Updated: 05/21/2013 12:00 PM

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall ScienceLab.com be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if ScienceLab.com has been advised of the possibility of such damages.

MATERIAL SAFETY DATA SHEET

ERA A Waters Company

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION


MANUFACTURER: ERA BUSINESS PHONE: 303-431-8454
ADDRESS: 16341 Table Mountain Parkway FAX: 303-421-0159 EMAIL: info@eraqc.com
Golden, CO, 80403 U.S.A. CHEMICAL EMERGENCY PHONE: 352-535-5053 (INFOTRAC)

Product Name(s): Hexavalent Chromium 1000 mg/L
Catalog / Part Number(s): 019, 973, 186004178
MSDS Creation Date: November 22, 2005
Revision Date: July 18, 2012 MSDS Reference Number: 019

SECTION 2: HAZARDS IDENTIFICATION

Toxic. Harmful by inhalation. May cause cancer. Risk of cancer depends on duration and level of exposure. The matrix of each standard is a K2Cr2O7/water mixture listed below which is classified as dangerous by Directive 199/45/EC. Use only as directed and in accordance with good laboratory practices.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL INGREDIENT NAME	CAS NUMBER	EC NUMBER	% BY WT.	EXPOSURE LIMITS		EU LABEL
				OSHA	ACGIH	HAZARD LABEL
Potassium dichromate	7778-50-9	231-906-6	≤0.1	0.1 mg/m3 PEL	0.05 mg/m3	

Notes: This standard is 125 mL of a mixture containing potassium dichromate salt with the balance being ≥99.9% water. Hexavalent chromium is a known human carcinogen. Exposure Limits are 8-Hour TWA (Time Weighted Average) unless designated C (Ceiling) or STEL (Short Term Exposure Limit). Other components considered Non-Hazardous under OSHA 1910.1200 (HazCom) as they are not present in concentrations exceeding 1% (or 0.1% if considered a known or potential carcinogen). Material Use: Analytical reagent or certified reference material used in laboratories. Uses also include research and development.

SECTION 4: FIRST-AID MEASURES

Inhalation: Remove to fresh air.
Skin Contact: Flush with water.
Eye Contact: Immediately flush with water for a minimum of 15 minutes.
Ingestion: Get medical attention
After following first aid measures, seek medical attention.

SECTION 5: FIRE-FIGHTING MEASURES

Flammable Properties: Not flammable.
Extinguishing Media: Dry chemical, carbon dioxide or appropriate foam.
Unique Aspects Contributing To a Fire: None.
Special Fire Fighting Procedures: None.
Note: As in any fire, wear self-contained breathing apparatus, and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Absorb liquid with spill pillow or other absorbent. Ventilate and wash spill site after material pick up is complete. Place wastes into closed containers for proper disposal.

SECTION 7: HANDLING AND STORAGE

Handle in accordance with good laboratory practices. Store in a dry well-ventilated place. This product is intended for use only by people trained in the safety and handling of chemicals and laboratory preparations.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Handle in accordance with good laboratory practices. Wash thoroughly after handling.
Respiratory Protection: Not normally needed. If exposure limits are exceeded, use approved respirator.
Eye Protection: Safety glasses with side shields or safety goggles
Skin Protection: Neoprene or other chemical resistant gloves.
Engineering Controls: Not normally needed. If exposure limits are exceeded, work in a fume hood.

MATERIAL SAFETY DATA SHEET

ERA A Waters Company

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

DATA FOR MATRIX:

Appearance:	Clear to yellow	Specific Gravity:	NA	Melting Point:	NA
Physical State:	Liquid	Flash Point:	NA	Vapor Pressure:	NA
Odor:	NA	Explosion Limits:	NA	Vapor Density (air=1):	NA
pH:	NA	Boiling Point:	NA	Solubility in Water:	Soluble

SECTION 10: STABILITY AND REACTIVITY

Hazardous Polymerization Will Not Occur May Occur Stability: Stable Unstable
Hazardous Decomposition/Combustion Products: NA
Conditions and Materials to Avoid: Oxidizing agents.

SECTION 11: TOXICOLOGICAL INFORMATION

Primary Route(s) of Exposure Under Normal Use: Skin contact: may cause skin irritation or be harmful if absorbed through skin. Eye contact: may cause eye irritation. Inhalation: harmful if inhaled, may be irritation to mucous membranes and upper respiratory tract. Ingestion: harmful if swallowed.

Target Organ(s): Lungs, kidneys, blood.

Acute Effects: Harmful by inhalation. May cause sensitization by inhalation and skin contact. Ingestion can cause vomiting.
Potassium dichromate: Oral, child: LDLO=26 mg/kg; Oral, man: LDLO=143 mg/kg; Oral, rat:LD50=25 mg/kg; Skin, rabbit:LD50=14 mg/kg.

Chronic Effects: Carcinogen; Teratogen; May cause heritable genetic damage. Reproductive hazard; May impair fertility. May cause harm to the unborn child.

Other Information: Chemical Ingredient(s) potassium dichromate is classified as carcinogen(s) by OSHA, IARC (Group 1), NTP, ACGIH (A1), or California. California Prop-65: This product is or contains chemicals known to the state of California to cause cancer.

SECTION 12: ECOLOGICAL INFORMATION

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Avoid release into the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

To determine proper disposal, consult applicable federal, state and local environmental control regulations.

SECTION 14: TRANSPORT INFORMATION

Shipment Name/Type: Non-hazardous for transport.
UN Number: NA Shipping/Hazardous Class: NA Packing Group: NA
Shipping regulations are based on combinations of criteria such as quantity, class and packaging according to DOT, IATA and (49) CFR.

SECTION 15: REGULATORY INFORMATION

EU Symbol of Danger: Toxic (T) concentration ≤ 0.1 C $< 0.2\%$
EU Risk Phrases: May cause cancer [R45]; May cause heritable genetic damage [R46]; Harmful by inhalation [R20].

U.S. TSCA: Listed
Canada: This product has been classified according to the hazard criteria of the CPR and this MSDS contains all the information required by the CPR.

SECTION 16: OTHER INFORMATION

United States EPA Regulatory Information:	NFPA Rating:	Health: 3	Flammability: 0	Reactivity: 0
SARA 313: Yes (0.1% deminimis)	HMIS Rating:	Health: 3	Flammability: 0	Physical Hazard: 0
CERCLA RQ: 10 lbs				

NOTE: NA = Data not available, not established, determined or not pertinent.

DISCLAIMER: The information contained herein has been compiled from data presented in various technical sources believed to be accurate. This information is intended to be used only as a guide and does not purport to be complete. ERA makes no warranties and assumes no liability in connection with the use of this information. It is the user's responsibility to determine the suitability of this information and to assure the adoption of necessary precautions.

Appendix E
Example Daily Safety Meeting and Incident
Reporting Form
(Example)

DRAFT

Daily Safety Meeting Documentation Form

Project Name: Project Number: Meeting Date & Time: Meeting Leader:

Document Routing	
FSO	Retain copy in site health & safety file.

What work will be conducted on site today and by whom?

Work Task	Conducted By

What overlapping operations/simultaneous operations will occur today?

--

Any follow-up from previous Major Incidents, Near Misses, Unsafe Acts or Unsafe Conditions discussed today?

--

List any new / short-service personnel on site today?

--

Safety Meeting Core Topics - All Site Workers and Visitors
--

- What PPE is required in order to enter the work zone?
- What are the potential hazards associated with today's work. How will they be managed?
- What are the potential impacts of planned activities to: Visitors? Nearby workers? Public?
- Is everyone aware that they are empowered to stop work if something is questionable or unsafe?
- What happens and who do you contact if there is an injury or emergency? If working at an active facility, how will you be alerted of an emergency and what will you do?
- Who do you contact if you have questions, or before deviating from written procedures?
- Where is fire extinguisher, first aid kit, eyewash, safety shower located?
- Are any work permits required? Are permits completed and posted in plain view of workers?
- Have all excavation / borehole locations been cleared of underground utilities/structures, in accordance with ERM and client-specific subsurface clearance procedures?
- Have all tools / equipment / vehicles been inspected today to ensure safe operating condition?
- Will a follow-up safety meeting be conducted after lunch?
- Has anything unexpected or out-of-the-ordinary occurred on this job recently to share?
- What is the worst that could happen if something goes wrong today?

Daily Safety Meeting Documentation Form

Project Name: Project Number: Meeting Date & Time: Meeting Leader:

Safety Topics Related to ERM 2011/2012 Incident Trends - All Site Workers *and* Visitors

- What activities occurring today could result in hand injuries? Is everyone aware that the use of fixed open-blade knives is not permitted without cut-resistant gloves?
- Does the site pose natural hazards to be avoided? Thorny underbrush/ticks/poison ivy?
- What areas of the site have slip/trip/fall hazards? Are everyone's work boots in good shape?
- How will the on-site team avoid vehicle accidents? Is everyone aware that taking their eyes off the road for more than 2 seconds (for any reason) leads to vehicle accidents?

Who attended the safety meeting today (employees, subcontractors, visitors)?

Name	Company	Signature	Sign-In Initials*	Sign-Out Initials**

* Initials in this space verify that the employee is fit for performing work.

**Initials in this space verify that the employee was uninjured during the workday.

Who visited the site today but was not involved in work activities?

Name	Company	Arrival Time