Demonstration Project Plan

90 Washington, Somerville, MA

Somerville Redevelopment Authority
City of Somerville
February 2019

Table of Contents

I. Introduction

The purpose of this Demonstration Project Plan ("Plan") is to implement a plan for the elimination of blight at 90 Washington Street in Somerville (the "Property") pursuant to M.G.L. c.121B § 46(f), which the Somerville Redevelopment Authority (the "SRA") will carry out in concert with the City of Somerville (the "City") and its City Council. This Demonstration Project ("Project") provides an opportunity to not only eliminate blight, but to meet a public need for a new public safety building and provide the opportunity for economic development at a transformative scale.

The Property is located at 90 Washington Street (also known as 102 Washington Street) within the Inner Belt neighborhood of Somerville. Currently owned by Cobble Hill Center, LLC, the site contains a strip mall that has been vacant since the summer of 2014, at which time the property owners evicted the commercial tenants and fenced the property to pursue a new development project. Although the partnership in control of the Property received approval for their proposed project, the effort was stymied by internal legal disputes. It is the City's understanding that this litigation is ongoing, that a further appeal has been filed, and that the partnership will not be redeveloping the Property in the foreseeable future. The Property is highly visible in the neighborhood and located just steps away from a planned Green Line Station, yet it remains fenced, empty, and decrepit with no clear path forward.

The City of Somerville is in need of a new, modern public safety complex. The current facility at 220 Washington Street is functionally obsolete and requires major improvements. The building has proven to be inadequate for current police and safety operations and, furthermore, has been plagued with structural issues that have led to flooding and leaks. After conducting a thorough space needs assessment and quantifying the amount of space needed, the City initiated a site search process to identify potential sites for a new complex. Sites large enough to house the new public safety complex are extremely rare in Somerville. The 90 Washington site was deemed to be the most viable option in Somerville after an analysis that considered six different sites. This Plan incorporates the full Feasibility Study conducted by Weston & Sampson (Appendix B), as well as previous City communications reflecting the need for a new public safety building and the suitability of 90 Washington for that purpose (Appendices C and D).

In addition to the public safety building, the SRA and City Council will jointly explore additional, complementary uses on the site. As will be discussed later in this Plan, the site is in a prime location steps away from the planned East Somerville Green Line Station and at a highly visible intersection between Inner Belt, Brickbottom, Union Square, and East Somerville. This Project presents an opportunity to satisfy the need for a public safety building, as well as

providing additional civic, residential, and/or commercial space. While the current vacant strip mall runs the risk of further limiting adjacent development, a completed project at this site could have a transformative effect on the neighborhood because of its prime location as a gateway to the Inner Belt.

Based on the analysis and research presented in this Plan, the redevelopment of the Property is best achieved through a Demonstration Project as:

1. the Project will eliminate blight on a vacant, decadent site which is detrimental to the safety, health, welfare, and sound growth of the surrounding community;
2. the Project will deliver a much-needed public safety building to the community;
3. the Project will provide an opportunity to meet additional community objectives like the creation of more civic space, residential units, and/or commercial space for jobs; and
4. the Project will serve as a model, innovative approach to community development that combines a public use successfully integrated with private development.

This Plan further outlines the location of the Property, the detrimental effect its current condition has on the surrounding neighborhood, the objectives of the Project, and the process anticipated for the successful completion of the Project.

II. Project Site

A. Regional & Neighborhood Context

With 81,000 residents packed into just 4.1 square miles, Somerville, Massachusetts is the most densely populated city in New England. Historically, the city played an important role in America's economy, serving as a center for heavy industry from the mid-19th to mid-20th century. Today, Somerville is more closely associated with its thriving community life, artists, hip restaurants, and innovative cleantech businesses.

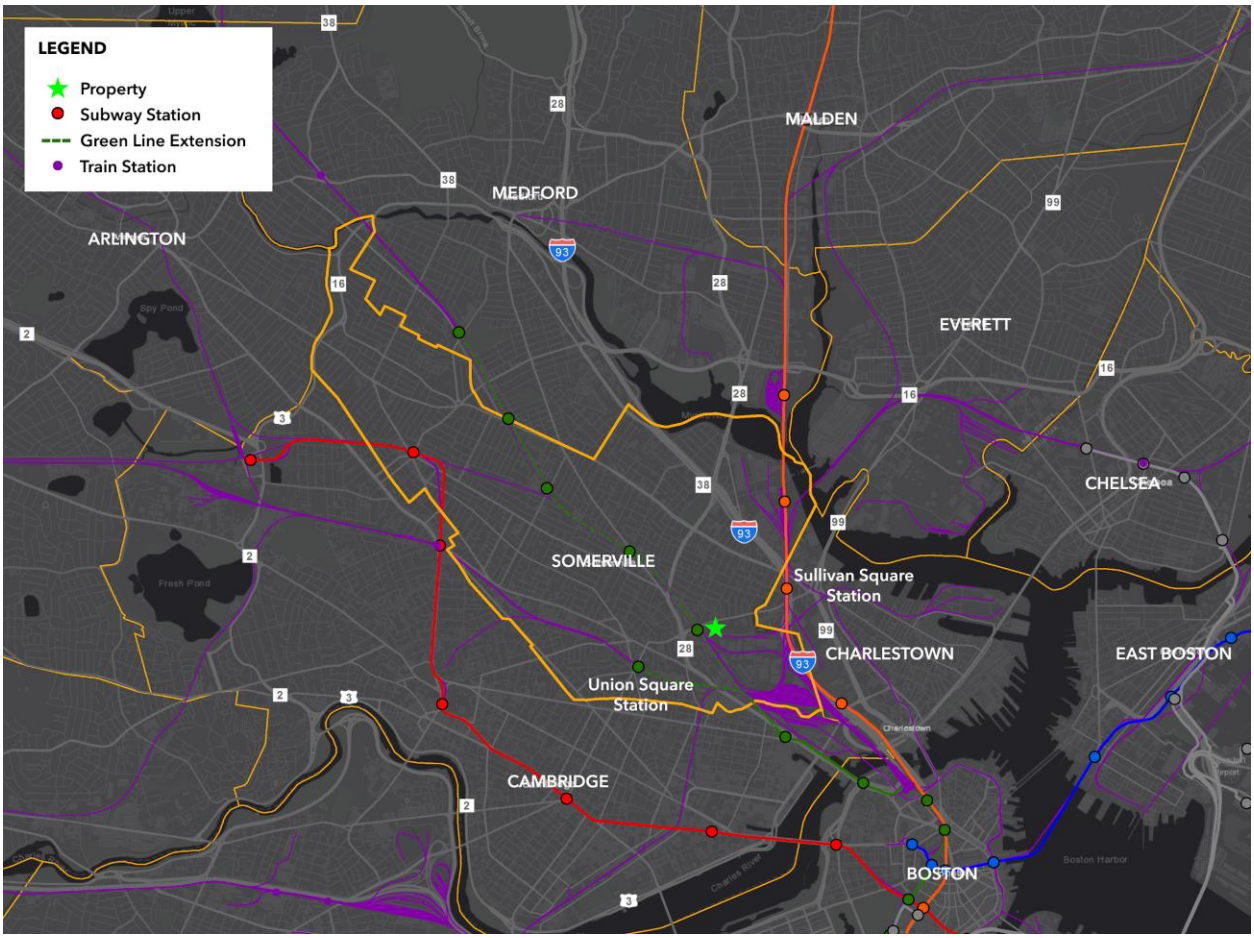
The Property is 3.99 ±acres and identified in the City of Somerville Assessors Database as parcel 106-A-6. The site is located south of East Somerville on the edge of the Inner Belt neighborhood with immediate adjacency to the planned MBTA East Somerville Green Line station (see Fig. 1). The station will be completed in 2021, providing quick and convenient transit service easterly to Lechmere Station in Cambridge, where it will connect to the entire MBTA rapid transit system and the commuter rail hub at North Station. Passengers will also be able to board the Green Line and head west to stations at Gilman Square, Lowell Street, Ball Square and Tufts University. The site also provides easy access by car to Interstate 93, which connects to the entirety of Greater Boston.

Fig. 1: Rendering of East Somerville Green Line Station Area

Source: MBTA c. 2012.

The Project is in Somerville's Inner Belt neighborhood, adjacent to the Brickbottom neighborhood. Inner Belt has historically been a predominantly industrial district of Somerville, with factories, warehouses, distribution centers and railroad connections. Today, it also supports a full-service Holiday Inn located down the street from the Property. The edge of Somerville's Union Square is only a few blocks to the east, and Sullivan Square, in Boston, sits to the west (see Fig. 2). These neighborhoods became Somerville's industrial hub after the installation of railroads in the 1840s connecting eastern Somerville to Boston. They housed leadworks, meatpackers, automotive assemblers, and chemical storage facilities. In the 1850s, much of the land within Inner Belt and Brickbottom was used for kilns to support the local brickmaking industry. By 1872, the Millers River had been filled and the surrounding marshland destroyed. The area was choked with brickyards, slaughterhouses, smokestacks, stagnant ponds, a municipal incinerator, and tightly packed worker housing.

Fig. 2: Regional Context of the Property



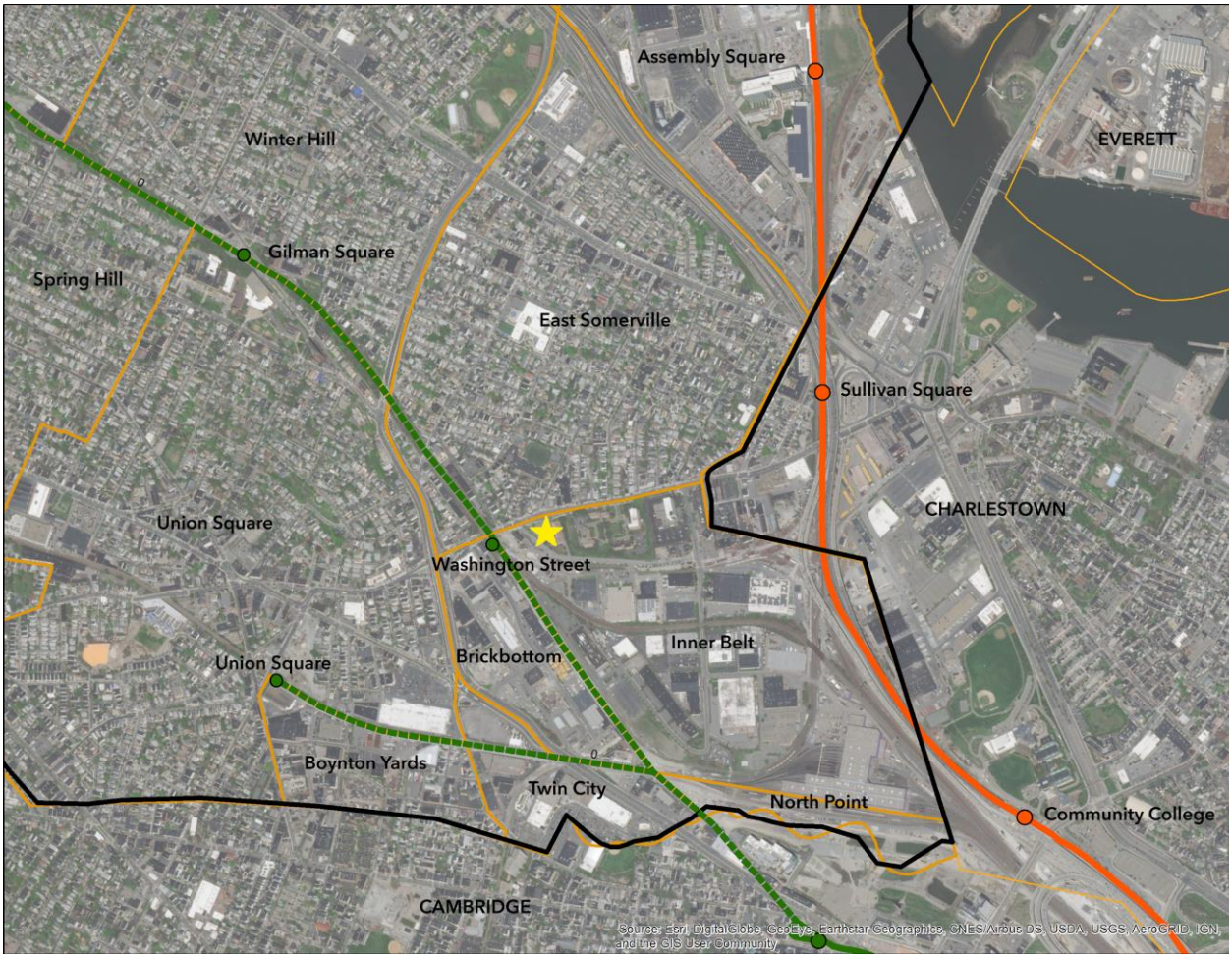
Source: MassGIS, City of Somerville GIS

In the 1950s, manufacturing started to ebb in Somerville. As industrial companies left, dozens of structures and homes were razed in preparation for construction of a regional "Inner Belt" Expressway. Community opposition halted construction in 1970, but the area has never recovered economically. Plans in the 1980s and 1990s to turn the area into a technology hub brought additional electrical, fiber, optic, and sewer infrastructure to the area, but the anticipated development never materialized. The Inner Belt and Brickbottom neighborhoods have only 444 residents (ACS 2011–15), nearly all of whom live in the Brickbottom Artists Cooperative (a former factory building) or the Cobble Hill affordable housing development, adjacent to the Property. Since 2014, when commercial and retail tenants were evicted from the Property, there has been no grocery store serving the neighborhood. The neighborhood remains the least developed and most economically and socially challenged part of the city with higher unemployment and a lower median household income.

The decline of manufacturing since the 1950s not only impacted the Inner Belt and Brickbottom neighborhoods acutely, but has also presented challenges for Somerville and its municipal budget. Commercial properties are generally taxable at a much higher rate than residential properties, so when industry fled the area, a significant portion of its commercial tax base was lost. This exodus also caused residential property values to plummet, constraining the City's ability to raise property tax revenue in order to maintain its water systems and sewer systems, roadways, public safety facilities, schools, libraries, and parks. As state aid has declined, Somerville has worked hard to bolster its revenues through careful budgeting and thoughtful community planning. While significant progress has been made--and is most visibly evident in the transformation seen at Assembly Square--the City continues to have one of the lowest per capita spending rates, $3,022 in FY18, among Massachusetts' medium and large cities.

Despite the challenges of the Inner Belt and Brickbottom neighborhood, there are clear signs of a turnaround. A bustling arts community can be found at the Joy & Chestnut Streets Corridor. This connects several creative industry businesses including the Brickbottom Cooperative, artist studios, a video studio, and ArtFarm, an urban space for a self-sustaining art and urban agriculture laboratory designed to foster community engagement and creativity. Although the neighborhood is partially separated from the rest of Somerville by an elevated section of Route 28, this overpass will be transformed into a surface-level, multi-lane, multi-use urban boulevard within ten years. The de-elevation of this highway will promote further redevelopment opportunities for properties currently trapped by the elevated barrier.

Fig. 3: Neighborhood Context

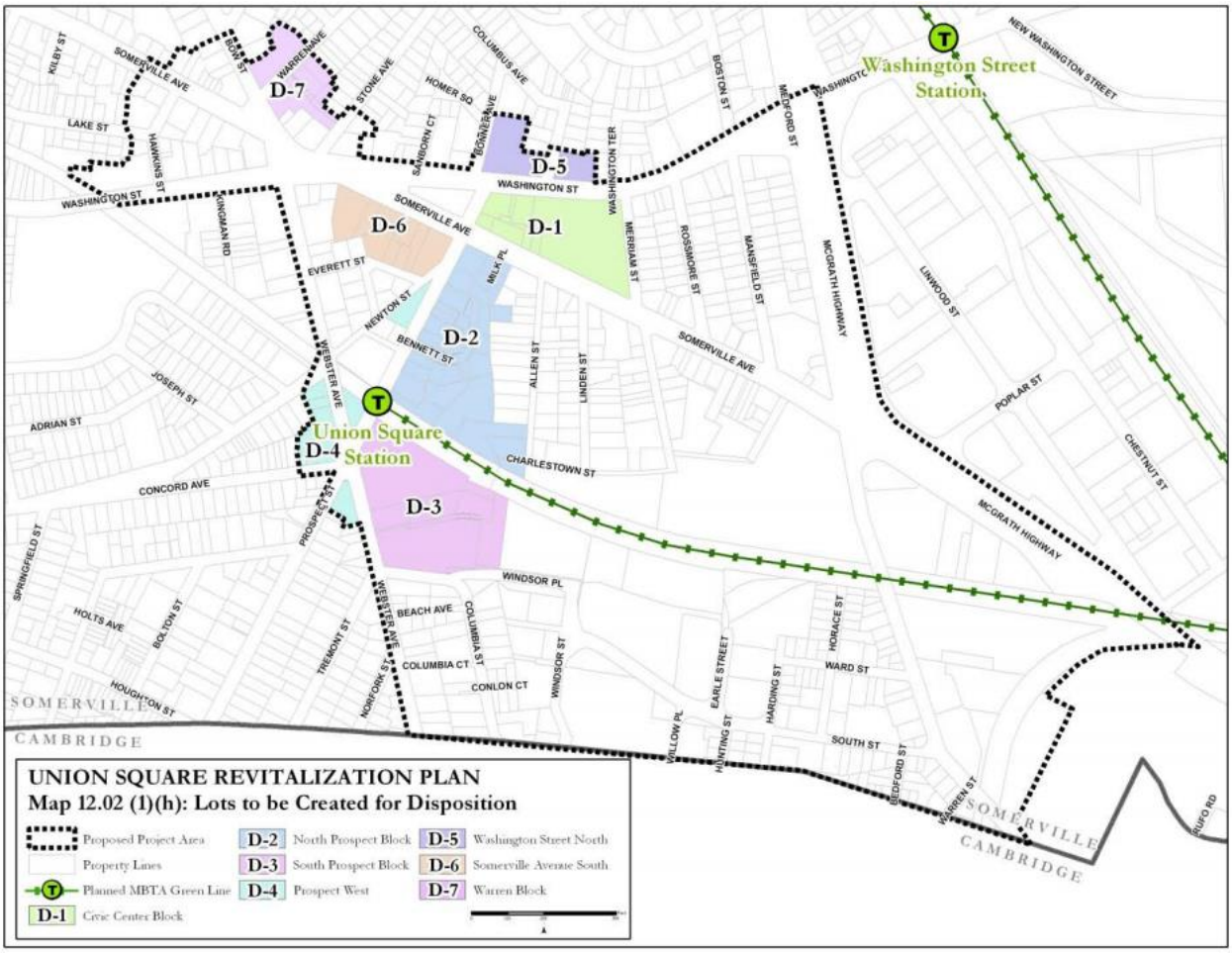


Note: Star indicates Property location.
Source: MassGIS, City of Somerville GIS

The Property is located a half mile from Union Square, which is also poised for transformation (see Fig. 3). Union Square is Somerville's oldest commercial district with local art, entertainment and critically-acclaimed fine dining. The area is on the cusp of a major revitalization as the Green Line Extension arrives in 2021, anchoring a new mixed-use development of 2.3 million square feet of office, housing, and retail space. The Union Square Revitalization Plan, approved in 2012, identified seven parcels for acquisition and disposition by the SRA. Union Square Station Associates, LLC (US2) was chosen as the master developer and is about to break ground on its first project (see Fig. 4). The development will provide 1.156 million square feet of office and science and technology lab space, 140,000 square feet of active ground floor retail, 93,000 square feet of hotel space, 74,000 square feet of arts and creative space, over 900 new residences, 110,000 square feet of civic space, and 27,000 square feet of new neighborhood park (see Fig. 5). This development will bring substantial commercial tax revenue and desperately needed housing to Somerville and create the kind of mixed-use transit-

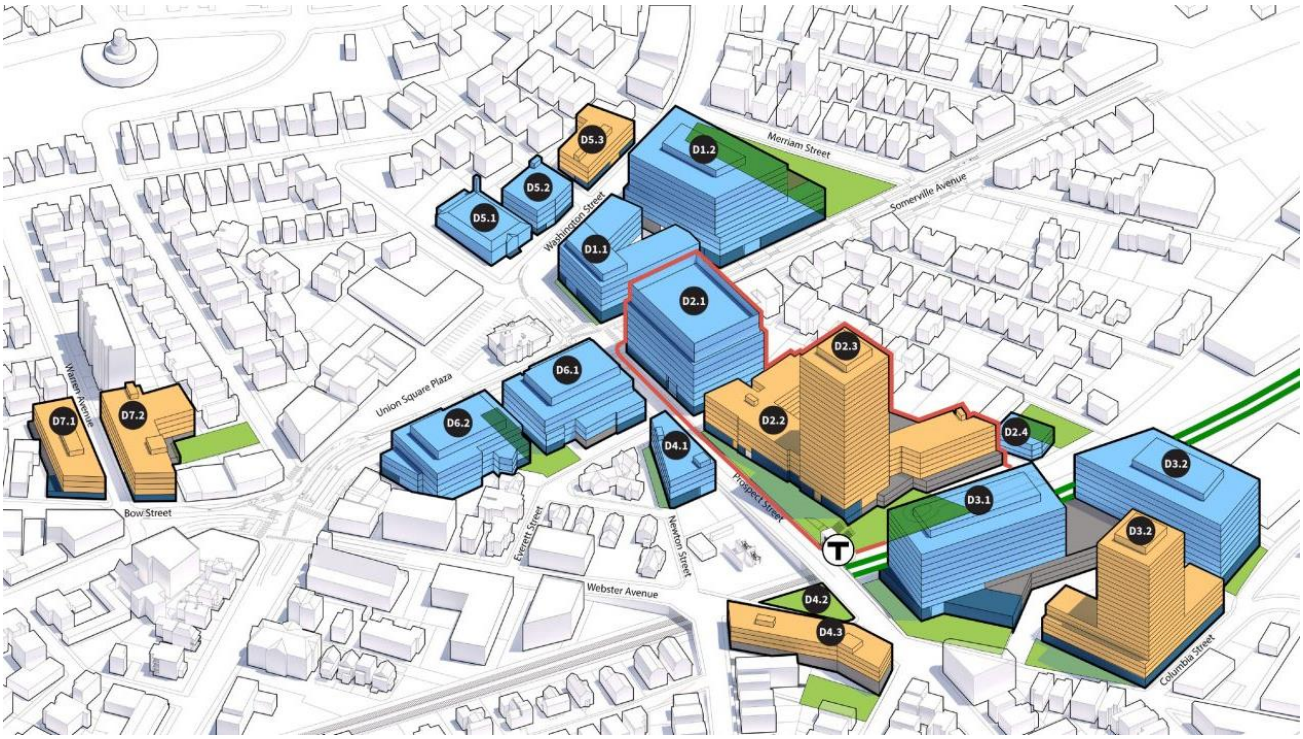
oriented neighborhoods imagined in SomerVision, the city's comprehensive plan. All of these facilities are located just a short walk from the Property.

Fig. 4: Union Square Urban Renewal Disposition Parcels



Note: Property is located in the top right corner of the map.
Source: [Union Square Revitalization Plan, October 2012.]

Fig. 5: Union Square Planned Development



Note: Red line denotes current phase of development. Blue denotes commercial development and orange denotes residential development.
Source: DiscoverUSQ.com

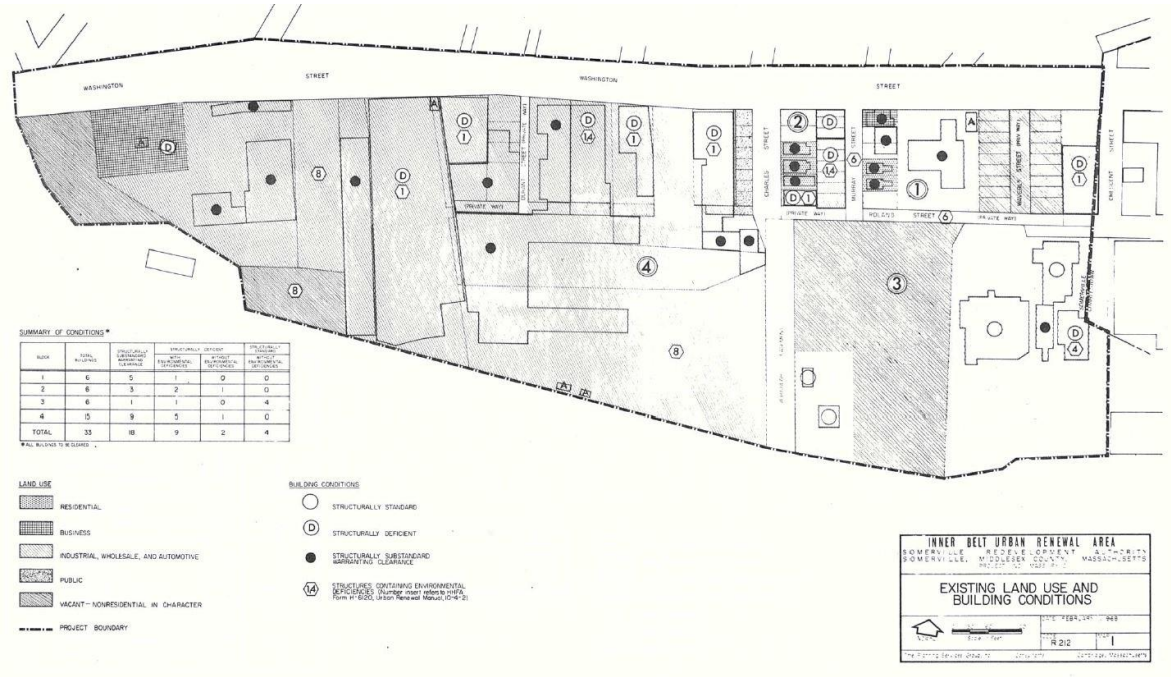
B. Historic Site Conditions

The neighborhood known as Inner Belt used to be on a hill known as Cobble Hill. The Cobble Hill apartments and the vacant Cobble Hill Shopping center (the "Property") stand at the northern side of where the hill used to be. In Revolutionary times, there was a fort at Cobble Hill and in the late 1700s, the Joseph Barrell Mansion was built on the hill. From 1818 to 1895, the Mansion and its surrounding grounds served as the first home for McLean's Hospital, which later moved to Belmont. The area was later filled with rail lines. The mansion was demolished in 1925, and the hill was gradually used as fill. By 1950 most of the area was razed for development. It became an area for industrial uses.

The Property was originally part of a larger parcel which housed an iron foundry and oil company between 1930 and 1975, and then sat vacant from 1975 to 1982. In 1968, the Property had become part of the SRA's Inner Belt Urban Renewal Plan. The plan was created with the expectation that the Inner Belt highway would be constructed, and therefore the SRA needed, according to the plan, "to recreate and revitalize the City's industrial areas," "to eliminate blight and blighting factors and to prevent the recurrence of blight by the clearance of structures which are structurally substandard or which are deteriorated to a degree rendering rehabilitation

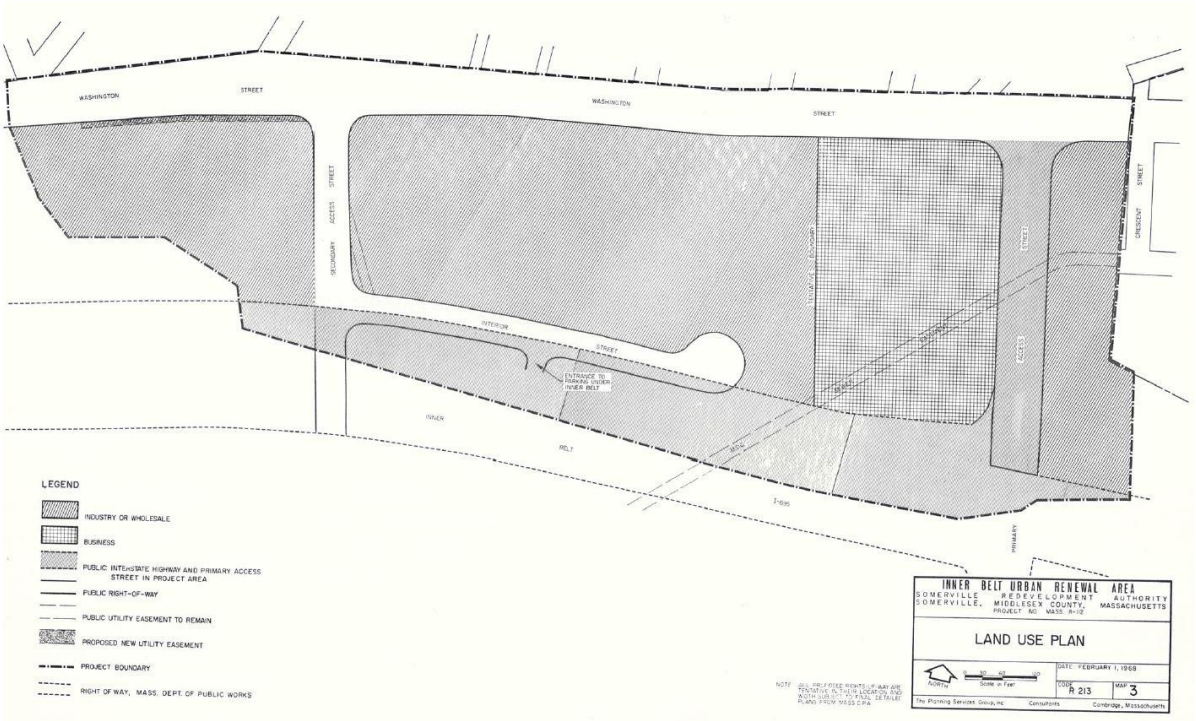
impractical," and "to promote sound site planning and building arrangement in the development of individual parcels by private redevelopers in order to achieve coordinated and harmonious urban design," among other goals. With the Inner Belt Urban Renewal Plan, the SRA intended to improve vehicular circulation, protect pedestrians, and develop the site cohesively. The plan proposed changes to utilities and the street network, as well as street improvements. (see Figs. 6 and 7 for maps included in the plan).

Fig. 6: Inner Belt Urban Renewal Area Existing Land Use Map



Source: Inner Belt Urban Renewal Plan, March 1968

Fig. 7: Inner Belt Urban Renewal Area Land Use Plan



Source: Inner Belt Urban Renewal Plan, March 1968

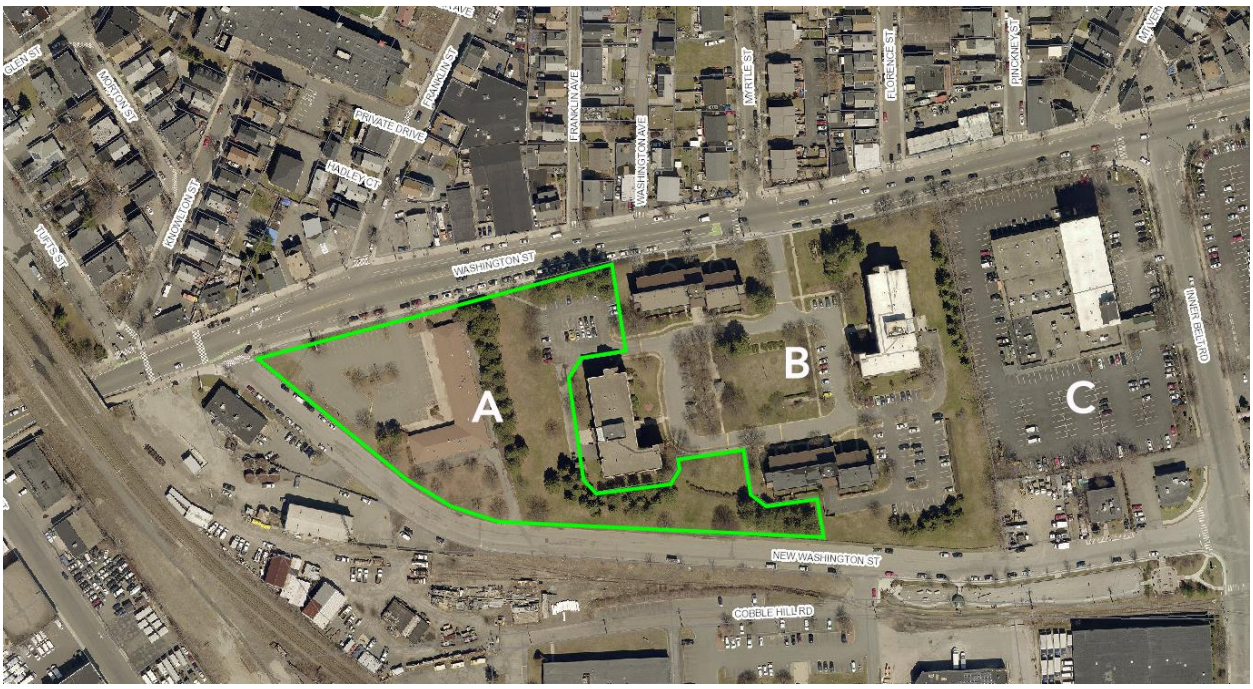
The SRA sold the site, including the subject Property, in 1980 to a development team in order to realize the goals of the urban renewal plan. Cobble Hill Associates developed a four building, 224-unit complex that opened in 1981 as the Cobble Hill Apartments. The complex includes 190 one-bedroom units and 34 two-bedroom units, all of which are rented to income-eligible seniors and families. The second phase of the project was the 12,555 square foot commercial plaza that opened in 1982 known as the Cobble Hill Plaza (the "Property").

The subject Property includes only the commercial plaza and a small portion of the parking lot associated with the residential complex.

In 2012, the current owners explored potential redevelopment of the site. The parcel was subdivided in 2013 to create the Property as it exists today, (see Fig. 8). The owners submitted a proposal to construct a six-story, mixed-use development, which the Zoning Board of Appeals conditionally approved on October 16th, 2013. The proposal imagined a building that would have helped define the street along Washington Street, with parking behind the main building. The proposal included 12,976 square feet of commercial space on the ground level, a pedestrian plaza of 7,750 square feet, and 159 rental apartments over a 13,000 square foot building footprint. In preparation for the start of construction, the owners evicted the tenants in Summer 2014 and installed a temporary fence to secure the property.

Progress was stalled by dissension among the partners, and the resulting lawsuit halted development. The 2013 variances were extended in July 2015, after the applicant committed to demolishing the strip mall by October of 2015. This approval expired on January 28, 2016, and the Property has since remained vacant. The litigation between the partners of Cobble Hill Center LLC is ongoing. The property continues to languish since the tenants were evicted over four and a half years ago.

Fig. 8: Aerial Overview of Property Today



Note: Green, outlined in A, denotes the Property. B denotes the parcel which A was originally a part of, which now has several buildings of affordable housing. C is the Holiday Inn, which was developed as a part of the Inner Belt Urban Renewal Plan.
Source: City of Somerville GIS Viewer.

C. Current Site Condition

The Property is an abandoned, 173,748 square foot parcel containing a single-story, suburban-style commercial strip mall. The existing commercial center contains 12,555 square feet and the remainder of the property includes two parking lots, one associated with Cobble Hill Apartments and the other providing 54 spaces for the strip mall.

The exterior of the building has not received significant investment, is in poor condition and requires substantial property improvements. A sagging roof, chipped paint, and other details typical of a long uninhabited building make the property look decrepit. The site perimeter includes temporary construction fencing which is visibly falling apart and leaning over (see Fig. 9). Its lack of vitality and unmaintained condition blunts street life along Washington Street, attracts undesirable activity, and discourages investment by neighboring property owners.

Fig. 9: Property Photos




Note: Photos taken December 2018.

The vacant site has become a magnet for illicit activity and represents an attractive nuisance. Records from the Somerville Police Department gathered since 2014, at about the time the building became vacant, indicate that the department has received 15 calls regarding this Property. This includes four instances of breaking and entering or larceny and five instances of suspicious, sick, or unwanted persons on the property. The City's Inspectional Services Department has also received complaints regarding the Property over the last few years. The Department issued a citation in April 2016 to replace broken windows.

The fenced-off asphalt lot serving the vacant strip mall remains in an open, blighted condition. Walking along this derelict lot on Washington Street is uncomfortable and unwelcoming for pedestrians. This is particularly unfortunate as the Property's location is a major city gateway seen by 17,000 drivers each day. The Property sits at one of only two entrances into the Inner Belt Neighborhood, and the Property will soon be steps away from the future East Somerville Green Line Station.

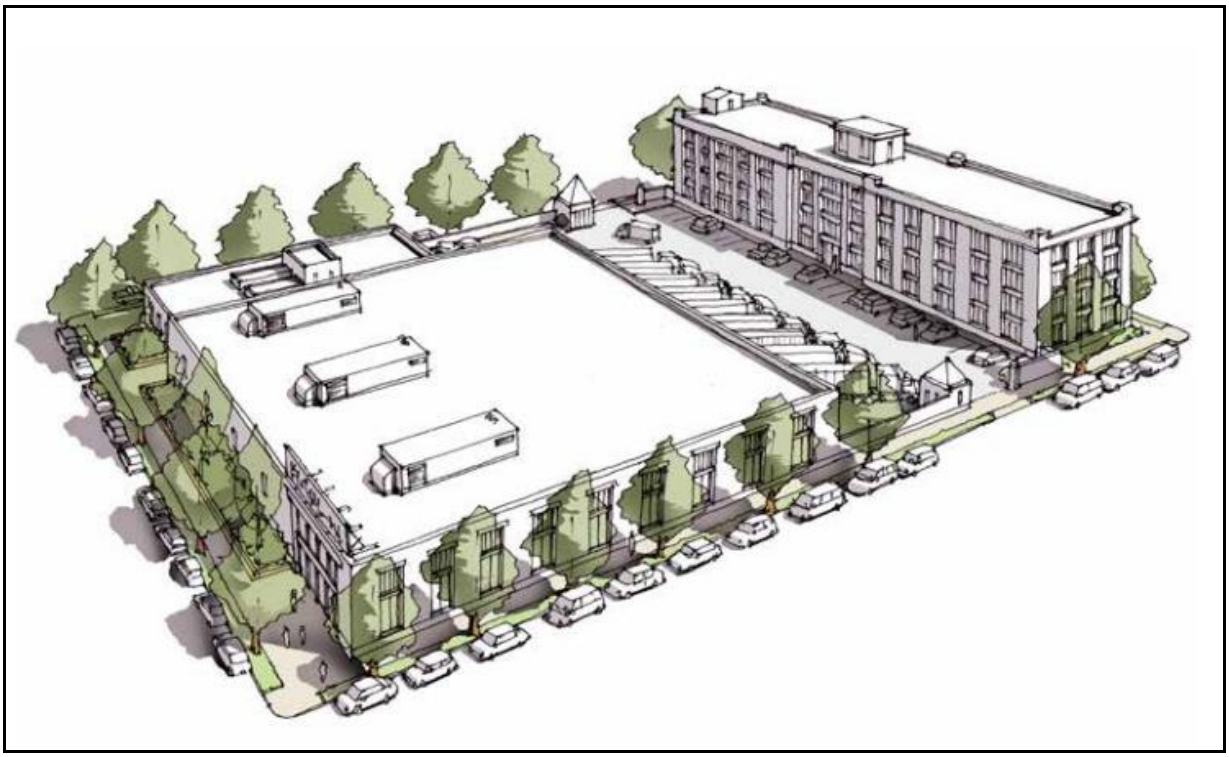
D. Redevelopment Potential and Challenges

The Property is already well-situated as a major gateway into Somerville, with terrific vehicular access and visual prominence along a key corridor into the City. The arrival of the East Somerville Green Line station next door as well as nearby redevelopment efforts in Union Square should foster investment interest.

Currently, the site is zoned for Commercial Residential (BB), which provides a maximum height of 50 feet and a maximum floor area ratio of 2.0. The purpose of this district is "to establish and preserve general commercial and high density residential areas consisting of multi-family developments, shopping centers, commercial strips and automobile related establishments where customers reach individual businesses primarily by automobile." Existing zoning applied to this approximately 4-acre site could potentially allow almost 350,000 square feet of new development, but will require variances to build a walkable project with narrow front-yard setbacks.

The City is currently contemplating an overhaul of the entire zoning code. The proposed zoning for the site in the Somerville Zoning Overhaul is Commercial Industrial (CI), a district that calls for large floorplate buildings up to four stories in height (see Fig. 10). These include warehouse and factory style buildings with multi story offices. The proposed zoning would allow development constructed at a greater density than is currently permitted. It would not permit residential development. At a future date, after more public process, the City may consider an overlay zone, permitting some residential development mixed with a minimum percentage of commercial development.

Fig. 10: Rendering of CI Development



Source: Proposed Somerville Zoning Ordinance

Despite the locational strengths and the potential for robust regulatory entitlements, redevelopment efforts remain stymied. The most prominent challenges include:

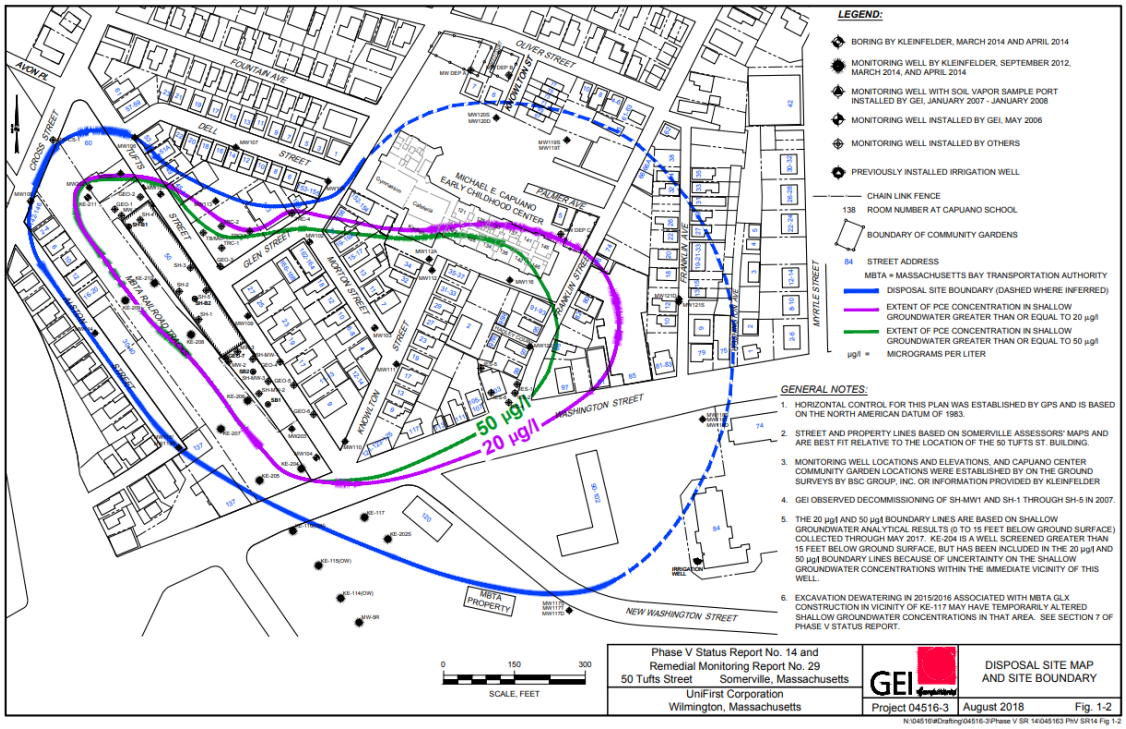
- **Complicated property ownership**: The underlying ownership of the property involves a web of easements, including a parking lot associated with the Cobble Hill Apartments and cross easements for utilities. Further complicating the situation, the owners remain embroiled in a years-long legal dispute which led to the permanent abandonment of the 2013 special permit. Resolution does not appear likely in the foreseeable future.

- **Site Contamination:** Potential contamination at the site serves as a barrier to private development. The site is contaminated by virtue of its history as the location of an iron foundry and has been assigned RTN 3-0031102 by the Massachusetts Department of Environmental Protection (MassDEP). Environmental site assessments completed by EBI Consulting in 2012 found acenaphthylene, naphthalene, 2-methylnaphthalene, C9-C18 aliphatics and C11-C22 aromatics, all in soil concentrations requiring reporting to MassDEP. In preparation for development, EBI Consulting conducted additional soil characterization work in 2014. Most recently, a Phase II Comprehensive Site Assessment was conducted by McPhail Associates on behalf of the Cobble Hill Apartments Company in September 2018 in accordance with the Massachusetts Contingency Plan (MCP), 210 CMR 40.0000 (see Appendix F).

- **Contamination from adjacent sites:** The site is located 500 feet from 50 Tufts Street, the site of a former commercial laundry and the source of a large contamination plume that impacts the entire neighborhood. The property at 50 Tufts Street was used for the storage and distribution of industrial chemicals, laundry supplies, and dry-cleaning solvents from 1955 to 2002. The Property is located within the area of impact (see Fig. 11).

  According to the September 2018 Phase II report by McPhail Associates, the appropriate remedial option for the site will be the excavation and off-site reuse, recycling or disposal of contaminated soil. In regards to the 50 Tufts plume, their licensed site professional GEI expects to work with any future developer on the site to install appropriate exposure pathway mitigation measures to prevent any of the contamination from further affecting the site. Both components of appropriate remediation, however, are stymied by the current litigation. As the McPhail report indicates, pursuing these remedial actions is not possible until pending litigation is resolved and development is imminent.

Fig 11: Phase V Disposal Site Map and Site Boundary for 50 Tufts Street



Source: https://eeaonline.eea.state.ma.us/EEA/fileviewer/Default.aspx?formdataid=0&documentid=457365

- **Inefficient parcel shape:** The lot shape and size as subdivided from its easterly neighbor is not ideal. As visible in Fig. 8, the parcel has an odd shape and contains sections that are too narrow for construction. Without dramatically altering the surrounding street network and acquiring the different ownership interests and easements necessary to move streets, maximizing development remains a challenge.

E. Community Engagement and Vision

The City has a tradition of thoughtful and inclusive public processes to engage residents and other stakeholders about the future of Somerville. The Project and the surrounding neighborhoods have been the subject of several community engagement processes to articulate desires for the future.

The City's 20 year comprehensive plan, SomerVision, clearly articulates the kind of development the community desires on this Property. The district has been designated as one to "transform" with dense, mixed-use development. SomerVision has many ambitious goals, including creating 6,000 new housing units, 30,000 new jobs, and 125 new acres of open space by 2030. One of the community's main strategies for achieving these goals is to target 85% of new development in transformative areas like Inner Belt, and ensure that a substantial portion of the new development will spur job growth through new office, lab and hotel uses.

There are many other goals, policies, and actions listed in SomerVision, and at least 20 of these speak to the need for improvement in Inner Belt, including:

- To transform key opportunity areas, such as Inner Belt into dynamic, mixed-use and transit-oriented districts that serve as economic engines to complement the neighborhoods of Somerville.
- To facilitate thoughtfully-designed, pedestrian-oriented, mixed-use development and reuse opportunities in commercial corridors, squares and around transit stations that are sensitive to neighborhood context and serve existing and future residents and businesses.
- To link Somerville's corridors, squares and growth districts to support future development and economic activity.
- Reduce artificial physical barriers between Inner Belt and Brickbottom, and between East Somerville and West Somerville.
- To promote municipal financial self-determination and reduce fiscal dependence on state aid and residential taxes and fees.

The City completed an Inner Belt Brickbottom Neighborhood Plan (see Appendix E) in 2015. This plan is the result of workshops, focus group meetings, a public "walkshop", and a series of public focus group meetings to generate dialogue on the future of these neighborhoods. The plan

identifies five "core values" based on this community engagement. These values, and how they relate to this Project, are:

- Create great places for people: The Property in its current state is a blighted, fenced-in eyesore.
- Connect neighborhood to neighborhood: Redeveloping the Property to provide a more effective gateway into the Inner Belt area will help provide a friendlier connection to the rest of the city.
- Grow the economy: By providing commercial space, the Property can bring jobs into the area and encourage more economic activity in the vicinity.
- Coordinate public and private investment: The unique delivery model for this project will demonstrate how market-driven private investment can complement and support public investment.
- Deliver ongoing value with sustainable development approaches: Removing a decadent use and replacing it with a mixed-use development that provides necessary social services and improved landscaping will support the economy, the community and the natural environment.

Planning staff is looking to further update some portions of this plan to establish an appropriate percentage of open space and commercial development in Inner Belt and to update the proposed zoning with an overlay that will permit some residential use with a minimum portion of commercial use across the district.

In addition, the exact development of the site could, if properly managed, support numerous other planning efforts and initiatives, including:

- Vision Zero: By supporting bike and pedestrian accommodations, improving the public right of way, and incentivizing the use of the East Somerville station with businesses and civic space, the Property can support the safety of pedestrians, cyclists, and other commuters.
- Somerville Climate Forward: The Capital Projects and Planning Department has stated their hope for a Net Zero building, which would contribute to the City's goals for carbon neutrality.
- Linkage Fees: Large-scale commercial development can support workforce development efforts and affordable housing creation through the mandated linkage fees. These revenues are spent according to the Jobs Creation and Retention Trust Board and Affordable Housing Trust Fund.
- 2016-2023 Open Space and Recreation Plan and Fields Master Plan: Open space is in short supply in Somerville, and there may be an opportunity to incorporate open space on this site depending on the final program and design.

- Food Systems Assessment: Currently the elderly residents in the apartments adjacent to the Property have no easy access to food. The owners of the property initially provided shuttle service to the residents when they evicted Tedeschi from the site. Commercial space for a small neighborhood market may be a reasonable use for the site.

This is just the beginning. The City, City Council and SRA expect to utilize an additional community-focused, interactive public engagement process to clarify the development program for the Property as the SRA implements this Plan as outlined in Section IV of this Demonstration Project Plan.

III. Objectives

A. Eliminate Blight

The objectives of the Demonstration Plan Project are as follows:

(a) To secure the elimination and prevent the recurrence of blighted, deteriorated, deteriorating, or decadent con-ditions in the project area;
(b) To insure the replacement of such conditions by well- planned, well-designed improvements which provide for the most appropriate reuse of the land in conjunction with the City's comprehensive Plan, SomerVision;
(c) The improvement of land use and traffic circulation;
(d) The improvement of public facilities;
(e) The provision of a decent, pleasant, and humane environment involving a mixture of those land uses needed to produce balanced development;
(f) To maximize the full socio-economic potential of the project area with the most appropriate land uses and densities, and consistent with the other objectives stated herein;
(g) To promote economic development which strengthens the City's tax base without unacceptably impacting the physical, social, and cultural environment:
(h) To establish the minimum necessary land use controls which promote development, yet protect the public interest;
(i) To establish a set of controls which are adaptable to both ·current and future market conditions;
(j) To secure development in the shortest possible time period;
(k) To establish a sense of identity and place for Inner Belt;
(l) To capitalize on the location next to the Washington Street Green Line Extension station.

The primary objective for the Project is to eliminate blight and to prevent the recurrence of blight by redeveloping an existing property with structures which are structurally substandard or have deteriorated to a degree rendering rehabilitation impractical. The site is blighted due to its dilapidated, unsafe, and unhealthy condition. Public intervention is warranted as the Property seems unlikely to be developed privately due to ongoing litigation, its unusual parcel shape, and environmental contamination.

This Project seeks to resolve these issues in the pursuit of the elimination of blight. Not only will this Project eliminate blight by removing the existing decadent building, but also by pursuing the

kind of transformative, mixed-use, transit-oriented development the community calls for in SomerVision and the Inner Belt and Brickbottom Neighborhood Plan. The successful development of the site will improve the safety and health of the neighborhood surrounding it.

B. Public Safety Complex

The Plan for this Property addresses a critical municipal need: the construction of a new, modern public safety complex. The need for a new public safety facility has been part of the City's Capital Improvement Plan since November 2016, and has been referenced in other city reports for many years.

Currently, the Somerville Police Department headquarters is located at 220 Washington Street, along with Engine 3 and other Somerville Fire Department staff and apparatus. The Public Safety Building has been used for these purposes since 1985, but the building was never designed to function as a police headquarters or to house a fire department. The property was built as a car barn by the MBTA, a use that was maintained until it was transferred to the City in 1985. The building has structural issues which have led to serious flooding. This flooding was so serious that, at one time, Engine 3 staff had to be relocated into temporary trailers and is now working out of modular units located on the site.

The Capital Projects and Planning Department hired Weston & Sampson to conduct a space needs assessment to compile quantitative and qualitative data about the existing facility and to understand administrative and operational goals and how those goals relate to spatial requirements. Based on this information, a space needs summary was developed indicating specific interior and exterior requirements. Individual sketches of key administrative, operational, and support spaces were developed including specific layout information for required furniture and equipment as well as technology, communications, audio/visual, lighting, HVAC, finishes, and privacy requirements. Total building program for the Public Safety building is approximately 84,500 square feet for various uses, including but not limited to, public community space, police administration, training center, police operations, vehicle storage and Fire Department Engine 3. This report is available as Appendix D.

In addition to assessing program needs, Weston & Sampson was also directed to conduct a site investigation. The City provided a preliminary list of sites for exploration, and Weston & Sampson analyzed these options considering size, allowable development size, ownership, zoning and permitting data, and assessed value. This analysis yielded six sites for further evaluation. These included 17 Inner Belt Road, 17 McGrath Highway, 185 Somerville Ave, 501 Mystic Valley Parkway, 526 Somerville Ave, and 90 Washington.

These six sites were evaluated along several criteria, including:

- Fire response time
- Community visibility and connection
- Site access
- Size of usable space
- Shape of site
- Whether Engine 3 could fit
- Proximity to residential district
- Allowed area coverage
- Presence of receptors
- Hazardous materials issues
- Availability of utilities
- Permitting
- Traffic impacts
- Existing structures
- Existing tenants and owners
- Site assessment cost

Based on these criteria, the 90 Washington site scored 63 points out of a possible 85, or 74%. The next ranking site identified was 17 McGrath Highway, which scored 68%.

The Somerville community needs a new public safety facility, and the 90 Washington site is the most suitable one according to third-party analysis. A key objective of this Plan will be to implement a design and construction process for a public safety building that meets all the criteria outlined in the space needs assessment.

C. Transformative Development Opportunity

It is unlikely that the entire site will be used for the new public safety building. For this reason, a portion of the parcel could support a transformative, mixed-use development program anchored by the nearby East Somerville Green Line Station. Transit-oriented development could meet several important community needs and desires, including tax and job generating commercial development, affordable neighborhood-serving retail uses, community civic space, additional housing, both market rate and affordable, or other community-oriented uses.

Development options will likely provide various schemes for overlapping uses within the buildings, and the details of the development program and tenants will be discussed through a public process over the course of this Project to meet evolving community needs. There is an opportunity to further explore additional public uses such as a regional 911 dispatch center in addition to commercial or residential uses. Ultimately, the goal is to have a Project that meets the public safety requirements as well as provides an engaging and flexible mix of other uses in order to create an accessible, inclusive, and welcoming space.

IV. Demonstration Project Plan

A. Legal Basis for Demonstration Project Under Massachusetts Law

As the urban renewal agency for the City of Somerville, the Somerville Redevelopment Authority plays an important role in the redevelopment of transformational districts identified within Somerville's community plan, SomerVision. The SRA exercises powers available to such agencies under Chapter 121B of the Massachusetts General Laws.

The SRA's authority under Chapter 121B includes, among other powers, the power to:

(i) declare that an area is a substandard, decadent, and/or blighted;
(ii) prepare plans for the redevelopment of such areas; and
(iii) to carry out revitalization projects for the "prevention and elimination of slums and urban blight."

Within urban renewal areas, the SRA is authorized to prepare urban renewal plans that call for the undertaking of urban renewal projects aimed at eliminating what the law has defined as decadent, substandard and blighted open areas. The SRA is authorized *"to engage in or contract for the construction, reconstruction, alteration, remodeling or repair of any clearance, housing, relocation, urban renewal or other project which it is authorized to undertake or parts thereof."* M.G.L. c. 121B § 11(f).

Section 46(f) of Chapter 121B provides the SRA with special authority to adopt and develop "demonstration projects" *outside of urban renewal* areas. Section 46(f) reads, in part: "*an urban renewal agency shall have all the powers necessary or convenient to carry out and effectuate the purposes of relevant provisions of the General Laws, and shall have the following powers in addition to those specifically granted in section eleven or elsewhere in this chapter:… (f) to develop, test and report methods and techniques and carry out demonstrations for the prevention and elimination of slums and urban blight."*

The terms "slums" and "urban blight" are not defined in c. 121B, but § 1 does define the related terms "substandard", "decadent" and "blighted open":

- **Blighted open**: "*a predominantly open area which is detrimental to the safety, health, morals, welfare or sound growth of a community because it is unduly costly to develop it soundly through the ordinary operations of private enterprise by reason of the existence of ledge, rock, unsuitable soil, or other physical conditions, or by reason of the necessity for unduly expensive excavation, fill or grading, or by reason of the need for unduly expensive foundations, retaining walls or unduly expensive measures for waterproofing structures or for draining the area or for the prevention of the flooding thereof or for the*

protection of adjacent properties and the water table therein or for unduly expensive measures incident to building around or over rights-of-way through the area, or for otherwise making the area appropriate for sound development, or by reason of obsolete, inappropriate or otherwise faulty platting or subdivision, deterioration of site improvements or facilities, division of the area by rights-of-way, diversity of ownership of plots, or inadequacy of transportation facilities or other utilities, or by reason of tax and special assessment delinquencies, or because there has been a substantial change in business or economic conditions or practices, or an abandonment or cessation of a previous use or of work on improvements begun but not feasible to complete without the aids provided by this chapter, or by reason of any combination of the foregoing or other condition; or a predominantly open area which by reason of any condition or combination of conditions which are not being remedied by the ordinary operations of private enterprise is of such a character that in essence it is detrimental to the safety, health, morals, welfare or sound growth of the community in which it is situated."

- ***Decadent****: "an area which is detrimental to safety, health, morals, welfare or sound growth of a community because of the existence of buildings which are out of repair, physically deteriorated, unfit for human habitation, or obsolete, or in need of major maintenance or repair, or because much of the real estate in recent years has been sold or taken for nonpayment of taxes or upon foreclosure of mortgages, or because buildings have been torn down and not replaced and under existing conditions it is improbable that the buildings will be replaced, or because of a substantial change in business or economic conditions, or because of inadequate light, air, or open space, or because of excessive land coverage or because diversity of ownership, irregular lot sizes or obsolete street patterns make it improbable that the area will be redeveloped by the ordinary operations of private enterprise, or by reason of any combination of the foregoing conditions."*

- ***Substandard****: "any area wherein dwellings predominate which, by reason of dilapidation, overcrowding, faulty arrangement or design, lack of ventilation, light or sanitation facilities or any combination of these factors, are detrimental to safety, health or morals.*

B. 90 Washington as a Demonstration Project

The 90 Washington Street Project is an appropriate demonstration project, as defined under Section 46(f) of Chapter 121B. The Project includes one single, four-acre parcel located outside of any existing urban renewal area in Somerville. Targeted, public intervention is necessary and appropriate to eliminate the existing blight generated by this long-vacant site. Action is required to prevent the expansion of blight to the surrounding properties and the adjacent neighborhood.

In addition, the proposed development program includes a new municipal public safety complex integrated into a comprehensive reuse plan, which could provide a useful example for other communities throughout the Commonwealth.

The site is blighted and decadent. The sole building on the property--a long-vacant, single-story retail strip mall--is out of repair, physically deteriorated, functionally obsolete, and in need of major maintenance. The poor condition of the site is detailed throughout this document and is an eyesore to anyone walking by or driving along Washington Street.

There exists a real concern that this situation will persist and potentially infect the surrounding area and expand blight throughout the neighborhood. The vacant structure will continue to attract illicit activities and have a detrimental effect on the sound growth and prospects of property investment within the surrounding neighborhood. The ongoing litigation between the owners creates uncertainty and concern among neighbors and other community stakeholders that this blight will be a long-term situation.

This demonstration project could serve as a test for possible application elsewhere in Somerville and in other communities throughout the Commonwealth. Demonstration projects have not been widely used as development tools; only the Cities of Boston and Cambridge have used the demonstration project approach recently. The unique combination of uses proposed on the site, including a municipal public safety complex combined with housing, office and other community uses will require thoughtful collaboration among the SRA, the City Council, the City, neighborhood stakeholders and the development community.

Solving complicated problems with an interactive, community-focused engagement process is what Somerville does best. A public-private development project and the collaborative approach to getting it done will generate lessons Somerville is willing to share with communities throughout the Commonwealth.

C. Demonstration Project Phases

It is anticipated that implementation of the Project will include six phases. Successful implementation will require close coordination between the SRA, the City Council, project management support by the City of Somerville OSPCD and Capital Projects teams, and development entities. These phases will likely include:

- Demonstration Project Plan Approval
- Acquisition of 90 Washington Street
- Project Delineation and Design
- Developer Selection

- Project Implementation

Phase I – Demonstration Project Plan Approval (Q1, 2019)

The 90 Washington Street Demonstration Project will mark the first time that the SRA will utilize Section 46(f) of Mass General Laws Chapter 121B to undertake a redevelopment project. The Project presents a unique opportunity for the SRA and City Council to collaborate, maximizing the strengths and resources of each in order to eliminate blight, site a critically-needed municipal facility and to facilitate transformative development consistent with SomerVision and community needs. This collaboration has been memorialized into a Memorandum of Agreement (MOA) signed by the SRA and the City Council on (ENTER DATE) (See Appendix A).

The Demonstration Project Plan was presented and discussed during a regular meeting of the SRA on January 10, 2019 and adopted on February 8, 2019. The Plan was presented and discussed during a meeting of the Finance Committee of the City Council on February 11, 2019 and adopted by the City Council on _____ __, 2019.

Phase II - Acquisition of 90 Washington Street (Q1 & Q2, 2019)

Upon adoption of the 90 Washington Street Demonstration Project Plan, the City Council shall vote upon the appropriation of funding to enable the SRA to pay the owner of the Property the pro tanto amount within sixty (60) days of the date of the taking, as required by M.G.L. c. 79. The SRA will vote to acquire the Property through its authority to exercise power of eminent domain.

It is anticipated that the property acquisition will take place in the first half of 2019.

Phase III - Project Delineation and Design (2019-2020)

The City will initiate a systematic process of determining the use of the property and design of each project element. The process will recognize that the principal future use of the site shall include a new public safety building. The City will convene a Public Safety Complex Building Committee, which will be tasked with determining how much of the site will be needed for the Complex and guide its construction. Simultaneously, the City will initiate a public process to gather feedback about stakeholder desires related to additional program elements on the portion of the Property not needed for the public safety complex. These two processes will work in collaboration with the goal of creating a development program that meets the needs and of Somerville.

- **Public Safety Complex Building Committee:** The City will convene a Public Safety Complex Building Committee, which will include City staff from the Somerville Police Department, Somerville Fire Department, and Capital Projects to provide ongoing input

and decision-making related to the public safety component of the development. The Committee shall work to advance the Public Safety Complex final design and construction.

The Committee shall work cooperatively with an Architectural/Engineering firm(s) and the Owner's Project Manager (OPM) in the development of biddable building plans to incorporate the Police headquarters, Fire, Ambulance, Dispatch and Emergency Management Departments. The Committee shall assist the City administration in procurements including but not limited to the engagement of a project designer/engineer, OPM, and Clerk-of-the-Works (COW). The Committee shall work cooperatively with an Architectural/Engineering firm(s), the Owner's Project Manager (OPM), and Clerk-of-the-Works (COW) to incorporate the Police, Fire, Capital Projects team and the Contractor, through project construction. This process shall be conducted pursuant to appropriate public construction bidding and procurement statutes.

The site plan for the Public Safety Complex will likely take one of two forms. Either a portion of the Project parcel may be subdivided to allow the construction of a "stand-alone" multi-story public safety complex or the public safety uses can be incorporated in a larger mixed-use building on the site. An important early action of the Committee and its architects will be to determine which of these two site typologies is feasible and to what extent one approach might maximize development opportunities on the remainder of the parcel. The Committee will work collaboratively with the City, the SRA and the City Council to identify and communicate these opportunities.

- **Public Engagement Process:** The City, the SRA and the City Council will initiate a public outreach and engagement process to engage stakeholders to explore additional, complementary uses on the site. Somerville directly involves residents in urban design and economic development decisions facing their neighborhood in a meaningful way. That vision is created from the ground up, using a series of steps.

  OSPCD will schedule public meetings in the neighborhood to solicit and respond to community input. These meetings will include:

  a. *Listening and Visioning Session:* OSPCD will facilitate a meeting with the neighborhood to listen and learn what the community would like to see on the Property and what partnerships could help further these programs of uses. The object is to collect as many ideas as possible--nothing is too small, too big, or too crazy for consideration. The City is committed to creating a list of needs and priorities in the neighborhood and a program of uses the community would like to see on this site.

b. *Design Workshop:* Through the feedback from the Visioning session, City staff and the City's consulting team will explore strategies and design concepts for achieving the community goals for the Property; massing, economic conditions, traffic circulation, use and design, etc. The feedback loop on the design workshop will inform the final concept presented to the City Council in the next step of the process.

c. *Final Presentation:* A final concept and list of various uses will be developed to be presented to the City Council, who will have the responsibility of articulating the community's goals and program of uses to determine alternative uses and refine its development objectives for the Request for Qualifications/Proposals ("RFQ/RFP"). The SRA will ratify the future use determined by the City Council, provided that is consistent with this Plan.

d. Additional steps may be added as necessary.

Phase IV – Developer Selection (2020)

If redevelopment of the site, or a portion of the site, by a private developer is determined by the City Council to be the appropriate future use of the property, the SRA shall undertake a process, which may include issuance of a request for proposals or similar process, whereby a developer is selected to implement the future use. City staff will incorporate feedback and input from the Final Presentation and final concept approved by the City Council to draft a request for proposals or qualifications, as appropriate, to solicit proposals from developers interested in implementing the Project.

Through this RFQ/RFP, the SRA expects to select a well-experienced and well-qualified firm that shares in the vision and goals articulated in the Plan as a public-private partnership that works in true cooperation. The Development Partner will work with the SRA and the City of Somerville to realize economic growth, foster new employment opportunities, civic and public uses, and add vitality to Inner Belt and help to address infrastructure needs in a way that encourages pedestrians, cyclists and users of public transit alike in one of the nation's most vibrant and exciting mid-sized cities. Just as important, this RFQ/RFP or similar solicitation process seeks to provide an opportunity for the SRA and the Development Partner to demonstrate a sense of community and place, embracing and enhancing elements that help to definite Inner Belt in its past, in the present and for the future while also creating new economic opportunities for the residents of our City.

The submittals would be evaluated against several criteria components, which may include the following:

- Overall approach and alignment with the Vision and Objectives outlined in Phase III
- Programmatic partnerships and financial structure
- Development entity history, experience, and capacity
- Initial design approach and project schedule
- Redevelopment design and improvement plan
- Project feasibility, including proposed program, operations, costs, and financial plan
- Detailed program description including proposed relationships between uses
- Project schedule and readiness to proceed
- Direct community benefit of building program

The SRA may also weigh the Developer's ability and commitment to meet municipal needs and provide broader public benefits beyond improvements designed to serve only the development itself.

All proposals will be evaluated by a Technical Advisory Committee ("Committee"), who will make recommendations to the City Council and SRA for development teams ("Developer") who secure the highest scores during the evaluation process. The evaluation criteria will include price (to purchase or lease the parcel) as one of many measures of success, but also requires a project to engage the community, meet the proposed standards and guidelines and produce a successful project.

The Committee may request additional information of the applicants in writing and use that information in evaluating the responses. Proposers may be asked to present their proposals to the Committee, other City staff, neighborhood groups, the City Council, the Mayor, and/or the SRA as part of this review process.

Once the Developer is selected pursuant to the process laid out in the MOA, the entity will work with appropriate City departments and the SRA to develop a site design plan, a phasing plan and schedule and detailed financial plan that will help to realize the needs of the Developer while meeting the project goals to establish a mixed-use Transit Oriented Development program consistent with the goals and objectives for development of this Plan. The Developer will be expected to present its implementation plan in a manner which preserves and enhances the sense of place and unique qualities that define Inner Belt, while still providing for an expanded economic base for the City using Transit Oriented Development.

There will be a Land Disposition Agreement (LDA) between the SRA and the designated Developer. The LDA will describe the development to be constructed in detail and will contain

safeguards, such as rights of reverter, ensuring that the SRA's expectations as to any proposed project are fully met and that the project is constructed substantially as proposed. The LDA will be approved by the City Council.

The Developer will enter into an Exclusive Negotiating Agreement (ENA) with the SRA and commence good faith negotiations for a LDA. During the ENA period, the Developer will be required to undertake project design, project outreach, environmental site investigation/testing, and a title search.

Phase V - Project Implementation (2021-)

The Developer will commence good faith negotiations with the SRA for a LDA. Once the LDA is approved by the City Council and SRA, the Developer will submit construction documents for development. If the project does not break ground within three years from the date of transfer, the SRA will retain the right to take back title to the land at no cost.

D. Financial Plan

The Project will integrate public uses, specifically the municipal public safety complex, along with private uses and other community uses. As a result, the project will likely include a mix of funding sources.

- **Acquisition Costs**: The Demonstration Plan names one property to be acquired, 90 Washington Street. The total acquisition cost for this property is currently $8.7 million, which is based on a property valuation appraisal recently commissioned by the City. In addition to the acquisition price paid to the property owners, acquisition costs may include additional appraisals, title, preliminary site assessments, and other closing-related expenditures.

- **Relocation Costs:** The federal Uniform Relocation Assistance and Real Property Act, the federal relocation regulations at 49 CFR 24, along with the Massachusetts General Laws Chapter 79A Relocation Assistance and Regulations at 760 CMR 27.00 et seq. require that assistance and benefits be provided to residents and businesses who are displaced as a result of a real estate acquisition by a public entity, or a private entity using public funds, regardless of whether the real property is acquired by eminent domain or negotiated sale. Negotiated sales between a private entity and a seller using private money are not subject to relocation assistance and benefits. No relocation costs will be incurred for this project. The site is vacant.

- **Site Preparation Costs:** The site will require demolition of the existing retail plaza and parking lot, potential abatement of hazardous materials and additional site preparation

work for buildings, structured parking and potentially, subsurface parking. These costs are estimated at approximately $3 million. Multiple development approaches are under consideration, which would determine whether the City of Somerville or a private development entity would fund these costs.

- **Development Costs:** The Project consists of at least two project elements, the municipal public safety complex and the private mixed-use development.

  The municipal public safety complex is estimated to cost approximately $48.5 million of base building improvements, according to the most recent City of Somerville Capital Investment Plan (CIP). Additional fit-out costs are anticipated to escalate by 6% per year to reflect the high inflation rates in vertical construction, assuming the project breaks ground in FY 2020 or 2021. OPM, design, and construction oversight costs are 25% of construction costs. These elements may cost $12 million to $31 million above the base building costs, depending on the ultimate uses and programs of the building. Additional program elements are under consideration, including a community meeting space and a regional 911 dispatch center.

  The construction of the new public safety building has been included as a critical project in the CIP since November 2016. The associated debt service of these two expenses has been factored into the City's long-range financial model for the General Fund.

  The City is exploring using the proceeds from the anticipated sale of the Union Square D1 parcel, the current location of the public safety building, to reduce debt service costs.

  The private portion of the project will also provide substantial capital. The SRA and City may assist the Developer with securing low interest financing and gap funding resources, as they are available.

  The Project may take advantage of multiple public and private sources of funds. One goal is to ensure the long-term financial sustainability of the Project by using private investment in the physical asset and its operations. Traditionally, planning, design, and construction have been independent and sequential. Builders bid on jobs based on finalized designs, and the owner selects the lowest-bidder to develop the project. However, through further analysis and community feedback, the following delivery methods may be explored to better project financing, flexibility, efficient project delivery, and reduced financial risk. Options include:

  - Sale of the parcel
  - Subdivision of the parcel for Public Use and Private Use

- Lease of the land
- Mixed-use condominium for commercial, housing, and public uses
- Design - Build - Finance
- Public-private partnerships (P3)
- Construction Management-at-Risk (CM-at-Risk)

Statement of Direct/Indirect Interest

No member of the SRA nor the City Council, employee or officer of the City of Somerville has, or is believed to have, any direct or indirect interest in any parcel to be acquired under this Demonstration Plan.

E. Local Approvals

The Demonstration Plan shall require the affirmative vote of a majority of the members of each of the City Council and SRA in order to adopt the Plan. No part of the Plan shall be implemented until the Plan has been approved by both parties.

The Demonstration Plan was submitted to the SRA and Somerville City Council on January 10, 2019. The SRA approved this Plan and MOA at a meeting on February 8, 2019. The City Council voted (RESULT OF VOTE) to approve the MOA and the 90 Washington Demonstration Plan on (INSERT DATE).

F. Demonstration Plan Amendments

From time to time it may be desirable or necessary to amend elements of the Demonstration Plan either as a minor plan amendment or as a major plan amendment. A regular process of assessment and evaluation of the uses and programs will provide valuable feedback on its success in meeting the Vision and Objectives, or alternatively, the need to update them. The process of assessment and evaluation shall be conducted in consultation with the SRA, City Council, OSPCD and the Developer. The assessment should take into account any legal agreements by and between the City and the SRA, actual operations, changing demand or market forces, updates in technology or other innovations, and other outside forces. A minor plan change is a change that does not significantly affect any of the basic elements of the Plan. A major plan change is a significant change in any of the basic elements of the Plan and shall be reviewed and approved through majority vote by the SRA and the City Council.

Appendices

The appendices for this Plan are enclosed.

- Appendix A: Memorandum of Agreement, SRA & City Council
- Appendix B: New Somerville Police Headquarters Programming and Site Evaluation Report
- Appendix C: Memo – Future Public Safety Building
- Appendix D: Proposed Public Safety Building and Fire Department (Engine 3) Presentation
- Appendix E: Inner Belt Brickbottom Plan
- Appendix F: Phase II Comprehensive Site Assessment

MEMORANDUM OF AGREEMENT

This Memorandum of Agreement is entered into this ___ day of _____ 2019 between the SOMERVILLE CITY COUNCIL ("Council") and SOMERVILLE REDEVELOPMENT AUTHORITY ("SRA"). Collectively, the Council and SRA shall be referred to herein as the "parties".

Whereas, the City of Somerville requires a new public safety facility to replace an aging facility in Union Square which is located on an Acquisition/Disposition Parcel under the Union Square Urban Revitalization Plan, which was adopted and approved by both parties in October 2012 ("USQ Plan");

Whereas, the City has identified the property known and numbered 90 Washington Street, the site of a derelict strip mall which has been vacant for approximately 4.5 years, as an ideal site for a new public safety facility ("Property");

Whereas, at 173,748 ±SF, the Property is large enough to site the proposed public safety facility, as well as other uses, such uses to be determined through a public process;

Whereas, the SRA has the authority under G.L. c. 121B, sec. 46(f) to create and implement a demonstration project to prevent and eliminate blight in areas outside of an approved urban renewal plan;

Whereas, 90 Washington Street is located outside the boundaries of the approved USQ Plan and any other active urban renewal plan;

Whereas, the SRA has the authority to take property by eminent domain for redevelopment, including commercial and/or residential redevelopment pursuant to a demonstration project plan;

Whereas, the Council concurs in the potential of the property for such redevelopment;

Whereas, the SRA and Council wish to work together to develop a demonstration project plan, acquire the Property, and redevelop the Property in accordance with the needs of the City, as guided by the public;

Now, therefore, the parties agree as follows:

1. Demonstration Project Plan. A Demonstration Project Plan describing the Property, the means by which the SRA intends to eliminate the blight of the Property, the public process for determining the future use(s) of the Property, and the process by which the

Property may be redeveloped shall be drafted by the Economic Development Division (who typically serve as staff to the SRA pursuant to the City-SRA contract) of the Mayor's Office of Strategic Planning and Community Development ("OSPCD"). Such Plan shall be submitted to both the SRA and Council for review and discussion concurrently with the submittal of this memorandum. The parties may elect to hold a joint meeting to discuss such Plan.

2. Adoption of the Demonstration Project Plan. The Demonstration Project Plan shall require the affirmative vote of a majority of the members of each of the Council and SRA in order to adopt the plan. No part of the Plan shall be implemented until the Plan has been approved by both parties.

3. Acquisition of 90 Washington Street. Upon adoption of the Demonstration Project Plan as set forth in Paragraph 2 above, or as soon as practicable thereafter:

   (a) The Council shall vote upon the appropriation of $_____ to enable the SRA to pay the owner of the Property the pro tanto amount within sixty (60) days of the date of taking, as required by M.G.L. c. 79.

   (b) Provided that the Council has voted favorably to appropriate the pro tanto amount, the SRA shall vote to take the Property by eminent domain.

4. Public Process to Determine Future Use. The Demonstration Project Plan shall set forth a public process for determining the future uses and preferred redevelopment of the Property. The principal future use of the site shall be as a new public safety building. Additional future uses and preferred redevelopment strategies shall be determined through the public process. OSPCD shall complete the public process according to the Plan and make recommendations to the Council about future uses and an implementation strategy for those uses.

5. Public Hearing. When public hearings are to be held on the Demonstration Project Plan and/or future use of the Property, the parties shall coordinate to hold a joint public hearing.

6. Future Use of the Site. Prior to execution of any use or activity other than the public safety building, the Council must approve the outcome of the public process, including future uses and redevelopment strategies, taking into account the testimony received at any joint public hearings, as well as community input gathered through the public process set forth in the Demonstration Project Plan, as well as any analyses or recommendations

from the City's Planning Department. Provided that the future use is consistent with the Demonstration Project Plan, the SRA shall ratify the future use endorsed by the Council.

7. Future Developer Selection. If redevelopment of the Property, or a portion of the Property, by a private developer is determined by the Council to be the appropriate future use of all or part of the Property, the SRA shall undertake a process, which may include issuance of a Request for Proposals, whereby a developer is selected to implement the future use. If a Request for Proposals process is undertaken, a technical advisory committee shall be formed to review developer submissions. One half of the membership of the technical advisory committee shall be selected by the SRA and the other half shall be selected by the Council. The technical advisory committee shall make its recommendations on semi-finalists and finalists to the Council, which may vote to either endorse the recommendations in their entirety, reject the recommendations in their entirety, or change the recommendations; provided, however, that at least two developers are recommended. The recommendations as approved by the Council shall then be provided to the SRA. The SRA shall vote to select a developer from the recommendations provided from the Council.

8. Master Land Disposition Agreement. The SRA will negotiate a Master Land Disposition Agreement ("MLDA") with the chosen developer. Such MLDA, as well as any amendments thereto, shall be subject to the review and approval of the Council. The MLDA shall not be binding upon the parties until it has been approved by the required vote of the Council, and executed by the SRA Chair.

9. Cooperation. The parties agree to work cooperatively to achieve the goals of the Demonstration Project Plan.

10. Amendment. This MOA may only be amended by mutual agreement of the parties in writing signed by both parties.

Witness our hands and seals on the day and year first above written.

SOMERVILLE CITYCOUNCIL	**SOMERVILLE REDEVELOPMENTAUTHORITY**
_____	_____
By: Katjana Ballantyne	By: Nancy Busnach
Its: President	Its: Chair

MEMORANDUM OF AGREEMENT

This Memorandum of Agreement is entered into this ___ day of _____ 2019 between the BOARD OF ALDERMEN ("BOA") and SOMERVILLE REDEVELOPMENT AUTHORITY ("SRA"). Collectively, the BOA and SRA shall be referred to herein as the "parties".

Whereas, the City of Somerville requires a new public safety facility to replace an aging facility in Union Square which is located on an Acquisition/Disposition Parcel under the Union Square Urban Revitalization Plan, which was adopted and approved by both parties in October 2012 ("USQ Plan");

Whereas, the City has identified the property known and numbered 90 Washington Street, the site of a derelict strip mall which has been vacant for approximately 4.5 years, as an ideal site for a new public safety facility ("Property");

Whereas, at 173,748 ±SF, the Property is large enough to site the proposed public safety facility, as well as other uses, such uses to be determined through a public process;

Whereas, the SRA has the authority under G.L. c. 121B, sec. 46(f) to create and implement a demonstration project to prevent and eliminate blight in areas outside of an approved urban renewal plan;

Whereas, 90 Washington Street is located outside the boundaries of the approved USQ Plan and any other active urban renewal plan;

Whereas, the SRA has the authority to take property by eminent domain for redevelopment, including commercial and/or residential redevelopment pursuant to a demonstration project plan;

Whereas, the BOA concurs in the potential of the property for such redevelopment;

Whereas, the SRA and BOA wish to work together to develop a demonstration project plan, acquire the Property, and redevelop the Property in accordance with the needs of the City, as guided by the public;

Now, therefore, the parties agree as follows:

1. Demonstration Project Plan. A Demonstration Project Plan describing the Property, the means by which the SRA intends to eliminate the blight of the Property, the public process for determining the future use(s) of the Property, and the process by which the Property may be redeveloped shall be drafted by the Economic Development Division

(who typically serve as staff to the SRA pursuant to the City-SRA contract) of the Mayor's Office of Strategic Planning and Community Development ("OSPCD"). Such Plan shall be submitted to both the SRA and BOA for review and discussion concurrently with the submittal of this memorandum. The parties may elect to hold a joint meeting to discuss such Plan.

2. Adoption of the Demonstration Project Plan. The Demonstration Project Plan shall require the affirmative vote of a majority of the members of each of the BOA and SRA in order to adopt the plan. No part of the Plan shall be implemented until the Plan has been approved by both parties.

3. Acquisition of 90 Washington Street. Upon adoption of the Demonstration Project Plan as set forth in Paragraph 2 above, or as soon as practicable thereafter:

   (a) The BOA shall vote upon the appropriation of $_____ to enable the SRA to pay the owner of the Property the pro tanto amount within sixty (60) days of the date of taking, as required by M.G.L. c. 79.

   (b) Provided that the BOA has voted favorably to appropriate the pro tanto amount, the SRA shall vote to take the Property by eminent domain.

4. Public Process to Determine Future Use. The Demonstration Project Plan shall set forth a public process for determining the future uses and preferred redevelopment of the Property. The principal future use of the site shall be as a new public safety building. Additional future uses and preferred redevelopment strategies shall be determined through the public process. OSPCD shall complete the public process according to the Plan and make recommendations to the BOA about future uses and an implementation strategy for those uses.

5. Public Hearing. When public hearings are to be held on the Demonstration Project Plan and/or future use of the Property, the parties shall coordinate to hold a joint public hearing.

6. Future Use of the Site. Prior to execution of any use or activity other than the public safety building, the BOA must approve the outcome of the public process, including future uses and redevelopment strategies, taking into account the testimony received at any joint public hearings, as well as community input gathered through the public process set forth in the Demonstration Project Plan, as well as any analyses or recommendations

from the City's Planning Department. Provided that the future use is consistent with the Demonstration Project Plan, the SRA shall ratify the future use endorsed by the BOA.

7. Future Developer Selection. If redevelopment of the Property, or a portion of the Property, by a private developer is determined by the BOA to be the appropriate future use of all or part of the Property, the SRA shall undertake a process, which may include issuance of a Request for Proposals, whereby a developer is selected to implement the future use. If a Request for Proposals process is undertaken, a technical advisory committee shall be formed to review developer submissions. One half of the membership of the technical advisory committee shall be selected by the SRA and the other half shall be selected by the BOA. The technical advisory committee shall make its recommendations on semi-finalists and finalists to the BOA, which may vote to either endorse the recommendations in their entirety, reject the recommendations in their entirety, or change the recommendations; provided, however, that at least two developers are recommended. The recommendations as approved by the BOA shall then be provided to the SRA. The SRA shall vote to select a developer from the recommendations provided from the BOA.

8. Master Land Disposition Agreement. The SRA will negotiate a Master Land Disposition Agreement ("MLDA") with the chosen developer. Such MLDA, as well as any amendments thereto, shall be subject to the review and approval of the BOA.

9. Cooperation. The parties agree to work cooperatively to achieve the goals of the Demonstration Project Plan.

10. Amendment. This MOA may only be amended by mutual agreement of the parties in writing signed by both parties.

Witness our hands and seals on the day and year first above written.

BOARD OF ALDERMEN

_____

By: Katjana Ballantyne
Its: President

SOMERVILLE REDEVELOPMENT AUTHORITY

_____

By: Nancy Busnach
Its: Chair

Weston & Sampson

westonandsampson.com

100 Foxborough Boulevard, Suite 250
Foxborough, MA 02035
tel: 508.698.3034

REPORT

June 20, 2018

CITY OF
Somerville
MASSACHUSETTS

New Somerville Police Headquarters Programming and Site Evaluation Report

TABLE OF CONTENTS

Page

LIST OF APPENDICES

\\wse03.local\WSE\Projects\MA_BostonOldServer\Somerville, MA\Somerville Police Station Study\Site Investigation Report\Somerville PS Site Investigation Report-DRAFT-06.11.18.docx

EXECUTIVE SUMMARY

The City of Somerville commissioned Weston & Sampson to undertake a Feasibility Study for a new Police Headquarters. The scope of investigation included assessment of the existing Police Station facility, a facility space needs assessment, investigation and analysis of potential sites, and conceptual site planning for a new facility. In addition, Weston & Sampson was asked to evaluate the space needs for the Fire Department Engine 3 Company, currently housed at the Police Headquarters, which the City is considering including in a new Police Headquarters facility.

The existing facility was renovated from a MBTA car barn in 1985 to accommodate the Police and Fire Departments. Because of the constraints of the existing building and growth of the departments since 1985, the facility no longer functions efficiently for the Police and Fire Departments. The building also has many deficiencies due to its age and site issues, including severe flooding in the lower floors and an aging exterior envelope.

Weston & Sampson, along with their sub-consultant, Kaestle Boos Associates, conducted detailed staff interviews and inventory of the existing police facility. From this information, a detailed program and space needs diagram for each of the required spaces were developed. After review with the Police and Fire Departments, it was determined that a program of approximately 78,000 square feet was needed to accommodate the current and future needs of the Police Headquarters, and approximately 6,500 square feet of program space for the Fire Department Engine 3. Programming information is attached in Appendix A.

Based on this programming information, Weston & Sampson developed generic, conceptual layout schemes to determine a minimum ground floor footprint for a proposed new Police HQ building. Examining both three and four story schemes, it was determined that a minimum footprint of between 18,000 and 30,000 square feet will be needed to accommodate the proposed program in an efficient and logical manner. These conceptual layouts allow: 1) The ground floor level to accommodate Fire Engine 3, Police detention, and public-oriented services; 2) The upper floors to accommodate Police Administration, operations, Police and Fire staff support, and other Police specialty functions. The concepts typically assume a below-grade level for police vehicle storage.

Weston & Sampson worked with the City to determine a list of criteria to be used for objectively scoring a short-list of viable sites selected by the City. A matrix of the final six sites was further developed by scoring each site based on sixteen criteria organized in eight categories. Conceptual site layouts were also developed for each of the six finalist sites in order to verify their usability. Site 6, 90 Washington Street, scored highest in the matrix with a 74% score. Further detailed discussion of the criteria used and how the sites were scored is included in this report.

1.0 EXISTING FACILITY DESCRIPTION AND ANALYSIS

Section 1.0 A physical and operational assessment of 220 Washington St., home to the Somerville Police Department Headquarters and Somerville Fire Department Engine 3 Company, confirms that it does not meet the current and future needs of the departments. Operationally, the building is too small. Furthermore, the facility, a former MBTA car barn last renovated in 1985, not only fails to meet modern-day policing and firefighting needs, it has reached the end of its useful life.

1.1 Existing Police HQ Facility

A number of deficiencies have been identified with the existing facility, including but not limited to:

- There is inadequate space for current and future needs of the Police Department to carry out their public safety duties.
- There is inadequate space for police vehicles on the site.
- Adjacencies within the Police divisions do not meet operational needs of the department.
- The 911 Dispatch center does not meet current professional design standard practices for security, break and locker provisions, etc.
- Severe flooding occurs in the basement floors, putting police and fire vehicles, the building generator, and other areas at risk. Flooding led to the relocation of Engine 3 staff out of the building into temporary trailers and later modular units on site.
- The building exterior envelope is aging and requires upgrade and significant maintenance.
- There is inadequate parking for public use on the site.
- There are scheduling and security conflicts between the Academy Training room, community use space, and the Emergency Operations Center, which currently all share the same space.

2.0 PROGRAMMING AND SPACE NEEDS ASSESSMENT

Section 2.0 Weston & Sampson and their sub-consultant, Kaestle Boos, conducted detailed interviews with supervisors, officers and staff from all divisions within the Police Department. Utilizing national design standards of practice for Public Safety facilities, space needs diagrams were developed for each of the required spaces in the proposed new facility. Some of these spaces matched the existing spaces, while many of the spaces were either new or expanded as needed to meet the operational requirements of the Police Department. From these space needs diagrams, a programming matrix was developed to determine a minimum total facility size. In addition, a comparison of the existing spaces to the proposed program was included.

The program for the proposed facility concluded that a building of approximately 78,000 square feet will be needed to meet the current and future operational needs of the Police Department. This does not include the proposed program for the Fire Department Engine, estimated at 6,500 square feet, as described in 2.2 below.

2.1 Police Department Programming

The Police Department consists of the following divisions and departments:

- Administration, including:
    - Administrative Staff
    - Special Operations
    - Homeland Security
    - Crime Analysis
    - 911/Dispatch
    - Financial Services
    - Payroll, Records
    - IT/Communications/Social Media
    - Community Outreach
    - Animal Control
    - Auxiliary
- Criminal Investigation, including:
    - General Investigations
    - Family Services/Domestic Violence
    - Forensics
    - Narcotics
- Operations, including:
    - Patrol
    - Traffic
    - Marine Unit (future)
- Academy/Training
- Detention
- Evidence

2.2 Fire Department Engine 3 Programming

The Fire Department Engine 3 consists of the following program spaces:

- Firefighter's Quarters/Support, including:
    - Report writing work area
    - 4 Bunk rooms
    - Kitchen
    - Dayroom
    - Dining
    - Gym
    - 3 toilets
- Apparatus Bays:
    - Engine 3
    - Ladder 4 (spare used when frontline equipment is being repaired)
    - Engine 4 (spare used when frontline equipment is being repaired)
    - Fire Investigator Unit SUV
    - Boat and Trailer
    - Gear Lockers
    - Equipment Wash Area
    - Equipment Storage
    - Tire Storage
    - Hose Storage

3.0 SITE INVESTIGATION

The site assessment process began with a preliminary list of potential sites provided by the City for Weston & Sampson to review. A list of basic site information for all the sites was compiled, including size, allowable development size, ownership, zoning and permitting data, and assessed value. From this initial group, a final list of six sites was developed for evaluation.

Site information for the final six sites in included in Appendix B.

3.1 Site Analysis Criteria

Weston & Sampson worked with the City to develop the site evaluation matrix and the criteria upon which Weston & Sampson scored and ranked the sites. The following is an explanation of each of the criteria used in the site scoring matrix:

1. Location

1a. Fire Response Time (five points): Fire response time is for the Fire Department Engine 3 that is currently part of the program of the existing Police HQ and is proposed to be part of the new Police HQ. Fire response times were estimated by the City's SomerStat Office of Innovation and Analytics using a drive-time analysis methodology. The response times were provided for each of the proposed sites which were determined to be capable of fitting the Fire Department Engine 3 program. For those sites that would not fit Engine 3, scoring was based on existing response times from the current Union Square location. However, as the 2016 Carlson Fire Group study noted, development pressure in the Union Square area suggests that response times from the current location may increase in the future due to increased population and vehicle traffic. The maximum score of five for this criterion was given to sites for which 90% or more calls had an estimated response time of 5 minutes or less.

1b. Community Visibility/Connection (five points): Community visibility is a more subjective criterion for scoring sites that takes into account the importance of the Police HQ to be visible and connected to the community. Sites that scored high on this criterion had adjacency to significant thoroughfares, community centers or squares, and a shape and orientation to allow for locating the building, particularly the public portion, toward public areas such as a main street or square.

1c. Site Access (five points): The criterion of site access covers 1) vehicular access to the community for police and fire emergency response; and 2) pedestrian/public transportation access to the site for public services provided by the departments.

2. Physical Features

2a. Size of Usable Site (five points): The usable site size was determined based on the full lot size and the maximum percent lot coverage allowed by zoning. Sites with usable area larger than 1.0 acres received a score of five.

2b. Shape of Site (five points): Scoring for this criterion was determined both from the physical shape of the site and test fitting of a conceptual site layout of the proposed program. Generally, sites that scored high is this category had a contiguous, regular shape, and a ratio of length to width closer to one.

2c. Fit Engine 3 (five points): The criterion of fitting the Fire Department Engine 3 was determined by test fitting a conceptual plan of the proposed Police/Fire program. The site size and shape needed to allow the additional ground-floor space for the Fire apparatus program, including apron/turn around space and safe access to the street for emergency response.

3. Zoning Consistency

3a. Proximity to Residential District (five points): While criterion 1b (Community Connection) measured connection to the community, this criterion scored sites for their distance from dense residential districts. The assumption for this criterion is that a large development, such as the new Police HQ, may be disruptive in the middle of, or immediately adjacent to, a residential neighborhood, and that a commercial or industrial district would be better suited to absorb such a project.

3b. Allowed Area Coverage (five points): While similar to criterion 2a (Site Size), this criterion specifically gives higher scores to sites in less restrictive zoning districts, whose allowable lot coverage is higher.

4. Environmental Impacts

4a. Presence of Receptors (five points): Sites were scored for the presence of Human and Environmental receptors. Human receptors include areas near or on the proposed site that the proposed project could affect, including public drinking water supplies, surface water protection areas, historic districts, etc. Environmental receptors include perennial and intermittent streams, wetlands and vernal pools, endangered or rare species habitats, and flood zones.

4b. Hazardous Materials Issues (five points): The potential presence of hazardous materials was determined for scoring based on preliminary review of Massachusetts DEP public records for hazardous materials releases.

5. Infrastructure

5a. Availability of Utilities (five points): While typically this criterion has some variability in smaller communities, the density of the City of Somerville ensures that availability of utilities (electrical, gas, public water/sewer, etc.) is uniform across all sites. In order to illustrate this, it was decided that this criterion remain despite scoring equally for all sites.

6. Permitting

6a. Permitting (five points): Sites that require complex and lengthy permitting due to zoning scored lower. Because all sites require a Site Plan Review and Special Permit for a municipal facility,

all sites scored a two out of five. In order to illustrate this, it was decided that this criterion remain despite scoring equally for all sites.

7. Traffic Impacts

7a. Traffic Impacts (five points): Scoring was determined by analysis of surrounding roads and intersections based on emergency response of Police and Fire vehicles. This was a professional opinion determination and was not based on a detailed traffic study.

8. Cost of Development

8a. Existing Structures (five points): Sites with dense existing structures scored lower based on the assumption that the removal of the existing structures is necessary for the proposed new facility and demolition will add to the overall cost.

8b. Existing Tenants/Owners (five points): The existence of multiple tenants on the site would increase the level of disruption to tenants/owners and add to the overall project cost due to legal and other fees associated with terminating leases and/or relocating tenants. Sites with single or no tenants scored highest.

8c. Site Assessment Cost (five points): Since all the potential sites are privately owned, the cost of purchasing the site will have to be factored into the overall project cost. Scoring for this criterion was determined from a dollar per acre value based on the assessed value and the overall lot size for each site. Sites with the highest cost per acre received the lowest scores.

3.2 Site Scoring and Ranking

Using the established criteria described above, the six sites were scored and ranked in a matrix (see Appendix B).

Site 6, 90 Washington Street, scored highest with a score of 74% (63 out of 85). The full list of site scoring is as follows:

Rank	Site No. / Address	Percent Score (raw score)
1	Site 6 (90 Washington Street)	74% (63 out of 85)
2	Site 2 (17 McGrath Highway)	69% (58 out of 85)
3	Site 3 (185 Somerville Ave)	67% (57 out of 85)
4	Site 4 (501 Mystic Valley Parkway)	66% (56 out of 85)
5	Site 5 (526 Somerville Ave)	61% (52 out of 85)
6	Site 1 (17 Inner Belt Road)	59% (50 out of 85)

Site scoring determinations for each criterion explained in narrative form are included in Appendix B.

APPENDIX A

Programming Matrix and Space Needs Sheets

Somerville Police Department

Space Needs Assessment v1.2

December 6, 2016

KAESTLE BOOS associates, inc

Area/Room Title	Rm. Type	Occupants	No.of Rms.	Rm. Area	Subtotal	Total	Interview Notes	Ex. Rm Area
Public Areas								
Vestibule	13.3	0	1	100 sf	100 sf			
Lobby/Waiting	13.1	10	1	500 sf	500 sf			1848 sf
Public Toilets	7.4	0	2	200 sf	400 sf			
Public Interview	5.3	2	2	100 sf	200 sf			
Firearm Permit	5.5	2	1	80 sf	80 sf			
				Public Total:		**1280 sf**		**1848** sf
Communications Center								
Public Info.Counter	6.3	0	1	40 sf	40 sf			
Patrol Desk Officers	4.1	2	1	240 sf	240 sf		main public interface directly adjacent to lobby; monitor building & traffic cameras	
Patrol Lt. Commander	1.5	1	1	180 sf	180 sf		located directly adjacent to Dispatch; shared workstation; (5) vertical file cabinets	154 sf
Weapons Storage	6.2	1	1	25 sf	25 sf		long gun storage	
Patrol Sergeants	1.4	1	1	160 sf	160 sf		shared workstation; (6) vertical file cabinets	88 sf
Dispatch/ 911 Center	4.2	4	1	700 sf	700 sf		Black box, no public interaction, adjacent to Commander	273 sf
Locker Room	8.2	16	1	80 sf	80 sf		currently 14 staff	
Unisex Toilet	7.1	1	1	65 sf	65 sf			
Break Room	3.4	3	1	105 sf	105 sf			
Supply Storage	6.2	3	1	25 sf	25 sf			
Coat Closet	6.1	3	1	15 sf	15 sf			
Server/ Equip. Room	14.2	0	1	300 sf	300 sf		Current design has 5 server racks for 911, station network & servers, access control, CCTV (city intersections, Building); located adjacent to Desk Officer	96 sf

Area/Room Title	Rm. Type	Occupants	No.of Rms.	Rm. Area	Subtotal	Total	Interview Notes	Ex. Rm Area
E911 Equip. Room	6.4	0	1	60 sf	60 sf		May be cage added into above	
Access Control Maint.	6.8	0	1	150 sf	150 sf		Located near lobby / Camera & Access control for entry. Does not need to be accessible from Departments secure area.	108 sf
			Communications Center Total:			**2145 sf**		**719 sf**

Area/Room Title	Rm. Type	Occupants	No.of Rms.	Rm. Area	Subtotal	Total	Interview Notes	Ex. Rm Area
Records/Data Processing							located directly off lobby	
Public Info.Counter	6.3	0	1	40 sf	40 sf			
Records Clerk	2.2	2	1	150 sf	150 sf		both workstations can see window to lobby	108 sf
File Area	6.7	0	1	120 sf	120 sf		HD File (2 years)	
Work/Copy Room	6.6	0	1	100 sf	100 sf			
Supply Storage	6.2	0	1	25 sf	25 sf			
Archives	14.3	0	1	360 sf	360 sf		May be in Lower Level, HD Storage (Long term, 7 yr statue of limitations)	
			Records/Data Processing Total:			**795 sf**		**108 sf**
Training/ Community Meeting Facility								
Training/Community Mtg.	3.2	50	1	1250 sf	1250 sf			1200 sf
Training Lieutenant	1.5	1	1	180 sf	180 sf		close to Community / Training room (secure side); meeting table for (4)	270 sf
File/Copy Area	6.5	0	1	80 sf	80 sf			
Patrol Equip. Storage	14.1	0	1	250 sf	250 sf		adjacent to Lieutenant's Office	
Honor Guard Storage	6.3	0	1	40 sf	40 sf			
RAD Storage	6.4	0	1	60 sf	60 sf			
Table and Chair Storage	6.7	0	1	120 sf	120 sf			
A/V Equipment Storage	6.3	0	1	40 sf	40 sf			
Kitchenette	6.6	0	1	100 sf	100 sf			
Coat Closet	6.4	0	1	60 sf	60 sf			
			Training Facilities Total:			**2180 sf**		**1470 sf**
Command / Administration								
Command Staff								
Visitor waiting/Reception	6.4	2	1	120 sf	120 sf		intern as greeter	260 sf

Somerville Police Department

Space Needs Assessment v1.2

December 6, 2016

KAESTLE BOOS associates, inc

Area/Room Title	Rm. Type	Occupants	No.of Rms.	Rm. Area	Subtotal	Total	Interview Notes	Ex. Rm Area
Administrative Assistant	1.3	1	1	140 sf	140 sf		separate office; vision to front door	143 sf
Chief	1.11	1	1	325 sf	325 sf		Adjacent to Conference room; meeting table for (6)	
Deputy Chief	1.9	1	2	275 sf	550 sf		(1) Operations, (1) Support; Adjacent to Chief's Office; soft meeting area	579 sf
Prof. Standards (Lt.)	2.5	2	1	240 sf	240 sf		meeting table for (3); (5) vertical files	225 sf
E911 Room	6.5	1	1	80 sf	80 sf		secured; direct access to Professional Standards Office	
Chief's Aide (Sgt.)	1.4	1	1	160 sf	160 sf		close proximity to Chief's Office; meeting table for 4	
Homeland Security (Sgt.)	1.4	1	1	160 sf	160 sf		can be anywhere in building	169 sf
Crime Analysis	2.2	3	1	225 sf	225 sf		(2) analysts & (1) intern	226 sf
Conference Room	3.2	12	1	300 sf	300 sf			
File Room	6.6	0	1	100 sf	100 sf		personnel files; (6) lateral files	
Coffee/Break Room	3.4	5	1	175 sf	175 sf			96 sf
Work/Copy/Mail Room	6.6	0	1	100 sf	100 sf			
Supply Storage	6.4	0	1	60 sf	60 sf			
Coat Closet	6.1	0	3	15 sf	45 sf		within Chief & Deputy Chief's offices	
			Command Staff Total:			**2780 sf**		**1698 sf**

Administration

Admin Captain	1.7	1	1	225 sf	225 sf		meeting table for (6)	224 sf
Financial Analyst	1.4	1	1	160 sf	160 sf			198 sf
Payroll Clerk	1.4	1	1	160 sf	160 sf		(2) lateral files	176 sf
Detail Office	2.5	2	1	240 sf	240 sf		(2) workstations; meeting table for 6; large copier	156 sf
Supply Storage	6.4	0	1	60 sf	60 sf			60 sf
			Administration Total:			**845 sf**		**814 sf**

Emergency Operation Center

internal location

Area/Room Title	Rm. Type	Occupants	No.of Rms.	Rm. Area	Subtotal	Total	Interview Notes	Ex. Rm Area
E.O.C. Meeting	3.3	15	1	450 sf	450 sf			396 sf
Technology Storage	6.2	1	1	25 sf	25 sf			
Coat Closet	6.1	1	1	15 sf	15 sf			
			Emergency Operation Center Total:			**490 sf**		**396 sf**
Special Operations								
Special Ops Office	2.5	2	1	240 sf	240 sf		(1) Lieutenant; (1) Sergeant	476 sf
K-9 Officer	2.3	2	1	180 sf	180 sf		shared workspace	
Animal Control Officers	2.3	2	1	180 sf	180 sf		located close to Dispatch	
Animal Control Stor.	6.3	2	1	80 sf	80 sf			
				Special Ops. Total:		**680 sf**		**476 sf**
Auxiliary Police								
Auxiliary Police Office	2.3	4	1	360 sf	360 sf		(4) 4 drawer File Cabinets	224 sf
Conference Room	3.3	6	1	180 sf	180 sf		access from corridor to use for hearings	
Supply Storage	6.3	0	1	40 sf	40 sf			
				Auxiliary Police Total:		**580 sf**		**224 sf**

Area/Room Title	Rm. Type	Occupants	No.of Rms.	Rm. Area	Subtotal	Total	Interview Notes	Ex. Rm Area
Information Technology/Social Media Support								
IT Office/ Workroom	2.3	3	1	270 sf	270 sf			255 sf
Testing/Burn-in/Parts	6.7	0	1	120 sf	120 sf			
Equipment Storage	6.5	0	1	80 sf	80 sf			
Network Equipment Rm	6.6	2	1	200 sf	200 sf		Part of overall E911 / network equipment room. Separate with wire partitions.	
IDF Closets	6.2	0	3	25 sf	75 sf			
				IT Support Total:		**745 sf**		**255 sf**
Community Outreach Help and Recovery (COHR)							Direct access to Training/ Community Room	
Visitor waiting/Reception	6.4	2	1	120 sf	120 sf		visible & accessible to Lobby	
COHR Office	2.3	3	1	270 sf	270 sf		4 file cabinets	272 sf
Director's Office	1.5	1	1	180 sf	180 sf		meeting table for (4)	
Jail Diversion Coord.	1.4	1	1	160 sf	160 sf			
Conference Room	3.3	6	1	180 sf	180 sf			
Work/Copy/Mail Room	6.6	0	1	100 sf	100 sf			
Supply Storage	6.4	0	1	60 sf	60 sf		for event/promotional items	
Coat Closet	6.1	0	1	15 sf	15 sf			
				COHR Total:		**1085 sf**		**272 sf**

Area/Room Title	Rm. Type	Occupants	No.of Rms.	Rm. Area	Subtotal	Total	Interview Notes	Ex. Rm Area
Criminal Investigative Bureau								
Visitor Waiting/Reception	6.3	2	1	80 sf	80 sf			
Detective Clerk	1.2	1	1	120 sf	120 sf		Clerk is greeter; semi-private from Investigations Office; direct access to Conference Room	180 sf
Criminal Invest. Captain	1.7	1	1	225 sf	225 sf			225 sf
Lieutenant Detectives	2.5	1	2	120 sf	240 sf			225 sf
Forensics Office	2.3	2	1	180 sf	180 sf		(1) Sergeant Detective & (1) Detective	225 sf
Court Sgt. Detective	1.4	1	1	160 sf	160 sf			72 sf
Sergeant Detective	1.4	2	1	320 sf	320 sf			
Investigations Office	2.3	15	1	1350 sf	1350 sf			1240 sf
File Area	6.5	0	1	80 sf	80 sf			
Interview Rooms	5.2	3	2	90 sf	180 sf			63 sf
Media Review Room	6.6	1	1	100 sf	100 sf			
Conference Room	3.2	16	1	400 sf	400 sf		Used for roll call, raid planning, FBI / DEA collaboration (fusion room?)	176 sf
Secure File Room	6.7	0	1	120 sf	120 sf			63 sf
Coffee/ Break Room	3.4	6	1	210 sf	210 sf			
Work/Copy/Mail Room	6.6	0	1	100 sf	100 sf			
Equipment Storage	6.6	0	1	100 sf	100 sf			96 sf
Supply Storage	6.2	0	1	25 sf	25 sf			
Coat Closet	6.2	0	1	25 sf	25 sf			
			Criminal Investigations Total:			**4015 sf**		**2565 sf**
Family Services							needs easily accessible, discreet entrance; close proximity to Detectives & Desk Officers	
Visitor waiting/Reception	6.4	2	1	120 sf	120 sf			104 sf

Area/Room Title	Rm. Type	Occupants	No.of Rms.	Rm. Area	Subtotal	Total	Interview Notes	Ex. Rm Area
Fam. Services Office	2.3	4	1	360 sf	360 sf		workstations for (1) Sergeant Detective; (2) Detectives, & (1) Victim Advocate	169 sf
Interview	5.2	3	1	90 sf	90 sf		informal & comfortable	90 sf
Work/Copy/Mail Room	6.6	0	1	100 sf	100 sf		includes kitchenette	
Supply Storage	6.2	0	1	25 sf	25 sf		toys & supplies	
Coat Closet	6.1	0	1	15 sf	15 sf			
				Family Services Total:		**710 sf**		**363 sf**

Area/Room Title	Rm. Type	Occupants	No.of Rms.	Rm. Area	Subtotal	Total	Interview Notes	Ex. Rm Area
Narcotics Unit								
Sergeant Detective	1.4	1	1	160 sf	160 sf			
Narc/Vice Det's. Office	2.3	7	1	630 sf	630 sf		includes location for DEA Liason	
Gang Det's. Offices	2.3	2	1	180 sf	180 sf			
File Room	6.5	0	1	80 sf	80 sf			
Work/Copy/Mail Room	6.6	0	1	100 sf	100 sf		includes kitchenette	
Supply Storage	6.2	0	1	25 sf	25 sf			
Coat Closet	6.1	0	1	15 sf	15 sf			
				Narcotics Total:		**1190 sf**		**225 sf**
Evidence and Property							located directly adjacent to Sally Port & Detention	
Temp. Evidence Lockers	6.2	0	1	25 sf	25 sf		15"h x 15"W; located in Processing Room w/pass through to Receiving	
Evidence Det. Officer	1.3	1	1	140 sf	140 sf			120 sf
Evidence Rec./Process	6.9	0	1	200 sf	200 sf		includes drying cabinets	300 sf
Evidence Processing Labor	6.7	0	1	120 sf	120 sf			
Fingerprint/Photo Lab	6.8	0	1	150 sf	150 sf			
Evidence Storage	14.4	0	1	500 sf	500 sf			165 sf
Drug Storage	6.4	0	1	60 sf	60 sf			
Vault Storage	6.8	0	1	150 sf	150 sf		weapons & cash	105 sf
Found Property Holding	14.3	0	1	400 sf	400 sf		bulk property and bike storage	300 sf
				Evidence and Property Total:		**1745 sf**		**990 sf**

Patrol Operations

Patrol Facilities

Area/Room Title	Rm. Type	Occupants	No.of Rms.	Rm. Area	Subtotal	Total	Interview Notes	Ex. Rm Area
Roll Call (Squad) Room	3.2	30	1	750 sf	750 sf		Can be used as 2nd training room. Must have latest tech for display of information, tie to EOC for event coordination, quick access to cruiser parking; lounge area, copier	738 sf
Report Preparation	3.6	3	1	150 sf	150 sf		Located close to Shift Commander office, but does not need direct vision	120 sf
Armory	6.6	0	1	100 sf	100 sf		Ammunition storage, PD long & pistol storage	
				Patrol Facilities Total:		**1000 sf**		**858 sf**

Area/Room Title	Rm. Type	Occupants	No.of Rms.	Rm. Area	Subtotal	Total	Interview Notes	Ex. Rm Area
Community Police Officers								
Comm. Police Office	1.2	1	1	120 sf	120 sf		communal workstation	
Bicycle Storage	6.1	10	1	150 sf	150 sf			
Supply Storage	6.2	0	1	25 sf	25 sf			
				Community Police Total:		**295 sf**		
Traffic Unit							can be located anywhere; some limited public access	
Visitor waiting/Reception	6.3	2	1	80 sf	80 sf			
Citation Clerk	1.2	1	1	120 sf	120 sf		Clerk is greeter	143 sf
Traffic Lieutenant	1.5	1	1	180 sf	180 sf		2-3 meet across desk	170 sf
Traffic Sergeant	1.4	1	1	160 sf	160 sf		located off Clerks area	99 sf
Traffic Unit Office	2.3	10	1	900 sf	900 sf			460 sf
Interview/ Exam Room	5.3	3	1	90 sf	90 sf		for Hackney & Crossing Guards	
File Room	6.6	0	1	100 sf	100 sf		archive files	
Work/Copy/Mail Room	6.6	0	1	100 sf	100 sf		includes kitchenette	
Supply Storage	6.2	1	1	25 sf	25 sf			
Equipment Storage	6.6	1	1	100 sf	100 sf		for crossing guard equipment	
Coat Closet	6.1	1	1	15 sf	15 sf			
					Traffic Total:	**1870 sf**		**872 sf**
Marine Unit								
Marine Unit Office	2.3	4	1	360 sf	360 sf			
					Traffic Total:	**360 sf**		

Prisoner Processing and Detention.

Sally Port

Vehicle Sally Port Bay	11.3	0	2	525 sf	1050 sf		side x side
Impound Vehicle Bay	11.3	0	2	525 sf	1050 sf		side x side

Somerville Police Department

Space Needs Assessment v1.2

December 6, 2016

KAESTLE BOOS associates, inc

Area/Room Title	Rm. Type	Occupants	No.of Rms.	Rm. Area	Subtotal	Total	Interview Notes	Ex. Rm Area
Sally Port Total:						**2100 sf**		**0 sf**

Area/Room Title	Rm. Type	Occupants	No.of Rms.	Rm. Area	Subtotal	Total	Interview Notes	Ex. Rm Area
Prisoner Processing							Processing/booking desk is operated by shift commander. Patrolman stay with prison while being processed.	
Temporary Holding	5.1	8	1	200 sf	200 sf		located directly adjacent to Sally Port	60 sf
Processing Room	13.3	3	1	240 sf	240 sf		Sobriety line, freestanding metal detector, photo area	216 sf
Prisoner Prop. Lockers	6.2	20	1	25 sf	25 sf		15"h x 15"W; located in Processing Room	
Booking Officer Room	13.3	1	1	80 sf	80 sf		separate room from prisoner; direct access to remainder of station without going through detention	72 sf
Finger./ Breath, Room	13.2	2	1	120 sf	120 sf		separate from processing; air conditioned space	160 sf
Prisoner Shower (Decon)	7.2	0	1	70 sf	70 sf			
Custodian Closet	6.4	0	1	60 sf	60 sf			
Linen Storage	6.2	0	1	25 sf	25 sf			
Interview Room	5.1	3	2	75 sf	150 sf			
Non-status Offender Rm.	5.4	1	1	60 sf	60 sf		Locate in patrol area	
Matron Area	13.5	1	1	120 sf	120 sf		desk, files, kitchenette	180 sf
Unisex Toilet	7.1	1	1	65 sf	65 sf			
Bondsman interface	5.1	2	1	50 sf	50 sf			
Release Vest. (man lock)	13.1	0	1	50 sf	50 sf			
			Prisoner Processing Total:			**1315 sf**		**688 sf**
Detention								
Male Cells	10.2	1	14	120 sf	1680 sf			686 sf
Female Cells	10.2	1	3	120 sf	360 sf			147 sf
Juvenile Cells	10.2	1	2	120 sf	240 sf			112 sf
Handicapped Cells (M,F&J)	10.3	1	3	150 sf	450 sf			
Soft Cell (MH)	10.3	1	1	150 sf	150 sf			

Area/Room Title	Rm. Type	Occupants	No.of Rms.	Rm. Area	Subtotal	Total	Interview Notes	Ex. Rm Area
Detention Total:						**2880 sf**	2005 had cap.=19 2016 cap.=21	**945 sf**

Area/Room Title	Rm. Type	Occupants	No.of Rms.	Rm. Area	Subtotal	Total	Interview Notes	Ex. Rm Area
Staff Support								
Staff Facilities								
Male Patrol Lockers	8.5	125	1	2250 sf	2250 sf		30"W x 24"D lockers	1216 sf
Male Superior Lockers	8.5	40	1	720 sf	720 sf		24"W x 24"D lockers	243 sf
Male Civilian Lockers	8.5	15	1	270 sf	270 sf		12"W x 12"D lockers; use Officer toilets & showers	
Male Toilets	7.5	0	1	240 sf	240 sf			
Male Showers	9.1	4	1	120 sf	120 sf			
Female Officer Lockers	8.5	24	1	432 sf	432 sf		30"W x 24"D lockers	442 sf
Female Civilian Lockers	8.5	15	1	270 sf	270 sf		12"W x 12"D lockers; use Officer toilets & showers	169 sf
Female Toilets	7.3	0	1	160 sf	160 sf			
Female Showers	9.1	2	1	60 sf	60 sf			
Break Room	3.2	16	1	400 sf	400 sf		full kitchen; have (4) vending machines; needs easily accessible central location	
Miscellaneous Toilets	7.1	1	4	65 sf	260 sf			
Patrol Union Office	2.3	2	1	180 sf	180 sf		SPEA	225 sf
Superior Officers' Union	1.2	1	1	120 sf	120 sf		SPSOA	88 sf
				Staff Facilities Total:		**5482 sf**		**2383 sf**
Wellness/Training Facilities								
Wellness Center	14.7	0	1	1600 sf	1600 sf		direct access to both Officer locker rooms	1050 sf
Equipment Storage	6.5	0	1	80 sf	80 sf			
FATS Training Room	14.5	0	1	600 sf	600 sf			644 sf
Control Room	6.5	0	1	80 sf	80 sf			
Firing Range	15.0	5	1	2200 sf	2200 sf		2 wide and 3 center x 75' long stations, could be outbuilding	
Control Room	6.5	0	1	80 sf	80 sf			
Staging/Gun Cleaning	6.7	0	1	120 sf	120 sf			
Armory	6.6	0	1	100 sf	100 sf			96 sf

Area/Room Title	Rm. Type	Occupants	No.of Rms.	Rm. Area	Subtotal	Total	Interview Notes	Ex. Rm Area
			Wellness/Training Total:			**4860 sf**		**1790 sf**

General Storage

General Storage Room	6.8	0	1	150 sf	150 sf			
Archival Storage Room	14.2	0	1	300 sf	300 sf			
Quartermaster Storage	6.8	0	1	150 sf	150 sf			
			General Storage Total:			**600 sf**		

Area/Room Title	Rm. Type	Occupants	No.of Rms.	Rm. Area	Subtotal	Total	Interview Notes	Ex. Rm Area
Vehicle Support								
Vehicle Storage								
Motorcycle Storage	6.3	8	1	320 sf	320 sf			
Motorcycle Supply Stor.	6.5	1	1	80 sf	80 sf			
Bicycle storage	6.1	10	2	150 sf	300 sf			
Traffic Trailer	6.5	2	1	160 sf	160 sf			
Liquid Storage	6.1	1	1	15 sf	15 sf			
Vehicle Storage Bay	11.1	30	1	9000 sf	9000 sf		below grade covered parking area	
				Vehicle Storage Total:		**9875 sf**		**6500 sf**
Building Support Facilities								
Facility Maintenance								
Custodial Closets	6.2	0	5	25 sf	125 sf			
Custodial Workshop	6.7	0	1	120 sf	120 sf			
Equipment Storage	6.5	0	1	80 sf	80 sf			
Building + Supply Stor.	6.9	0	1	200 sf	200 sf			
				Facility Maintenance Total:		**525 sf**		
Vertical Circulation								
Stairs		0	2	400 sf	800 sf			
Elevator		0	1	100 sf	100 sf			
Elevator Machine Room		0	1	60 sf	60 sf			
				Vertical Circulation Total:		**960 sf**		
Building Services								
Laundry	6.5	0	1	80 sf	80 sf			
Mechanical Room		0	1	800 sf	800 sf			
Sprinkler Equipment	6.8	0	1	150 sf	150 sf			

Somerville Police Department

Space Needs Assessment v1.2

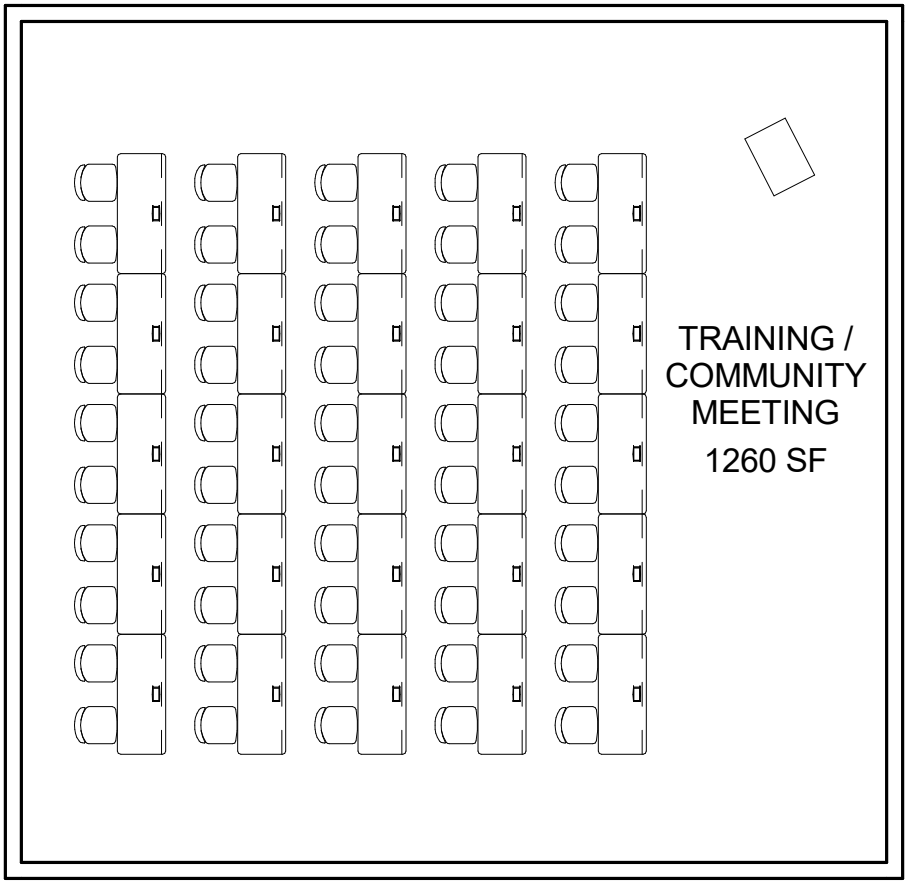
December 6, 2016

KAESTLE BOOS associates, inc

Area/Room Title	Rm. Type	Occupants	No.of Rms.	Rm. Area	Subtotal	Total	Interview Notes	Ex. Rm Area
Electrical Room	6.9	0	1	200 sf	200 sf			
Emerg. Electrical Room	6.5	0	1	80 sf	80 sf			
Emergency Generator		0	0	500 sf	0 sf		Outside? Roof?	
Air Handling Equipment		0	1	750 sf	750 sf			
			Building Services Total:			**2060 sf**		

Net to Gross Adjustment

Total Net Area	**55,447 sf**		**26,459**
Net to Gross Adjustment (Net Area x 0.40)	22,200 sf		
Gross Area Total:	**77,647 sf**		**66,000 sf**



16041.00

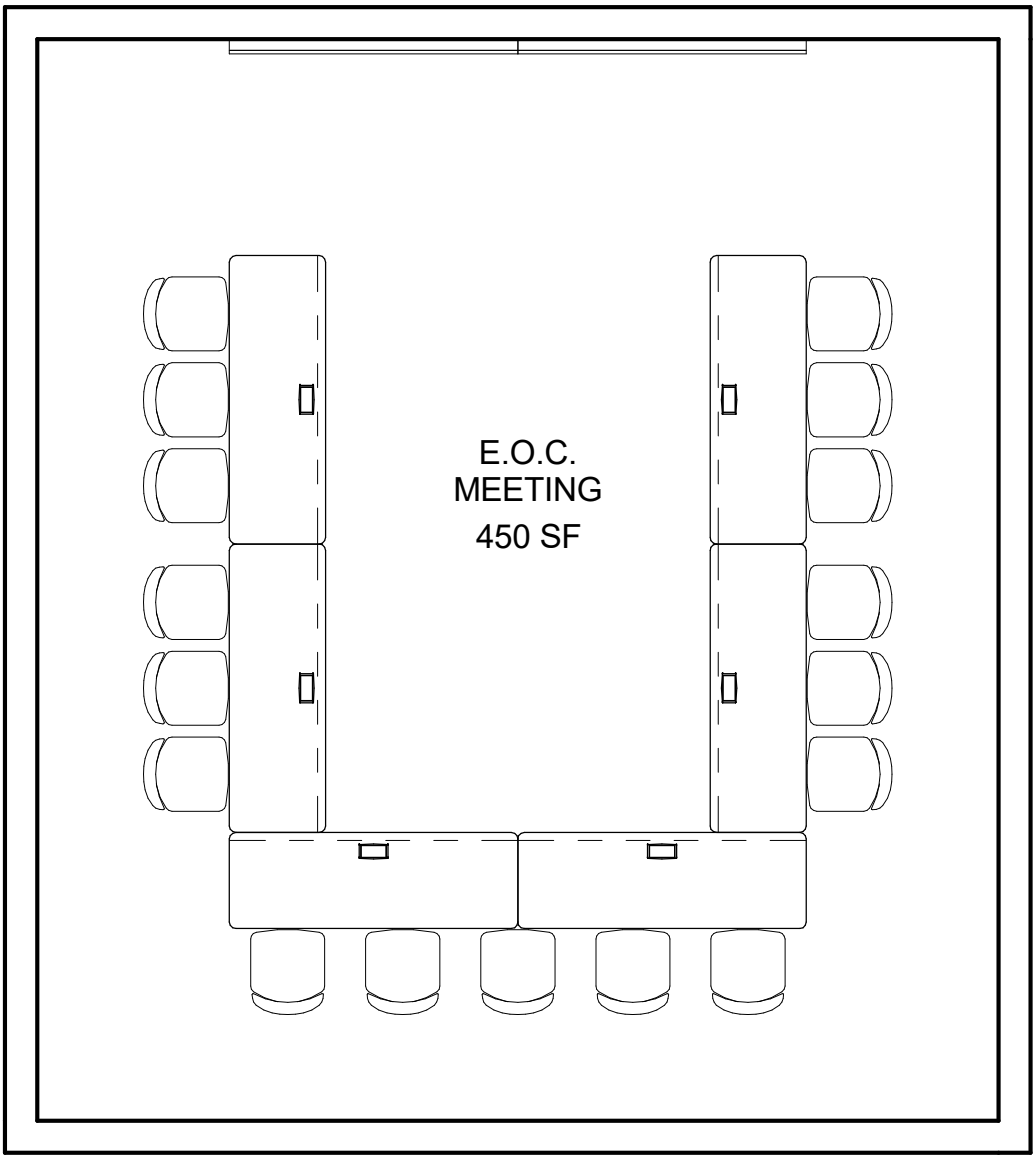
SCALE: 1/8" = 1'-0"

Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc



16041.00

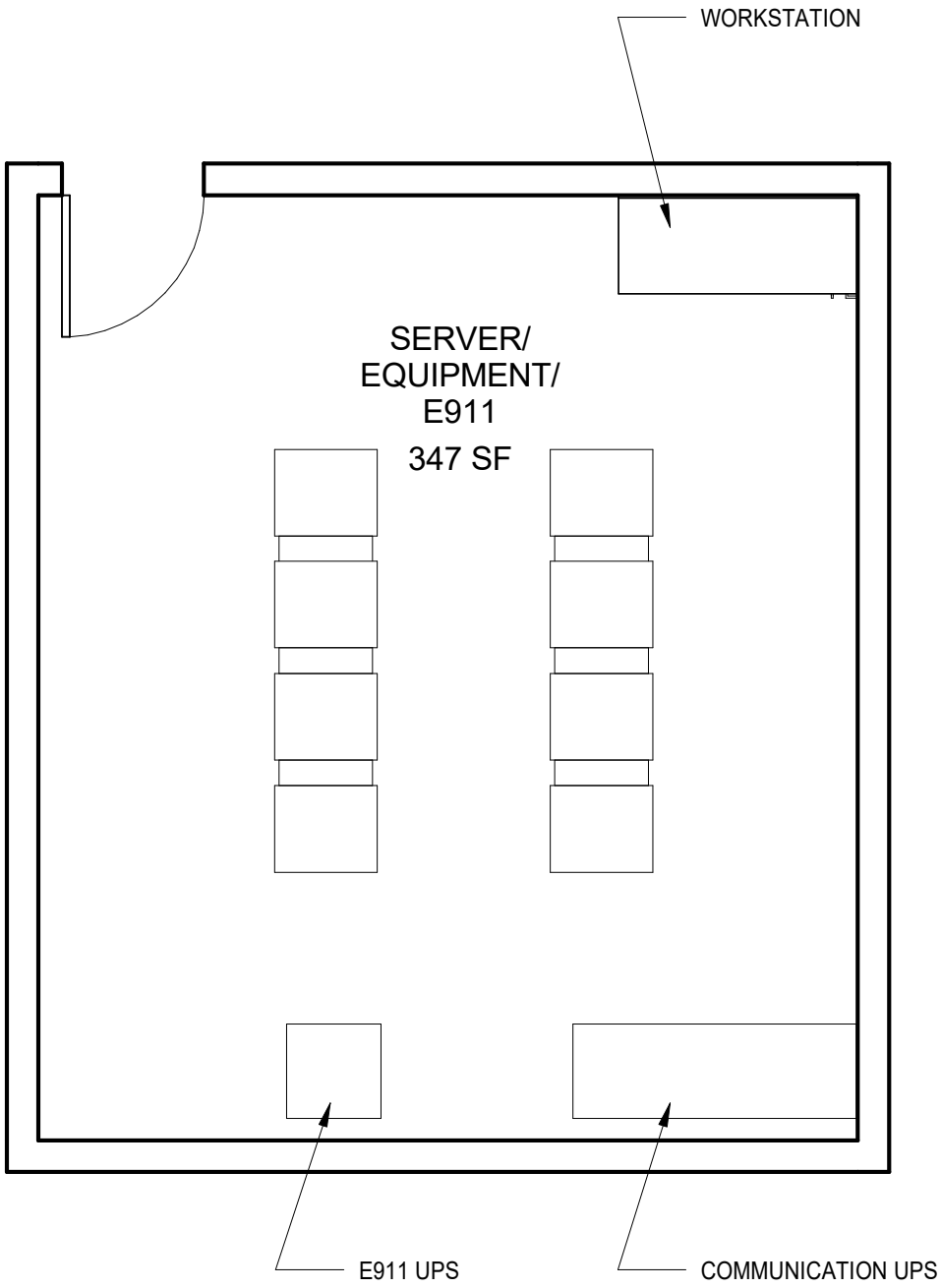
SCALE: 1/4" = 1'-0"

Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc



16041.00

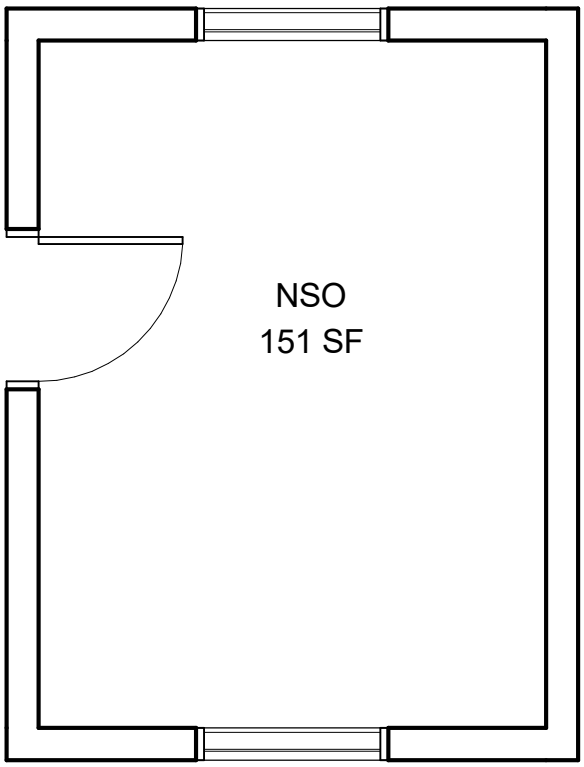
SCALE: 1/4" = 1'-0"

Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc



16041.00

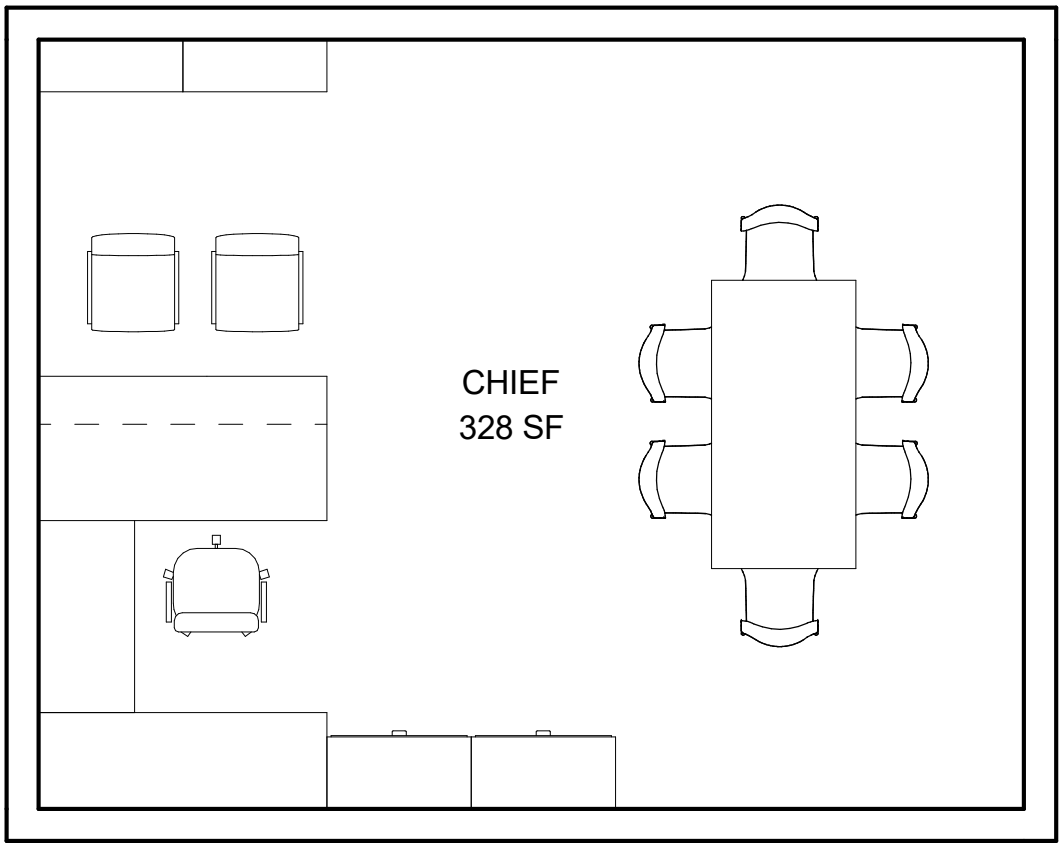
SCALE: 1/4" = 1'-0"

Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc



16041.00

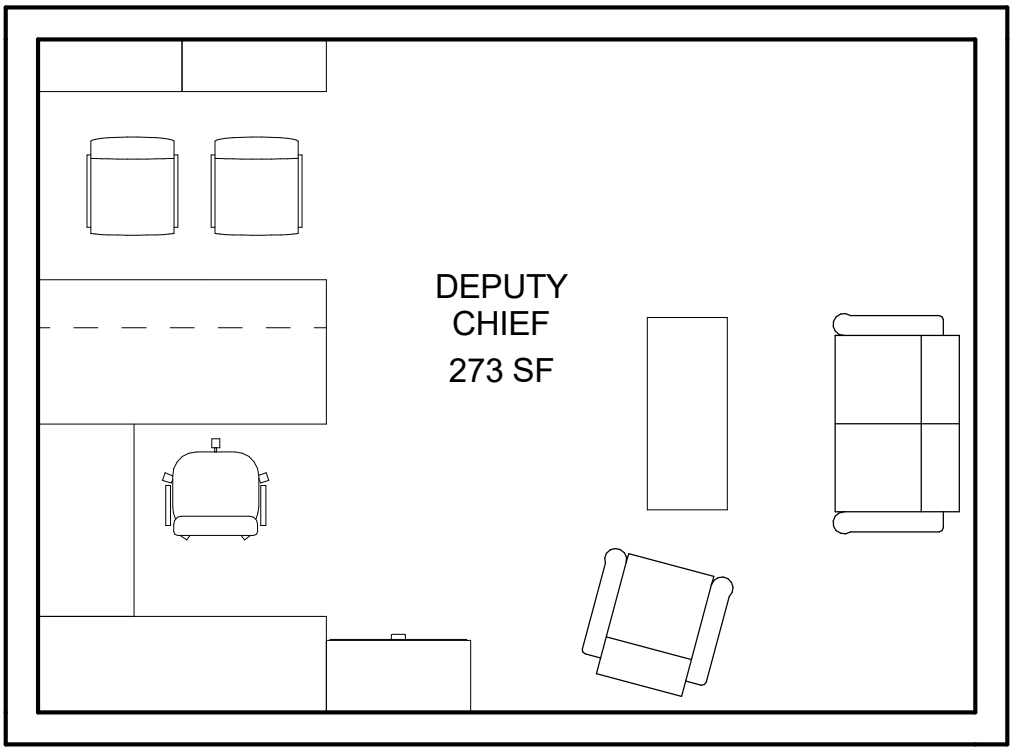
SCALE: 1/4" = 1'-0"

Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc



16041.00

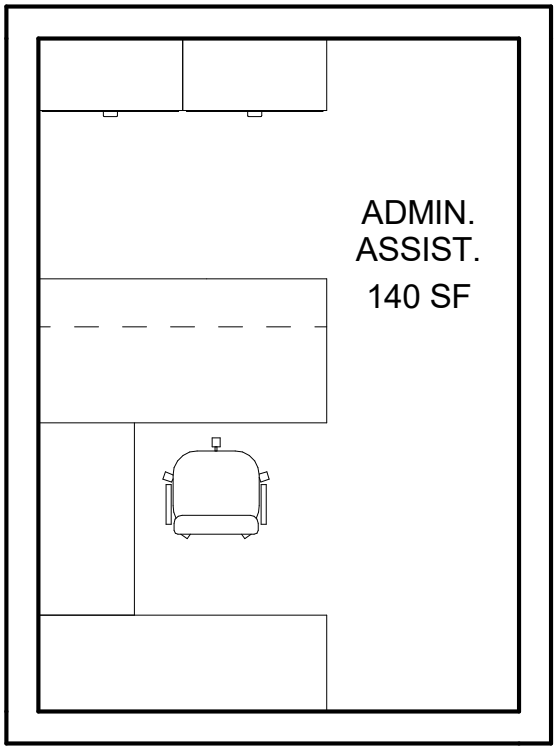
SCALE: 1/4" = 1'-0"

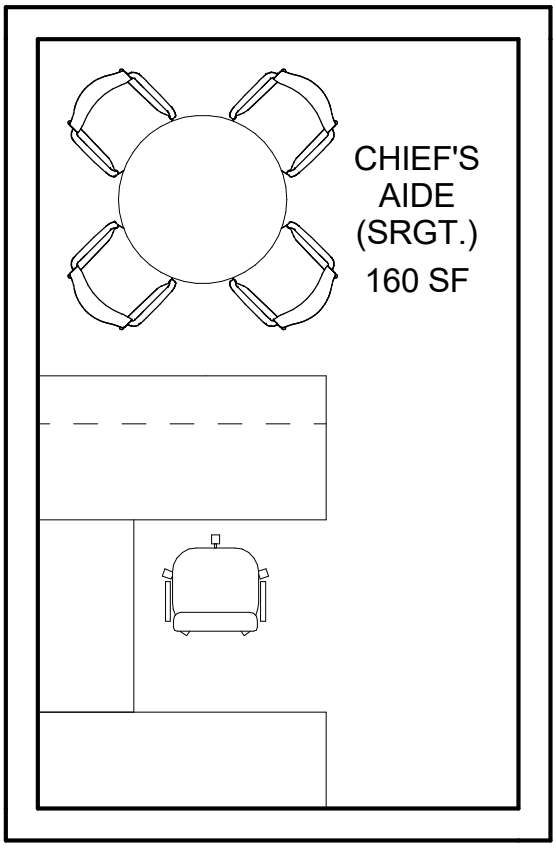
Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc





16041.00

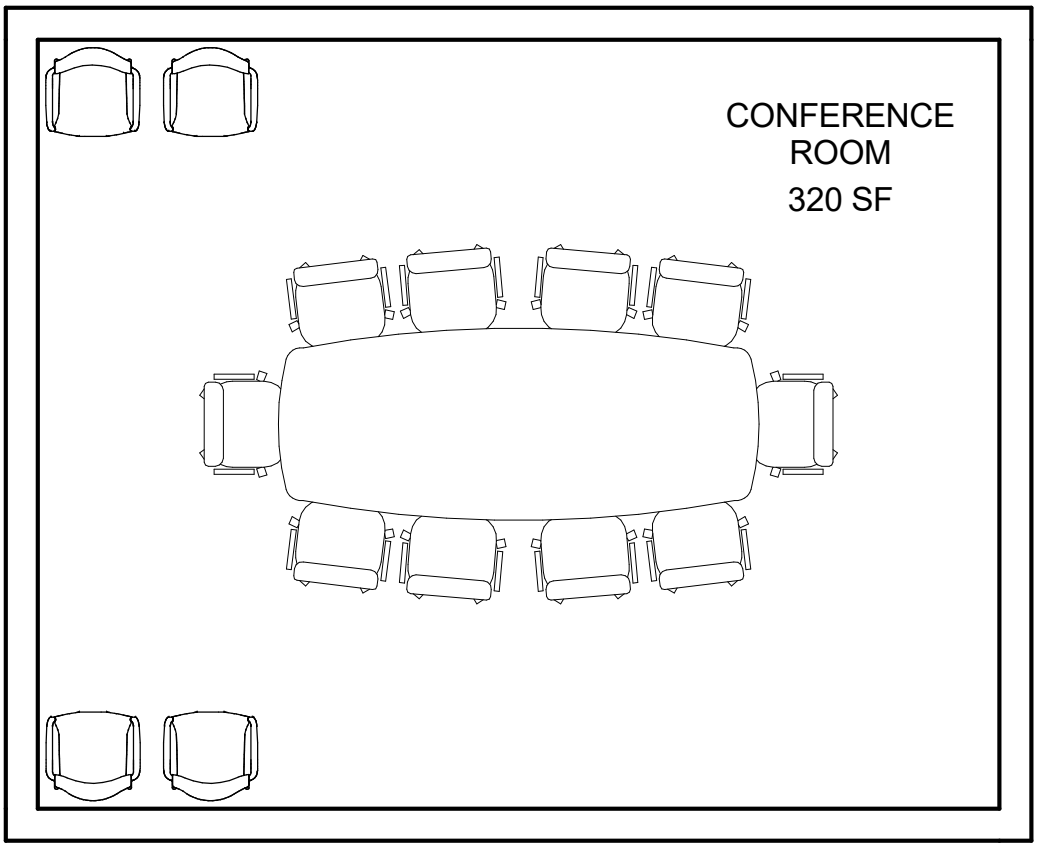
SCALE: 1/4" = 1'-0"

Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc



16041.00

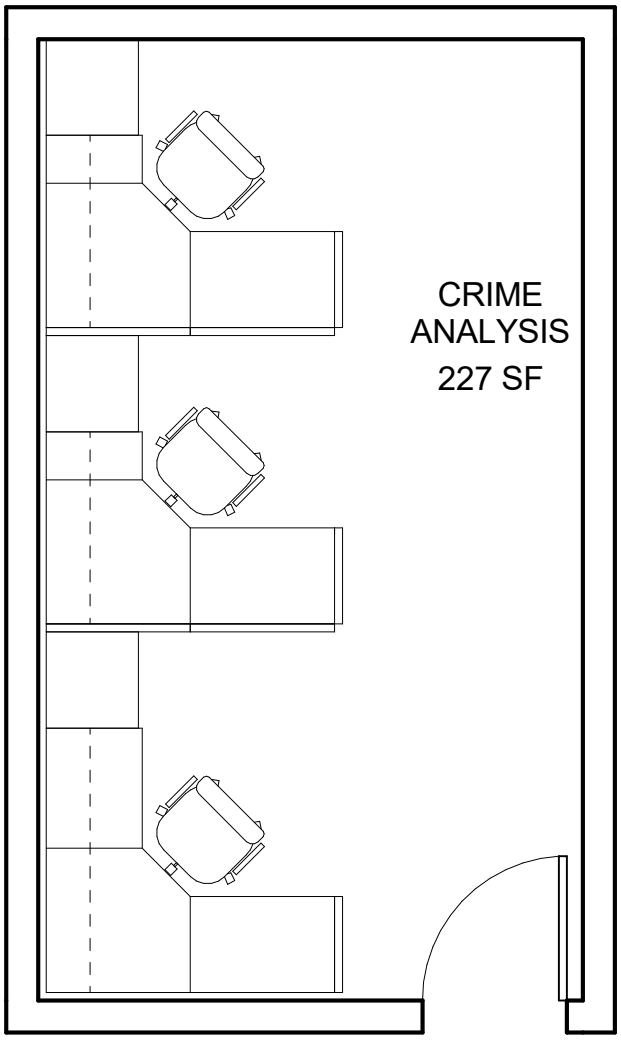
SCALE: 1/4" = 1'-0"

Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc



16041.00

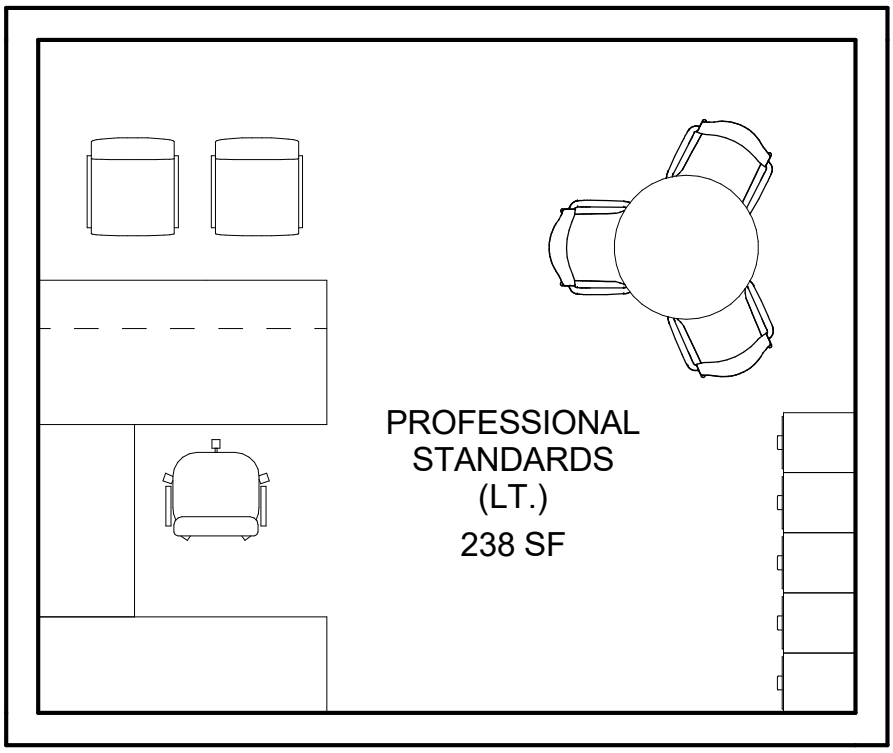
SCALE: 1/4" = 1'-0"

Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc



16041.00

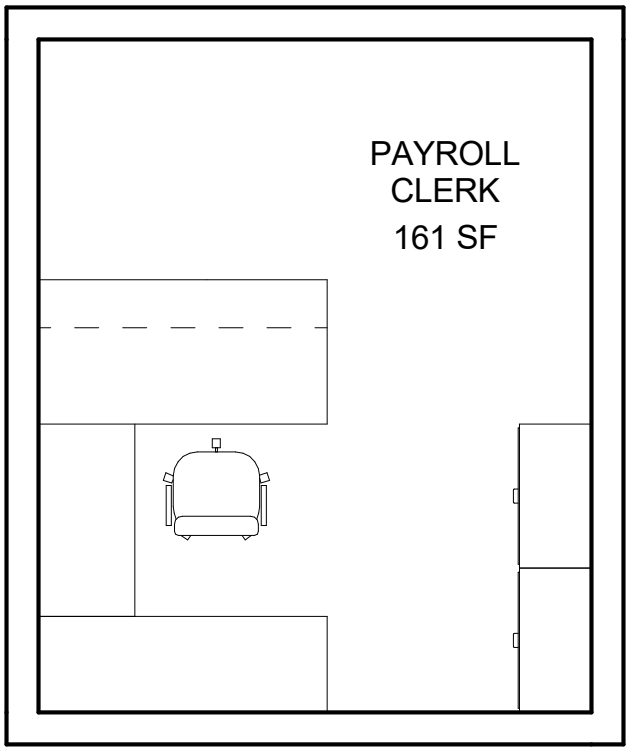
SCALE: 1/4" = 1'-0"

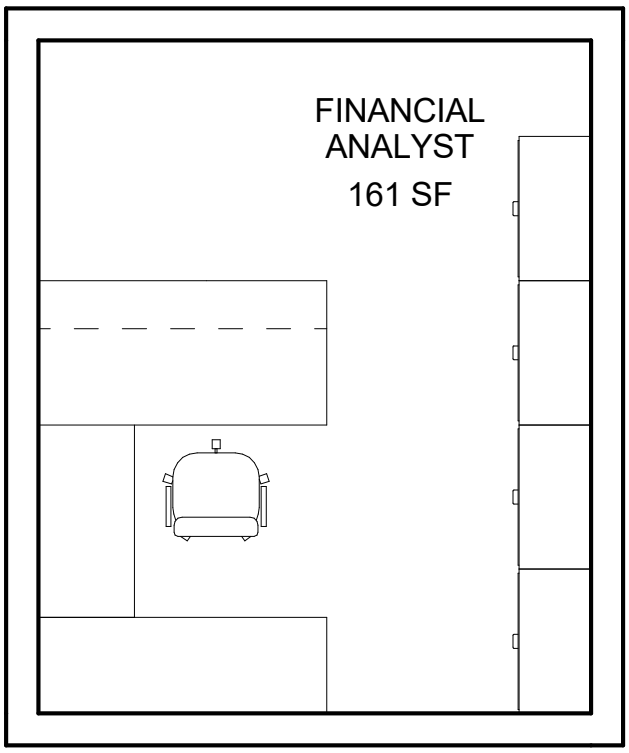
Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc





16041.00

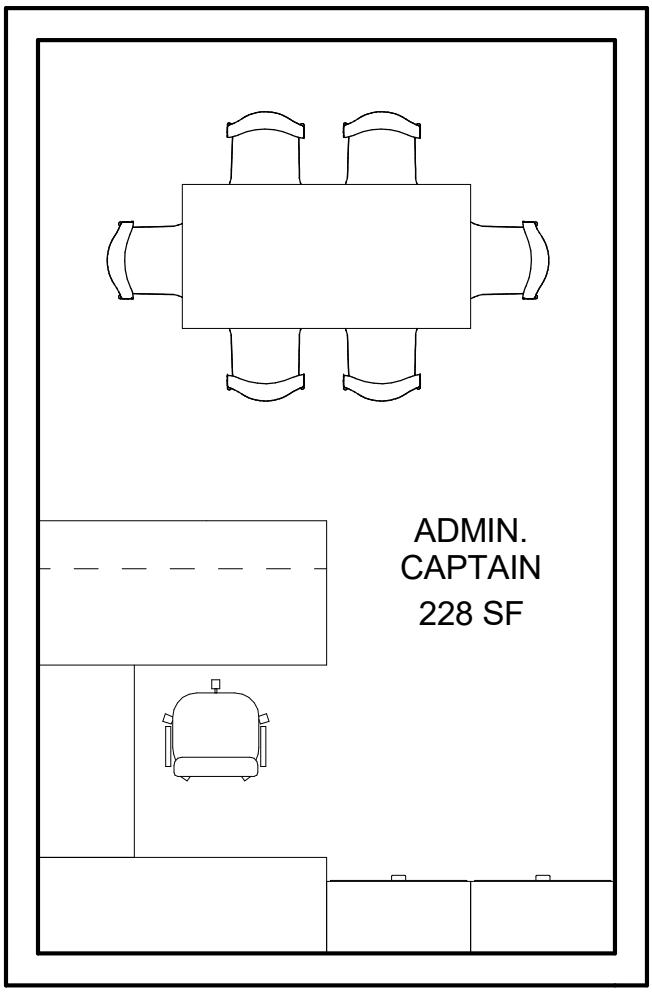
SCALE: 1/4" = 1'-0"

Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc



16041.00

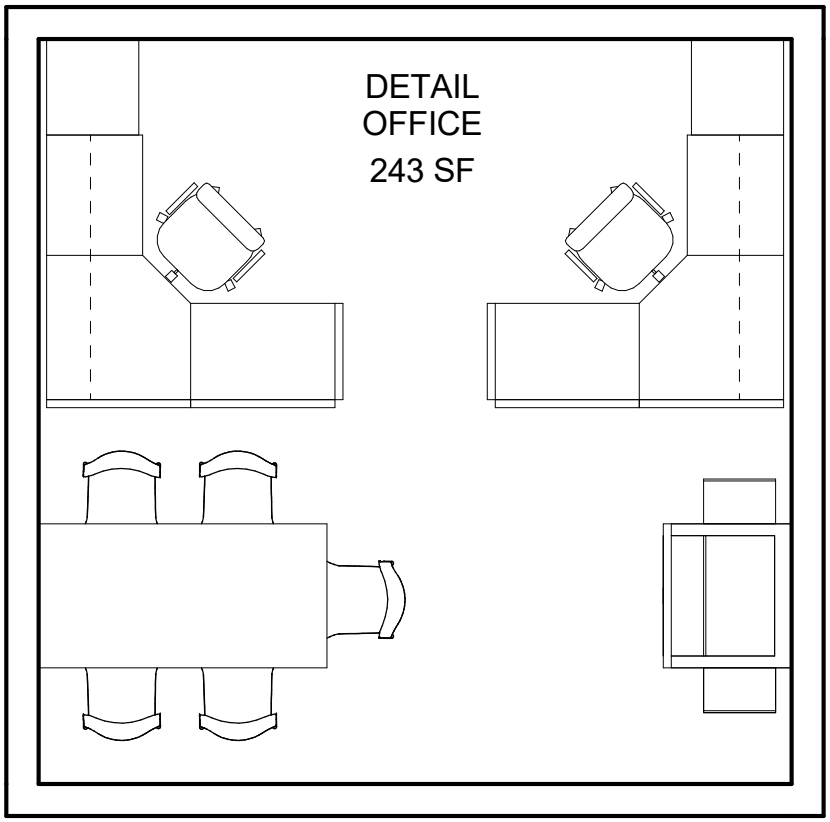
SCALE: 1/4" = 1'-0"

Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc



16041.00

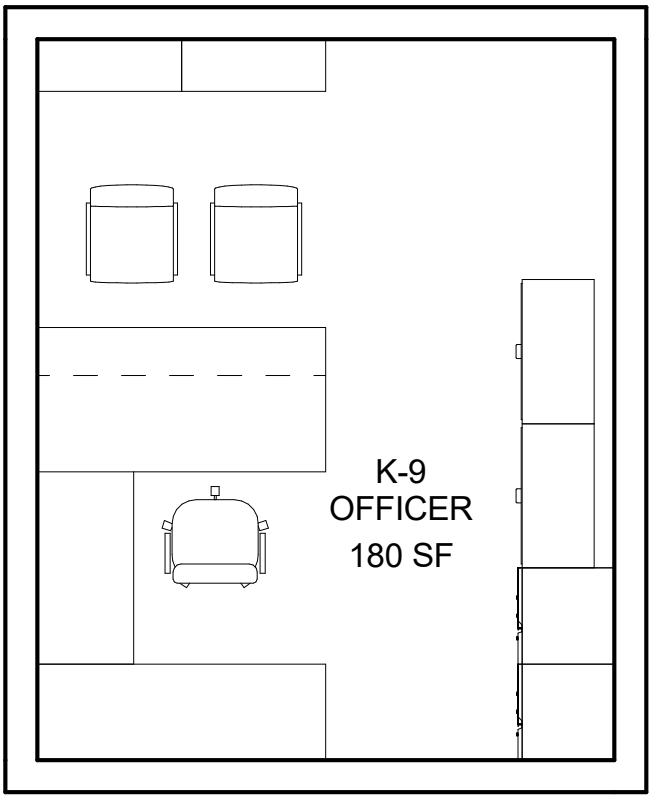
SCALE: 1/4" = 1'-0"

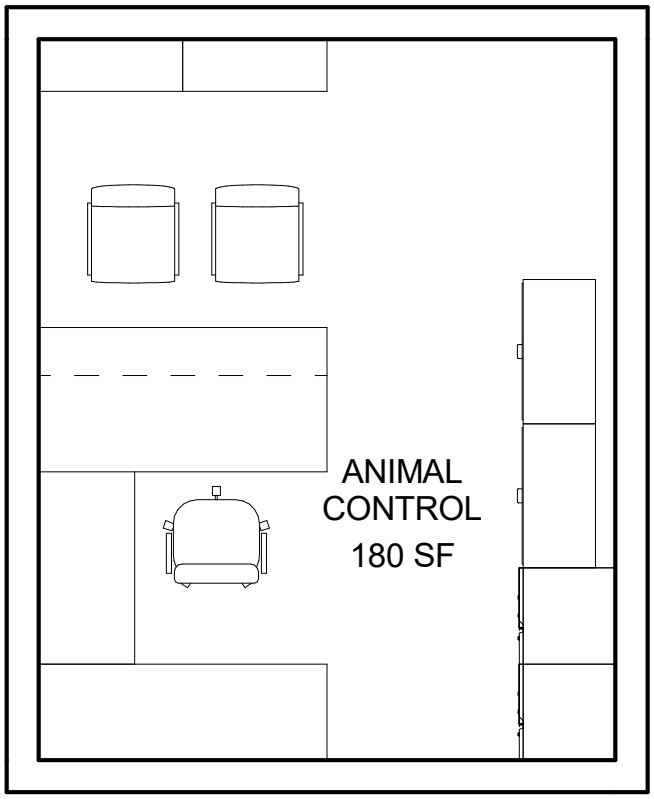
Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc





16041.00

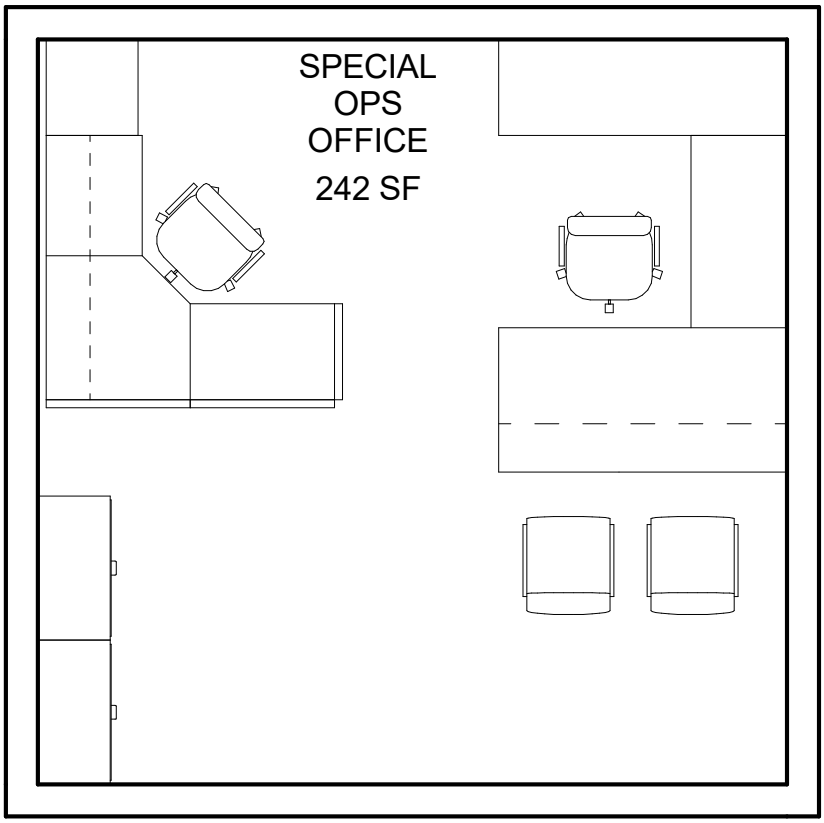
SCALE: 1/4" = 1'-0"

Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc



16041.00

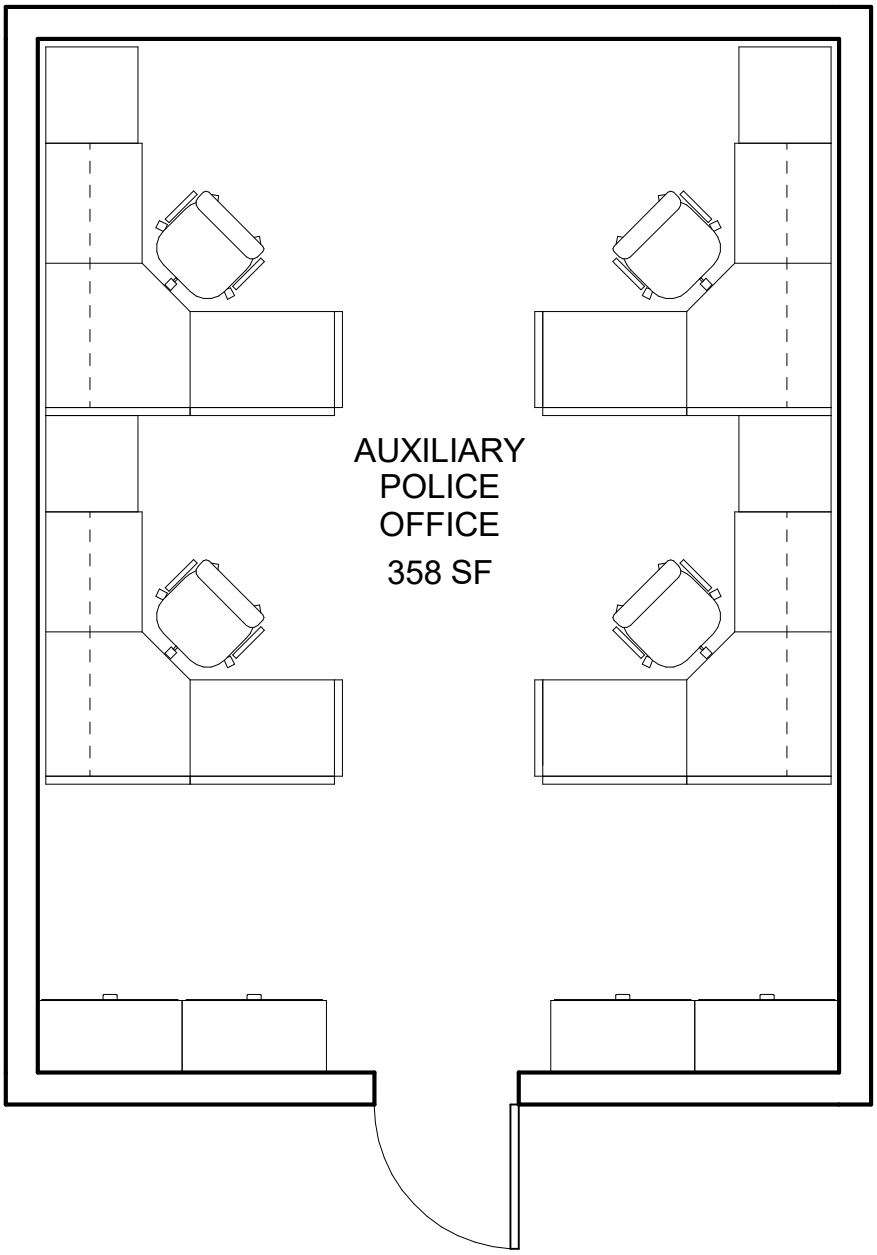
SCALE: 1/4" = 1'-0"

Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc



16041.00

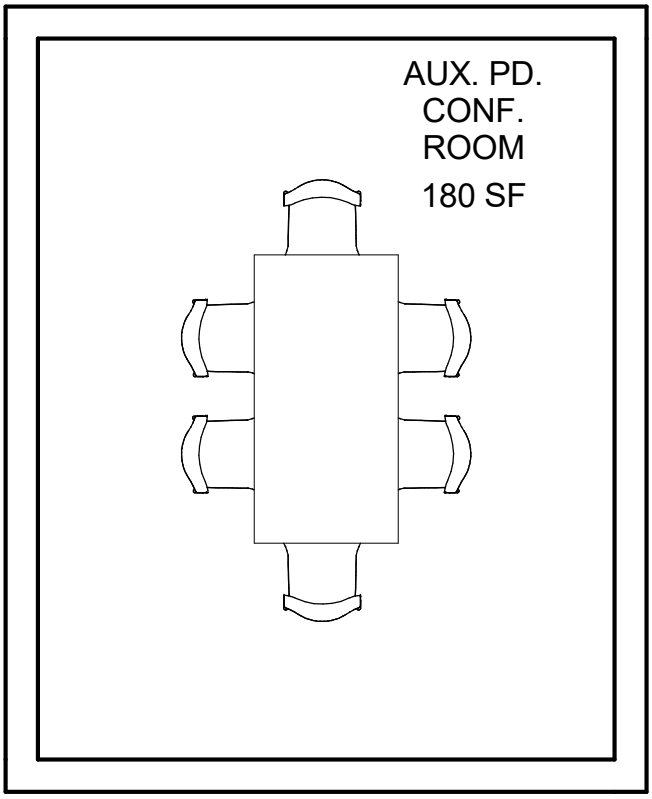
SCALE: 1/4" = 1'-0"

Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc



16041.00

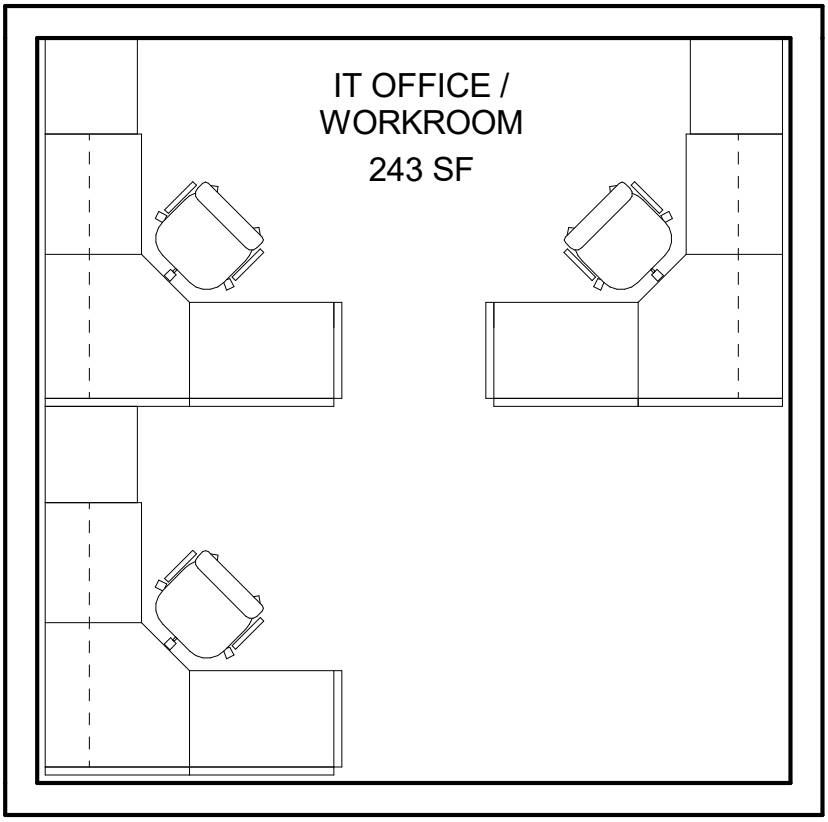
SCALE: 1/4" = 1'-0"

Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc



16041.00

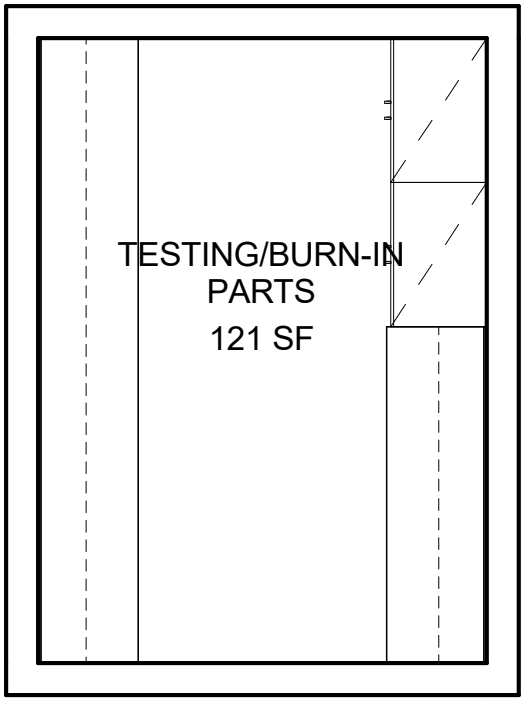
SCALE: 1/4" = 1'-0"

Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc



16041.00

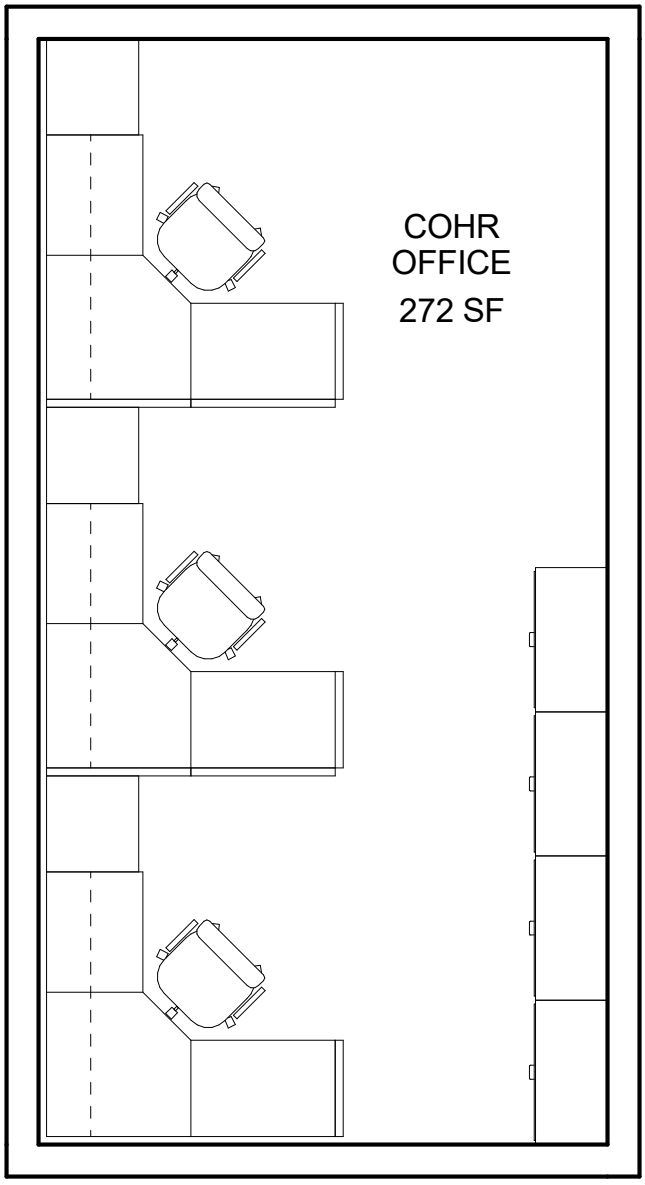
SCALE: 1/4" = 1'-0"

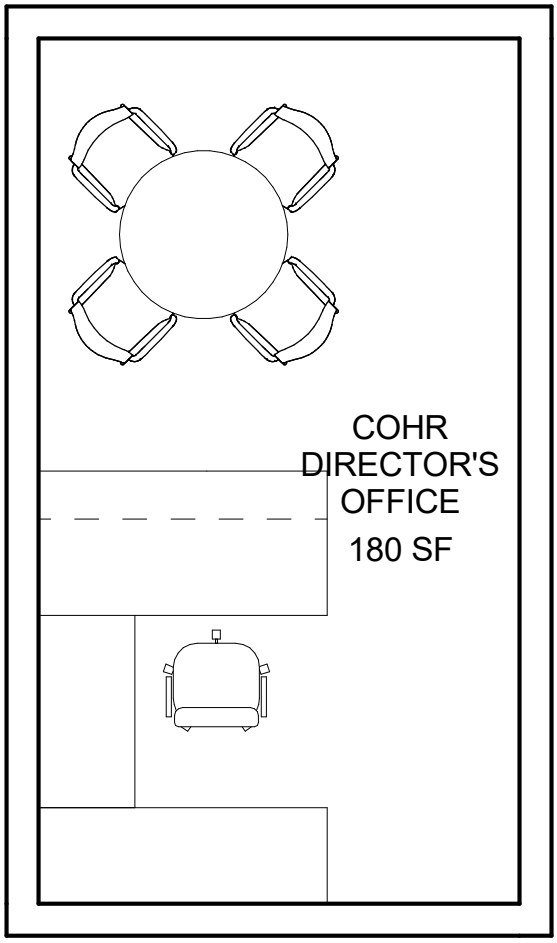
Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc





16041.00

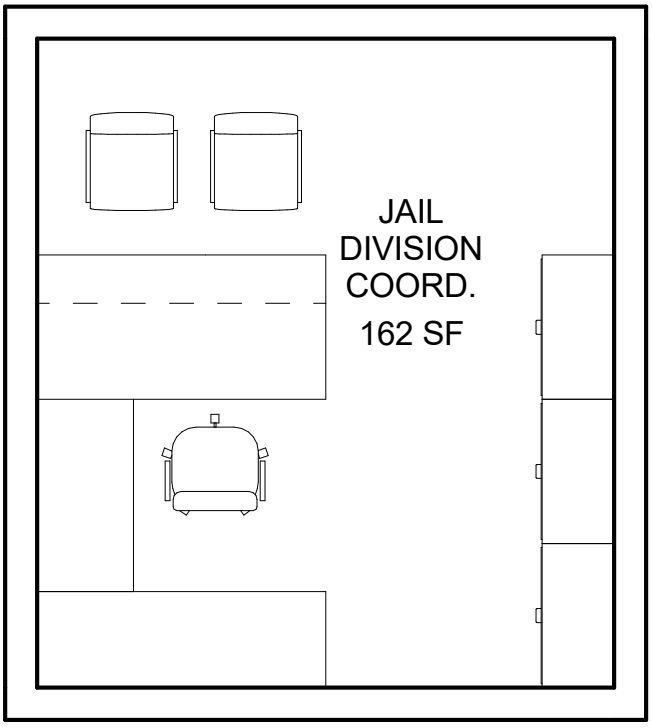
SCALE: 1/4" = 1'-0"

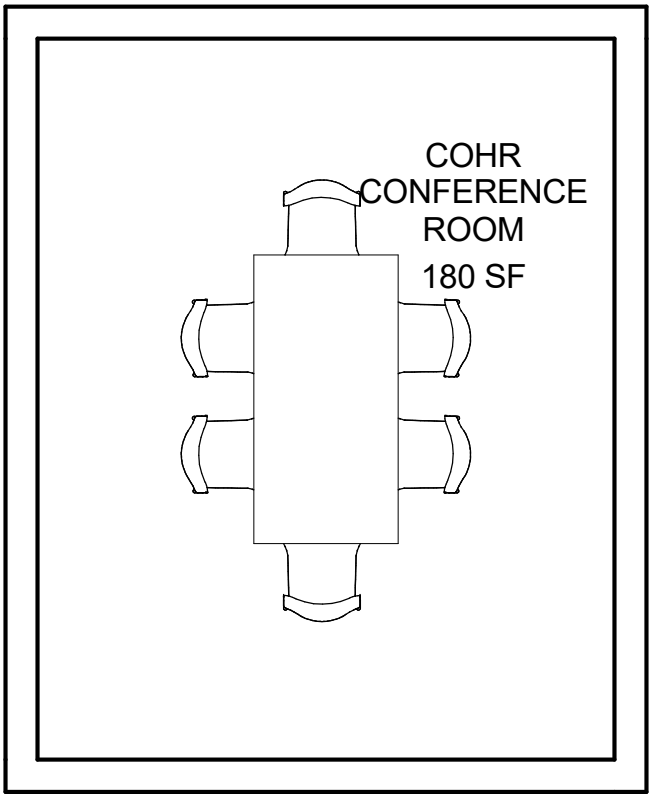
Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc





16041.00

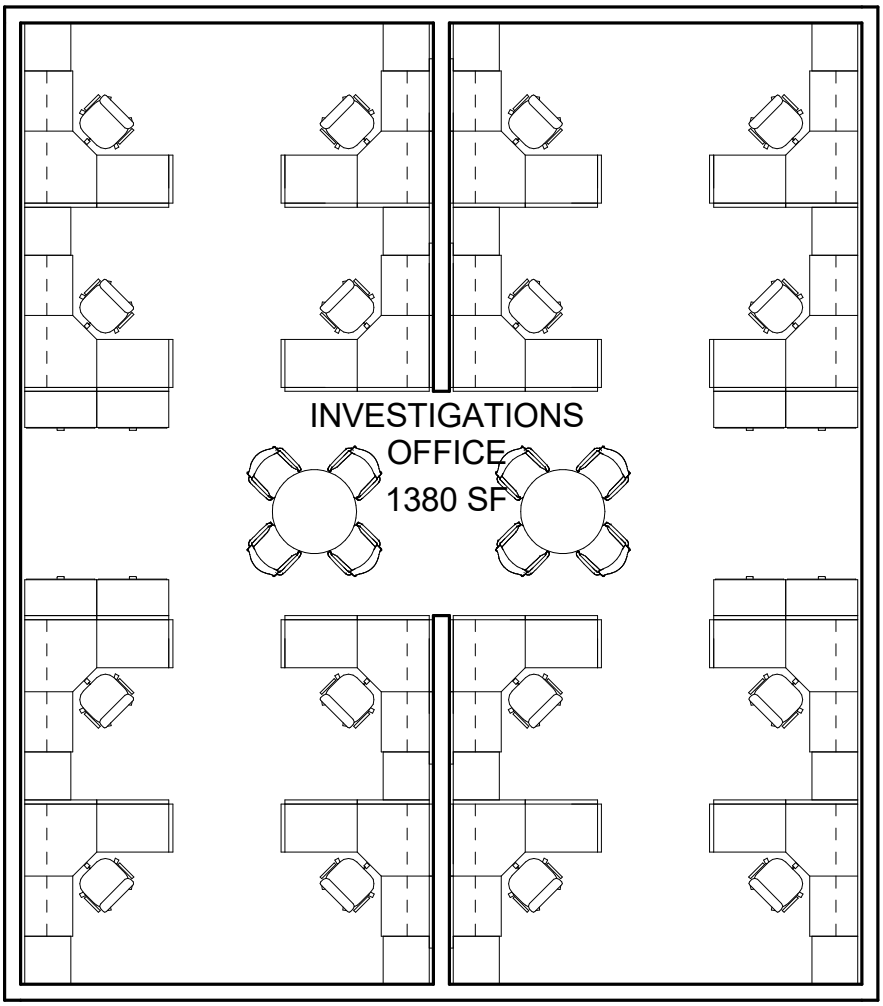
SCALE: 1/4" = 1'-0"

Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc



16041.00

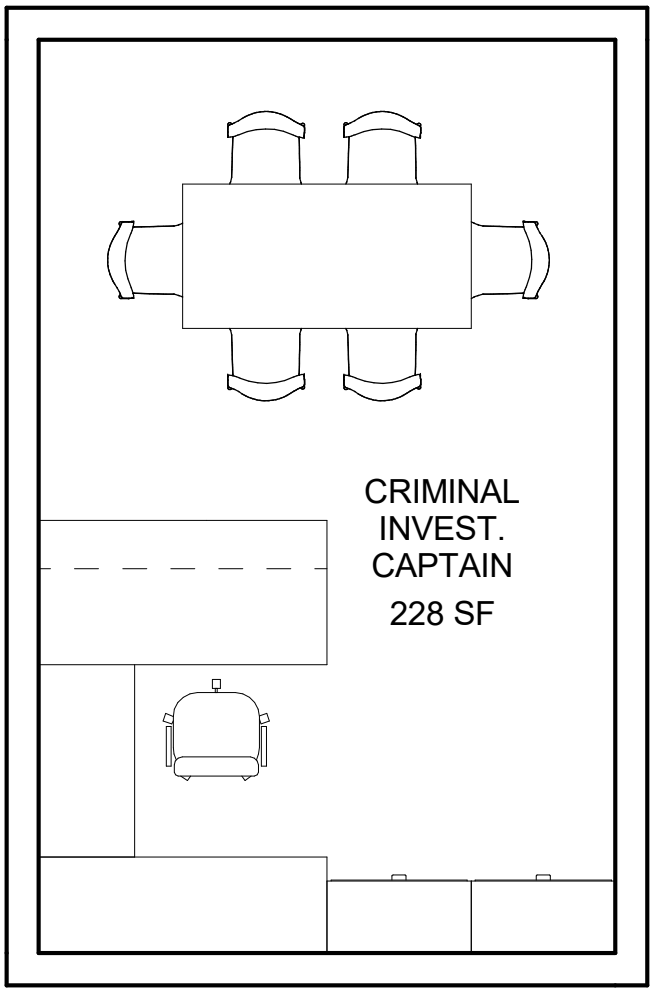
SCALE: 1/8" = 1'-0"

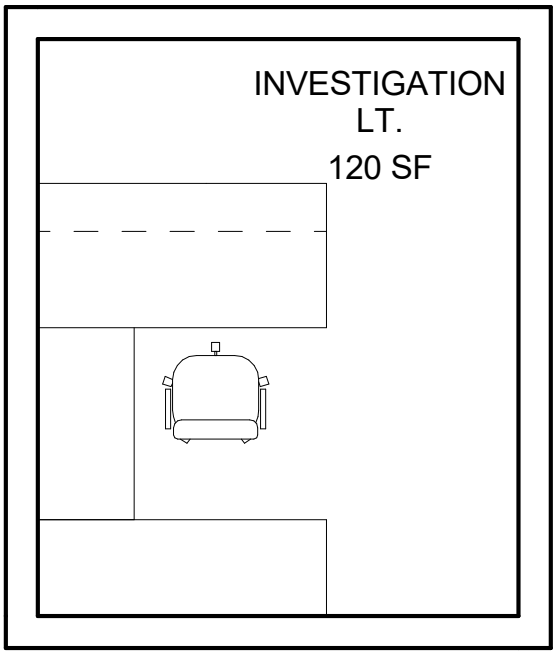
Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc





16041.00

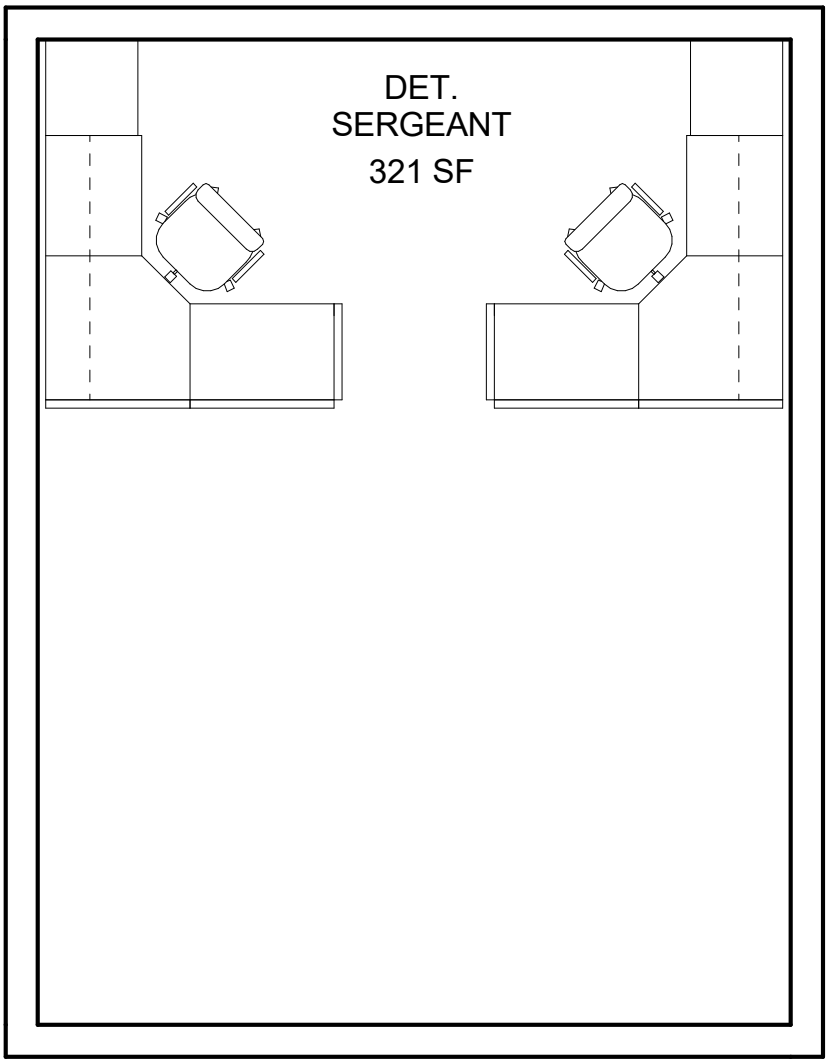
SCALE: 1/4" = 1'-0"

Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc



16041.00

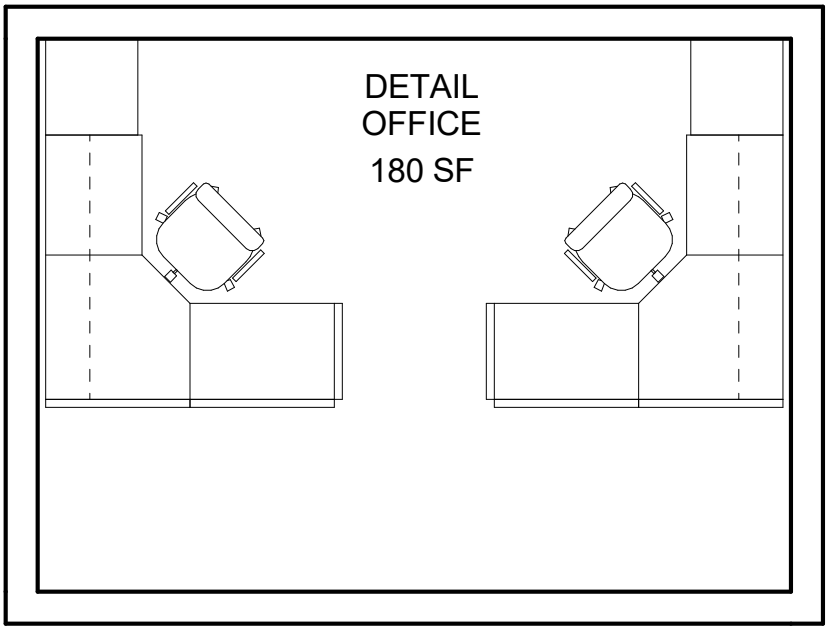
SCALE: 1/4" = 1'-0"

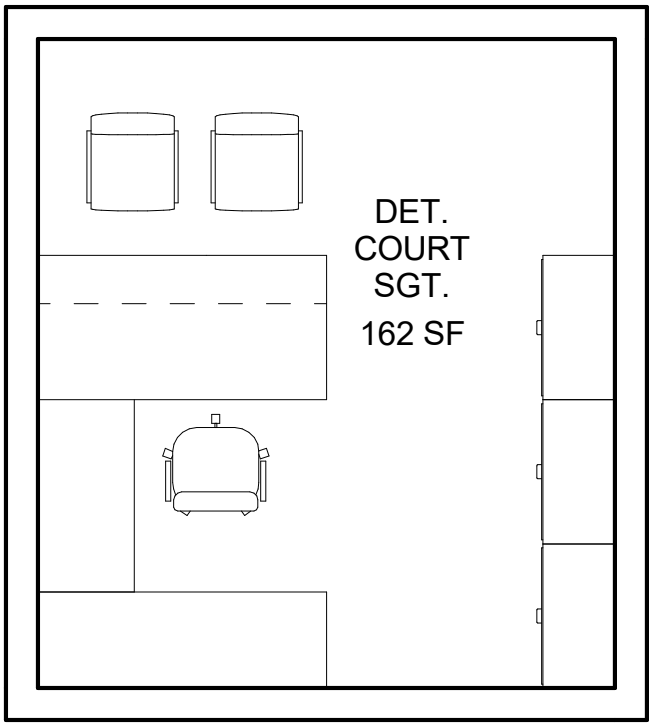
Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc





16041.00

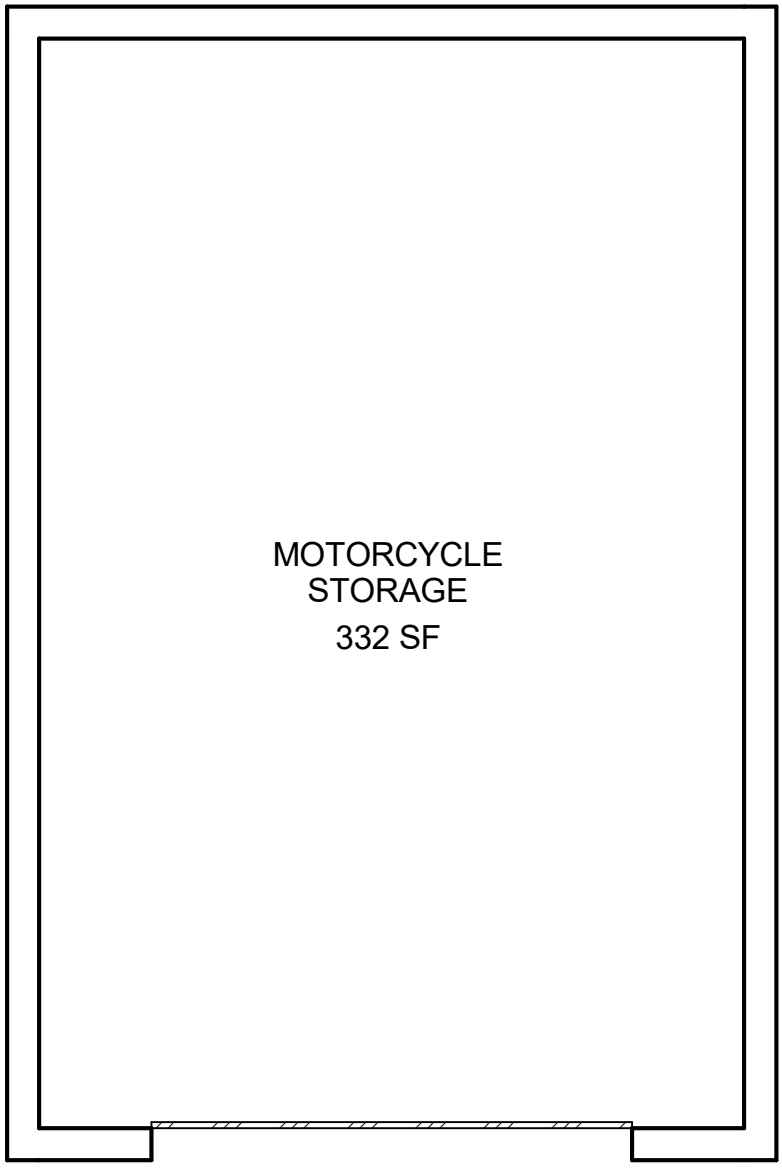
SCALE: 1/4" = 1'-0"

Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc



16041.00

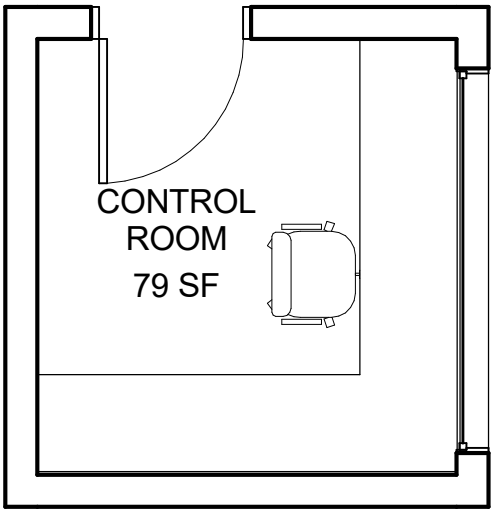
SCALE: 1/4" = 1'-0"

Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc



16041.00

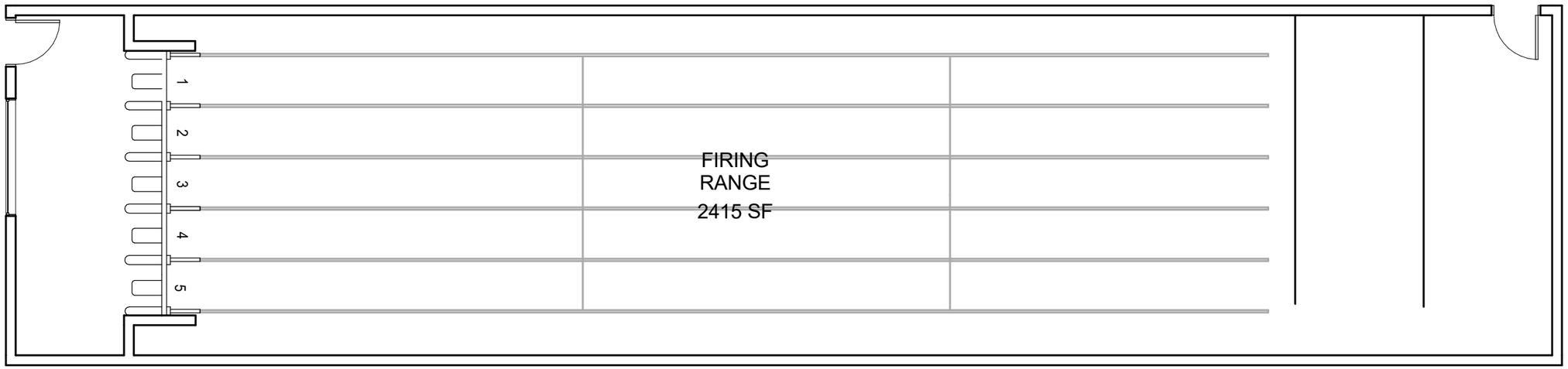
SCALE: 1/4" = 1'-0"

Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc



0' 8' 16' 32' 64'

SCALE: 1/8" = 1'-0"

SCALE: 1/8" = 1'-0"

16041.00

Somerville Police Department

220 Washington Street, Somerville, MA 02143

1/18/2017

KAESTLE BOOS associates, inc

16041.00

WELLNESS
CENTER
1632 SF

16041.00

SCALE: 1/8" = 1'-0"

Somerville Police Department

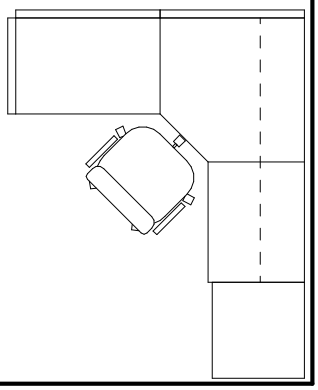
220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc

FATS
TRAINING
ROOM

600 SF



16041.00

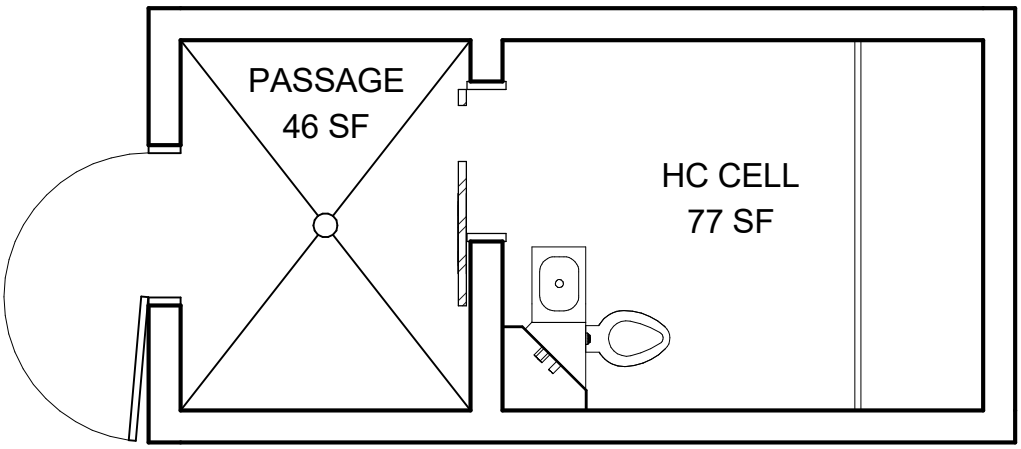
SCALE: 1/4" = 1'-0"

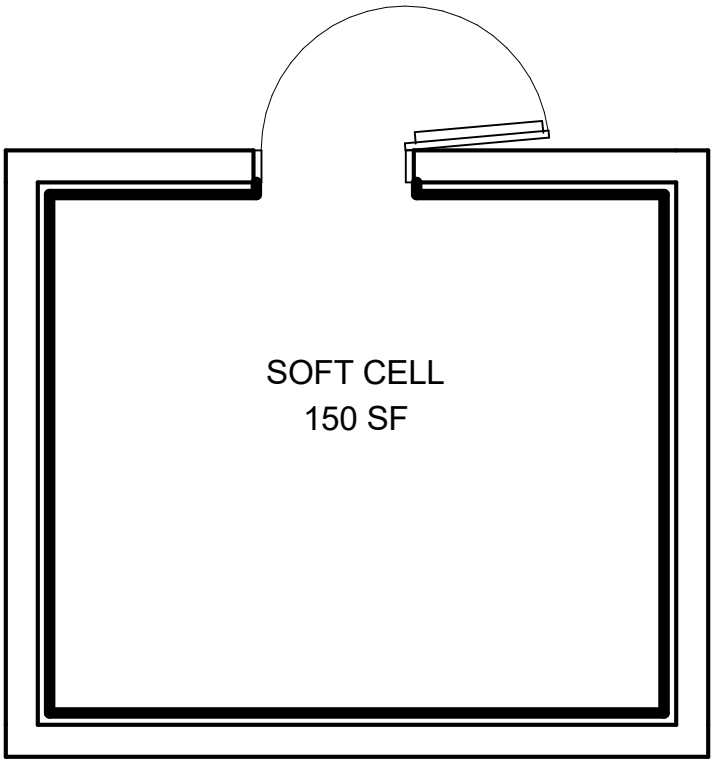
Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc





16041.00

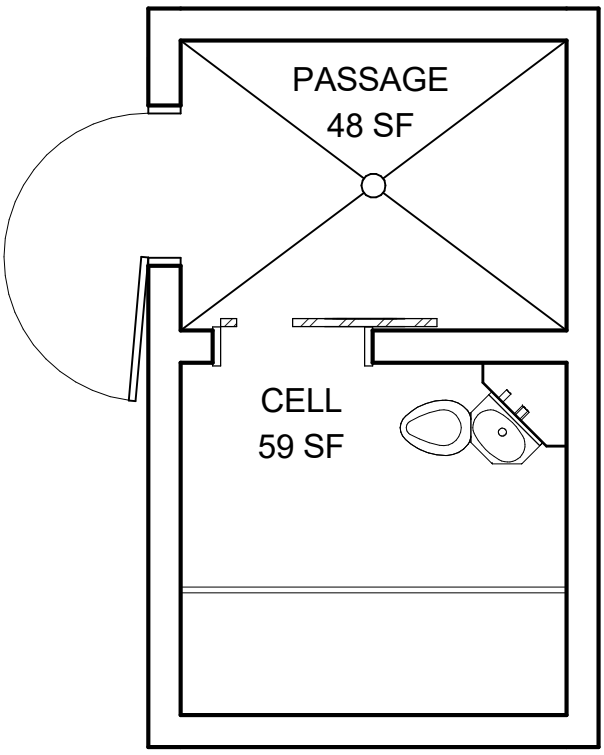
SCALE: 1/4" = 1'-0"

Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc



16041.00

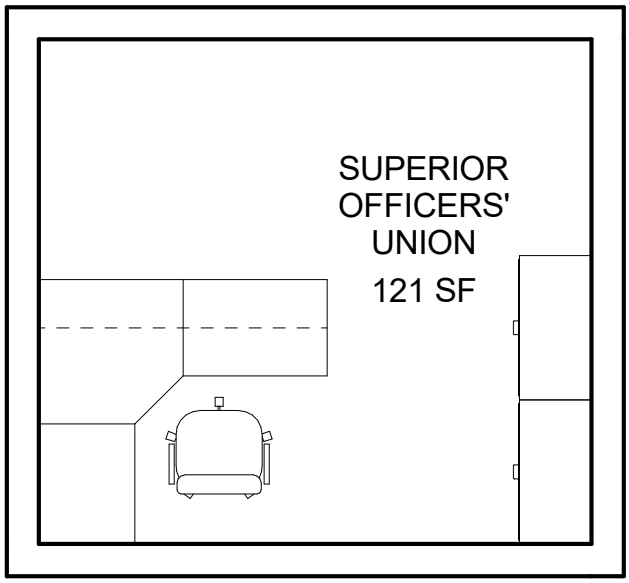
SCALE: 1/4" = 1'-0"

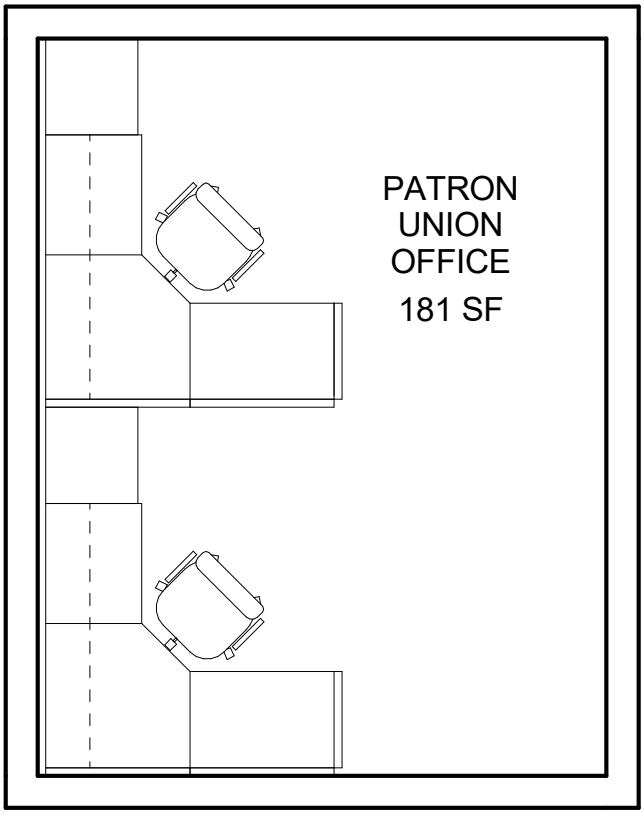
Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc





16041.00

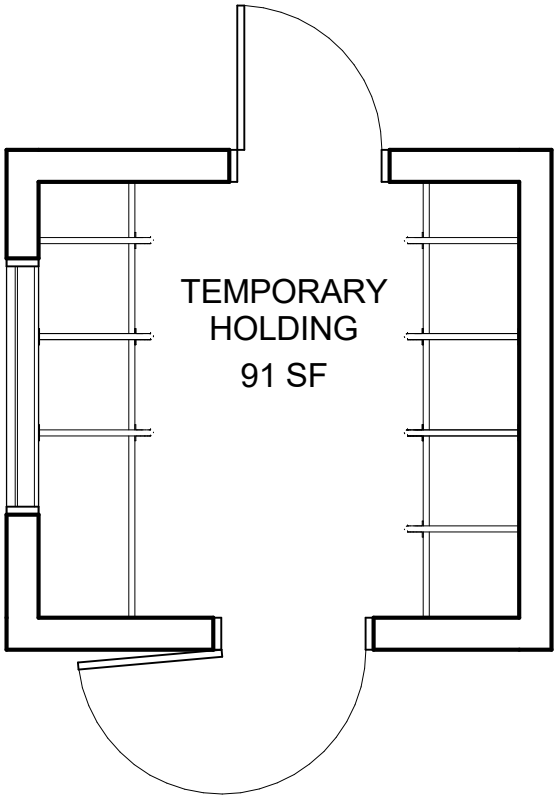
SCALE: 1/4" = 1'-0"

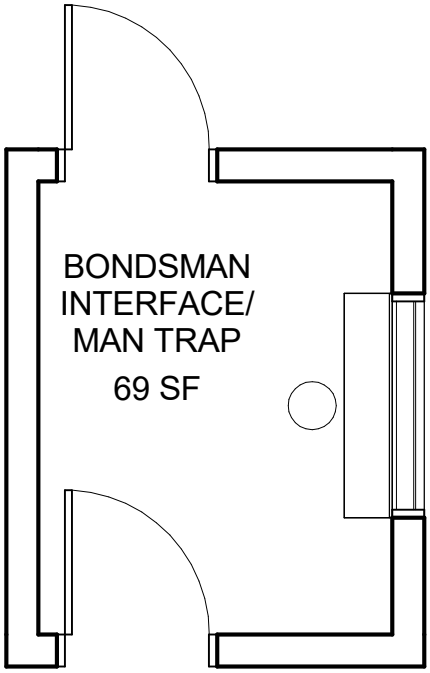
Somerville Police Department

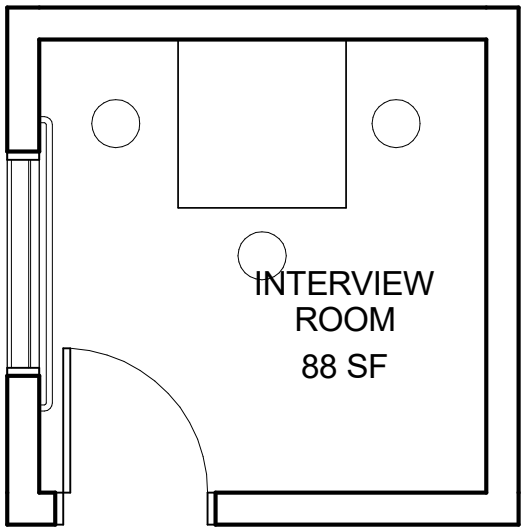
220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc







16041.00

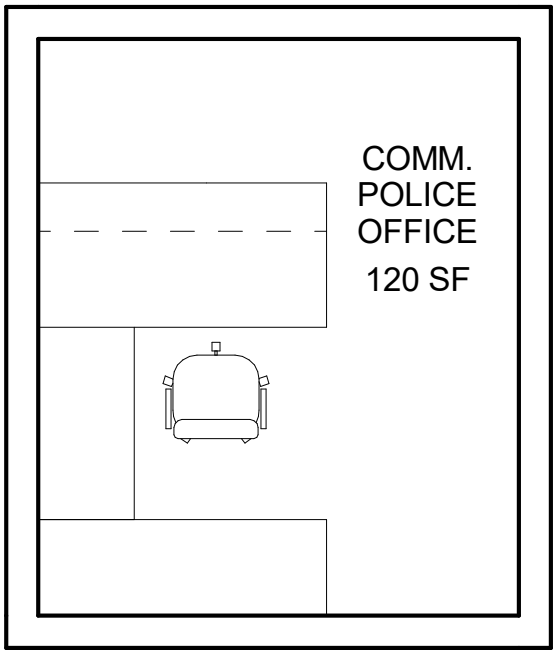
SCALE: 1/4" = 1'-0"

Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc



16041.00

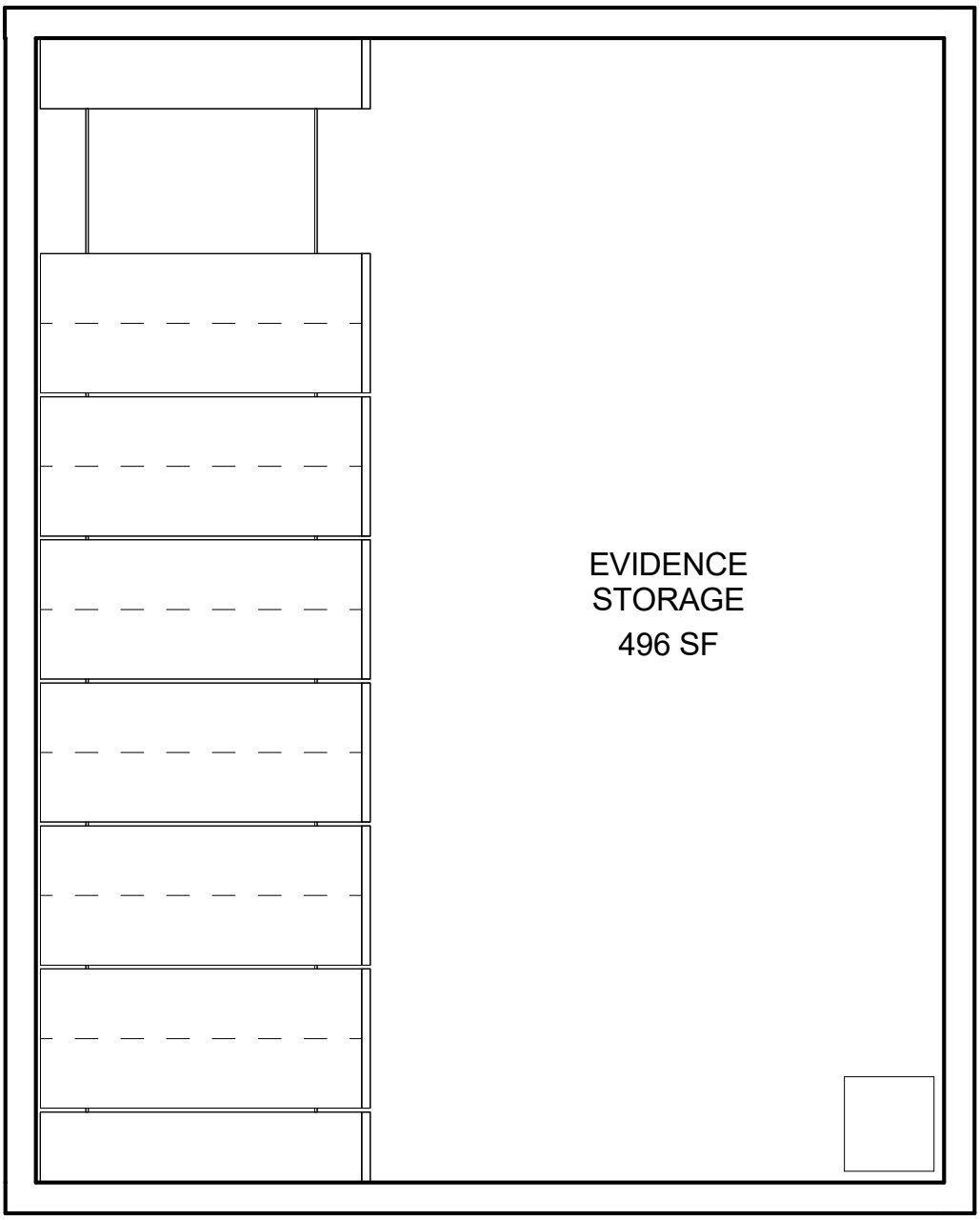
SCALE: 1/4" = 1'-0"

Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc



16041.00

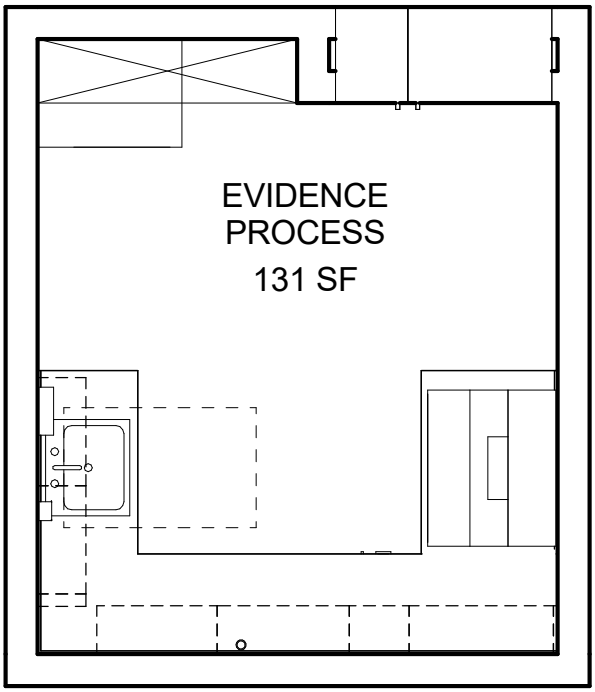
SCALE: 1/4" = 1'-0"

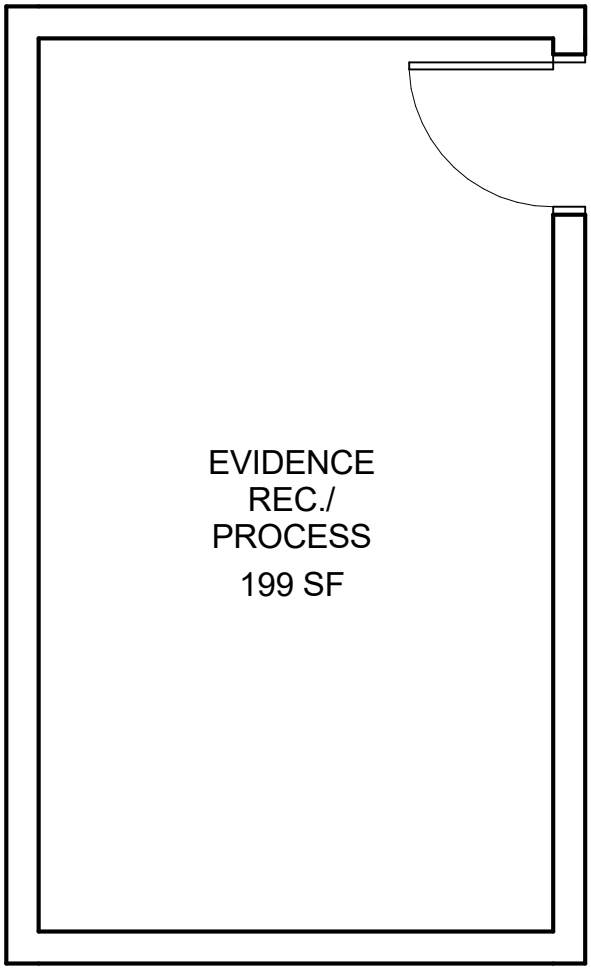
Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc





16041.00

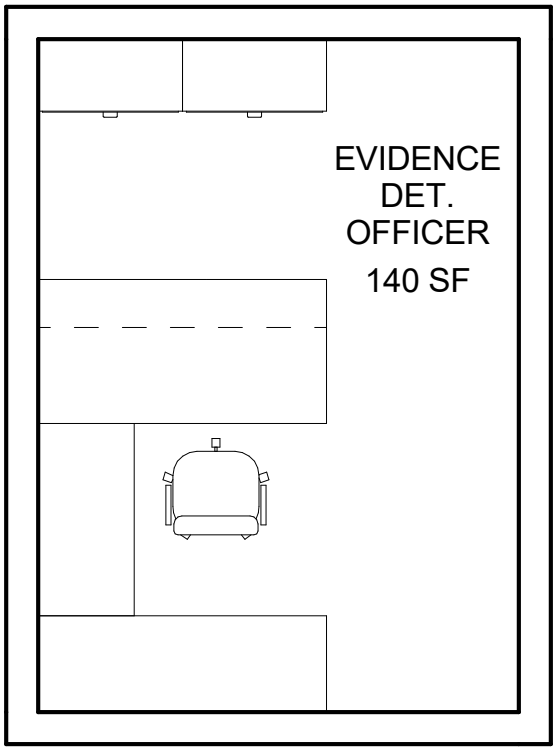
SCALE: 1/4" = 1'-0"

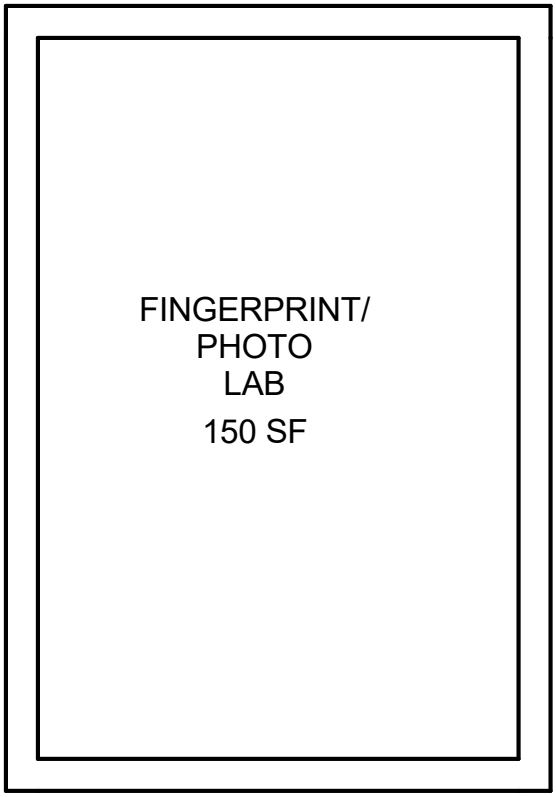
Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc





16041.00

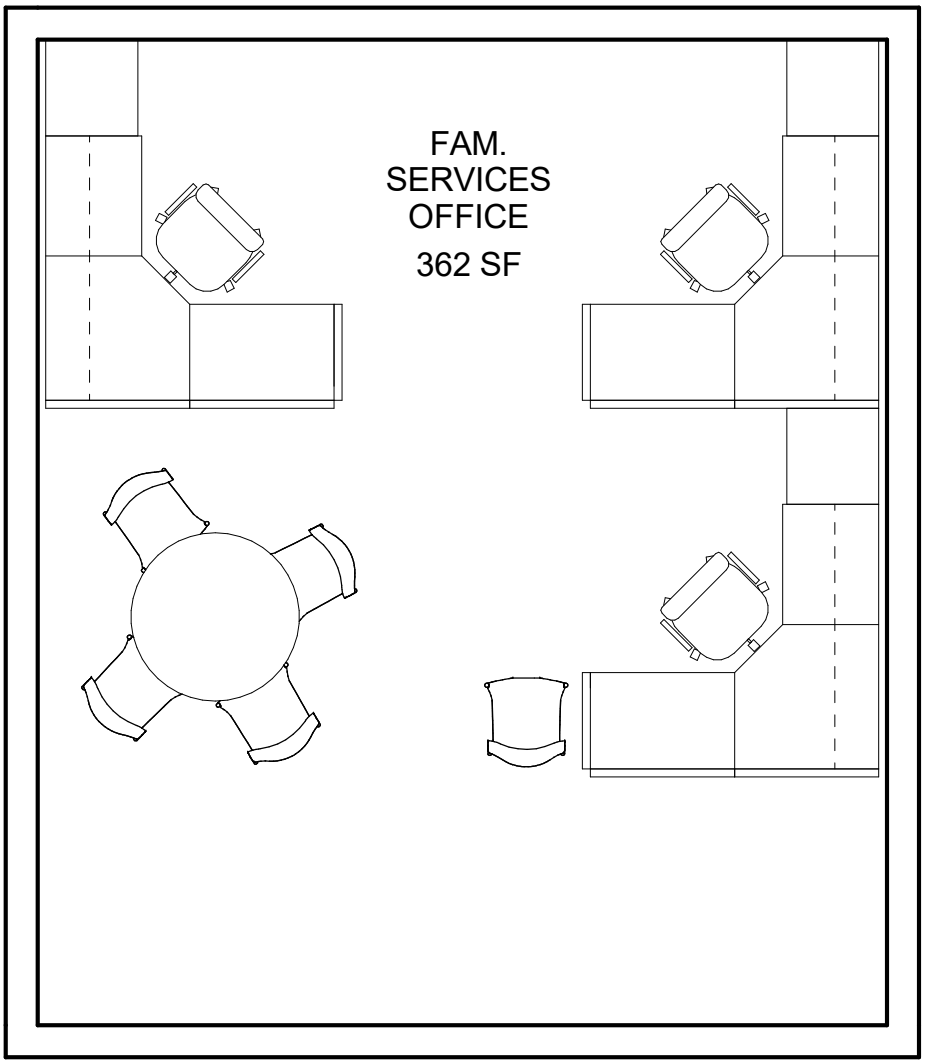
SCALE: 1/4" = 1'-0"

Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc



16041.00

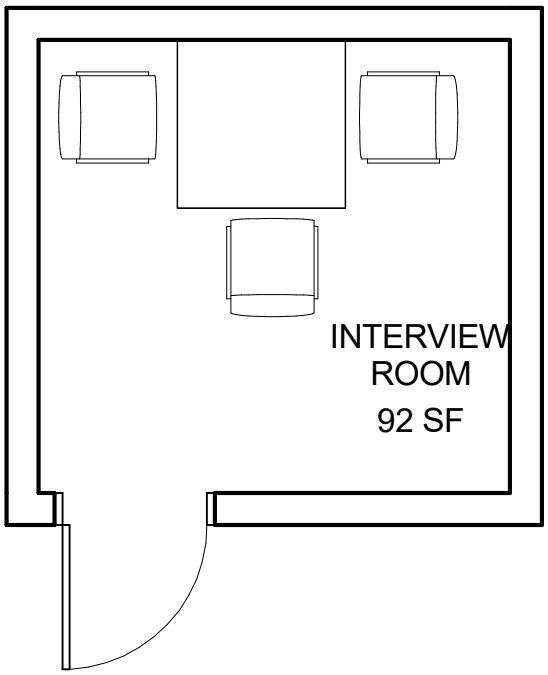
SCALE: 1/4" = 1'-0"

Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc



16041.00

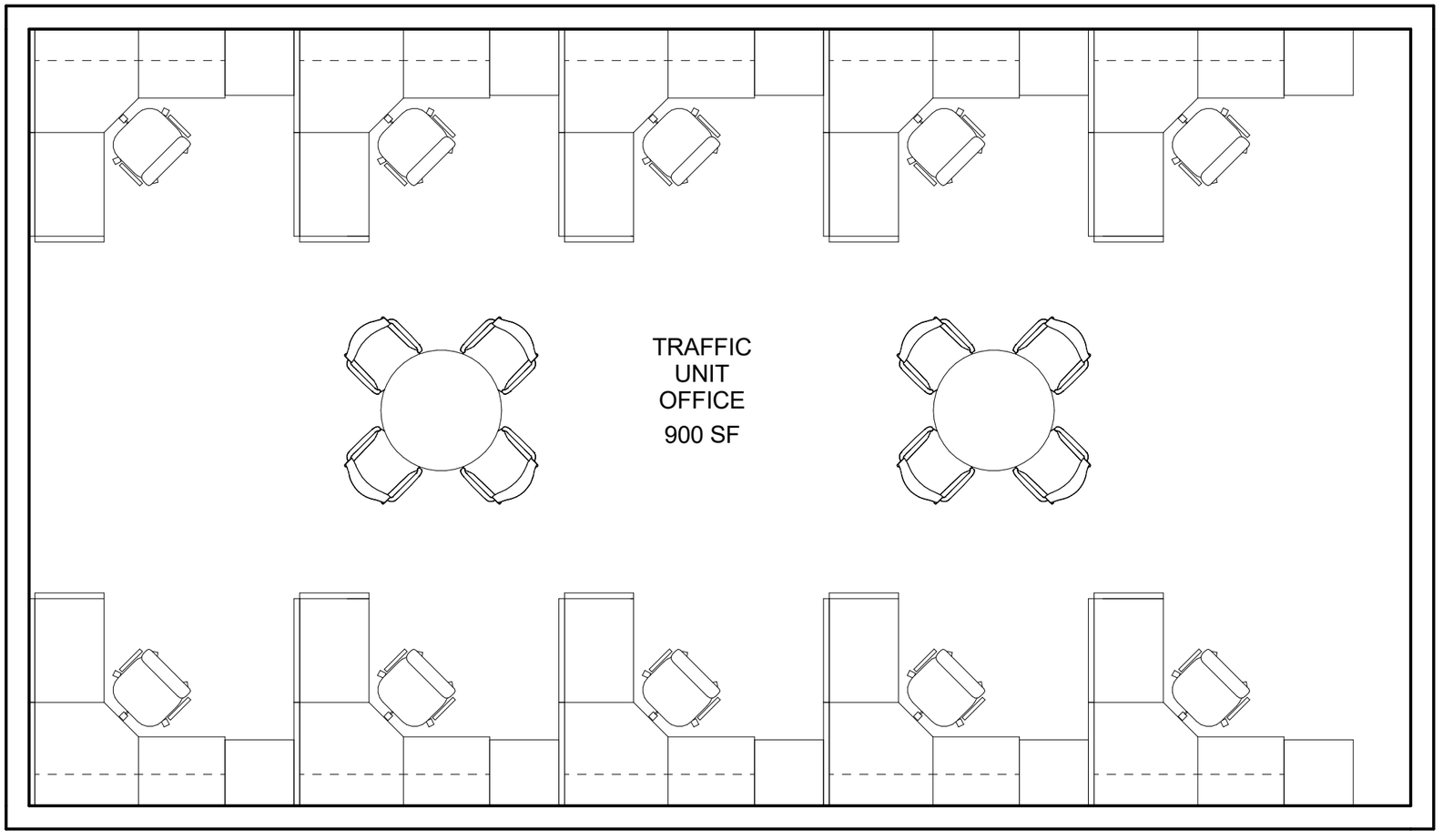
SCALE: 1/4" = 1'-0"

Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc



0' 8' 16' 32' 64'

SCALE: 1/4" = 1'-0"

16041.00

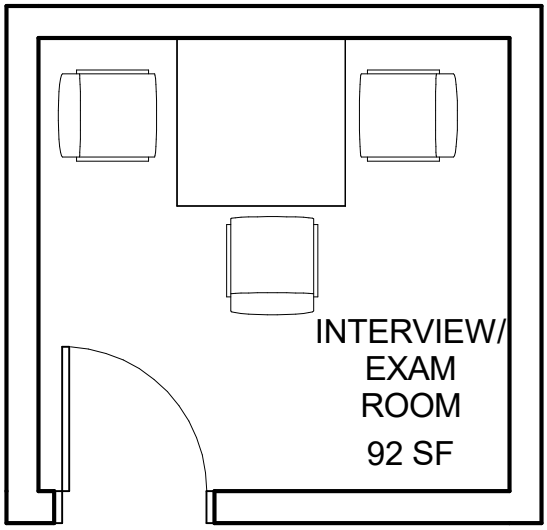
Somerville Police Department

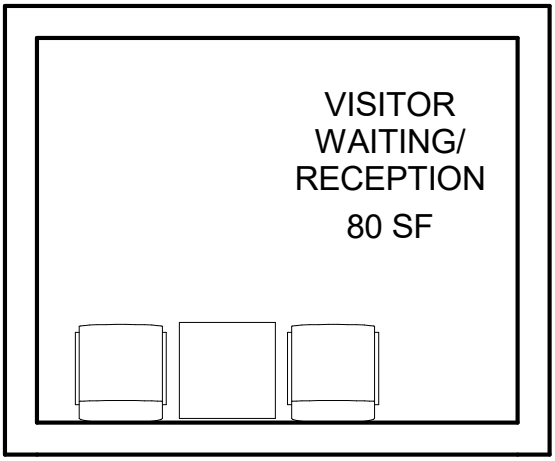
220 Washington Street, Somerville, MA 02143

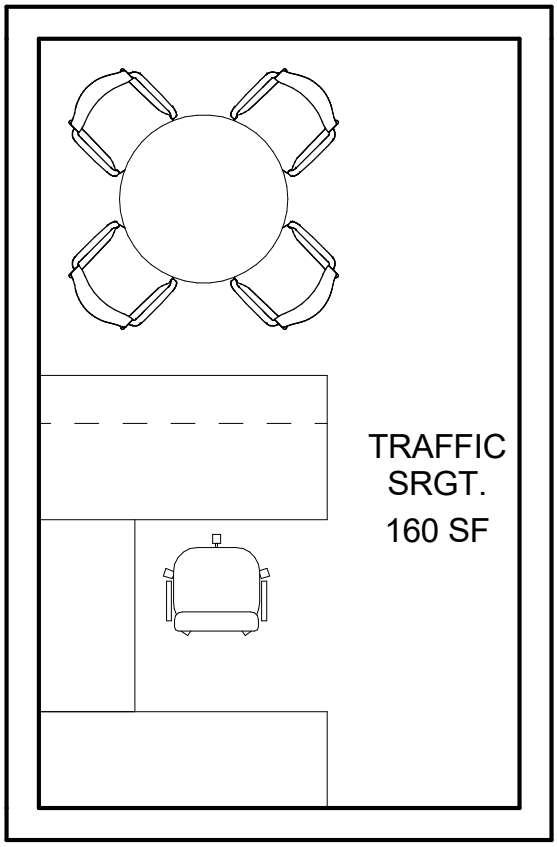
1/18/2017

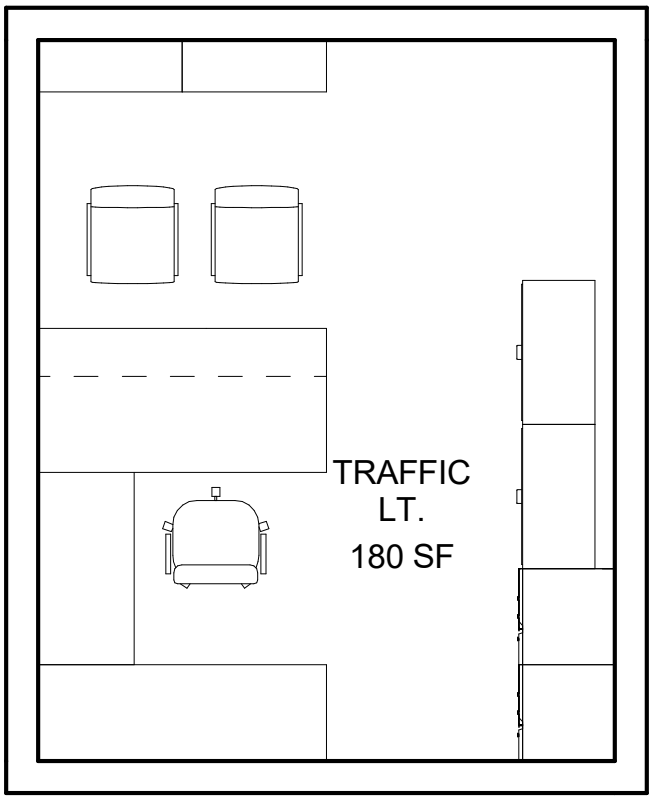
KAESTLE BOOS associates, inc

16041.00









16041.00

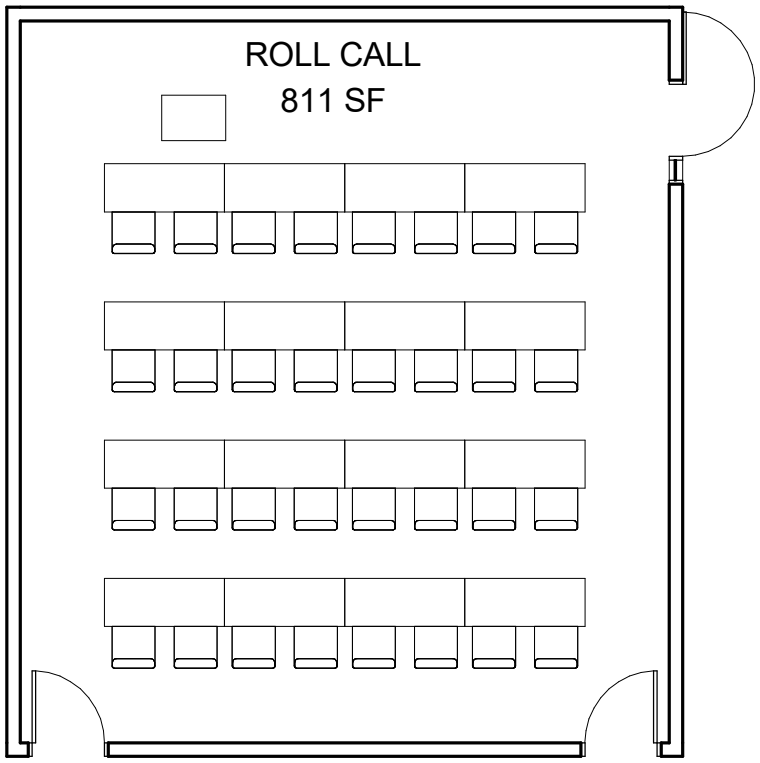
SCALE: 1/4" = 1'-0"

Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc



16041.00

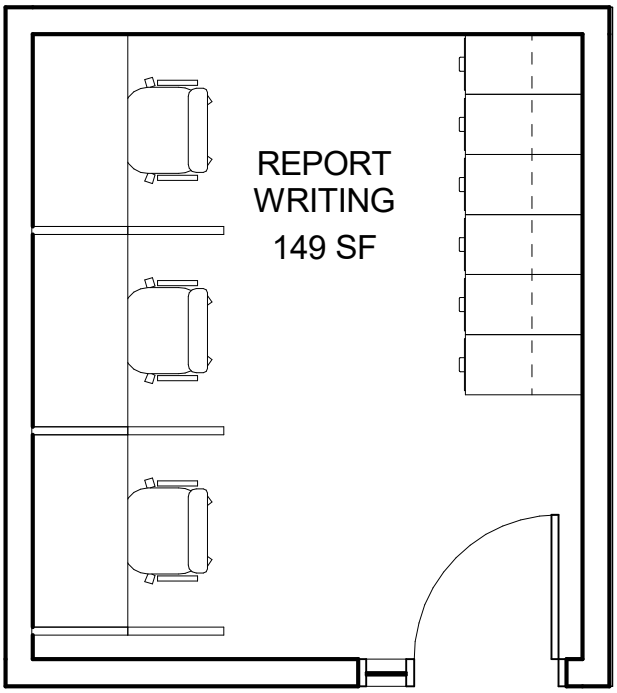
SCALE: 1/8" = 1'-0"

Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc



16041.00

SCALE: 1/4" = 1'-0"

Somerville Police Department

220 Washington Street, Somerville,
MA 02143

1/18/2017

KAESTLE BOOS
associates, inc

APPENDIX B

Site Selection Analysis Materials

City of Somerville

Police Headquarters Feasibility Study

Site Investigation: General Site Information

June 15, 2018

Site Info

Site No.	Lot # (s)	Site Address	Proposed for:	Assessment	Lot Size (Acres)	Usable Site Size (Acres)	Ownership	Receptor	Env. Risk 1-5 (low-high)	Zone	Use Allowed by Zoning	FAR	Max Story	Setbacks			Min Planted Area	Max Lot Coverage	Max Bldg Footprint	Max Bldg SF	Comments
														Front	Sides	Rear					
1	106-A-4	17 Inner Belt Road	Police HQ	$1,688,300	0.79	0.63	Private	None	2	BB	Special Permit Site Plan Review	2.0	50 ft	15 ft	0 ft	18 ft	10%	80%	27,530	68,825	
2	115-B-6, 7, 9, 10	17 McGrath Highway	Police HQ and Fire Engine 3	$3,870,100	1.12	0.89	Private	None	3	IA	Special Permit Site Plan Review	2.0	50 ft*	0 ft	0 ft	18 ft	10%	80%	38,910	97,276	
3	94-D-13, 14, 15, 16	185 Somerville Ave	Police HQ and Fire Engine 3	$1,906,800	0.94	0.75	Private	None	2	CCD55 Arts Overlay	Special Permit Site Plan Review	3.0	55 ft*	0 ft	0 ft	0 ft	10%	80%	32,788	122,955	
4	2-A-32	501 Mystic Valley Parkway	Police HQ	$1,021,400	0.92	0.46	Private	None	1	RA	Special Permit Site Plan Review	0.75	2.5	15 ft	8 ft	20 ft	25%	50%	20,038	30,056	
5	45-B-22	526 Somerville Ave	Police HQ	$1,810,400	0.78	0.62	Private	None	3	BA	Special Permit Site Plan Review	2.0	4	0 ft	0 ft	18 ft	10%	80%	21,745	67,954	
6	106-A-6	90 Washington ST	Police HQ and Fire Engine 3	$4,671,900	3.99	3.19	Private	Tier II Site	3	BB	Special Permit Site Plan Review	2.0	50 ft*	15 ft	0 ft	16 ft	10%	80%	111,235	347,609	

City of Somerville **June 15, 2018**

Police Headquarters Feasibility Study

Site Investigation: Site Scoring Matrix

Site 1	17 Inner Belt Road
Site 2	17 McGrath Highway*
Site 3	185 Somerville Ave*
Site 4	501 Mystic Valley Parkway
Site 5	526 Somerville Ave
Site 6	90 Washington St*

** Site with both Police and FD Engine 3*

Site Rankings		**1**	**2**	**3**	**4**	**5**	**6**
Criteria	**Factors**	Site 6* **Score**	Site 2* **Score**	Site 3* **Score**	Site 4 **Score**	Site 5 **Score**	Site 1 **Score**
1. Location (15 points)	Fire Response Time (5 = >90% 5 min Response; 1 = <25% 5 min Response) *(Based on City data)*	5	4	5	5 *See note 1*	5 *See note 1*	5 *See note 1*
	Community Visibility/Connection (5 = Highly Visible/Connected; 1 = Disconnected)	4	4	4	3	4	2
	Site Access (5 = Good Access 1 = Poor Access)	4	4	1	1	2	2
2. Physical Features (15 points)	Size of Usable Site (5 = Greater than 1.0 acre; 0 = Less than 0.5 acres)	5	4	3	3	2	2
	Shape of Site (5 = Favorable Shape; 0 = Restrictive Shape/Size)	3	4	2	4	2	2
	Fit Engine 3? (5 = Engine 3 fits; 0 = Engine 3 Does Not Fit)	5	5	5	0	0	0
3. Zoning Consistency (10 points)	Proximity to Residential District (5 = Good Separation; 0 = Within Residential Area)	4	5	4	2	4	4
	Allowed Area Coverage (5 = Not Restrictive 1 = Restrictive)	5	5	5	2	3	4
4. Environmental Impacts (10 points)	Presence of Receptors (5 = No Receptors 0 = Significant Receptors)	2	4	4	4	4	4
	Hazardous Materials Issues (5 = No Evidence; 0 = Known Contamination	2	3	4	4	4	4
5. Infrastructure (5 points)	Availability of Utilities (5 = Utilities Available; 0 = Major Extensions Req'd)	5	5	5	5	5	5
6. Permitting (5 points)	Permit Requirements (5 = Bldg. Permit only 1 = Variance Req'd)	2	2	2	2	2	2
7. Traffic Impacts (5 points)	Traffic Impacts (5 = No Impact 1 = Significant Impact)	3	3	4	4	2	3
8. Cost of Development (20 points)	Existing Structures (5 = Clear Site; 1 = Heavily Developed Site)	2	1	2	3	2	2
	Existing Tenants/Owners (10 = No Existing Tenants/1 owner; 1 = Many Tenants/Businesses/Multiple Owners)	8	4	4	10	8	6
	Site Assessment Cost (5 = Low $; 1 = High $) *(Based on MA GIS land and bldg assessed values/acre)*	4	1	3	4	3	3
Total Raw Score (out of 85 total possible points)		63	58	57	56	52	50
Total Percentage Score		**74%**	**68%**	**67%**	**66%**	**61%**	**59%**

Note 1: Sites that do not fit Engine 3 have been ranked for Fire Response Time based on existing location of Engine 3 - However, it is understood that future development in this area may have a negative impact on future response times if Engine 3 remains at its current location.

City of Somerville **June 15, 2018**

Police Headquarters Feasibility Study

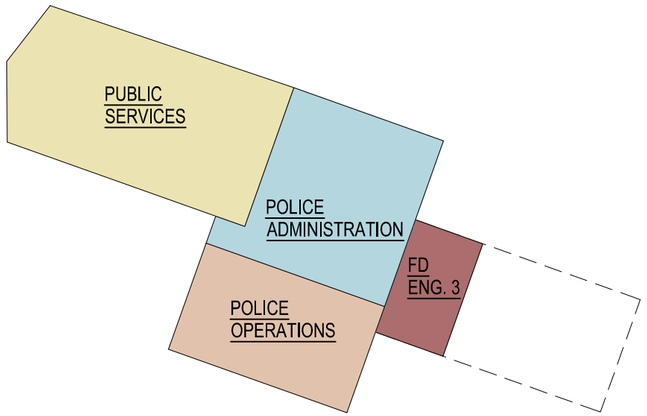
Site Investigation: Site Scoring Narratives

** Site with both Police and FD Engine 3*

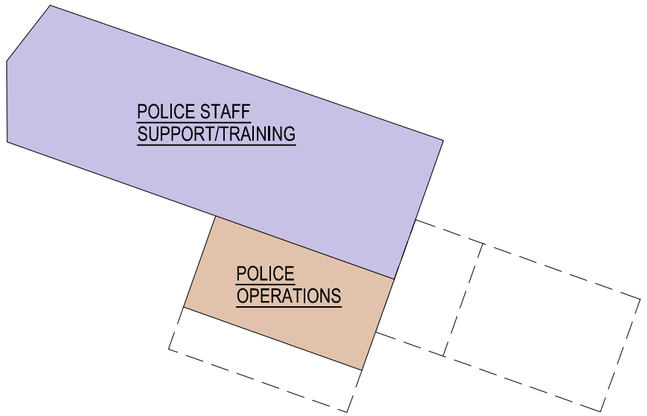
Site Rankings	**1**	**2**	**3**	**4**	**5**	**6**
Criteria	Site 6* **90 Washington Street**	Site 2* **17 McGrath Highway**	Site 3* **185 Somerville Ave**	Site 4 **501 Mystic Valley Parkway**	Site 5 **526 Somerville Ave**	Site 1 **17 Inner Belt Road**
1. Location	13 out of 15	12 out of 15	10 out of 15	9 out of 15	11 out of 15	9 out 15
(15 points)	Fire response time is good at 92% less than 5 minute response time. Site has good orientation for visibility and connection to Washington Street - Site has prominent corner for public "face" of building. Site access is good due to adjacency to Washington Street and New Washington St.	Fire response time is adequate at 88% less than 5 minutes. Site has adequate orientation for public visibility, but less than desirable connection to community due to adjacency to McGrath Hwy. Site access is adequate, but only access on McGrath Hwy and may require new traffic light for emergency response access.	Fire response time is good at 98% less than 5 minute response time. Site allows for prominent locations, but elevated McGrath Hwy adjacent cuts site off from east. While the site is adjacent to multiple roads, access is limited due to the constraints of the site size and shape. Access along McGrath Highway ramp is one-way.	Fire response time based on existing location in Union Square - 98% less than 5 minutes. It is anticipated that future development may have negative effect on response time. Community visibility is adequate, but limited by the shape and orientation of the lot. Site access is limited to Mystic Valley Parkway. The shape of the site is narrow against Mystic Pkwy which further limits access	Fire response time based on existing location in Union Square - 98% less than 5 minutes. It is anticipated that future development may have negative effect on response time. Community visibility and connection is good along Somerville Ave. Site access is limited due to the narrow frontage on Somerville Ave and from the limited capacity of Park St.	Fire response time based on existing location in Union Square - 98% less than 5 minutes. It is anticipated that future development may have negative effect on response time. Community visibility and connection are limited due to the site's location. Site access is limited due to the size and proportion (narrow) of the site.
2. Physical Features	13 out of 15	13 out of 15	10 out of 15	7 out of 15	4 out of 15	4 out of 15
(15 points)	Site size is good at 3.99 acres. Site shape is adequate, but not optimal. Site is adequate for fitting FD Engine 3 at grade.	Site size is good at 1.12 acres. Site shape is good and has long portion adjacent to road. Site is adequate for fitting FD Engine 3 at grade.	Site size is adequate at just under one acre (0.94). Site shape limits layout of facility due to irregular shape. Site is adequate for fitting FD Engine 3 at grade.	Site size is limited at 0.91 acre. Shape of site is good with a rectangular lot. Site size is inadequate to fit FD Engine 3 / Location does not meet FD Engine 3 needs.	Site size is very limited at 0.62 acre. Shape of site is adequate, but limited due to size and orientation. Site size is inadequate to fit FD Engine 3 / Location does not meet FD Engine 3 needs.	Site size is severely limited at 0.49 acre. Site shape is limited due to long and narrow proportion. Site size is inadequate to fit FD Engine 3.
3. Zoning Consistency	9 out of 10	10 out of 10	9 out of 10	4 out of 10	7 out of 10	8 out of 10
(10 points)	Site is within commercial district (BB), adjacent to Industrial (IA) and across Washington Street from multi-family residential (RC). Maximum lot coverage good at 80% allowable	Site is within Industrial District (IA) with no Residential area adjacent. Maximum lot coverage good at 80% allowable	Site is within Corridor Commercial District (CCD55) and under an Arts Overlay District. The site is immediately adjacent to Residential B (RB). Maximum lot coverage good at 80% allowable.	Site is within a residential A (RA) district, the least dense of the residential areas. Site is limited by maximum 50% lot coverage.	Site is within a Commercial (BA) district. Site has a buffer of commercial district to residential areas to the north. Maximum lot coverage good at 80% allowable.	Site is within a Commercial Residential (BB) district. The Site is not adjacent to any Residential areas. Maximum lot coverage good at 80% allowable.
4. Environmental Impacts	4 out of 10	7 out of 10	8 out of 10	8 out of 10	8 out of 10	8 out of 10
(10 points)	Mass DEP RTN listed for the site indicates potential for hydrocarbon contamination due to a reported spill in 2012. Mass DEP has classified site as a Tier II disposal site. Further environmental investigations will be required to determine extent of contamination.	The site does not have any listed RTNs, however there are a number of RTNs on adjacent/nearby properties, and therefore is at small elevated risk for environmental contamination.	Site has no active RTNs, although there are two RTNs that have been since closed out. Given the past history of an automobile repair garage, some risk of contamination exists.	Site has no active RTNs. There are two RTNs on adjacent/nearby sites that have been since closed out. Likelihood of contamination is low, but cannot be ruled out completely.	Site has no active RTNs, although there are several RTNs on adjacent/nearby properties. Given the past history of an adjacent fuel station some risk of contamination exists.	Site has no active RTNs, although there are several RTNs on adjacent/nearby properties. Given the past history of a automobile repair garage, some risk of contamination exists.
5. Infrastructure	5 out of 5	5 out of 5	5 out of 5	5 out of 5	5 out of 5	5 out of 5
(5 points)	All utilities readily available	All utilities readily available	All utilities readily available	All utilities readily available	All utilities readily available	All utilities readily available
6. Permitting	2 out of 5	2 out of 5	2 out of 5	2 out 5	2 out of 5	2 out of 5
(5 points)	Special Permit and Site Plan Review required	Special Permit and Site Plan Review required	Special Permit and Site Plan Review required	Special Permit and Site Plan Review required	Special Permit and Site Plan Review required	Special Permit and Site Plan Review required
7. Traffic Impacts	3 out of 5	3 out of 5	4 out of 5	4 out of 5	2 out of 5	3 out of 5
(5 points)	Moderate traffic impact anticipated on Washington Street - Washington street, while busy is large enough to accommodate added emergency response traffic from the proposed facility.	Moderate traffic impact is anticipated on McGrath Highway, including possible additional of new intersections/traffic light for emergency response vehicles.	Minimal impact to traffic on the McGrath Highway offramp may be anticipated.	No significant impact to Mystic Valley Parkway is anticipated.	Some traffic impact is expected along Somerville Ave because of existing congestion and adjacency to the intersections of Park and Central Streets.	Minimal traffic impact is anticipated.
8. Cost of Development	14 out of 20	6 out of 20	9 out of 20	17 out of 20	13 out of 20	11 out of 20
(20 points)	Site has one building to be demolished. Building is currently vacant, with no existing tenants and one owner. Anticipated site acquisition costs are moderate to low with an assessed value per acre of appr. $1.2 m	Site has multiple structures and multiple tenants. The site has multiple lots, however appears to have a single owner. Site acquisition costs appear to be high with an assessed value per acre of appr. $3.5 m	Site has multiple structures, multiple tenants, and multiple owners. Site acquisition costs appear to be more moderate with an assessed value per acre of appr. $2.0 m	Site have a large residence and garage on the site. The site does not have any tenants and has only one owner. Site acquisition costs appear to be moderate with an assessed value per acre of appr. $1.1 m	Site has an existing moderately large pharmacy on site. The site has one owner and one tenant. Site acquisition costs appear to be moderate to high with an assessed value per acre of appr. $2.3 m	Site has multiple structures, multiple tenants, and a single owner. Site acquisition costs appear to be moderate with an assessed value per acre of appr. $2.1 m

APPENDIX C

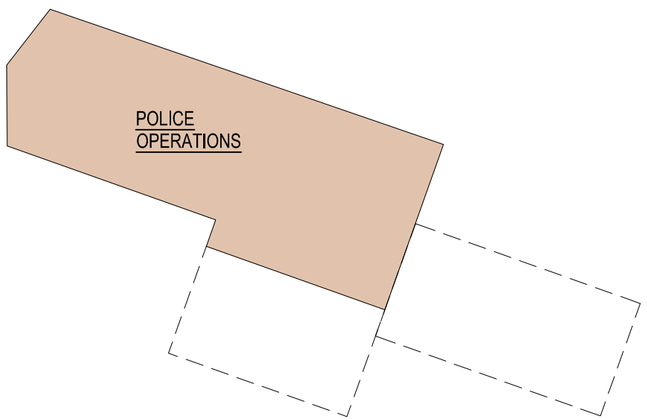
Conceptual Site Layout for Site 6, 90 Washington Street



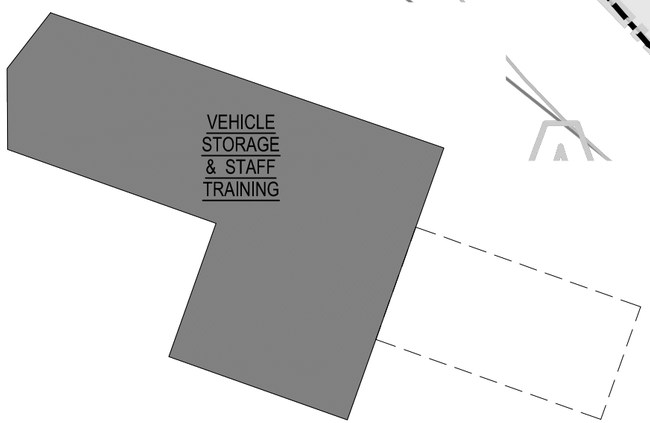
2 90 WASHINGTON ST - SECOND FLOOR
SCALE: 1" = 30'



3 90 WASHINGTON ST - THIRD FLOOR
SCALE: 1" = 30'



4 90 WASHINGTON ST - FOURTH FLOOR
SCALE: 1" = 30'



5 90 WASHINGTON ST - BELOW-GRADE FLOOR
SCALE: 1" = 30'

1 90 WASHINGTON ST - GROUND FLOOR
SCALE: 1" = 30'

LEGEND

PUBLIC/COMMUNITY ACCESS 12,700 SF	POLICE OPERATIONS 16,000 SF
POLICE ADMINISTRATION 6,000 SF	DETENTION 8,800 SF
STAFF SUPPORT/TRAINING 11,000 SF	VEHICLE STORAGE AND TRAIING 15,000 SF
FIRE DEPARTMENT ENGINE 3 6,500 SF	

Project:

CITY OF SOMERVILLE
POLICE HEADQUARTERS
FEASIBILITY STUDY

Weston&Sampson
85 Devonshire Street
Boston, MA
617-412-4480
www.westonandsampson.com

Consultants:

Revisions:

Rev	Date	Description

Seal:

Issued For:

PRELIMINARY SITE LAYOUTS

Date: September 21, 2017
Scale: 1" = 30'
Drawn By: MA
Reviewed By: JPP
Checked By: JPP
Approved By:

Drawing Title:

90 WASHINGTON ST SITE

Sheet Number:

SITE 6

CITY OF SOMERVILLE, MASSACHUSETTS
JOSEPH A. CURTATONE
MAYOR

To: Board of Alderman
Re: Future Public Safety Building
Date: May 22, 2018

This memo explains the Administration's rationale for building a new public safety building, the process we used to select a location for the building, the potential building program, and how the new facility fits into the City's capital and long-range financial planning.

The need for a new public safety building

The Somerville Police Department (SPD) adopted 220 Washington St. in Union Square as its headquarters in 1985. Engine 3 and other Somerville Fire Department (SFD) staff and apparatus moved into the building at the same time.

The current facility does not adequately serve the needs of the SPD and the SFD. The building was never designed to function as a police headquarters or to house a fire department company, having served as a car barn for the MBTA prior to 1985. The building has also experienced several serious floods, one of which led to the relocation of Engine 3 staff out of the building into temporary trailers and later modular units on site.

Recognizing that a longer-term solution is needed to appropriately serve our public safety departments and our residents, the City began planning for the relocation of public safety into a new facility in 2016. The Capital Projects and Planning Department (CPPD) hired a consulting team (Weston & Sampson) to conduct a space needs assessment to compile quantitative and qualitative data about the existing facility and to understand administrative and operational goals and how those goals relate to spatial requirements. Based on this information, a space needs summary was developed indicating specific interior and exterior requirements. Individual sketches of key administrative, operational, and support spaces were developed including specific layout information for required furniture and equipment as well as technology, communications, audio/visual, lighting, HVAC, finishes, and privacy requirements. This information provides critical detail in identifying the program for a new SPD headquarters. Similar

information for Engine 3 of the SFD was collected during the process of designing and constructing the company's new modular units in 2015-2016.

Selecting a location for a new public safety building

The space needs assessment indicates that a new SPD headquarters will require at least 77,000 square feet of space and a floorplate of at least 30,000 square feet. To identify potential locations that could accommodate this program, CPPD and the Planning and Zoning Division identified all parcels in Somerville that are at least 30,000 square feet.[1] They then selected from this list the most underutilized parcels. Weston & Sampson evaluated each of the resulting six sites against a uniform set of criteria to determine the best location for the new public safety building. These criteria include, but are not limited to, site access, whether the site can accommodate Engine 3 (in terms of size and location), estimated response times for Engine 3, the size of the site and the extent to which its shape accommodates public safety uses, environmental factors, and the estimated cost of development.

This site scoring matrix identified 90 Washington St., the current site of the vacant Cobble Hill shopping center, as the preferred location for a new SPD headquarters and Engine 3. In keeping with the recommendations from the 2016 Carlson Group Fire Study, the proposed new site for Engine 3 is to the east of Union Square, which will allow it to serve East Somerville, Union Square, and anticipated new development in Brickbottom, Boynton Yards, and Inner Belt. The median estimated response time for critical calls from this location is 3.98 minutes, well below the National Fire Protection Association (NFPA) standard of 5 minutes, and Engine 3 will be able to respond to an estimated 92% of critical calls within 5 minutes. Additional key benefits of the site include its size (3.98 acres) and access and the fact that there are no existing tenants on the site.

Program for a new public safety building at 90 Washington St.

At a minimum, the new facility at 90 Washington St. will house the SPD headquarters (including the e-911 call center) and Engine 3. As part of the design process, the City will investigate locating other uses at the building. For example, the City could consolidate all of our dispatch and call service operations in one location, which would include Fire Alarm and Constituent Services in addition to e-911. The City will also consider relocating Traffic & Parking to the new facility. These decisions will be made during the design process, and the rationale for these potential relocations will be discussed with the Board of Aldermen when we report on the recommendations from the Building Master Planning Committee in the fall. We will also examine whether the site can accommodate the spare fire apparatus and other fire uses currently located in Union Square.

In keeping with Somerville's goal to be carbon neutral by 2050, the City is proposing to build a net-zero-ready facility, which means, at a minimum, that the building will be ultra-efficient and only use electricity as its energy source.

[1] While the City's preference is to locate the new SPD headquarters and Engine 3 on the same site, it did not restrict its search to sites located in the Engine 3 response area.

Financial implications of a new public safety building

The City is requesting an authorization to borrow and appropriate $8.745 million to acquire the 90 Washington St. site based on the appraisal ordered by the City and conducted by Mark Reenstierna of T. H. Reenstierna, LLC, which the City received on March 21, 2018. The City has included this amount in its revised Capital Investment Plan (CIP) project list in the critical category.[2] The construction of the new public safety building has been included as a critical project since November 2016. The associated debt service of these two expenses has been factored into the City's long-range financial model for the General Fund, and the City is exploring using the proceeds from the anticipated sale of D1 (where the police headquarters is currently located) to net down this debt service. We are available to brief the BOA on our projected long-term financial health at their convenience.

Items before the Board of Aldermen

We are submitting three requests to the Board of Aldermen:

1. An order of taking for the acquisition of 90 Washington St.
2. Borrowing authorization and appropriation request for the acquisition of 90 Washington St.
3. Borrowing authorization and appropriation request for owner's project manager (OPM) and contractual project management services for the construction of a new public safety building. Massachusetts procurement law requires municipalities to hire an OPM for building projects estimated to cost $1.5 million or more.

[2] Critical projects are defined as those required to fulfill SomerVision and the USQ Neighborhood Plan. The current public safety building must be relocated to allow the development on D1 called for in the USQ Neighborhood Plan.

Proposed Public Safety Building and Fire Department (Engine 3)

90 Washington Street
July 10, 2018

Agenda

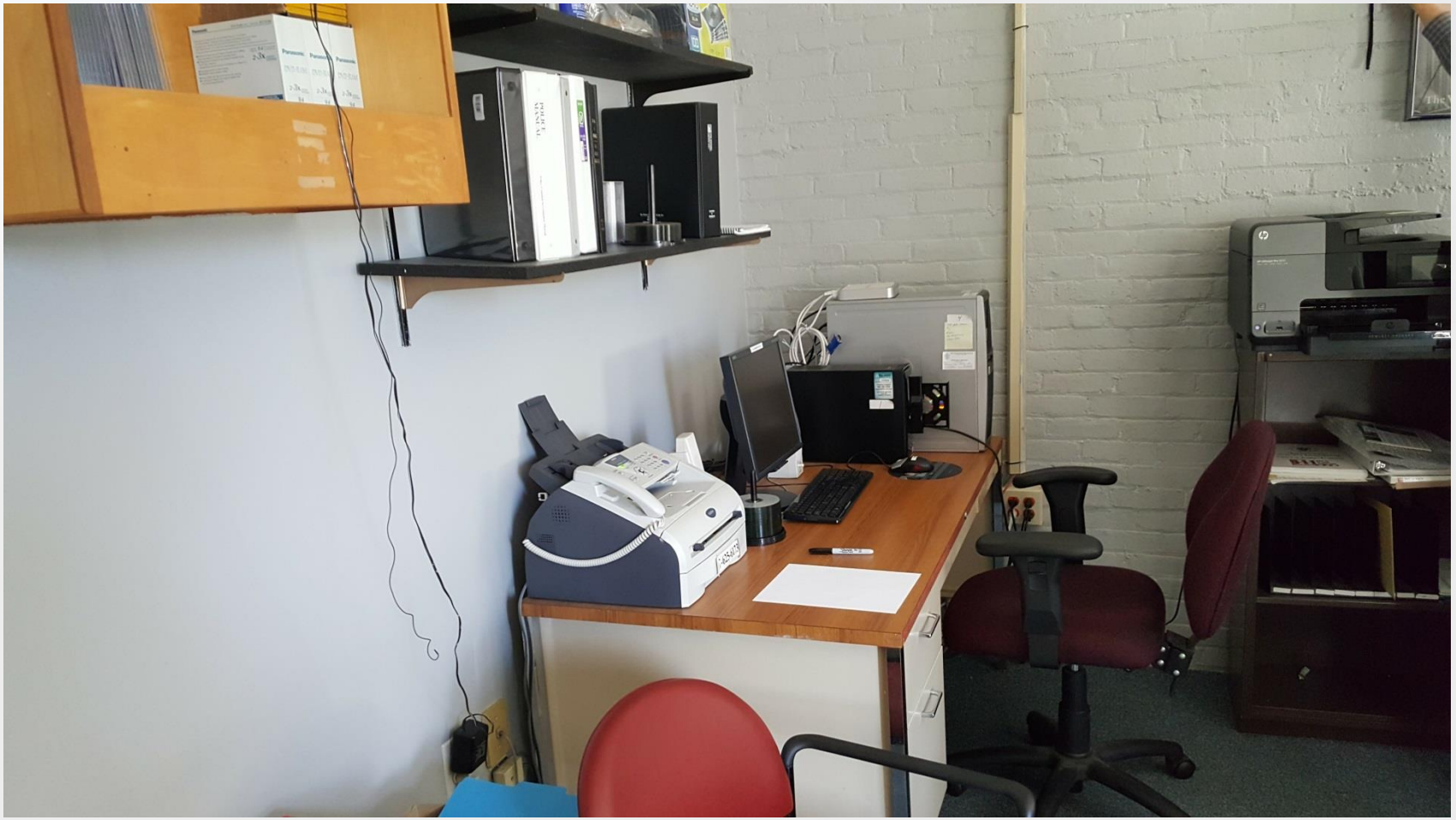
1. Introduction: Rob King
2. Space needs assessment: Weston & Sampson
3. Site selection: Weston & Sampson
4. Site acquisition: Eileen McGettigan & Tom Galligani
5. Finances: Rob King
6. Next steps: Rob King

1. Introduction

The Need (Existing Challenges):

- Inadequate space for current and future needs
- Inadequate space for police vehicles on the site
- Inefficient adjacencies
- Severe flooding potential:
  - police and fire vehicles
  - building generator
  - flooding led to the relocation of Engine 3
- Inefficient building envelope
- Inadequate parking
- Scheduling and security conflicts

The Need (Existing Challenges):



The Need (Existing Challenges):

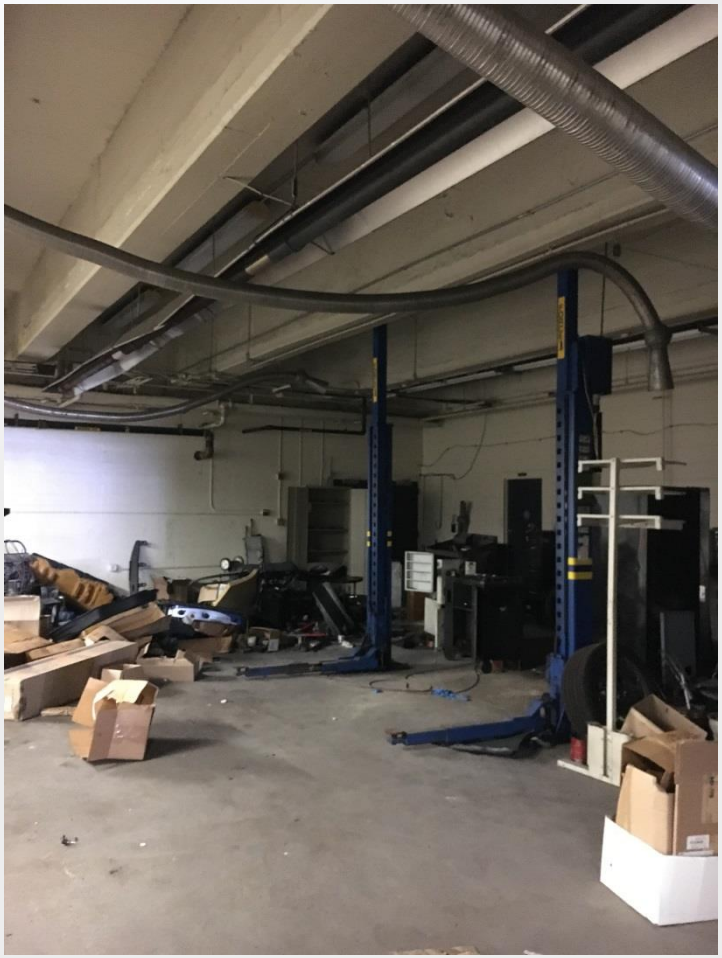
The Need (Existing Challenges):

The Need (Existing Challenges):

The Need (Existing Challenges):

The Need (Existing Challenges):

The Need (Existing Challenges):



The Need (Existing Challenges):

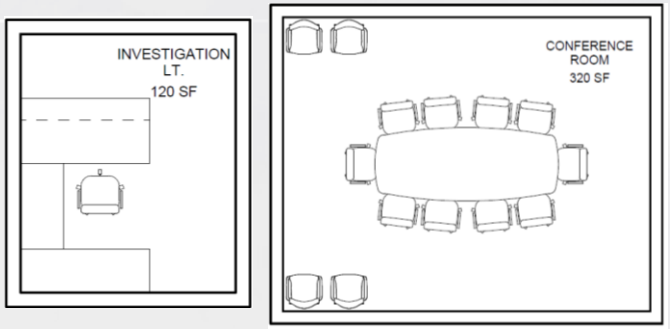
The Need (Existing Challenges):

2. SPACE NEEDS ASSESSMENT

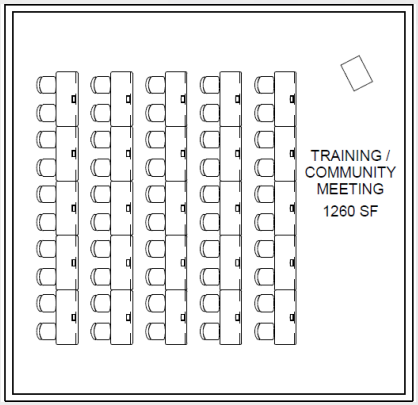
Space needs assessment

Programming Process:

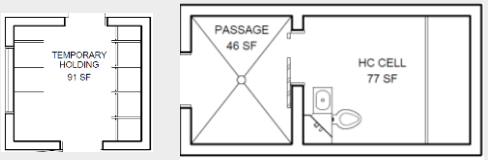
1. Documented existing facility to quantify existing program and identify deficiencies
2. Conducted staff interviews to identify current and future needs
3. Developed room programming sketches
4. Assembled comprehensive space needs assessment



Office and office support



Training / shared community space



Detention facilities

Space needs assessment

Police	Size (SF)
Public / Community Access	12,200
Police Administration	7,900
Staff Support / Training	14,500
Police Operations	19,800
Detention / Detention Support	8,800
Vehicle Storage / Maintenance	14,800
Subtotal Police:	78,000
Fire Department Engine 3	6,500
Total Building Program:	84,500

Space needs assessment

Programming Process:

1. Utilizing the space needs assessment, developed generic conceptual site layouts to define the minimum building footprint for site selection
2. Reviewed 3-story and 4-story schemes
3. Identified minimum building footprint range of 18,000 to 30,000 square feet (varies based on number of stories)

3. SITE SELECTION

Site selection

1. City developed an initial list of potential sites
2. Conducted an initial site screening:
   - Size
   - Allowable development size
   - Ownership
   - Zoning
   - Permitting challenges
   - Environmental restrictions
3. Identified six (6) potential sites capable of meeting basic programming and site requirements

Site 1	17 Inner Belt Road
Site 2	17 McGrath Highway*
Site 3	185 Somerville Ave*
Site 4	501 Mystic Valley Parkway
Site 5	526 Somerville Ave
Site 6	90 Washington St*

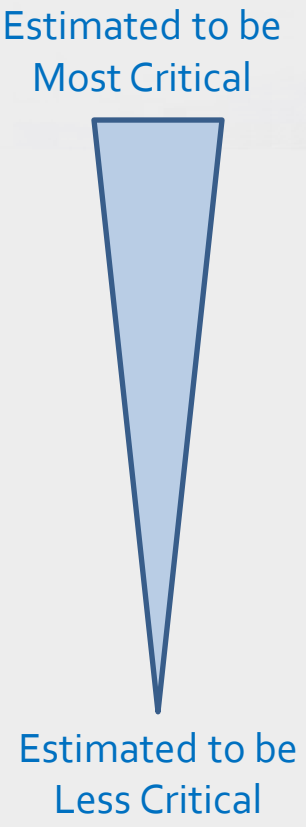
** Site with both Police and FD Engine 3*

4. Developed a detailed site selection matrix to rank the sites

Site selection

Conducted a detailed site selection analysis based on criteria developed in coordination with the City:

- Cost of Development (20 points)
- Location (15 points)
- Physical Features (15 points)
- Zoning Consistency (10 points)
- Environmental Impacts (10 points)
- Infrastructure (5 points)
- Permitting (5 points)
- Traffic Impacts (5 points)



Site selection

Evaluated and ranked each site

Site Rankings		1	2	3	4	5	6
Criteria	Factors	Site 6* Score	Site 2* Score	Site 3* Score	Site 4 Score	Site 5 Score	Site 1 Score
1. Location (15 points)	Fire Response Time (5 = >90% 5 min Response; 1 = <25% 5 min Response) *(Based on City data)*	5	4	5	5 *See note 1*	5 *See note 1*	5 *See note 1*
	Community Visibility/Connection (5 = Highly Visible/Connected; 1 = Disconnected)	4	4	4	3	4	2
	Site Access (5 = Good Access 1 = Poor Access)	4	4	1	1	2	2
2. Physical Features (15 points)	Size of Usable Site (5 = Greater than 1.0 acre; 0 = Less than 0.5 acres)	5	4	3	3	2	2
	Shape of Site (5 = Favorable Shape; 0 = Restrictive Shape/Size)	3	4	2	4	2	2
	Fit Engine 3? (5 = Engine 3 fits; 0 = Engine 3 Does Not Fit)	5	5	5	0	0	0
3. Zoning Consistency (10 points)	Proximity to Residential District (5 = Good Separation; 0 = Within Residential Area)	4	5	4	2	4	4
	Allowed Area Coverage (5 = Not Restrictive 1 = Restrictive)	5	5	5	2	3	4
4. Environmental Impacts (10 points)	Presence of Receptors (5 = No Receptors 0 = Significant Receptors)	2	4	4	4	4	4
	Hazardous Materials Issues (5 = No Evidence; 0 = Known Contamination	2	3	4	4	4	4

Site selection

Evaluated and ranked each site

Site Rankings		1	2	3	4	5	6
Criteria	Factors	Site 6* Score	Site 2* Score	Site 3* Score	Site 4 Score	Site 5 Score	Site 1 Score
5. Infrastructure (5 points)	Availability of Utilities (5 = Utilities Available; 0 = Major Extensions Req'd)	5	5	5	5	5	5
6. Permitting (5 points)	Permit Requirements (5 = Bldg. Permit only 1 = Variance Req'd)	2	2	2	2	2	2
7. Traffic Impacts (5 points)	Traffic Impacts (5 = No Impact 1 = Significant Impact)	3	3	4	4	2	3
8. Cost of Development (20 points)	Existing Structures (5 = Clear Site; 1 = Heavily Developed Site)	2	1	2	3	2	2
	Existing Tenants/Owners (10 = No Existing Tenants/1 owner; 1 = Many Tenants/Businesses/Multiple Owners)	8	4	4	10	8	6
	Site Assessment Cost (5 = Low $; 1 = High $) *(Based on MA GIS land and bldg assessed values/acre)*	4	1	3	4	3	3
Total Raw Score (out of 85 total possible points)		63	58	57	56	52	50
Total Percentage Score		**74%**	**68%**	**67%**	**66%**	**61%**	**59%**

Final Site Rankings:

Rank	Site No. / Address	Percent Score (raw score)
1	Site 6 (90 Washington Street)	74% (63 out of 85)
2	Site 2 (17 McGrath Hwy)	68% (58 out of 85)
3	Site 3 (185 Somerville Ave)	67% (57 out of 85)
4	Site 4 (501 Mystic Valley Pkwy)	66% (56 out of 85)
5	Site 5 (526 Somerville Ave)	61% (52 out of 85)
6	Site 1 (17 Inner Belt Rd)	59% (50 out of 85)

Recommended Location:

90 Washington Street Benefits:

- Site is of adequate size.
- Site can accommodate Engine 3.
- Engine 3 response times would provide 92% less than 5 minutes.
- Good orientation for visibility and connection to Washington Street.

4. SITE ACQUISITION

Recommended Location:

Site Boundaries

Aerial Image

Site Photos

Site Photos


NO TRESPASSING
VIOLATORS WILL BE PROSECUTED
PRIVATE PROPERTY
NO TRESPASSING
POLICE TAKE NOTICE

Eminent domain

Municipal property acquisition process

- Enabled by MGL c. 40 Section 14
  - Allowed by 2/3 vote of Board of Aldermen
  - Required appropriation of funding
  - Must be for a public purpose
  - Cannot pay more than 125% of the average of the last three years' assessed value

Eminent Domain Process

- Process regulated by MGL C. 79
  - Conduct appraisal
  - BOA vote to appropriate and take
  - Record Order of Taking within 30 days of vote
  - Notice of taking to owner
  - Pay Pro Tanto within 60 days of recording

Appraisal

- Date of appraisal: March 15, 2018
- Completed by Mark S. Reenstierna
  of T.H. Reenstierna, LLC
- MA Certified General Real Estate Appraiser #3803

5. FINANCES

Current funding request:

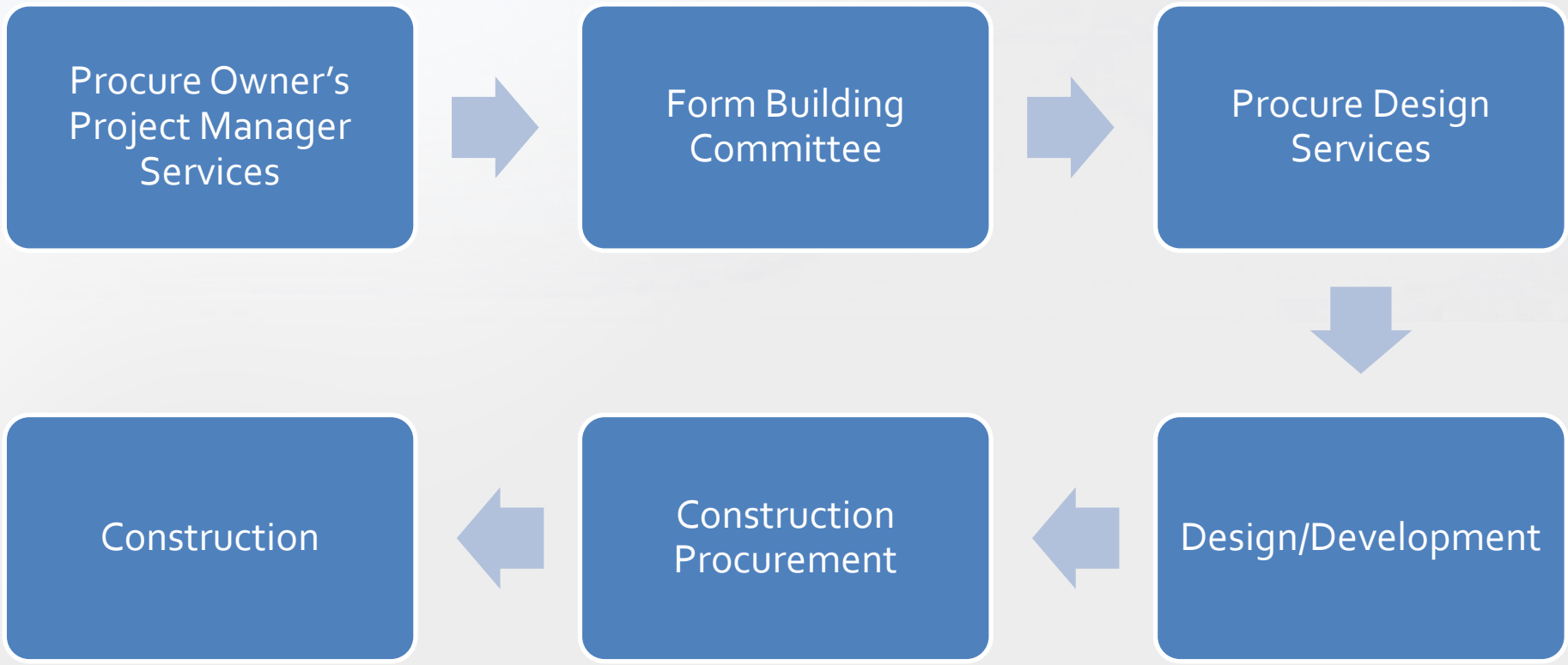
- Two items currently held in the FY18-FY27 Capital Investment Plan (CIP) Project List:
  - Acquisition of 90 Washington St.: $8.745 million
    - Added as a Critical Project to the June 2018 CIP
  - Construction of new public safety building
    - Has been included as a Critical Project since the creation of the CIP Project List in November 2016
    - CIP estimate for construction: $36 million (costs will escalate)

6. Next Steps

Items currently before the BOA

1. Order of Taking for 90 Washington St. (Agenda Item 206003)
2. $8.745 million bond authorization & appropriation request to purchase 90 Washington St. (Agenda Item 206004)
3. $1.86 million bond authorization & appropriation request for Owners Project Manager (OPM) & project management services for new public safety building (Agenda Item 206005)

If BOA approves items, next steps are . . .



Timeline:

- Design estimated to take one year.
- Construction estimated to take 18-24 months.

INNER BELT BRICKBOTTOM PLAN

SEPTEMBER 2015

GOODY CLANCY with
Carol R. Johnson Associates | Fay, Spofford & Thorndike
Kittleson Associates | Placematters | SYSTRA | W-ZHA

inner belt
brickbottom
plan

City of Somerville
Joseph A. Curtatone, Mayor

CONTENTS

1 | EXECUTIVE SUMMARY

The Inner Belt/Brickbottom study area, seen in part in the lower half of this photo, is a strategic location for mixed use development thanks to new transit connections to downtown Boston (top center) and East Cambridge (center right).

The 140 acres of the Inner Belt/Brickbottom study area offer Somerville a special—and essential—opportunity for economic development at a transformative scale. As at Assembly Square and Boynton Yards, inauguration of new rail transit service to Inner Belt and Brickbottom is turning underutilized, partially forgotten industrial land into fertile ground for new jobs, businesses, homes, services, parks and cultural destinations that will drive prosperity in Somerville for decades to come. Constrained for years by limited access and visibility, Inner Belt and Brickbottom are quickly becoming a regionally significant workplace center as well as a center of community for Somerville.

The following pages provide an overview of the Inner Belt Brickbottom Plan through these components:

- Community-based vision
- Economic development potential
- Integrated transportation and development approach
- Distinctive districts
- Public places network
- Inner Belt/Brickbottom illustrated vision
- Development framework

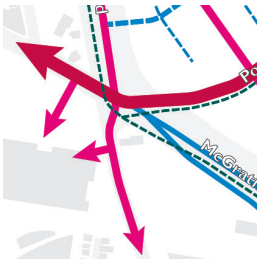
See later chapters on ***Critical Questions, Master Plan*** and ***Putting the Plan to Work*** for more detail on the plan

CORE VALUES OF THIS PLAN

Five value principles, informed by community engagement during the Inner Belt/Brickbottom planning process, should guide development of buildings, infrastructure and public spaces in the study area.

Create great places for people

Inner Belt and Brickbottom lack strong identity today, owing to their isolation, internal obstacles and impersonal nature of much development. Enhance market position and sense of community by using all new investments in buildings, streets and other public spaces to create people-centered places.

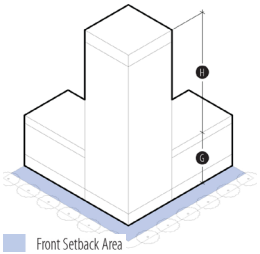


Connect neighborhood to neighborhood

Physical barriers limit access to/from and awareness of Inner Belt and Brickbottom. Complement new Green Line service with critical walking, transit, biking and driving connections to make the study area a major regional destination for working, living and playing.

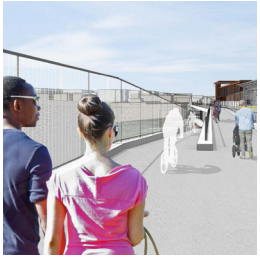
Grow the economy

Green Line service offers transformative opportunities for Inner Belt/Brickbottom—if the streets, buildings and land uses around Washington Station create a safe, inviting walking environment. The greater the quality of walkable streets and transit access in the area, the greater the extent of job and business growth it will foster.



Coordinate public and private investment

Market-driven private investment is the most important vehicle for economic development in the study area and Somerville overall. Invite investment through clear, predictable development approval standards that maximize value potential throughout the study area.



Deliver ongoing value with sustainable development approaches

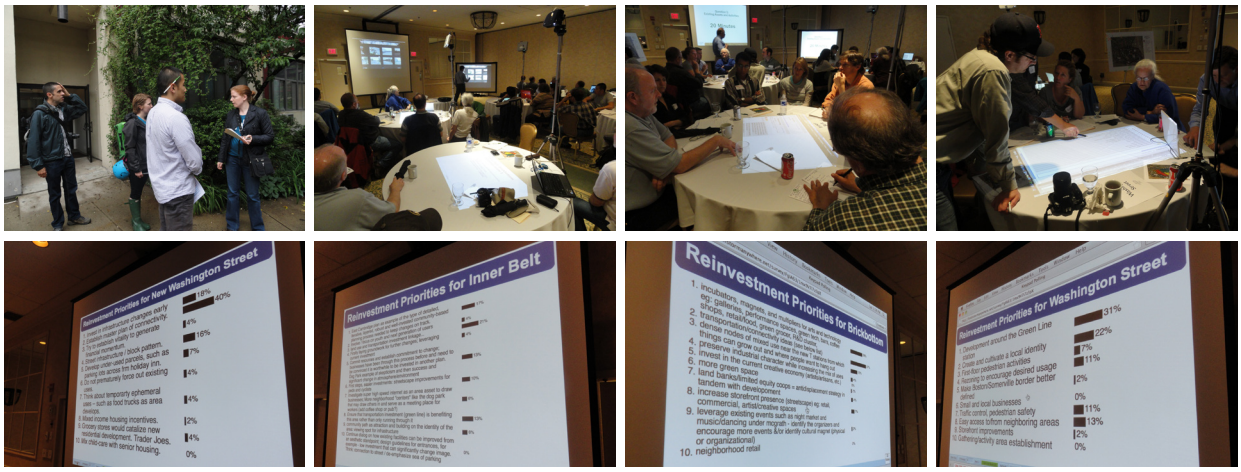
To ensure Inner Belt and Brickbottom support economic and community development in Somerville for decades to come, invest in infrastructure, real estate and businesses in ways that simultaneously build sustainable value in three key areas: the economy, social community, and the natural environment.

COMMUNITY ENGAGEMENT

The planning process invited dialogue on the future for Inner Belt and Brickbottom through a public "walkshop," public vision workshop, and a two-year series of public focus group meetings including key community, business and government agency stakeholders.

WALKSHOP | *June 2011*

Collaborative observation of the study area and identification of opportunities, challenges, and priorities.



VISION WORKSHOP | *October 2011*

Building vision alternatives together using maps; blocks representing market-driven development, streets and parks; and images showing possible models to follow.

ECONOMIC DEVELOPMENT POTENTIAL

Market-driven opportunity for business and real estate development sets the foundation for the Inner Belt/Brickbottom Plan—informing decisions around land use mix, infrastructure priorities, urban design and other critical plan elements.

Market position: distinguished by access and development choices unparalleled in the Boston region

Access choices

- Multiple transit corridors with access to skilled workforce, Kendall, Boston
- Safe, inviting pedestrian network connected to neighborhoods, Union Square
- Unique off-street biking and recreation network
- Excellent road access

Development choices

- Multiple large parcels, and opportunities to further aggregate large parcels, offering flexible program, building, street and amenity configurations
- Substantial opportunity for building heights from 5 to 20 or more stories in many locations—adding significant development capacity, views, and visibility
- Multiple parcels with opportunity for large floorplates of 50,000sf or more, serving certain office and fabrication program needs
- Choice of working within established address/identity contexts in parts of Brickbottom and the Washington Street corridor, or defining new address/identity environment

Priority assets to leverage for near-term development

- New Green Line service at Washington Street; existing Orange Line service at Sullivan Square
- Established character, address and mixed-use context in Brickbottom and along Washington Street
- Lower land cost than competing areas
- Opportunity for smaller office/research buildings between 50,000sf and 100,000sf
- Established life sciences presence on Roland Street
- Established housing market potential

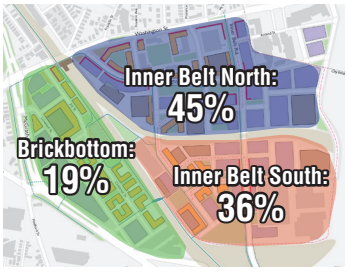
Priority assets to leverage for longer-term development

- Large, flexible sites to accommodate spillover development as Kendall Square and North Point development opportunities diminish
- Direct connections to downtown Boston and Cambridge office and research centers support complementary general office and research space development
- Potential for large buildings, 200,000sf or more
- Urban Ring transit corridor connections
- New, prominent address identity of grade-level McGrath boulevard

Inner Belt/Brickbottom Program Summary

- 5.5 to 10 million sf overall
- 60% office/research/fabrication, 37% housing, 3% retail

	2020 OPPORTUNITY	2035 OPPORTUNITY	SOMERVISION 2030 GOAL	MAPC 2035 PROJECTIONS—IBBB	MAPC 2035 PROJECTIONS—CITYWIDE
Office and Research & Development Space	250,000sf	3,250,000sf			
Retail Space	45,000sf	165,000sf			
New Jobs	900	10,250	10,000-11,000	4,879	15,130
New Housing Units	360	2,250	2,000-2,500	838	5,869
New Residents	540	3,400		1,050	6,129



Approximate share of new development floor space in the study area.

INTEGRATED TRANSPORTATION AND DEVELOPMENT APPROACH

High-value, mixed use development potential will benefit from first class walking, transit and bike access that reduces need for costly roadway improvements.

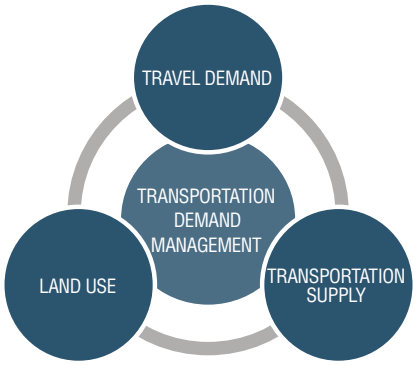
Travel Demand Management

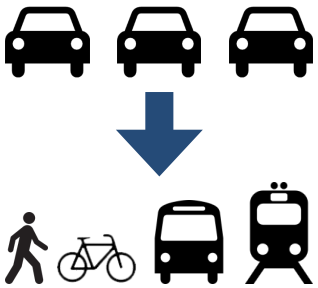
Make the most of assets

- Leverage new Green Line station and Urban Ring transit corridor
- Emphasize transit, walkability, and great bike infra-structure

A practical approach

- Minimize expense of mitigating existing barriers to circulation
- Implementing TDM strategies can cost relatively little for comparable benefits in many cases
- Minimizing new traffic helps:
- Promote livability within and around IBBB
- Preserve vehicle capacity so IBBB can continue to benefit from convenient access to I-93 and other regional roads for trips that must remain vehicular (i.e. trucks)





- Reduce parking supply
- Increase parking cost

- Build infrastructure
- Financial incentives
- Communicate options
- Coordinate travel activity
- Provide flexibility

PARKING MANAGEMENT | DEVELOPMENT-BASED | EMPLOYER-BASED

DISTINCTIVE DISTRICTS THAT BUILD MARKET POSITION AND COMMUNITY CHARACTER

INNER BELT GATEWAY: WASHINGTON

Public realm

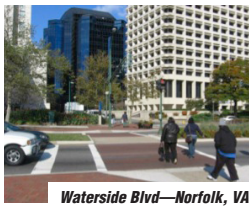
- Sidewalks: accommodating mixed residential and retail with planted & paves setbacks; buffered from traffic by parking, trees
- Plantings: Canopy trees marking Somerville gateway and mitigating scale transition across street

Built form

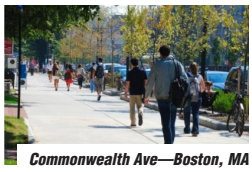
- Height range: 4–12 stories
- Transitioning to East Somerville neighborhood scale through height step-backs, facade articulation

Pearl District—Portland, OR

BRICKBOTTOM: MCGRATH EDGE



Waterside Blvd—Norfolk, VA



Commonwealth Ave—Boston, MA

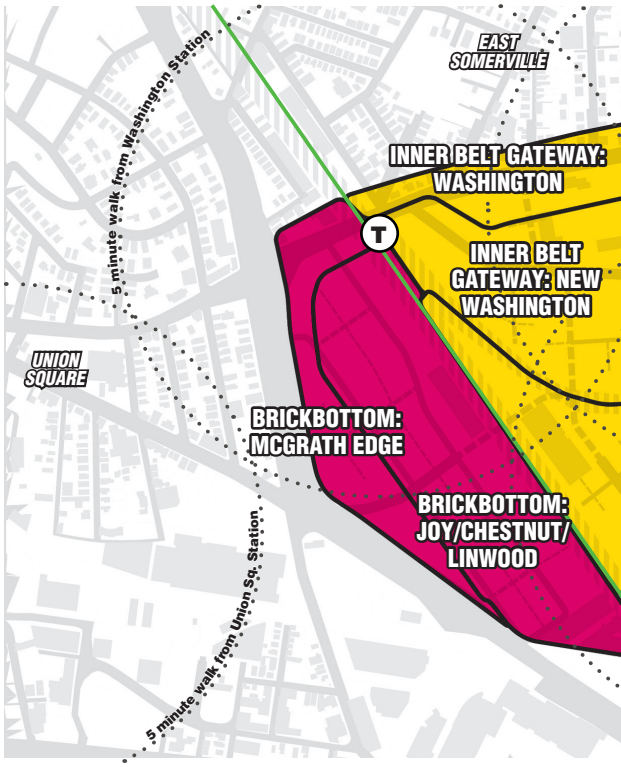
Memphis, TN

Public realm

- Sidewalks: generous scale, buffered from traffic by parking and/or plantings
- Plantings: canopy street trees framing boulevard greenway; compact ornamental front yards

Built form

- Height range: 4–12 stories
- Greater height possible as landmarks and to leverage visibility, value. More refined, larger scale version of Joy/Chestnut/Linwood character



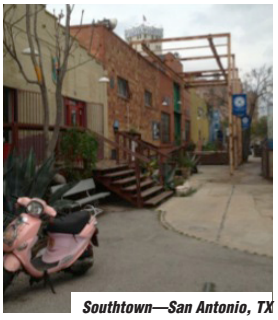
BRICKBOTTOM: JOY/CHESTNUT/LINWOOD

Public realm

- Sidewalks: compact; accommodating art, dining, periodic events; shared pedestrian/vehicle spaces
- Plantings: intermittent street trees supplemented by planters, green walls

Built form

- Height range: 4 – 6 stories
- Character: industrial , significant transparency; smaller building scale, larger window scale

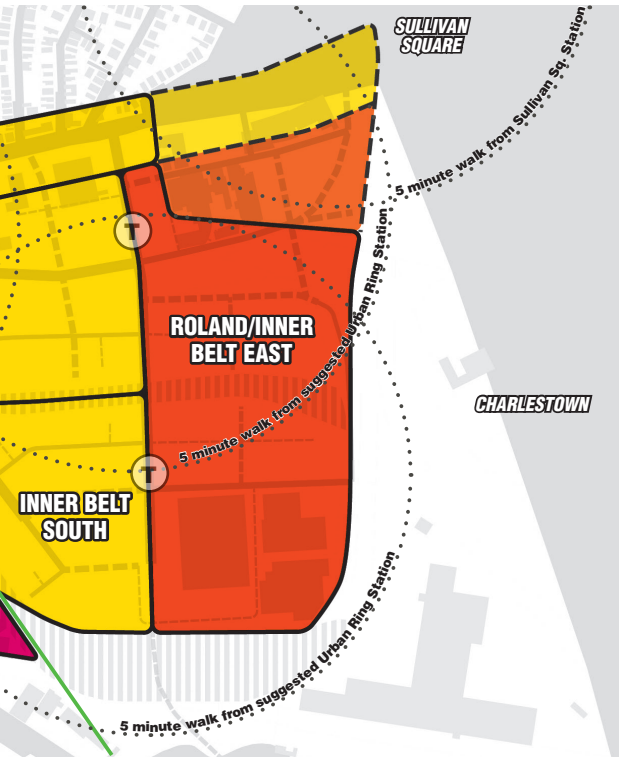


Southtown—San Antonio, TX

Seattle, WA

The Inner Belt and Brickbottom portions of the study area each possess unique characteristics that will influence private and public investment in them. The two areas are further distinguished by emerging subdistricts with unique sense of place, shaping and shaped by unique market position and community culture.

Pentagon Row—Arlington, VA



INNER BELT GATEWAY: NEW WASHINGTON

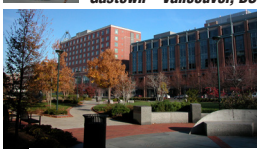
Public realm

- Sidewalks: generous width, tied into park landscape; accommodate mixed office, retail, housing frontage
- Plantings: canopy trees, lawn, ornamental plantings

Built form

- Height range: 4–20 stories
- Significant transparency; mix of materials—traditional and modern, dark and light

Gastown—Vancouver, BC



University Park—Cambridge, MA

ROLAND/INNER BELT EAST

Public realm

- Sidewalks: generous on Inner Belt & New Washington, compact on Roland, Third
- Plantings: canopy trees, tree lawns, planters, green roofs; buffer rail infrastructure

Built form

- Height range: 4–20 stories
- Complement industrial character of Roland buildings, transition to modern face on Inner Belt; opportunity for large floorplates, retaining pedestrian scale along Inner Belt; significant transparency, height

Georgetown—Washington DC

South Lake Union—Seattle, WA

INNER BELT SOUTH

Public realm

- Sidewalks: moderate width; accommodate mixed office, housing, occasional retail frontage
- Plantings: trees, planters; extend scale of park spaces and greenways; buffer rail infrastructure

Built form

- Height range: 4–20+ stories
- Significant height, transparency to leverage views; large floorplates possible if ped scale retained

South Lake Union—Seattle, WA

A **PUBLIC PLACES NETWORK** CREATING DESTINATIONS FOR ALL OF SOMERVILLE—AND THE REGION

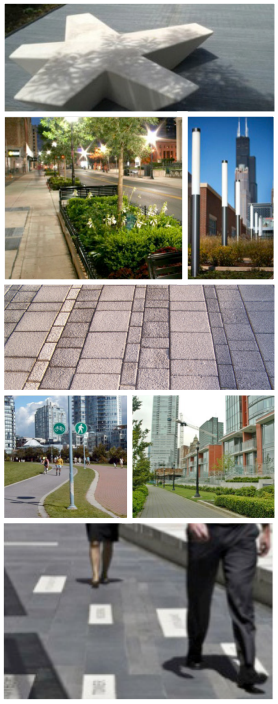
DISTINCTIVE DESIGN THEMES FOR PARKS AND STREETS

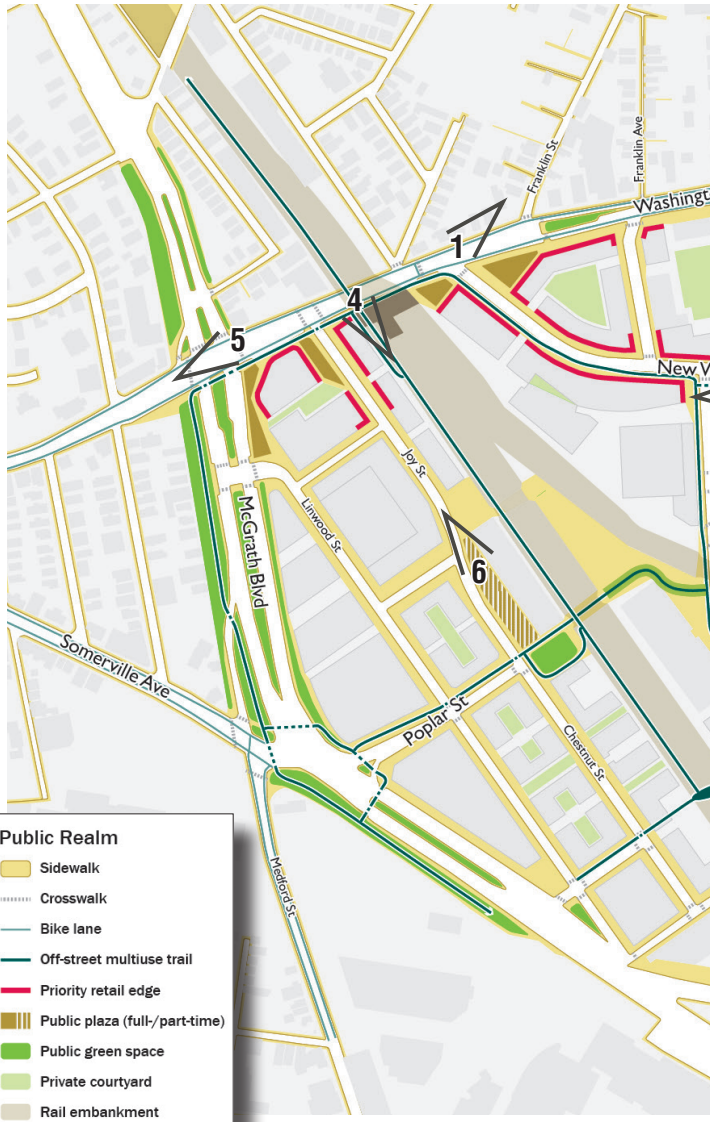
Inner Belt

- Larger scale
- Stone, metal, concrete, refined
- Distinctive, contemporary
- Dedicated activity spaces

Brickbottom

- Smaller scale
- Brick, metal, concrete, rugged
- Dynamic, creative
- Overlapping activity spaces



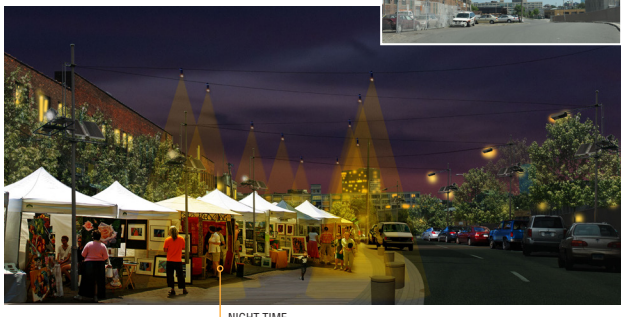


6 | JOY ST.

INFILL: MIX OF OFFICE, ARTS, HOUSING, LIGHT INDUSTRY

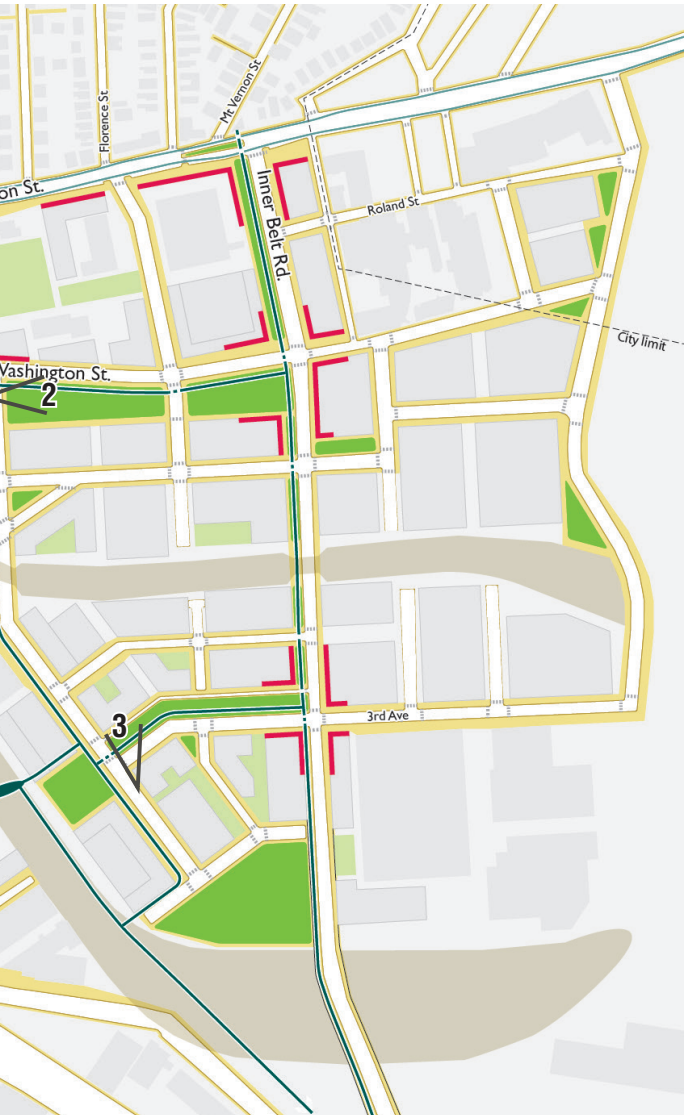
STREETSCAPE, WALKING AND BIKING IMPROVEMENTS LINKING BRICKBOTTOM TO GREEN LINE

DUAL USE OF PARKING/ LOADING AREA FOR OCCASIONAL PUBLIC/ ARTS EVENTS



NIGHT TIME ACTIVITY

A variety of parks, streets and pathways designed for people introduce activity and identity where lacking today. This supports a vibrant live/work/play environment that attracts new jobs and development, and forms a new center of community within Somerville.



1 | WASHINGTON ST. EAST SIDE

HOUSING

EARLY STAGE SMALL-OFFICE & RETAIL DEVELOPMENT

PUBLIC SIDEWALKS & PLAZAS WITH ENGAGING BUILDING USES, ART, DESIGN

EXPANDED, IMPROVED WALKING NETWORK

2 | NEW WASHINGTON PARK

FLEXIBILITY FOR SIGNIFICANT BUILDING HEIGHT AND FLOORPLATES—DESIGNED TO HUMAN SCALE

PUBLIC SPACE AMENITY SERVING WORKERS, RESIDENTS, VISITORS

3 | INNER BELT SOUTH

HIGH-VALUE COMMERCIAL AND HOUSING DEVELOPMENT

NEW CONNECTIONS TO WASHINGTON STATION, BRICKBOTTOM

PARK, COMMUNITY PATH CONNECTIONS CREATING DISTINCT SENSE OF PLACE

5 | WASHINGTON ST. WEST SIDE

MIXED OFFICE AND HOUSING WITH GROUND FLOOR RETAIL

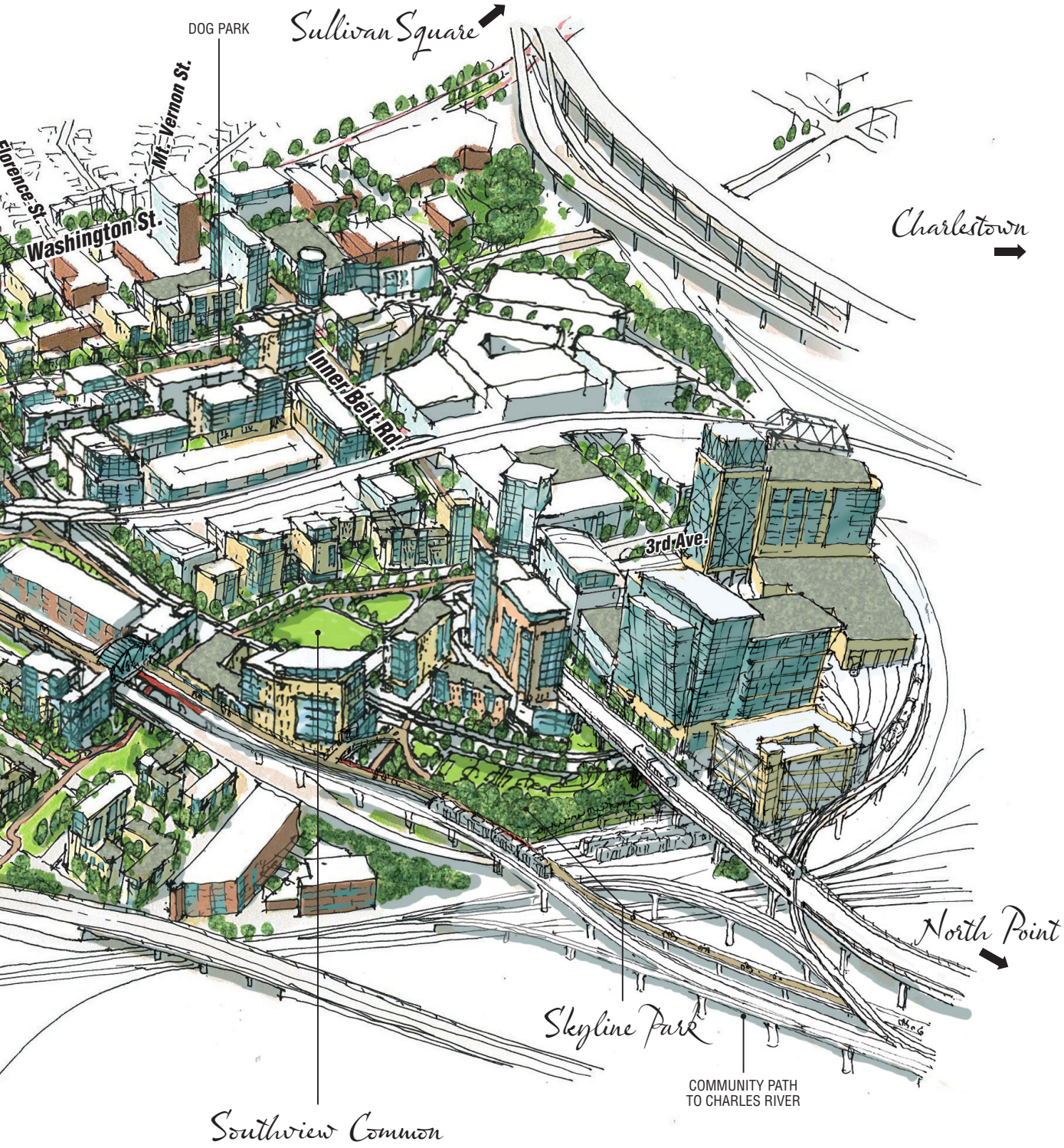
EXPANDED, IMPROVED WALKING AND BIKING NETWORK

STATION INTEGRATED WITH BUILDING DESIGN

4 | COMMUNITY PATH AT WASHINGTON STATION

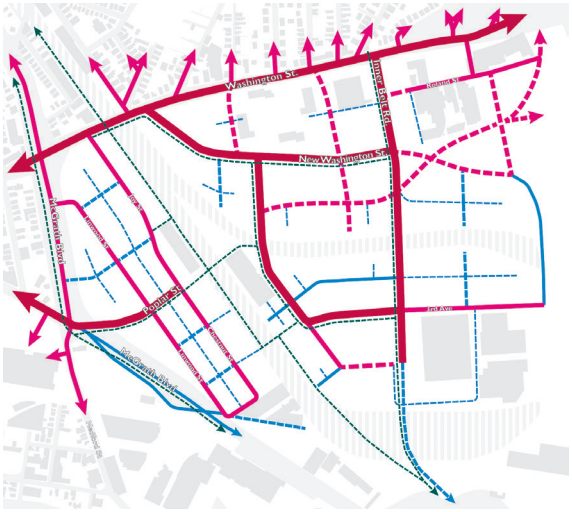
INNER BELT/BRICKBOTTOM VISION

A conceptual scenario of potential new real estate development, supportive street, park and transit infrastructure, and the places they create together.



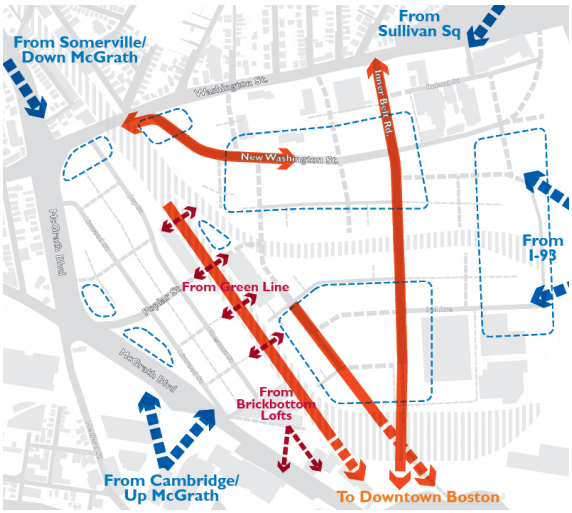
PUTTING THE PLAN TO WORK: **DEVELOPMENT FRAMEWORK**

STREET NETWORK



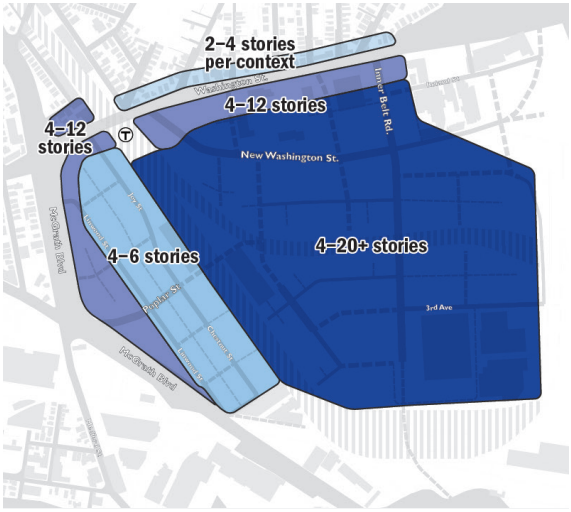
EFFICIENT SHARED-USE PARKING

VIEW CORRIDORS



A guide to land and infrastructure development that adds predictability and value while retaining the flexibility to accommodate various market-driven investment opportunities, creative design approaches and public open space goals as Inner Belt and Brickbottom mature.

DEVELOPMENT INTENSITY



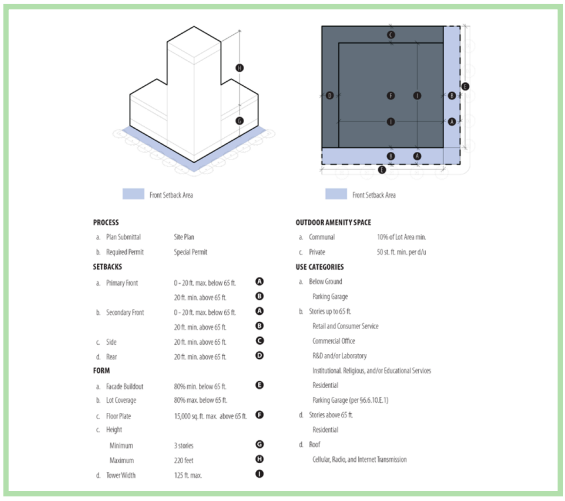
LAND USE SCENARIO

- Office and research/development welcome anywhere in study area
- Housing welcome west of Inner Belt Road
- Retail welcome anywhere, but should be prioritized in clusters indicated
- Large-floorplate buildings (over about 30,000sf) and fabrication uses welcome in areas indicated

Land Use
- Sidewalk
- Crosswalk
- Off-street multiuse trail
- Off-street multiuse trail
- Housing
- Office/research
- Structured parking
- Large floorplates and fabrication uses acceptable
- Public plaza (all hours)
- Public green space
- Private courtyard
- Rail embankment
- Existing building

DEVELOPMENT CODE STRATEGIES

- Addressing building and site development/ rehabilitation as well as its integration with improved and new street corridors
- Brickbottom: Form-based
  - > Addresses smaller and more complex existing parcel boundaries, ownership
  - > Promotes as-of-right opportunity
- Inner Belt: Master plan
  - > Addresses larger scale sites with greater flexibility
  - > Design review required
- 5.5 to 10 million sf overall
- 60% office/research/fabrication, 37% housing, 3% retail



2 | CRITICAL QUESTIONS SHAPING THE FUTURE OF INNER BELT AND BRICKBOTTOM

What changes in Inner Belt and Brickbottom will be most effective in achieving community goals?

This planning process for Inner Belt and Brickbottom examined a comprehensive set of critical questions whose answers provided fundamental guidance to the plan. The questions address issues of market-driven investment potential, priority infrastructure improvements, and implementation mechanisms that had to be considered together to determine the most appropriate plan approaches—those that are both transformative in their vision, and practical in their application. This chapter begins with background information on public engagement and study area data, then summarizes findings to a series of twelve critical questions.

BACKGROUND

- The Inner Belt/Brickbottom Plan public process
- Inner Belt and Brickbottom Today: critical figures

CRITICAL QUESTIONS

1. How does Somerville's strategic plan guide change in Inner Belt and Brickbottom?
2. What is the regional outlook for smart growth in Greater Boston?
3. What recent investments have been made in Inner Belt/Brickbottom?
4. How can we most effectively harness the study area's economic development potential?
5. What access improvements would do the most to unlock opportunity in the study area?
6. How can we fund needed infrastructure improvements using the value of new development?
7. What will new Green Line service bring—and when?
8. How will the Green Line station at Brickbottom work?
9. When will McGrath Highway be rebuilt as an at-grade roadway connecting neighborhoods?
10. Will congested roads threaten our smart growth goals?
11. Will stormwater drainage threaten growth in Inner Belt & Brickbottom?
12. What constraints do "The Tubes" impose?
13. How can zoning reform work for Inner Belt and Brickbottom?

PUBLIC PROCESS

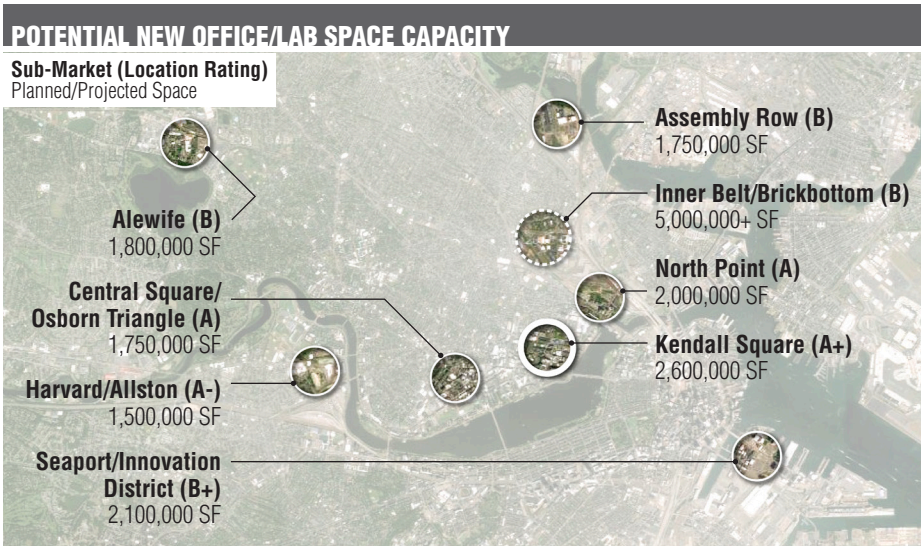
		INNER BELT / BRICKBOTTOM PLAN	GROUNDING MCGRATH	MBTA GREEN LINE
2011	J			
	F			
	M			
	A			
	M	**FOCUS GROUP** I MAY 16, 2011		MAY 26, 2011
	J	**PUBLIC MEETING #1** I JUNE 25, 2011 WALKSHOP	JUNE 29, 2011	JUNE 23, 2011
	J			
	A	**FOCUS GROUP** I AUGUST 4, 2011	AUGUST 3, 2011	AUGUST 25, 2011
	S	**FOCUS GROUP** I SEPTEMBER 21, 2011	SEPTEMBER 20, 2011	SEPTEMBER 15, 2011
	O	**PUBLIC MEETING #2** I OCTOBER 5, 2011 VISION WORKSHOP		
	N	**FOCUS GROUP** I NOVEMBER 9, 2011		
	D		JUNE 29, 2011	
2012	J			
	F			FEBRUARY 8, 2012
	M		DECEMBER 12, 2011	
	A			
	M			
	J	**FOCUS GROUP** I JUNE 29, 2012		
	J			
	A			
	S		MARCH 7, 2012	
	O			
	N			NOVEMBER 15, 2012
	D			DECEMBER 11, 2012
2013	J			
	F		FEBRUARY 13, 2013	
	M			
	A		APRIL 25, 2013	
	M	**FOCUS GROUP** I MAY 15, 2013	MAY 15, 2013	
	J			JUNE 11, 2013
	J			
	A			
	S			
	O	**FOCUS GROUP** I OCTOBER 24, 2013		OCTOBER 3, 2013
	N			
	D	**PUBLIC MEETING #3** I DECEMBER 16, 2013 FINAL PLAN OPEN HOUSE		

Community conversation on priorities for the Inner Belt and Brickbottom study area was an important foundation of the planning process. The conversation occurred in two major types of forums. **Focus Group** meetings engaged a selected group of stakeholders to discuss planning questions and concepts in detail. These stakeholders included property and business owners, residents, other Somerville community members, and planning staff from Boston and Cambridge, which directly adjoin the study area. Focus Group meetings also welcomed attendance by the general public. Public meetings expressly invited the broader Somerville community and included significant participation by Focus Group members.

INNER BELT & BRICKBOTTOM TODAY

Figures and images below highlight important data and conditions that inform the critical questions on the following pages.

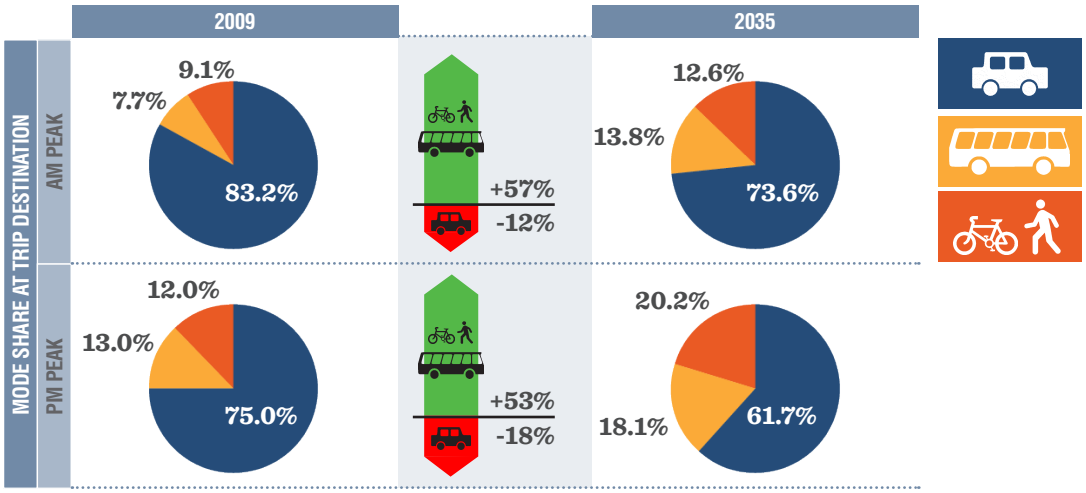
Competitive life sciences development areas



Inner Belt/Brickbottom has two to three times the development capacity of peer locations—and high potential to leverage research cluster proximity

	CLUSTER PROXIMITY	EASE OF DEVELOPMENT	ACCESS AMENITIES	OTHER CONSIDERATIONS	SUM: DEVELOPER CONFIDENCE
Kendall Area (A+)	Best	Redevelopment	Red Line station	Best location; highest rent	Highest
North Point (A)	Adjacent	Ready	Green Line station	Can accommodate large-scale development	Very good/future
Central Square/ Osborn Triangle (A)	Adjacent	Redevelopment	Red Line station	Parts of University Park already closer to Central than Kendall	Very good/future
Harvard/Allston (A-)	Potential new cluster location	Land assembled	No MBTA	Harvard University as anchor investor and tenant	Potentially excellent
Seaport/Innovation District (B+)	No	Ready; ample underdeveloped land	Silver Line	Waterfront; proximity to downtown Boston and airport	Moderate
Alewife (B)	No	Redevelopment	Red Line station; not pedestrian-friendly	Suburban environment w/o suburban advantages	Moderate
Assembly Row (B)	No	Needs infrastructure; ample underdeveloped land	Future Orange Line station	Planned environment will add amenity	Moderate
Inner Belt/ Brickbottom (B)	No	Redevelopment/ portions need infrastructure	Future Green Line station	Very good access to I-93; two T stops	Moderate

Regional transportation and development projections assume a modest shift toward walking, transit, and biking in the study area.



	WALK SCORE	TRANSIT SCORE
Inner Belt Brickbottom	85	54
Davis Square	97	71
City Averages	85	55

VEHICULAR TRAFFIC	CARS / DAY
Interstate 93	250,000
McGrath Highway	33,000
Washington Street	23,000
Inner Belt Road	6,000
Joy Street	2,100
New Washington Street	2,000
Linwood Street	1,300

BUS RIDERSHIP	RIDERS / DAY
All routes	**3,200**
Route 80	590
Route 86	600
Route 87	432
Route 88	630
Route 90	220
Route 91	445
Route CT-2	260

PROPERTY IMPROVEMENTS	$
Total 2004–2013	**51 million**
2004	0.9 million
2005	6.5 million
2006	3.5 million
2007	26.3 million
2008	1.3 million
2009	6.2 million
2010	8.2 million
2011	0.1 million
2012	2.0 million
2013	0.1 million

TAX LEVY	$ / YEAR
Personal property	6.2 million
Real property	2.5 million

EMPLOYMENT	JOBS
Total jobs	1,500

LAND AREA	ACRES
Study area	195
Rail right-of way	43
Boston Engine Terminal	23
Interstate 93	7
NSTAR Land	6
Other MBTA land	3
Approximate land area available for redevel-opment or reuse	100

OTHER SPACE	ACRES
Parking lots	32
Civic space	2

BUILT SPACE	SQ. FT.
Warehouse / garage	1,000,000
Office	600,000
Residential	200,000
Hotel	125,000

HOUSING	UNITS
Total units	368
Affordable units	223

CRITICAL QUESTION 1

How does Somerville's strategic plan guide change in Inner Belt and Brickbottom?

Recognizing the transformational impact that Somerville's six new Green Line stations would have on their neighborhoods, and on the City as a whole, Mayor Joe Curtatone took an unprecedented step in 2008—he asked community members to prepare the city's first-ever Comprehensive Plan to guide growth and development. A four-year public process ensued, and in 2012 the City's Board of Aldermen and Planning Board adopted the SomerVision Comprehensive Plan as the official master plan for Somerville under Massachusetts General Law.

SomerVision is a community-based plan intended to ensure that Somerville remains a great place to live, work, play and raise a family. Existing trends suggest that absent a strategic plan, regional economic development will once again leapfrog Somerville, while extreme housing demand will fundamentally erode our character as an accessible, mixed-income community.

Somerville residents articulated a series of core values during the planning process, advocating for a vibrant and diversified economy, a range of choices in the housing market, environmental stewardship, accessible urban streetscapes, and innovation in government.

Next, a Steering Committee of sixty residents was formed, representing every neighborhood of the City and every public agency or advocacy organization operating in Somerville. This group worked for more than two years to prepare an overall public policy framework for the City, addressing topics from infrastructure planning to public education to the small business environment.

By the end of the process, the Steering Committee had listed nearly 600 goals, policies and actions. Participants recognized the need to telescope out to a bigger picture, so their final element of work became the SomerVision Numbers, a series of aspirational targets for land use and development that would be essential in order to meet the more detailed goals. The SomerVision Numbers call for roughly 18 million square feet of new development over the next two decades, with the vast majority in places like Inner Belt and Brickbottom, where infrastructure can support it and economies of scale can allow private property owners to make a business case for smart growth while helping underwrite the costs of public benefits like new open space and affordable housing.

30,000 new jobs *as part of a reasonable plan to create opportunity for all Somerville workers and entrepreneurs.*

125 new acres of publicly-accessible open space *as part of our realistic plan to provide high-quality and well-programmed community spaces.*

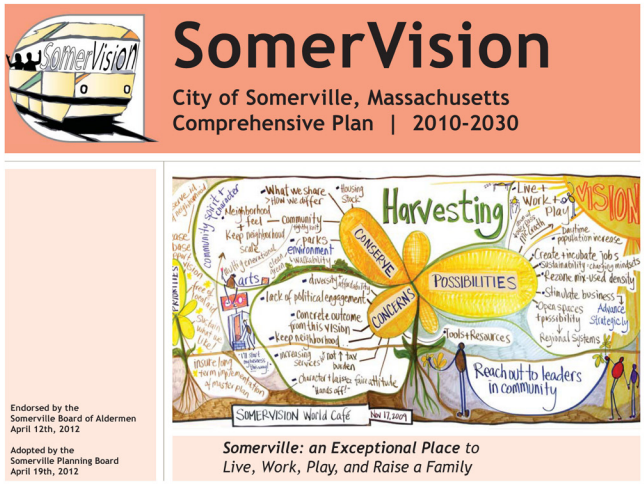
6,000 new housing units—1,200 permanently affordable *as part of a sensitive plan to attract and retain Somerville's best asset: its people.*

50% of new trips via transit, bike, or walking *as part of an equitable plan for access and circulation to and through the City.*

85% of new development in transformative area *as part of a predictable land use plan that protects neighborhood character.*

A LEGALLY-ADOPTED PLAN

Comprehensive Plans (known as Master Plans in some states) are a best practice in public administration. When community members agree on a shared vision for the future, it can become easier to build consensus on policies and projects that implement the vision. Somerville is a leader in municipal management, and in 2012 the City formally adopted its first-ever Comprehensive Plan for the future.

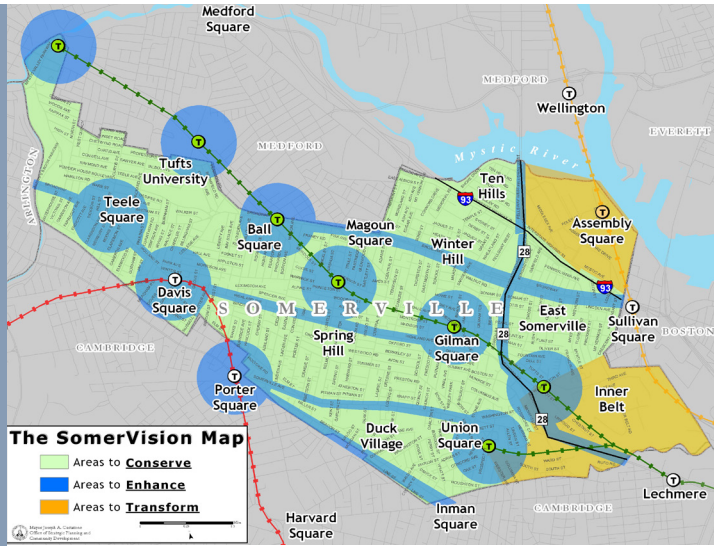


PUBLIC VISIONING

The four-year public process around SomerVision brought hundreds of residents, businesspersons and community leaders together, including numerous stakeholders from the Inner Belt and Brickbottom districts. An early step in the process was to understand what core values the community. The “Word Cloud” illustrates terms that community members used most frequently during the visioning process.

SOMERVISION MAP

SomerVision is both a preservation plan and a growth plan. Residents want to steer market energy away from traditional neighborhoods of two- and three-family homes and into existing commercial squares and transitioning industrial districts like Inner Belt and Brickbottom. Roughly 365 acres of industrial land exist on Somerville’s eastern and southern edges: plenty of space for new growth that is designed at a human scale and integrated into the City’s fabric of great neighborhoods.



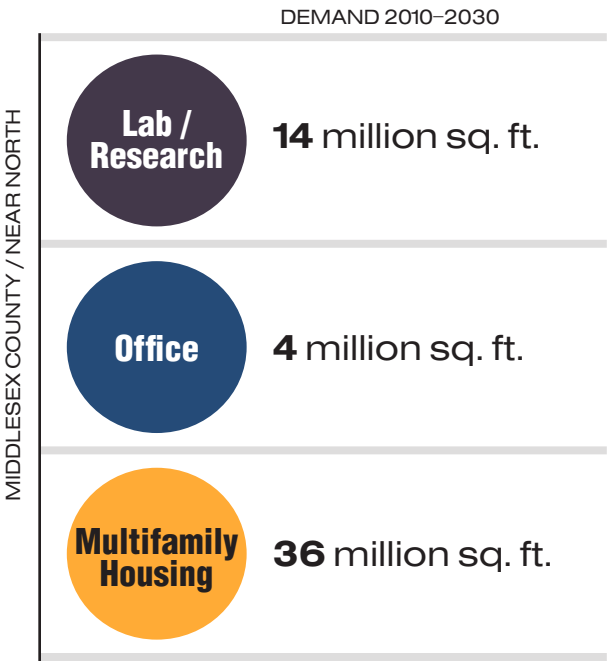
CRITICAL QUESTION 2

What is the regional outlook for smart growth in Greater Boston?

The Boston region gets smart growth. In 2008, after five years of public dialogue, the Metropolitan Area Planning Council and its 101 member municipalities adopted a long-range strategic plan for the region's future. The MetroFuture Plan is an organizing framework to keep greater Boston livable, healthy and economically competitive. It calls for roughly 300,000 new jobs and 350,000 new housing units to be created by 2030, with the vast majority being built in urban core communities and walkable regional centers well-served by public transportation. We all know that snarled roadways undermine our quality of life as well as new economic development efforts, and our regional plan offers us a viable alternative.

At the local level, municipal governments in our region are creating plans that are in line with the regional vision for walkable smart growth. Every community has its own specific needs and opportunities, but neighboring municipalities are increasingly learning that coordinated plans produce better results. For example, the City of Boston and the City of Somerville have used an integrated approach to match up Boston's plans for Sullivan Square and Somerville's plans for the Inner Belt. And the City of Cambridge has partnered with Somerville to guide the 45-acre NorthPoint development project, which straddles the municipal boundary and is currently under construction.

In our era of limited resources, it is essential that local governments continue to collaborate, so that public and private investments reinforce each other. It is also essential that our investments are prioritized around walking, bicycling and mass transit. Federal and state funding are being allocated in a competitive environment, and communities that can't demonstrate a commitment to walkability and to regional coordination are losing out. For example, in 2010 and 2011, the federal Partnership for Sustainable Communities awarded major discretionary planning grants to the City of Boston ($2 million), the City of Somerville ($2 million) and the Metropolitan Area Planning Council ($4 million) because of proven track records in creating new job and housing opportunities using transit-oriented development.



The Boston region has been a bright spot in United States' economic recovery from the Great Recession of 2008, in part because our great neighborhoods attract skilled workers from all over the country and all over the globe. We must build on this progress and continue to position our region as a national leader in smart growth.

A MARKET FOR WALKABILITY

Transitioning industrial areas in Charlestown, East Cambridge and eastern Somerville are helping meet market demand for new walkable, transit-oriented development. Assembly Square and North Point are under construction, providing clear evidence that smart growth and walkability are viable investments north of the traditional downtown real estate market. Inner Belt, Brickbottom, Union Square and Sullivan Square stand to benefit next.

NORTH POINT

A large-scale mixed-use district is being built along the Cambridge-Somerville border adjacent to the Lechmere Green Line station. Collaborative planning and zoning efforts between the two cities have helped streamline development totaling roughly 5 million square feet. Upon completion, roughly half of the new space will be commercial and half will be residential. Major open space amenities are included in the development plans.

ASSEMBLY SQUARE

Fifteen years in the making, a great new Somerville neighborhood is under construction on the shoreline of the Mystic River. Assembly Square is a 125-acre former industrial district, isolated by elevated freeways and railroads. Roughly 3 million square feet of commercial development and 2 million square feet of residential development are being built, along with a new MBTA Orange Line subway stop that will open in 2014.

CRITICAL QUESTION 3

What recent investments have been made in Inner Belt / Brickbottom?

More than **$50 million** in permitted construction has been invested in the past ten years.

The Inner Belt and Brickbottom districts are home to 400 residents, 100 employers, and 750 workers. The low density of these districts and their unfriendly pedestrian environment hide a healthy business climate that features low vacancy rates and four of the ten largest taxpaying parcels in Somerville.

Important public and private investments have been made in recent years. Since 2008, tens of millions of dollars have been spent on new civic spaces, resurfaced roadways, gateway signage, facade improvements, and major property acquisitions. Businesses have expanded, and the area's first transit-oriented development project has been permitted. These investments should be celebrated, and should inform phasing of the Master Plan's implementation activities.

A. Holiday Inn Bunker Hill repositioning
B. Inner Belt Gateway Sign
C. Triumvirate Environmental expansion and headquarters acquisition
D. 150-200 Inner Belt Road sale and repositioning
E. Joy Street Studios facade improvement and repositioning
F. Grossman Marketing corporate headquarters expansion
G. 90 Washington Street mixed-use redevelopment permitting

1. Zero New Washington off-leash recreation area construction
2. Washington Street resurfacing (American Recovery and Reinvestment Act)
3 Waste Transfer Facility demolition

WASTE TRANSFER FACILITY

Brickbottom's Waste Transfer Facility has presented an unwelcoming front door for Somerville for sixty years. The two-acre City-owned property was leased by a private waste hauler, and hundreds of diesel trucks entered the site each day. In 2013, the City of Somerville demolished the hulking facility, sending a clear signal to neighbors and potential investors that Brickbottom is ready for higher-value investment.

GATEWAYS

Clear signs of public and private investment are visible from the corner of Inner Belt Road and New Washington Street. The Bunker Hill Holiday Inn completed major facility upgrades in 2013. The City of Somerville completed the Zero New Washington Street dog park in 2009. Gateway signage was designed and financed in a collaboration between private landowners and business owners, with assistance from the City.

BUSINESS EXPANSION

Many growing businesses in the district straddle the line between older economic models like warehousing, and new economy sectors like green technology and digital marketing. Triumvirate Environmental is a national leader in environmental engineering, and in 2012 bought a building on Inner Belt Road to serve as an expanded headquarters facility. Grossman Marketing is a fourth-generation family business on Cobble Hill Road that expanded employment from ____ to ____ in 2013.

CRITICAL QUESTION 4

How can we most effectively harness the study area's economic development potential?

MARKET POTENTIAL AND POSITIONING; DEVELOPMENT ECONOMICS

SomerVision identifies economic development as a top priority for the Inner Belt and Brickbottom study area. It calls for adding more than 10,000 jobs in the study area by 2030. It also calls for adding more than 2,000 housing units in the study area, recognizing that housing helps attract business investment by supporting qualities businesses seek like presence of retail and active sidewalks. Through the guidance of this master plan, the study area can accommodate all of this and more, with flexibility to suit a variety of scenarios for mix and sequencing of different land uses. In all cases, it is recommended and assumed that at least 55% of building floor area be devoted to office, research & development and/or other employment-intensive uses.

What is the market potential for office and research and development in Inner Belt and Brickbottom?

W-ZHA completed a market analysis for the study area by W-ZHA in 2011.

Key findings for **office-related** industry sectors:

- Principal industry sectors potentially interested in locating in the study area include
  - > Information
  - > Financial Activities
  - > Professional, scientific and Technical
  - > Management of Companies and Enterprises.
- Office buildings in urban locations in and around Boston have demonstrated lower vacancy and higher rents than suburban locations between 2001 and 2011. Inner Belt and Brickbottom can leverage the anticipated continuation of this trend.
- Principal location characteristics sought by businesses in these industry sectors include
  - > Multiple modes of access for workforce and clients
  - > Area with positive image to assist marketing and recruiting
  - > Services and amenities available
  - > Location near other office businesses
  - > Reasonable price

Key findings for **research and development**:

- Demand for research and development space in Middlesex County has been growing 5% annually and is expected to continue
- Kendall Square has limited capacity left (roughly 3 million square feet in the pipeline, roughly 3 million square feet more in potential largely dependent on Federally-owned Volpe site redevelopment)—and high rents. This will increase demand for additional research space conveniently accessible to Kendall Square, within approximately 5-10 years.
- Principal location characteristics sought by research and development businesses include—**in addition to those listed above for office**—the following:
  - > Skilled workforce available
  - > Presence of industry prestige/culture
  - > Ready ability to lease or build lab/research space
  - > Partnership opportunities with other businesses, institutions
  - > Nearby institutions with research funding potential

How should we position Inner Belt and Brickbottom to be as competitive as possible against peer locations?

The adjacent table summarizing strengths of Inner Belt and Brickbottom against strengths of the principal locations it will compete against for business and real estate development. As the Inner Belt and Brickbottom area is just emerging as a center for high-value office and research and development activities, it has distinct near-term and long-term market positions.

The study area's major assets include:

- Highly educated workforce residing in Somerville and adjacent cities
- Green Line service (coming soon enough to be a tangible benefit to prospective businesses, as demonstrated by this master plan)
- Orange Line service (for northeast portion of study area)
- Large parcels potentially available for redevelopment with potential for large building area and/or floorplates (over 30,000sf)
- Large overall development potential (5 to 10 million square feet of building floor area)
- Excellent fiber optic/internet capacity
- Established character in Brickbottom
- Proximity to major office and research concentrations in Cambridge and Boston
- Good driving access to I-93, Cambridge and Boston

These assets can and should be leveraged now to attract an initial investment in development over the next 5 years, establishing Inner Belt and Brickbottom as a regional center for high-value office and research and development. Development during this period will likely occur in relatively small increments of buildings up to 50,000-100,000sf.

Additional assets should be cultivated to unlock the study area's much larger development potential over the next 5-20 years:

- Visible presence of housing, retail, hotels, the arts and parks/recreation opportunities in the study area
- Additional transit connections along the Urban Ring Corridor south to Kendall Square and the Longwood Medical and Academic Area, and north to Sullivan and Assembly Squares
- More complete, pedestrian-oriented network of streets within Inner Belt and Brickbottom, with walkable connections to Union Square and East Somerville
- A network of safe, convenient biking paths.

Program opportunity summary

The table below outlines the potential number of new jobs, built floor area of office/research & development and retail space, housing units and residents possible in the study area through about 2035. [insert "Inner Belt/Brickbottom program summary" table, bullets and diagram from 12/16 boards; in the table, change the "office" label to "Office and Research & Development"] Figures are provided for both a 2020 timeframe—reflecting an initial round of development catalyzed by the inauguration of Green Line service—and a 2035 timeframe, reflecting near-capacity buildout. The 2035 figures are consistent with SomerVision goals.

	2020 OPPORTUNITY	2035 OPPORTUNITY	SOMERVISION 2030 GOAL	MAPC 2035 PROJECTIONS —IBBB	MAPC 2035 PROJECTIONS —CITYWIDE
Office and Research & Development Space	250,000sf	3,250,000sf			
Retail Space	45,000sf	165,000sf			
New Jobs	900	10,250	10,000-11,000	4,879	15,130
New Housing Units	360	2,250	2,000-2,500	838	5,869
New Residents	540	3,400		1,050	6,129

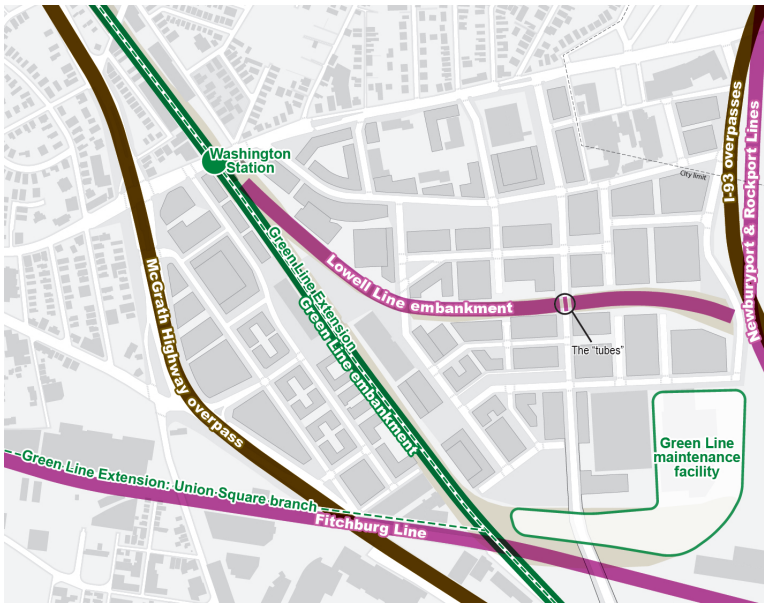
CRITICAL QUESTION 5

What access improvements would do the most to unlock opportunity in the study area?

Economic development potential in Inner Belt and Brickbottom has clearly been limited by the area's access constraints. These constraints are created primarily by the presence of four different active rail corridors that have converged on the area's rail yards and Boston's North Station since the 1835–1850 period:

- the Lowell Line, whose embankment splits Inner Belt into north and south sections, connected primarily by the "tubes," a makeshift underpass along Inner Belt Road that lacks walking and biking accommodations and chronically traps trucks with its low clearances
- the Green Line corridor, historically a segment of the Lowell Line, whose embankment separates Inner Belt from Brickbottom.
- the Fitchburg Line, which separates Inner Belt and Brickbottom from Somerville's Boynton Yards area and Cambridge
- the Newburyport and Rockport Lines, later reinforced as a barrier by I-93 and the Orange Line, separating Inner Belt from Charlestown.

NEW GREEN LINE SERVICE



New Green Line service will start to reduce rail and road barriers that have isolated Inner Belt and Brickbottom for more than 160 years.

In addition, new Green Line maintenance yard infrastructure will add tracks and a maintenance facility in the southeastern portion of Inner Belt, and a lightly used connecting railroad track at grade level poses some barriers along New Washington Street.

Finally, twentieth century road construction imposed additional barriers. The broad, elevated McGrath and O'Brien Highway corridors separate the study area from Union Square and other Somerville neighborhoods.

For several decades, concepts have been proposed to mitigate some of these barriers with new bridges, tunnels, or grade-level road reconstruction. This plan, however, represents the first comprehensive effort to assess and prioritize these potential, and costly, infrastructure investments based on their anticipated economic and community development benefits. It builds upon the state's initiative to inaugurate Green Line service, which will provide the area an important new means of crossing the Fitchburg Line and McGrath Highway barriers. This plan also builds upon two other major efforts that lay the groundwork for longer-term access improvements.

First, it anticipates inauguration of Urban Ring corridor transit service through the study area. The Urban

Ring, a circumferential transit corridor ringing Boston defined through several decades of study and policy development, would conceptually link Inner Belt south to Lechmere, Kendall Square, the Longwood Medical and Academic Area, and other destinations to the south and east of central Boston; and north and east to Sullivan Square, Assembly Square, Chelsea and Logan Airport. While the Urban Ring transit corridor currently lacks committed funding or implementation scheduling, strong interest in the corridor by a variety of businesses, institutions, neighborhoods and municipalities will continue to press for its implementation.

Second, this plan was conducted in parallel with a state-sponsored planning study of methods to reconstruct today's elevated McGrath Highway to enhance walking, biking, transit and driving connections in a balanced way. Alternatives included roadways built entirely or partially at grade, and new greenway space for landscape and off-street multipurpose paths. The process identified a preferred "boulevard" solution built at grade, and this alternative was used as a basis for studying potential long-term effects on traffic posed by development in the study area and in the region. Implementation of this alternative is not anticipated for at least ten years. In the meantime, the existing elevated McGrath structure has been rehabilitated to extend its useful life, and interim pedestrian, bike and roadway improvements are being made below the structure to enhance access convenience and safety for all modes.

Transportation infrastructure alternatives analysis methodology and summary recommendations

The access alternatives analysis performed as part of this master plan builds on three major assumptions. It maintains that the optimal access network serving Inner Belt, Brickbottom and its surrounding context should **emphasize a range of convenient transportation choices**; that transportation and land use policy should be managed together; and that implementation decisions must **weigh cost-effectiveness of alternatives across a comprehensive range of economic, transportation and design criteria.**

- The optimal access network should emphasize a range of transportation choices, including but expanding beyond automobile access which predominates today. Special emphasis must be placed on leveraging new Green Line service in particular, given its importance in drawing market-based investment in business and real estate development. This in turn requires emphasis on creating inviting, safe condi-

Rendering of new Washington Street Green Line station (source: MBTA)

Concept plan for preferred McGrath Boulevard alternative (source: MassDOT)]

tions for walking, biking and using complementary transit services (bus and future Urban Ring corridor transit).

- The optimal access network should be actively coordinated with area land use, both in the planning process and in operations. Transportation Demand Management (TDM) strategies, well-established in other places such as Cambridge's Kendall Square, should be used to offer the best possible range of access choices to property and business owners and their tenants, and to maximize cost-effectiveness of public investments in infrastructure. TDM strategies involve partnership with area employers and property owners, and typically involve incentives for walking, biking and transit usage (such as reduced-cost transit passes, and improved bike parking facilities) coupled with parking pricing policies that reflect market demand for parking.
- Alternatives should be evaluated based on a comprehensive range of criteria including benefit, cost, and implementation feasibility. The optimal transportation network must both make the transformative improvements needed to unlock significant new economic development and community access opportunity, and be fully achievable with respect to physical and financial constraints at hand. The analysis methodology used in this plan scored alternatives using these criteria:
  - > Level of benefit
    - Economic development (up to 3 points)—*to what extent will the project advance market-driven development opportunity?*
    - Transportation (up to 3 points)—*to what extent does the project expand needed high-quality transportation choices?*
    - Urban design (up to 3 points)—*to what extent does the project create high quality places designed for people?*
  - > Cost/benefit (up to 3 points)—*Projects were first sorted into different cost tiers, and then scored according to what overall level of benefit they would provide relative to their cost tier.*
  - > Feasibility
    - Technical (up to 3 points)—*projects with fewer engineering or design challenges earned more points.*
    - Partnerships/land access (up to 3 points)—*projects with fewer potential complications from needed land acquisition, partnerships with private entities or public agencies, or similar factors earned more points.*
  - > Timing (up to 3 points)—*Projects achievable sooner earned more points.*

  An alternative could serve as little as 0 if it provides no net benefit or -1 if it is detrimental to a criteria standard.

Rankings scored projects within their categories as well as across the overall study area. For instance, different alternatives for improving access across the Lowell Line embankment were ranked against each other to identify which deserve highest priority in that category. Alternatives also fell into certain tiers across the study area based on their overall score, helping identify which ones deserve attention first. The highest ranking alternatives across the study area were grouped into two categories, starting with "low hanging fruit" and others that are most cost-effective and rapidly implemented (see table X) . The second category includes projects that provide compelling benefit but require greater investment and/or longer timeframes to implement (see table X). These may deserve near-term action to start their implementation process but are not expected to yield near-term results.

In short, infrastructure investment priorities fall into these levels:

- Low-hanging fruit. *These actions will cost-effectively, quickly leverage new Green Line service.*
  - > Enhance existing streets with sidewalks, trees, lighting etc. as needed (up to $500,000 each).
- First priority. *These actions will assist existing businesses and near-term development projects.*
  - > Replace Inner belt tubes ($10-12 million)
  - > Improve Tubes bypass, if this facilitates faster, less costly Tubes replacement ($2.5-3 million)
  - > Create new street segments on an opportunistic basis (up to $500,000 each).
- Second priority. *These actions will unlock more substantial benefits but require more complex planning and implementation partnerships, and greater levels of funding, making them less relevant to near term development opportunities.*
  - > Poplar St. extension to Inner Belt as walk/bike greenway ($4-6 million)
  - > North Point bridge, preferably with traffic ($10-12 million)

- Third priority. *To a greater degree than the second priority actions, these require more time and funding to implement, and so ought to be delayed until market interest can promptly take advantage of their benefits.*
  - > Inner Belt Rd. West extension under Lowell Line ($10-12 million)
  - > Other Green Line crossings ($2-6 million)
  - > New Inner Belt South Green Line station if feasible

Highest Priorities Across Alternatives

KEY GOALS

- Foster economic development for Somerville
- Enhance walking and biking connections to the Washington Street station from all directions
- Enhance biking and Community Path connections within and beyond the study area

SUMMARY OF PRIORITY ACTIONS

1. Improve existing streets with better sidewalks and other pedestrian infrastructure, as cost-effective, near term “low hanging fruit” initiatives to leverage Washington Street station and enhance existing properties. Create a new north-south street as part of Cobble Hill Shopping Center redevelopment.
2. Replace the “tubes” with a more attractive and functional bridge. Enhance the street grid and redevelopment opportunities by extending Roland Street west to Inner Belt Road, adding a north-south street west of the Holiday Inn, extending Third Street west to Inner Belt Road West, and enhancing the private drive below the Lowell Line into a public street with sidewalk
3. Create a new walking/biking connection across the Green Line as part of Green Line construction.

CRITICAL QUESTION 6

How can we fund needed infrastructure improvements using the value of new development?

The planning process analyzed opportunity for the increased value of new development to pay for the cost of infrastructure improvements needed to help attract and support that new development. Major categories of these investments include street improvements, new streets, critical bridge connections, parks and structured parking. Over the long term, increased tax revenue from new development clearly supports infrastructure costs. The greater challenge is to be able to finance critical near-term infrastructure needs before significant revenues are received from the development it enables. To a significant degree, this challenge can be met, through a combination of carefully prioritizing infrastructure investments (as described under critical question 5), and the following specific financing strategies.

Finance plan assumptions

- Revenues
  - > Revenues to the city primarily consist of property tax receipts. Because most housing development anticipated in the study area would be multifamily rental housing, it would produce commercial tax payments like office or other business development would.
  - > A second significant source of revenue would be fees from shared parking structures. Whether parking structures are built and managed by private developers or the City or another public entity, these revenues could cover the cost of creating the parking structures. Further, land values in the study area are high enough that greater economic value would be achieved by property owners through building structured parking to reserve more land for building development, than by utilizing significant land area for surface parking. This analysis assumes prevailing parking structure construction costs, and parking fees typical of mixed-use areas where transit, and to a lesser degree walking and biking, offer reasonable alternatives to driving and parking. It also assumes that a limited amount of structured parking—not more than 500 spaces—may be offered at any given time for commuters interested in parking for the day to complete their commute using the Green Line. While such "park-and-ride" facilities are not generally desired in the study area as a long-term presence due to potential traffic impacts and displacement of higher-value uses, park-and-ride revenue would provide valuable near-term financing assistance for parking structures built with greater capacity than can immediately be utilized by new development. (In some cases it is desirable to build excess parking structure capacity to make most efficient use of land, due to the impracticality of adding floor levels to existing parking structures)

    The Community Preservation Act would also produce supplemental revenue to the city, at a rate of 3% of the amount of the property taxes. This analysis has assumed that Community Preservation Act-sourced revenues would be dedicated to fund ongoing costs such as park maintenance, as they are too small to make a significant contribution to capital costs.
- Finance approach recommendations and assumptions
  - > A District Improvement Financing (DIF) approach is recommended, similar to the successful approach taken by the City at Assembly Square. As near-term redevelopment begins, several DIF districts should be established within the study area. These districts would best be scaled approximately similar in size to the character subdistricts outlined in the Master Plan, gathering a mix of near- and longer-term development sites that would all benefit from certain specific infrastructure improvements (such as a new street or connection). General Obligation (GO) bonds—rather than more costly tax-increment financing methods—would be issued with to finance improvements, repaid by growing tax revenues from new development. 20-year terms and 4% leverage are assumed for the GO bonds.
  - > Because smaller, incremental near-term projects will produce too little revenue at first to efficiently support GO bonds, initial infrastructure improve-

ments should be funded on a "pay-as-you-go" basis from the City's general fund. This approach is feasible since significant near-term improvement can come from relatively inexpensive investments in sidewalks, street trees and other "streetscape" elements along existing streets such as New Washington, as detailed under critical question 5.

SAMPLE SEQUENCE OF PUBLIC/PRIVATE INVESTMENTS IN INNER BELT PROPERTIES AND INFRASTRUCTURE

Sample private and public investments are grouped into these different categories, each representing a DIF (District Improvement Financing) district. On the diagram below, colors distinguish DIF categories, numerals in squares indicate private redevelopment, numerals in circles indicate public infrastructure improvements funded through that private development, and number sequence indicates a sample implementation sequence within each DIF district.

Inner Belt Gateway/Washington Street DIF district (yellow)

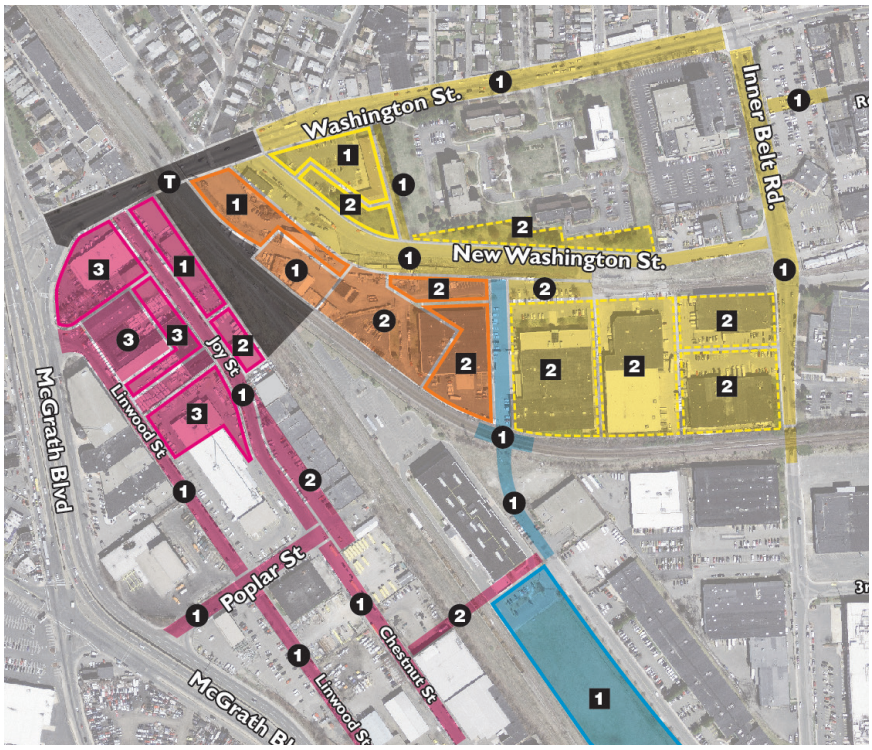
1. Phase 1 redevelopment of the Cobble Hill shopping center occurs. Over 3.5 to 4.5 years, its tax revenues can fund streetscape improvements along Washington St., New Washington St. and Inner Belt Rd., a new street linking Washington and New Washington along the Cobble Hill Shopping Center, and extension of Roland Rd. to Inner Belt Rd. through direct General Fund appropriations
2. Phase 2 redevelopment of the Cobble Hill Shopping Center, plus any ONE of the sites with a dashed outline, can fund "Tubes" replacement and a new park along New Washington St. through bond financing.

Inner Belt Gateway/New Washington Street DIF district (orange)

1. An initial office building redevelopment adjacent to Washington Station (private and MBTA ownership), plus interim park-and-ride parking revenues, funds an adjacent public parking structure serving multiple sites and uses through bond financing
2. Redevelopment on two additional sites (private, MBTA and city ownership), plus interim park-and-ride parking revenues, funds a second public parking structure serving multiple sites and uses through bond financing

Brickbottom DIF district (magenta)

1. Housing redevelopment on the Cataldo Ambulance and adjacent sites funds streetscape improvements along Joy, Chestnut, Linwood and Poplar Streets through General Fund appropriations



2. Mixed-use development on additional sites north of Joy St. funds a Joy Street public space and pedestrian an connection across the Green Line (supplementing MBTA Community Path funding) through bond financing
3. Mixed-use development on additional sites between Joy and Linwood Streets funds a public parking structure and street between Joy and Linwood.

Inner Belt South DIF district part 1 (blue)

1. Mixed use redevelopment at 200 Inner Belt Road funds a new street underpass below the Lowell Line through bond financing.

CRITICAL QUESTION 7

What will new Green Line service bring—and when?

The MBTA Green Line is the most heavily-travelled light-rail line in the United States, with roughly 220,000 daily riders. It provides critical mass transit service between downtown Boston and inner-ring suburbs to the west such as Brookline and Newton. Regionally-significant job centers such as the Longwood Medical Area, cultural icons including Fenway Park, and several major colleges and universities are located along the Green Line. The long-planned Green Line Extension to Somerville will bring convenient transit service to New England's most densely-populated city, connecting residents to jobs and unlocking new opportunities for our region's economy to grow in a sustainable, transit-oriented pattern.

Today, the Green Line light rail system terminates at Lechmere station, located in East Cambridge roughly 1/4 mile from the Somerville border. The Green Line Extension project will extend the light rail service roughly 4.5 miles northwest through Somerville along existing commuter rail rights-of-way. No at-grade street crossings will be built, since the existing rail line is generally below street level. Six new stations will be constructed, and the existing terminus at Lechmere will be moved to tie in with the commuter rail right-of-way.

The extension is being built in phases. The Washington Street station, along with two other stations closest to downtown Boston, will be completed and operational by early 2017. The MBTA signed a construction contract for this phase of the project in September 2013 worth $393 million, and work is currently underway.

Four additional stations to the west will be completed by early 2019 (see pages 36–37). The MBTA is seeking federal funding for this phase of the project, and submitted an application to the Federal Transit Administration's "New Starts" program in October 2013.

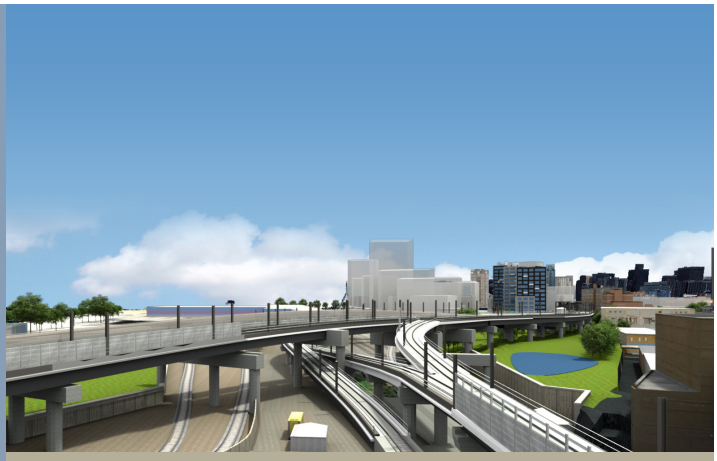
The Green Line Extension project requires the MBTA to invest in new trolley cars and associated maintenance and service infrastructure. A fleet of _____ new trolley cars were purchased in 2012 to help handle the projected 50,000 daily riders using the new Green Line stations. A new Vehicle Maintenance Facility will be constructed in Somerville's Inner Belt district to handle storage and maintenance operations for the fleet. The facility will be located on Third Avenue, adjacent to the existing Boston Engine Terminal, which serves the MBTA's fleet of commuter rail locomotives.

BRICKBOTTOM STATION

The Brickbottom Green Line station will be open for service in early 2017. A construction contract worth nearly $400 million was signed in 2013, and major site preparation will begin in 2014. The Washington Street bridge will be rebuilt, stormwater drainage infrastructure will be installed, and the station will be constructed. Riders will reach Boston's North Station in just six minutes.

COMMUNITY PATH EXTENSION

The Somerville Community Path is a regionally-significant commuting and recreation resource which will soon connect the 14-mile Minuteman Commuter Bikeway to Somerville's west with the 15-mile Charles River path network. The section between Washington Street and Lechmere station will be particularly memorable, with expansive views from the viaduct as it climbs over the Fitchburg tracks.



Community Path is on the other side of the MBTA bridge from us.

MAINTENANCE FACILITY

A large vehicle maintenance facility is necessary to operate the Green Line Extension, and it must be located near the new tracks. The MBTA is acquiring five acres of private property on Third Avenue to build the maintenance facility, which will be located adjacent to the 25-acre Boston Engine Terminal.

CRITICAL QUESTION 8

How will the Green Line station at Brickbottom work?

The MBTA Green Line Station will be located on the south side of Washington Street, stretching from Joy Street on the west to New Washington Street on the east. The Green Line trolleys will run in existing rail rights-of-way that currently separate Inner Belt from Brickbottom, parallel to Chestnut Street and Joy Street. The Green Line tracks will converge with the Lowell line commuter rail tracks just south of Washington Street, and both will cross Washington Street on the elevated rail bridge. The Green Line Extension does not include any at-grade roadway crossings.

Riders will enter the station from underneath the rail bridge. A long, glass-fronted arcade will be built facing Washington Street to create transparency and promote safety. Entrances to the arcade will be on the west and east sides of the station. Riders will enter into an open lobby, and fare gates will be located at the southwest (Joy Street) side of the lobby. Stairs, escalators and elevators will bring riders to the elevated station platform.

From the central platform, outbound trains will run along the Lowell commuter rail right-of-way to Gilman Square, Tufts University and eventually the Green Line's Mystic Valley / Route 16 terminus. Inbound trains will run along the old Guilford freight rail sidings between Inner Belt and Brickbottom, and up onto a viaduct across the Fitchburg commuter rail tracks to the new Lechmere station, Museum of Science and Boston's North Station.

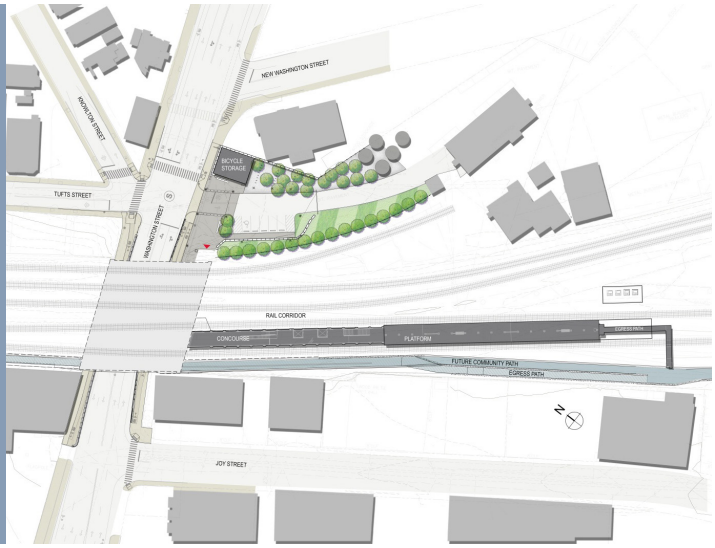
Like all the new Green Line stations, the Washington Street station is intended to function as a walk-up station that serves the neighborhood around it. No commuter parking lots or garages will be built by the MBTA, although an accessible drop-off site will be created just east of the station to serve users of the "The Ride" paratransit program.

To ensure safe and convenient access for riders from the neighborhoods north of Washington Street, the MBTA will be making improvements to the intersection of Tufts Street, Knowlton Street and Washington Street which include a new traffic signal and new crosswalks.

To encourage bicycle use, the MBTA will be installing protected cycletracks on the north and south sides of Washington Street between Joy Street and Tufts Street, and will build an indoor bike cage to provide safe, weatherproof locking options for cyclists. The Washington Street Green Line station will provide direct access onto the Somerville Community Path.

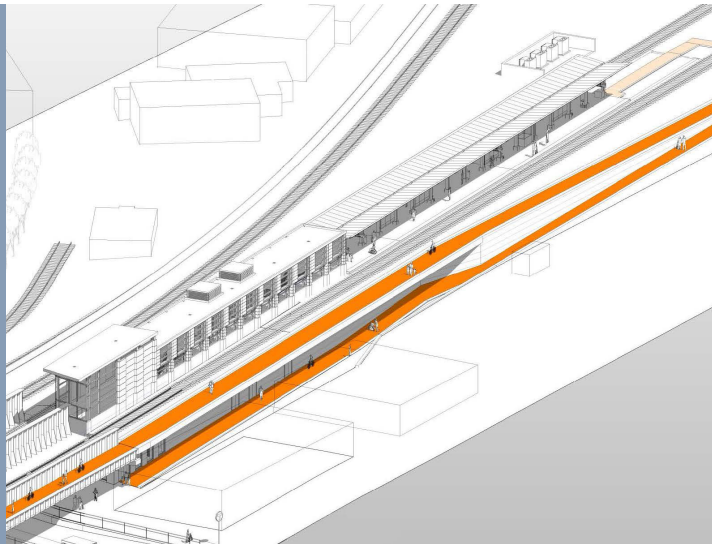
BRICKBOTTOM STATION

The entrance to the Green Line station will be located underneath the rebuilt Washington Street bridge. The elevated platform is located at bridge level. Accessible drop-off facilities and bicycle storage are located to the east. Pedestrian and bicycle improvements will be made along Washington Street between Joy Street and New Washington Street.



COMMUNITY PATH

The Community Path is an important way to get Green Line riders to and from the stations. At Washington Street, the path will run alongside the Green Line tracks on the rebuilt bridge structure. The main line of the path will continue south toward Lechmere, and a switchback will connect the station platform's emergency egress back to street level at Washington Street.



ACCESS IMPROVEMENTS

Thousands of Green Line riders will be walking to the Brickbottom station from East Somerville, and Washington Street creates a major barrier. The MBTA is redesigning the intersection of Washington Street, Tufts Street and Knowlton Street to ensure safety and accessibility, and will install a new traffic signal along with new crosswalks to ensure safety and accessibility.

CRITICAL QUESTION 9

When will McGrath Highway be rebuilt as an at-grade roadway connecting neighborhoods?

For generations, heavy transportation infrastructure has isolated the Inner Belt and Brickbottom districts. Today, coordinated planning is beginning to turn historic barriers into assets for access and placemaking. The Massachusetts Department of Transportation's Grounding McGrath initiative is one such example with major implications for the future of Inner Belt and Brickbottom.

State Route 28, known as McGrath Highway in Somerville and O'Brien Highway in Cambridge, is a classic example of a freeway being cut through pre-existing urban neighborhoods, serving suburban automobile commuters at the expense of urban residents and business operators. Throughout its 1.5 mile length in Somerville, the oversized McGrath Highway divides neighborhoods, denying many residents the ability to safely walk to a neighborhood school or grocery store. The elevated section between Washington Street and the Cambridge city line is known as the McCarthy Viaduct was constructed in the mid 1950's, creating a towering wall that separates Brickbottom from the historic and walkable Union Square neighborhood to the west.

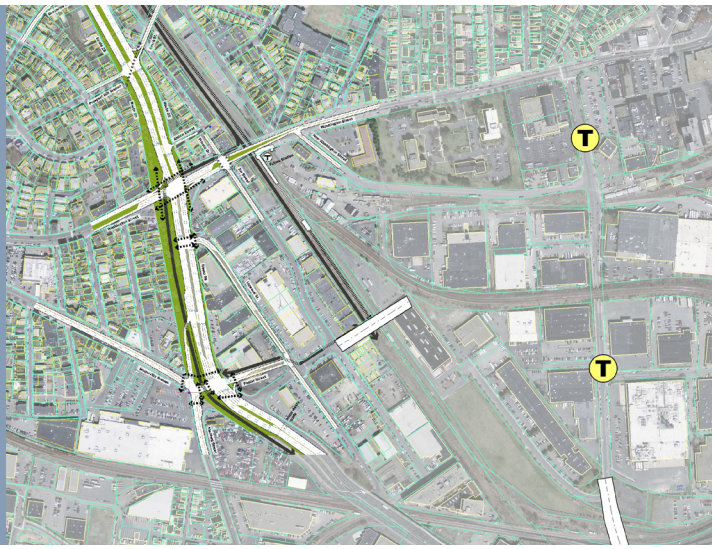
Community members have been advocating to remove the elevated portion of McGrath for many years. Under Governor Deval Patrick's administration, the Massachusetts Department of Transportation has engaged in a series of landmark collaborations to evaluate whether and how to move forward and implement the community's vision. In 2011, the "Grounding McGrath" study was launched, blending traditional traffic engineering with a 21st century sensibility that focuses on urban design and livability in the highway corridor.

A two-year public process was led by MassDOT, working through existing conditions analysis, development of alternatives for study, alternatives analysis and ultimately recommendations. Economic development, environmental sustainability and public health figured prominently in the study process. Consistent participation by local residents, community-based organizations, municipal governments and state agencies allowed for a meaningful dialogue about various strategies being considered.

In May 2013, the study team shared its recommendations with the public, calling for removal of the elevated McCarthy Viaduct and replacement with an at-grade roadway that better serves all users. In December 2013, a draft study report was published for public review and comment. The Grounding McGrath initiative will now move into its formal environmental review stage.

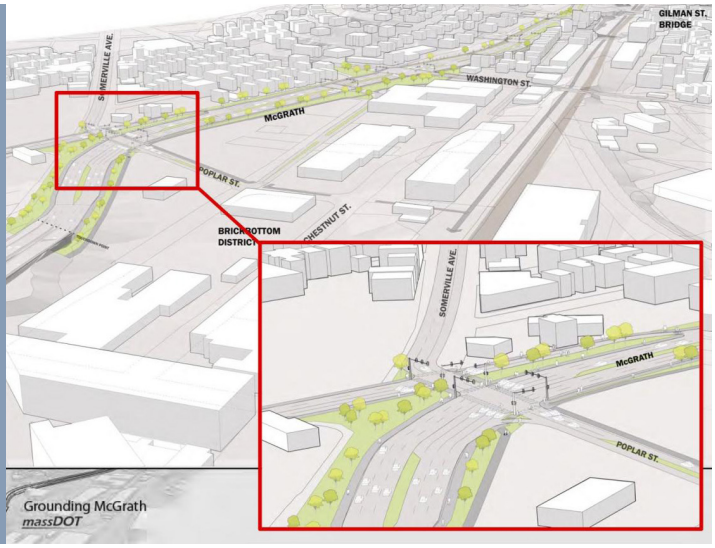
COORDINATED STUDY

The MassDOT Grounding McGrath effort was closely coordinated with the City of Somerville's Inner Belt / Brickbottom Master Planning process. Between 2011 and 2013, state and municipal staff worked together to manage the projects, and consultant teams shared data and analytical methods. Both studies relied heavily on stakeholder focus groups, which included many of the same residents, businesspersons and advocacy organizations.



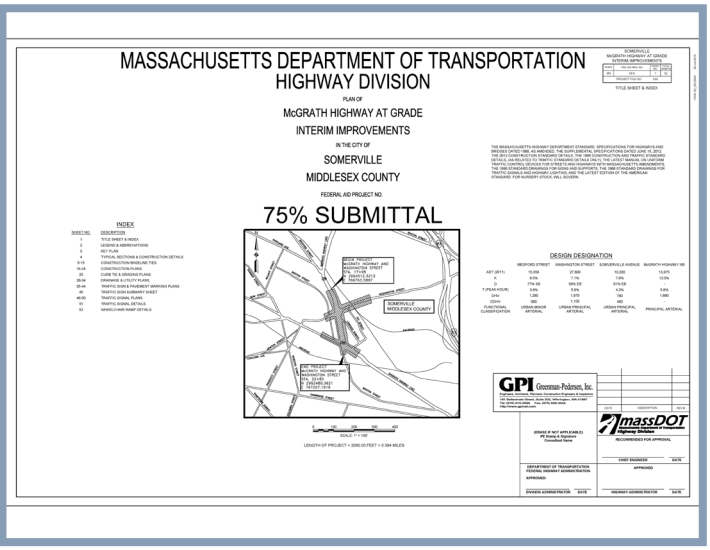
INTERSECTION DESIGN

Designing a new intersection at Somerville Avenue, Medford Street and Poplar Street is extremely complicated, in part because the City of Cambridge values Medford Street in Somerville as a cut-through for suburban drivers headed to Kendall Square. The 2013 Grounding McGrath study examined basic options for new intersection geometry, but detailed designs will not be explored until the project's environmental phase begins (2014).



INTERIM IMPROVEMENTS

Since construction of a new at-grade roadway would likely take place between 2021 and 2023, MassDOT has committed to a series of interim improvement measures, including upgrades to pedestrian crossings at several locations, on-street bicycle facilities, and closure of redundant ramps and tunnels along the viaduct.


MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION

PLAN OF

McGRATH HIGHWAY AT GRADE
INTERIM IMPROVEMENTS

IN THE CITY OF

SOMERVILLE
MIDDLESEX COUNTY

FEDERAL AID PROJECT NO.

75% SUBMITTAL

INDEX

DESIGN DESIGNATION

GPI Greenman-Pedersen, Inc.

massDOT Highway Division

CRITICAL QUESTION 10

Will congested roads threaten our smart growth goals?

For generations, Somerville has been viewed as a cut-through for regional traffic, the kind of place that people want to go through, not to. A relatively small local jobs base and insufficent public transit meant that the vast majority of the city's 45,000 workers were forced to drive to their place of employment, since local jobs were few and public transit options insufficient. Today, Somerville is re-establishing a more balanced approach to meet its transportation needs.

This master plan is rooted in the philosophy of choice. The Inner Belt and Brickbottom districts are ideally located to offer unique access to the MBTA's Orange Line and Green Line, Interstate 93, the future Community Path, and walkable neighborhoods like East Somerville and Union Square. To achieve smart growth targets called for in regional and local plans, roughly 50% of new trips should be handled by transit, bicycling and walking, and 50% are expected to be made by automobile. The City must preserve roadway capacity for essential vehicular trips, like commercial trucks serving local businesses.

To test whether these goals are viable, the study team evaluated existing conditions, historical trends, and future projections under several growth scenarios.

A progressive partnership with the Massachusetts Department of Transportation and the region's Central Transportation Planning Staff allowed the Inner Belt / Brickbottom team to run development simulations using the officially-endorsed regional model, which accounts for changes like the new Green Line service and major new smart growth project like Assembly Square and North Point.

The results of these modeling efforts indicated that if new development is oriented around pedestrians and public transit, the region's roadways can handle that growth. Techniques known as "Transportation Demand Management" must be used to discourage unnecessary driving. These techniques include parking management, shuttle services, and employer investments in transit passes and bicycle facilities.

In addition, street reconstruction and new street projects must use a "Complete Streets" approach that emphasizes designs accommodating all forms of travel. Recent studies have shown that local economies perform better near complete streets projects than near 1960's style roadway projects. The City of Somerville will publish a Complete Streets design manual in 2014.

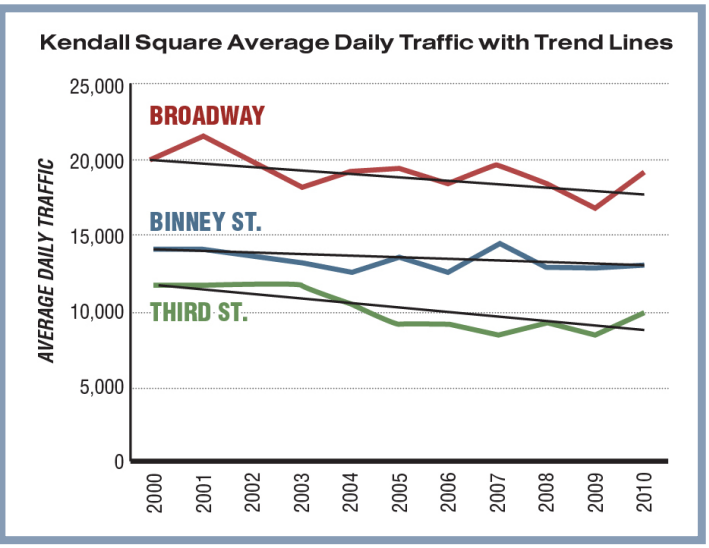
2035 PROJECTIONS	BASELINE 2010	SCENARIO 1 *Approx. 6 million sf of development, 70% trips by auto*	SCENARIO 2 *Approx. 6 million sf of development, 50% trips by auto*
Daily Vehicle Miles Traveled	**85,000** miles	**131,000** miles	**41,000** miles
Daily Trips	**12,000** trips	**36,000** trips	**24,000** trips
% of Non-Auto Trips	**5%**	**30%**	**50%**

WASHINGTON STREET

For Inner Belt and Brickbottom to grow, traffic congestion in Somerville's Union Square must be alleviated. During peak commuting hours, the intersection of Washington Street and McGrath Highway experiences backups stretching eastward from Union Square, more than 1/4 mile away. The City of Somerville recently began a major intersection redesign project for Union Square that will improve traffic flow all the way to New Washington Street.

DEMAND MANAGEMENT

Traffic patterns can be viewed as a supply and demand relationship. Wider roads do not solve traffic problems, since they increase both supply and demand. The Kendall Square success story is about demand management. By limiting parking, improving mass transit, and focusing on biking and walking, the City of Cambridge has helped bring 20,000 new jobs to Kendall since 1999. Automobile traffic has dropped 14% during that period.



INTERSTATE 93

North of Boston, Interstate 93 carries roughly 250,000 cars every weekday. Efforts are underway to squeeze additional capacity from the existing roadway, including reclaiming unused lane space at the High-Occupancy Vehicle lanes near Sullivan Square. New development in the I-93 corridor must adhere to smart growth principles, with siting, uses and designs that allow 50% of new trip demand to be met by public transit, bicycling and walking.

CRITICAL QUESTION 11

Will stormwater drainage threaten growth in Inner Belt & Brickbottom?

For generations, heavy transportation infrastructure has isolated the Inner Belt and Brickbottom districts. The low-lying Inner Belt district has historically struggled with drainage issues. Much of the area is former marshland filled in during the nineteenth century. Roughly 85% of all sewer and stormwater drainage in Somerville makes its way to the study area. Storm and sewer flow from much of central and western Somerville is piped through the MWRA's lines connecting Poplar Street in Brickbottom northeast to Sullivan Square.

Drainage from East Somerville and much of the Inner Belt, however, does not successfully escape the study area. Large pipes run east along New Washington Street and north along Inner Belt Road, then join together to run east along Third Avenue toward Interstate 93 and ultimately the MBTA's engine terminal facility. A major blockage in an historic stone culvert on MBTA property prevents drainage, and backups and flooding have been common in recent decades.

The City and its partners are working towards progressive solutions for drainage and flooding issues in the district, to ensure public safety today and unlock development opportunities during the coming decades.

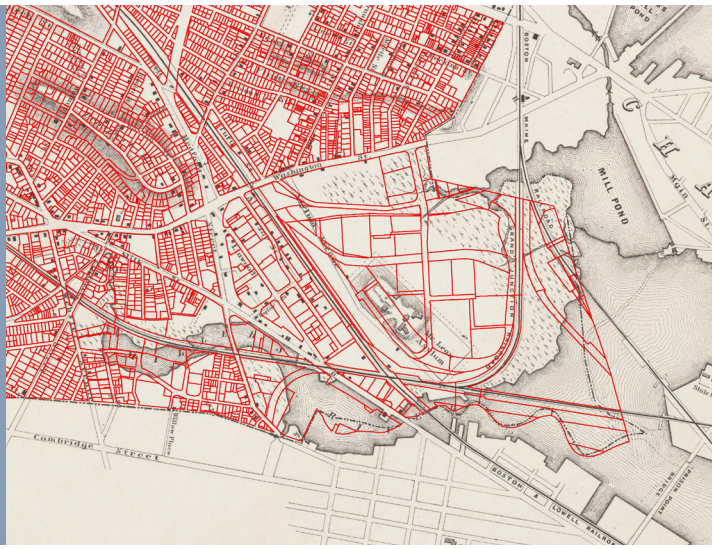
The MBTA will design and build a major pump station adjacent to the Washington Street Green Line station, a buried detention cistern running along the Green Line tracks south of the station, and a detention pond at the site of the former Red Bridge.

The City of Somerville has adopted a stormwater ordinance that will support on-site stormwater retention in upstream neighborhoods, and is expanding education programs for water and sewer ratepayers to encourage conservation. The MBTA and the City are partnering to prepare hydrologic models of the Inner Belt and Brickbottom districts, to quantify the performance and cost benefit of various improvement plans.

This plan recommends that rather than attempt to retrofit the MBTA's old stone culvert drainage, the City partner with the MBTA and MWRA to bypass it, ensuring that system capacity equivalent to a functioning old stone culvert is made available at an alternate location. Pipes below Inner Belt Road should be reversed to flow south instead of north, and should be connected to large pipes along the MBTA's Fitchburg rail line that run east behind the engine terminal.

HISTORIC MILLER'S RIVER

Much of Inner Belt is filled marshland along the banks of the historic Miller's River, and Boston Harbor is only a mile away. Projected sea level rise provides a strong incentive for sustainable development strategies in the district. New drainage capacity is needed to increase resilience from flooding events. Adaptation strategies including on-site stormwater retention and siting of electrical systems in new buildings above basement level will also be key.



OLD STONE CULVERT

Constructed around 1940, the five-foot square "Old Stone Culvert" is located on MBTA property on Third Avenue, and was designed to serve a 250-acre drainage area. A major upgrade project was planned in the early 1990's, but never built, and the culvert has since become unusable due to sediment blockage. Cleaning, upgrades, or re-routing of all related pipes will be necessary to achieve this plan's goal of 12,000 new jobs and 2,000 new housing units.

2010 FLOOD EVENT

A flash flood event in July 2010 caused widespread damage in Somerville and Cambridge. Insufficient capacity at the New Washington Street pump station contributed to flooding underneath the Washington Street bridge. As a result, the Green Line station is being designed with a much more robust stormwater system, including major upgrades to the pump station and significant detention facilities along the tracks to the south.

CRITICAL QUESTION 12

What constraints do "The Tubes" impose?

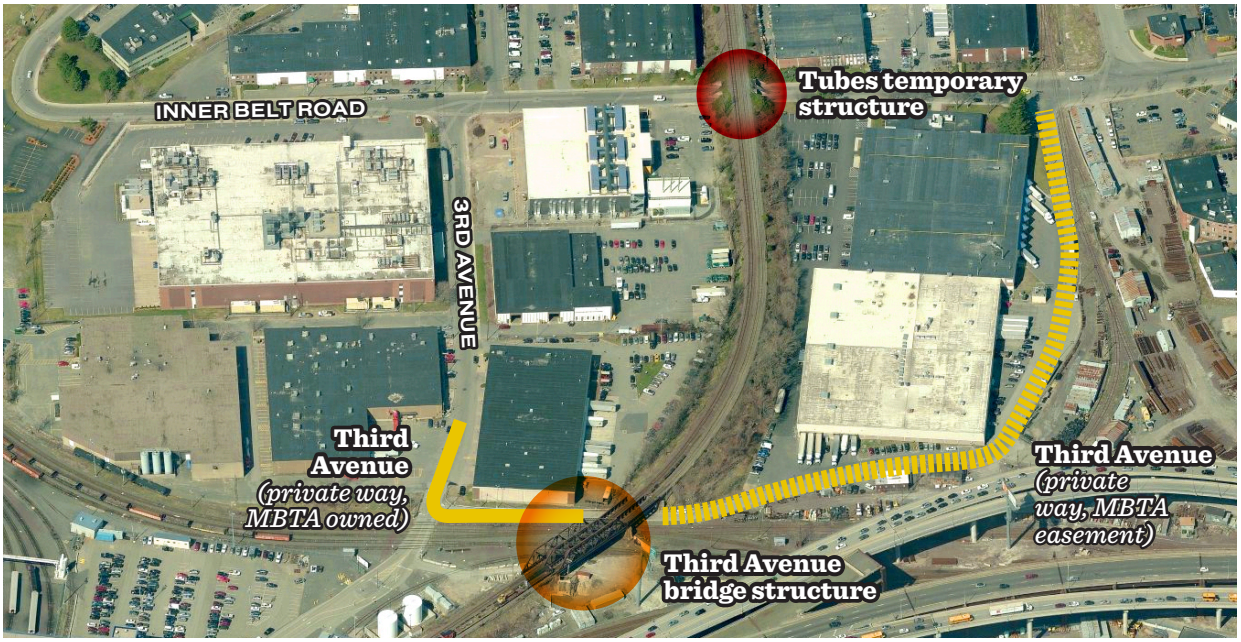
The earthen berm that carries the Lowell commuter line rail tracks is a tremendous impediment to north-south mobility in the Inner Belt district. The temporary Tubes that bring Inner Belt Road underneath the tracks are a public safety hazard, and a clear deterrent to new investment. Replacement of the Tubes with a real bridge structure is one of the top priorities of this plan.

Installed in 1985, the Tubes were intended to be a temporary substitute for a bridge. They offer poor sight lines, dangerous and inaccessible sidewalks, and potholed roadway surfaces. Business and property owners have been watching the corrugated metal become more and more compressed by the weight of the berm, tracks, and trains, since there are no bridge abutments to carry the load above. The Tubes are the only public roadway connecting properties south of the Lowell line to the regional street grid.

Over time, the Tubes have been slowly collapsing under the weight of an unsupported load. In 1999, local business owners arranged to host a tour of the Tubes for state, regional and local officials. as the delegation stood watching, an 18-wheel tractor trailer passing through the Tubes became stuck. The truck driver was forced to let air out of the truck's tires to gain a few inches of clearance and extract the vehicle from the Tubes.

Replacement of the Tubes will require a coordinated plan of action, and significant financial resources. The *2005 Inner Belt Access Alternatives Study* by Vollmer Associates, and a circa 1988 study referenced therein by Universal Engineering Corporation, outlined a construction methodology and provided rough cost estimates. A primary driver of cost is the need to maintain Amtrak and commuter rail service during construction. To close the Tubes during construction, an alternate route must be established to serve properties south of the Lowell line. Third Avenue, a private road that crosses under the Lowell line to the east, should be used as a primary access route during replacement of the Tubes.

The Tubes also prevent establishment of radial Bus Rapid Transit service, which is a goal of this Plan.



SO CLOSE, AND YET SO FAR

The Prudential Center seems close enough to touch, yet the “temporary” Tubes on Inner Belt Road are the only public way in or out of the district’s southern properties. Remarkably, there are no abutments to support the load above, meaning that the Tubes are not even classified as a bridge structure. This makes qualifying for public financing more difficult, despite the Commonwealth’s focus on improving bridge safety.

THIRD AVENUE DETOUR

Just north of the Tubes, the private Third Avenue turns east toward Interstate 93. Dozens of trucks use this route every day to access the Royal White Laundary facility, and employees of the MBTA’s Boston Engine Terminal also use it. The City of Somerville should work with private landowners to secure safe and legal access for all vehicular traffic headed south of the Lowell line.

THIRD AVENUE EXTENSION

Third Avenue crosses under the Lowell line using a narrow bridge. Just to the south of this bridge is the location of the MBTA’s future Green Line Vehicle Maintenance Facility, which is scheduled to be completed between 2018 and 2019. As the MBTA moves forward with construction, a partnership with the City of Somerville and abutting landowners should be explored to undertake any necessary traffic detours and drainage improvements in this area, and ultimately replace the Tubes.

CRITICAL QUESTION 13

How can zoning reform work for Inner Belt and Brickbottom?

For generations, heavy transportation infrastructure has isolated the Inner Belt and Brickbottom districts. Zoning is a means to an end. It is a tool that municipal governments can use to guide private investment in ways that are consistent with a shared vision for the future. The SomerVision Comprehensive Plan identifies zoning reform as a key step to achieving its smart growth goals. In 2013, the City of Somerville began a complete overhaul of its outdated zoning ordinance.

In Brickbottom, the vision is for small, fine-grained blocks with buildings built to the street edge. Adaptation of existing buildings will be encouraged to help retain the post-industrial feel of the district and to maintain a diversity of price points. Performing arts and fabrication spaces will be prioritized. New residential buildings in Brickbottom will be limited to between 30% and 40% of new square footage in the district.

In Inner Belt, the vision is generally for larger buildings, with the exception of along Washington Street where scale should be moderated. Commercial buildings such as office, lab and research & development will be prioritized to maximize on-site job counts. Commercial development should account for between 60% and 70% of new square footage in the district. Some residential buildings will be allowed to ensure a mix of daytime and evening activity.

In 2013, the City adopted a small zoning reform package for the North Point development district that offers important lessons for Inner Belt and Brickbottom. To make commercial development more attractive than residential development, the North Point zoning allows certain types of commercial buildings as-of-right, instead of by special permit, offering greater predictability for both the private developer and the City.

Zoning will also play a key role in managing transportation demand. A “less is more” approach to parking requirements will promote transit use, minimize up-front costs for developers, and improve housing affordability. Garage parking should be required, but shared garages should be encouraged so that not every new building has to park itself.

BUILDING TYPES

This plan calls for 60%-70% of new development to be commercial (office, laboratory, fabrication). The most predictable way to achieve that mix is by organizing new zoning around building types. Since the residential real estate market is virtually infinite, but commercial development is more difficult, commercial buildings should generally be allowed by-right. In some locations, residential buildings should not be permitted at all.

SITE ASSEMBLAGE

One of Inner Belt's competitive advantages is that it is one of very few districts in greater Boston than can support large-floorplate office and research buildings. New zoning should encourage neighboring property owners to work together to assemble large development sites. Clear design standards should be established to ensure active, pedestrian-friendly blocks and usable civic spaces even in large-scale projects.

LAND DEDICATION

New development is expected to provide public benefits, and zoning reform can be used to ensure this process is transparent, fair and predictable. New streets, alleys and civic spaces are needed to achieve the vision for a vibrant Inner Belt and Brickbottom. A minimum land area dedication should be established for new development, and a clear entitlement path should be made available for developers who dedicate essential new streets to the City of Somerville.

3 | MASTER PLAN

The Master Plan takes the community-based plan principles described in Chapter 1, plus the answers to critical questions covered in Chapter 2, and translates them into a tangible, achievable vision for Inner Belt and Brickbottom. The Master Plan includes the following components, including an initial Framework covering the entire study area, and guidelines for individual districts and subdistricts that manifest the framework in more specific place-based ways.

FRAMEWORK

- **District identity framework,** drawing upon assets of the study area, and adding new elements, to shape the distinct sense of place needed to draw market-driven development and community activity
- **Street and thoroughfare framework,** adding to existing streets both the internal and external connections needed to expand safe, convenient choices for all modes, with emphasis on walking, transit and biking.
- **Public places framework,** a network of parks, plazas and greenways that add value to existing and new development in the study area, and build community by drawing together workers, residents and visitors from throughout the study area, city and region
- **Development framework,** a predictable guide for new building development that offers flexible options for capturing market-driven business and real estate growth potential, while manifesting the vision principles in high-value streets and public spaces.

SUBDISTRICT GUIDELINES, defining great new places through application of the components above

- **Inner Belt**
  - > *Inner Belt Gateway: Washington*
  - > *Inner Belt Gateway New Washington*
  - > *Inner Belt South*
  - > *Roland/Inner Belt East*
- **Brickbottom**
  - > *Brickbottom: Joy/Chestnut/Linwood*
  - > *Brickbottom: McGrath Edge*

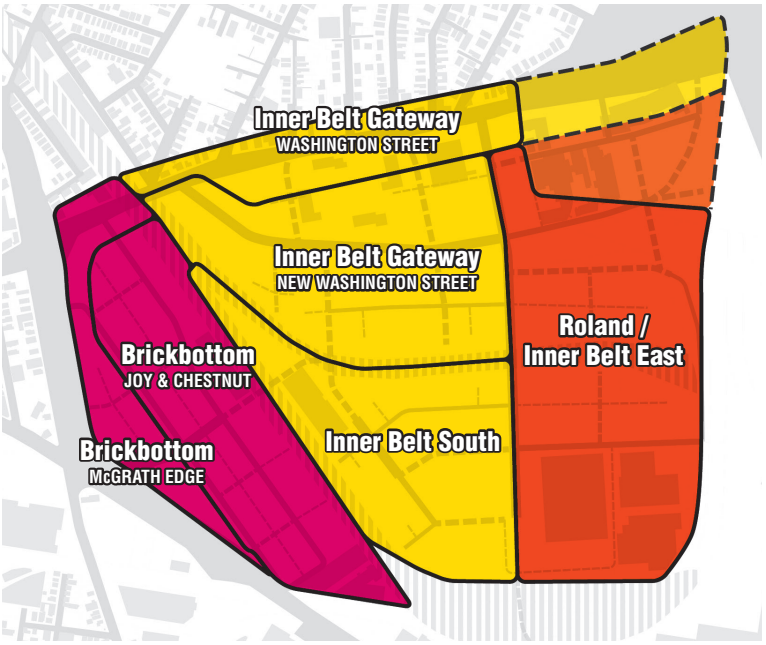
MASTER PLAN FRAMEWORK

DISTRICT IDENTITY

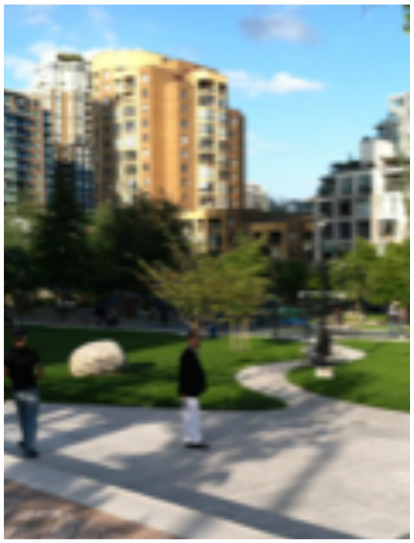
The study area includes two major districts—Inner Belt and Brickbottom—of distinct character. These districts further include subdistricts—four in Inner Belt, two in brickbottom—each with their own distinct character affecting physical scale and feel as well as market position. The districts and subdistricts are described beginning on page 64, with specific attention to these characteristics of streets, building form, land use and overall sense of place:

- Defining qualities, with attention to land use mix, scale and other factors
- Streets
  - > Character
  - > Sidewalk width and general characteristics
  - > Plantings, materials and streetscape
  - > Parking
- Street/building relationships
  - > Ground level use mix
  - > Ground level transparency
  - > Loading and servicing
  - > Building relationship to parks
- Building form
  - > Overall height
  - > Setbacks
  - > View corridors
  - > Specific themes and architectural character

SUBDISTRICTS



Four distinct subdistricts within Inner belt and two within Brickbottom should emerge, each with its own memorable sense of place and position in the real estate market.



STREETSCAPE DESIGN APPROACH

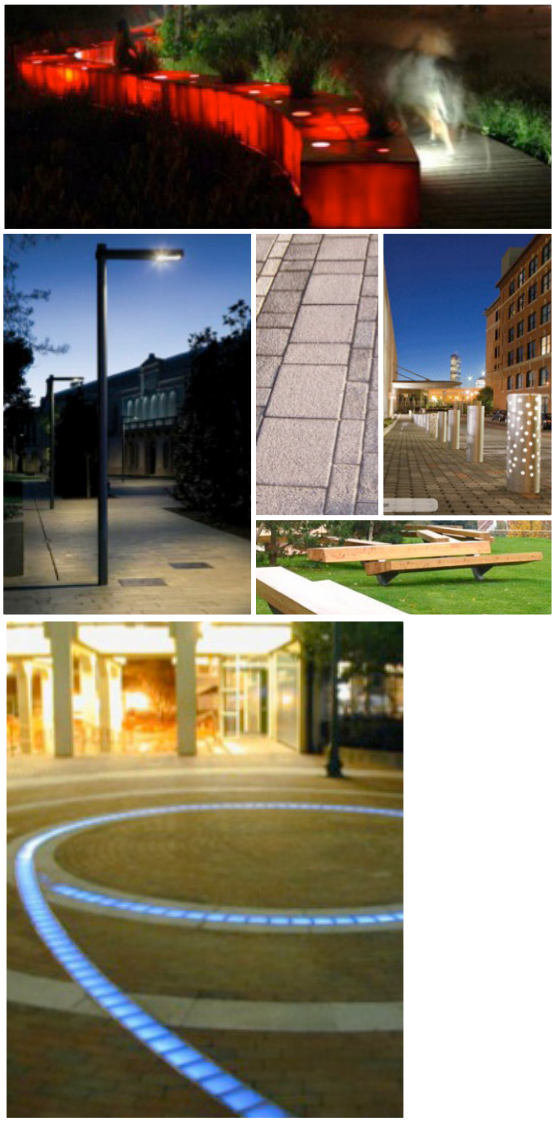
Distinct approached to design should be applied to the overall Inner Belt and Brickbottom areas to reinforce the unique identity of each.

INNER BELT

- Larger scale
- Stone, metal, concrete, refined
- Distinctive, contemporary
- Dedicated activity spaces

BRICKBOTTOM

- Smaller scale
- Brick, metal, concrete, rugged
- Dynamic, creative
- Overlapping activity spaces



MASTER PLAN FRAMEWORK

STREETS AND THOROUGHFARES

STREETS IN THE STUDY AREA

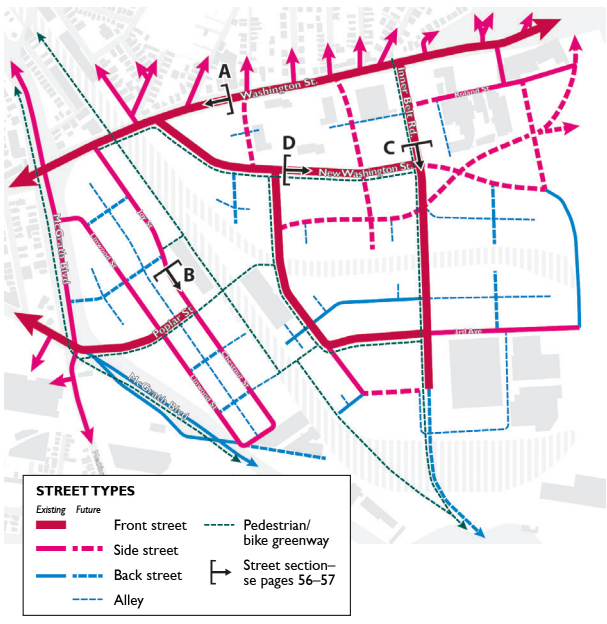
The streets the study area has and needs must serve multiple roles, all of them compatible with each other. Many service and parking access functions, needed by most all parcels, tend to detract from the pedestrian-friendly, transit-oriented address qualities that are important to attracting market-driven development interest and providing safe and inviting means of access other than driving. Therefore, the master plan outlines a street network for Inner Belt and Brickbottom that utilizes a range of street types, some tailored more to walkability and others more to service functions, arrayed so that each parcel can have the range of access it needs.

While some overlapping of pedestrian-oriented and service-oriented functions is inevitable—due to existing conditions and the incremental process through which the street network will grow—the more they can be separated, the greater the area's value will be. Where physical overlap is inevitable, the timing of different uses can help reduce conflicts. For instance, alleys—termed "back streets" in this network—can be managed so that service access mainly occurs in the early morning or other times when few pedestrians are likely to be present. At other times of the day when traffic is light, pedestrians can feel sufficiently safe and welcome to make the back street an appropriate place for some front door addresses. Back streets can be designed to reinforce this quality, so that vehicles using them proceed cautiously and anticipate the presence of people walking. This approach is particularly relevant to Brickbottom, where uses requiring significant service vehicle access and others requiring more pedestrian access coexist and there are few options for adding new streets. Locations in Inner Belt where similar conditions exist may also merit such an approach. However, the capacity and management limitations of the approach mean that it should be complemented by other streets that have greater distinction between pedestrian and service functions.

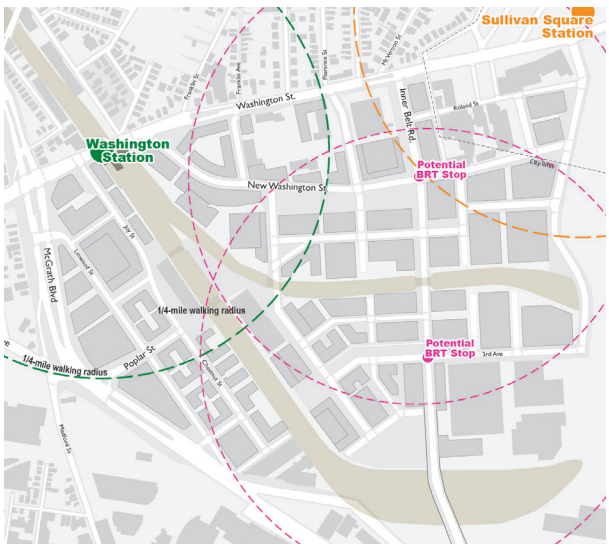
To achieve this goal the street network should incorporate the following hierarchy of types. Each street's type should be reflected in its design and function, as well as the design and function of the buildings, open spaces and parking lining it. Off-street walking and biking paths—which sometimes run along a street and sometimes run independent of a street –provide important supplementary connections, and should be considered as part of the street network as well. These paths are diagrammed in the Public Places section of this document.

The street network responds to the street infrastructure prioritization described in Chapter 2.

STREET NETWORK AND TYPES



WALKING RADII

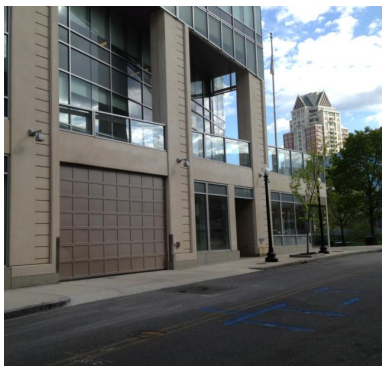


FRONT STREET—*priority location for retail, other active ground floor uses, and a safe and inviting walking environment*

- Ground floor commercial requirement
- Ground floor residential prohibited (except lobby)
- Min. Ground floor height requirement
- Loading, service, parking entrances prohibited
- Structured parking must be lined

SIDE STREET—*desirable location for retail and other active ground floor uses, with some flexibility to include service functions*

- No ground floor use regulations (intended for residential and office entrances)
- Ground floor residential shall have individual entrances
- Upper floor residential accessed by common lobby
- Width restrictions on service entrances/loading docks/ parking entrances (limited to one bay and 20% of block face)
- Structured parking must be lined



BACK STREET—*desirable location for occupied commercial and/or residential buildings featuring a regular occurrence of windows and doors, with some flexibility to include service functions*

- No ground floor use restrictions
- Ground floor residential shall have individual entrances
- Upper floor residential accessed by common lobby
- Width restrictions on service entrances/loading docks/ parking entrances)
- Structured parking acceptable with occupied ground floor, architectural facade

ALLEY/SERVICE ACCESS—*preferred location for service functions, to reduce their presence on front, side and back streets*

- No specific ground floor use requirements
- Minimal transparency (>10-20%)
- No sidewalk or streetscape required
- No plantings required
- Unlimited service docks/entrances
- Structured parking acceptable

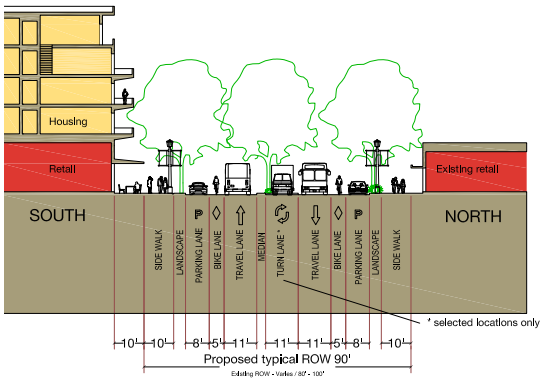
Street sections

Street section diagrams illustrate application of the street type characteristics to principal streets in Inner Belt and Brickbottom. The sections demonstrate how design and allocation of space use within the street area, and in adjacent buildings, should work together to achieve the desired qualities for the street. See Street Types diagram on page 54 for section locations.

A | WASHINGTON STREET LOOKING WEST

Character/Functional Goals:

- Create an attractive and an active mixed-use gateway to Somerville
- Create walkable connections across Washington St. between residential/retail uses to the north and transit and amenities to the south.
- Leverage infill opportunities to create a distinctive "Main Street" linking Washington St. and adjacent mixed-use development with Sullivan Square in the wast and Union Square in the west.



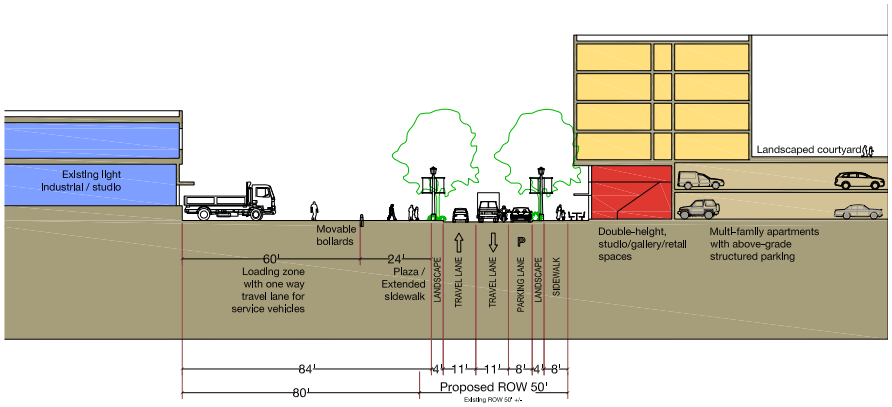
Key Design Strategies:

- Strengthen E-W pedestrian connection with active ground level uses.
- Provide spaces for outdoor dining along the infill buildings in the southern edge.
- Accommodate paratransit can parking and a taxi/drop-off stand near MBTA station on Washington St. and/or on New Washington St. per MBTA standards.
- Encourage distinctive architectural character with high degree of transparency.

B | JOY STREET @ POPLAR

Character/Functional Goals:

- Reinforce and build upon the mixed-use, industrial character pf the streets.
- Establish an Arts theme in streetscape improvements and in new public spaces.
- Provide new pedestrian-friendly amenities; minimize potential conflict between additional pedestrian traffic and existing loading/service functions.
- Accommodate periodic public events like art fairs, concerts, farmers market, etc., along/adjacent to street.



Key Design Strategies:

- Retain existing from loaded service condition. Encourage transparent garage door to minimize the extent of blank walls.
- Encourage flexible spaces that facilitate easy conversion of under-used service docks and indoor parking spaces into galleries retail or other uses.
- Employ street design elements like bollards, trees, and planter boxes to eliminate conflict between the service vehicles and pedestrian traffic.
- Reduce paved surfaces and increase ground water retention with permeable pavers and landscape strips.
- Manage parking/loading areas and/or provide public park space to accommodate public events.
- Install distinctive street lights that can also provide lighting for nighttime events.
- Incorporate locally-produced art into building exteriors, streetscape and public open spaces.

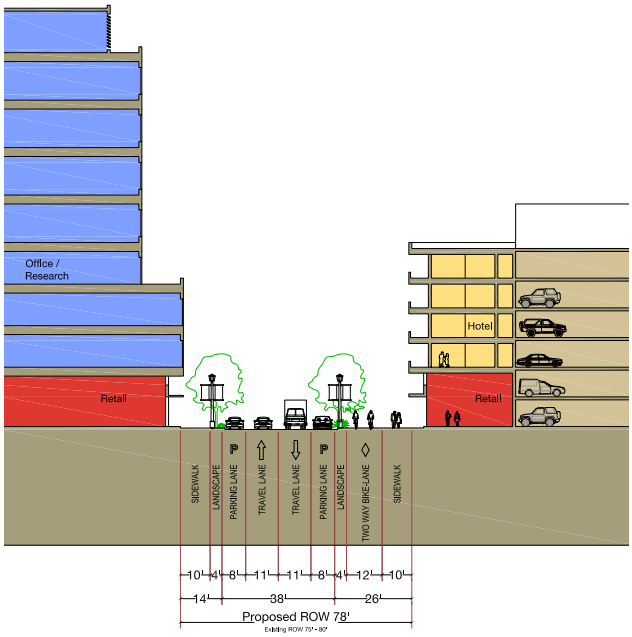
C | INNER BELT ROAD @ NEW WASHINGTON (LOOKING SOUTH)

Character/Functional Goals:

- Create a prominent business address and gateway to the Inner Belt area and Somerville, emphasizing opportunity for new research-related development expanding on existing research uses in the area.
- Encourage high-value development and active ground-floor uses on vacant and infill sites.

Key Design Strategies:

- Accommodate research/office buildings distinctly visible from Washington Station.
- Limit curb cuts and entrances to parking garage and service docks to side street.
- Use permeable pavers, rain gardens and other street-edge landscaping to help manage storm water.
- Include greenway/bike path as signature public realm and connectivity feature.



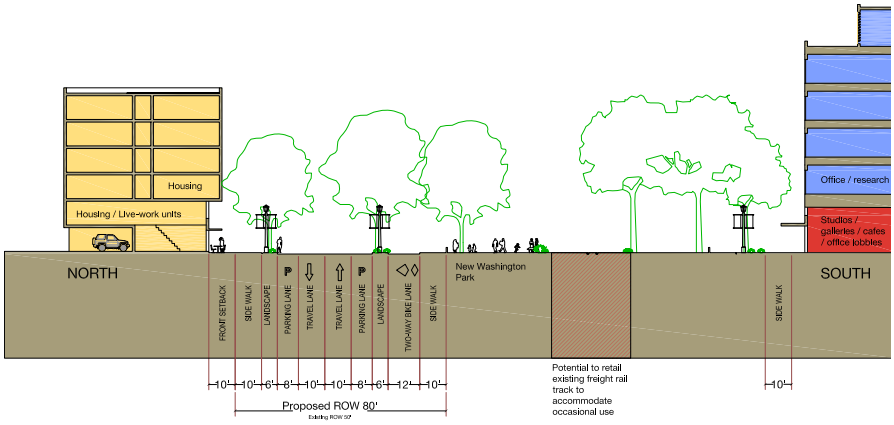
D | NEW WASHINGTON STREET

Character/Functional Goals:

- A vibrant mix of infill residential and new office uses organized by proposed park—an upgraded expansion of existing dog park that will cater to new residents, visitors and office employees.

Key Design Strategies:

- Distinct residential/live-work edge with front gardens along the infill residential development north of the park.
- Office buildings with active ground-level uses and outdoor dining along the southern edge of the park.
- On-street parking on both sides of the streets and tighter travel lanes as a traffic calming measure.



MASTER PLAN FRAMEWORK

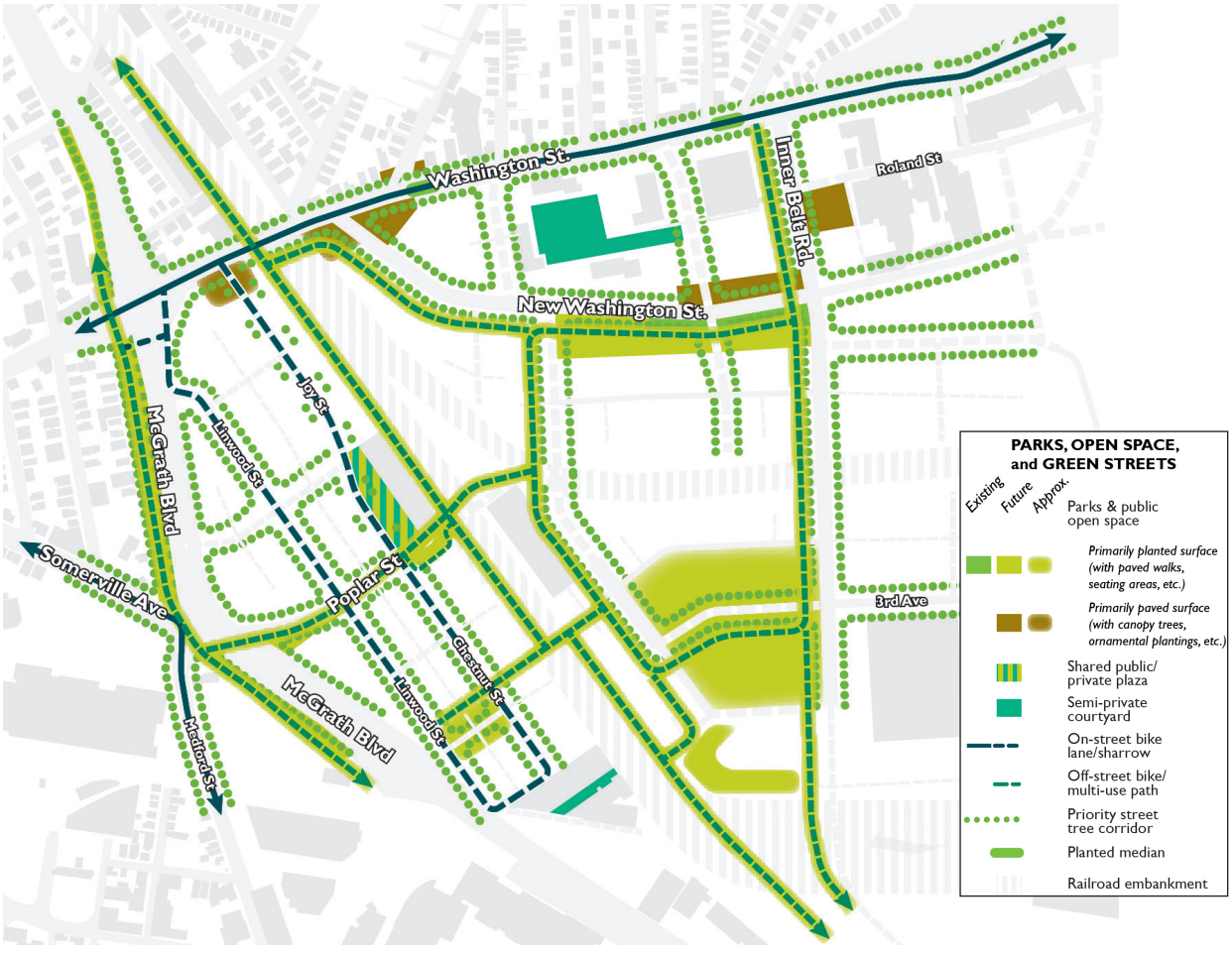
PUBLIC PLACES NETWORK

A highly visible and useful system of public spaces that touches every block, helps establish sense of place, and can be achieved through a series of practical near- and longer-term improvements.

Public parks and landscaped streets create community value as amenities attracting people to work, live and play. This community value builds economic value by attracting investment in workplaces, housing and neighborhood retail and dining, that naturally benefit from being near centers of community activity. Inner Belt and Brickbottom will particularly benefit from added parks and landscaped streets as very little of these are currently present (apart from the successful dog park on New Washington Street). SomerVision has further identified the study area as a priority location for new park space serving the whole Somerville community, given the relative lack of other open space opportunities in the city.

The public places framework outlines a network of public places that are varied in their form and program. This is partly to provide the wide variety of activities a diverse community seeks at different times of the day, week and year, from the more personal to the more public—from quiet seating to active recreation, and personal enjoyment of public art to large festivals. The variation in form is also a practical means to create as much high quality public space as possible in an area that contains little city-owned land today and also needs to serve the economic development objectives outlined in this plan.

PUBLIC PLACES FRAMEWORK



Types of park and green corridor program opportunities

The public places network offers flexibility for a wide range of programming that can be confirmed over time

- **Parks.** Principal types and sample program:
  - > Destination parks, accommodating uses such as festivals; art and farmers' markets; compact sports and recreation events; dog exercise
  - > Local parks and plazas, accommodating uses such as outdoor seating for adjacent dining or retail; compact art installations and music performance; passive seating; ornamental plantings
  - > Semi-public spaces, accommodating uses such as seating and outdoor dining adjacent to building entrances
- **Greenways and bikeways.** Principal opportunities:
  - > Community Path, connecting on to other Somerville neighborhoods as well as North Point and the Charles River, and helping connect Brickbottom with Inner Belt
  - > Greenway links, augmenting the Community Path with landscaped walking and biking connections throughout Inner Belt and Brickbottom and connecting with transit and adjacent neighborhoods
  - > Public art and interpretive signage, expressing a creative identity for Inner Belt and Brickbottom, and telling stories of people and places from history and today
  - > Cycle tracks and bike lanes, integrating a high-quality, safe biking network with streets and destinations.
- **Landscaped streets.** Principal opportunities include:
  - > Tree canopy, gained from additional street trees
  - > Rain gardens, addressing stormwater impacts in environmentally health ways while also providing attractive landscape amenity
  - > Medians, adding gateway signage and plantings as well as enhanced pedestrian safety at selected Washington Street locations
  - > Green walls, transforming existing blank building walls or infrastructure into elements that contribute to a walkable, high-value environment

PARKS

GREENWAYS AND BIKEWAYS

LANDSCAPED STREETS

Creating park space

The framework reflects four potential methods of securing land for parks and green corridors:

- **Utilizing existing city-owned land.** The existing dog park on New Washington Street occupies a city-owned parcel (a remnant of the Inner Belt Expressway right of way) that stretches further along New Washington and offers additional parkland opportunity in the heart of an area with strong potential for redevelopment. The dog park, while highly successful, could potentially be relocated over time to other places in the study area if other park activities more directly related to adjacent development are desired. The city's former waste transfer facility at Poplar Street and McGrath Boulevard offers another important park opportunity. Like the dog park, it offers potential for near-term uses such as youth sports fields that serve the whole city, and that by attracting community activity serve as a catalyst for real estate development on nearby parcels. Over time, park program on the site could change or be relocated to places that better serve community goals. For instance, as the potential development value of the prominent site grows over time, the site or portions thereof could be sold (or swapped with other private land) for redevelopment and the proceeds used to purchase other park land in the study area.
- **Incentivizing large redevelopment projects to dedicate new public park spaces.** The study area has potential, particularly in Inner Belt, for large redevelopment projects that include multiple buildings and the opportunity or need for new street and park infrastructure. Often it is in the direct interest of redevelopment applicants to incorporate new public park space to enhance the value of their real estate development (as well as to help satisfy stormwater management requirements with pervious landscaped area). This interest can be further incentivized by offering a development density bonus, where appropriate to context, in exchange for providing more significant amounts of public park space.
- **Incorporating public park land into public rights of way.** Streets are important parts of the public open space network, expanding on their inherent role as active walking routes. Traditional streetscape elements like street trees, low plantings and benches create significant amenity by themselves, enhancing the value of adjacent property addresses. Where space allows along existing streets or those created as part of large-scale redevelopment, additional public facilities should be created. The off-street recreation path network leverages this opportunity, creating a highly visible element that is highly functional for access and recreation needs, solves some of the study area's access challenges, incorporates space for additional street trees and public art, and in total serves as a unique signature element lending identity to the study area. Small plazas and broadened sidewalks also offer significant public benefit, particularly where retail or other active uses are possible.
- **Opportunistic use of land not useful for development or other private use.** Certain land areas lack real development value due to constrained size or shape inadequate for buildings. The rarely used freight railroad track that parallels New Washington Street may also offer opportunity for public use in portions of its land area. Such areas may be useful as park spaces, recreational path corridors and/or for landscaping and stormwater facilities. Public access to these lands may be possible in return for public investment in such infrastructure, in partnership with property owners.
- **City purchase of park space.** City acquisition of additional land in the study area is always a possibility, but considered challenging due to the growing land costs associated with the area's development value. Therefore, the alternate means of creating park land described above are emphasized in this framework.

Private landscaped areas such as courtyards, and including green roofs, offer an important complement to public park land. While they may not be publicly accessible, they can offer multiple benefits as attractive landscapes, useful park areas for private use of workers or residents, and places that serve environmental goals benefiting the whole area like reducing heat gain and stormwater impacts. The public places framework diagram thus distinguishes some private open space opportunities to recognize these contributions.

Creating civic space

New City Park Creation

Civic space is often built by public agencies. The City of Somerville owns roughly 150 acres of civic space, and has added several acres in recent years. The 0.75-acre Zero New Washington Street Park at the corner of Inner Belt Road was opened in 2009, after the City acquired the land from the MBTA. Since design and construction of new civic spaces can cost around $1 million per acre, the City is constantly exploring new financing opportunities.

Private Dedication or Payment in Lieu

A second mechanism used to create new civic spaces relies on the energy of the private market. Many cities require new development to provide civic space on-site. In some cases, a private developer might prefer to transfer land ownership to a public agency, rather than build and maintain the space. Alternatively, developers might make payments in lieu of a land dedication. In Somerville's Assembly Square district, a private developer conveyed two acres of land to the Massachusetts Department of Conservation & Recreation. The revitalized Baxter Park was opened in 2013.

Private Construction & Maintenance

Great civic spaces add value to private development, and in some cases, private developers build on-site civic spaces, retaining ownership and maintenance responsibilities. In 2013, the 200-unit Maxwell's Green residential was completed in central Somerville, featuring a central green framed by four apartment buildings. The private property owner maintains the 0.75-acre civic space.

MASTER PLAN FRAMEWORK

DEVELOPMENT FRAMEWORK

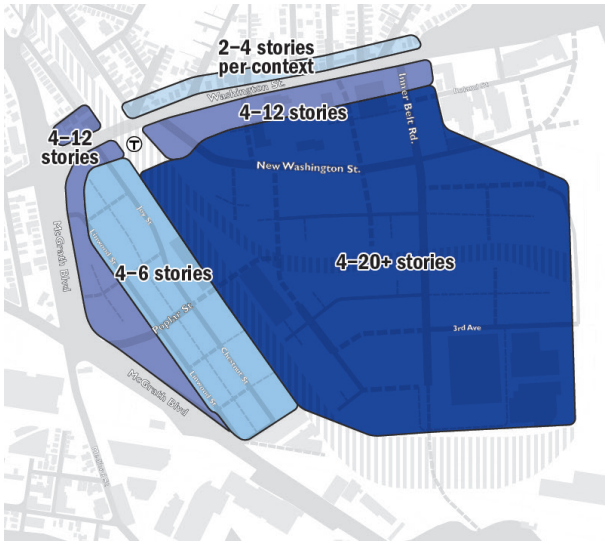
LAND USE

EFFICIENT SHARED-USE PARKING

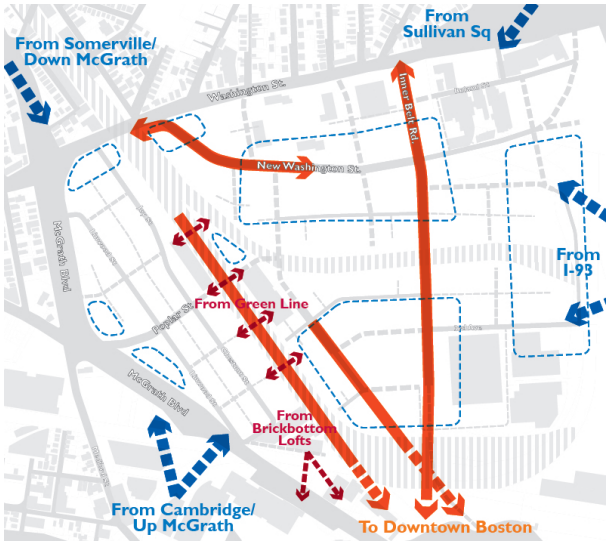
Land use. A variety of major land uses should be welcomed on every block in the study area, particularly in areas within ¼ mile of transit service. Mixing uses helps keep streets and parks active weekday and weekend, day and night; enables new development to respond in flexible ways to real estate market potential; and makes most efficient use of transportation and public place infrastructure.

Efficient shared-use parking. A development approach rooted in a proactive Transportation Demand Management (TDM) policy both promotes efficient use of land and financial resources devoted to parking, and ensures that adequate, conveniently located parking is available to serve existing and new development. Public parking, shared among different land uses that exert peak demand at different times, should be located in the toned areas shown to leave space for occupied buildings along major public streets and parks. As development intensity increases in the study area, structured parking should be used to maximize development potential. Near-term parking needs may be accommodated in part by surface parking if sufficient space is available.

DEVELOPMENT INTENSITY



VIEW CORRIDORS



Development intensity. Development throughout the study area should preferably rise at least four stories, and at a minimum two to three stories, to best leverage potential development value and shape walkable streets, Additional height is welcomed where it can take advantage of views, expand development capacity and land use options, and lend regional prominence to Inner Belt and Brickbottom. In all cases, building height and massing should be designed to achieve transitions in scale to established neighborhoods or other sensitive context within a one-block area. In light of this goal, building heights up to…

- six stories are appropriate in core areas of Brickbottom respecting its small street and block scale;
- twelve stories are appropriate along McGrath Boulevard and Washington Street, reflecting the greater scale and visibility of these streets; and
- twenty or more stories are appropriate in portions of Inner Belt more than 100 feet from Washington Street, given this area's relative lack of sensitive context, and strong opportunities to leverage value of views out of and into the area.
- Building heights that diverge from these suggested minimums and maximums may be considered if their associated use and design are shown to advance the goals of the vision principles.

KEY VIEW CORRIDORS AND LANDMARK SITES

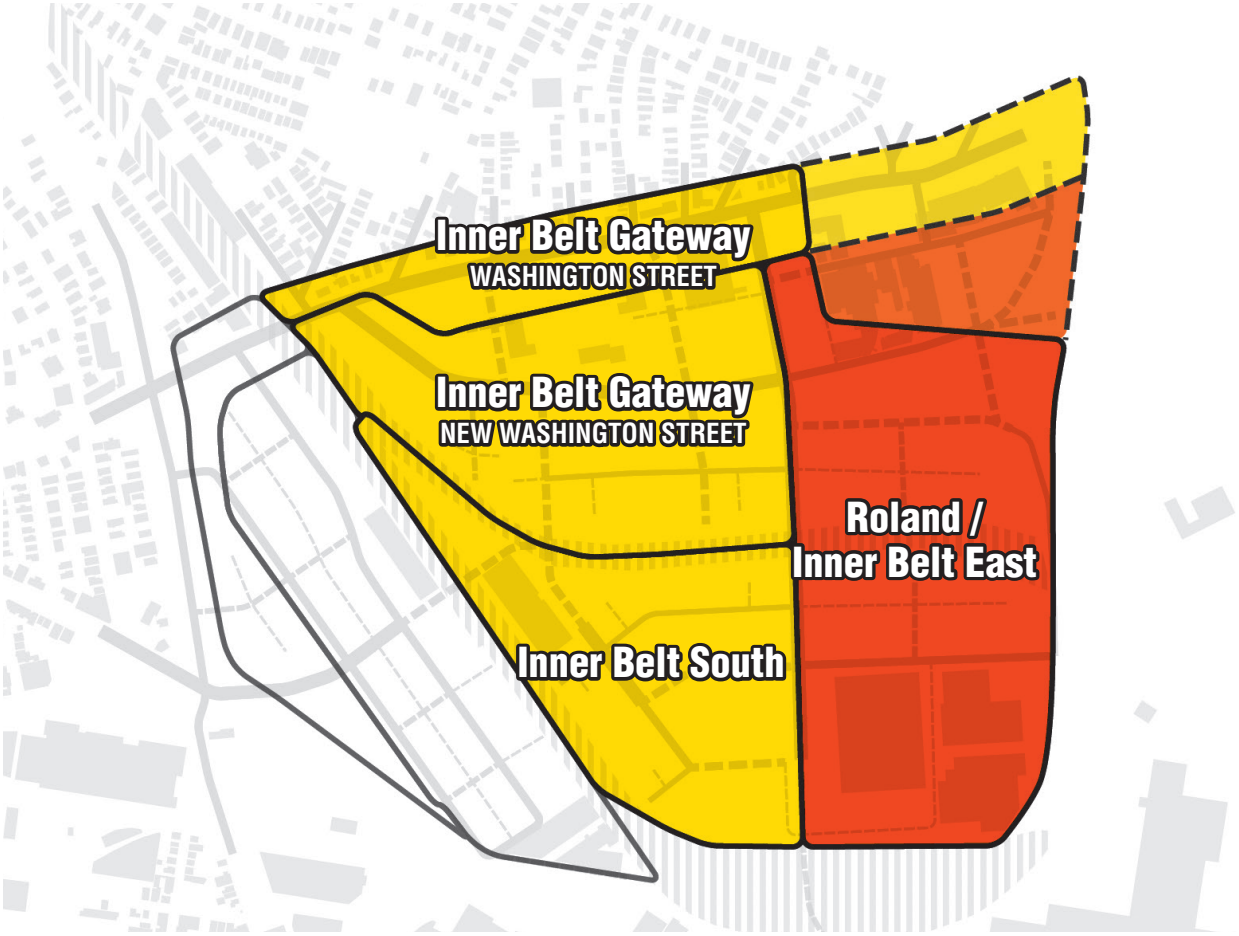
- Key public right-of-way view corridors *through* IBBB
- Key public right-of-way view corridors *from* IBBB
- Other priority view corridors and viewsheds
- Major external views into IBBB
- Priority area for landmarks visible from external viewpoint(s)

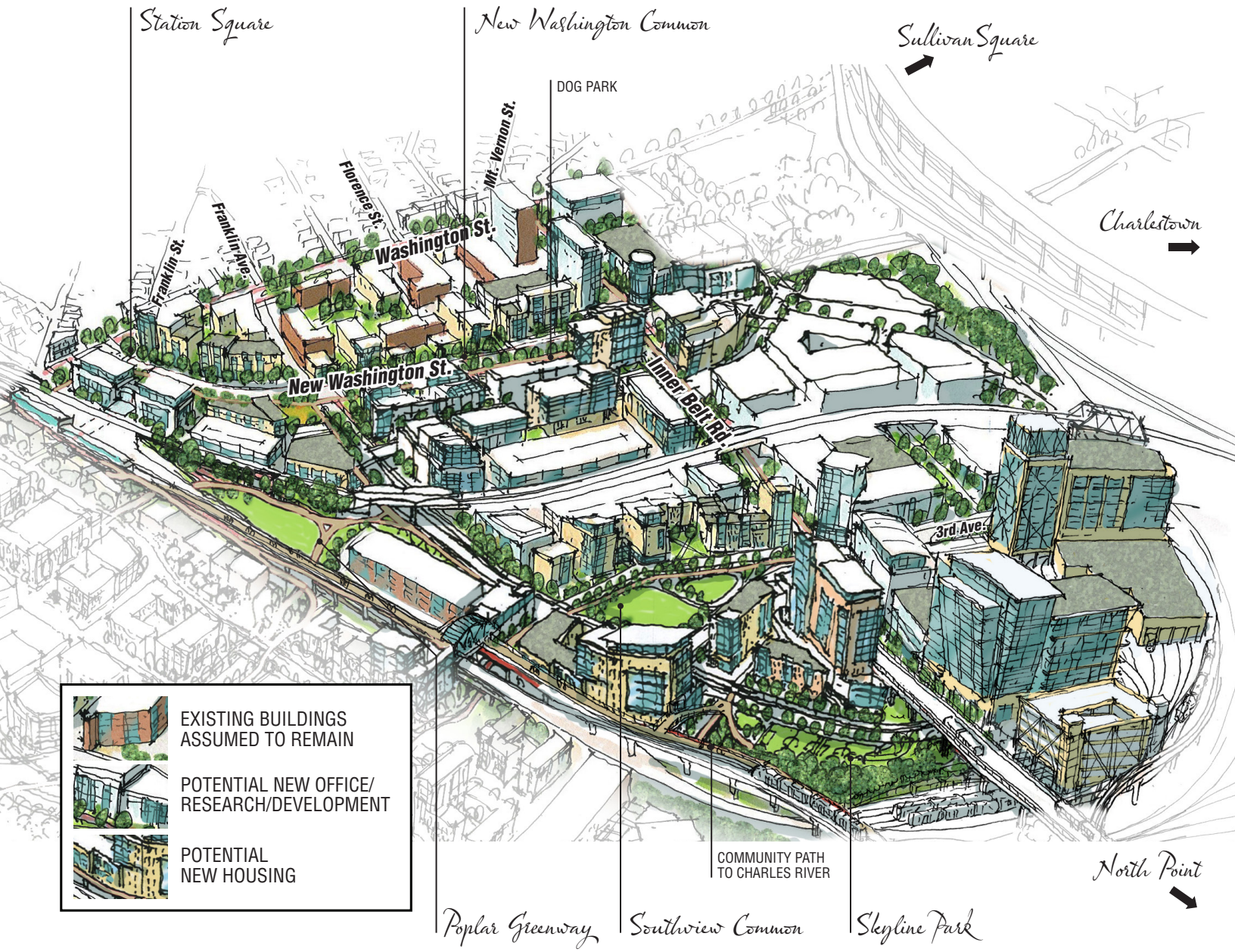
View corridors. The study area's high visibility from regional corridors like I-93 and McGrath Boulevard, and dramatic views out toward downtown Boston, Kendall Square, Somerville, Boston Harbor and other landscapes of interest, are major assets to leverage for their value in building sense of place and economic value. Development proposals should demonstrate how they take advantage of these opportunities.

CHARACTER AREA SUBDISTRICTS

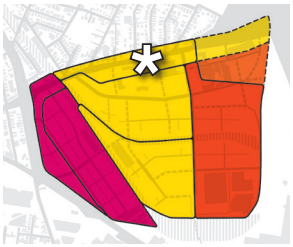
INNER BELT

Inner Belt is a large, high-value district that presents unique opportunities in the regional marketplace for master-planned sites, mixed land use, new and more walkable street and block patterns, large-floorplate building types, and larger open space typologies.




Station Square
New Washington Common
Sullivan Square
DOG PARK
Mt. Vernon St.
Florence St.
Franklin Ave.
Franklin St.
Washington St.
Charlestown
New Washington St.
Inner Belt Rd.
3rd Ave.
EXISTING BUILDINGS ASSUMED TO REMAIN
POTENTIAL NEW OFFICE/ RESEARCH/DEVELOPMENT
POTENTIAL NEW HOUSING
COMMUNITY PATH TO CHARLES RIVER
North Point
Poplar Greenway
Southview Common
Skyline Park

INNER BELT GATEWAY: WASHINGTON ST

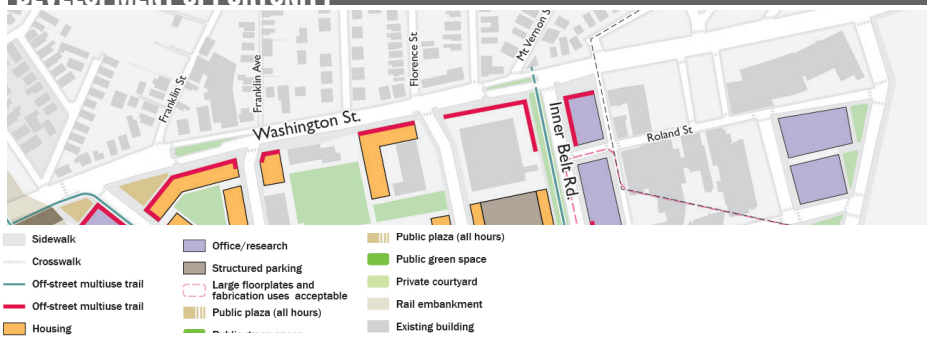


As the front door to Inner Belt today and location of the Washington Street Green Line station, the Inner Belt Gateway/Washington subdistrict will continue to play a critical role in defining identity, providing access and attracting investment for the Inner Belt area. High quality mixed-use development should be prioritized wherever possible along this corridor in the near term, to demonstrate the new era of economic and community development potential now arriving here with the Green Line. New development should include both office space, to reinforce the larger Inner Belt district as an emerging center for knowledge-based business, and housing, hospitality and retail space, to leverage established market opportunity and help reinforce community connections with East Somerville.

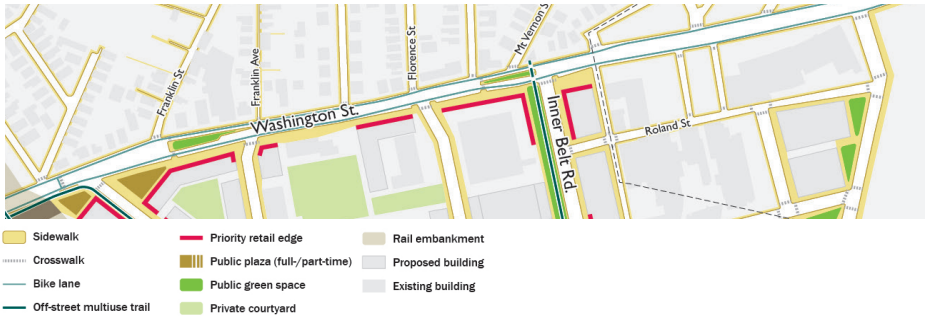
DEFINING QUALITIES

- Somerville and Inner Belt gateway
- Scale and use transition to East Somerville
- Mixed employment, housing, retail, hospitality
- Access choices

DEVELOPMENT OPPORTUNITY



PUBLIC REALM



HOUSING

PUBLIC SIDEWALKS & PLAZAS WITH ENGAGING BUILDING USES, ART, DESIGN

EXPANDED, IMPROVED WALKING NETWORK

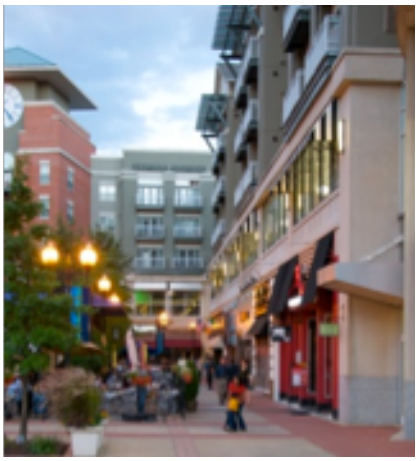
EARLY STAGE SMALL-OFFICE & RETAIL DEVELOPMENT

The intersection of Washington and New Washington Streets presents the most important near-term opportunity to demonstrate the value of new Green Line service with new high-value development and a public realm designed for people. Planned multifamily housing and neighborhood retail, shown at left, should be complemented with prominent office development and clear, convenient walking access to the station from all directions.

INNER BELT GATEWAY: WASHINGTON ST

development and design guidelines

Streets



Street character

- Distinctive gateway to Inner Belt area and Somerville as a whole.
- Active neighborhood-oriented ground level retail edge and sidewalk uses.
- Potential short median at city line/Inner Belt Road intersection and where center left turn lane not needed. Otherwise, allocate surplus width to street edges.

Sidewalk width and general characteristics

- Washington and Inner Belt Road: Widen existing sidewalk to 12'—14'. Minimum of 8' clear passage. Recommended 6' for tree lawns.
- New side streets perpendicular to Washington: 8'-12'
- Mixed use buildings with ground level retail
- Enable free flow of pedestrian traffic. Provide for single row of outdoor seating.
- Accommodate bus stops
- Accommodate added crosswalks, especially near Washington Station

Plantings, materials and streetscape

- Maintain existing mature trees. Add canopy trees where missing. Utilize trees to help mitigate scale transition between building heights on either side of street. New street trees to match existing already on site.
- Distinctive materials, differentiated from Brickbottom. The use of specialty paving materials to enhance the area; granite and/or concrete unit pavers.
- Signage (banners, median sign and/or other) indicating entrance into Somerville. Light fixtures to include LED banners and speakers for music and public announcements.
- Transform existing suburban-style landscaping (setbacks with lawns and shrubs) toward more urban approach (smaller courtyards shaped by buildings and/or fences; tree lawns; planters) Potential for planted areas to harvest rain water—bio retention

Parking

- On-street parking typical (maintain existing parking along Washington; add along New Washington)
- Provide parking space for 'The Ride' paratransit and kiss-and-ride at the MBTA station.
- Provide signage to shared-use parking structures within Inner Belt area.

Street / Building Relationship

Ground level use mix

- South side: retail, transit station lobby. Automated ticketing machines, kiosk retail, cafes, drug store.
- North side: Convert to neighborhood-oriented retail or dining through renovation/ redevelopment.

Ground level transparency

- 60-80% ground level transparency

Loading and servicing

- Locate all servicing off side streets

Building relationship to parks

- Accommodate public plaza spaces at corners with New Washington

Building Form

Overall height

- South side: 5-6 stories; greater heights possible near Washington Station. Include transitional height elements (setbacks, cornice lines etc.) to make transition to 2-3 story scale of north side.
- North side: 2-3 stories typical; 4-6 stories possible if compatible with adjacent neighborhood.

Setbacks

- Build to line where proposed roadway design can accommodate 14' sidewalk.

View corridors

- Maintain view corridors along N-S streets to keep the option open for future connections with the street grid south of Lowell Line.

Specific themes / architectural character

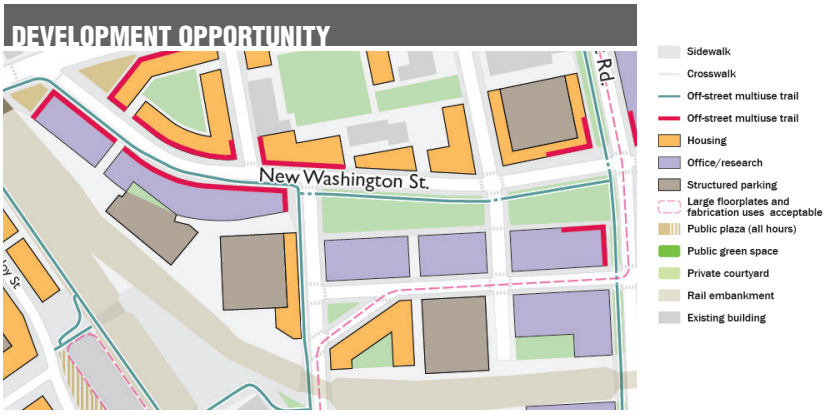
- Encourage distinctive architectural character emphasizing high-value businesses, hotel/visitor accommodations

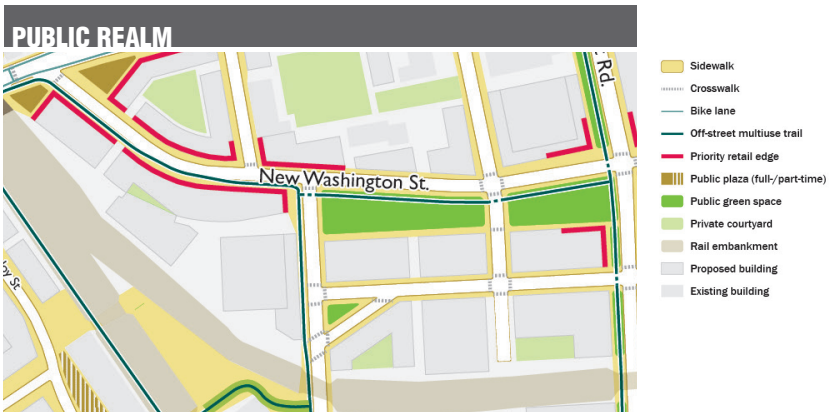
INNER BELT GATEWAY: NEW WASHINGTON ST

New Washington Street offers the study area's most important economic development potential over the next ten years, owing to its convenient walking access to both the Washington and Sullivan Square transit stations, adjacency to established life science, hospitality and housing investment, and variety of significant parcel redevelopment opportunities. Redevelopment potential on both sides of the street, and the current presence of a park and other public land, create special opportunity to transform the street into a landmark public space that heightens development value and builds sense of community within and beyond the subdistrict.

DEFINING QUALITIES

- High quality, high profile public spaces and architecture
- Destination park
- Mixed employment, hospitality, housing, retail





The New Washington Street dog park became a valued community destination remarkably quickly. This public space should evolve into one that serves a growing variety of people living and working nearby, and coming from other neighborhoods, as redevelopment proceeds on parcels along New Washington. As this happens, consider relocating the important dog park function to another space(s) in the study area as a way to establish additional community park destinations.

INNER BELT GATEWAY: NEW WASHINGTON ST

Sample investment sequence along New Washington Street

New Washington Street has special significance as a place for early development opportunity. Its direct connection to the new Washington Street Green Line station, easy access from Washington Street and Inner Belt Road, variety of parcels with flexible redevelopment potential as well as viable ongoing uses, and presence of Zero New Washington Park, provide good assets and options attracting reinvestment. Images on these pages depict a potential sequence of site redevelopment and infrastructure improvements working hand in hand to create a great place to work, live and play.

EXISTING

Today, New Washington is not an inviting place to walk or invest: sidewalks are missing, abandoned boxcars create an eyesore, and the adjacent Cobble Hill housing understandably buffers itself from this view with dense landscaping.

PHASE 1

In the distance next to Washington Station, a new office building is developed accommodating multiple small tech business tenants and ground floor retail. Sidewalks and street trees are installed flanking the street; an off-street cycle track is constructed to one side.

PHASE 2

A second office building is constructed near the bend in the street. Behind the office buildings, a public parking structure is built to replace temporary surface parking. A public art installation at left replaces the abandoned boxcars.

PHASE 3

New housing and neighborhood retail facing New Washington Street are developed on the right on underutilized portions of the Cobble Hill housing site at right. A large floorplate office or lab building is developed at far left for a major research company. The lightly used freight track on the left is integrated with publicly owned land to create a landscaped park.

INNER BELT GATEWAY: NEW WASHINGTON ST

development and design guidelines

Streets

Street character

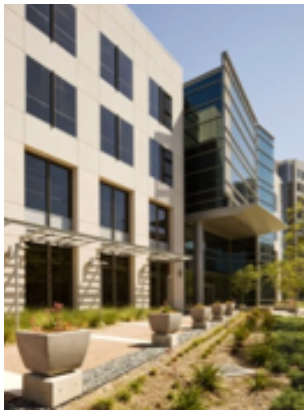
- A vibrant mix of high-value residential and office/research uses over ground floor retail and other active uses, grouped around a central linear park space serving a mix of residents, visitors and workers.

Sidewalk width and general characteristics

- 12'- 20.' Sidewalk widths along park edges may differ from those along building edges.
- New side streets perpendicular to New Washington: 8'-12'
- Wider sidewalk with outdoor seating at retail uses (likely clustered toward Washington Station and Inner Belt Road). Consider consistent generous width accommodating more plantings and seating than other streets in study area.

Plantings, materials and streetscape

- Canopy trees. Consider the use of larger street trees with open canopies for the wider sidewalks; Honey locust. Smaller trees on the narrower streets. Different tree species will help to define neighborhoods
- Signature linear park with numerous viewpoint along and across park to adjacent building facades. Park to include an in-ground water feature and areas for activities and contemplation. Dog park area?
- Accommodate occasional train passage along existing freight track; integrate track into landscape design. Potential to have freight carriages provide dining opportunities at certain times of the year
- Distinctive materials, differentiated from Brickbottom. Park and streets to incorporate materials and some references to the train which runs through the heart of the area
- Distinctive public art



Parking

- On-street parking on all streets.
- Provide signage to shared-use parking structures located off side streets

Street / Building Relationship

Ground level use mix

- Mix of infill residential, office and hotel with ground floor retail/ dining and entertainment on north side of street and park. Design ground level spaces to be convertible to retail.
- Emphasis on commercial/office uses south of the park, with potential housing interspersed, and ground level retail/dining/entertainment where possible. Design ground level spaces to be convertible to retail.

Ground level transparency

- 60-80% ground level transparency

Loading and servicing

- Locate entrances to parking garages and loading docks from side streets

Building relationship to parks

- Building use and design should leverage quality and views of central park along New Washington.

Building Form

Overall height

- 5-6 stories typical, with towers of slender to moderate floorplate possible.

Setbacks

- Build to line where proposed roadway design can accommodate 14’ sidewalk. If the sidewalk is less than 10’, employ 6’-10’ setback to allow space for outdoor dining.

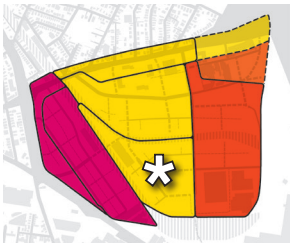
View corridors

- Locate and design buildings to be prominent at either end of linear park.

Specific themes / architectural character

- High quality, high-value design with significant transparency. Mix housing and/or hotel amidst office to prevent monolithic office character.

INNER BELT SOUTH



Inner Belt South provides both an economically strong business park environment today, and the study area's most flexible and expansive set of redevelopment opportunities over the long term. The time required to enhance multi-modal access to the area—starting with replacing the "tubes" and creating safe, convenient walking access to the Green and Orange lines, and moving on to North Point/Kendall Square connections—means that current businesses can continue to operate in a stable environment even as market potential matures to unlock a new generation of development opportunities in the area. Those opportunities will leverage expansive potential for building height and floor area serving a variety of uses, fast connections to Kendall Square and other economic centers, regional views, and high quality public street and park spaces.

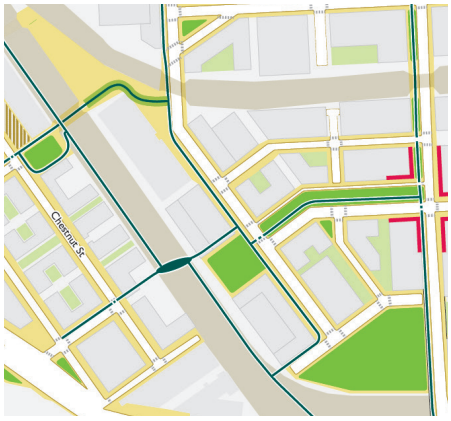
DEFINING QUALITIES

- View corridors to Boston/Kendall
- Destination park space
- Greater building height
- Mixed employment, housing

DEVELOPMENT OPPORTUNITY

Sidewalk
Crosswalk
Off-street multiuse trail
Off-street multiuse trail
Housing
Office/research
Structured parking
Large floorplates and fabrication uses acceptable
Public plaza (all hours)
Public green space
Private courtyard
Rail embankment
Existing building

PUBLIC REALM



Sidewalk
Crosswalk
Bike lane
Off-street multiuse trail
Priority retail edge
Public plaza (full-/part-time)
Public green space
Private courtyard
Rail embankment
Proposed building
Existing building

NEW CONNECTIONS TO WASHINGTON STATION, BRICKBOTTOM

HIGH-VALUE COMMERCIAL AND HOUSING DEVELOPMENT

PARK, COMMUNITY PATH CONNECTIONS CREATING DISTINCT SENSE OF PLACE

New direct walking connections to Green Line, Orange Line and Urban Ring corridor transit will unlock market potential to take advantage of Inner Belt South's large scale redevelopment opportunities. Tall buildings with views to Boston, Cambridge and Boston Harbor will tangibly demonstrate Somerville's strategically valuable location for business investment.

INNER BELT SOUTH

development and design guidelines

Streets

Street character

- A vibrant mix of high-value residential and office/research uses over ground floor retail and other active uses, grouped around a central park space serving a mix of residents, visitors and workers.

Sidewalk width and general characteristics

- Inner Belt Road and Third Street extension (west of Inner Belt Road): 12'-14'. Accommodate BRT/bus stops.
- Other new streets: 8'-12'

Plantings, materials and streetscape

- Canopy trees selected and located to be compatible with significant truck traffic The selection of columnar street trees might be beneficial in this area to avoid conflicts with passing trucks.
- Distinctive materials, differentiated from Brickbottom
- Landscaped berm as buffer to active rail tracks and maintenance facilities. The berm could become a important feature within the landscape.

Parking

- On street parking
- Structured parking serving multiple uses in district

Street / Building Relationship

Ground level use mix

- Research, office, housing and hotel uses. Ground level retail/dining/ entertainment where feasible.

Ground level transparency

- Inner Belt Road and Third Street extension: 50-80% ground level transparency. Other streets: 40-60%.

Loading and servicing

- Limit entrances to parking garages and loading docks to side streets.

Building relationship to parks

- Leverage views to Inner Belt Intensity central park space.

Building Form

Overall height

- 6-30 stories. Pedestrian-scale elements toward ground level. Towers of slender to medium floorplate.

Setbacks

- No more than 10’

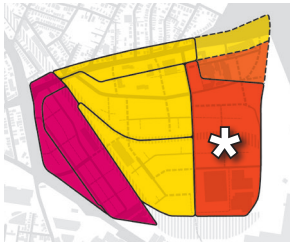
View corridors

- Highlight public and private views toward Kendall Square, Lechmere and Boston.

Specific themes / architectural character

- Encourage diverse architectural vocabulary that is tied together by an active pedestrian realm; where each residential building and towers is a distinct part of a unified high density mixed used cluster.

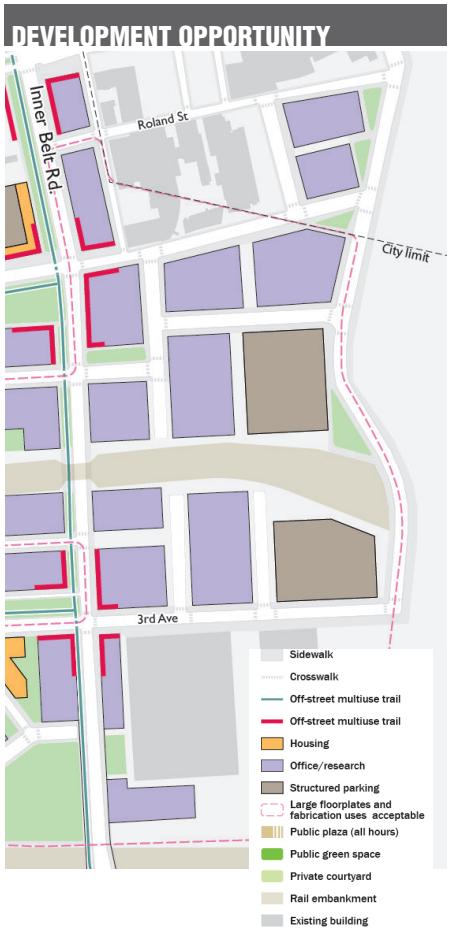
ROLAND / INNER BELT EAST



This subdistrict offers premier commercial development opportunity due to its high visibility and accessibility from I-93 and the Orange Line, substantial building floorplate and height opportunities, and adjacency to established life sciences uses. While Inner Belt Road and new streets in the subdistrict deserve high quality landscape and building architecture as premier, walkable address streets, the subdistrict's edges along rail infrastructure offer the study area's greatest opportunities for industrial and large-scale development unconstrained by pedestrian-oriented settings.

DEFINING QUALITIES

- Somerville and Inner Belt gateway
- View corridors in and out
- Roland St. historic character, life sciences use
- Greater building height
- Greater floorplates possible
- Mixed employment, hospitality, retail



FLEXIBILITY FOR SIGNIFICANT BUILDING HEIGHT AND FLOORPLATES

HIGH-VALUE RESEARCH AND OFFICE BUILDINGS WITH ACTIVE GROUND LEVEL USES

TRANSIT SHELTER SERVING BRT USERS

"TUBES" REPLACED WITH ATTRACTIVE BRIDGE FACILITATING CONTINUOUS STREETSCAPE.

OFF-STREET RECREATIONAL PATH OR CYCLE TRACK

HOUSING

EXPANDED, IMPROVED PEDESTRIAN REALM

Roland/Inner Belt East offers prime locations for development that benefits from high visibility, large floorplates, large total floor area, and clustering with life sciences program.

ROLAND / INNER BELT EAST

development and design guidelines

Streets

Street character

- Establish a walkable street grid compatible with large floor plate office/research/light industrial buildings and structured parking facilities.

Sidewalk width and general characteristics

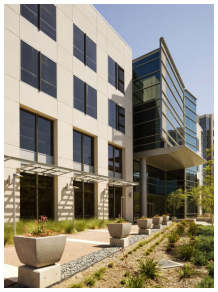
- Inner Belt Road: 12'-14'. Accommodate BRT/bus stops.
- Roland Street and new streets: 8'-12' (or match existing Roland St. section)

Plantings, materials and streetscape

- Canopy trees selected and located to be compatible with significant truck traffic. The selection of columnar street trees might be beneficial in this area to avoid conflicts with passing trucks.
- Sidewalks to be concrete only

Parking

- On street parking
- Structured parking serving multiple uses in district



Street / Building Relationship

Ground level use mix

- Research, office, light industrial and hotel uses. Ground level retail/dining/entertainment where feasible.

Ground level transparency

- Inner Belt Road: 50-80% ground level transparency. Other streets: 40-60%.

Loading and servicing

- Limit entrances to parking garages and loading docks to side streets

Building relationship to parks

- Building use and design should leverage quality and views of central park along New Washington.

Building Form

Overall height

- 6-20 stories

Setbacks

- No more than 10’

View Ccorridors

- Accommodate extension of Roland Street corridor to Inner Belt Road.
- Frame views down Inner Belt Road toward Lechmere, Back Bay

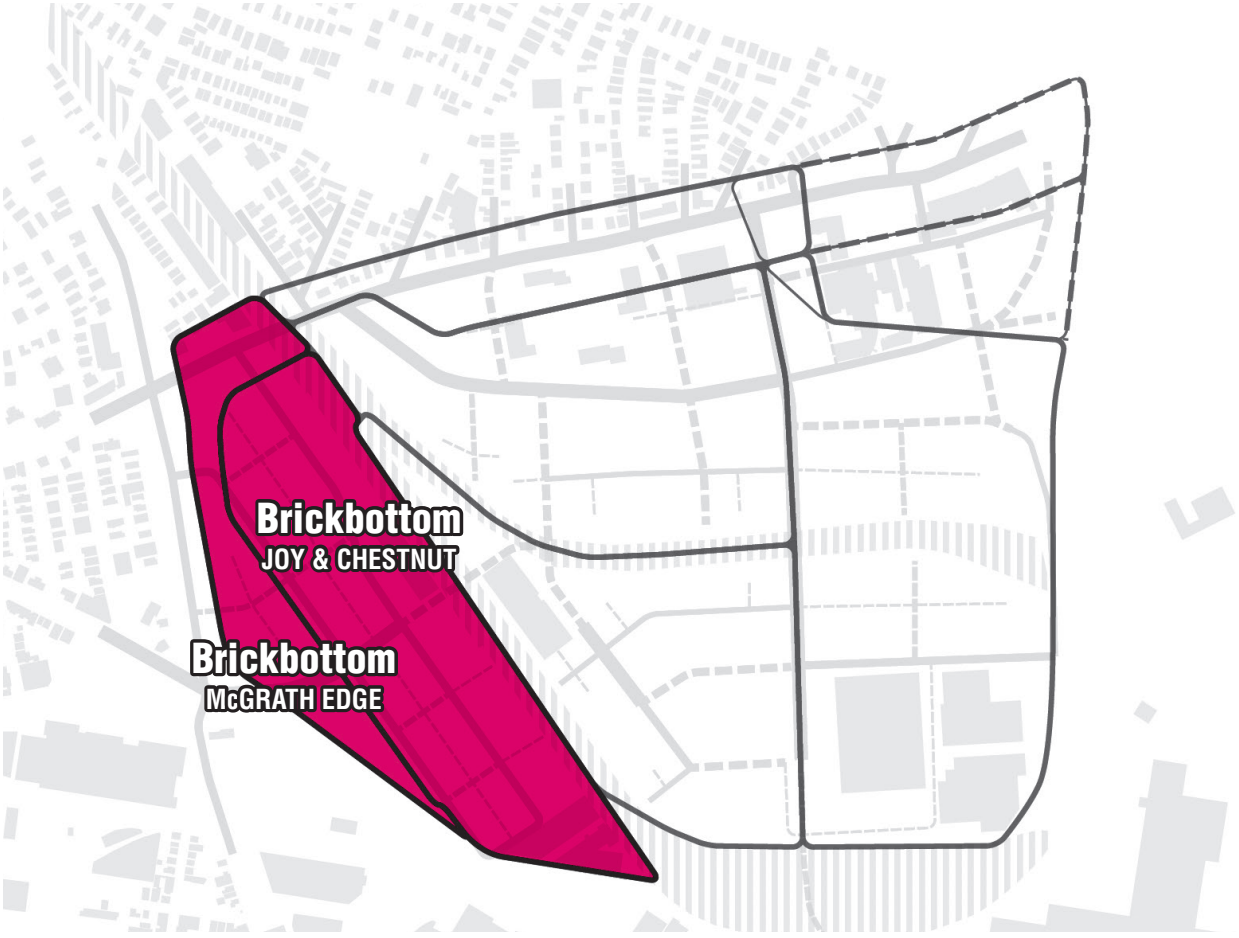
Specific themes / architectural character

- Where possible open up ground level research and workshop spaces with transparent glazing bringing about a visual connection between pedestrians along the side walk and building users.
- High quality, high-value design with significant transparency.

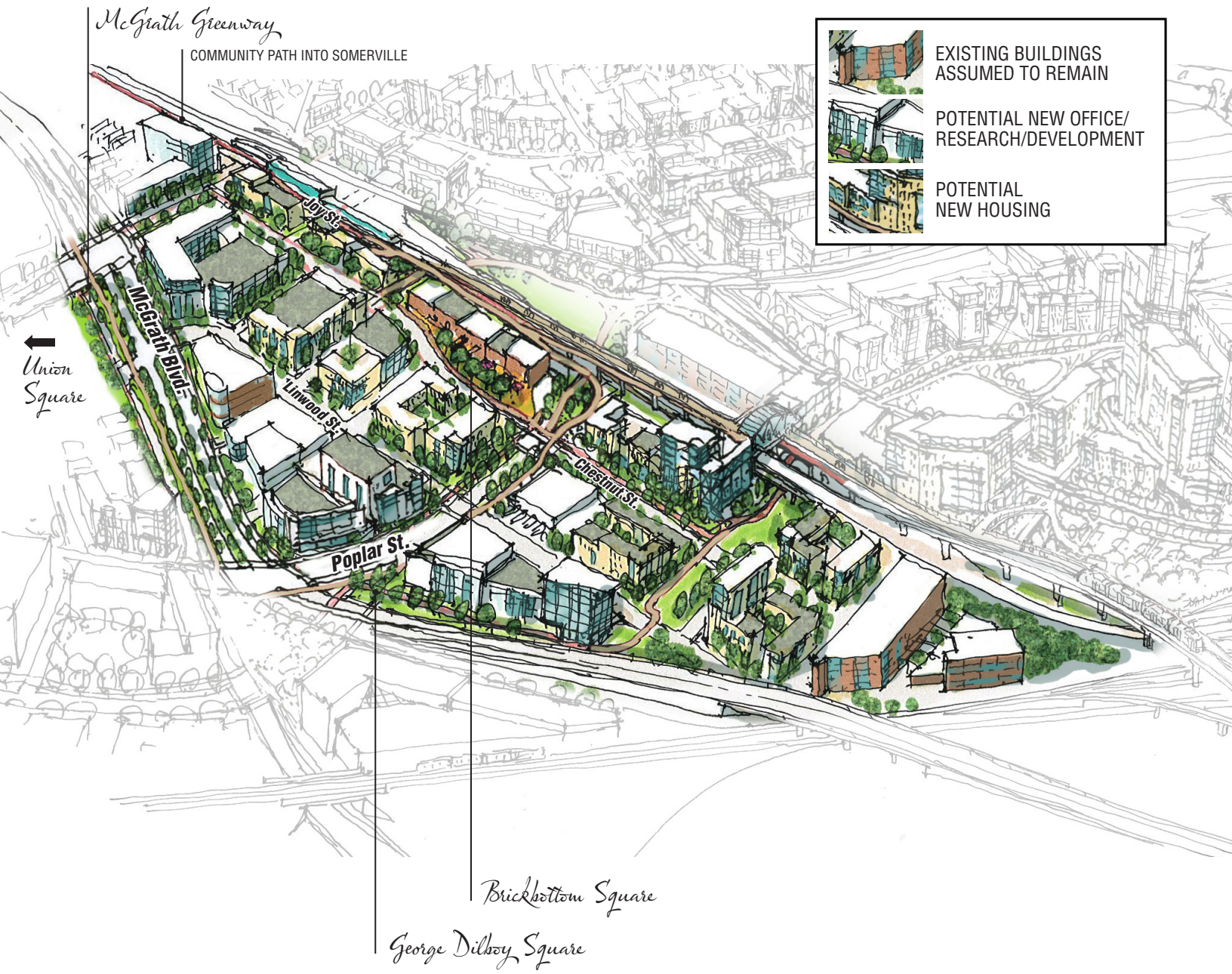
CHARACTER AREA SUBDISTRICTS

BRICKBOTTOM

Brickbottom is a funky loft, arts/creative economy and nightlife district, with a relatively established street grid and compact, flexible-use public spaces that are scattered throughout the district. A mix of old and new buildings (and hence price points) provide variety of architecture and market opportunity. Building heights should generally rise four to six stories, with potential for as many as 12 stories immediately adjacent to McGrath Highway and Washington Street.



ILLUSTRATIVE VISION CONCEPT



BRICKBOTTOM / JOY & CHESTNUT

Brickbottom sports the study area's most established sense of place, anchored by a strong arts presence. While individual parcel redevelopment opportunities are limited in size, their variety, scale and walkable proximity to Washington Station mean they are both ripe for near term redevelopment and will collectively register substantial gains in economic impact and quality of place. Brickbottom can tolerate and thrive on coexistence of a wide variety of activities from light industry and arts fabrication to housing and office.

DEFINING QUALITIES

- Fine-grained scale: narrower streets, smaller parcels
- "Loose fit" tolerating mix of light industry, arts, office, housing, entertainment, retail
- Brick and industrial materials
- Public art
- Intermittent plantings

DEVELOPMENT OPPORTUNITY

- Sidewalk
- Crosswalk
- Off-street multiuse trail
- Off-street multiuse trail
- Housing
- Office/research
- Structured parking
- Large floorplates and fabrication uses acceptable
- Public plaza (all hours)
- Public green space
- Private courtyard
- Rail embankment
- Existing building

PUBLIC REALM

- Sidewalk
- Crosswalk
- Bike lane
- Off-street multiuse trail
- Priority retail edge
- Public plaza (full-/part-time)
- Public green space
- Private courtyard
- Rail embankment
- Proposed building
- Existing building

DUAL USE OF PARKING/LOADING AREA FOR OCCASIONAL PUBLIC/ ARTS EVENTS

STREETSCAPE, WALKING AND BIKING IMPROVEMENTS LINKING BRICKBOTTOM TO GREEN LINE

NIGHT TIME ACTIVITY

INFILL: MIX OF OFFICE, ARTS, HOUSING, LIGHT INDUSTRY

Joy Street and adjoining parking lots can become vibrant centers of community activity through design and programming that allow public and private uses to share the same spaces at different times. Needed new walks, trees, and lighting should be installed to allow broad flexibility of land use and vehicular access.

BRICKBOTTOM: JOY & CHESTNUT

development and design guidelines

Streets

Street character

- Reinforce and build upon the mixed-use, industrial character of the street with pedestrian friendly amenities for newer residents and visitors.

Sidewalk width and general characteristics

- 8'—12' on Joy, Chestnut, Linwood, Fitchburg
- 12'-14' on Poplar
- New streets parallel to Poplar: 6'-12'. Consider curbless shared pedestrian/vehicle streets.
- Enable free flow of pedestrian traffic while at the same time accommodating existing front loading zones in live-work buildings. Locate any outdoor dining or other outdoor active uses away from loading facilities.
- Consider lighting suspended from and/or projected on buildings

Plantings, materials and streetscape

- Include trees where possible, though limited street width and occasional loading docks limit consistent placement. Consider interspersing trees within parking lane. Species to consider in the narrow streets are Armstrong Red Maples and Princeton Elms which have an upright growth habit.
- Include additional plantings using planters, trellises, green walls or other strategies, especially where trees are infeasible. Due to the narrow streets static planters might be problematic. Consider installing smaller removable planters.
- Use materials compatible with industrial character—reinforcing limited presence of "brick" but also other industrial materials. Site furnishings to be constructed of powder coated metal with forms consistent with the industrial appearance. Consider a narrow brick furniture zone for the placement of lights, benches, trash receptacles, etc. Main walking surface to be poured in place concrete. Install solar power parking stations as a standard element throughout the entire project

Parking

- Employ on-street parking as an active design device to reduce vehicle speeds and to provide for additional parking demands from newer buildings.
- Consider eliminating the curb between sidewalks and streets, using bollards to separate on-street parking from sidewalk spaces

Street/Building Relationship

Ground level use mix

- Primary Uses: artist studios & galleries, small offices, restaurants and cafes, entertainment, retail, live/work spaces
- Secondary Uses: housing
- Prevent conflict between housing and other uses by locating housing on upper floors only or by raising ground floor housing at least one foot above grade.

Ground level transparency

- Encourage retrofitting existing building with greater transparency at ground level.
- Encourage transparent garage doors that facilitate easy conversion of indoor parking spaces into galleries, retail, office or other uses.
- 40% - 60% transparency in new buildings

Loading and servicing

- Retain the existing front loaded service conditions, but selectively employ street design elements like bollards, trees and planter boxes to prevent conflict between service vehicles and pedestrian traffic.
- Repurpose loading docks where possible for outdoor dining, stoops etc.

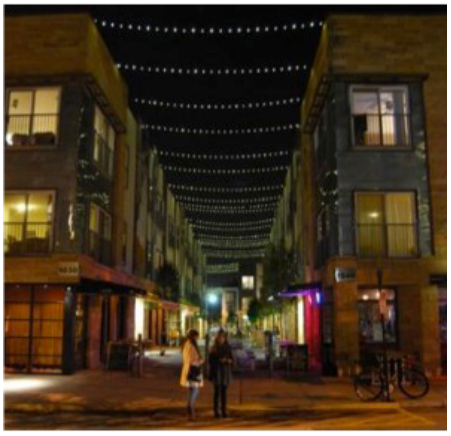
Building relationship to parks

- Support a network of semi-public plazas and open spaces, by utilizing portions of underused front setbacks between the streets and existing buildings.

Building Form

Overall height

- 3-6 stories, with the option of taller towers at Washington St. edge near Washington Station



Setbacks

- None (Minimum 4’ setback where outdoor seating intended).

View corridors

- Retain view corridors to downtown Boston.
- Highlight prominent buildings at ends of streets and at bends in Joy Street.

Specific themes / architectural character

- Preserve and encourage the finer grain, industrial character of Brick bottom.
- Maintain the similar palette of exposed brick and earthy color tones for future buildings
- Limit uninterrupted building length to 150’
- Employ large windows and transparent garage doors for ground level uses. Large industrial-style windows encouraged on upper floors.

BRICKBOTTOM / McGRATH EDGE

The Brickbottom/McGrath Edge subdistrict makes the study area's most important connections to Union Square, Boynton Yards and adjacent areas seeing transit oriented redevelopment. Near-term improvements to McGrath Highway will enhance walking and biking connections to these areas, while the longer-term conversion of McGrath into an at-grade boulevard and greenway will unlock new market opportunity for high-value, large-scale mixed-use development.

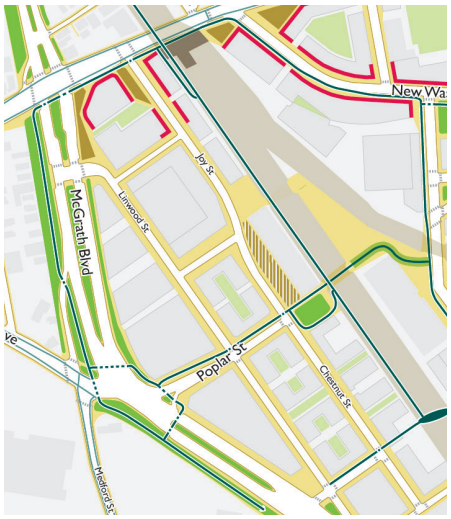
DEFINING QUALITIES

- Larger scale responding to McGrath Boulevard
- Park/greenway setting with consistent tree canopy; public art
- High value, high quality landmark architecture

DEVELOPMENT OPPORTUNITY

- Sidewalk
- Crosswalk
- Off-street multiuse trail
- Off-street multiuse trail
- Housing
- Office/research
- Structured parking
- Large floorplates and fabrication uses acceptable
- Public plaza (all hours)
- Public green space
- Private courtyard
- Rail embankment
- Existing building

PUBLIC REALM



- Sidewalk
- Crosswalk
- Bike lane
- Off-street multiuse trail
- Priority retail edge
- Public plaza (full-/part-time)
- Public green space
- Private courtyard
- Rail embankment
- Proposed building
- Existing building

EXPANDED, IMPROVED WALKING AND BIKING NETWORK

STATION INTEGRATED WITH BUILDING DESIGN

MIXED OFFICE AND HOUSING WITH GROUND FLOOR RETAIL

A variety of parcels west of Washington station hold potential for transit-oriented redevelopment that establishes prominent, pedestrian-friendly connections to Union Square and beyond.

BRICKBOTTOM: McGRATH EDGE

development and design guidelines

Streets

Street character

- Tree lined multi-way boulevard and greenway framed by mid-rise, mixed-use building edge

Sidewalk width and general characteristics

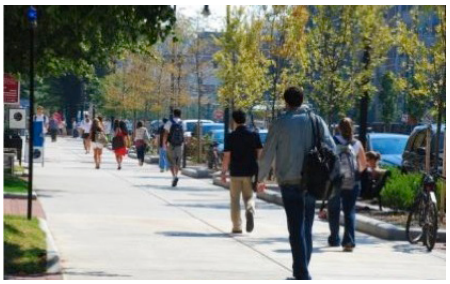
- 10'-15' along building edges
- Cycle track or multi-use path along greenway
- Outdoor dining, public art, water features and provision for parking mobile retail vehicles (e.g. food trucks)

Plantings, materials and streetscape

- Tree canopy along and across boulevard. Tree species for the central roadway median are to be columnar. For trees planted in the sidewalk zone consider London Plane or Pin Oaks.
- Distinctive linear lower landscape plantings along greenway. Sidewalk materials help to define zones for pedestrian movement and outside dining/gathering spaces. Consider the use of moveable planters for color and texture; they can also help to define the outside dining areas. Sidewalk materials to consist of a brick furniture zone and concrete. Site amenities to be a modern mix of metal and wood.
- Use plantings, public art and/or signage to establish pedestrian scale and buffer pedestrians and bikes from traffic Bump outs created for pedestrian safety can also house public art and/or water features whilst providing ample room for public viewing. Food trucks can also be stationed in close proximity to the bump outs to provide larger dining areas. Installing solar parking stations will reduce the amount of clutter on the street.

Parking

- Consider expanding on-street parking by adding a carriage road with parking on both sides (28'-34' wide overall)



Street/Building Relationship

Ground level use mix

- Office and retail. Non-retail spaces should be convertible to retail.

Ground level transparency

- 50-80% ground level transparency

Loading and servicing

- Eliminate all service access from McGrath edge. Locate service docks from mid-block alleys.

Building relationship to parks

- Building use and design should leverage quality of McGrath greenway as linear park

Building Form

Overall height

- 5-6 stories typical, with towers of slender floorplate possible.

Setbacks

- None.

View corridors

- Reinforce views toward Kendall Square

Specific themes / architectural character

- Signature mixed use boulevard for the city of Somerville that celebrates the re-insertion of pedestrian realm with the city fabric.

4 I PUTTING THE PLAN TO WORK

A good neighborhood plan is easy to put to work. It must clearly spell out short-term actions that can be taken, to build momentum and enthusiasm for the medium-term and long-term activities. Issues that require many years to coordinate and complete should be broken into bite-sized pieces. People love checking items off of a list, and long-range neighborhood plans must play to that strength. After all, you can't manage what you can't measure.

Similarly, plans need to use everyday language. Since government agencies often take the lead on plan activities, there is always a risk of using too much technical or bureaucratic language in the plan. Good neighborhood plans remind the reader that each action is intended to improve quality-of-life, help businesses succeed, and increase community pride.

This chapter is structured as a calendar. The Inner Belt Brickbottom Plan calls for the City and its partners to take 100 specific actions over the next decade to achieve the goals of the plan. For each action, an approximate starting point in time is listed. Of the 100 actions listed, 50 will begin in 2014. Some actions will extend beyond 2024, but to keep the calendar readable, years in the later period (2024-2035) are grouped together.

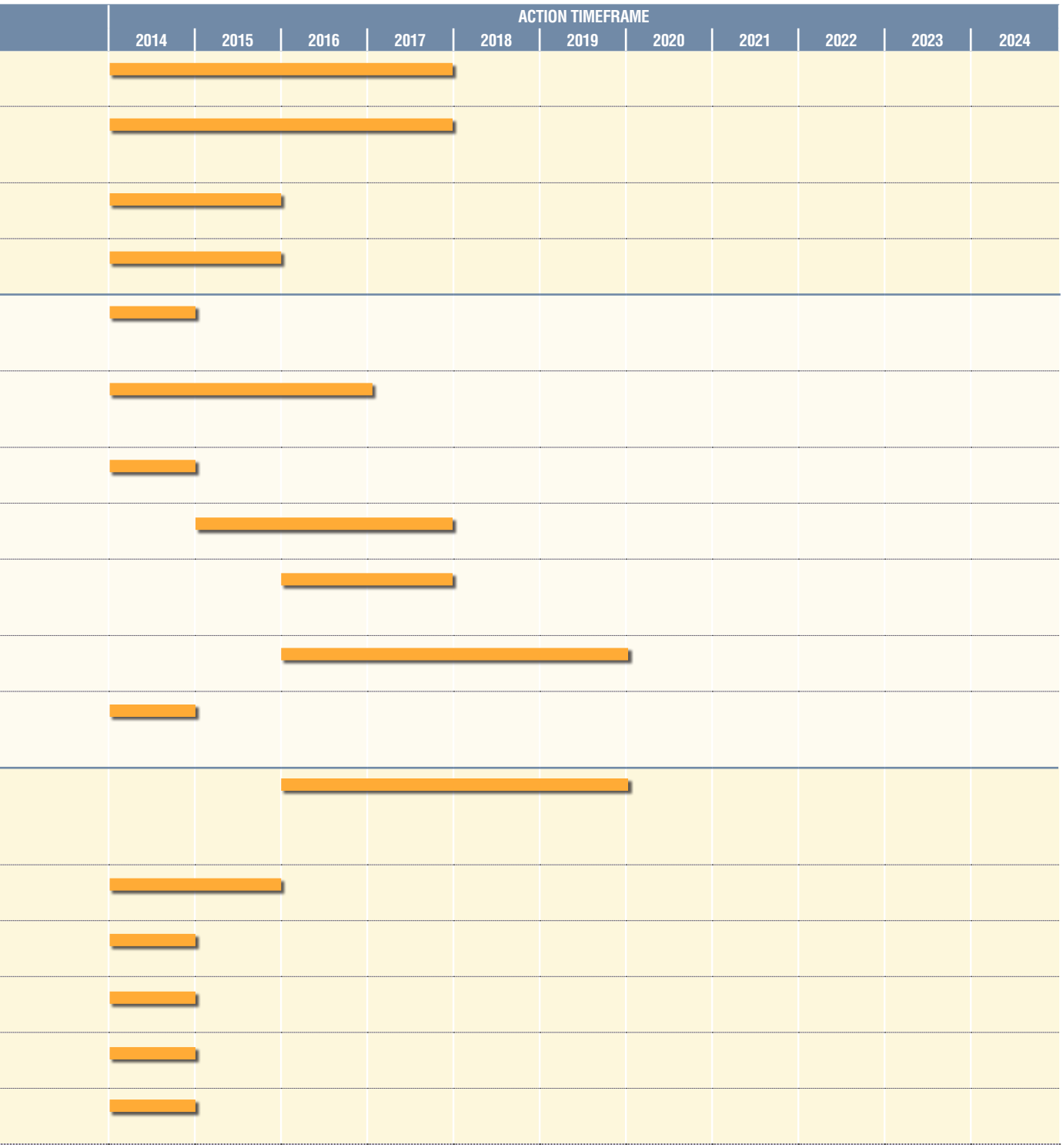
This neighborhood plan is rooted in five core values: creating places for people; connecting neighborhood to neighborhood; growing the economy; coordinating public and private investment; and, making development sustainable. Since these values are broad, they are broken down into more manageable strategies, which continue to use everyday language.

Plan Values	*Strategies*
Create great places for people.	Welcome People to Somerville
	Invest in Civic Spaces
	Invite People to Walk
	Make Bicycling a Signature of the District
	Share Street Space Between Cars and People
	Create 18-Hour Neighborhoods
Connect neighborhood to neighborhood.	Replace the Tubes
	Connect Inner Belt to Brickbottom
	Link Inner Belt and Brickbottom to East Somerville
	Connect Inner Belt to Cambridge
	Connect Inner Belt to Boston
Grow the economy.	Make Commercial Development Easy
	Ensure that Inner Belt Brickbottom are Somerville Neighborhoods
	Support New Job Creation
	Develop the Local Workforce
	Empower a Business Management Organization
Coordinate public and private investment.	Create and Expand Street Grids
	Capture the Value of Transit
	Plan Regionally
Make development sustainable.	Utilize Low-Impact Development Practices
	Manage Stormwater Effectively and Efficiently
	Promote Choice in Housing
	Manage Transportation Demand

1 CREATE GREAT PLACES FOR PEOPLE

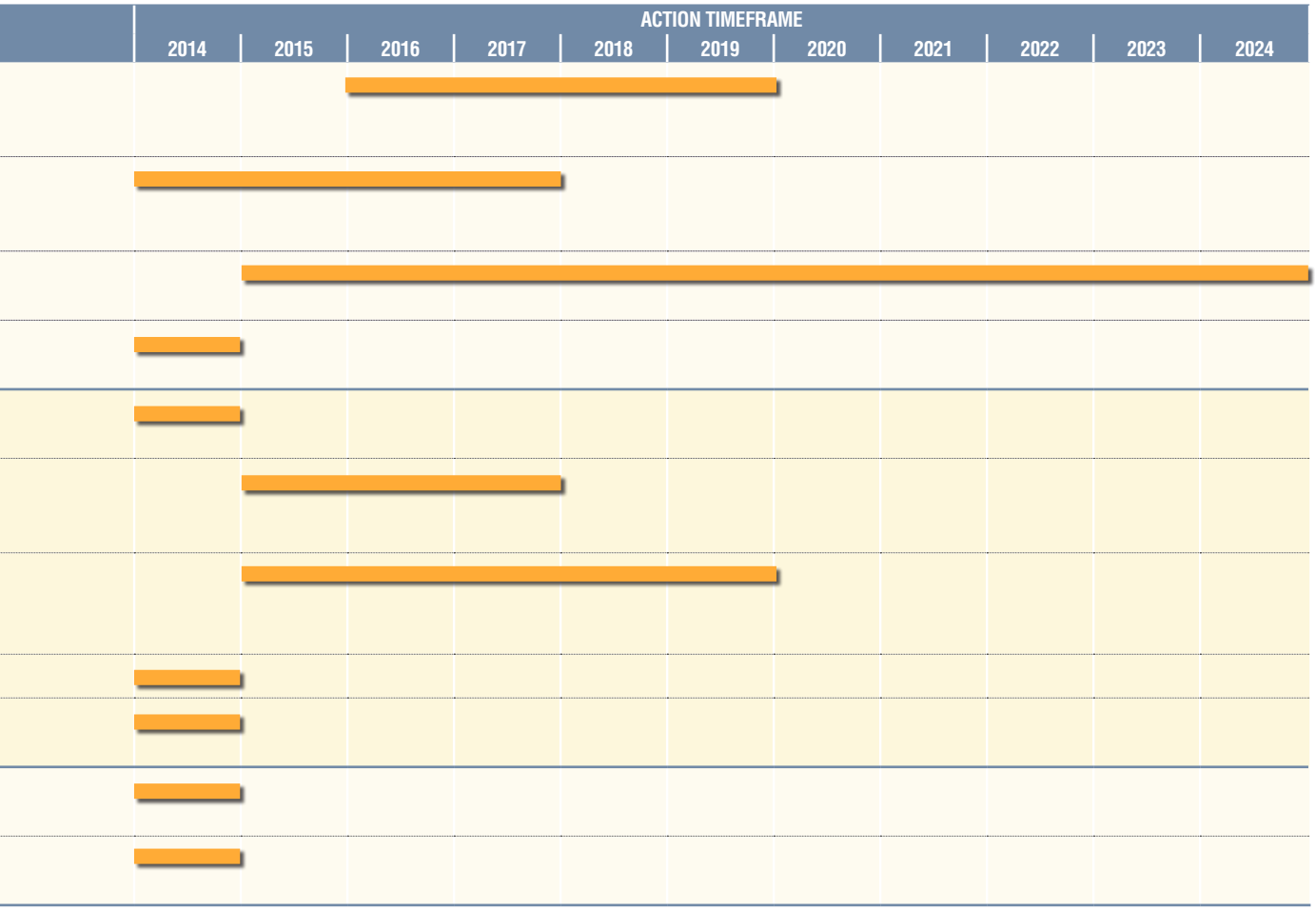
Table X: Action Items: Create great places for people

ACTION STRATEGY	ACTION DETAILS	AGENTS (**LEAD**/PARTNER)
1.1 Welcome people to Somerville	Partner with the MBTA and MassDOT to design and construct the Green Line station at Washington Street, with 360 degrees of public accessibility	**City,** MBTA, MassDOT
	Partner with the MBTA and MassDOT to design and construct the full Somerville Community Path Extension from the Green Line station at Washington Street to the new Lechmere Station, with connections to local streets in and around Inner Belt and Brickbottom	**City,** MBTA, MassDOT
	Install additional Inner Belt gateway signs like the one at the corner of Inner Belt Road and New Washington Street.	**City,** local business and property owners
	Launch a Citywide wayfinding signage program including financing strategies for design and installation	**City,** local business and property owners
1.2 Invest in civic spaces	Ensure that reformed zoning includes a process by which each development project must build high-quality civic space on-site, or provide a payment in-lieu to allow the City to purchase and create centralized space like those spaces shown on the Vision Plan.	**City**
	Design and install a temporary, pedestrian-oriented use at the former Waste Transfer Facility site.	**City**, local artists, business and property owners, residents
	Ensure that privately-owned civic spaces included in the redevelopment of 90 Washington Street are built and maintained.	**City**, property owner
	Seek opportunities to create additional temporary recreation and/or public art spaces on underutilized sites in Inner Belt until redevelopment occurs.	**City**, business and property owners, local artists
	Expand the Zero New Washington public space west along Cobble Hill Road to create the "New Washington Common" shown in the Vision Plan. *See also action 3.2.*	**City**, Pan Am Railways, business and property owners, local artists
	Partner with the private owner of 86 Joy Street to plan and build "Brickbottom Square" as a front yard for the building, as shown in the Vision Plan. *See also action 3.1.*	**City**, property owner, local artists
	Ensure that reformed zoning includes a process by which each development project must build high-quality civic space on-site, or provide a payment in-lieu to allow the City to purchase and create centralized space like those spaces shown on the Vision Plan	**City**
1.3 Focus on walking	Design and construct sidewalks and crosswalks on Washington Street, New Washington Street, Inner Belt Road, Joy Street, Chestnut Street, Linwood Street and Poplar Street that are ADA-compliant, constructed of durable, long-lifespan materials, provide opportunities for outdoor café seating and encourage comfortable pedestrian life. *See also action 2.3.*	**City,** MassDOT, adjoining property and business owners
	Establish a palette of artistic street furnishing materials for Brickbottom and Inner Belt, promoting the unique identity of each area.	**City,** local artists, business and property owners
	Ensure that reformed zoning provides for engaging street frontage for all new buildings, including multiple doors facing the street.	**City**
	Adopt planting standards to ensure that landscaping for streetscapes and private property frontage is designed to encourage walking and sitting.	**City**
	Adopt and enforce design standards requiring new parking garages to be wrapped by active buildings.	**City**
	Ensure that reformed zoning identifies key street frontage appropriate for loading and delivery, and adopt design and performance standards for new development.	**City**


ACTION TIMEFRAME
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024

1 CREATE GREAT PLACES FOR PEOPLE CONTINUED

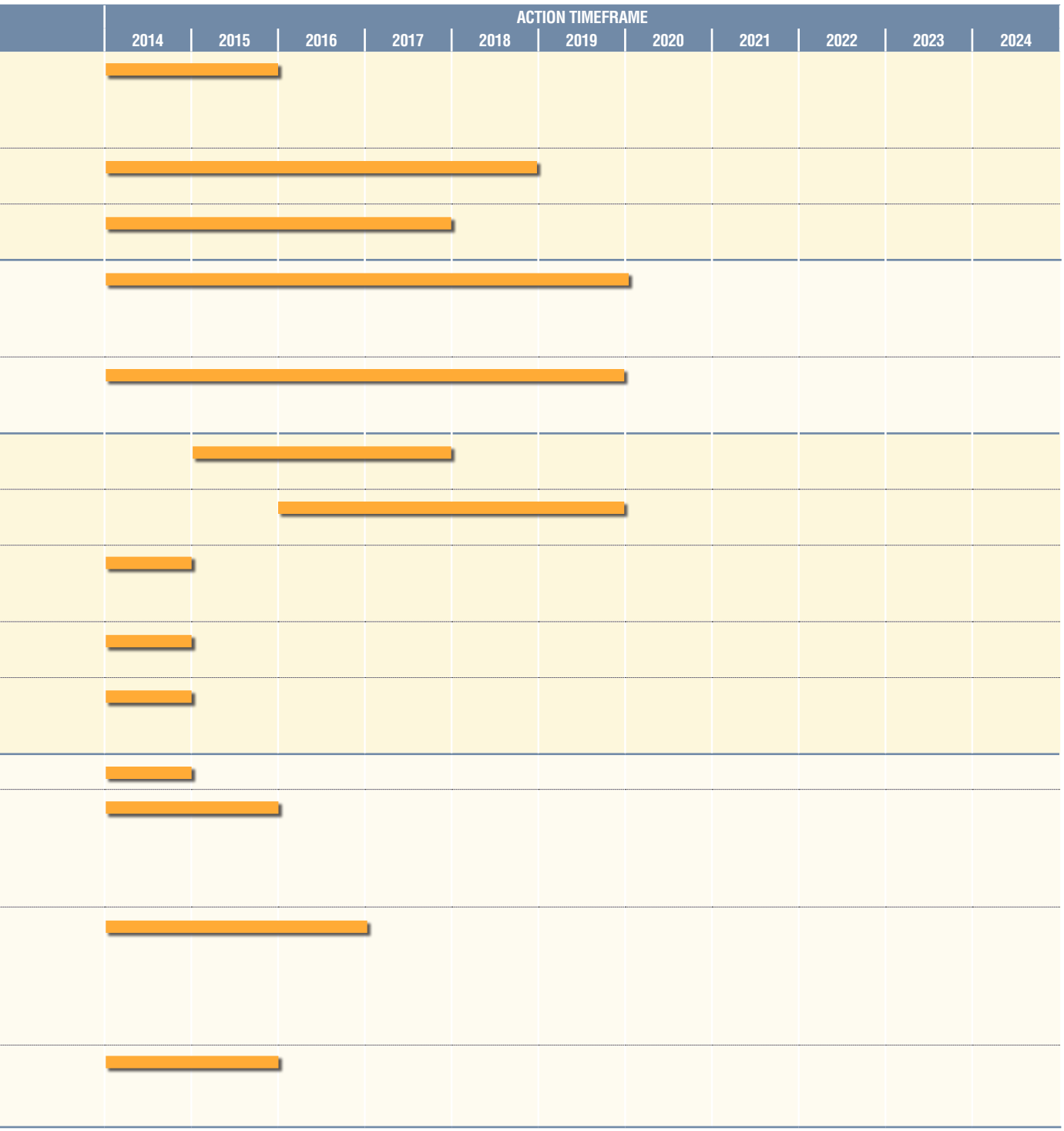
ACTION STRATEGY	ACTION DETAILS	AGENTS (**LEAD**/PARTNER)
1.4 Make safe, convenient, enjoyable bicycling a signature of the study area	Partner with the MBTA and MassDOT to design and construct the full Somerville Community Path Extension from the Green Line station at Washington Street to the new Lowell Street Station, with connections to local streets.	**City,** MBTA, MassDOT
	Partner with the MBTA and MassDOT to ensure that two-way cycle tracks are constructed on Washington Street between Joy and New Washington Streets when the Green Line station is built.	**City,** MBTA, MassDOT
	Prioritize separated bicycle facilities on all road reconstruction projects.	**City,** MassDOT (as applicable)
	Revise development standards for new commercial buildings to provide bicycle storage and commuter shower facilities.	**City**
1.5 Re-balance street space allocation among cars and people	Support MassDOT's Grounding McGrath project, including entering into the environmental process to return the roadway to an at-grade urban thoroughfare.	**City,** MassDOT
	Redesign Washington Street from Sullivan Square to McGrath Highway as a Complete Street, to ensure better sharing of space between pedestrians, cyclists, transit riders and drivers. Investigate options to fund implementation, then pursue implementation.	**City,** MassDOT, City of Boston
	Investigate funding options to reconstruct Washington Street as a Complete Street.	**City,** MassDOT, City of Boston
	Ensure that reformed zoning includes parking maximums for new development.	**City**
	Establish parking facilities that will be shared by different uses, eliminating the need for every new development project to provide its own new parking.	**City**, business and property owners
1.6 Create 18-hour neighborhoods	Ensure that reformed zoning establishes active ground-floor uses in identified retail clusters, per Master Plan recommendations.	**City**
	Ensure that 30% to 40% of new development is residential to ensure activity throughout the day and night and on weekends.	**City**


ACTION TIMEFRAME
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024

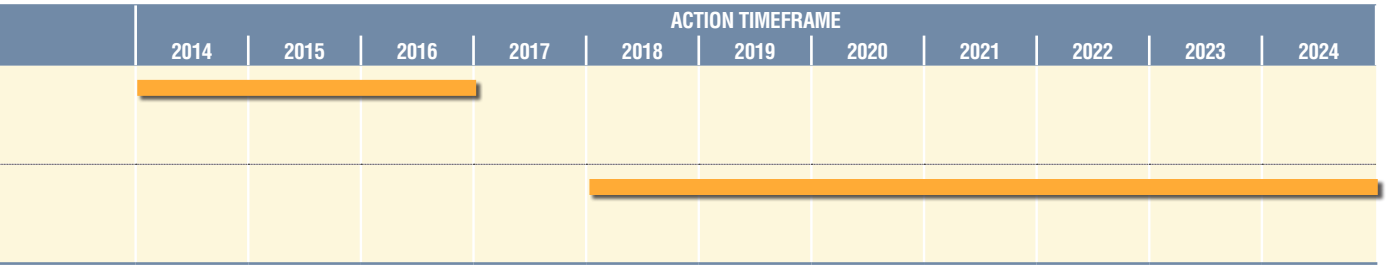
2 CONNECT NEIGHBORHOOD TO NEIGHBORHOOD

Table X: Action Items: Connect neighborhood to neighborhood

ACTION STRATEGY	ACTION DETAILS	AGENTS (**LEAD**/PARTNER)	
2.1 Replace the Tubes	Partner with private property owners and the MBTA to secure passage rights to the Third Avenue Extension underneath the Lowell line as a temporary vehicular access for properties south of the Tubes during the planning, design and construction of a bridge structure at Inner Belt Road.	**City,** MBTA, property owners	
	Work with the MBTA and its commuter rail contractor to plan, finance and construct a bridge structure to replace the Tubes.	**City,** MBTA, rail contractor	
	Partner with private property owners at 30 and/or 50 Inner Belt Road to secure temporary easements for construction staging on privately-owned parking lots.	**City,** MBTA, property owners	
2.2 Connect Inner Belt and Brickbottom	Partner with the MBTA and MassDOT to create at least one safe, convenient walking connection between Inner Belt South and Brickbottom as part of Green Line and Community Path installation. Ensure the elevated Community Path is built to accommodate potential connections to future adjacent buildings and/or open spaces. *See also action 4.2.*	**City**, MBTA, MassDOT	
	Work with property owners flanking the Green Line and the MBTA to encourage installation of accessible pedestrian bridge(s) over the Green Line connecting Inner belt and Brickbottom streets. *See also action 4.2.*	**City**, MBTA, MassDOT, property owners	
2.3 Connect Inner Belt and Brickbottom to East Somerville	Redesign Washington Street to include safer pedestrian crossings, wider sidewalks, protected cycletracks, and on-street parking.	**City,** MBTA, MassDOT, property owners	
	Partner with the MBTA and MassDOT to design and construct the full Somerville Community Path Extension from t he Green Line station at Washington Street to the Cross Street bridge.	**City,** MBTA, MassDOT	
	Ensure that reformed zoning encourages adaptive re-use and selective, appropriately-scaled redevelopment on the north side of Washington Street, with active, pedestrian-oriented uses on the ground floor.	**City**, property owners	
	Ensure that reformed zoning encourages consistent building frontage on the south side of Washington Street to create a more walkable street edge.	**City**, property owners	
	Establish strategies to improve connections between Washington Street and Broadway for pedestrians, cyclists, and in limited circumstances, drivers as part of a neighborhood plan for East Somerville.	**City**	
2.4 Connect Inner Belt to Cambridge	Design a bridge structure that connects Inner Belt Road to North Point.	**City,** MBTA, MassDOT	
	Explore financing options to build an Inner Belt-North Point bridge. Work with the City of Cambridge to explore a bridge design that allows full vehicular use of the Inner Belt / North Point bridge. Design the bridge structure in partnership with the City of Cambridge, the MBTA and adjoining property owners. Take further actions as needed to foster bridge construction. *See also action 4.2.*	**City,** MBTA, MassDOT, adjoining property owners	
	Establish a Transportation Management Association to provide transit services connecting employment centers at Assembly Square, Sullivan Square, Inner Belt, North Point and Kendall Square, or in the alternative, seek public support for this service in coordination with Urban Ring implementation.	**City,** property and business owners, MassDOT, MBTA, Cities of Boston and Cambridge, institutions and/or other interested partners	
	Work with the City of Cambridge to explore a bridge design that allows full vehicular use of the Inner Belt / North Point bridge.	**City,** City of Cambridge	


ACTION TIMEFRAME
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024

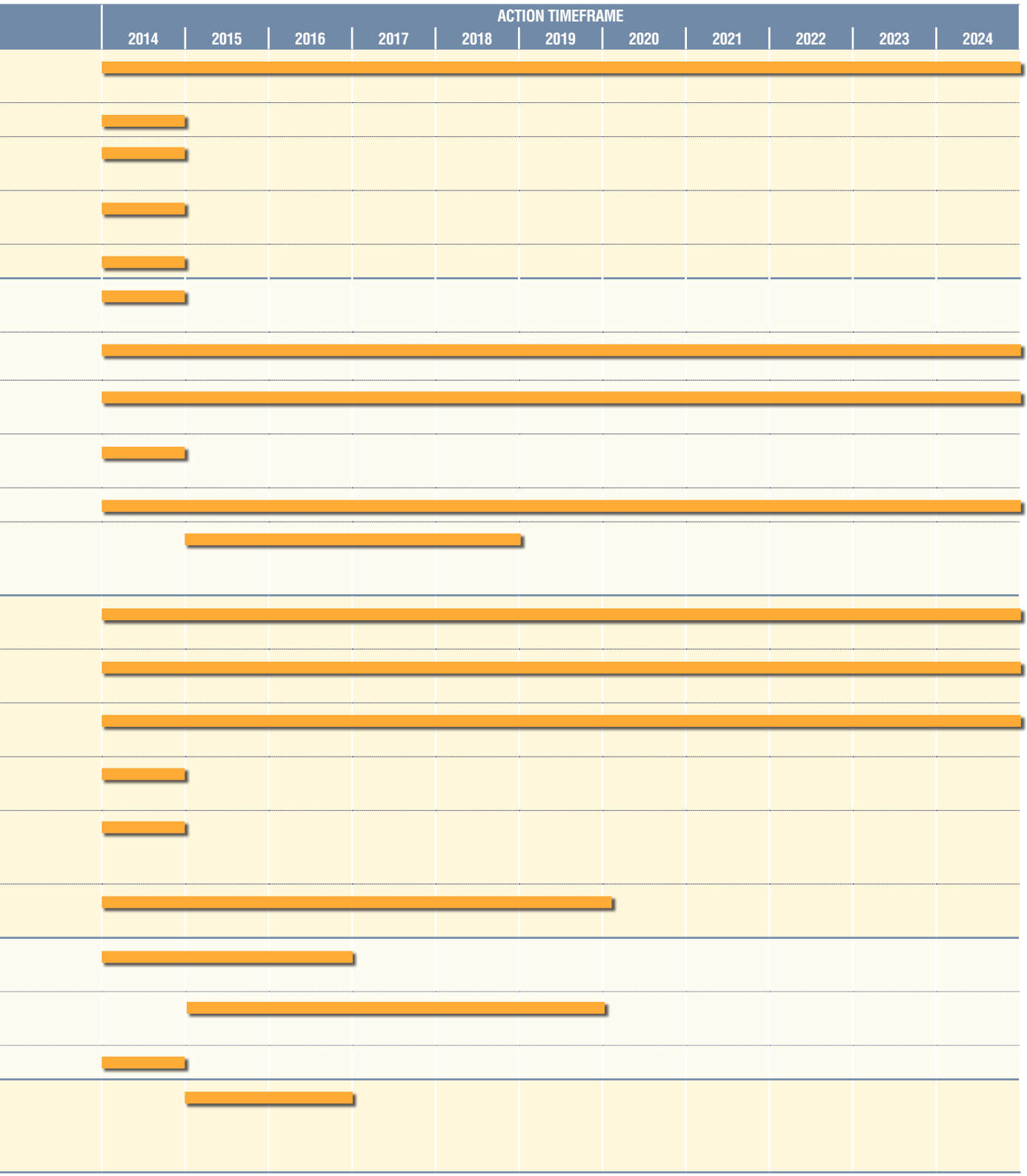
ACTION STRATEGY	ACTION DETAILS	AGENTS (**LEAD**/PARTNER)	
2.5 Connect Inner Belt to Boston	Coordinate with the City of Boston and private property owners to plan for the extension of Roland Street to Inner Belt Road as new development occurs.	**City,** property and business owners City of Boston	
	Work with the MBTA to explore potential longer-term relocation of rail yard space east of Inner Belt Road, to enable extension of New Washington Street and additional development opportunities.	**City,** MBTA	


ACTION TIMEFRAME
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024

3 GROW THE ECONOMY

Table X: Action Items: Grow the economy

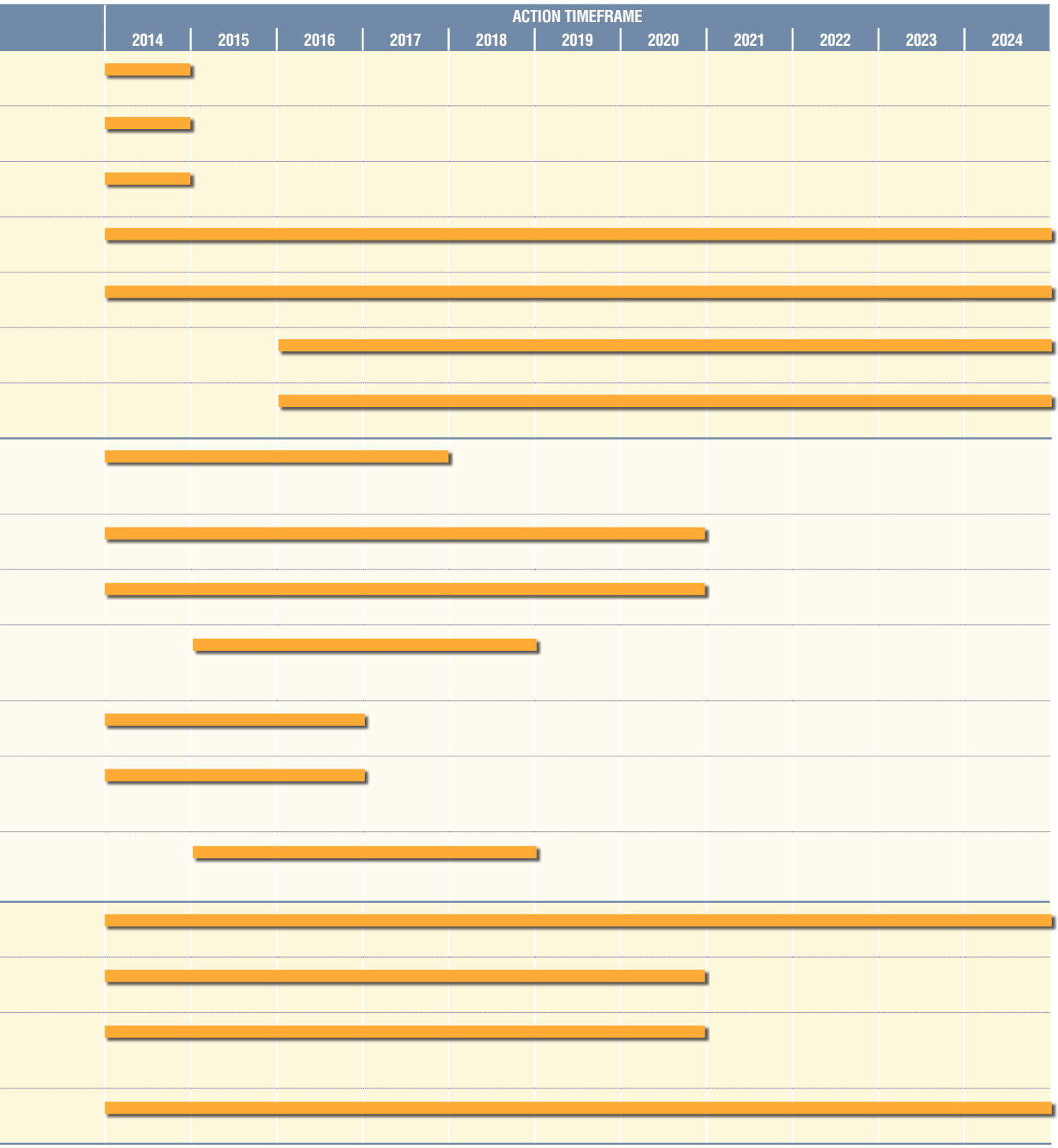
ACTION STRATEGY	ACTION DETAILS	AGENTS (**LEAD**/PARTNER)	
3.1 Make commercial development easy	Ensure that between 60% and 70% of new square footage developed in Inner Belt and Brickbottom is commercial.	**City**	
	Organize zoning regulations around building types.	**City**	
	Prepare zoning regulations that include by-right entitlements for multi-story commercial building types with design review.	**City**	
	Ensure that reformed zoning provides incentives for neighboring property owners to prepare shared development plans that maximize development potential.	**City**	
	Overhaul Somerville's sign code to streamline review and ensure high-quality design.	**City**	
3.2 Ensure that Inner Belt and Brickbottom are great Somerville neighborhoods	Ensure that reformed zoning includes regulations enabling fabrication and light manufacturing uses.	**City**	
	Protect the viability of walkable, transit-centered artist live-work space at 1 Fitchburg Street.	**City**, property owner	
	Partner with the private owner of Joy Street Studios to preserve and expand the affordable studio and light manufacturing space that supports Somerville's creative economy.	**City**, property owner	
	Ensure that reformed zoning encourages multiple, small gallery spaces and performing arts venues to be built in Brickbottom.	**City**	
	Ensure that public art is located throughout Inner Belt and Brickbottom.	**City,** local artists	
	Partner with the MBTA and private rail operators to create a pilot project that cleans up the Yard 10 Lead track and boxcar at Cobble Hill Road to create an attractive, branded gateway for New Washington Street, with enhanced public open space and streetscape opportunities.	**City,** MBTA, Pan Am Railways	
3.3 Support new job creation	Ensure, through zoning and project design review, that old and new buildings can co-exist as development occurs in Inner Belt and Brickbottom.	**City,** property owners, developers	
	Support adaptive re-use of existing commercial buildings to achieve increased job density.	**City,** property and business owners	
	Through zoning and economic development policies, encourage a diverse mix of job types in Inner Belt and Brickbottom.	**City**, Somerville Chamber of Commerce	
	Ensure that new zoning regulations allow building types that meet a range of space needs and price points.	**City**	
	Ensure that reformed zoning in Inner Belt establishes the opportunity to place large floorplate buildings in appropriate locations, thereby positioning the district to meet a unique need in the regional commercial real estate market.	**City**	
	Coordinate with private property owners of outdoor vehicle storage and equipment storage sites to plan to transition these sites into more job-dense uses.	**City,** property and business owners	
3.4 Develop our local workforce	Publicize existing partnerships and programs offering job training.	**City,** workforce training partners	
	Expand workforce development efforts.	**City,** workforce training partners	
	Ensure that reformed zoning includes a predictable jobs linkage mechanism.	**City**	
3.5 Empower a business management organization	Explore establishment of a new entity empowered to support business recruitment efforts, perform marketing and branding services, maintain public and private civic spaces, oversee cultural programming, and manage parking and shuttle services.	**City, Somerville Chamber of Commerce and/or other business partners**	


ACTION TIMEFRAME
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024

4 COORDINATE PUBLIC INVESTMENT WITH PRIVATE INVESTMENT

Table X: Action Items: Coordinate public investment with private investment

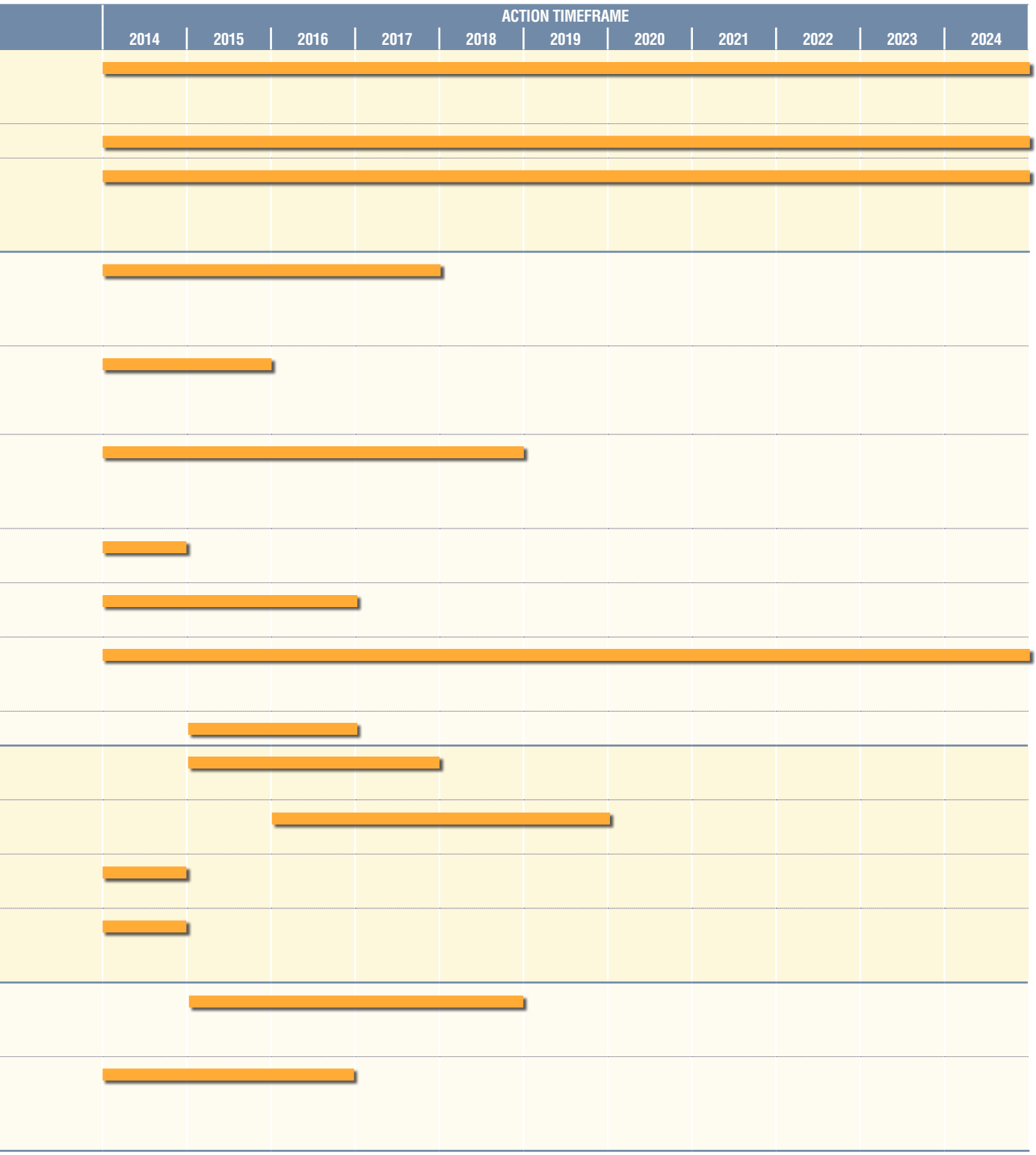
ACTION STRATEGY	ACTION DETAILS	AGENTS (**LEAD**/PARTNER)	
4.1 Create and expand street grids	Ensure that reformed zoning includes street standards for front streets, side streets and back streets that include definitions, dimensional characteristics and performance standards.	**City**	
	Ensure that reformed zoning establishes a minimum land area dedicated as street or as civic space.	**City**	
	Ensure that reformed zoning provides incentives unlocking additional development capacity for owners who dedicate essential streets.	**City**	
	Require or incent property owners to connect Joy Street to Linwood Street with at least one new side street and one new back street as development occurs	**City,** property owners	
	Require or incent property owners to connect Chestnut Street to Linwood Street with at least one new side street and one new back street as development occurs	**City,** property owners	
	Require or incent property owners to create a new east-west internal street in the vicinity of First Avenue as development occurs.	**City,** property owners	
	Require or incent property owners to create a new east-west internal street west of Inner Belt Road and south of the Tubes as development occurs.	**City,** property owners	
4.2 Capture the value of transit	Partner with the MBTA and MassDOT to design and construct tie-in points for future privately-funded access onto the Community Path, specifically where necessary to connect the Inner Belt South sub-area to the Green Line station.	**City,** MBTA, MassDOT, adjoining property owners	
	Encourage the private owners of 150 Inner Belt Road to construct an access point onto the Community Path when the site is developed.	**City**, property owner	
	Encourage the private owners of 20 Chestnut Street to construct an access point onto the Community Path when the site is redeveloped.	**City**, property owner	
	Partner with the MBTA to release MBTA property not needed for right-of-way near the Washington Street Station for sale and redevelopment. Issue a Request for Proposals with development standards consistent with this Master Plan.	**City, MBTA**	
	Explore District Improvement Financing (DIF) as a tool to fund needed sewer and stormwater improvements.	**City**	
	Explore federal Transportation Infrastructure Finance and Innovation Act (TIFIA) loan funding to support construction of the Inner Belt—North Point bridge, leveraging Urban Ring transit corridor opportunity. *See also action 2.4.*	**City,** MassDOT, City of Cambridge, private sector partners	
	Partner with the MBTA and MassDOT to prepare the Mystic Yard facility along New Washington Street for more valuable transit-oriented development	**City,** MBTA, MassDOT, adjoining property owners	
4.3 Plan regionally	Collaborate with the City of Boston and MBTA to create high-quality, walkable transit-oriented redevelopment around Sullivan Square complementing Inner Belt-Brickbottom goals	**City,** City of Boston, MBTA	
	Collaborate with the City of Cambridge on the North Point master development and transportation links.	**City,** City of Cambridge	
	Collaborate with the City of Cambridge and private sector/institutions to ensure the high-cost life sciences and technology industries in Kendall Square have access to lower-cost back office and manufacturing space in Inner Belt and Brickbottom.	**City**, City of Cambridge, private sector and institutions	
	Advocate with state and regional agencies to ensure that limited roadway systems capacity is used judiciously to support sustainable regional economic growth.	**City,** MAPC, MassDOT, MBTA	


ACTION TIMEFRAME
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024

5 DELIVER ONGOING VALUE WITH SUSTAINABLE DEVELOPMENT APPROACHES

Table X: Action Items: Deliver ongoing value with sustainable development approaches

ACTION STRATEGY	ACTION DETAILS	AGENTS (**LEAD**/PARTNER)	
5.1 Pursue sustainable development practices	Encourage new development to meet or exceed LEED Silver standards or equivalent. In general, encourage construction techniques that are resource- and energy-efficient, minimize detrimental environmental impacts, and promote public health.	**City, property owners, developers**	
	Encourage transit-oriented development and design.	**City**	
	Highlight sustainable development and design achievements in marketing and branding for Inner Belt and Brickbottom	**City, Somerville Chamber of Commerce and/or other business partners**	
5.2 Manage stormwater efficiently and effectively	Ensure that the MBTA and MassDOT construct high-capacity stormwater infrastructure with the Green Line Extension, including the Washington Street Pump Station, the Green Line detention cistern, the Red Bridge detention pond, and Maintenance Facility site improvements as needed.	**City, MBTA, MassDOT**	
	Partner with the MBTA and MWRA to perform drainage capacity modelling, and improve infrastructure as needed, to ensure that the Inner Belt and Brickbottom districts can support the buildout of transit-oriented development called for in the SomerVision Comprehensive Plan.	**City, MBTA, MWRA**	
	Ensure that responsible parties resolve issues related to the blocked Old Stone Culvert at the Boston Engine Terminal, and convey all upstream flows out of the Inner Belt district via the MWRA sewer at Roland Street or the MBTA Fitchburg main drain. Coordinate with Green Line Maintenance Facility design and construction.	**City, MBTA, MWRA**, other partners as needed	
	Reform zoning to include performance standards for on-site stormwater retention for new buildings, and opportunity for district-scale stormwater management.	**City**	
	Develop incentive programs to promote retrofitting of existing buildings for better stormwater performance, including rooftop storage.	**City**	
	Design and build new civic spaces that increase stormwater retention in the district (potentially serving district-scale needs) while also providing amenities with aesthetic and/or recreational value.	**City, property owners, developers**	
	Explore creation of a Citywide stormwater enterprise fund.	**City**	
5.3 Promote choice in housing	Partner with the private owner of the Cobble Hill Apartments to extend affordability provisions in perpetuity.	**City, property owner**	
	Partner with the private owner of the Cobble Hill Apartments to extend affordability provisions in perpetuity.	**City, property owner**	
	Ensure that new zoning regulations allow multiple residential building types, including townhouse buildings and vertical apartment towers	**City**	
	Revise the City's Inclusionary Housing Ordinance to require either a greater percentage of affordable units in new residential development projects, or a greater number of family-sized units.	**City**	
5.4 Manage transportation demand	Create a Transportation Management Association empowered to manage parking resources, including access coordination, hours of operation, pricing, security, lighting, advertising, maintenance and insurance.	**City, property and business owners**	
	Partner with the MBTA, MassDOT, other agencies and private sector partners to develop a business plan for high quality transit service to connect Sullivan Square to Kendall Square and beyond via a new Inner Belt—North Point bridge. Coordinate with Urban Ring transit corridor planning to date.	**City, MassDOT, MBTA, private sector/institution partners, Cities of Boston and Cambridge**	


ACTION TIMEFRAME
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024

PHASE II COMPREHENSIVE SITE ASSESSMENT, PHASE III IDENTIFICATION, EVALUATION AND SELECTION OF COMPREHENSIVE REMEDIAL ACTION ALTERNATIVES AND TEMPORARY SOLUTION STATEMENT

90 WASHINGTON STREET

RTN 3-31102

SOMERVILLE, MASSACHUSETTS

SEPTEMBER 12, 2018

Prepared For:

Department of Environmental Protection
Northeast Regional Office
205B Lowell Street
Wilmington, MA 01887

On Behalf Of:

Cobble Hill Apartments Company
150 Mount Vernon
Boston, MA 02125

PROJECT NO. 5471.9.00

2269 Massachusetts Avenue
Cambridge, MA 02140
www.mcphailgeo.com
(617) 868-1420

September 12, 2018

Department of Environmental Protection
Northeast Regional Office
205B Lowell Street
Wilmington, MA 01887

Attention: Bureau of Waste Site Cleanup

Reference: 90 Washington Street, Somerville Massachusetts
Phase II Comprehensive Site Assessment, Phase III Identification, Evaluation and Selection of Comprehensive Remedial Action Alternatives and Temporary Solution Statement RTN 3-31102

Enclosed herewith is a Phase II Comprehensive Site Assessment, Phase III Identification, Evaluation and Selection of Comprehensive Remedial Action Alternatives and Temporary Solution Statement for the Massachusetts Contingency Plan (MCP) site listed under Release Tracking Number (RTN) 3-31102, which is associated with reportable concentrations of PCBs, extractable petroleum hydrocarbons (EPH), semi-volatile organic compounds (SVOCs) and Volatile Organic Compounds (VOCs) at 90 Washington Street, Somerville, Massachusetts. Refer to the Project Location Plan, **Figure 1**, for the general site location. These services are subject to the limitations contained in **Appendix A**.

The subject site consists of land totaling approximately 185,000 square feet that currently contains a single one-story L-shaped 13,500 square-foot vacant shopping plaza building surrounded by an asphalt parking area and landscaping. The subject site is currently vacant and fenced off from the general public. However, the eastern portion of the subject MCP release site is an active paved parking lot for 84 Washington Street and landscaping.

Historic subject site operations included an iron foundry and oil company between 1930 and 1975. The subject site was described as undeveloped between 1975 and 1982. From 1982 to present day the subject site was developed as a shopping plaza with several retail units and associated parking. Currently (and since at least 2014), the shopping plaza is vacant and fenced off from public access. However, a small portion of the subject site is an active paved parking lot. The Phase I Report indicated areas surrounding the subject site were developed for residential, retail and industrial operations.

During May 2012 due diligence site investigations/assessments were completed by EBI Consulting (EBI) of Burlington, Massachusetts. That work included the advancement of borings, installation of groundwater monitoring wells and sampling and analysis of soil and groundwater. The result of that analysis identified the presence of acenaphthylene, naphthalene, 2-methylnaphthalene, C9-C18 aliphatics and C11-C22 aromatics in soil at concentrations greater than the applicable Reportable Concentrations (RCS-1). Pursuant to the MCP, this condition was reported to the MassDEP as a 120-day reporting condition on September 13, 2012 by Cobble Hill Center, LLC, to which the MassDEP assigned Release Tracking Number (RTN) 3-31102.

GEOTECHNICAL AND GEOENVIRONMENTAL ENGINEERS
2269 Massachusetts Avenue
Cambridge, Massachusetts 02140
(617) 868-1420

A Phase I Initial Site Investigation and Tier II Classification was submitted by EBI Consultants of Wilmington, Massachusetts on September 12, 2013 to the DEP on behalf of Cobble Hill Apartments Company.

EBI completed a Soil Characterization Report relative to the subject site, dated April 9, 2014, summarizing in-situ pre-characterization soil explorations at the subject site for export of displaced material for historically proposed subject site re-development (not completed). These explorations consisted of the installation of 18 soil test borings.

Soil pre-characterization analytical results indicated the detection of additional COCs; including, VOCs (chlorobenzene and 1,4-dichlorobenzene), SVOCs (2,4-dinitrotoluene, and 1,4 dichlorobenzenes), and PCBs at concentrations exceeding the current applicable Method 1 Risk Based Clean-up standards. EBI also completed an additional supplemental pre-characterization exploration consisting of 8 soil test borings completed during May 2014. McPhail was provided with analytical laboratory reports and sample location plan in regards to this investigation. During these pre-characterization explorations several COCs were identified including PCBs, chlorobenzene, 1,4-dichlorobenzene with detected concentrations exceeding Method 1 clean-up standards.

With respect to the above-noted constituents, we note that the entire property, consisting of a 224-unit senior housing complex and a one story retail complex known as Cobble Hill Center, was owned by Cobble Hill Apartments Company. In 2012, hazardous materials were found at the site and reported to DEP. In 2013, the property was subdivided, with Cobble Hill Apartments Company continuing to own the portion with the 224-unit senior housing complex and Cobble Hill Center, LLC becoming the owner of the portion containing the retail complex. Tenants soon thereafter vacated the retail complex in anticipation of redevelopment of the Cobble Hill Center site into a 157-unit apartment complex. Pre-development characterization work was completed in 2014 by EBI Consultants.

In October 2013, the Somerville Zoning Board of Appeals granted approval for the proposed 157-unit apartment complex. During July 2014, a shareholder in Cobble Hill Center LLC filed a lawsuit, causing the development plans to be put on hold; that litigation is on-going. The Cobble Hill Center site has been vacant since 2014.

In reviewing the available historic soil and groundwater data on behalf of Cobble Hill Center LLC, McPhail identified the exceedences of the compounds noted above, namely chlorobenzene, 1,4-dichlorobenzene, SVOCs (2,4-dinitrotoluene and 1,4 dichlorobenzene), and PCBs. These additional compounds are considered contaminants of concern in soil at the MCP site and thus have been addressed in this report as such. A BWSC126 is being filed with the DEP concurrently with this submittal documenting the compounds and concentrations that require notification. A Tier II Transfer is planned within the near future to transfer responsibility for performing response actions at this site from Cobble Hill Apartments Company to Cobble Hill Center LLC.
More recently, McPhail completed additional assessment-only activities at the subject site during August of 2018 to collect additional analytical data to complete the subject site's Conceptual Site Model.

Current subject site conditions do not pose an Imminent Hazard, Critical Exposure Pathway or a Condition of Substantial Release Migration, as defined in the MCP.

The results of historic and more recent sampling and testing of groundwater at the MCP site did not identify the presence of the COCs in soil at concentrations that exceed the applicable RCGW-2 Reportable Concentrations. Hence, the release at the MCP site is limited to soil.

The source of the contamination is considered the historic use of the site and nature of the fill. There are no known ongoing or uncontrolled sources present at the site. Further, the results of the historic and recent soil and groundwater testing demonstrate that the extent of the release is limited to soil within the boundaries of the property and there was no evidence identified that contamination has migrated off-site. In accordance with Section 40.0836 of the MCP, Phase II is considered complete. The comprehensive site assessment does not disclose new or additional information which would affect the disposal site's Tier Classification.

Phase III evaluation of Remedial Alternatives determined that excavation and export of contaminated soil is the best alternative to achieve or approach background conditions at the subject site in order to reach a Permanent Solution. However, plans for redevelopment of the site are on indefinite hold due to the ongoing litigation and the unresolved dispute between the Principals and it is considered not feasible to implement remedial measures at this time.

As stated above and described in the text of this Report, the majority of the site is a surrounded by a secured chain link fence. The retail building at the site is unoccupied and vacant. Therefore, for the fenced-in and vacant portion of the MCP release site, in accordance with Section 40.0956(1)(c) of the MCP, a quantitative evaluation of human health risk is not required given that there is no current exposure to oil and/or hazardous material at the disposal site. Accordingly, a Substantial Hazard does not exist for that portion of the MCP site. However, for the eastern portion of the MCP site located outside the fenced in area (paved parking lot with landscaped areas) a Substantial Hazard Evaluation was completed. As shown in the Method 3 Shortforms for Human Health Risk assessment, a Substantial Hazard does not exist at the eastern, un-fenced portion of the site. Further, given that the release is limited to soil and has not migrated off-site, and that no wetlands, aquatic or terrestrial habitats, or fisheries exist at the MCP site, a Substantial Hazard to Environmental Receptors does not exist at the MCP site.

Therefore, a Temporary Solution has been achieved for the MCP site to which RTN 3-31102 applies, pursuant to Section 40.1050 of the MCP. An Activity and Use Limitation (AUL) is not required to maintain a condition of No Substantial Hazard. As documented in the Phase III Section of this Report, the selected remedial option for this site is excavation and off-site reuse, recycling, and/or disposal of contaminated soil. Plans for redevelopment of the site are on indefinite hold due to the ongoing litigation and the unresolved dispute between the Principals and it is considered not feasible to implement remedial measures at this time to achieve a Permanent Solution. It is anticipated that once litigation over the land is settled,

remediation will move forward under a Phase IV Remedy Implementation Plan prepared and filed with DEP prior to or concurrently with future redevelopment of the site.

We trust that the above is sufficient for your present requirements. Should you have any questions concerning the information presented herein, please do not hesitate to call us.

Very truly yours,

McPHAIL ASSOCIATES, LLC

Mike Bradley

Joseph G. Lombardo Jr., L.S.P.

N:\Working Documents\Reports\5471_Ph II&III_90 Washingotn Somerville (F) 091218.docx

MPB/jgl

CONTENTS:

FIGURES:

TABLES:

APPENDICES:

APPENDIX A: LIMITATIONS

APPENDIX B: DEP PHASE I GIS SITE ASSESSMENT MAP

APPENDIX C: RELEVANT INFORMATION FROM EBI'S SOIL CHARACTERIZATION REPORT

APPENDIX D: LABORATORY ANALYTICAL REPORTS

APPENDIX E: BORING LOGS

APPENDIX F: HISTORICAL GROUNDWATER MONITORING REPORTS

APPENDIX G: MODIFIED SHORTFORMS FOR SUBSTANTIAL HAZARD EVALUATION

PURPOSE AND SCOPE

The purpose of this report by McPhail Associates, LLC (McPhail) is to present: (i) an MCP Phase II Comprehensive Site Assessment (CSA); (ii) a Phase III Identification, Evaluation and Selection of Comprehensive Remedial Action Alternatives and Temporary Solution Statement associated with reportable release conditions relative to MassDEP Release Tracking Number (RTN) 3-31102 relative to the detection of contaminants of concern soil at 90 Washington Street in Somerville, Massachusetts. This Phase II-III Report and Temporary Solution Statement has been prepared in accordance with the Massachusetts Contingency Plan (MCP), 310 CMR 40.0000. Refer to the Project Location Plan (**Figure 1**) for the general site locus.

This report was prepared in accordance with the authorization of our client, Cobble Hill Center, LLC. These services are subject to the limitations contained in **Appendix A**.

The MCP investigation was conducted pursuant to the Massachusetts Oil and Hazardous Materials Release Prevention and Response Act (MGL Chapter 21E) and pursuant to the MCP.

PARTY COMPLETING RESPONSE ACTIONS

A Release Notification Form (RNF) was filed with the DEP by Cobble Hill Apartments Company on September 13, 2012, to which the MassDEP assigned Release Tracking Number (RTN) 3-31102. Cobble Apartments Company Has assumed responsibility for conducting response actions as the Owner as defined in Chapter 21E, pursuant to the provisions of the MCP, 310 CMR 40.0000. The Phase I: Initial Site Investigation and Tier Classification was submitted by EBI Consultants of Wilmington, Massachusetts on September 12, 2013 on behalf of Cobble Hill Center, LLC.

The contact information is as follows:

Cobble Hill Apartments Company
150 Mount Vernon
Boston, MA 02125

Attn: John Mostyn, General Counsel (agent for)
Tel: 617-822-7274

GENERAL DISPOSAL SITE INFORMATION

Fronting onto Washington Street to the north, the subject site is bounded by New Washington Street to the south and west and 84 Washington Street to the east. 84 Washington Street is occupied

by the Cobble Hill Apartment building. Both 90 and 84 Washington Street are owned by the same entity.

The subject site consists of land totaling approximately 185,000 square feet that currently contains a single one-story L-shaped 13,500 square-foot vacant shopping plaza building surrounded by an asphalt bituminous parking area and landscaping. The subject site is currently vacant and fenced off from the general public. However, the eastern portion of the subject site is an active paved parking lot for 84 Washington Street and landscaping.

The existing site conditions along with the limits of the release areas are shown on the attached Site Exploration Plan (**Figure 2**).

The subject site latitude and longitude are 42° 22.860" N and 71° 5.140" W, the Universal Transverse Mercator (UTM) coordinates are 328,297 meters east and 4,694,192 meters north in Zone 19.

Given current subject site usage of the western portion - vacant and secured with a gated fence - there are no on-site workers present during a given work day and access is restricted. The eastern portion not contained within the fenced in area of the subject site consists of an asphalt pavement parking lot and driveway used by 84 Washington Street and landscaped areas.

Based upon the urban nature of the subject site the residential population within 0.5-miles of the subject site is estimated to be in excess of 1,000 people. Drainage structures (catch basins) were observed contained within the subject site and vicinity.

The area within 500-feet of the subject site is occupied by commercial, residential properties, a railroad maintenance yard and auto repair/filling stations.

Based on the subject site's MassDEP Phase I Site Assessment Map, it is not located within the boundaries of a Sole Source Aquifer, Potentially Productive Aquifer or within a Zone II, Interim Wellhead Protection Area as defined by the Massachusetts Department of Environmental Protection. Four institutions (schools and early childhood center) and three areas of protected opens space are located within in 0.5-miles of the subject site.

No public drinking water supply wells, Areas of Critical Environmental Concern, fish habitats, habitats of Species of Special Concern or Threatened or Endangered Species are located within specified distances of the subject site.

No wetlands are located within 500 feet of the subject site. No areas designated as solid waste sites (landfills) are noted as being located within 1,000-feet of the site. A copy of the Phase 1 Site Assessment Map: 500-feet & 0.5-mile Radii (dated August 29, 2018) is included in **Appendix B**.

DISPOSAL SITE HISTORY

A description of the release site history and remedial response actions completed prior to Tier Classification date is provided in EBI's Phase I: Initial Site Investigation and Tier Classification dated September 12, 2014. Additional assessment activities were completed by EBI Consulting on behalf of Cobble Hill Apartments, some of which is presented in EBI's Soil Characterization Report for 84 and 90 Washington Street, Somerville dated April 9, 2014. Additional assessment information was provided to McPhail in the form of a site plan depicting sample locations and laboratory analytical report and tabulated data for activities completed in May of 2014. McPhail conducted additional assessment activities in August of 2018. Refer to **Figure 2** for sample locations and **Appendix D** for a copy of the analytical laboratory report.

Based on our review of information listed above, subject site operations included an iron foundry and oil company between 1930 and 1975. The subject site was described as undeveloped between 1975 and 1982. From 1982 to present day the subject site was developed as a shopping plaza with several units and parking. Currently (and since at least 2014), the shopping plaza is vacant and fenced off from public access. However, a small portion of the subject site is an active paved parking lot The Phase I indicated areas surrounding the subject site were developed for residential, retail and industrial operations.

McPhail reviewed available records of Underground Storage Tanks in the vicinity of the subject site through MassDEPs UST Storage Tank Facility Search. A UST (closed in place) is present at the adjacent property to the west (132 Washington Street). This UST was installed in 1966 and closed in place in 1999 with a capacity of 5,000 Gallons and reportedly contained diesel fuel. Two USTs (also closed in place) are present at 91 Washington Street, north and directly across the street from the subject site. These USTs were installed in 1966 and 1971 and closed in place in 1998 with a capacity of 1,500 and 3,000 Gallons and reportedly contained unregulated content and diesel fuel. Other USTs exist or have existed within 0.5 miles of the subject site.

Subject Site OHM Use and Storage History

EBI's Phase I report indicated that a garage and aboveground storage tanks operated by American Oil Products Co occupied the western portion of the subject site on the 1933 to the 1950 Sanborn maps. No other evidence of OHM use or storage was presented relative to subject site operations.

Waste Management History

No evidence of land or subsurface disposal of waste, nor discharges to surface water or waste water treatment plants, has been found at or on the subject site.

Environmental Permits and Compliance History

No federal, state or local environmental permits or oil and/or hazardous material storage permits were identified for the subject site.

REGULATORY COMPLIANCE

During May 2012 due diligence site investigations/assessments were completed by EBI Consulting (EBI) of Burlington, Massachusetts. That work included the advancement of borings, installation of groundwater monitoring wells and sampling and analysis of soil and groundwater. The result of that analysis identified the presence of acenaphthylene, naphthalene, 2-methylnaphthalene, C9-C18 aliphatics and C11-C22 aromatics in soil at concentrations greater than the applicable Reportable Concentrations (RCS-1). Pursuant to the MCP, this condition was reported to the MassDEP as a 120-day reporting condition on September 13, 2012 by Cobble Hill Center, LLC, to which the MassDEP assigned Release Tracking Number (RTN) 3-31102.

EBI submitted a Phase I: Initial Site Investigation and Tier II Classification on September 12, 2013, which described initial assessment activities and defined the presumed nature and extent of contamination known as of submittal date. The extent of known soil contamination was defined as being confined to eastern portions of the subject site and no known groundwater contamination was identified. Soil and groundwater samples were analyzed for Volatile Organic Compounds (VOCs), Volatile Petroleum Hydrocarbons (VPH), Extractable Petroleum Hydrocarbons (EPH) and Polycyclic Aromatic Hydrocarbons (PAHs) and Massachusetts 14 Metals. Reportable concentrations of COCs

were detected at soil borings; EB-4 (8-10 feet), EB-5 (10-12 feet), and EB-203B (6-8 feet).

EBI completed a Soil Characterization Report relative to the subject site, dated April 9, 2014, summarizing in-situ pre-characterization soil explorations at the subject site for export of displaced material for historically proposed subject site re-development (not completed). These explorations consisted of the installation of 18 soil test borings ranging from 3 to 15 feet below ground surface and the excavation of eight test pits ranging from 5 to 9 feet below ground surface with the collection of soil samples for laboratory analysis. Samples were submitted for the analysis of VOCs, Semi-Volatile Organic Compounds (SVOCs), PCBs, Total Petroleum Hydrocarbons (TPH), RCRA 8 Metals, pH, conductivity, ignitability, reactivity and Toxicity Characteristic Leaching Procedure (TCLP) for metals. Refer to **Appendix C** for a copy of EBI's relevant soil and groundwater data.

Soil pre-characterization analytical results indicated the detection of additional COCs; including, VOCs (chlorobenzene, 1,4-dichlorobenzene and naphthalene), SVOCs (2,4-dinitrotoluene, 1,4 dichlorobenzene, and naphthalene), and PCBs at concentrations exceeding the current applicable Method 1 Risk Based Clean-up standards.

McPhail also reviewed EBI's supplemental pre-characterization analytical data for 8 soil test borings completed in May 2014. McPhail was only provided with an analytical laboratory report and sample location plan in regards to this investigation. A total of 16 samples collected from 0-2 and 2-4 feet below ground surface were submitted for PCBs, SVOCs and VOCs. PCBs, SVOCs and VOCs were detected at concentrations exceeding S-2/GW-2 and/or S-2/GW-3. Refer to **Appendix D** for a copy of the laboratory analytical report.

During these pre-characterization explorations several COCs were identified including PCBs, chlorobenzene, 1,4-dichlorobenzene with detected concentrations exceeding Method 1 clean-up standards.

With respect to the above-noted constituents, we note that the entire property, consisting of a 224 unit senior housing complex and a one story retail complex known as Cobble Hill Center, was owned by Cobble Hill Apartments Company. In 2012, hazardous materials were found at the site and reported to DEP. In 2013, the property was subdivided, with Cobble Hill Apartments

Company continuing to own the portion with the 224-unit senior housing complex and Cobble Hill Center, LLC becoming the owner of the portion containing the retail complex. Tenants soon thereafter vacated the retail complex in anticipation of redevelopment of the Cobble Hill Center site into a 157-unit apartment complex. Pre-development characterization work was completed in 2014 by EBI Consultants.

In October 2013, the Somerville Zoning Board of Appeals granted approval for the proposed 157-unit apartment complex. During July 2014, a shareholder in Cobble Hill Center LLC filed a lawsuit, causing the development plans to be put on hold; that litigation is on-going. The Cobble Hill Center site has been vacant since 2014.

In reviewing the available historic soil and groundwater data on behalf of Cobble Hill Apartment Company, McPhail identified the exceedences of the compounds noted above, namely chlorobenzene, 1,4-dichlorobenzene, SVOCs (2,4-dinitrotoluene and 1,4 dichlorobenzene), and PCBs. These additional compounds are considered contaminants of concern in soil at the MCP site and thus have been addressed in this report as such. A BWSC126 is being filed with the DEP concurrently with this submittal documenting the compounds and concentrations that require notification. A Tier II Transfer is planned within the near future to transfer responsibility for performing response actions at this site from Cobble Hill Apartments Company to Cobble Hill Center LLC.

The PRP was issued a Notice of Non-Compliance (NON) relative to MCP timeline requirements on March 23, 2018. A Phase II: Comprehensive Site Assessment is required to be submitted to the MassDEP within 3-years of release notification, which occurred on September 13, 2012. The NON provides deadlines for the Phase II, III and IV (unless a Permanent or Temporary Solution Statement is submitted) submittal on September 12, 2018. This also coincides with the MCP timeline requirement for the submittal of the Solution Statement. This report fulfills the timeline and reporting requirements in accordance with the NON.

McPhail completed additional assessment only activities at the subject site in August of 2018 to collect additional analytical data to complete the subject site's Conceptual Site Model. Refer to **Appendix D** for a copy of the laboratory analytical report.

Known subject site conditions (to date) do not pose an Imminent Hazard, Critical Exposure Pathway or a Condition of Substantial Release Migration, as defined in the MCP.

Known subject site conditions (to date) do not pose an Imminent Hazard, Critical Exposure Pathway or a Condition of Substantial Release Migration, as defined in the MCP.

CONCEPTUAL SITE MODEL

The source of COCs identified at the subject site is considered to be from historical subject site operations and/or Historic Fill, as defined in Section 40.0006 of the MCP.

According to EBI's 2013 Phase I: Initial Site Investigation since at least 1930 historical operations of the subject site and vicinity included; residential, retail and industrial operations. The subject site was developed for Iron Works and American Oil Products Company, which was present up until approximately 1975. The subject site remained undeveloped between 1975 to 1982, when it was redeveloped as a commercial shopping plaza.

Soil

On May 9, 2012 EBI completed soil test borings EB-1 through EB-6 located throughout the subject site. Soil and groundwater samples were collected for metals (EB-5 and EB-6 only), VOCs, volatile petroleum hydrocarbons (VPH) and Extractable Petroleum Hydrocarbons (EPH). Results indicated detections of COCs (naphthalene, 2-methylnaphthalene, C9-C18 aliphatics and C11-C22 aromatics in soil exceeding applicable Method 1 Clean-up Standards at EB-4 (8-10 feet) and EB-5 (10-12 feet). Low concentrations (below applicable RCGW-2 Reportable Concentrations and Method 1 groundwater risk-based clean-up standards for VOCs, VPH and SVOCs were detected in groundwater samples collected from EB-1 and EB-4. Cobble Hill Center, LLC filed a Release Notification Form on September 13, 2012.

EBI returned to the subject site on October 16, 2012 to further assess COCs detected during the initial investigation. Soil test borings EB-202, EB-203A, EB-203B and EB-204 through EB-208 were installed throughout the subject site with samples collected for lab analyses EPH. Results indicated detections of acenaphthylene and C11 to C22 aromatics at concentrations above applicable Method 1 Clean-up standards at EB-203B (6-8 feet).

The September 2013 Phase I: Initial Site Classification and Tier Classification report indicated the following summary of findings;

- Subject site conditions encountered do not constitute an Imminent Hazard or are Immediate Response Actions necessary.

- A release to the soil at the subject site occurred and contaminants of concern (COCs) include; naphthalene, acenaphthylene, 2-methylnapthalen, C9-C18 aliphatics and C11-C22 aromatics.

- The Phase II scope of work included additional assessment activities.

Following the Phase I, EBI Consulting completed a Soil Characterization Report, dated April 9, 2014, pre-characterizing soil likely to be displaced relative to a historically proposed subject site redevelopment plan. This scope of work included;

- The excavation of seven test pits (TP-01 through TP-07) and twelve soil test borings (EB-301 through EB-312) throughout the subject site in February 2014 and,

- The advancement of four additional soil test borings (EB-401 through EB-406 in March of 2014 to delineate PCB in soil around EB-305.

A total of 24 samples were collected for laboratory analysis for pre-characterization parameters including; VOCs, PCBs, SVOCs, TPH, RCRA 8 Metals, pH, specific conductivity, ignitability, reactivity and Toxicity Characteristic Leaching Procedures (TCLP) for metals. No laboratory samples were submitted for analysis from EB-306 and EB-308, however a strong petroleum odor was noted in the EB-306 (5 to 10 feet below ground surface) boring logs.

Additional COCs, not already identified in the Phase I, including 1,4-dichlorobenzene, chlorobenzene and PCBs exceeded applicable Method 1 Clean-up Standards.

Samples collected from EB-301 (0-4 feet), EB-303 (0-8 feet),EB-307 (11-15 feet), EB-310 (0-4 feet), EB-311 (0-4 feet), TP-01 (7.5-8.5 feet) and TP-04 (6-7 feet) had concentrations of each of the COCs below Method 1 Clean-up Standards.

Elevated concentrations of PCBs above Method 1 Clean-up Standards were detected at below the asphalt pavement at EB-

305 in the 0 to 4-foot sample (48.9 mg/kg) and at EB-311 in the 0 to 4-foot sample (1.14 mg/kg).

VOCs (chlorobenzene and 1,4-dichlorobenzene) were detected in one sample above Method 1 Clean-up Standards from EB-305 (0 to 4 feet). Naphthalene was detected above standards in EB-304 (0-5 feet).

EPH and SVOCs (benzo(a)anthracene, benzo(a)pyrene, 2-methylnapthalene) were detected in several shallow soil samples throughout the subject site.

To delineate PCB detections, EBI collected an additional eight shallow samples for laboratory analysis of PCBs from EB-401 through EB-406 in the vicinity of EB-305, which is located in the central portion of the subject site. Five soil samples were collected between 1 and 4 feet below ground surface to delineate horizontal extent of PCB contamination detected at EB-305. Three samples were collected to determine vertical limits of PCBs and were collected from approximately 4 to 8 feet below ground surface. Three of five shallow soil samples had concentrations of PCBs exceeding Method 1 Clean-up Standards, however PCBs were not detected above laboratory detection limits in the samples collected from depths greater than 4 feet below ground surface.

McPhail was provided with laboratory analytical data and sample locations of a subsequent EBI subsurface investigation. Eight soil test borings (EB-501 through EB-509) were completed on May 7, 2014 throughout the subject site. Two samples from each boring was submitted for laboratory analysis (0-2 feet and 2-4 feet) for PCB and/or SVOC analysis. No PCBs were detected exceeding applicable MassDEP Method 1 Clean-up Standards. A SVOC (benzo(a)pyrene) was detected exceeding S2/GW2 and S2/GW3 in three samples (EB-204 (2-4 feet) and EB-205 (0-2 and 2-4 feet)). However, the presence of benzo(a)pyrene is considered to be related to the nature of the urban fill soil containing ash and cinders and is considered exempt from notification of the DEP as a release condition.

In August 2018, McPhail completed additional subsurface investigations to further delineate the extent of PCB contamination and to assess potential petroleum contamination as indicated by field screening data. On August 22, 2018, test borings B-603 through B-609 and B-611 were completed at the subject property. Due to sub-surface utility interference B-601, B-602 and B-610 were not completed. Borings were advanced throughout the

subject site to define the extent of PCB impacted soils. B-608 was completed as a groundwater monitoring well and is located adjacent to EB-305.

McPhail personnel provided sub-surface exploration oversight. McPhail completed field layout of borings, prepared field logs, visually classified soil samples, completed headspace screening, monitored groundwater conditions, and directed installation of groundwater monitoring wells. Car-dee completed drilling activities for drilling and monitoring well installation.

The borings were completed via direct-push drilling methodologies using a track-mounted drill-rig with continuous sampling in 5-foot intervals, each of which were headspace screened with a Photoionization Detector equipped with a 10.6 eV lamp (PID) for Total Volatile Organic Compounds (TVOC). TVOC concentrations ranged from 0.0 to 621 ppm. The maximum TVOC concentration was detected at B-608 (12.5-15 feet) and was associated with a petroleum odor.

Locations of borings are on the Subsurface Exploration Plan, **Figure 2** and **Appendix E** for additional details on McPhail Boring Logs. EBI boring logs are included in the Phase I available via MassDEP electronic depository and the data and summary tables in **Appendix C.** Refer to **Tables 1 and 4** for a summary of soil analytical data**,** and **Table 3** for a summary of McPhail PID headspace readings.

Groundwater

Groundwater sampling, completed by EBI on May 9, 2012, detected low concentrations (below applicable RCGW-2 Reportable Concentrations and Method 1 groundwater clean-up standards (GW-2 and GW-3) for VOCs, VPH and SVOCs in groundwater samples collected from EB-1 and EB-4.

Groundwater samples, were more recently obtained by McPhail on August 27, 2018, 2012, from subject property groundwater monitoring wells B-2 (OW) and B-608 (OW). The samples were submitted for analysis for the presence of EPH, PCBs and VPH. No PCBs were detected above laboratory detection limits (set well below applicable RCGW-2 and Method 1 standards). The presence of EPH and VPH was reported as below the laboratory method detection limits and/or below the applicable RCGW-2 and Method 1 standards. Refer to **Tables 2 and 5** for a summary of groundwater analytical data.

As previously documented herein, a reportable release to groundwater has not been identified at the RTN 3-31102 MCP site.

The source of contaminants are considered to be historical site operations and/or historic fill material. Horizontal and vertical extent of soil contamination at the subject site is defined below:

- PCBs – PCB contamination exceeding Method 1 Clean-up Standards was first detected beneath the asphalt pavement at EB-305 (0-4 feet) at 48.9 mg/kg. EBI delineated this PCB detection and determined PCB contaminated soil with concentrations exceeding S2/GW2 and S2/GW3 at EB-402 (1-3.5 feet) and EB-406 (1-3.5 feet), which are approximately 15 feet to the east and south EB-305, respectively. Samples collected from surrounding soil test borings (EB-401, EB-403, EB-405, and B-607 to the west; EB-404 and EB-501 to the south; EB-502 to the north) did not indicate concentrations of PCBs exceeding S2/GW2 and S2/GW3. The vacant subject site building is abutting this area to the east, however soil test borings on the eastern side of the site building (B-506 and B-605) did not indicate concentrations of PCBs exceeding applicable Method 1 Clean-up standards. Sample B-608 (5-7 feet), which was obtained from boring B-608 installed in the vicinity of EB-305, EB-402 and EB-406, exhibited a PCB concentration of 0.16 mg/kg which is well below the applicable Method 1 Clean-up Standards standards, defining vertical extent of PCB contamination in this area.

- VOCs, EPH and SVOCs – VOCs, EPH and SVOCs exceeding Method 1 Clean-up standards were detected in several shallow soil samples collected beneath the soil berm located at the eastern portion of the site, as well as beneath the paved parking area to south and west of the vacant subject site building. Impacted material is confined to the fill deposit, which contains urban fill material (coal, ash, wood, concrete) with the exception of EB-5 (10-12 feet) where naphthalene was detected at 46.1 mg/kg. In regards to this sample, we note that the above referenced concentration was detected as part of the VPH analysis. However, analysis of the same sample for EPH with PAH target analytes and VOCs did not detect concentrations of naphthalene above the applicable Method 1 standards. Further, there was no elevated soil

jar headspace readings noted by EBI on the boring log for EB-5 during their investigation. Vertical extent of SVOC and VOC impacted soils are limited to fill material deposits.

As documented herein, under current site use, a Substantial Hazard does not exist at the subject MCP site. However, a Condition of No Significant Risk does not currently exist at the site. It is anticipated that the most economical remediation alternative to achieve a Permanent Solution at this MCP site is to excavate and remove affected fill. A Temporary Solution has been achieved at the RTN 3-31102 MCP site based upon the nature and extent of contamination and current site use, however achieving a Permanent Solution is not considered feasible at this time. Remediation will be implemented at this MCP site concurrently with the future redevelopment of the site, pending the closure of the ongoing litigation as described herein.

SITE HYDRO-GEOLOGICAL CONDITIONS

Several phases of subsurface exploration programs have been conducted by EBI and McPhail at the subject site. The completed explorations include the following:

- From October 15 through October 25, 2012, twelve geotechnical soil test borings (B-1 through B-12) were completed at the subject site by Car-Dee Corporation of Medford, Massachusetts under contract to McPhail Associates, LLC.

- On May 9, 2012, six soil test borings (EB-1 through EB-6) were completed at the subject site by J. Masterson Construction Corporation of Danvers, Massachusetts under contract to EBI Consulting.

- On October 16, 2012, seven soil test borings (EB-202 through EB-208) were completed at the subject site by Harvey Associates under contract to EBI Consulting.

- On February 18, 2014, twelve soil test borings (EB-301 through EB-312) were completed at the subject site by Bronson Drilling of Winchester, Massachusetts under contract to EBI Consulting.

- On February 19, 2014 eight, soil test pits (TP-1 through TP-8) were excavated at the subject site by J. Masterson

Construction Corporation of Danvers, Massachusetts under contract to EBI Consulting.

- On March 26, 2014, six soil test borings (EB-401 through EB-406 were advanced at the subject site by Bronson Drilling of Winchester, Massachusetts under contract to EBI Consulting.

- On May 7, 2014, eight soil test borings (EB-501 though EB-508) were advanced at the subject site by Harvey Associates under contract to EBI Consulting.

- On August 22, 2018, nine soil test borings (B-603 through B-609 and B-611) were advanced at the subject site by Car-Dee Corporation of Bedford, Massachusetts.

Approximate exploration locations are indicated on the enclosed Site Plan, **Figure 2**.

Soil Geology and Groundwater Flow Direction

Based on the information obtained from the subsurface explorations completed at the subject site, the following generalized subsurface conditions were encountered from ground surface downward.

The surface is underlain by a 6 to 13-foot fill deposit, where anthropogenic fill material was observed, consisting of coal, ash, brick and concrete. The fill was generally observed to range from a loose to dense, light brown to dark brown or black sand and/or gravel with trace silt.

Natural marine sand or clay was encountered underlying the fill material across the site.

Based on McPhail Groundwater Monitoring Reports (**see Appendix H**) on October 31, 2012 groundwater elevation ranged from +6.1 feet to +9.3 feet at B-11 (OW), B-8 (OW) and B-2 (OW), respectively. The apparent groundwater flow direction is approximately to the north-northwest.

ENVIRONMENTAL FATE AND TRANSPORT OF OIL

Affected media at the site included soil and the presence of EPH, SVOCs, VOCs and PCBs in soil. Contaminants of concern detected in soil have not been detected in groundwater above applicable Reportable Concentrations. The environmental fate and transport

AND/OR HAZARDOUS MATERIALS

of OHM, including equilibrium partitioning, degradation of the constituent, transport of the constituent by leaching, transport with groundwater, volatilization to the atmosphere and entrainment of surface soils, is determined by the physical and chemical properties of the contaminants, by the environmental transformation processes affecting them, and by the properties of the environmental media through which they migrate.

Mobility and persistence of a contaminant is determined based upon the solubility, the vapor pressure, the octanol-water partition coefficient (Kow), the degradation potential and the specific gravity of the contaminant. In accordance with the DEP's Policy #WSC-04-160, "Conducting Feasibility Evaluations Under the MCP," dated July 16, 2004 contaminants are rated as "non-persistent" or "persistent." Chlorobenzene, naphthalene and 2-methylnapthalene are rated as "non-persistent," and PCBs and 1,4-dichlorobenzene are rated as "persistent." The identified contaminants of concern are of low to moderate mobility.

No contaminants of concern were detected in groundwater exceeding applicable RCGW-2 standards or Method 1 risk-based Clean-up Standards therefore no evidence has been identified to suggest that contamination has or will migrate off the subject site.

EXPOSURE ASSESSMENT

The following is an exposure assessment, including the identification and characterization of all potential human and environmental receptors that could be impacted by the identified COCs.

A. Direct Contact

Potential for direct contact exists at the subject site during future development activities that may disturb surface soils.
The subject site is currently vacant and a large portion of the site is securely fenced off from the general public. Sporadic access to the subject site occurs by authorized personnel only. The eastern portion of the subject site is an active paved parking lot for 84 Washington Street. Contamination soil is located beneath pavement, the existent vacant building or generally beneath non-impacted over burden soil. Direct contact with contaminated soil is therefore unlikely. Thus, an exposure scenario that involves direct contact with or incidental ingestion of impacted soil is considered to be incomplete.
Any future remedial activities will be completed under a Phase IV RIP/RAM Plan and site-specific Health and Safety Plan to manage

excavation, handling and off-site export of excavated remediation waste.

B. Indoor Air

The subject site and building are currently vacant with no plans for occupancy for the foreseeable future. The potential for vapor intrusion was considered - No contaminants were detected in the groundwater exceeding applicable GW-2 Method 1 Clean-up Standards, which are protective of vapor intrusion and indoor air. Further, none of the COCs identified in soil are located within 30 feet of an occupied building. Therefore, potential effects to indoor air at the subject site and the adjacent buildings are not considered to be likely.

C. Drinking Water Supplies

The MCP site is not located in a drinking water resource area, or in an identified aquifer zone. Therefore, this release is not considered likely to affect drinking water supplies.

D. Surface Waters

Groundwater contamination was not encountered at the subject site and the nearest surface water body is located over 0.8-mile east-northeast of the subject site. Therefore the release conditions identified at the site are not considered likely to affect surface water.

PRELIMINARY RISK CHARACTERIZATION

Pursuant to the provisions of the MCP, a Preliminary Method 1 Risk Characterization is considered appropriate for characterizing current risk to human health, safety and welfare, and to the environment.

The Method 1 Risk Characterization addressed the potential of harm to human health, safety, public welfare and to the environment for current use and foreseeable future site use.

1. Applicable Soil and Groundwater Category for Risk Characterization

The MCP establishes the potential for exposure to soil based upon the frequency and intensity of site use, and qualifies each as being either high or low. The frequency of use describes how often a child or adult receptor makes use of, or has access to, the site.

The intensity of use describes the nature of site activities and uses which could potentially result in exposure to contaminants. Further, the accessibility of the soil in terms of depth is also generally considered in conjunction with the frequency and intensity of receptor use.

Given that the subject site is currently vacant and securely fenced off from the general public, human receptors are considered to be adults only at a low frequency and low intensity. Using the Soil Category Matrix – Human Exposure Potential (310 CMR Table 40.933(9)) the subject site soils are evaluated against S-2 soil standards.

Groundwater has not been affected by COCs identified in soil. Groundwater at the site is not located within a current or potential drinking water source area, and therefore Groundwater Category GW-1 does not apply to the site. As a conservative measure, Groundwater Category GW-2 is considered applicable. Further, in accordance with Section 40.0932 of the MCP, groundwater at all disposal sites shall be considered a potential source of discharge to surface water and shall be categorized, at a minimum, as category GW-3. Groundwater Categories GW2 and GW3 apply to the subject site.

2. Identification of Contaminants of Concern

Contaminants of concern identified at the release site include: chlorobenzene, 1,4-chlorobenzene, naphthalene, acenaphthylene, 2-methylnapthalene, 2,4-dinitrotoluene, C9-C18 aliphatics, C11-C22 aromatics and PCBs.

3. Derivation and Evaluation of Exposure Point Concentrations and Evaluation of Hot Spots

a. Soil

For use in the Method 1 Risk Characterization, the acceptability of the site data for determination of the EPC and determination of the presence of Hot Spots were evaluated utilizing the criteria outlined in 310 CMR 40.0926. These criteria are satisfied when:

1. The arithmetic average is less than or equal to the applicable risk-based concentration;
2. 75 percent of the data points used in the averaging procedure are equal to or less than the applicable risk-based concentration limit; and

3. No data point used in the averaging is one hundred times greater than the applicable standard or risk-based concentration limit.

No Hot spots were identified at the subject site.

The exposure point concentrations (EPCs) for the subject site were determined by averaging the results of analytical testing for COCs. For non-detect results ½ of the detection limit was used in the calculation.

Exposure point concentrations were also calculated for data points in the eastern portion of the subject site – not enclosed within the fence – to provide a conservative exposure assessment for this portion of the subject site.

There were no exceedences of the Upper Concentration Limits (UCLs) for the COCs.

Calculated EPCs concentrations are presented on the enclosed **Table 6**.

b. Groundwater

Groundwater analytical testing prior to and following site remediation activities did not identify evidence that groundwater has been affected by the COCs identified in soil. Further, no indications of contaminant migration off-site in or on groundwater or surface water was identified.

4. Risk Assessment Results

Calculated EPCs for the subject site as a whole were conservatively compared to Method 1 S2/GW2 and S2/GW3 standards. No EPCs exceeded Method 1 S2/GW2 and S2/GW3 standards.

Calculated EPCs for the eastern unfenced portion of the subject site were conservatively compared to Method 1 S1/GW2 and S1/GW-3 standards. No EPCs exceeded Method 1 S2/GW2 and S1/GW-3 standards with the exception of naphthalene, 2,4-dinitroltoluene and C9-C18 aliphatics. However, no EPCs exceed the applicable Method 1 S-2 standards.

McPhail completed a Substantial Hazard Evaluation relative to the unfenced portion of the subject site using a modified short form for residential exposure (see **Appendix F**).

As stated above, plans for redevelopment of the site are on indefinite hold due to the ongoing litigation and the unresolved dispute between the Principals and it is considered not feasible to implement remedial measures at this time. As described in the text of this Report, the majority of the site is a surrounded by a secured chain link fence. The retail building at the site is unoccupied and vacant. Therefore, for the fenced-in and vacant portion of the MCP release site, in accordance with Section 40.0956(1)(c) of the MCP, a quantitative evaluation of human health risk is not required given that there is no current exposure to oil and/or hazardous material at the disposal site. Accordingly, a Substantial Hazard does not exist for that portion of the MCP site. However, for the eastern portion of the MCP site located outside the fenced in area (paved parking lot with landscaped areas) a Substantial Hazard Evaluation was completed. As shown in the Method 3 Shortforms for Human Health Risk assessment, the cumulative Excess Lifetime Cancer Risk (ELCR) does not exceed 1 in 100,000. Further the non-cancer Hazard Index (HI) does not exceed 1. Therefore, a Substantial Hazard does not exist at the eastern, un-fenced portion of the site.

5. Ecological Receptors

The ecological risk characterization evaluates potential risk to ecological receptors from exposure to contaminants on, or migrating from the site. No environmentally sensitive areas are present at or on the subject site. Hence, ecological risk is considered to be limited to the potential for migration of contaminants from the release site.

Given that groundwater was not affected by a reportable release of the COCs, a Condition of No Significant Risk to ecological receptors is considered to exist at the release site.

6. Characterization of Risk to Safety

In accordance with 310 CMR 40.0960, the risk of harm to safety must be characterized in a risk assessment. MCP site conditions were evaluated with respect to the criteria for safety included in the MCP:

a. No rusted or corroded drums or containers, open pits, lagoons, or other dangerous structures were observed at the MCP site.

b. There is no present threat of fire or explosion.

c. No uncontained material was identified at the MCP site.

Based upon the above, a Condition of No Significant Risk of harm to safety based on current or foreseeable future land use is considered to exist at the MCP site.

PHASE II CONCLUSION

The Phase II Comprehensive Site Assessment conforms with applicable Phase II requirements and meets the Phase II performance standards contained in 310 CMR 40.0000.

In accordance with Section 40.0836 of the MCP, Phase II is considered complete. The comprehensive site assessment does not disclose new or additional information which would affect the disposal site's Tier Classification.

Further, a Phase III study for the identification, evaluation and selection of Comprehensive Remedial Action Alternatives as described in 310 CMR 40.0850 is discussed below.

REMEDIAL ALTERNATIVES

An evaluation of the remedial alternatives was performed in accordance with Section 40.0855 of the MCP.

As indicated in the Phase II portion of this report, elevated concentrations of PCBs, EPH, VOCs and SVOCs are present in soils at the site in concentrations above applicable MCP Method 1 Cleanup Standards.

The removal or treatment of the impacted soils is anticipated to be a remedial alternative, which will achieve a Permanent Solution at the subject site in the future.

Therefore, remedial activities are not feasible at this time. However, once subject site redevelopment is determined it is likely that COCs will be removed from the subject site and managed in accordance with 310 CMR 40.0000.

The remedial goals would be to limit potential on-site exposures associated with the presence of COCs in fill material and achieved a Condition of No Significant Risk at the subject site.

The following methods were included in our initial screening of remedial alternatives for the site:

- Excavation, and off-site recycling/disposal
- Ex-Situ Bioremediation
- In-Situ Bioremediation
- Soil Flushing

Excavation and Off-Site Reuse/Recycling/Disposal

In this approach, fill soils will be excavated to depths specified by the yet to be developed plans and export of remediation waste to a pre-approved receiving facility under Bill of Lading (BOL) documents. The soils designated for excavation would be loaded directly onto a truck for immediate transport, or temporarily stockpiled on-site for transport at a later date. Laboratory testing would be performed on the impacted soil, as may be required to satisfy the individual facility requirements and applicable MassDEP policies and requirements.

The advantage of direct excavation of soils is that the desired effect (i.e. remediation of soil and the associated reduction in on-site contaminant concentrations, as well as the removal of any residual source material) is accomplished over a short period of time.

Ex-Situ Bioremediation

In ex-situ bioremediation, the excavation of impacted soils is performed as described above; however, the excavated soil is treated on-site with bioremedial agents until the concentrations of contaminants have been sufficiently reduced to achieve site clean-up goals. The treated soils are then returned to the excavation, or transported off-site.

Ex-situ bioremediation was eliminated from our screening process due to the relatively limited site area to perform the farming operation, the long time period generally required to perform the treatment, difficulties in treating persistent contaminants, the potential exposures to possible nearby receptors, and the costs and possible difficulties associated with management, treatment, and re-handling of soils all within the boundaries of the site.

Direct excavation and off-site disposal/recycling is considered to be less costly, more efficient in terms of time and cost and eliminates the uncertainty associated with bioremediation treatment options.

In-Situ Bioremediation

With in-situ bioremediation, the impacted soils would be treated in place by injecting bioremedial agents through a number of injection wells. The reagents treat contaminants that are sorbed to soil materials or trapped in pore spaces. The effectiveness of this methodology is dependent on a number of factors including the nature of the relevant contaminants, soil permeability, spacing of injection wells, percent of oxygen and nutrients available in the subsurface, dispersion of agents, and others.

An obvious advantage of in-situ bioremediation is no excavation of soils is required, which minimizes disruption to the site. However, at this site, excavation of the impacted as well as non-impacted soils is necessary as part of the construction of the future proposed building. As a result, significant disadvantages associated with the use of the in-situ bioremediation approach for this site are the amount of time typically required to achieve desired results, the impermeable nature of the soils, its difficulty in treating persistent contaminants, and uncertainty associated with the thoroughness of the treatment.

Soil Flushing

Soil flushing is a treatment technology in which an aqueous extraction fluid is passed through the contaminated soils utilizing injection wells or infiltration from the ground surface. The contaminants are flushed from the soil particles and recovered from the groundwater. Often, additives (typically miscible organic solvents such as alcohol) are employed to mobilize contaminants into the groundwater which is then removed. Similar to in-situ bioremediation, a number of factors play a role in the effectiveness of this treatment approach, including the nature of the relevant contaminants, soil permeability and homogeneity, and type of additives employed.

In our opinion, soil flushing is considered to be a risky alternative for this site, since the extracted contaminants must be recovered from extraction wells, treated, and then transported off-site. Contaminants which are flushed from the soils but are not

recovered will enter the groundwater table which may worsen the conditions at the site. In addition, given the recovery and treatment that is required, and regulations regarding the introduction of remedial additives, this option is considered to be more costly and time consuming than direct excavation and off-site disposal/recycling.

Selected Remedial Action Alternative

Therefore, our evaluation of the remedial alternatives for treatment of soils, given the large quantity of soil to be treated and the anticipated scope of excavation for construction of the proposed building with below-grade parking, results in the selection of direct soil excavation and off-site reuse/disposal/recycling as the most desirable alternative.

PHASE III REMEDIAL ACTION PLAN & PHASE IV REMEDY IMPLEMENTATION PLAN

Excavation and off-site disposal of contaminated soil and residual soil during future redevelopment activities at the subject site. Prior to the implementation of the selected remedial alternative, a MCP Phase IV - Remedy Implementation Plan (RIP) report will be prepared in accordance with the provisions contained in Section 40.0870 of the MCP.

REPRESENTATIVENESS EVALUATION AND DATA USABILITY

The representativeness and usability of the data were evaluated in accordance with 310 CMR 40.1056(2)(k) and are discussed below.

Sampling and Testing Rationale

Subsurface exploration programs were completed at the Site to assess potential effects to soil and groundwater from historical usage of the Site. Subsequent subsurface exploration programs were performed to further evaluate the presence of contaminants detected in soil and to assess the nature and extent of the identified contamination.

Based on the results of the subsurface exploration programs, the contaminants of concern in subject site soil were determined to be PCBs, EPH, SVOCs and VOCs attributable to historic subject site operations and Historic Fill. Analysis of groundwater samples obtained from observation wells installed at the Site did not identify a release to groundwater of the contaminants of concern that were identified in soil.

Number, Spatial Distribution, and Handling of Samples

Soil samples were collected from subsurface explorations located across the Site as shown on **Figures 2**. Sampling locations were distributed across the Site both horizontally and vertically. Samples were submitted for analysis based on observations, as well as to provide broad coverage of soils at the subject site.

To McPhail's knowledge, samples for laboratory testing were placed in laboratory-supplied sample containers appropriate for the analyses to be performed. Samples were placed on ice upon collection until they could be refrigerated, and the samples were transmitted to the laboratory under chain-of-custody protocols.

A field duplicate was not collected because the sampling was targeted toward the affected horizons to give a representative assessment; therefore, an assessment of variability was not considered necessary.

In summary, the number and targeted placement of analyzed samples is considered to be acceptable to support this report and the associated Permanent Solution with Conditions Statement.

Temporal Distribution of Samples

Soil samples were obtained during May and October 2012, February, March and May 2014 and August 2018.

Groundwater samples were obtained from monitoring wells on the subject site during May 2012, and August 2018.

As documented herein, concentrations of COCs that remain in soil at the subject site are considered to represent No Significant Risk to human health or the environment.

Completeness

Based on the number of data points, the size of the Site, and the range of testing performed, the analytical data is considered sufficiently complete to support this report and the associated Temporary Solution Statement.

Inconsistency and Uncertainty

No inconsistent samples were identified. Analytical results were consistent with observations and field screening results. To

McPhail's knowledge, visual observations and field screening were generally well correlated.

Information Considered Unrepresentative

To McPhail's knowledge, no information considered to be unrepresentative has been used in the preparation of this report.

Data Usability

The laboratory data sheets documented the use of analytical methods that are in accordance with applicable testing requirements. The laboratory reports prepared by Alpha Analytical for McPhail Associates and by New England Accutest Laboratories and Contest Laboratories for EBI contain a narrative that indicates compliance with the Presumptive Certainty status requirements contained in DEP Policy WSC-CAM. In addition, the laboratory narratives did not identify non-compliance with the requirements contained in WSC-CAM. The validity and defensibility of the laboratory test data used in support of this Permanent Solution with Conditions Statement regarding accuracy, precision and completeness are consistent with the requirements of Section 40.1056(2)(k) of the MCP.

In summary, the Site data are considered to be of acceptable accuracy, precision, and sensitivity. The analytical data used to support the Permanent Solution with Conditions Statement were generated pursuant to the Department's Compendium of Analytical Methods (CAM). The validity and defensibility requirements of the analytical data used to support the findings of the Temporary Solution Statement for this site pursuant to 310 CMR 40.1056(2)(k) have therefore been satisfied.

TEMPORARY SOLUTION STATEMENT

A Temporary Solution has been achieved for the MCP site located at 90 Washington Street in Somerville to which RTN 3-31102 applies. As documented herein, the results of a Methods 3 Shortform Substantial Hazard Evaluation document that a Condition of No Substantial Hazard exists for current use of the MCP site. Implementation of an Activity and Use Limitation (AUL) is not required to maintain that condition.

Given that groundwater was not impacted by a reportable release, operation of one or more Active Exposure Pathway Mitigation Measures are not required.

Accordingly, as documented herein, the requirements of the Temporary Solution specified in 310 CMR 40.1000 have been met.

SUMMARY AND CONCLUSIONS

A Release Notification Form (RNF) was filed with the DEP by Cobble Hill Center, LLC on September 13, 2012, to which the MassDEP assigned Release Tracking Number (RTN) 3-31102.

The subject site consists of land totaling approximately 185,000 square feet that currently contains a single one-story L-shaped 13,500 square foot vacant shopping plaza building surrounded by an asphalt parking area and landscaping. The subject site is currently vacant and fenced off from the general public. However, the eastern portion of the subject site is an active paved parking lot for 84 Washington Street and landscaping.

Subject site operations included an iron foundry and oil company between 1930 and 1975. The subject site was described as undeveloped between 1975 and 1982. From 1982 to present day the subject site was developed as a shopping plaza with several units and parking. Currently (and since at least 2014), the shopping plaza is vacant and fenced off from public access. However, a small portion of the subject site is an active paved parking lot. The Phase I indicated areas surrounding the subject site were developed for residential, retail and industrial operations.

During May 2012 due diligence site investigations/assessments, completed by EBI Consulting (EBI) of Burlington, Massachusetts, acenaphthylene, naphthalene, 2-methylnaphthalene, C9-C18 aliphatics and C11-C22 aromatics were detected in soil at concentrations greater than applicable reportable concentrations (RCS-1). Pursuant to the MCP, this condition was reported to the MassDEP as a 120-day reporting condition on September 13, 2012 by Cobble Hill Center, LLC, to which the MassDEP assigned Release Tracking Number (RTN) 3-31102.

The Phase I: Initial Site Investigation and Tier Classification was submitted by EBI Consultants of Wilmington, Massachusetts on September 12, 2013.

EBI completed a Soil Characterization Report relative to the subject site, dated April 9, 2014, summarizing in-situ pre-characterization soil explorations at the subject site for export of displaced material for historically proposed subject site re-

development (not completed). These explorations consisted of the installation of 18 soil test borings.

Soil pre-characterization analytical results indicated the detection of additional COCs; including, VOCs (chlorobenzene and 1,4-dichlorobenzene), SVOCs (2,4-dinitrotoluene and 1,4 dichlorobenzenes), and PCBs at concentrations exceeding the current applicable Method 1 Risk Based Clean-up standards.

EBI also completed an additional supplemental pre-characterization exploration consisting of 8 soil test borings completed in May 2014. McPhail was provided with analytical laboratory report and sample location plan in regards to this investigation.

During these pre-characterization explorations several COCs were identified including PCBs, chlorobenzene, 1,4-dichlorobenzene with detected concentrations exceeding Method 1 clean-up standards.

McPhail completed additional assessment only activities at the subject site in August of 2018 to collect additional analytical data to complete the subject site's Conceptual Site Model.

Known subject site conditions (to date) do not pose an Imminent Hazard, Critical Exposure Pathway or a Condition of Substantial Release Migration, as defined in the MCP.

Conceptual Site Model

Overburden groundwater contamination is not considered to exist on the subject property.

The source of contaminants are considered to be historical site operations and/or historic fill material. Horizontal and vertical extent of soil contamination at the subject site are defined below:

- PCBs – PCB contamination exceeding Method 1 Clean-up Standards was first detected beneath the asphalt pavement at EB-305 (0-4 feet) at 48.9 mg/kg. EBI delineated this PCB detection and determined PCB contaminated soil with concentrations exceeding S2/GW2 and S2/GW3 at EB-402 (1-3.5 feet) and EB-406 (1-3.5 feet), which are approximately 15 feet to the east and south EB-305, respectively. Samples collected from surrounding soil test borings (EB-401, EB-403, EB-405, and B-607 to the west; EB-404 and EB-501 to the south; EB-502 to the north) did not

indicate concentrations of PCBs exceeding S2/GW2 and S2/GW3. The vacant subject site building is abutting this area to the east, however soil test borings on the eastern side of the site building (B-506 and B-605) did not indicate concentrations of PCBs exceeding applicable Method 1 Clean-up standards. Samples B-608 (5-7 feet), which was obtained from boring B-608 installed in the vicinity of EB-305, EB-402 and EB-406, exhibited had a PCB concentration of 0.16 mg/kg which is well below the below S2/GW2 and/or e sS2/GW3 standards, defining vertical extent of PCB contamination in this area.

- VOCs, EPH and SVOCs – VOCs, EPH and SVOCs exceeding Method 1 Clean-up standards were detected in several shallow soil samples collected throughout beneath the soil berm located at the eastern portion of the site, as well as beneath the paved parking area to south and west of the vacantthe subject site building. Impacted material is confined to the fill deposit, which contains urban fill material (coal, ash, wood, concrete) with the exception of EB-5 (10-12 feet) where naphthalene was detected at 46.1 mg/kg. In regards to this sample, we note that the above referenced concentration was detected as part of the VPH analysis. However, analysis of the same sample for EPH with PAH target analytes and VOCs did not detect concentrations of naphthalene above the applicable Method 1 standards. Further, there was no elevated soil jar headspace readings noted by EBI on the boring log for EB-5 during their investigation. The fill deposit extends to approximately 5 to at least 12 feet below ground surface. SVOC and VOC impacted material exists throughout the Site and horizontal limits likely extend off of the the subject site and as such, has not been defined. Vertical extent of SVOC and VOC impacted soils are limited to fill material deposits.

In accordance with Section 40.0836 of the MCP, the Phase II is considered complete. The comprehensive site assessment does not disclose new or additional information which would affect the disposal site's Tier Classification.

In accordance with Section 40.0862 of the MCP, Phase III is considered complete. It is our opinion that the excavation of the fill soils affected by the contaminants of concern will be successful in achieving a Condition of No Significant Risk at the RTN 3-31102 MCP and ultimately, a Permanent Solution. However, A Condition of No Significant Risk does not exist at the site with respect to potential future if the site. Based on the results of a Substantial Hazard Evaluation, a Substantial Hazard does not exist at the MCP site. Accordingly, a Temporary Solution is considered applicable

to the RTN 3-31102 MCP release site at 90 Washington Street in Somerville. However, achieving a Permanent Solution is currently not considered feasible as documented herein.

Plans for redevelopment of the site are on indefinite hold due to the ongoing litigation and the unresolved dispute between the Principals and it is considered not feasible to implement remedial measures at this time. Pending settlement of ongoing litigation over the property as previously descried above, it is anticipated that implementation of the selected remedial alternative (excavation and off-site reuse, recycling or disposal) as part of a Phase IV RIP will ultimately result in a Permanent Solution at this MCP site.

APPENDIX A:

LIMITATIONS

LIMITATIONS

The above observations were made under the conditions stated in this report. The conclusions presented above were based on these observations. If variations in the nature and extent of subsurface conditions between the subsurface explorations become evident in the future, it will be necessary to reevaluate the conclusions presented herein after performing on-site observations and noting the characteristics of any variations.

The conclusions submitted in this report are based in part upon chemical test data obtained from analysis of a limited number of soil and groundwater samples, and headspace screening of soil samples for volatile organics and are contingent upon their validity. These data have been reviewed, and interpretations have been made in the text. It should also be noted that fluctuations in the types and levels of contaminants and variations in their flow paths may occur due to changes in seasonal water table, past practices used in disposal and other factors.

The purpose of this report was to assess the environmental considerations pursuant to Massachusetts General Laws Chapter 21E and the Massachusetts Contingency Plan 310 CMR 40.0000 associated with the existing fill material, present across the site, within the anticipated depth of foundation excavation for the proposed site development, particularly as it relates to handling, on-site reuse and off-site re-use, recycling and/or disposal of this material.

No attempt was made to check on the compliance of present or past owners of the site with federal, state or local laws and regulations except as otherwise documented herein. McPhail Associates, LLC did not perform testing or analyses to determine the presence or concentration of materials not referenced to in this report, either at the site or in the environment at the site.

This study and report have been prepared on behalf of and for the exclusive use of Cobble Hill Apartments Company solely for use in managing soils during the proposed construction at 90 Washington Street in Somerville, Massachusetts having RTN 3-31102. This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any party nor used in whole or in part by any party, other than the MA DEP, without prior written consent of McPhail Associates, LLC.

APPENDIX B:

DEP PHASE I GIS SITE ASSESSMENT MAP

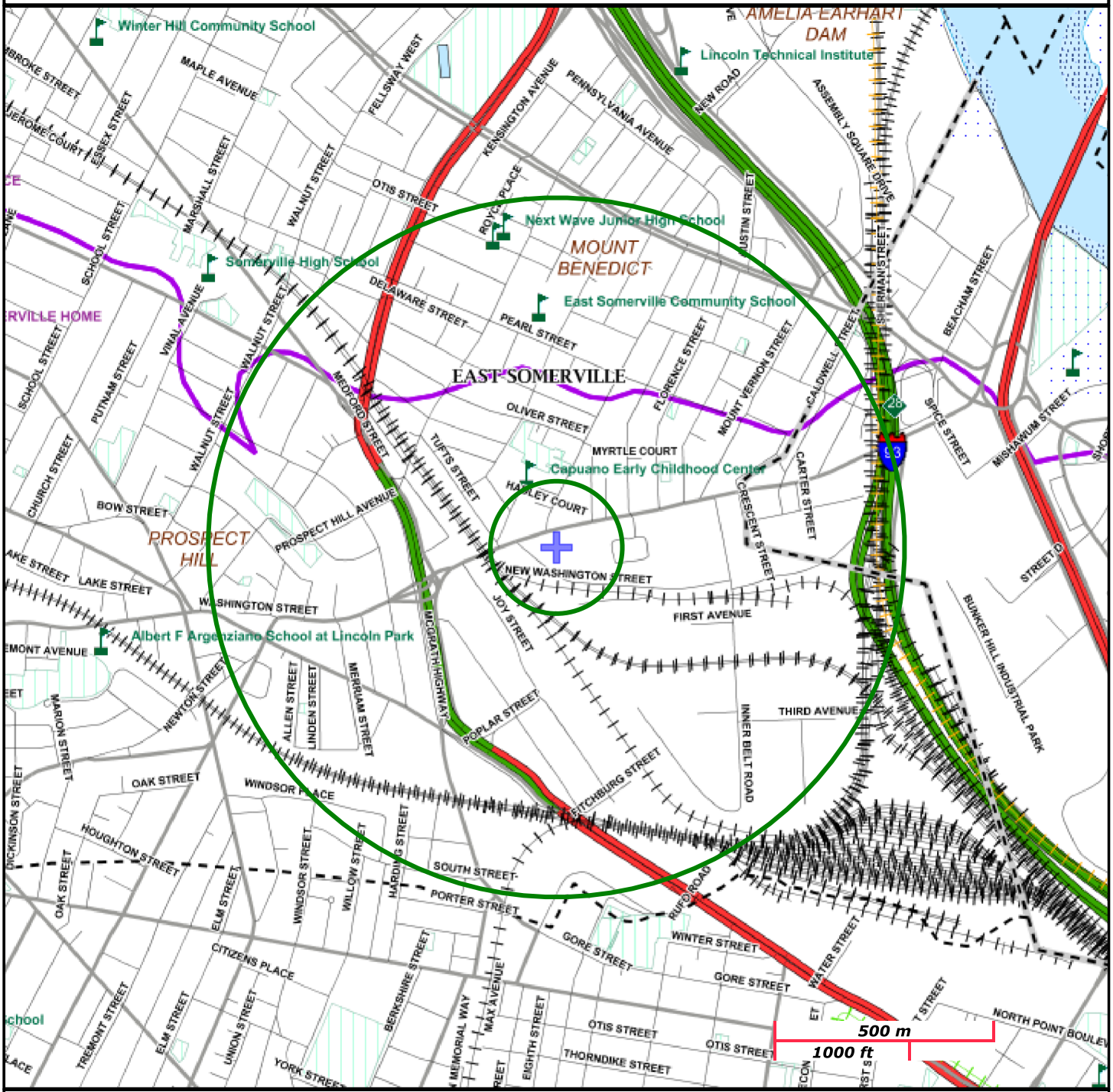
MassDEP - Bureau of Waste Site Cleanup

Phase 1 Site Assessment Map: 500 feet & 0.5 Mile Radii

Site Information:
90 WASHINGTON STREET
90 WASHINGTON STREET SOMERVILLE, MA
3-000031102
NAD83 UTM Meters:
4694186mN , 328277mE (Zone: 19)
August 29, 2018

The information shown is the best available at the date of printing. However, it may be incomplete. The responsible party and LSP are ultimately responsible for ascertaining the true conditions surrounding the site. Metadata for data layers shown on this map can be found at: http://www.mass.gov/mgis/.

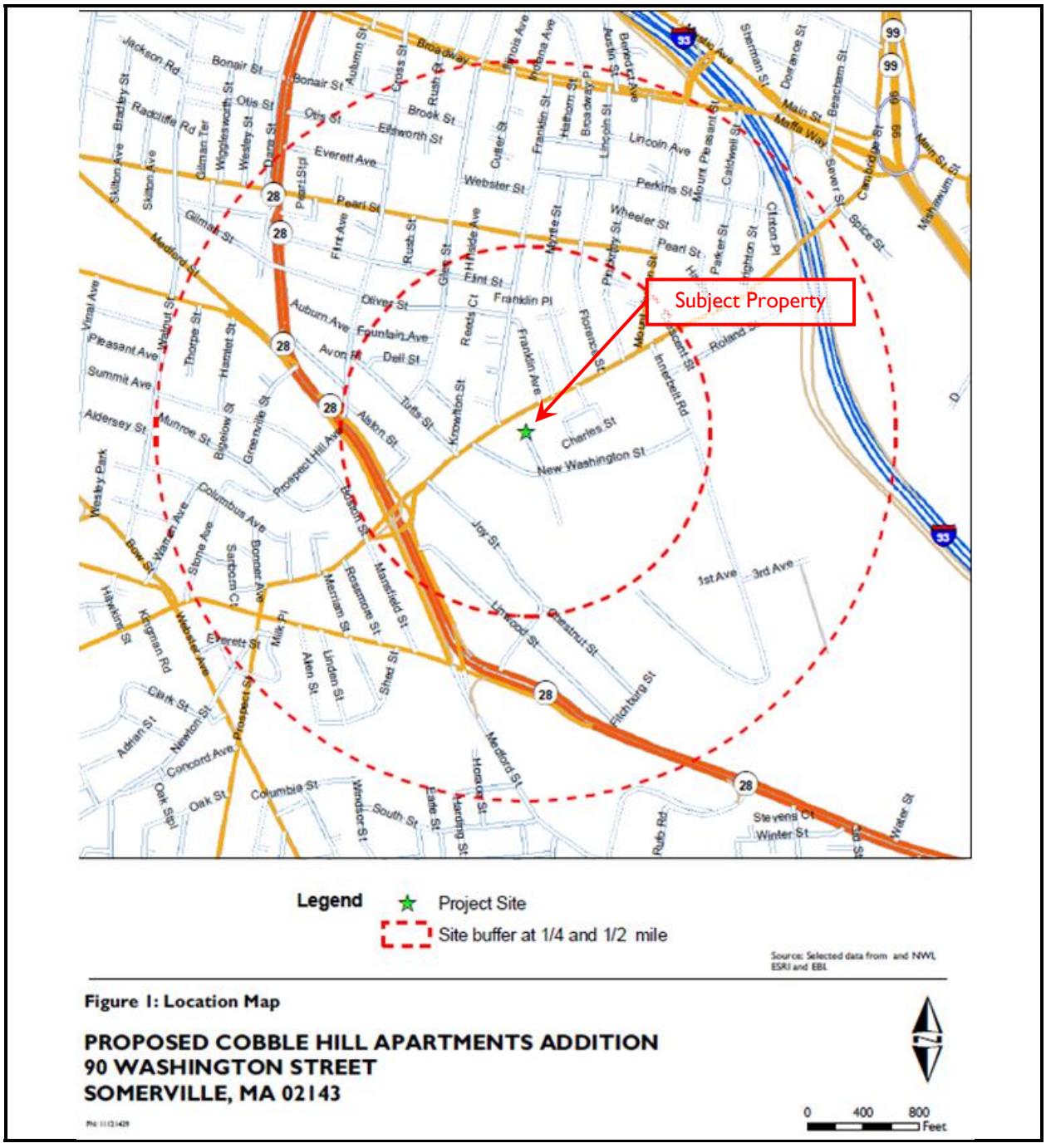
MassDEP
Commonwealth of Massachusetts
Department of Environmental Protection



Roads: Limited Access, Divided, Other Hwy, Major Road, Minor Road, Track, Trail
Boundaries: Town, County, DEP Region; Train; Powerline; Pipeline; Aqueduct
Basins: Major, PWS; Streams: Perennial, Intermittent, Man Made Shore, Dam
Aquifers: Medium Yield, High Yield, EPA Sole Source
Non Potential Drinking Water Source Area: Medium, High (Yield)
PWS Protection Areas: Zone II, IWPA, Zone A
Hydrography: Open Water, PWS Reservoir, Tidal Flat
Wetlands: Freshwater, Saltwater, Cranberry Bog
FEMA 100yr Floodplain; Protected Open Space; ACEC
Est. Rare Wetland Wildlife Hab; Vernal Pool: Cert., Potential
Solid Waste Landfill; PWS: Com.GW,SW, Emerg., Non-Com.

APPENDIX C:

RELEVANT INFORMATION FROM EBI'S SOIL CHARACTERIZATION REPORT



Site Location Map

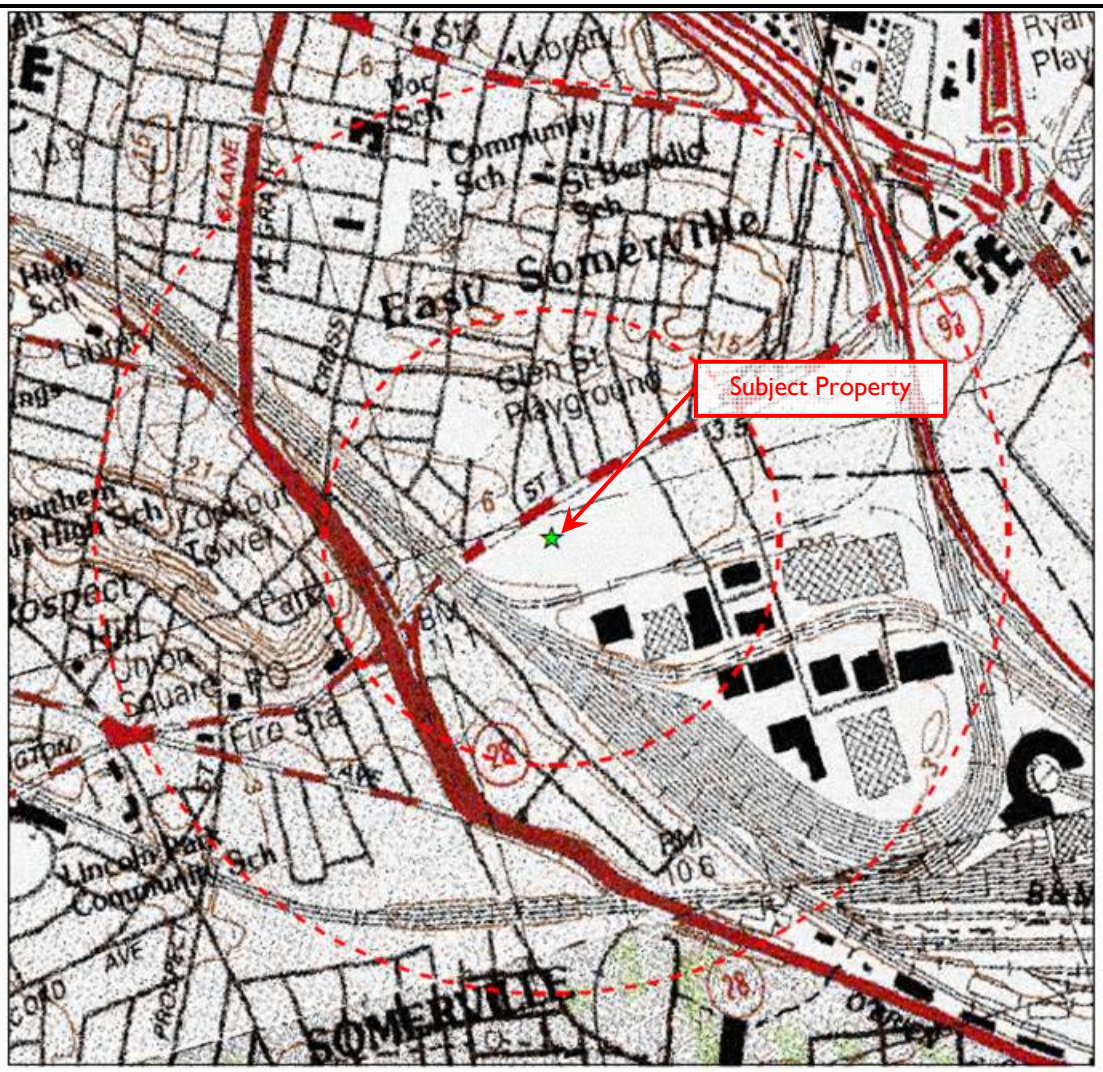
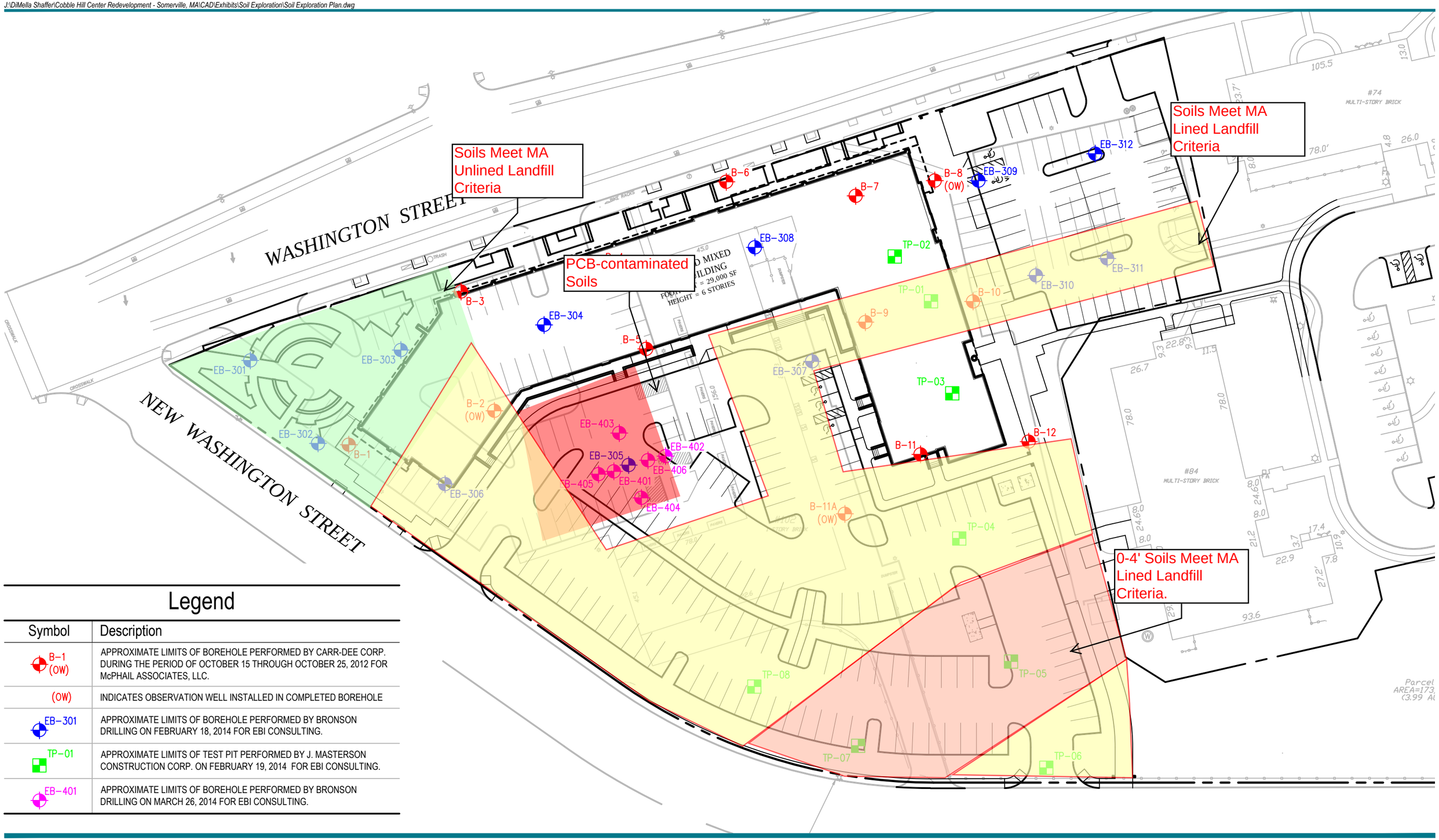


Figure 2 - USGS Quad Location Map

PROPOSED COBBLE HILL APARTMENTS ADDITION
90 WASHINGTON STREET
SOMERVILLE, MA 02143

Topographic Map

J:\DiMella Shaffer\Cobble Hill Center Redevelopment - Somerville, MA\CAD\Exhibits\Soil Exploration\Soil Exploration Plan.dwg



Legend

Symbol	Description
B-1 (OW)	APPROXIMATE LIMITS OF BOREHOLE PERFORMED BY CARR-DEE CORP. DURING THE PERIOD OF OCTOBER 15 THROUGH OCTOBER 25, 2012 FOR McPHAIL ASSOCIATES, LLC.
(OW)	INDICATES OBSERVATION WELL INSTALLED IN COMPLETED BOREHOLE
EB-301	APPROXIMATE LIMITS OF BOREHOLE PERFORMED BY BRONSON DRILLING ON FEBRUARY 18, 2014 FOR EBI CONSULTING.
TP-01	APPROXIMATE LIMITS OF TEST PIT PERFORMED BY J. MASTERSON CONSTRUCTION CORP. ON FEBRUARY 19, 2014 FOR EBI CONSULTING.
EB-401	APPROXIMATE LIMITS OF BOREHOLE PERFORMED BY BRONSON DRILLING ON MARCH 26, 2014 FOR EBI CONSULTING.

EBI Consulting
environmental | engineering | due diligence
www.ebiconsulting.com

0 25 50 Feet

Title: Figure 1
Soil Exploration Plan

Date: April 1, 2014

Project: Cobble Hill Center Redevelopment
90 Washington Street
Somerville, Massachusetts

Job No: 12140021

APPENDIX B
SOIL TABLES

EBI Consulting														
Cobble Hill, Washington Street, Somerville, MA														
Job Number: 12140021														
Soil Borings														
Results flagged as												**Legend:**	Hit	**Exceed**
Sample ID:		**MA MCP Method 1: S-1/GW-2**	**MA MCP Method 1: S-1/GW-3**	**EB-301 (0-4')**	**EB-302 (0-4')**	**EB-303 (0-8')**	**EB-304 (0-5')**	**EB-305 (0-4')**	**EB-307 (11-15')**	**EB-309 (0-4')**	**EB-310 (0-4')**	**EB-311 (0-4')**	**EB-312 (0-3')**
Date Sampled:				**2/18/2014**	**2/18/2014**	**2/18/2014**	**2/18/2014**	**2/18/2014**	**2/18/2014**	**2/18/2014**	**2/18/2014**	**2/18/2014**	**2/18/2014**
Matrix:				**Soil**	**Soil**	**Soil**	**Soil**	**Soil**	**Soil**	**Soil**	**Soil**	**Soil**	**Soil**
VOCs by EPA Method 8260													
Acetone	ug/kg	50000	400000	ND (530)	21.7	ND (9.2)	ND (2600)	ND (2500)	ND (550)	ND (490)	41	17.7	ND (410)
Benzene	ug/kg	30000	30000	33.2	0.69	ND (0.46)	398	287	ND (27)	67.7	1	ND (0.36)	22.7
n-Butylbenzene	ug/kg	-	-	ND (270)	ND (4.4)	ND (4.6)	ND (1300)	ND (1300)	387	ND (240)	ND (3.7)	ND (3.6)	ND (200)
Carbon disulfide	ug/kg	-	-	ND (270)	ND (4.4)	ND (4.6)	ND (1300)	ND (1300)	ND (270)	ND (240)	4.3	ND (3.6)	ND (200)
Chlorobenzene	ug/kg	3000	100000	ND (110)	ND (1.8)	ND (1.8)	ND (530)	**20300**	ND (110)	ND (98)	ND (1.5)	ND (1.5)	ND (81)
1,2-Dichlorobenzene	ug/kg	30000	300000	ND (110)	ND (1.8)	ND (1.8)	ND (530)	2330	ND (110)	ND (98)	ND (1.5)	ND (1.5)	ND (81)
1,3-Dichlorobenzene	ug/kg	40000	100000	ND (110)	ND (1.8)	ND (1.8)	ND (530)	11500	ND (110)	ND (98)	ND (1.5)	ND (1.5)	ND (81)
1,4-Dichlorobenzene	ug/kg	4000	50000	ND (110)	ND (1.8)	ND (1.8)	ND (530)	**50700**	ND (110)	ND (98)	ND (1.5)	ND (1.5)	ND (81)
Naphthalene	ug/kg	40000	500000	1420	ND (4.4)	ND (4.6)	**76600**	3460	ND (270)	542	4.5	ND (3.6)	14400
n-Propylbenzene	ug/kg	-	-	ND (270)	ND (4.4)	ND (4.6)	ND (1300)	ND (1300)	318	ND (240)	ND (3.7)	ND (3.6)	ND (200)
1,2,3-Trichlorobenzene	ug/kg	-	-	ND (270)	ND (4.4)	ND (4.6)	ND (1300)	6730	ND (270)	ND (240)	ND (3.7)	ND (3.6)	ND (200)
1,2,4-Trichlorobenzene	ug/kg	70000	500000	ND (270)	ND (4.4)	ND (4.6)	ND (1300)	62400	ND (270)	ND (240)	ND (3.7)	ND (3.6)	ND (200)
1,2,4-Trimethylbenzene	ug/kg	-	-	ND (270)	ND (4.4)	ND (4.6)	1580	ND (1300)	ND (270)	ND (240)	ND (3.7)	ND (3.6)	ND (200)
m,p-Xylene	ug/kg	300000	500000	ND (110)	ND (1.8)	ND (1.8)	1270	ND (510)	ND (110)	ND (98)	ND (1.5)	ND (1.5)	ND (81)
o-Xylene	ug/kg	300000	500000	ND (110)	ND (1.8)	ND (1.8)	546	ND (510)	ND (110)	ND (98)	ND (1.5)	ND (1.5)	ND (81)
Xylene (total)	ug/kg	300000	500000	ND (110)	ND (1.8)	ND (1.8)	1820	ND (510)	ND (110)	110	ND (1.5)	ND (1.5)	89
SVOCs by EPA Method 8270													
Acenaphthene	ug/kg	1000000	1000000	ND (560)	ND (580)	666	55900	543	ND (130)	3040	768	ND (550)	1550
Acenaphthylene	ug/kg	600000	10000	1750	2540	ND (550)	**14000**	750	ND (130)	2840	792	679	5190
Anthracene	ug/kg	1000000	1000000	1620	2180	1470	60900	1100	ND (130)	8010	3580	1470	7940
Benzo(a)anthracene	ug/kg	7000	7000	5180	**7820**	3930	**51900**	3590	ND (130)	**14500**	**7540**	4900	**11200**
Benzo(a)pyrene	ug/kg	2000	2000	**5300**	**9640**	**3310**	**48700**	**3010**	ND (130)	**12600**	**6780**	**4950**	**8700**
Benzo(b)fluoranthene	ug/kg	7000	7000	4330	**7580**	3100	**35000**	2550	ND (130)	**9930**	5150	3910	**7140**
Benzo(g,h,i)perylene	ug/kg	1000000	1000000	3000	6080	1750	27800	1630	ND (130)	5720	3140	2350	3670
Benzo(k)fluoranthene	ug/kg	70000	70000	4150	6890	2430	26400	2870	ND (130)	9270	5230	3800	7130
Chrysene	ug/kg	70000	70000	4930	7570	3950	45600	3480	ND (130)	13100	6700	4590	10500
1,2-Dichlorobenzene	ug/kg	30000	300000	ND (1400)	ND (1500)	ND (1400)	ND (1400)	2860	ND (320)	ND (1400)	ND (1400)	ND (1400)	ND (1300)
1,3-Dichlorobenzene	ug/kg	40000	100000	ND (1400)	ND (1500)	ND (1400)	ND (1400)	10300	ND (320)	ND (1400)	ND (1400)	ND (1400)	ND (1300)
1,4-Dichlorobenzene	ug/kg	4000	50000	ND (1400)	ND (1500)	ND (1400)	ND (1400)	**34400**	ND (320)	ND (1400)	ND (1400)	ND (1400)	ND (1300)
2,4-Dinitrotoluene	ug/kg	2000	2000	ND (2800)	ND (2900)	ND (2700)	ND (2700)	ND (2600)	ND (630)	**19300**	ND (2800)	ND (2800)	ND (2600)
Dibenzo(a,h)anthracene	ug/kg	700	700	**1020**	**1620**	643	**7350**	592	ND (130)	**2280**	**1160**	**874**	**1460**
Dibenzofuran	ug/kg	-	-	ND (560)	ND (580)	ND (550)	20700	ND (520)	304	3130	825	ND (550)	3590
bis(2-Ethylhexyl)phthalate	ug/kg	200000	200000	ND (1400)	ND (1500)	ND (1400)	ND (1400)	15900	ND (320)	ND (1400)	ND (1400)	ND (1400)	ND (1300)
Fluoranthene	ug/kg	1000000	1000000	8270	13300	8630	164000	5670	ND (130)	28900	14800	7890	26700
Fluorene	ug/kg	1000000	1000000	763	ND (580)	637	39600	ND (520)	735	6010	997	ND (550)	6730
Indeno(1,2,3-cd)pyrene	ug/kg	7000	7000	2790	5390	1730	**25600**	1470	ND (130)	5870	3140	2270	3710
2-Methylnaphthalene	ug/kg	80000	300000	ND (560)	ND (580)	ND (550)	34800	ND (520)	ND (130)	2400	ND (560)	ND (550)	4380
Naphthalene	ug/kg	40000	500000	ND (560)	1210	ND (550)	**70200**	ND (520)	ND (130)	3620	ND (560)	ND (550)	8640
Phenanthrene	ug/kg	500000	500000	5060	2710	6490	192000	2570	658	27800	6760	3380	36000
Pyrene	ug/kg	1000000	1000000	7900	13400	7730	131000	6100	ND (130)	25800	13200	7710	22700

Sample ID:		MA MCP Method 1: S-1/GW-2	MA MCP Method 1: S-1/GW-3	EB-301 (0-4')	EB-302 (0-4')	EB-303 (0-8')	EB-304 (0-5')	EB-305 (0-4')	EB-307 (11-15')	EB-309 (0-4')	EB-310 (0-4')	EB-311 (0-4')	EB-312 (0-3')
Date Sampled:				2/18/2014	2/18/2014	2/18/2014	2/18/2014	2/18/2014	2/18/2014	2/18/2014	2/18/2014	2/18/2014	2/18/2014
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
PCBs by EPA Method 8082													
Aroclor 1248	ug/kg	2000	2000	ND (38)	ND (38)	ND (35)	ND (36)	**48900**	ND (41)	ND (37)	ND (37)	ND (37)	ND (35)
Aroclor 1254	ug/kg	2000	2000	ND (38)	ND (38)	ND (35)	ND (36)	ND (35)	ND (41)	ND (37)	ND (37)	556 [a]	ND (35)
Aroclor 1260	ug/kg	2000	2000	ND (38)	ND (38)	ND (35)	ND (36)	ND (35)	ND (41)	ND (37)	43.4 B	1140	67.7 B
TPH by EPA Method 8100M													
TPH-DRO (Semi-VOA)	mg/kg	-	-	1130	1580	2330	2660	1880	653	1930	1050	1160	1710
RCRA 8 Metals by EPA Method 6010C													
Arsenic	mg/kg	20	20	8.5	7.1	5.6	7	7.1	1.1	4.2	6.4	7	8.7
Barium	mg/kg	1000	1000	47.5	55.8	125	64.9	38.8	9.8	22.5	49.2	61.8	36.4
Cadmium	mg/kg	2	2	<0.37	<0.38	**3.9**	0.54	1	<0.40	<0.36	<0.36	<0.36	<0.35
Chromium	mg/kg	30	30	18.1	13.6	13.4	16.6	17.6	7	9.3	17.4	16.4	10.4
Lead	mg/kg	300	300	102	148	**370**	209	99.5	3.2	26.2	91.1	155	128
Mercury	mg/kg	20	20	0.12	0.37	0.096	0.56	0.34	<0.035	0.16	0.053	0.16	0.07
General Chemistry													
Ignitability (Flashpoint)	Deg. F	-	-	>230	>230	>230	>230	>230	>230	>230	>230	>230	>230
Solids, Percent	%	-	-	87.2	85.3	90.1	89.1	92.5	79.1	88.9	89	89.1	91.9
Specific Conductivity	umhos/cm	-	-	120	248	2360	646	880	571	494	561	531	1550
pH	su	-	-	6.7	7.7	8.1	7.9	8.5	7.9	7.9	7.8	7.9	7.6
TCLP Metals													
Arsenic	mg/l	-	-	<0.010	0.01	<0.010	0.024	0.019	<0.010	<0.010	<0.010	<0.010	<0.010
Barium	mg/l	-	-	<0.50	0.67	<0.50	<0.50	0.6	<0.50	<0.50	<0.50	<0.50	<0.50
Cadmium	mg/l	-	-	<0.0040	0.0047	0.2	0.0044	0.12	<0.0040	<0.0040	<0.0040	<0.0040	0.0043
Lead	mg/l	-	-	0.047	0.46	0.44	0.35	2.2	0.022	0.18	0.08	0.38	0.2
Footnotes:													
[a] Estimated value due to the presence of other Aroclor pattern.													
36 results exceeded regulatory criteria.													
HITS ONLY. Only parameters detected in at least one sample are shown.													

1. µg/kg = micrograms per kilogram
   mg/kg = milligrams per kilogram
   mg/l = milligrams per liter
   VOCs = Volatile Organic Compounds by EPA Method 8260
   SVOCs = Semi-Volatile Organic Compounds by EPA Method 8270
   PCBs = Polychlorinated Biphenyls by EPA Method 8082
   TPH = Total Petroleum Hydrocarbons by EPA Method 8100M
   DRO = Diesel Range Organics
   RCRA 8 Metals = Resource Conservation and Recovery Act 8 Priority Pollutant Metals by EPA Method 6010C
   TCLP = Toxicity Charachteristic Leaching Procedure
   Deg F. = Degrees Farenheit
   umhos/cm = micromhos/centimeter
   su = Standard Unit
2. See laboratory reports for additional information and reporting limits for detected compounds
3. Only those analytes detected above the laboratory detection limits were included in the table

EBI Consulting

Cobble Hill, Washington, Somerville, MA

EBI Job Number: 12140021

PCB Table

Results flagged as "Exceed" if any of the selected criteria exceeded (most stringent). | **Legend:** | Hit | **Exceed**

Sample ID:		MA MCP Method 1: S-1/GW-2	MA MCP Method 1: S-1/GW-3	EB-305(0-4')	EB-310(0-4')	EB-311(0-4')	EB-312(0-3')	EB-401(1-3.5')	EB-402(1-3.5')	EB-403(1-4')	EB-406(1-3.5')
Date Sampled:				**2/18/2014**	**2/18/2014**	**2/18/2014**	**2/18/2014**	**3/26/2014**	**3/26/2014**	**3/26/2014**	**3/26/2014**
Matrix:				**Soil**	**Soil**	**Soil**	**Soil**	**Soil**	**Soil**	**Soil**	**Soil**
PCBs by EPA Method 8082											
Aroclor 1248	mg/kg	2	2	**48.9**	ND (0.037)	ND (0.037)	ND (0.035)	0.0853	**11.7**	**2.14**	**20.7**
Aroclor 1254	mg/kg	2	2	ND (0.035)	ND (0.037)	0.556 [a]	ND (0.035)	ND (0.040)	ND (0.036)	ND (0.036)	ND (0.035)
Aroclor 1260	mg/kg	2	2	ND (0.035)	0.0434 B	1.14	0.0677 B	ND (0.040)	ND (0.036)	ND (0.036)	ND (0.035)

Footnotes:

[a] Estimated value due to the presence of other Aroclor pattern.

4 results exceeded regulatory criteria.

HITS ONLY. Only parameters detected in at least one sample are shown.

1. mg/kg = milligrams per kilogram
   PCBs = Polychlorinated Biphenyls by EPA Method 8082
2. See laboratory reports for additional information and reporting limits for detected compounds
3. Only those analytes detected above the laboratory detection limits were included in the table

EBI Consulting

Cobble Hill, Washington Street, Somerville, MA

Job Number: 12120128

Soil Test Pits

Results flagged as — Legend: Hit | Exceed

Sample ID:		MA MCP Method 1: S-1/GW-2	MA MCP Method 1: S-1/GW-3	TP-01 (7.5-8.5')	TP-02 (2-4')	TP-03 (0-4')	TP-03 (7-9')	TP-04 (0-4')	TP-04 (6-7')	TP-05 (0-4')	TP-05 (7-8')	TP-06 (0-4')	TP-06 (6.5-7.5')	TP-07 (0-4')	TP-07 (6-7')	TP-08 (0-4')	TP-08 (4-5')
Date Sampled:				2/19/2014	2/19/2014	2/19/2014	2/19/2014	2/19/2014	2/19/2014	2/19/2014	2/19/2014	2/19/2014	2/19/2014	2/19/2014	2/19/2014	2/19/2014	2/19/2014
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
VOCs by EPA Method 8260																	
Acetone	ug/kg	50000	400000	26	27.9	24.7	ND (370)	ND (9.4)	30	31.2	ND (820)	ND (490)	ND (570)	28.9	ND (370)	38.2	ND (460)
Benzene	ug/kg	30000	30000	ND (0.39)	0.72	0.54	ND (19)	ND (0.47)	1	1.9	ND (41)	ND (24)	ND (28)	0.45	ND (18)	5.6	30.8
Naphthalene	ug/kg	40000	500000	ND (3.9)	ND (3.9)	ND (4.4)	5910	ND (4.7)	ND (3.9)	ND (4.4)	2980	ND (240)	1540	ND (4.4)	3500	ND (5.1)	1080
m,p-Xylene	ug/kg	300000	500000	ND (1.6)	ND (1.6)	ND (1.7)	ND (75)	ND (1.9)	ND (1.5)	ND (1.8)	ND (160)	ND (97)	131	ND (1.8)	ND (73)	ND (2.0)	ND (93)
Xylene (total)	ug/kg	300000	500000	ND (1.6)	ND (1.6)	ND (1.7)	ND (75)	ND (1.9)	ND (1.5)	ND (1.8)	ND (160)	ND (97)	204	ND (1.8)	ND (73)	ND (2.0)	100
SVOCs by EPA Method 8270																	
Acenaphthene	ug/kg	1000000	1000000	ND (550)	1050	2250	3240	ND (550)	ND (560)	1030	1330	ND (550)	1360	ND (570)	2090	1270	ND (560)
Acenaphthylene	ug/kg	600000	10000	678	1280	2010	2240	1630	1350	973	2300	ND (550)	995	703	1250	1220	826
Anthracene	ug/kg	1000000	1000000	821	4050	8110	7630	1730	1360	3480	6190	1320	2430	1070	4980	4620	1580
Benzo(a)anthracene	ug/kg	7000	7000	3110	**11600**	**21000**	**13700**	6450	4740	**8780**	**12300**	3300	4910	5120	**10200**	**11100**	3860
Benzo(a)pyrene	ug/kg	2000	2000	**2880**	**10800**	**17200**	**11700**	**6410**	**5140**	**8030**	**10200**	**3630**	**4820**	**5350**	**8840**	**9800**	**3970**
Benzo(b)fluoranthene	ug/kg	7000	7000	2450	**9750**	**14500**	**9750**	5300	3960	**7180**	**8170**	2710	4330	4510	**7140**	**7310**	3490
Benzo(g,h,i)perylene	ug/kg	1000000	1000000	1880	6190	9200	5900	3900	3050	4410	4820	2330	2660	2860	4380	5020	2290
Benzo(k)fluoranthene	ug/kg	70000	70000	2410	7410	15700	8660	5150	4210	5930	8310	3000	3520	3120	7250	7920	2720
Chrysene	ug/kg	70000	70000	3120	10500	18800	12500	5920	4610	8170	11500	3300	4730	5280	9160	10100	3710
Dibenzo(a,h)anthracene	ug/kg	700	700	ND (550)	**2120**	**3500**	**2290**	**1230**	**1050**	**1550**	**1800**	**757**	**862**	**946**	**1560**	**1720**	643
Dibenzofuran	ug/kg	-	-	ND (550)	891	1870	3370	ND (550)	ND (560)	583	1410	ND (550)	827	ND (570)	1700	905	ND (560)
Fluoranthene	ug/kg	1000000	1000000	5450	22800	43000	25900	10300	8000	16600	25200	6260	10200	6530	21400	19600	7650
Fluorene	ug/kg	1000000	1000000	ND (550)	1650	2670	4930	ND (550)	ND (560)	1210	2710	812	1540	ND (570)	2640	1570	676
Indeno(1,2,3-cd)pyrene	ug/kg	7000	7000	1590	5640	**9330**	5650	3690	2840	4040	4600	2150	2370	2550	4040	4420	1950
2-Methylnaphthalene	ug/kg	80000	300000	ND (550)	ND (540)	626	1960	ND (550)	ND (560)	ND (560)	ND (550)	1380	2830	ND (570)	659	820	613
Naphthalene	ug/kg	40000	500000	ND (550)	738	1450	3790	ND (550)	ND (560)	ND (560)	578	596	2410	ND (570)	1100	1250	747
Phenanthrene	ug/kg	500000	500000	2790	13500	33300	23400	4600	3680	11500	21000	4170	7970	2880	14500	14700	4980
Pyrene	ug/kg	1000000	1000000	5610	21300	36600	23600	10200	7790	15600	22700	5720	9610	8570	19000	20700	7240
PCBs by EPA Method 8082																	
Aroclor 1248	ug/kg	2000	2000	ND (35)	ND (36)	ND (37)	ND (38)	ND (36)	ND (37)	ND (38)	ND (38)	ND (37)	ND (37)	53.4 [a]	426	ND (37)	216
Aroclor 1254	ug/kg	2000	2000	ND (35)	219	ND (37)	ND (38)	53.7	52.8	154	53.3	149	115	64.3	118 [a]	100	85.2 [a]
Aroclor 1260	ug/kg	2000	2000	70.9	81.2 [a]	ND (37)	ND (38)	37.4 [a]	40.0 [a]	58.5 [a]	ND (38)	ND (37)	ND (37)	ND (38)	80.7 [a]	ND (37)	ND (37)
TPH by EPA Method 8100M																	
TPH-DRO (Semi-VOA)	mg/kg	-	-	1300	1680	2660	2120	1180	1260	1320	1340	2630	3060	844	1590	1270	1790
RCRA 8 Metals by EPA Method 6010C																	
Arsenic	mg/kg	20	20	6.6	7.7	9.8	6.8	6.5	7.7	8.2	5.9	6.2	7	9	7.4	8.4	6.9
Barium	mg/kg	1000	1000	57.4	65.2	126	49.6	45.7	54	101	46.6	64.6	56.6	60	103	85	67.9
Cadmium	mg/kg	2	2	0.5	0.52	0.59	<0.35	<0.36	<0.37	0.53	<0.37	0.4	<0.36	<0.36	0.39	0.47	0.4
Chromium	mg/kg	30	30	22.5	18.7	20.4	18.9	19	20.5	19.6	15.7	17.5	18	**31.2**	21.2	23.1	19
Lead	mg/kg	300	300	280	249	**520**	101	177	214	280	102	179	189	132	165	217	169
Mercury	mg/kg	20	20	0.21	0.26	0.66	0.093	0.22	0.17	0.57	0.086	0.3	0.33	0.16	0.28	0.6	0.23
Silver	mg/kg	100	100	<0.45	<0.45	2	<0.44	<0.45	<0.47	<0.44	<0.47	<0.45	<0.45	<0.45	<0.46	<0.44	<0.46
General Chemistry																	
Ignitability (Flashpoint)	Deg. F	-	-	>230	>230	>230	>230	>230	>230	>230	>230	>230	>230	>230	>230	>230	>230
Solids, Percent	%	-	-	89.2	91	85	86.7	90.3	87.9	88	86.3	89.6	87.6	85.9	89.1	88.6	87
Specific Conductivity	umhos/cm	-	-	172	281	162	172	130	165	185	315	265	285	164	292	175	246
pH	su	-	-	7.9	7.5	7.9	7.9	7.8	7.8	7.7	7.6	7.7	7.6	7.6	7.8	7.8	7.7
TCLP Metals																	
Arsenic	mg/l	-	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.011	0.017	<0.010	<0.010	<0.010	<0.010
Barium	mg/l	-	-	0.59	0.59	0.86	<0.50	0.57	<0.50	0.76	<0.50	0.62	0.58	<0.50	0.61	0.71	0.7
Cadmium	mg/l	-	-	0.0078	0.0068	0.0091	<0.0040	0.0041	<0.0040	0.0059	0.0043	0.0051	0.0043	<0.0040	0.0051	0.0052	0.0052
Chromium	mg/l	-	-	<0.010	<0.010	<0.010	<0.010	<0.010	0.02	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.014	<0.010
Lead	mg/l	-	-	0.55	0.51	0.57	0.22	0.33	0.35	0.32	0.25	0.31	0.6	0.064	1.1	0.18	0.43

Footnotes:

[a] Estimated value due to the presence of other Aroclor pattern.

43 results exceeded regulatory criteria.

HITS ONLY. Only parameters detected in at least one sample are shown.

1. µg/kg = micrograms per kilogram
   mg/kg = milligrams per kilogram
   mg/l = milligrams per liter
   VOCs = Volatile Organic Compounds by EPA Method 8260
   SVOCs = Semi-Volatile Organic Compounds by EPA Method 8270
   PCBs = Polychlorinated Biphenyls by EPA Method 8082
   TPH = Total Petroleum Hydrocarbons by EPA Method 8100M
   DRO = Diesel Range Organics
   RCRA 8 Metals = Resource Conservation and Recovery Act 8 Priority Pollutant Metals by EPA Method 6010C
   TCLP = Toxicity Charachteristic Leaching Procedure
   Deg F. = Degrees Farenheit
   umhos/cm = micromhos/centimeter
   su = Standard Unit
2. See laboratory reports for additional information and reporting limits for detected compounds
3. Only those analytes detected above the laboratory detection limits were included in the table

EBI Consulting

Cobble Hill, Washington Street, Somerville, MA

Job Number: 12140021

Soil Borings-Landfill Disposal Criteria

												Legend:	Exceed
Sample ID:		**Massachusetts Landfill**		**EB-301 (0-4')**	**EB-302 (0-4')**	**EB-303 (0-8')**	**EB-304 (0-5')**	**EB-305 (0-4')**	**EB-307 (11-15')**	**EB-309 (0-4')**	**EB-310 (0-4')**	**EB-311 (0-4')**	**EB-312 (0-3')**
Date Sampled:		**Lined**	**Unlined**	**2/18/2014**	**2/18/2014**	**2/18/2014**	**2/18/2014**	**2/18/2014**	**2/18/2014**	**2/18/2014**	**2/18/2014**	**2/18/2014**	**2/18/2014**
Matrix:				**Soil**	**Soil**	**Soil**	**Soil**	**Soil**	**Soil**	**Soil**	**Soil**	**Soil**	**Soil**
VOCs by EPA Method 8260													
Acetone	ug/kg	--	--	ND (530)	21.7	ND (9.2)	ND (2600)	ND (2500)	ND (550)	ND (490)	41	17.7	ND (410)
Benzene	ug/kg	--	--	33.2	0.69	ND (0.46)	398	287	ND (27)	67.7	1	ND (0.36)	22.7
n-Butylbenzene	ug/kg	--	--	ND (270)	ND (4.4)	ND (4.6)	ND (1300)	ND (1300)	387	ND (240)	ND (3.7)	ND (3.6)	ND (200)
Carbon disulfide	ug/kg	--	--	ND (270)	ND (4.4)	ND (4.6)	ND (1300)	ND (1300)	ND (270)	ND (240)	4.3	ND (3.6)	ND (200)
Chlorobenzene	ug/kg	--	--	ND (110)	ND (1.8)	ND (1.8)	ND (530)	20,300	ND (110)	ND (98)	ND (1.5)	ND (1.5)	ND (81)
1,2-Dichlorobenzene	ug/kg	--	--	ND (110)	ND (1.8)	ND (1.8)	ND (530)	2,330	ND (110)	ND (98)	ND (1.5)	ND (1.5)	ND (81)
1,3-Dichlorobenzene	ug/kg	--	--	ND (110)	ND (1.8)	ND (1.8)	ND (530)	11,500	ND (110)	ND (98)	ND (1.5)	ND (1.5)	ND (81)
1,4-Dichlorobenzene	ug/kg	--	--	ND (110)	ND (1.8)	ND (1.8)	ND (530)	50,700	ND (110)	ND (98)	ND (1.5)	ND (1.5)	ND (81)
Naphthalene	ug/kg	--	--	1,420	ND (4.4)	ND (4.6)	76,600	3,460	ND (270)	542	4.5	ND (3.6)	14,400
n-Propylbenzene	ug/kg	--	--	ND (270)	ND (4.4)	ND (4.6)	ND (1300)	ND (1300)	318	ND (240)	ND (3.7)	ND (3.6)	ND (200)
1,2,3-Trichlorobenzene	ug/kg	--	--	ND (270)	ND (4.4)	ND (4.6)	ND (1300)	6,730	ND (270)	ND (240)	ND (3.7)	ND (3.6)	ND (200)
1,2,4-Trichlorobenzene	ug/kg	--	--	ND (270)	ND (4.4)	ND (4.6)	ND (1300)	62,400	ND (270)	ND (240)	ND (3.7)	ND (3.6)	ND (200)
1,2,4-Trimethylbenzene	ug/kg	--	--	ND (270)	ND (4.4)	ND (4.6)	1580	ND (1300)	ND (270)	ND (240)	ND (3.7)	ND (3.6)	ND (200)
m,p-Xylene	ug/kg	--	--	ND (110)	ND (1.8)	ND (1.8)	1270	ND (510)	ND (110)	ND (98)	ND (1.5)	ND (1.5)	ND (81)
o-Xylene	ug/kg	--	--	ND (110)	ND (1.8)	ND (1.8)	546	ND (510)	ND (110)	ND (98)	ND (1.5)	ND (1.5)	ND (81)
Xylene (total)	ug/kg	--	--	ND (110)	ND (1.8)	ND (1.8)	1820	ND (510)	ND (110)	110	ND (1.5)	ND (1.5)	89
Total VOCs	ug/kg	10,000	4,000	1,453.2	22.4	0.0	**82,214**	**157,707**	705	719.7	50.8	17.7	**14,511.7**
SVOCs by EPA Method													
Acenaphthene	ug/kg	--	--	ND (560)	ND (580)	666	55,900	543	ND (130)	3,040	768	ND (550)	1,550
Acenaphthylene	ug/kg	--	--	1,750	2,540	ND (550)	14,000	750	ND (130)	2,840	792	679	5,190
Anthracene	ug/kg	--	--	1,620	2,180	1,470	60,900	1,100	ND (130)	8,010	3,580	1,470	7,940
Benzo(a)anthracene	ug/kg	--	--	5,180	7,820	3,930	51,900	3,590	ND (130)	14,500	7,540	4,900	11,200
Benzo(a)pyrene	ug/kg	--	--	5,300	9,640	3,310	48,700	3,010	ND (130)	12,600	6,780	4,950	8,700
Benzo(b)fluoranthene	ug/kg	--	--	4,330	7,580	3,100	35,000	2,550	ND (130)	9,930	5,150	3,910	7,140
Benzo(g,h,i)perylene	ug/kg	--	--	3,000	6,080	1,750	27,800	1,630	ND (130)	5,720	3,140	2,350	3,670
Benzo(k)fluoranthene	ug/kg	--	--	4,150	6,890	2,430	26,400	2,870	ND (130)	9,270	5,230	3,800	7,130
Chrysene	ug/kg	--	--	4,930	7,570	3,950	45,600	3,480	ND (130)	13,100	6,700	4,590	10,500
1,2-Dichlorobenzene	ug/kg	--	--	ND (1400)	ND (1500)	ND (1400)	ND (1400)	2,860	ND (320)	ND (1400)	ND (1400)	ND (1400)	ND (1300)
1,3-Dichlorobenzene	ug/kg	--	--	ND (1400)	ND (1500)	ND (1400)	ND (1400)	10,300	ND (320)	ND (1400)	ND (1400)	ND (1400)	ND (1300)
1,4-Dichlorobenzene	ug/kg	--	--	ND (1400)	ND (1500)	ND (1400)	ND (1400)	34,400	ND (320)	ND (1400)	ND (1400)	ND (1400)	ND (1300)
2,4-Dinitrotoluene	ug/kg	--	--	ND (2800)	ND (2900)	ND (2700)	ND (2700)	ND (2600)	ND (630)	19,300	ND (2800)	ND (2800)	ND (2600)
Dibenzo(a,h)anthracene	ug/kg	--	--	1,020	1,620	643	7,350	592	ND (130)	2,280	1,160	874	1,460
Dibenzofuran	ug/kg	--	--	ND (560)	ND (580)	ND (550)	20,700	ND (520)	304	3,130	825	ND (550)	3,590
bis(2-Ethylhexyl)phthalate	ug/kg	--	--	ND (1400)	ND (1500)	ND (1400)	ND (1400)	15,900	ND (320)	ND (1400)	ND (1400)	ND (1400)	ND (1300)
Fluoranthene	ug/kg	--	--	8,270	13,300	8,630	164,000	5,670	ND (130)	28,900	14,800	7,890	26,700
Fluorene	ug/kg	--	--	763	ND (580)	637	39,600	ND (520)	735	6,010	997	ND (550)	6,730
Indeno(1,2,3-cd)pyrene	ug/kg	--	--	2,790	5,390	1,730	25,600	1,470	ND (130)	5,870	3,140	2,270	3,710
2-Methylnaphthalene	ug/kg	--	--	ND (560)	ND (580)	ND (550)	34,800	ND (520)	ND (130)	2,400	ND (560)	ND (550)	4,380
Naphthalene	ug/kg	--	--	ND (560)	1,210	ND (550)	70,200	ND (520)	ND (130)	3,620	ND (560)	ND (550)	8,640
Phenanthrene	ug/kg	--	--	5,060	2,710	6,490	192,000	2,570	658	27,800	6,760	3,380	36,000
Pyrene	ug/kg	--	--	7,900	13,400	7,730	131,000	6,100	ND (130)	25,800	13,200	7,710	22,700
Total SVOCs	ug/kg	100,000	100,000	56,063	87,930	46,466	**1,051,450**	99,385	1,697	**204,120**	80,562	48,773	**176,930**
PCBs by EPA Method 8082													
Aroclor 1248	ug/kg	--	--	ND (38)	ND (38)	ND (35)	ND (36)	48900	ND (41)	ND (37)	ND (37)	ND (37)	ND (35)
Aroclor 1254	ug/kg	--	--	ND (38)	ND (38)	ND (35)	ND (36)	ND (35)	ND (41)	ND (37)	ND (37)	556 [a]	ND (35)
Aroclor 1260	ug/kg	--	--	ND (38)	ND (38)	ND (35)	ND (36)	ND (35)	ND (41)	ND (37)	43.4 B	1140	67.7 B
Total PCBs	ug/kg	<2000	<2000	0	0	0	0	**48,900**	0	0	43.4	1,696	67.7

Sample ID:		Massachusetts Landfill		EB-301 (0-4')	EB-302 (0-4')	EB-303 (0-8')	EB-304 (0-5')	EB-305 (0-4')	EB-307 (11-15')	EB-309 (0-4')	EB-310 (0-4')	EB-311 (0-4')	EB-312 (0-3')
Date Sampled:		Lined	Unlined	2/18/2014	2/18/2014	2/18/2014	2/18/2014	2/18/2014	2/18/2014	2/18/2014	2/18/2014	2/18/2014	2/18/2014
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
TPH by EPA Method 8100M													
TPH-DRO (Semi-VOA)	mg/kg	--	--	1130	1580	2330	2660	1880	653	1930	1050	1160	1710
TPH	mg/kg	5,000	2,500	1,130	1,580	2,330	**2,660**	1,880	653	1,930	1,050	1,160	1,710
RCRA 8 Metals by EPA Method 6010C													
Arsenic	mg/kg	40	40	8.5	7.1	5.6	7	7.1	1.1	4.2	6.4	7	8.7
Barium	mg/kg	--	--	47.5	55.8	125	64.9	38.8	9.8	22.5	49.2	61.8	36.4
Cadmium	mg/kg	80	30	<0.37	<0.38	3.9	0.54	1	<0.40	<0.36	<0.36	<0.36	<0.35
Chromium	mg/kg	1,000	1,000	18.1	13.6	13.4	16.6	17.6	7	9.3	17.4	16.4	10.4
Lead	mg/kg	2,000	1,000	102	148	370	209	99.5	3.2	26.2	91.1	155	128
Mercury	mg/kg	10	10	0.12	0.37	0.096	0.56	0.34	<0.035	0.16	0.053	0.16	0.07
General Chemistry													
Ignitability (Flashpoint)	Deg. F	--	--	>230	>230	>230	>230	>230	>230	>230	>230	>230	>230
Solids, Percent	%	--	--	87.2	85.3	90.1	89.1	92.5	79.1	88.9	89	89.1	91.9
Specific Conductivity	umhos/cm	8,000	4,000	120	248	2,360	646	880	571	494	561	531	1,550
pH	su	--	--	6.7	7.7	8.1	7.9	8.5	7.9	7.9	7.8	7.9	7.6
TCLP Metals													
Arsenic	mg/l	--	--	<0.010	0.01	<0.010	0.024	0.019	<0.010	<0.010	<0.010	<0.010	<0.010
Barium	mg/l	--	--	<0.50	0.67	<0.50	<0.50	0.6	<0.50	<0.50	<0.50	<0.50	<0.50
Cadmium	mg/l	--	--	<0.0040	0.0047	0.2	0.0044	0.12	<0.0040	<0.0040	<0.0040	<0.0040	0.0043
Lead	mg/l	2,000	1,000	0.047	0.46	0.44	0.35	2.2	0.022	0.18	0.08	0.38	0.2

Footnotes:

[a] Estimated value due to the presence of other Aroclor pattern.

HITS ONLY. Only parameters detected in at least one sample are shown.

1. µg/kg = micrograms per kilogram
   mg/kg = milligrams per kilogram
   mg/l = milligrams per liter
   VOCs = Volatile Organic Compounds by EPA Method 8260
   SVOCs = Semi-Volatile Organic Compounds by EPA Method 8270
   PCBs = Polychlorinated Biphenyls by EPA Method 8082
   TPH = Total Petroleum Hydrocarbons by EPA Method 8100M
   DRO = Diesel Range Organics
   RCRA 8 Metals = Resource Conservation and Recovery Act 8 Priority Pollutant Metals by EPA Method 6010C
   TCLP = Toxicity Charachteristic Leaching Procedure
   Deg F. = Degrees Farenheit
   umhos/cm = micromhos/centimeter
   su = Standard Unit
2. See laboratory reports for additional information and reporting limits for detected compounds
3. Only those analytes detected above the laboratory detection limits were included in the table

EBI Consulting

Cobble Hill, Washington Street, Somerville, MA

Job Number: 12140021

Soil Test Pits- Landfill Disposal Criteria

Legend: Exceed

Sample ID:		Massachusetts Landfill		TP-01 (7.5-8.5')	TP-02 (2-4')	TP-03 (0-4')	TP-03 (7-9')	TP-04 (0-4')	TP-04 (6-7')	TP-05 (0-4')	TP-05 (7-8')	TP-06 (0-4')	TP-06 (6.5-7.5')	TP-07 (0-4')	TP-07 (6-7')	TP-08 (0-4')	TP-08 (4-5')
Date Sampled:		Lined	Unlined	2/19/2014	2/19/2014	2/19/2014	2/19/2014	2/19/2014	2/19/2014	2/19/2014	2/19/2014	2/19/2014	2/19/2014	2/19/2014	2/19/2014	2/19/2014	2/19/2014
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
VOCs by EPA Method																	
Acetone	ug/kg	--	--	26	27.9	24.7	ND (370)	ND (9.4)	30	31.2	ND (820)	ND (490)	ND (570)	28.9	ND (370)	38.2	ND (460)
Benzene	ug/kg	--	--	ND (0.39)	0.72	0.54	ND (19)	ND (0.47)	1	1.9	ND (41)	ND (24)	ND (28)	0.45	ND (18)	5.6	30.8
Naphthalene	ug/kg	--	--	ND (3.9)	ND (3.9)	ND (4.4)	5910	ND (4.7)	ND (3.9)	ND (4.4)	2980	ND (240)	1540	ND (4.4)	3500	ND (5.1)	1080
m,p-Xylene	ug/kg	--	--	ND (1.6)	ND (1.6)	ND (1.7)	ND (75)	ND (1.9)	ND (1.5)	ND (1.8)	ND (160)	ND (97)	131	ND (1.8)	ND (73)	ND (2.0)	ND (93)
Xylene (total)	ug/kg	--	--	ND (1.6)	ND (1.6)	ND (1.7)	ND (75)	ND (1.9)	ND (1.5)	ND (1.8)	ND (160)	ND (97)	204	ND (1.8)	ND (73)	ND (2.0)	100
Total VOCs	ug/kg	10,000	4,000	26	28.62	25.24	**5,910**	0	31	33.1	2,980	0	1,875	29.35	3,500	43.8	1,210.8
SVOCs by EPA Method																	
Acenaphthene	ug/kg	--	--	ND (550)	1050	2250	3240	ND (550)	ND (560)	1030	1330	ND (550)	1360	ND (570)	2090	1270	ND (560)
Acenaphthylene	ug/kg	--	--	678	1280	2010	2240	1630	1350	973	2300	ND (550)	995	703	1250	1220	826
Anthracene	ug/kg	--	--	821	4050	8110	7630	1730	1360	3480	6190	1320	2430	1070	4980	4620	1580
Benzo(a)anthracene	ug/kg	--	--	3110	11600	21000	13700	6450	4740	8780	12300	3300	4910	5120	10200	11100	3860
Benzo(a)pyrene	ug/kg	--	--	2880	10800	17200	11700	6410	5140	8030	10200	3630	4820	5350	8840	9800	3970
Benzo(b)fluoranthene	ug/kg	--	--	2450	9750	14500	9750	5300	3960	7180	8170	2710	4330	4510	7140	7310	3490
Benzo(g,h,i)perylene	ug/kg	--	--	1880	6190	9200	5900	3900	3050	4410	4820	2330	2660	2860	4380	5020	2290
Benzo(k)fluoranthene	ug/kg	--	--	2410	7410	15700	8660	5150	4210	5930	8310	3000	3520	3120	7250	7920	2720
Chrysene	ug/kg	--	--	3120	10500	18800	12500	5920	4610	8170	11500	3300	4730	5280	9160	10100	3710
Dibenzo(a,h)anthracene	ug/kg	--	--	ND (550)	2120	3500	2290	1230	1050	1550	1800	757	862	946	1560	1720	643
Dibenzofuran	ug/kg	--	--	ND (550)	891	1870	3370	ND (550)	ND (560)	583	1410	ND (550)	827	ND (570)	1700	905	ND (560)
Fluoranthene	ug/kg	--	--	5450	22800	43000	25900	10300	8000	16600	25200	6260	10200	6530	21400	19600	7650
Fluorene	ug/kg	--	--	ND (550)	1650	2670	4930	ND (550)	ND (560)	1210	2710	812	1540	ND (570)	2640	1570	676
Indeno(1,2,3-cd)pyrene	ug/kg	--	--	1590	5640	9330	5650	3690	2840	4040	4600	2150	2370	2550	4040	4420	1950
2-Methylnaphthalene	ug/kg	--	--	ND (550)	ND (540)	626	1960	ND (550)	ND (560)	ND (560)	ND (550)	1380	2830	ND (570)	659	820	613
Naphthalene	ug/kg	--	--	ND (550)	738	1450	3790	ND (550)	ND (560)	ND (560)	578	596	2410	ND (570)	1100	1250	747
Phenanthrene	ug/kg	--	--	2790	13500	33300	23400	4600	3680	11500	21000	4170	7970	2880	14500	14700	4980
Pyrene	ug/kg	--	--	5610	21300	36600	23600	10200	7790	15600	22700	5720	9610	8570	19000	20700	7240
Total SVOCs	ug/kg	100,000	100,000	32,789	**131,269**	**241,116**	**170,210**	66,510	51,780	99,066	**145,118**	41,435	68,374	49,489	**121,889**	**124,045**	46,945
PCBs by EPA Method																	
Aroclor 1248	ug/kg	--	--	ND (35)	ND (36)	ND (37)	ND (38)	ND (36)	ND (37)	ND (38)	ND (38)	ND (37)	ND (37)	53.4 [a]	426	ND (37)	216
Aroclor 1254	ug/kg	--	--	ND (35)	219	ND (37)	ND (38)	53.7	52.8	154	53.3	149	115	64.3	118 [a]	100	85.2 [a]
Aroclor 1260	ug/kg	--	--	70.9	81.2 [a]	ND (37)	ND (38)	37.4 [a]	40.0 [a]	58.5 [a]	ND (38)	ND (37)	ND (37)	ND (38)	80.7 [a]	ND (37)	ND (37)
Total PCBs	ug/kg	<2,000	<2,000	70.9	300.2	0	0	91.1	92.8	212.5	53.3	149	115	117.7	624.7	100	301.2
TPH by EPA Method																	
TPH-DRO (Semi-VOA)	mg/kg	--	--	1,300	1,680	2,660	2,120	1,180	1,260	1,320	1,340	2,630	3,060	844	1,590	1,270	1,790
TPH	mg/kg	5,000	2,500	1,300	1,680	**2,660**	2,120	1,180	1,260	1,320	1,340	**2,630**	**3,060**	844	1,590	1,270	1,790
RCRA 8 Metals EPA Method 6010C																	
Arsenic	mg/kg	40	40	6.6	7.7	9.8	6.8	6.5	7.7	8.2	5.9	6.2	7	9	7.4	8.4	6.9
Barium	mg/kg	--	--	57.4	65.2	126	49.6	45.7	54	101	46.6	64.6	56.6	60	103	85	67.9
Cadmium	mg/kg	80	30	0.5	0.52	0.59	<0.35	<0.36	<0.37	0.53	<0.37	0.4	<0.36	<0.36	0.39	0.47	0.4
Chromium	mg/kg	1,000	1,000	22.5	18.7	20.4	18.9	19	20.5	19.6	15.7	17.5	18	31.2	21.2	23.1	19
Lead	mg/kg	2,000	1,000	280	249	520	101	177	214	280	102	179	189	132	165	217	169
Mercury	mg/kg	10	10	0.21	0.26	0.66	0.093	0.22	0.17	0.57	0.086	0.3	0.33	0.16	0.28	0.6	0.23
Silver	mg/kg	--	--	<0.45	<0.45	2	<0.44	<0.45	<0.47	<0.44	<0.47	<0.45	<0.45	<0.45	<0.46	<0.44	<0.46
General Chemistry																	
Ignitability (Flashpoint)	Deg. F	--	--	>230	>230	>230	>230	>230	>230	>230	>230	>230	>230	>230	>230	>230	>230
Solids, Percent	%	--	--	89.2	91	85	86.7	90.3	87.9	88	86.3	89.6	87.6	85.9	89.1	88.6	87
Specific Conductivity	umhos/cm	8,000	4,000	172	281	162	172	130	165	185	315	265	285	164	292	175	246
pH	su	--	--	7.9	7.5	7.9	7.9	7.8	7.8	7.7	7.6	7.7	7.6	7.6	7.8	7.8	7.7
TCLP Metals																	
Arsenic	mg/l	--	--	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.011	0.017	<0.010	<0.010	<0.010	<0.010
Barium	mg/l	--	--	0.59	0.59	0.86	<0.50	0.57	<0.50	0.76	<0.50	0.62	0.58	<0.50	0.61	0.71	0.7
Cadmium	mg/l	--	--	0.0078	0.0068	0.0091	<0.0040	0.0041	<0.0040	0.0059	0.0043	0.0051	0.0043	<0.0040	0.0051	0.0052	0.0052
Chromium	mg/l	--	--	<0.010	<0.010	<0.010	<0.010	<0.010	0.02	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.014	<0.010
Lead	mg/l	2,000	1,000	0.55	0.51	0.57	0.22	0.33	0.35	0.32	0.25	0.31	0.6	0.064	1.1	0.18	0.43

Footnotes:

[a] Estimated value due to the presence of other Aroclor pattern.

HITS ONLY. Only parameters detected in at least one sample are shown.

1. µg/kg = micrograms per kilogram
   mg/kg = milligrams per kilogram
   mg/l = milligrams per liter
   VOCs = Volatile Organic Compounds by EPA Method 8260
   SVOCs = Semi-Volatile Organic Compounds by EPA Method 8270
   PCBs = Polychlorinated Biphenyls by EPA Method 8082
   TPH = Total Petroleum Hydrocarbons by EPA Method 8100M
   DRO = Diesel Range Organics
   RCRA 8 Metals = Resource Conservation and Recovery Act 8 Priority Pollutant Metals by EPA Method 6010C
   TCLP = Toxicity Charachteristic Leaching Procedure
   Deg F. = Degrees Farenheit
   umhos/cm = micromhos/centimeter
   su = Standard Unit
2. See laboratory reports for additional information and reporting limits for detected compounds
3. Only those analytes detected above the laboratory detection limits were included in the table

APPENDIX C
BORING AND TEST PIT LOGS

EBI Consulting
environmental | engineering | due diligence
21 B Street, Burlington, MA 01803

Project Number: 12140021

Excavating Co: J. Masterson

Project Location: Cobble Hill
84 & 90 Washington Street
Somerville Massachusetts

Equipment: Cat 370D

Date: 02/19/2014

EBI Scientist: Daniel Bellucci

TP-01

Scale in Feet	Description
0 to 8	Fill material -Major components include SAND (Fine to coarse), large gravel, large concrete and aspahlt fragments, brown, dry Minor components include potential coal/wood ash, organic material (roots) and topsoil *Note- Excavation of concrete and asphalt difficult based on thickness and size of material
8 to 8.5	Fill and Native material - Fine SAND with some small gravel and marine deposits; intermitten coal, *Note- Water intrustion at 8.5 feet bgs due to void space in filll material (Perched water) **Note- Excavation terminated at 8.5 feet bgs- Dense material, cannot excavate further

bgs- below ground surface

EBI Consulting
environmental | engineering | due diligence
21 B Street, Burlington, MA 01803

Project Number: 12140021

Excavating Co: J. Masterson

Project Location: Cobble Hill
84 & 90 Washington Street
Somerville Massachusetts

Equipment: Cat 370D

Date: 02/19/2014

EBI Scientist: Daniel Bellucci

TP-02

Scale in Feet	Description
0 to 9	Fill material- Major components include SAND (Fine to coarse), large gravel; concrete, topsoil and brick Minor components include potential coal/wood ash, wood/organic matter, metal fragments and plastic conduit, glass *Note- Excavation terminated at 9 feet bgs- Dense material, cannot excavate further (Brick)

bgs- below ground surface

EBI Consulting
environmental | engineering | due diligence
21 B Street, Burlington, MA 01803

Project Number: 12140021

Excavating Co: J. Masterson

Project Location: Cobble Hill
84 & 90 Washington Street
Somerville Massachusetts

Equipment: Cat 370D

Date: 02/19/2014

EBI Scientist: Daniel Bellucci

TP-03

Scale in Feet	Description
0 to 9	Fill material- Major components include SAND (Fine to coarse), large gravel; large concrete Minor components include potential coal/wood ash, asphalt, wood/organic matter, paper, metal wires, sheet plastic, one tire, coal slag, and plastic conduit *Note- Water intrustion at 6 feet bgs due to void space in filll material (Perched water) **Note- Excavation terminated at 9 feet bgs- Large boulder

bgs- below ground surface

EBI Consulting
environmental | engineering | due diligence
21 B Street, Burlington, MA 01803

Project Number: 12140021

Excavating Co: J. Masterson

Project Location: Cobble Hill
84 & 90 Washington Street
Somerville Massachusetts

Equipment: Cat 370D

Date: 02/19/2014

EBI Scientist: Daniel Bellucci

TP-04

Scale in Feet	Description
0 to 7	Fill material- Major components include SAND (Fine to coarse), large gravel; large concrete Minor components include potential coal/wood ash, wood/organic matter, metal wires and coal slag *Note- Excavation terminated at 7 feet bgs- Large concrete pieces

bgs- below ground surface

EBI Consulting
environmental | engineering | due diligence
21 B Street, Burlington, MA 01803

Project Number: 12140021

Excavating Co: J. Masterson

Project Location: Cobble Hill
84 & 90 Washington Street
Somerville Massachusetts

Equipment: Cat 370D

Date: 02/19/2014

EBI Scientist: Daniel Bellucci

TP-05

Scale in Feet	Description
0 to 8	Fill material- Major components include SAND (Medium), gravel, brick and concrete fragments and topsoil Minor components include potential coal/wood ash, metal fragments, glass, organic material (roots) and coal *Note- Excavation terminated at 8 feet bgs- Large concrete pieces and boulders

bgs- below ground surface

EBI Consulting
environmental | engineering | due diligence
21 B Street, Burlington, MA 01803

Project Number: 12140021

Excavating Co: J. Masterson

Project Location: Cobble Hill
84 & 90 Washington Street
Somerville Massachusetts

Equipment: Cat 370D

Date: 02/19/2014

EBI Scientist: Daniel Bellucci

TP-06

Scale in Feet	Description
0 to 7.5	Fill material- Major components include mostly brick with medium SAND, large gravel and concrete fragments Minor components include potential coal/wood ash, organic material (roots), plastic conduit and Belgian Block pavers ***Note- Strong petroleum odor (No. 2 Fuel Oil) first 4 feet of excavation: PID= 22.7 ppm (0-4 feet bgs)** **Note- Excavation terminated at 7.5 feet bgs- Dense material, cannot excavate further

bgs- below ground surface

EBI Consulting
environmental | engineering | due diligence
21 B Street, Burlington, MA 01803

Project Number: 12140021

Excavating Co: J. Masterson

Project Location: Cobble Hill
84 & 90 Washington Street
Somerville Massachusetts

Equipment: Cat 370D

Date: 02/19/2014

EBI Scientist: Daniel Bellucci

TP-07

Scale in Feet	Description
0 to 7	Fill material- Major components include SAND (medium to coarse), large gravel, concrete and brick Minor components include potential coal/wood ash, wood/organic matter, glass, coal fragments and Belgian Block pavers ***Note- Slight petroleum odor (No. 2 Fuel Oil) throughout: PID= 1.0 ppm (6-7 feet bgs)** **Note- Excavation terminated at 7 feet bgs- Dense material, cannot excavate further

bgs- below ground surface

EBI Consulting
environmental | engineering | due diligence
21 B Street, Burlington, MA 01803

Project Number: 12140021

Excavating Co: J. Masterson

Project Location: Cobble Hill
84 & 90 Washington Street
Somerville Massachusetts

Equipment: Cat 370D

Date: 02/19/2014

EBI Scientist: Daniel Bellucci

TP-08

Scale in Feet	Description
0 to 5	Fill material- Major components include SAND (medium to coarse), large gravel, concrete and brick Minor components include topsoil, potential coal/wood ash, glass, coal slag, metal fragments, asphalt and Belgian Block pavers ***Note- Slight petroleum odor (No. 2 Fuel Oil) throughout: PID= 0.7 ppm (0-4 feet bgs)** **Note- Excavation terminated at 5 feet bgs- Dense material, cannot excavate further

bgs- below ground surface

Drilling Company: *Bronson Drilling*
Drilling Foreman: *Dan Bronson*
EBI Geologist/Scientist: *Daniel Bellucci*
Drilling Method: *Direct Push*
Borehole Diameter: *2.25-inch*

Date Started: *02/18/2014*
Date Ended: *02/18/2014*
Project Location: *Somerville, MA*
Project Number: *12140021*
Sheet: *1 of 1*

Log of Borehole: EB-301

EBI Consulting
21 B Street
Burlington, MA

SUBSURFACE PROFILE			SAMPLE					Well Construction
Depth	Description	Strata	No.	Rec.	SPT Blows	Type	FID/PID Readings (ppm) 100 300	
1	Fill material comprised of fine to medium SAND with some SILT; gravel; ash; brownish black; moist Sample collected: 0-4'							
2			S-1	2.5/4	NA	Core	0	
3								
4	Boring terminated at 4 feet bgs							
5								

Drilling Company: *Bronson Drilling*
Drilling Foreman: *Dan Bronson*
EBI Geologist/Scientist: *Daniel Bellucci*
Drilling Method: *Direct Push*
Borehole Diameter: *2.25-inch*

Date Started: *02/18/2014*
Date Ended: *02/18/2014*
Project Location: *Somerville, MA*
Project Number: *12140021*
Sheet: *1 of 1*

Log of Borehole: EB-302

EBI Consulting
21 B Street
Burlington, MA

SUBSURFACE PROFILE			SAMPLE					Well Construction
Depth	Description	Strata	No.	Rec.	SPT Blows	Type	FID/PID Readings (ppm) 100 300	
1	Fill material comprised of fine to medium SAND with some SILT; gravel; ash; brownish black; moist; slight organic odor Sample collected: 0-4'							
2			S-1	3/4	NA	Core	0	
3								
4	Boring terminated at 4 feet bgs							
5								

Drilling Company: *Bronson Drilling*
Drilling Foreman: *Dan Bronson*
EBI Geologist/Scientist: *Daniel Bellucci*
Drilling Method: *Direct Push*
Borehole Diameter: *2.25-inch*

Date Started: *02/18/2014*
Date Ended: *02/18/2014*
Project Location: *Somerville, MA*
Project Number: *12140021*
Sheet: *1 of 1*

Log of Borehole: EB-303

EBI Consulting
21 B Street
Burlington, MA

SUBSURFACE PROFILE			SAMPLE					Well Construction
Depth	Description	Strata	No.	Rec.	SPT Blows	Type	FID/PID Readings (ppm) 100 300	
	Asphalt							
1	Fill material comprised of fine to medium SAND with some gravel, concrete, brick and wood; dark brown; moist							
2	Sample collected: 0-8'		S-1	1.5/4	NA	Core	0	
3								
4	Fill material comprised of fine to medium SAND with some gravel, concrete, brick and wood; dark brown; moist							
5								
6			S-2	1/4	NA	Core	0	
7								
8	CLAY; light brown; moist; petroleum odor						2	
	CLAY; light brown; moist; petroleum odor							
9								
10			S-3	4/4	NA	Core	4	
11								
12	Boring terminated at 12 feet bgs							
13								

Drilling Company: *Bronson Drilling*
Drilling Foreman: *Dan Bronson*
EBI Geologist/Scientist: *Daniel Bellucci*
Drilling Method: *Direct Push*
Borehole Diameter: *2.25-inch*

Date Started: *02/18/2014*
Date Ended: *02/18/2014*
Project Location: *Somerville, MA*
Project Number: *12140021*
Sheet: *1 of 1*

Log of Borehole: EB-304

EBI Consulting
21 B Street
Burlington, MA

SUBSURFACE PROFILE			SAMPLE					
Depth	Description	Strata	No.	Rec.	SPT Blows	Type	FID/PID Readings (ppm) 100 300	Well Construction
	Asphalt							
1	Fill material comprised of fine to medium SAND with some SILT, gravel and ash; dark brown; dry; slight petroleum odor							
2	Sample collected: 0-5'							
			S-1	4/5	NA	Core	7	
3								
4								
5	Fill material comprised of fine to medium SAND with some SILT, gravel and ash; dark brown; dry; slight petroleum odor						1	
6	CLAY with some small gravel; gray; dry							
7			S-2	5/5	NA	Core	0	
8								
9								
10	Boring terminated at 10 feet bgs							
11								

Drilling Company: *Bronson Drilling*
Drilling Foreman: *Dan Bronson*
EBI Geologist/Scientist: *Daniel Bellucci*
Drilling Method: *Direct Push*
Borehole Diameter: *2.25-inch*

Date Started: *02/18/2014*
Date Ended: *02/18/2014*
Project Location: *Somerville, MA*
Project Number: *12140021*
Sheet: *1 of 1*

Log of Borehole: EB-305

EBI Consulting
21 B Street
Burlington, MA

SUBSURFACE PROFILE			SAMPLE					Well Construction
Depth	Description	Strata	No.	Rec.	SPT Blows	Type	FID/PID Readings (ppm) 100 300	
	Asphalt							
	Fill material comprised of fine to medium SAND with some SILT, gravel and concrete; dark brown; dry; slight petroleum odor Sample collected: 0-4'		S-1	2.5/4	NA	Core	0	
4	Boring terminated at 4 feet bgs							

Drilling Company: *Bronson Drilling*
Drilling Foreman: *Dan Bronson*
EBI Geologist/Scientist: *Daniel Bellucci*
Drilling Method: *Direct Push*
Borehole Diameter: *2.25-inch*

Date Started: *02/18/2014*
Date Ended: *02/18/2014*
Project Location: *Somerville, MA*
Project Number: *12140021*
Sheet: *1 of 1*

Log of Borehole: EB-306

EBI Consulting
21 B Street
Burlington, MA

SUBSURFACE PROFILE			SAMPLE					
Depth	Description	Strata	No.	Rec.	SPT Blows	Type	FID/PID Readings (ppm) 100 300	Well Construction
	Asphalt							
1	Fill material comprised of fine to medium SAND with some SILT, gravel,coal and ash; dark brown; moist; slight petroleum odor		S-1	4.5/5	NA	Core	4	
2								
3	No sample collected (Additional boring requested by McPhail)							
4								
5	Fill material comprised of fine to medium SAND with some SILT, gravel and brick; dark brown; moist; strong petroleum odor		S-2	4/5	NA	Core	34	
6								
7								
8								
9								
10	CLAY; gray; wet; petroleum odor; sheen noted on water		S-3	3/4	NA	Core	13	
11								
12								
13								
14	Boring terminated at 14 feet bgs							
15								

Drilling Company: *Bronson Drilling*
Drilling Foreman: *Dan Bronson*
EBI Geologist/Scientist: *Daniel Bellucci*
Drilling Method: *Direct Push*
Borehole Diameter: *2.25-inch*

Date Started: *02/18/2014*
Date Ended: *02/18/2014*
Project Location: *Somerville, MA*
Project Number: *12140021*
Sheet: *1 of 1*

Log of Borehole: EB-307

EBI Consulting
21 B Street
Burlington, MA

SUBSURFACE PROFILE			SAMPLE					Well Construction
Depth	Description	Strata	No.	Rec.	SPT Blows	Type	FID/PID Readings (ppm) 100 300	
	Asphalt							
1	Fill material comprised of fine to medium SAND with some SILT, gravel, and ash; dark brown; dry		S-1	4.5/5	NA	Core	2	
3	Fill material comprised of CLAY with some fine SAND and gravel; dry							
5	Fill material comprised of medium to coarse SAND, gravel and ash; moist; slight petroleum odor		S-2	3.5/5	NA	Core	2	
10	Fill material comprised of medium to coarse SAND, gravel and ash; moist; slight petroleum odor		S-3	4.5/5	NA	Core	90	
12	Fine to medium SAND; gray; wet; petroleum odor; sheen noted on water Sample collected: 11-15'							
15	Boring terminated at 15 feet bgs							
16								

Drilling Company: *Bronson Drilling*
Drilling Foreman: *Dan Bronson*
EBI Geologist/Scientist: *Daniel Bellucci*
Drilling Method: *Direct Push*
Borehole Diameter: *2.25-inch*

Date Started: *02/18/2014*
Date Ended: *02/18/2014*
Project Location: *Somerville, MA*
Project Number: *12140021*
Sheet: *1 of 1*

Log of Borehole: EB-308

EBI Consulting
21 B Street
Burlington, MA

SUBSURFACE PROFILE			SAMPLE					
Depth	Description	Strata	No.	Rec.	SPT Blows	Type	FID/PID Readings (ppm) 100 300	Well Construction
	Asphalt							
1	Fill material comprised of medium to coarse SAND with some gravel and concrete; dark brown; dry							
2	No sample collected (Additional boring requested by McPhail)		S-1	4/5	NA	Core	0	
3								
4								
5	Fill material comprised of medium to coarse SAND with some gravel and concrete; dark brown; dry							
6			S-2	1/3	NA	Core	0	
7								
8	Fill material comprised of medium to coarse SAND with some CLAY, gravel and concrete; dark brown; dry							
9							0	
10			S-3	3/4	NA	Core		
11	Medium SAND; light brown; moist						0	
12	Boring terminated at 12 feet bgs							
13								

Drilling Company: *Bronson Drilling*
Drilling Foreman: *Dan Bronson*
EBI Geologist/Scientist: *Daniel Bellucci*
Drilling Method: *Direct Push*
Borehole Diameter: *2.25-inch*

Date Started: *02/18/2014*
Date Ended: *02/18/2014*
Project Location: *Somerville, MA*
Project Number: *12140021*
Sheet: *1 of 1*

Log of Borehole: EB-309

EBI Consulting
21 B Street
Burlington, MA

SUBSURFACE PROFILE			SAMPLE					Well Construction
Depth	Description	Strata	No.	Rec.	SPT Blows	Type	FID/PID Readings (ppm) 100 300	
	Asphalt							
1	Fill material comprised of medium to coarse SAND with some SILT, gravel, brick and ash; dark brown; moist							
2	Sample collected: 0-4'		S-1	3/5	NA	Core	1	
3								
4								
5	Fill material comprised of medium to coarse SAND with some SILT, gravel, brick and ash; dark brown; moist							
6								
7			S-2	4/5	NA	Core	0	
8								
9	Fine to medium SAND with some SILT; light brown; moist							
10	Boring terminated at 10 feet bgs							
11								

Drilling Company: *Bronson Drilling*
Drilling Foreman: *Dan Bronson*
EBI Geologist/Scientist: *Daniel Bellucci*
Drilling Method: *Direct Push*
Borehole Diameter: *2.25-inch*

Date Started: *02/18/2014*
Date Ended: *02/18/2014*
Project Location: *Somerville, MA*
Project Number: *12140021*
Sheet: *1 of 1*

Log of Borehole: EB-310

EBI Consulting
21 B Street
Burlington, MA

SUBSURFACE PROFILE			SAMPLE					Well Construction
Depth	Description	Strata	No.	Rec.	SPT Blows	Type	FID/PID Readings (ppm) 100 300	
	Asphalt							
	Fill material comprised of medium to coarse SAND with some gravel and ash; light brown; dry						0	
2	Fill material comprised of medium to coarse SAND with some CLAY, gravel and ash; dark brown; dry Sample collected: 0-4'		S-1	3/4	NA	Core		
3							0	
4	Boring terminated at 4 feet bgs							
5								

Drilling Company: *Bronson Drilling*
Drilling Foreman: *Dan Bronson*
EBI Geologist/Scientist: *Daniel Bellucci*
Drilling Method: *Direct Push*
Borehole Diameter: *2.25-inch*

Date Started: *02/18/2014*
Date Ended: *02/18/2014*
Project Location: *Somerville, MA*
Project Number: *12140021*
Sheet: *1 of 1*

Log of Borehole: EB-311

EBI Consulting
21 B Street
Burlington, MA

SUBSURFACE PROFILE			SAMPLE					
Depth	Description	Strata	No.	Rec.	SPT Blows	Type	FID/PID Readings (ppm) 100 300	Well Construction
	Asphalt							
	Fill material comprised of medium to coarse SAND with some gravel; light brown; dry						0	
2	Fill material comprised of medium to coarse SAND with some CLAY and gravel; dark brown; dry Sample collected: 0-4'		S-1	3/4	NA	Core		
3							0	
4	Boring terminated at 4 feet bgs							
5								

Drilling Company: *Bronson Drilling*
Drilling Foreman: *Dan Bronson*
EBI Geologist/Scientist: *Daniel Bellucci*
Drilling Method: *Direct Push*
Borehole Diameter: *2.25-inch*

Date Started: *02/18/2014*
Date Ended: *02/18/2014*
Project Location: *Somerville, MA*
Project Number: *12140021*
Sheet: *1 of 1*

Log of Borehole: EB-312

EBI Consulting
21 B Street
Burlington, MA

SUBSURFACE PROFILE			SAMPLE					Well Construction
Depth	Description	Strata	No.	Rec.	SPT Blows	Type	FID/PID Readings (ppm) 100 300	
	Asphalt							
	Fill material comprised of medium to coarse SAND with some gravel; light brown; dry							
1			S-1	1/3	NA	Core	0	
2	Fill material comprised of medium to coarse SAND with some CLAY, gravel and brick; dark brown; dry Sample collected: 0-3'							
3	Equipment refusal (Brick) encountered at 3 feet bgs							
4								

Drilling Company: *Bronson Drilling*
Drilling Foreman: *Dan Bronson*
EBI Geologist/Scientist: *Daniel Bellucci*
Drilling Method: *Direct Push*
Borehole Diameter: *2.25-inch*

Date Started: *02/18/2014*
Date Ended: *03/25/2014*
Project Location: *Somerville, MA*
Project Number: *12140021*
Sheet: *1 of 1*

Log of Borehole: EB-401

EBI Consulting
21 B Street
Burlington, MA

SUBSURFACE PROFILE			SAMPLE					Well Construction
Depth	Description	Strata	No.	Rec.	SPT Blows	Type	FID/PID Readings (ppm) 100 300	
	Asphalt							
	Fill material comprised of fine to coarse SAND with some CLAY, gravel, concrete and brick; grey; dry							
1								
			S-1	3/3.5	NA	Core	18	
2								
3								
	Equipment refusal (Concrete) encountered at 3.5 feet bgs							
4								

Drilling Company: *Bronson Drilling*
Drilling Foreman: *Dan Bronson*
EBI Geologist/Scientist: *Daniel Bellucci*
Drilling Method: *Direct Push*
Borehole Diameter: *2.25-inch*

Date Started: *02/18/2014*
Date Ended: *03/25/2014*
Project Location: *Somerville, MA*
Project Number: *12140021*
Sheet: *1 of 1*

Log of Borehole: EB-402

EBI Consulting
21 B Street
Burlington, MA

SUBSURFACE PROFILE			SAMPLE					Well Construction
Depth	Description	Strata	No.	Rec.	SPT Blows	Type	FID/PID Readings (ppm) 100 300	
	Asphalt							
	Fill material comprised of mostly gravel with CLAY, fine to coarse SAND and concrete; grey; dry							
1								
			S-1	2/3.5	NA	Core	10	
2								
3								
	Equipment refusal (Concrete) encountered at 3.5 feet bgs							
4								

Drilling Company: *Bronson Drilling*
Drilling Foreman: *Dan Bronson*
EBI Geologist/Scientist: *Daniel Bellucci*
Drilling Method: *Direct Push*
Borehole Diameter: *2.25-inch*

Date Started: *02/18/2014*
Date Ended: *03/25/2014*
Project Location: *Somerville, MA*
Project Number: *12140021*
Sheet: *1 of 1*

Log of Borehole: EB-403

EBI Consulting
21 B Street
Burlington, MA

SUBSURFACE PROFILE			SAMPLE					Well Construction
Depth	Description	Strata	No.	Rec.	SPT Blows	Type	FID/PID Readings (ppm) 100 300	
	Asphalt							
1	Fill material comprised of CLAY with fine to coarse SAND, gravel, asphalt and concrete; grey; dry							
2			S-1	4/4	NA	Core	151	
3	Fill material comprised of CLAY with fine to coarse SAND, gravel, asphalt and concrete; black; dry; petroleum odor							
4	Fill material comprised of fine SAND with some CLAY, gravel and brick; black; dry; petroleum odor							
5								
6	Native fine SAND and CLAY; grey; dry; petroleum odor		S-2	3/4	NA	Core	267	
7								
8	Boring terminated at 8 feet bgs							
9								

Drilling Company: *Bronson Drilling*
Drilling Foreman: *Dan Bronson*
EBI Geologist/Scientist: *Daniel Bellucci*
Drilling Method: *Direct Push*
Borehole Diameter: *2.25-inch*

Date Started: *02/18/2014*
Date Ended: *03/25/2014*
Project Location: *Somerville, MA*
Project Number: *12140021*
Sheet: *1 of 1*

Log of Borehole: EB-404

EBI Consulting
21 B Street
Burlington, MA

SUBSURFACE PROFILE			SAMPLE					Well Construction
Depth	Description	Strata	No.	Rec.	SPT Blows	Type	FID/PID Readings (ppm) 100 300	
	Asphalt							
1	Fill material comprised of fine to coarse SAND with some CLAY, gravel and brick, grey; dry							
2			S-1	3/4	NA	Core	6	
3	Fill material comprised of CLAY with some gravel; grey; moist							
4	Fill material comprised of fine to medium SAND with some CLAY, gravel and brick; grey; moist							
5								
6	CLAY with some medium to coarse SAND and gravel; black; moist; slight petroleum odor		S-2	3/4	NA	Core	30	
7								
8	Boring terminated at 8 feet bgs							
9								

Drilling Company: *Bronson Drilling*
Drilling Foreman: *Dan Bronson*
EBI Geologist/Scientist: *Daniel Bellucci*
Drilling Method: *Direct Push*
Borehole Diameter: *2.25-inch*

Date Started: *02/18/2014*
Date Ended: *03/25/2014*
Project Location: *Somerville, MA*
Project Number: *12140021*
Sheet: *1 of 1*

Log of Borehole: EB-405

EBI Consulting
21 B Street
Burlington, MA

SUBSURFACE PROFILE			SAMPLE					Well Construction
Depth	Description	Strata	No.	Rec.	SPT Blows	Type	FID/PID Readings (ppm) 100 300	
	Asphalt							
1	Fill material comprised of CLAY with some fine to coarse SAND, gravel, brick and concrete; grey; dry							
2			S-1	3/4	NA	Core	5	
3								
4	Fill material comprised of CLAY with some fine to coarse SAND, gravel, brick and concrete; grey; dry; slight petroleum odor							
5			S-2	1/2	NA	Core	23	
6	Equipment refusal encountered at 6 feet bgs							
7								

Drilling Company: *Bronson Drilling*
Drilling Foreman: *Dan Bronson*
EBI Geologist/Scientist: *Daniel Bellucci*
Drilling Method: *Direct Push*
Borehole Diameter: *2.25-inch*

Date Started: *02/18/2014*
Date Ended: *03/25/2014*
Project Location: *Somerville, MA*
Project Number: *12140021*
Sheet: *1 of 1*

Log of Borehole: EB-406

EBI Consulting
21 B Street
Burlington, MA

SUBSURFACE PROFILE			SAMPLE					Well Construction
Depth	Description	Strata	No.	Rec.	SPT Blows	Type	FID/PID Readings (ppm) 100 300	
	Asphalt							
	Fill material comprised of fine to coarse SAND with some CLAY and gravel; grey; moist; slight petroleum odor							
1	Fill material comprised of fine to coarse SAND with some CLAY and gravel; grey; dry; slight petroleum odor							
			S-1	3/3.5	NA	Core	6	
2								
3								
	Equipment refusal (Concrete) encountered at 3.5 feet bgs							
4								

APPENDIX D
LABORATORY ANALYTICAL RESULTS AND CHAIN-OF-CUSTODY DOCUMENTATION

New England ACCUTEST LABORATORIES

02/28/14

Technical Report for

EBI Consulting

Cobble Hill, Washington, Somerville, MA

12120128

Accutest Job Number: MC28371

Sampling Date: 02/19/14

Report to:

EBI Consulting

DBellucci@ebiconsulting.com

ATTN: Daniel Bellucci

Total number of pages in report: **166**

NELAP ACCREDITED TNI LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Reza Tand
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

Test results relate only to samples analyzed.

Sections: 1 2 3 4 5

Table of Contents

-1-

Sample Summary

EBI Consulting

Job No: MC28371

Cobble Hill, Washington, Somerville, MA
Project No: 12120128

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
MC28371-1	02/19/14	09:35	DB	02/20/14	SO	Soil	TP-01(7.5-8.5')
MC28371-1A	02/19/14	09:35	DB	02/20/14	SO	Soil	TP-01(7.5-8.5')
MC28371-2	02/19/14	10:15	DB	02/20/14	SO	Soil	TP-02(2-4')
MC28371-2A	02/19/14	10:15	DB	02/20/14	SO	Soil	TP-02(2-4')
MC28371-3	02/19/14	11:00	DB	02/20/14	SO	Soil	TP-03(0-4')
MC28371-3A	02/19/14	11:00	DB	02/20/14	SO	Soil	TP-03(0-4')
MC28371-4	02/19/14	11:15	DB	02/20/14	SO	Soil	TP-03(7-9')
MC28371-4A	02/19/14	11:15	DB	02/20/14	SO	Soil	TP-03(7-9')
MC28371-5	02/19/14	11:45	DB	02/20/14	SO	Soil	TP-04(0-4')
MC28371-5A	02/19/14	11:45	DB	02/20/14	SO	Soil	TP-04(0-4')
MC28371-6	02/19/14	12:00	DB	02/20/14	SO	Soil	TP-04(6-7')
MC28371-6A	02/19/14	12:00	DB	02/20/14	SO	Soil	TP-04(6-7')
MC28371-7	02/19/14	12:30	DB	02/20/14	SO	Soil	TP-05(0-4')

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Summary
(continued)

EBI Consulting

Job No: MC28371

Cobble Hill, Washington, Somerville, MA
Project No: 12120128

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
MC28371-7A	02/19/14	12:30	DB	02/20/14	SO	Soil	TP-05(0-4')
MC28371-8	02/19/14	12:45	DB	02/20/14	SO	Soil	TP-05(7-8')
MC28371-8A	02/19/14	12:45	DB	02/20/14	SO	Soil	TP-05(7-8')
MC28371-9	02/19/14	13:15	DB	02/20/14	SO	Soil	TP-06(0-4')
MC28371-9A	02/19/14	13:15	DB	02/20/14	SO	Soil	TP-06(0-4')
MC28371-10	02/19/14	13:30	DB	02/20/14	SO	Soil	TP-06(6.5-7.5')
MC28371-10A	02/19/14	13:30	DB	02/20/14	SO	Soil	TP-06(6.5-7.5')
MC28371-11	02/19/14	13:45	DB	02/20/14	SO	Soil	TP-07(0-4')
MC28371-11A	02/19/14	13:45	DB	02/20/14	SO	Soil	TP-07(0-4')
MC28371-12	02/19/14	14:00	DB	02/20/14	SO	Soil	TP-07(6-7')
MC28371-12A	02/19/14	14:00	DB	02/20/14	SO	Soil	TP-07(6-7')
MC28371-13	02/19/14	14:15	DB	02/20/14	SO	Soil	TP-08(0-4')
MC28371-13A	02/19/14	14:15	DB	02/20/14	SO	Soil	TP-08(0-4')

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Summary
(continued)

EBI Consulting

Job No: MC28371

Cobble Hill, Washington, Somerville, MA
Project No: 12120128

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
MC28371-14	02/19/14	14:30	DB	02/20/14	SO	Soil	TP-08(4-5')
MC28371-14A	02/19/14	14:30	DB	02/20/14	SO	Soil	TP-08(4-5')

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: EBI Consulting **Job No** MC28371

Site: Cobble Hill, Washington, Somerville, MA **Report Date** 2/27/2014 3:06:31 PM

14 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were collected on 02/19/2014 and were received at Accutest on 02/20/2014 properly preserved, at 2.5 Deg. C and intact. These Samples received an Accutest job number of MC28371. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix: SO **Batch ID:** MSG5205

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- MC28371-9: Elevated RL due to dilution required for matrix interference.
- Continuing calibration check standard MSG5205-CC5204 for acetone, 2-butanone, 2-hexanone exceed 20% Difference. This check standard met MCP criteria.
- The response factor (RF) for the 2-Butanone and Acetone low points (0.067 and 0.090) and 2-Butanone average point (0.075) in the initial calibration MSG5204-ICC5204 are less than the required RF of 0.1 as noted in Table 4 of SW846 8260C.

Matrix: SO **Batch ID:** MSV1057

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- MSV1057-BS for 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, 2-Hexanone, Chloroethane, Dichlorodifluoromethane are outside control limits. Blank Spike meets program technical requirements.
- MC28371-2: Confirmation run.
- Continuing calibration check standard MSV1057-CC1053 for acetone, 2-butanone, 2-hexanone, bromoform, trans-1,4-dichloro-2-butene, 1,2,3-trichloropropane, 1,2-dibromo-3-chloropropane exceed 20% Difference. This check standard met MCP criteria.
- The response factor (RF) for the 2-Butanone and Acetone low points (0.042 and 0.037) and average points (0.057 and 0.061) in the initial calibration MSV1053-ICC1053 are less than the required RF of 0.1 as noted in Table 4 of SW846 8260C.
- Quadratic regression is employed for initial calibration standard MSV1053-ICC1053 for acetone.
- MC28371-1, -5, -7 have internal standard recovery(s) outside control limits. Target analytes not associated with this internal standard.
- MC28371-2 has internal standard recovery(s) outside control limits due to possible matrix interference. Confirmed by reanalysis.
- MSV1057-BSD for Acetone, Dichlorodifluoromethane are outside control limits. Blank Spike meets program technical requirements.

Extractables by GCMS By Method SW846 8270D

Matrix: SO **Batch ID:** OP36911

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Continuing calibration check standard MSW783-CC768 for 2,4-Dimethylphenol, Hexachlorobutadiene, Hexachlorobenzene exceed 20% Difference. This check standard met MCP criteria.

Extractables by GC By Method SW846 8082

Matrix: SO **Batch ID:** OP36913

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- MC28371-5 for Aroclor 1260: Estimated value due to the presence of other Aroclor pattern.
- MC28371-2 for Aroclor 1260: Estimated value due to the presence of other Aroclor pattern.
- MC28371-7 for Aroclor 1260: Estimated value due to the presence of other Aroclor pattern.
- MC28371-11 for Aroclor 1248: Estimated value due to the presence of other Aroclor pattern.
- MC28371-14 for Aroclor 1254: Estimated value due to the presence of other Aroclor pattern.
- MC28371-12 for Aroclor 1260: Estimated value due to the presence of other Aroclor pattern.
- MC28371-6 for Aroclor 1260: Estimated value due to the presence of other Aroclor pattern.
- MC28371-12 for Aroclor 1254: Estimated value due to the presence of other Aroclor pattern.

Extractables by GC By Method SW846-8015

Matrix: SO **Batch ID:** OP36912

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- All samples in this batch were processed using TPH8100 method requirement.

Metals By Method SW846 6010C

Matrix: LEACHATE **Batch ID:** MP22558

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC28371-1ASDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Arsenic, Chromium, Selenium are outside control limits for sample MP22558-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- Only selected metals requested.

Matrix: SO **Batch ID:** MP22532

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC28371-1PS, MC28371-1SDL were used as the QC samples for metals.
- MP22532-SD1 for Arsenic: Serial dilution indicates possible matrix interference.
- Only selected metals requested.

Metals By Method SW846 7470A

Matrix: LEACHATE **Batch ID:** MP22552

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Metals By Method SW846 7471B

Matrix: SO	Batch ID: MP22553

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Matrix: SO	Batch ID: MP22554

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Wet Chemistry By Method EPA 120.1M

Matrix: SO	Batch ID: GN45995

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Wet Chemistry By Method SW846 CHAP7

Matrix: SO	Batch ID: GP17257

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Matrix: SO	Batch ID: GP17258

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC28371).

Summary of Hits

Job Number: MC28371
Account: EBI Consulting
Project: Cobble Hill, Washington, Somerville, MA
Collected: 02/19/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC28371-1	**TP-01(7.5-8.5')**					
Acetone		26.0	7.8		ug/kg	SW846 8260C
Acenaphthylene		678	550		ug/kg	SW846 8270D
Anthracene		821	550		ug/kg	SW846 8270D
Benzo(a)anthracene		3110	550		ug/kg	SW846 8270D
Benzo(a)pyrene		2880	550		ug/kg	SW846 8270D
Benzo(b)fluoranthene		2450	550		ug/kg	SW846 8270D
Benzo(g,h,i)perylene		1880	550		ug/kg	SW846 8270D
Benzo(k)fluoranthene		2410	550		ug/kg	SW846 8270D
Chrysene		3120	550		ug/kg	SW846 8270D
Fluoranthene		5450	550		ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		1590	550		ug/kg	SW846 8270D
Phenanthrene		2790	550		ug/kg	SW846 8270D
Pyrene		5610	550		ug/kg	SW846 8270D
Aroclor 1260		70.9	35		ug/kg	SW846 8082
TPH-DRO (Semi-VOA) [a]		1300	88		mg/kg	SW846-8015
Arsenic		6.6	0.90		mg/kg	SW846 6010C
Barium		57.4	4.5		mg/kg	SW846 6010C
Cadmium		0.50	0.36		mg/kg	SW846 6010C
Chromium		22.5	0.90		mg/kg	SW846 6010C
Lead		280	0.90		mg/kg	SW846 6010C
Mercury		0.21	0.036		mg/kg	SW846 7471B
Ignitability (Flashpoint)		> 230			Deg. F	SW846 1020
Specific Conductivity		172	0.50		umhos/cm	EPA 120.1M
pH		7.9			su	SW846 9045D
MC28371-1A	**TP-01(7.5-8.5')**					
Barium		0.59	0.50		mg/l	SW846 6010C
Cadmium		0.0078	0.0040		mg/l	SW846 6010C
Lead		0.55	0.010		mg/l	SW846 6010C
MC28371-2	**TP-02(2-4')**					
Acetone		27.9	7.8		ug/kg	SW846 8260C
Benzene		0.72	0.39		ug/kg	SW846 8260C
Acenaphthene		1050	540		ug/kg	SW846 8270D
Acenaphthylene		1280	540		ug/kg	SW846 8270D
Anthracene		4050	540		ug/kg	SW846 8270D
Benzo(a)anthracene		11600	540		ug/kg	SW846 8270D
Benzo(a)pyrene		10800	540		ug/kg	SW846 8270D
Benzo(b)fluoranthene		9750	540		ug/kg	SW846 8270D
Benzo(g,h,i)perylene		6190	540		ug/kg	SW846 8270D
Benzo(k)fluoranthene		7410	540		ug/kg	SW846 8270D

Summary of Hits

Job Number: MC28371
Account: EBI Consulting
Project: Cobble Hill, Washington, Somerville, MA
Collected: 02/19/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Chrysene		10500	540		ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		2120	540		ug/kg	SW846 8270D
Dibenzofuran		891	540		ug/kg	SW846 8270D
Fluoranthene		22800	540		ug/kg	SW846 8270D
Fluorene		1650	540		ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		5640	540		ug/kg	SW846 8270D
Naphthalene		738	540		ug/kg	SW846 8270D
Phenanthrene		13500	540		ug/kg	SW846 8270D
Pyrene		21300	540		ug/kg	SW846 8270D
Aroclor 1254		219	36		ug/kg	SW846 8082
Aroclor 1260 [b]		81.2	36		ug/kg	SW846 8082
TPH-DRO (Semi-VOA) [a]		1680	91		mg/kg	SW846-8015
Arsenic		7.7	0.89		mg/kg	SW846 6010C
Barium		65.2	4.5		mg/kg	SW846 6010C
Cadmium		0.52	0.36		mg/kg	SW846 6010C
Chromium		18.7	0.89		mg/kg	SW846 6010C
Lead		249	0.89		mg/kg	SW846 6010C
Mercury		0.26	0.035		mg/kg	SW846 7471B
Ignitability (Flashpoint)		> 230			Deg. F	SW846 1020
Specific Conductivity		281	0.50		umhos/cm	EPA 120.1M
pH		7.5			su	SW846 9045D
MC28371-2A	**TP-02(2-4')**					
Barium		0.59	0.50		mg/l	SW846 6010C
Cadmium		0.0068	0.0040		mg/l	SW846 6010C
Lead		0.51	0.010		mg/l	SW846 6010C
MC28371-3	**TP-03(0-4')**					
Acetone		24.7	8.7		ug/kg	SW846 8260C
Benzene		0.54	0.44		ug/kg	SW846 8260C
Acenaphthene		2250	580		ug/kg	SW846 8270D
Acenaphthylene		2010	580		ug/kg	SW846 8270D
Anthracene		8110	580		ug/kg	SW846 8270D
Benzo(a)anthracene		21000	580		ug/kg	SW846 8270D
Benzo(a)pyrene		17200	580		ug/kg	SW846 8270D
Benzo(b)fluoranthene		14500	580		ug/kg	SW846 8270D
Benzo(g,h,i)perylene		9200	580		ug/kg	SW846 8270D
Benzo(k)fluoranthene		15700	580		ug/kg	SW846 8270D
Chrysene		18800	580		ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		3500	580		ug/kg	SW846 8270D
Dibenzofuran		1870	580		ug/kg	SW846 8270D
Fluoranthene		43000	580		ug/kg	SW846 8270D
Fluorene		2670	580		ug/kg	SW846 8270D

Summary of Hits

Job Number: MC28371
Account: EBI Consulting
Project: Cobble Hill, Washington, Somerville, MA
Collected: 02/19/14

Lab Sample ID / Client Sample ID / Analyte	Result/ Qual	RL	MDL	Units	Method
Indeno(1,2,3-cd)pyrene	9330	580		ug/kg	SW846 8270D
2-Methylnaphthalene	626	580		ug/kg	SW846 8270D
Naphthalene	1450	580		ug/kg	SW846 8270D
Phenanthrene	33300	580		ug/kg	SW846 8270D
Pyrene	36600	580		ug/kg	SW846 8270D
TPH-DRO (Semi-VOA) [a]	2660	97		mg/kg	SW846-8015
Arsenic	9.8	0.94		mg/kg	SW846 6010C
Barium	126	4.7		mg/kg	SW846 6010C
Cadmium	0.59	0.38		mg/kg	SW846 6010C
Chromium	20.4	0.94		mg/kg	SW846 6010C
Lead	520	0.94		mg/kg	SW846 6010C
Mercury	0.66	0.035		mg/kg	SW846 7471B
Silver	2.0	0.47		mg/kg	SW846 6010C
Ignitability (Flashpoint)	> 230			Deg. F	SW846 1020
Specific Conductivity	162	0.50		umhos/cm	EPA 120.1M
pH	7.9			su	SW846 9045D
MC28371-3A TP-03(0-4')					
Barium	0.86	0.50		mg/l	SW846 6010C
Cadmium	0.0091	0.0040		mg/l	SW846 6010C
Lead	0.57	0.010		mg/l	SW846 6010C
MC28371-4 TP-03(7-9')					
Naphthalene	5910	190		ug/kg	SW846 8260C
Acenaphthene	3240	550		ug/kg	SW846 8270D
Acenaphthylene	2240	550		ug/kg	SW846 8270D
Anthracene	7630	550		ug/kg	SW846 8270D
Benzo(a)anthracene	13700	550		ug/kg	SW846 8270D
Benzo(a)pyrene	11700	550		ug/kg	SW846 8270D
Benzo(b)fluoranthene	9750	550		ug/kg	SW846 8270D
Benzo(g,h,i)perylene	5900	550		ug/kg	SW846 8270D
Benzo(k)fluoranthene	8660	550		ug/kg	SW846 8270D
Chrysene	12500	550		ug/kg	SW846 8270D
Dibenzo(a,h)anthracene	2290	550		ug/kg	SW846 8270D
Dibenzofuran	3370	550		ug/kg	SW846 8270D
Fluoranthene	25900	550		ug/kg	SW846 8270D
Fluorene	4930	550		ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	5650	550		ug/kg	SW846 8270D
2-Methylnaphthalene	1960	550		ug/kg	SW846 8270D
Naphthalene	3790	550		ug/kg	SW846 8270D
Phenanthrene	23400	550		ug/kg	SW846 8270D
Pyrene	23600	550		ug/kg	SW846 8270D
TPH-DRO (Semi-VOA) [a]	2120	92		mg/kg	SW846-8015

Summary of Hits

Job Number: MC28371
Account: EBI Consulting
Project: Cobble Hill, Washington, Somerville, MA
Collected: 02/19/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Arsenic		6.8	0.89		mg/kg	SW846 6010C
Barium		49.6	4.4		mg/kg	SW846 6010C
Chromium		18.9	0.89		mg/kg	SW846 6010C
Lead		101	0.89		mg/kg	SW846 6010C
Mercury		0.093	0.034		mg/kg	SW846 7471B
Ignitability (Flashpoint)		> 230			Deg. F	SW846 1020
Specific Conductivity		172	0.50		umhos/cm	EPA 120.1M
pH		7.9			su	SW846 9045D
MC28371-4A	**TP-03(7-9')**					
Lead		0.22	0.010		mg/l	SW846 6010C
MC28371-5	**TP-04(0-4')**					
Acenaphthylene		1630	550		ug/kg	SW846 8270D
Anthracene		1730	550		ug/kg	SW846 8270D
Benzo(a)anthracene		6450	550		ug/kg	SW846 8270D
Benzo(a)pyrene		6410	550		ug/kg	SW846 8270D
Benzo(b)fluoranthene		5300	550		ug/kg	SW846 8270D
Benzo(g,h,i)perylene		3900	550		ug/kg	SW846 8270D
Benzo(k)fluoranthene		5150	550		ug/kg	SW846 8270D
Chrysene		5920	550		ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		1230	550		ug/kg	SW846 8270D
Fluoranthene		10300	550		ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		3690	550		ug/kg	SW846 8270D
Phenanthrene		4600	550		ug/kg	SW846 8270D
Pyrene		10200	550		ug/kg	SW846 8270D
Aroclor 1254		53.7	36		ug/kg	SW846 8082
Aroclor 1260 [b]		37.4	36		ug/kg	SW846 8082
TPH-DRO (Semi-VOA) [a]		1180	88		mg/kg	SW846-8015
Arsenic		6.5	0.90		mg/kg	SW846 6010C
Barium		45.7	4.5		mg/kg	SW846 6010C
Chromium		19.0	0.90		mg/kg	SW846 6010C
Lead		177	0.90		mg/kg	SW846 6010C
Mercury		0.22	0.035		mg/kg	SW846 7471B
Ignitability (Flashpoint)		> 230			Deg. F	SW846 1020
Specific Conductivity		130	0.50		umhos/cm	EPA 120.1M
pH		7.8			su	SW846 9045D
MC28371-5A	**TP-04(0-4')**					
Barium		0.57	0.50		mg/l	SW846 6010C
Cadmium		0.0041	0.0040		mg/l	SW846 6010C
Lead		0.33	0.010		mg/l	SW846 6010C

Summary of Hits

Job Number: MC28371
Account: EBI Consulting
Project: Cobble Hill, Washington, Somerville, MA
Collected: 02/19/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC28371-6	**TP-04(6-7')**					
Acetone		30.0	7.7		ug/kg	SW846 8260C
Benzene		1.0	0.39		ug/kg	SW846 8260C
Acenaphthylene		1350	560		ug/kg	SW846 8270D
Anthracene		1360	560		ug/kg	SW846 8270D
Benzo(a)anthracene		4740	560		ug/kg	SW846 8270D
Benzo(a)pyrene		5140	560		ug/kg	SW846 8270D
Benzo(b)fluoranthene		3960	560		ug/kg	SW846 8270D
Benzo(g,h,i)perylene		3050	560		ug/kg	SW846 8270D
Benzo(k)fluoranthene		4210	560		ug/kg	SW846 8270D
Chrysene		4610	560		ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		1050	560		ug/kg	SW846 8270D
Fluoranthene		8000	560		ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		2840	560		ug/kg	SW846 8270D
Phenanthrene		3680	560		ug/kg	SW846 8270D
Pyrene		7790	560		ug/kg	SW846 8270D
Aroclor 1254		52.8	37		ug/kg	SW846 8082
Aroclor 1260 [b]		40.0	37		ug/kg	SW846 8082
TPH-DRO (Semi-VOA) [a]		1260	92		mg/kg	SW846-8015
Arsenic		7.7	0.93		mg/kg	SW846 6010C
Barium		54.0	4.7		mg/kg	SW846 6010C
Chromium		20.5	0.93		mg/kg	SW846 6010C
Lead		214	0.93		mg/kg	SW846 6010C
Mercury		0.17	0.034		mg/kg	SW846 7471B
Ignitability (Flashpoint)		> 230			Deg. F	SW846 1020
Specific Conductivity		165	0.50		umhos/cm	EPA 120.1M
pH		7.8			su	SW846 9045D
MC28371-6A	**TP-04(6-7')**					
Chromium		0.020	0.010		mg/l	SW846 6010C
Lead		0.35	0.010		mg/l	SW846 6010C
MC28371-7	**TP-05(0-4')**					
Acetone		31.2	8.8		ug/kg	SW846 8260C
Benzene		1.9	0.44		ug/kg	SW846 8260C
Acenaphthene		1030	560		ug/kg	SW846 8270D
Acenaphthylene		973	560		ug/kg	SW846 8270D
Anthracene		3480	560		ug/kg	SW846 8270D
Benzo(a)anthracene		8780	560		ug/kg	SW846 8270D
Benzo(a)pyrene		8030	560		ug/kg	SW846 8270D
Benzo(b)fluoranthene		7180	560		ug/kg	SW846 8270D

Summary of Hits

Job Number: MC28371
Account: EBI Consulting
Project: Cobble Hill, Washington, Somerville, MA
Collected: 02/19/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Benzo(g,h,i)perylene		4410	560		ug/kg	SW846 8270D
Benzo(k)fluoranthene		5930	560		ug/kg	SW846 8270D
Chrysene		8170	560		ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		1550	560		ug/kg	SW846 8270D
Dibenzofuran		583	560		ug/kg	SW846 8270D
Fluoranthene		16600	560		ug/kg	SW846 8270D
Fluorene		1210	560		ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		4040	560		ug/kg	SW846 8270D
Phenanthrene		11500	560		ug/kg	SW846 8270D
Pyrene		15600	560		ug/kg	SW846 8270D
Aroclor 1254		154	38		ug/kg	SW846 8082
Aroclor 1260 [b]		58.5	38		ug/kg	SW846 8082
TPH-DRO (Semi-VOA) [a]		1320	91		mg/kg	SW846-8015
Arsenic		8.2	0.87		mg/kg	SW846 6010C
Barium		101	4.4		mg/kg	SW846 6010C
Cadmium		0.53	0.35		mg/kg	SW846 6010C
Chromium		19.6	0.87		mg/kg	SW846 6010C
Lead		280	0.87		mg/kg	SW846 6010C
Mercury		0.57	0.035		mg/kg	SW846 7471B
Ignitability (Flashpoint)		> 230			Deg. F	SW846 1020
Specific Conductivity		185	0.50		umhos/cm	EPA 120.1M
pH		7.7			su	SW846 9045D
MC28371-7A	**TP-05(0-4')**					
Barium		0.76	0.50		mg/l	SW846 6010C
Cadmium		0.0059	0.0040		mg/l	SW846 6010C
Lead		0.32	0.010		mg/l	SW846 6010C
MC28371-8	**TP-05(7-8')**					
Naphthalene		2980	410		ug/kg	SW846 8260C
Acenaphthene		1330	550		ug/kg	SW846 8270D
Acenaphthylene		2300	550		ug/kg	SW846 8270D
Anthracene		6190	550		ug/kg	SW846 8270D
Benzo(a)anthracene		12300	550		ug/kg	SW846 8270D
Benzo(a)pyrene		10200	550		ug/kg	SW846 8270D
Benzo(b)fluoranthene		8170	550		ug/kg	SW846 8270D
Benzo(g,h,i)perylene		4820	550		ug/kg	SW846 8270D
Benzo(k)fluoranthene		8310	550		ug/kg	SW846 8270D
Chrysene		11500	550		ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		1800	550		ug/kg	SW846 8270D
Dibenzofuran		1410	550		ug/kg	SW846 8270D
Fluoranthene		25200	550		ug/kg	SW846 8270D
Fluorene		2710	550		ug/kg	SW846 8270D

Summary of Hits

Job Number: MC28371
Account: EBI Consulting
Project: Cobble Hill, Washington, Somerville, MA
Collected: 02/19/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Indeno(1,2,3-cd)pyrene		4600	550		ug/kg	SW846 8270D
Naphthalene		578	550		ug/kg	SW846 8270D
Phenanthrene		21000	550		ug/kg	SW846 8270D
Pyrene		22700	550		ug/kg	SW846 8270D
Aroclor 1254		53.3	38		ug/kg	SW846 8082
TPH-DRO (Semi-VOA) [a]		1340	92		mg/kg	SW846-8015
Arsenic		5.9	0.93		mg/kg	SW846 6010C
Barium		46.6	4.7		mg/kg	SW846 6010C
Chromium		15.7	0.93		mg/kg	SW846 6010C
Lead		102	0.93		mg/kg	SW846 6010C
Mercury		0.086	0.036		mg/kg	SW846 7471B
Ignitability (Flashpoint)		> 230			Deg. F	SW846 1020
Specific Conductivity		315	0.50		umhos/cm	EPA 120.1M
pH		7.6			su	SW846 9045D
MC28371-8A	**TP-05(7-8')**					
Cadmium		0.0043	0.0040		mg/l	SW846 6010C
Lead		0.25	0.010		mg/l	SW846 6010C
MC28371-9	**TP-06(0-4')**					
Anthracene		1320	550		ug/kg	SW846 8270D
Benzo(a)anthracene		3300	550		ug/kg	SW846 8270D
Benzo(a)pyrene		3630	550		ug/kg	SW846 8270D
Benzo(b)fluoranthene		2710	550		ug/kg	SW846 8270D
Benzo(g,h,i)perylene		2330	550		ug/kg	SW846 8270D
Benzo(k)fluoranthene		3000	550		ug/kg	SW846 8270D
Chrysene		3300	550		ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		757	550		ug/kg	SW846 8270D
Fluoranthene		6260	550		ug/kg	SW846 8270D
Fluorene		812	550		ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		2150	550		ug/kg	SW846 8270D
2-Methylnaphthalene		1380	550		ug/kg	SW846 8270D
Naphthalene		596	550		ug/kg	SW846 8270D
Phenanthrene		4170	550		ug/kg	SW846 8270D
Pyrene		5720	550		ug/kg	SW846 8270D
Aroclor 1254		149	37		ug/kg	SW846 8082
TPH-DRO (Semi-VOA) [a]		2630	89		mg/kg	SW846-8015
Arsenic		6.2	0.89		mg/kg	SW846 6010C
Barium		64.6	4.5		mg/kg	SW846 6010C
Cadmium		0.40	0.36		mg/kg	SW846 6010C
Chromium		17.5	0.89		mg/kg	SW846 6010C
Lead		179	0.89		mg/kg	SW846 6010C
Mercury		0.30	0.034		mg/kg	SW846 7471B

Summary of Hits

Job Number: MC28371
Account: EBI Consulting
Project: Cobble Hill, Washington, Somerville, MA
Collected: 02/19/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Ignitability (Flashpoint)		> 230			Deg. F	SW846 1020
Specific Conductivity		265	0.50		umhos/cm	EPA 120.1M
pH		7.7			su	SW846 9045D
MC28371-9A	**TP-06(0-4')**					
Arsenic		0.011	0.010		mg/l	SW846 6010C
Barium		0.62	0.50		mg/l	SW846 6010C
Cadmium		0.0051	0.0040		mg/l	SW846 6010C
Lead		0.31	0.010		mg/l	SW846 6010C
MC28371-10	**TP-06(6.5-7.5')**					
Naphthalene		1540	280		ug/kg	SW846 8260C
m,p-Xylene		131	110		ug/kg	SW846 8260C
Xylene (total)		204	110		ug/kg	SW846 8260C
Acenaphthene		1360	560		ug/kg	SW846 8270D
Acenaphthylene		995	560		ug/kg	SW846 8270D
Anthracene		2430	560		ug/kg	SW846 8270D
Benzo(a)anthracene		4910	560		ug/kg	SW846 8270D
Benzo(a)pyrene		4820	560		ug/kg	SW846 8270D
Benzo(b)fluoranthene		4330	560		ug/kg	SW846 8270D
Benzo(g,h,i)perylene		2660	560		ug/kg	SW846 8270D
Benzo(k)fluoranthene		3520	560		ug/kg	SW846 8270D
Chrysene		4730	560		ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		862	560		ug/kg	SW846 8270D
Dibenzofuran		827	560		ug/kg	SW846 8270D
Fluoranthene		10200	560		ug/kg	SW846 8270D
Fluorene		1540	560		ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		2370	560		ug/kg	SW846 8270D
2-Methylnaphthalene		2830	560		ug/kg	SW846 8270D
Naphthalene		2410	560		ug/kg	SW846 8270D
Phenanthrene		7970	560		ug/kg	SW846 8270D
Pyrene		9610	560		ug/kg	SW846 8270D
Aroclor 1254		115	37		ug/kg	SW846 8082
TPH-DRO (Semi-VOA) [a]		3060	93		mg/kg	SW846-8015
Arsenic		7.0	0.90		mg/kg	SW846 6010C
Barium		56.6	4.5		mg/kg	SW846 6010C
Chromium		18.0	0.90		mg/kg	SW846 6010C
Lead		189	0.90		mg/kg	SW846 6010C
Mercury		0.33	0.035		mg/kg	SW846 7471B
Ignitability (Flashpoint)		> 230			Deg. F	SW846 1020
Specific Conductivity		285	0.50		umhos/cm	EPA 120.1M
pH		7.6			su	SW846 9045D

Summary of Hits

Job Number: MC28371
Account: EBI Consulting
Project: Cobble Hill, Washington, Somerville, MA
Collected: 02/19/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC28371-10A	**TP-06(6.5-7.5')**					
Arsenic		0.017	0.010		mg/l	SW846 6010C
Barium		0.58	0.50		mg/l	SW846 6010C
Cadmium		0.0043	0.0040		mg/l	SW846 6010C
Lead		0.60	0.010		mg/l	SW846 6010C
MC28371-11	**TP-07(0-4')**					
Acetone		28.9	8.8		ug/kg	SW846 8260C
Benzene		0.45	0.44		ug/kg	SW846 8260C
Acenaphthylene		703	570		ug/kg	SW846 8270D
Anthracene		1070	570		ug/kg	SW846 8270D
Benzo(a)anthracene		5120	570		ug/kg	SW846 8270D
Benzo(a)pyrene		5350	570		ug/kg	SW846 8270D
Benzo(b)fluoranthene		4510	570		ug/kg	SW846 8270D
Benzo(g,h,i)perylene		2860	570		ug/kg	SW846 8270D
Benzo(k)fluoranthene		3120	570		ug/kg	SW846 8270D
Chrysene		5280	570		ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		946	570		ug/kg	SW846 8270D
Fluoranthene		6530	570		ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		2550	570		ug/kg	SW846 8270D
Phenanthrene		2880	570		ug/kg	SW846 8270D
Pyrene		8570	570		ug/kg	SW846 8270D
Aroclor 1248 [b]		53.4	38		ug/kg	SW846 8082
Aroclor 1254		64.3	38		ug/kg	SW846 8082
TPH-DRO (Semi-VOA) [a]		844	93		mg/kg	SW846-8015
Arsenic		9.0	0.90		mg/kg	SW846 6010C
Barium		60.0	4.5		mg/kg	SW846 6010C
Chromium		31.2	0.90		mg/kg	SW846 6010C
Lead		132	0.90		mg/kg	SW846 6010C
Mercury		0.16	0.035		mg/kg	SW846 7471B
Ignitability (Flashpoint)		> 230			Deg. F	SW846 1020
Specific Conductivity		164	0.50		umhos/cm	EPA 120.1M
pH		7.6			su	SW846 9045D
MC28371-11A	**TP-07(0-4')**					
Lead		0.064	0.010		mg/l	SW846 6010C
MC28371-12	**TP-07(6-7')**					
Naphthalene		3500	180		ug/kg	SW846 8260C
Acenaphthene		2090	550		ug/kg	SW846 8270D
Acenaphthylene		1250	550		ug/kg	SW846 8270D

Summary of Hits

Job Number: MC28371
Account: EBI Consulting
Project: Cobble Hill, Washington, Somerville, MA
Collected: 02/19/14

Lab Sample ID / Client Sample ID / Analyte	Result/ Qual	RL	MDL	Units	Method
Anthracene	4980	550		ug/kg	SW846 8270D
Benzo(a)anthracene	10200	550		ug/kg	SW846 8270D
Benzo(a)pyrene	8840	550		ug/kg	SW846 8270D
Benzo(b)fluoranthene	7140	550		ug/kg	SW846 8270D
Benzo(g,h,i)perylene	4380	550		ug/kg	SW846 8270D
Benzo(k)fluoranthene	7250	550		ug/kg	SW846 8270D
Chrysene	9160	550		ug/kg	SW846 8270D
Dibenzo(a,h)anthracene	1560	550		ug/kg	SW846 8270D
Dibenzofuran	1700	550		ug/kg	SW846 8270D
Fluoranthene	21400	550		ug/kg	SW846 8270D
Fluorene	2640	550		ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	4040	550		ug/kg	SW846 8270D
2-Methylnaphthalene	659	550		ug/kg	SW846 8270D
Naphthalene	1100	550		ug/kg	SW846 8270D
Phenanthrene	14500	550		ug/kg	SW846 8270D
Pyrene	19000	550		ug/kg	SW846 8270D
Aroclor 1248	426	36		ug/kg	SW846 8082
Aroclor 1254 [b]	118	36		ug/kg	SW846 8082
Aroclor 1260 [b]	80.7	36		ug/kg	SW846 8082
TPH-DRO (Semi-VOA) [a]	1590	88		mg/kg	SW846-8015
Arsenic	7.4	0.92		mg/kg	SW846 6010C
Barium	103	4.6		mg/kg	SW846 6010C
Cadmium	0.39	0.37		mg/kg	SW846 6010C
Chromium	21.2	0.92		mg/kg	SW846 6010C
Lead	165	0.92		mg/kg	SW846 6010C
Mercury	0.28	0.034		mg/kg	SW846 7471B
Ignitability (Flashpoint)	> 230			Deg. F	SW846 1020
Specific Conductivity	292	0.50		umhos/cm	EPA 120.1M
pH	7.8			su	SW846 9045D
MC28371-12A TP-07(6-7')					
Barium	0.61	0.50		mg/l	SW846 6010C
Cadmium	0.0051	0.0040		mg/l	SW846 6010C
Lead	1.1	0.010		mg/l	SW846 6010C
MC28371-13 TP-08(0-4')					
Acetone	38.2	10		ug/kg	SW846 8260C
Benzene	5.6	0.51		ug/kg	SW846 8260C
Acenaphthene	1270	560		ug/kg	SW846 8270D
Acenaphthylene	1220	560		ug/kg	SW846 8270D
Anthracene	4620	560		ug/kg	SW846 8270D
Benzo(a)anthracene	11100	560		ug/kg	SW846 8270D
Benzo(a)pyrene	9800	560		ug/kg	SW846 8270D

Summary of Hits

Job Number: MC28371
Account: EBI Consulting
Project: Cobble Hill, Washington, Somerville, MA
Collected: 02/19/14

Lab Sample ID / Client Sample ID / Analyte	Result/ Qual	RL	MDL	Units	Method
Benzo(b)fluoranthene	7310	560		ug/kg	SW846 8270D
Benzo(g,h,i)perylene	5020	560		ug/kg	SW846 8270D
Benzo(k)fluoranthene	7920	560		ug/kg	SW846 8270D
Chrysene	10100	560		ug/kg	SW846 8270D
Dibenzo(a,h)anthracene	1720	560		ug/kg	SW846 8270D
Dibenzofuran	905	560		ug/kg	SW846 8270D
Fluoranthene	19600	560		ug/kg	SW846 8270D
Fluorene	1570	560		ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	4420	560		ug/kg	SW846 8270D
2-Methylnaphthalene	820	560		ug/kg	SW846 8270D
Naphthalene	1250	560		ug/kg	SW846 8270D
Phenanthrene	14700	560		ug/kg	SW846 8270D
Pyrene	20700	560		ug/kg	SW846 8270D
Aroclor 1254	100	37		ug/kg	SW846 8082
TPH-DRO (Semi-VOA) [a]	1270	89		mg/kg	SW846-8015
Arsenic	8.4	0.87		mg/kg	SW846 6010C
Barium	85.0	4.4		mg/kg	SW846 6010C
Cadmium	0.47	0.35		mg/kg	SW846 6010C
Chromium	23.1	0.87		mg/kg	SW846 6010C
Lead	217	0.87		mg/kg	SW846 6010C
Mercury	0.60	0.034		mg/kg	SW846 7471B
Ignitability (Flashpoint)	> 230			Deg. F	SW846 1020
Specific Conductivity	175	0.50		umhos/cm	EPA 120.1M
pH	7.8			su	SW846 9045D
MC28371-13A TP-08(0-4')					
Barium	0.71	0.50		mg/l	SW846 6010C
Cadmium	0.0052	0.0040		mg/l	SW846 6010C
Chromium	0.014	0.010		mg/l	SW846 6010C
Lead	0.18	0.010		mg/l	SW846 6010C
MC28371-14 TP-08(4-5')					
Benzene	30.8	23		ug/kg	SW846 8260C
Naphthalene	1080	230		ug/kg	SW846 8260C
Xylene (total)	100	93		ug/kg	SW846 8260C
Acenaphthylene	826	560		ug/kg	SW846 8270D
Anthracene	1580	560		ug/kg	SW846 8270D
Benzo(a)anthracene	3860	560		ug/kg	SW846 8270D
Benzo(a)pyrene	3970	560		ug/kg	SW846 8270D
Benzo(b)fluoranthene	3490	560		ug/kg	SW846 8270D
Benzo(g,h,i)perylene	2290	560		ug/kg	SW846 8270D
Benzo(k)fluoranthene	2720	560		ug/kg	SW846 8270D
Chrysene	3710	560		ug/kg	SW846 8270D

Summary of Hits

Job Number: MC28371
Account: EBI Consulting
Project: Cobble Hill, Washington, Somerville, MA
Collected: 02/19/14

Lab Sample ID Client Sample ID Analyte	Result/ Qual	RL	MDL	Units	Method
Dibenzo(a,h)anthracene	643	560		ug/kg	SW846 8270D
Fluoranthene	7650	560		ug/kg	SW846 8270D
Fluorene	676	560		ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	1950	560		ug/kg	SW846 8270D
2-Methylnaphthalene	613	560		ug/kg	SW846 8270D
Naphthalene	747	560		ug/kg	SW846 8270D
Phenanthrene	4980	560		ug/kg	SW846 8270D
Pyrene	7240	560		ug/kg	SW846 8270D
Aroclor 1248	216	37		ug/kg	SW846 8082
Aroclor 1254 [b]	85.2	37		ug/kg	SW846 8082
TPH-DRO (Semi-VOA) [a]	1790	92		mg/kg	SW846-8015
Arsenic	6.9	0.91		mg/kg	SW846 6010C
Barium	67.9	4.6		mg/kg	SW846 6010C
Cadmium	0.40	0.36		mg/kg	SW846 6010C
Chromium	19.0	0.91		mg/kg	SW846 6010C
Lead	169	0.91		mg/kg	SW846 6010C
Mercury	0.23	0.034		mg/kg	SW846 7471B
Ignitability (Flashpoint)	> 230			Deg. F	SW846 1020
Specific Conductivity	246	0.50		umhos/cm	EPA 120.1M
pH	7.7			su	SW846 9045D
MC28371-14A TP-08(4-5')					
Barium	0.70	0.50		mg/l	SW846 6010C
Cadmium	0.0052	0.0040		mg/l	SW846 6010C
Lead	0.43	0.010		mg/l	SW846 6010C

(a) Sample process using TPH8100 method requirement.
(b) Estimated value due to the presence of other Aroclor pattern.

New England ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	TP-01(7.5-8.5')		
Lab Sample ID:	MC28371-1	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	89.2
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28182.D	1	02/25/14	AMY	n/a	n/a	MSV1057
Run #2							

	Initial Weight	Final Volume
Run #1	7.23 g	5.0 ml
Run #2		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	26.0	7.8	ug/kg	
71-43-2	Benzene	ND	0.39	ug/kg	
108-86-1	Bromobenzene	ND	3.9	ug/kg	
74-97-5	Bromochloromethane	ND	3.9	ug/kg	
75-27-4	Bromodichloromethane	ND	1.6	ug/kg	
75-25-2	Bromoform	ND	1.6	ug/kg	
74-83-9	Bromomethane	ND	1.6	ug/kg	
78-93-3	2-Butanone (MEK)	ND	7.8	ug/kg	
104-51-8	n-Butylbenzene	ND	3.9	ug/kg	
135-98-8	sec-Butylbenzene	ND	3.9	ug/kg	
98-06-6	tert-Butylbenzene	ND	3.9	ug/kg	
75-15-0	Carbon disulfide	ND	3.9	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.6	ug/kg	
108-90-7	Chlorobenzene	ND	1.6	ug/kg	
75-00-3	Chloroethane	ND	3.9	ug/kg	
67-66-3	Chloroform	ND	1.6	ug/kg	
74-87-3	Chloromethane	ND	3.9	ug/kg	
95-49-8	o-Chlorotoluene	ND	3.9	ug/kg	
106-43-4	p-Chlorotoluene	ND	3.9	ug/kg	
108-20-3	Di-Isopropyl ether	ND	1.6	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	3.9	ug/kg	
124-48-1	Dibromochloromethane	ND	1.6	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.6	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.6	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.6	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.6	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	1.6	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.6	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.6	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.6	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.6	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.6	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-01(7.5-8.5')		
Lab Sample ID:	MC28371-1	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	89.2
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	1.6	ug/kg	
142-28-9	1,3-Dichloropropane	ND	3.9	ug/kg	
594-20-7	2,2-Dichloropropane	ND	3.9	ug/kg	
563-58-6	1,1-Dichloropropene	ND	3.9	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.6	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.6	ug/kg	
123-91-1	1,4-Dioxane	ND	19	ug/kg	
60-29-7	Ethyl Ether	ND	3.9	ug/kg	
100-41-4	Ethylbenzene	ND	1.6	ug/kg	
87-68-3	Hexachlorobutadiene	ND	3.9	ug/kg	
591-78-6	2-Hexanone	ND	7.8	ug/kg	
98-82-8	Isopropylbenzene	ND	3.9	ug/kg	
99-87-6	p-Isopropyltoluene	ND	3.9	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.6	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	3.9	ug/kg	
74-95-3	Methylene bromide	ND	3.9	ug/kg	
75-09-2	Methylene chloride	ND	1.6	ug/kg	
91-20-3	Naphthalene	ND	3.9	ug/kg	
103-65-1	n-Propylbenzene	ND	3.9	ug/kg	
100-42-5	Styrene	ND	3.9	ug/kg	
994-05-8	tert-Amyl Methyl Ether	ND	3.9	ug/kg	
637-92-3	tert-Butyl Ethyl Ether	ND	1.6	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	3.9	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.6	ug/kg	
127-18-4	Tetrachloroethene	ND	1.6	ug/kg	
109-99-9	Tetrahydrofuran	ND	7.8	ug/kg	
108-88-3	Toluene	ND	3.9	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	3.9	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	3.9	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.6	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.6	ug/kg	
79-01-6	Trichloroethene	ND	1.6	ug/kg	
75-69-4	Trichlorofluoromethane	ND	1.6	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	3.9	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	3.9	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	3.9	ug/kg	
75-01-4	Vinyl chloride	ND	1.6	ug/kg	
	m,p-Xylene	ND	1.6	ug/kg	
95-47-6	o-Xylene	ND	1.6	ug/kg	
1330-20-7	Xylene (total)	ND	1.6	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-01(7.5-8.5')		
Lab Sample ID:	MC28371-1	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	89.2
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	85%		70-130%
2037-26-5	Toluene-D8	81%		70-130%
460-00-4	4-Bromofluorobenzene	88%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-01(7.5-8.5')		
Lab Sample ID:	MC28371-1	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	89.2
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W17822.D	5	02/24/14	WK	02/20/14	OP36911	MSW783
Run #2							

	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	2800	ug/kg	
95-57-8	2-Chlorophenol	ND	1400	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5500	ug/kg	
95-48-7	2-Methylphenol	ND	2800	ug/kg	
	3&4-Methylphenol	ND	2800	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	ug/kg	
100-02-7	4-Nitrophenol	ND	5500	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	ug/kg	
108-95-2	Phenol	ND	1400	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	ug/kg	
83-32-9	Acenaphthene	ND	550	ug/kg	
208-96-8	Acenaphthylene	678	550	ug/kg	
98-86-2	Acetophenone	ND	2800	ug/kg	
62-53-3	Aniline	ND	2800	ug/kg	
120-12-7	Anthracene	821	550	ug/kg	
56-55-3	Benzo(a)anthracene	3110	550	ug/kg	
50-32-8	Benzo(a)pyrene	2880	550	ug/kg	
205-99-2	Benzo(b)fluoranthene	2450	550	ug/kg	
191-24-2	Benzo(g,h,i)perylene	1880	550	ug/kg	
207-08-9	Benzo(k)fluoranthene	2410	550	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	ug/kg	
218-01-9	Chrysene	3120	550	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-01(7.5-8.5')		
Lab Sample ID:	MC28371-1	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	89.2
Project:	Cobble Hill, Washington, Somerville, MA		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	1400	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	550	ug/kg	
132-64-9	Dibenzofuran	ND	550	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	ug/kg	
206-44-0	Fluoranthene	5450	550	ug/kg	
86-73-7	Fluorene	ND	550	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	ug/kg	
67-72-1	Hexachloroethane	ND	1400	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	1590	550	ug/kg	
78-59-1	Isophorone	ND	1400	ug/kg	
91-57-6	2-Methylnaphthalene	ND	550	ug/kg	
91-20-3	Naphthalene	ND	550	ug/kg	
98-95-3	Nitrobenzene	ND	1400	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	ug/kg	
85-01-8	Phenanthrene	2790	550	ug/kg	
129-00-0	Pyrene	5610	550	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	47%		30-130%
4165-62-2	Phenol-d5	51%		30-130%
118-79-6	2,4,6-Tribromophenol	81%		30-130%
4165-60-0	Nitrobenzene-d5	73%		30-130%
321-60-8	2-Fluorobiphenyl	81%		30-130%
1718-51-0	Terphenyl-d14	90%		30-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-01(7.5-8.5')		
Lab Sample ID:	MC28371-1	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8082 SW846 3546	**Percent Solids:**	89.2
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ88230.D	1	02/23/14	AP	02/20/14	OP36913	GYZ7500
Run #2							

	Initial Weight	Final Volume
Run #1	15.8 g	10.0 ml
Run #2		

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	35	ug/kg	
11104-28-2	Aroclor 1221	ND	35	ug/kg	
11141-16-5	Aroclor 1232	ND	35	ug/kg	
53469-21-9	Aroclor 1242	ND	35	ug/kg	
12672-29-6	Aroclor 1248	ND	35	ug/kg	
11097-69-1	Aroclor 1254	ND	35	ug/kg	
11096-82-5	Aroclor 1260	70.9	35	ug/kg	
37324-23-5	Aroclor 1262	ND	35	ug/kg	
11100-14-4	Aroclor 1268	ND	35	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	79%		30-150%
877-09-8	Tetrachloro-m-xylene	55%		30-150%
2051-24-3	Decachlorobiphenyl	95%		30-150%
2051-24-3	Decachlorobiphenyl	72%		30-150%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-01(7.5-8.5')		
Lab Sample ID:	MC28371-1	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846-8015 SW846 3546	**Percent Solids:**	89.2
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BI32033.D	5	02/25/14	KN	02/21/14	OP36912	GBI1174
Run #2							

	Initial Weight	Final Volume
Run #1	15.8 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (Semi-VOA)	1300	88	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	64%		40-140%

(a) Sample process using TPH8100 method requirement.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-01(7.5-8.5')		
Lab Sample ID:	MC28371-1	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	89.2
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	6.6	0.90	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Barium	57.4	4.5	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Cadmium	0.50	0.36	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Chromium	22.5	0.90	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Lead	280	0.90	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Mercury	0.21	0.036	mg/kg	1	02/25/14	02/26/14	SA	SW846 7471B [2]	SW846 7471B [4]
Selenium	< 0.90	0.90	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Silver	< 0.45	0.45	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]

(1) Instrument QC Batch: MA16778
(2) Instrument QC Batch: MA16784
(3) Prep QC Batch: MP22532
(4) Prep QC Batch: MP22553

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TP-01(7.5-8.5')		
Lab Sample ID:	MC28371-1	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	89.2
Project:	Cobble Hill, Washington, Somerville, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide Reactivity	< 1.7	1.7	mg/kg	1	02/25/14 09:00	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	02/21/14	MA	SW846 1020
Solids, Percent	89.2		%	1	02/20/14	BF	SM21 2540 B MOD.
Specific Conductivity	172	0.50	umhos/cm	1	02/21/14	MA	EPA 120.1M
Sulfide Reactivity	< 56	56	mg/kg	1	02/25/14	BF	SW846 CHAP7
pH	7.9		su	1	02/21/14	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Client Sample ID: TP-01(7.5-8.5')
Lab Sample ID: MC28371-1A
Matrix: SO - Soil
Project: Cobble Hill, Washington, Somerville, MA

Date Sampled: 02/19/14
Date Received: 02/20/14
Percent Solids: 89.2

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 0.010	D004	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Barium	0.59	D005	100	0.50	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Cadmium	0.0078	D006	1.0	0.0040	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 0.010	D007	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Lead	0.55	D008	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	02/25/14	02/27/14	SA	SW846 7470A [1]	SW846 7470A [3]
Selenium	< 0.025	D010	1.0	0.025	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Silver	< 0.0050	D011	5.0	0.0050	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA16783
(2) Instrument QC Batch: MA16792
(3) Prep QC Batch: MP22552
(4) Prep QC Batch: MP22558

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)

Report of Analysis

Client Sample ID:	TP-02(2-4')		
Lab Sample ID:	MC28371-2	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	91.0
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28183.D	1	02/25/14	AMY	n/a	n/a	MSV1057
Run #2 [a]	V28171.D	1	02/25/14	AMY	n/a	n/a	MSV1057

	Initial Weight	Final Volume
Run #1	7.01 g	5.0 ml
Run #2	5.80 g	5.0 ml

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	27.9	7.8	ug/kg	
71-43-2	Benzene	0.72	0.39	ug/kg	
108-86-1	Bromobenzene	ND	3.9	ug/kg	
74-97-5	Bromochloromethane	ND	3.9	ug/kg	
75-27-4	Bromodichloromethane	ND	1.6	ug/kg	
75-25-2	Bromoform	ND	1.6	ug/kg	
74-83-9	Bromomethane	ND	1.6	ug/kg	
78-93-3	2-Butanone (MEK)	ND	7.8	ug/kg	
104-51-8	n-Butylbenzene	ND	3.9	ug/kg	
135-98-8	sec-Butylbenzene	ND	3.9	ug/kg	
98-06-6	tert-Butylbenzene	ND	3.9	ug/kg	
75-15-0	Carbon disulfide	ND	3.9	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.6	ug/kg	
108-90-7	Chlorobenzene	ND	1.6	ug/kg	
75-00-3	Chloroethane	ND	3.9	ug/kg	
67-66-3	Chloroform	ND	1.6	ug/kg	
74-87-3	Chloromethane	ND	3.9	ug/kg	
95-49-8	o-Chlorotoluene	ND	3.9	ug/kg	
106-43-4	p-Chlorotoluene	ND	3.9	ug/kg	
108-20-3	Di-Isopropyl ether	ND	1.6	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	3.9	ug/kg	
124-48-1	Dibromochloromethane	ND	1.6	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.6	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.6	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.6	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.6	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	1.6	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.6	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.6	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.6	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.6	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.6	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-02(2-4')		
Lab Sample ID:	MC28371-2	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	91.0
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	1.6	ug/kg	
142-28-9	1,3-Dichloropropane	ND	3.9	ug/kg	
594-20-7	2,2-Dichloropropane	ND	3.9	ug/kg	
563-58-6	1,1-Dichloropropene	ND	3.9	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.6	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.6	ug/kg	
123-91-1	1,4-Dioxane	ND	20	ug/kg	
60-29-7	Ethyl Ether	ND	3.9	ug/kg	
100-41-4	Ethylbenzene	ND	1.6	ug/kg	
87-68-3	Hexachlorobutadiene	ND	3.9	ug/kg	
591-78-6	2-Hexanone	ND	7.8	ug/kg	
98-82-8	Isopropylbenzene	ND	3.9	ug/kg	
99-87-6	p-Isopropyltoluene	ND	3.9	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.6	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	3.9	ug/kg	
74-95-3	Methylene bromide	ND	3.9	ug/kg	
75-09-2	Methylene chloride	ND	1.6	ug/kg	
91-20-3	Naphthalene	ND	3.9	ug/kg	
103-65-1	n-Propylbenzene	ND	3.9	ug/kg	
100-42-5	Styrene	ND	3.9	ug/kg	
994-05-8	tert-Amyl Methyl Ether	ND	3.9	ug/kg	
637-92-3	tert-Butyl Ethyl Ether	ND	1.6	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	3.9	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.6	ug/kg	
127-18-4	Tetrachloroethene	ND	1.6	ug/kg	
109-99-9	Tetrahydrofuran	ND	7.8	ug/kg	
108-88-3	Toluene	ND	3.9	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	3.9	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	3.9	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.6	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.6	ug/kg	
79-01-6	Trichloroethene	ND	1.6	ug/kg	
75-69-4	Trichlorofluoromethane	ND	1.6	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	3.9	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	3.9	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	3.9	ug/kg	
75-01-4	Vinyl chloride	ND	1.6	ug/kg	
	m,p-Xylene	ND	1.6	ug/kg	
95-47-6	o-Xylene	ND	1.6	ug/kg	
1330-20-7	Xylene (total)	ND	1.6	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-02(2-4')		
Lab Sample ID:	MC28371-2	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	91.0
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%	95%	70-130%
2037-26-5	Toluene-D8	78%	76%	70-130%
460-00-4	4-Bromofluorobenzene	116%	126%	70-130%

(a) Confirmation run.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TP-02(2-4')
Lab Sample ID: MC28371-2
Matrix: SO - Soil
Method: SW846 8270D SW846 3546
Project: Cobble Hill, Washington, Somerville, MA

Date Sampled: 02/19/14
Date Received: 02/20/14
Percent Solids: 91.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W17823.D	5	02/24/14	WK	02/20/14	OP36911	MSW783
Run #2							

	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	2700	ug/kg	
95-57-8	2-Chlorophenol	ND	1300	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2700	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2700	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2700	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5400	ug/kg	
95-48-7	2-Methylphenol	ND	2700	ug/kg	
	3&4-Methylphenol	ND	2700	ug/kg	
88-75-5	2-Nitrophenol	ND	2700	ug/kg	
100-02-7	4-Nitrophenol	ND	5400	ug/kg	
87-86-5	Pentachlorophenol	ND	2700	ug/kg	
108-95-2	Phenol	ND	1300	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2700	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2700	ug/kg	
83-32-9	Acenaphthene	1050	540	ug/kg	
208-96-8	Acenaphthylene	1280	540	ug/kg	
98-86-2	Acetophenone	ND	2700	ug/kg	
62-53-3	Aniline	ND	2700	ug/kg	
120-12-7	Anthracene	4050	540	ug/kg	
56-55-3	Benzo(a)anthracene	11600	540	ug/kg	
50-32-8	Benzo(a)pyrene	10800	540	ug/kg	
205-99-2	Benzo(b)fluoranthene	9750	540	ug/kg	
191-24-2	Benzo(g,h,i)perylene	6190	540	ug/kg	
207-08-9	Benzo(k)fluoranthene	7410	540	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1300	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1300	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1300	ug/kg	
106-47-8	4-Chloroaniline	ND	2700	ug/kg	
218-01-9	Chrysene	10500	540	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1300	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1300	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1300	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-02(2-4')		
Lab Sample ID:	MC28371-2	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	91.0
Project:	Cobble Hill, Washington, Somerville, MA		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1300	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	1300	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1300	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1300	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2700	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2700	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1300	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	2120	540	ug/kg	
132-64-9	Dibenzofuran	891	540	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1300	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1300	ug/kg	
84-66-2	Diethyl phthalate	ND	1300	ug/kg	
131-11-3	Dimethyl phthalate	ND	1300	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1300	ug/kg	
206-44-0	Fluoranthene	22800	540	ug/kg	
86-73-7	Fluorene	1650	540	ug/kg	
118-74-1	Hexachlorobenzene	ND	1300	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1300	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	ug/kg	
67-72-1	Hexachloroethane	ND	1300	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	5640	540	ug/kg	
78-59-1	Isophorone	ND	1300	ug/kg	
91-57-6	2-Methylnaphthalene	ND	540	ug/kg	
91-20-3	Naphthalene	738	540	ug/kg	
98-95-3	Nitrobenzene	ND	1300	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1300	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1300	ug/kg	
85-01-8	Phenanthrene	13500	540	ug/kg	
129-00-0	Pyrene	21300	540	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1300	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	45%		30-130%
4165-62-2	Phenol-d5	57%		30-130%
118-79-6	2,4,6-Tribromophenol	86%		30-130%
4165-60-0	Nitrobenzene-d5	71%		30-130%
321-60-8	2-Fluorobiphenyl	81%		30-130%
1718-51-0	Terphenyl-d14	90%		30-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-02(2-4')		
Lab Sample ID:	MC28371-2	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8082 SW846 3546	**Percent Solids:**	91.0
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ88231.D	1	02/23/14	AP	02/20/14	OP36913	GYZ7500
Run #2							

	Initial Weight	Final Volume
Run #1	15.3 g	10.0 ml
Run #2		

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	36	ug/kg	
11104-28-2	Aroclor 1221	ND	36	ug/kg	
11141-16-5	Aroclor 1232	ND	36	ug/kg	
53469-21-9	Aroclor 1242	ND	36	ug/kg	
12672-29-6	Aroclor 1248	ND	36	ug/kg	
11097-69-1	Aroclor 1254	219	36	ug/kg	
11096-82-5	Aroclor 1260 [a]	81.2	36	ug/kg	
37324-23-5	Aroclor 1262	ND	36	ug/kg	
11100-14-4	Aroclor 1268	ND	36	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	90%		30-150%
877-09-8	Tetrachloro-m-xylene	56%		30-150%
2051-24-3	Decachlorobiphenyl	98%		30-150%
2051-24-3	Decachlorobiphenyl	77%		30-150%

(a) Estimated value due to the presence of other Aroclor pattern.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-02(2-4')		
Lab Sample ID:	MC28371-2	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846-8015 SW846 3546	**Percent Solids:**	91.0
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BI32047.D	5	02/25/14	KN	02/21/14	OP36912	GBI1174
Run #2							

	Initial Weight	Final Volume
Run #1	15.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (Semi-VOA)	1680	91	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	77%		40-140%

(a) Sample process using TPH8100 method requirement.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TP-02(2-4')
Lab Sample ID: MC28371-2
Matrix: SO - Soil
Project: Cobble Hill, Washington, Somerville, MA

Date Sampled: 02/19/14
Date Received: 02/20/14
Percent Solids: 91.0

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	7.7	0.89	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Barium	65.2	4.5	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Cadmium	0.52	0.36	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Chromium	18.7	0.89	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Lead	249	0.89	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Mercury	0.26	0.035	mg/kg	1	02/25/14	02/26/14	SA	SW846 7471B [2]	SW846 7471B [4]
Selenium	< 0.89	0.89	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Silver	< 0.45	0.45	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]

(1) Instrument QC Batch: MA16778
(2) Instrument QC Batch: MA16784
(3) Prep QC Batch: MP22532
(4) Prep QC Batch: MP22553

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TP-02(2-4')		
Lab Sample ID:	MC28371-2	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	91.0
Project:	Cobble Hill, Washington, Somerville, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide Reactivity	< 1.6	1.6	mg/kg	1	02/25/14 09:00	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	02/21/14	MA	SW846 1020
Solids, Percent	91		%	1	02/20/14	BF	SM21 2540 B MOD.
Specific Conductivity	281	0.50	umhos/cm	1	02/21/14	MA	EPA 120.1M
Sulfide Reactivity	< 55	55	mg/kg	1	02/25/14	BF	SW846 CHAP7
pH	7.5		su	1	02/21/14	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Client Sample ID: TP-02(2-4')
Lab Sample ID: MC28371-2A
Matrix: SO - Soil
Project: Cobble Hill, Washington, Somerville, MA

Date Sampled: 02/19/14
Date Received: 02/20/14
Percent Solids: 91.0

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 0.010	D004	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Barium	0.59	D005	100	0.50	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Cadmium	0.0068	D006	1.0	0.0040	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 0.010	D007	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Lead	0.51	D008	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	02/25/14	02/27/14	SA	SW846 7470A [1]	SW846 7470A [3]
Selenium	< 0.025	D010	1.0	0.025	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Silver	< 0.0050	D011	5.0	0.0050	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA16783
(2) Instrument QC Batch: MA16792
(3) Prep QC Batch: MP22552
(4) Prep QC Batch: MP22558

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)

Report of Analysis

Client Sample ID:	TP-03(0-4')		
Lab Sample ID:	MC28371-3	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	85.0
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28184.D	1	02/25/14	AMY	n/a	n/a	MSV1057
Run #2							

	Initial Weight	Final Volume
Run #1	6.76 g	5.0 ml
Run #2		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	24.7	8.7	ug/kg	
71-43-2	Benzene	0.54	0.44	ug/kg	
108-86-1	Bromobenzene	ND	4.4	ug/kg	
74-97-5	Bromochloromethane	ND	4.4	ug/kg	
75-27-4	Bromodichloromethane	ND	1.7	ug/kg	
75-25-2	Bromoform	ND	1.7	ug/kg	
74-83-9	Bromomethane	ND	1.7	ug/kg	
78-93-3	2-Butanone (MEK)	ND	8.7	ug/kg	
104-51-8	n-Butylbenzene	ND	4.4	ug/kg	
135-98-8	sec-Butylbenzene	ND	4.4	ug/kg	
98-06-6	tert-Butylbenzene	ND	4.4	ug/kg	
75-15-0	Carbon disulfide	ND	4.4	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.7	ug/kg	
108-90-7	Chlorobenzene	ND	1.7	ug/kg	
75-00-3	Chloroethane	ND	4.4	ug/kg	
67-66-3	Chloroform	ND	1.7	ug/kg	
74-87-3	Chloromethane	ND	4.4	ug/kg	
95-49-8	o-Chlorotoluene	ND	4.4	ug/kg	
106-43-4	p-Chlorotoluene	ND	4.4	ug/kg	
108-20-3	Di-Isopropyl ether	ND	1.7	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	4.4	ug/kg	
124-48-1	Dibromochloromethane	ND	1.7	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.7	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.7	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.7	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.7	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	1.7	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.7	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.7	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.7	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.7	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.7	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-03(0-4')		
Lab Sample ID:	MC28371-3	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	85.0
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	1.7	ug/kg	
142-28-9	1,3-Dichloropropane	ND	4.4	ug/kg	
594-20-7	2,2-Dichloropropane	ND	4.4	ug/kg	
563-58-6	1,1-Dichloropropene	ND	4.4	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.7	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.7	ug/kg	
123-91-1	1,4-Dioxane	ND	22	ug/kg	
60-29-7	Ethyl Ether	ND	4.4	ug/kg	
100-41-4	Ethylbenzene	ND	1.7	ug/kg	
87-68-3	Hexachlorobutadiene	ND	4.4	ug/kg	
591-78-6	2-Hexanone	ND	8.7	ug/kg	
98-82-8	Isopropylbenzene	ND	4.4	ug/kg	
99-87-6	p-Isopropyltoluene	ND	4.4	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.7	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.4	ug/kg	
74-95-3	Methylene bromide	ND	4.4	ug/kg	
75-09-2	Methylene chloride	ND	1.7	ug/kg	
91-20-3	Naphthalene	ND	4.4	ug/kg	
103-65-1	n-Propylbenzene	ND	4.4	ug/kg	
100-42-5	Styrene	ND	4.4	ug/kg	
994-05-8	tert-Amyl Methyl Ether	ND	4.4	ug/kg	
637-92-3	tert-Butyl Ethyl Ether	ND	1.7	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	4.4	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.7	ug/kg	
127-18-4	Tetrachloroethene	ND	1.7	ug/kg	
109-99-9	Tetrahydrofuran	ND	8.7	ug/kg	
108-88-3	Toluene	ND	4.4	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	4.4	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	4.4	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.7	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.7	ug/kg	
79-01-6	Trichloroethene	ND	1.7	ug/kg	
75-69-4	Trichlorofluoromethane	ND	1.7	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	4.4	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	4.4	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	4.4	ug/kg	
75-01-4	Vinyl chloride	ND	1.7	ug/kg	
	m,p-Xylene	ND	1.7	ug/kg	
95-47-6	o-Xylene	ND	1.7	ug/kg	
1330-20-7	Xylene (total)	ND	1.7	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-03(0-4')		
Lab Sample ID:	MC28371-3	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	85.0
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	84%		70-130%
2037-26-5	Toluene-D8	79%		70-130%
460-00-4	4-Bromofluorobenzene	106%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-03(0-4')		
Lab Sample ID:	MC28371-3	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	85.0
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W17824.D	5	02/24/14	WK	02/20/14	OP36911	MSW783
Run #2							

	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	2900	ug/kg	
95-57-8	2-Chlorophenol	ND	1500	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2900	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2900	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2900	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5800	ug/kg	
95-48-7	2-Methylphenol	ND	2900	ug/kg	
	3&4-Methylphenol	ND	2900	ug/kg	
88-75-5	2-Nitrophenol	ND	2900	ug/kg	
100-02-7	4-Nitrophenol	ND	5800	ug/kg	
87-86-5	Pentachlorophenol	ND	2900	ug/kg	
108-95-2	Phenol	ND	1500	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2900	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2900	ug/kg	
83-32-9	Acenaphthene	2250	580	ug/kg	
208-96-8	Acenaphthylene	2010	580	ug/kg	
98-86-2	Acetophenone	ND	2900	ug/kg	
62-53-3	Aniline	ND	2900	ug/kg	
120-12-7	Anthracene	8110	580	ug/kg	
56-55-3	Benzo(a)anthracene	21000	580	ug/kg	
50-32-8	Benzo(a)pyrene	17200	580	ug/kg	
205-99-2	Benzo(b)fluoranthene	14500	580	ug/kg	
191-24-2	Benzo(g,h,i)perylene	9200	580	ug/kg	
207-08-9	Benzo(k)fluoranthene	15700	580	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1500	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1500	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1500	ug/kg	
106-47-8	4-Chloroaniline	ND	2900	ug/kg	
218-01-9	Chrysene	18800	580	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1500	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1500	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1500	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-03(0-4')		
Lab Sample ID:	MC28371-3	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	85.0
Project:	Cobble Hill, Washington, Somerville, MA		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1500	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	1500	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1500	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1500	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2900	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2900	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1500	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	3500	580	ug/kg	
132-64-9	Dibenzofuran	1870	580	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1500	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1500	ug/kg	
84-66-2	Diethyl phthalate	ND	1500	ug/kg	
131-11-3	Dimethyl phthalate	ND	1500	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1500	ug/kg	
206-44-0	Fluoranthene	43000	580	ug/kg	
86-73-7	Fluorene	2670	580	ug/kg	
118-74-1	Hexachlorobenzene	ND	1500	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1500	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2900	ug/kg	
67-72-1	Hexachloroethane	ND	1500	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	9330	580	ug/kg	
78-59-1	Isophorone	ND	1500	ug/kg	
91-57-6	2-Methylnaphthalene	626	580	ug/kg	
91-20-3	Naphthalene	1450	580	ug/kg	
98-95-3	Nitrobenzene	ND	1500	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1500	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1500	ug/kg	
85-01-8	Phenanthrene	33300	580	ug/kg	
129-00-0	Pyrene	36600	580	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1500	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	56%		30-130%
4165-62-2	Phenol-d5	47%		30-130%
118-79-6	2,4,6-Tribromophenol	94%		30-130%
4165-60-0	Nitrobenzene-d5	78%		30-130%
321-60-8	2-Fluorobiphenyl	88%		30-130%
1718-51-0	Terphenyl-d14	97%		30-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-03(0-4')		
Lab Sample ID:	MC28371-3	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8082 SW846 3546	**Percent Solids:**	85.0
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ88232.D	1	02/23/14	AP	02/20/14	OP36913	GYZ7500
Run #2							

	Initial Weight	Final Volume
Run #1	15.8 g	10.0 ml
Run #2		

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	37	ug/kg	
11104-28-2	Aroclor 1221	ND	37	ug/kg	
11141-16-5	Aroclor 1232	ND	37	ug/kg	
53469-21-9	Aroclor 1242	ND	37	ug/kg	
12672-29-6	Aroclor 1248	ND	37	ug/kg	
11097-69-1	Aroclor 1254	ND	37	ug/kg	
11096-82-5	Aroclor 1260	ND	37	ug/kg	
37324-23-5	Aroclor 1262	ND	37	ug/kg	
11100-14-4	Aroclor 1268	ND	37	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	80%		30-150%
877-09-8	Tetrachloro-m-xylene	56%		30-150%
2051-24-3	Decachlorobiphenyl	89%		30-150%
2051-24-3	Decachlorobiphenyl	68%		30-150%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-03(0-4')		
Lab Sample ID:	MC28371-3	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846-8015 SW846 3546	**Percent Solids:**	85.0
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BI32043.D	5	02/25/14	KN	02/21/14	OP36912	GBI1174
Run #2							

	Initial Weight	Final Volume
Run #1	15.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (Semi-VOA)	2660	97	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	85%		40-140%

(a) Sample process using TPH8100 method requirement.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-03(0-4')		
Lab Sample ID:	MC28371-3	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	85.0
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	9.8	0.94	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Barium	126	4.7	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Cadmium	0.59	0.38	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Chromium	20.4	0.94	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Lead	520	0.94	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Mercury	0.66	0.035	mg/kg	1	02/25/14	02/26/14	SA	SW846 7471B [2]	SW846 7471B [4]
Selenium	< 0.94	0.94	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Silver	2.0	0.47	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]

(1) Instrument QC Batch: MA16778
(2) Instrument QC Batch: MA16785
(3) Prep QC Batch: MP22532
(4) Prep QC Batch: MP22554

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TP-03(0-4')		
Lab Sample ID:	MC28371-3	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	85.0
Project:	Cobble Hill, Washington, Somerville, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide Reactivity	< 1.8	1.8	mg/kg	1	02/25/14 09:00	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	02/21/14	MA	SW846 1020
Solids, Percent	85		%	1	02/20/14	BF	SM21 2540 B MOD.
Specific Conductivity	162	0.50	umhos/cm	1	02/21/14	MA	EPA 120.1M
Sulfide Reactivity	< 59	59	mg/kg	1	02/25/14	BF	SW846 CHAP7
pH	7.9		su	1	02/21/14	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TP-03(0-4')		
Lab Sample ID:	MC28371-3A	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	85.0
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 0.010	D004	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Barium	0.86	D005	100	0.50	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Cadmium	0.0091	D006	1.0	0.0040	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 0.010	D007	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Lead	0.57	D008	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	02/25/14	02/27/14	SA	SW846 7470A [1]	SW846 7470A [3]
Selenium	< 0.025	D010	1.0	0.025	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Silver	< 0.0050	D011	5.0	0.0050	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA16783
(2) Instrument QC Batch: MA16792
(3) Prep QC Batch: MP22552
(4) Prep QC Batch: MP22558

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)

Report of Analysis

Client Sample ID:	TP-03(7-9')		
Lab Sample ID:	MC28371-4	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	86.7
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G135227.D	1	02/21/14	JM	n/a	n/a	MSG5205
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	19.4 g	10.0 ml	100 ul
Run #2			

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	370	ug/kg	
71-43-2	Benzene	ND	19	ug/kg	
108-86-1	Bromobenzene	ND	190	ug/kg	
74-97-5	Bromochloromethane	ND	190	ug/kg	
75-27-4	Bromodichloromethane	ND	75	ug/kg	
75-25-2	Bromoform	ND	75	ug/kg	
74-83-9	Bromomethane	ND	75	ug/kg	
78-93-3	2-Butanone (MEK)	ND	370	ug/kg	
104-51-8	n-Butylbenzene	ND	190	ug/kg	
135-98-8	sec-Butylbenzene	ND	190	ug/kg	
98-06-6	tert-Butylbenzene	ND	190	ug/kg	
75-15-0	Carbon disulfide	ND	190	ug/kg	
56-23-5	Carbon tetrachloride	ND	75	ug/kg	
108-90-7	Chlorobenzene	ND	75	ug/kg	
75-00-3	Chloroethane	ND	190	ug/kg	
67-66-3	Chloroform	ND	75	ug/kg	
74-87-3	Chloromethane	ND	190	ug/kg	
95-49-8	o-Chlorotoluene	ND	190	ug/kg	
106-43-4	p-Chlorotoluene	ND	190	ug/kg	
108-20-3	Di-Isopropyl ether	ND	75	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	190	ug/kg	
124-48-1	Dibromochloromethane	ND	75	ug/kg	
106-93-4	1,2-Dibromoethane	ND	75	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	75	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	75	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	75	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	75	ug/kg	
75-34-3	1,1-Dichloroethane	ND	75	ug/kg	
107-06-2	1,2-Dichloroethane	ND	75	ug/kg	
75-35-4	1,1-Dichloroethene	ND	75	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	75	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	75	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-03(7-9')		
Lab Sample ID:	MC28371-4	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	86.7
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	75	ug/kg	
142-28-9	1,3-Dichloropropane	ND	190	ug/kg	
594-20-7	2,2-Dichloropropane	ND	190	ug/kg	
563-58-6	1,1-Dichloropropene	ND	190	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	75	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	75	ug/kg	
123-91-1	1,4-Dioxane	ND	930	ug/kg	
60-29-7	Ethyl Ether	ND	190	ug/kg	
100-41-4	Ethylbenzene	ND	75	ug/kg	
87-68-3	Hexachlorobutadiene	ND	190	ug/kg	
591-78-6	2-Hexanone	ND	370	ug/kg	
98-82-8	Isopropylbenzene	ND	190	ug/kg	
99-87-6	p-Isopropyltoluene	ND	190	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	75	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	190	ug/kg	
74-95-3	Methylene bromide	ND	190	ug/kg	
75-09-2	Methylene chloride	ND	75	ug/kg	
91-20-3	Naphthalene	5910	190	ug/kg	
103-65-1	n-Propylbenzene	ND	190	ug/kg	
100-42-5	Styrene	ND	190	ug/kg	
994-05-8	tert-Amyl Methyl Ether	ND	190	ug/kg	
637-92-3	tert-Butyl Ethyl Ether	ND	75	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	190	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	75	ug/kg	
127-18-4	Tetrachloroethene	ND	75	ug/kg	
109-99-9	Tetrahydrofuran	ND	370	ug/kg	
108-88-3	Toluene	ND	190	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	190	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	190	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	75	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	75	ug/kg	
79-01-6	Trichloroethene	ND	75	ug/kg	
75-69-4	Trichlorofluoromethane	ND	75	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	190	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	190	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	190	ug/kg	
75-01-4	Vinyl chloride	ND	75	ug/kg	
	m,p-Xylene	ND	75	ug/kg	
95-47-6	o-Xylene	ND	75	ug/kg	
1330-20-7	Xylene (total)	ND	75	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-03(7-9')		
Lab Sample ID:	MC28371-4	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	86.7
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		70-130%
2037-26-5	Toluene-D8	103%		70-130%
460-00-4	4-Bromofluorobenzene	101%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-03(7-9')		
Lab Sample ID:	MC28371-4	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	86.7
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W17825.D	5	02/24/14	WK	02/20/14	OP36911	MSW783
Run #2							

	Initial Weight	Final Volume
Run #1	20.9 g	1.0 ml
Run #2		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	2800	ug/kg	
95-57-8	2-Chlorophenol	ND	1400	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5500	ug/kg	
95-48-7	2-Methylphenol	ND	2800	ug/kg	
	3&4-Methylphenol	ND	2800	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	ug/kg	
100-02-7	4-Nitrophenol	ND	5500	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	ug/kg	
108-95-2	Phenol	ND	1400	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	ug/kg	
83-32-9	Acenaphthene	3240	550	ug/kg	
208-96-8	Acenaphthylene	2240	550	ug/kg	
98-86-2	Acetophenone	ND	2800	ug/kg	
62-53-3	Aniline	ND	2800	ug/kg	
120-12-7	Anthracene	7630	550	ug/kg	
56-55-3	Benzo(a)anthracene	13700	550	ug/kg	
50-32-8	Benzo(a)pyrene	11700	550	ug/kg	
205-99-2	Benzo(b)fluoranthene	9750	550	ug/kg	
191-24-2	Benzo(g,h,i)perylene	5900	550	ug/kg	
207-08-9	Benzo(k)fluoranthene	8660	550	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	ug/kg	
218-01-9	Chrysene	12500	550	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-03(7-9')		
Lab Sample ID:	MC28371-4	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	86.7
Project:	Cobble Hill, Washington, Somerville, MA		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	1400	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	2290	550	ug/kg	
132-64-9	Dibenzofuran	3370	550	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	ug/kg	
206-44-0	Fluoranthene	25900	550	ug/kg	
86-73-7	Fluorene	4930	550	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	ug/kg	
67-72-1	Hexachloroethane	ND	1400	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	5650	550	ug/kg	
78-59-1	Isophorone	ND	1400	ug/kg	
91-57-6	2-Methylnaphthalene	1960	550	ug/kg	
91-20-3	Naphthalene	3790	550	ug/kg	
98-95-3	Nitrobenzene	ND	1400	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	ug/kg	
85-01-8	Phenanthrene	23400	550	ug/kg	
129-00-0	Pyrene	23600	550	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	55%		30-130%
4165-62-2	Phenol-d5	59%		30-130%
118-79-6	2,4,6-Tribromophenol	96%		30-130%
4165-60-0	Nitrobenzene-d5	67%		30-130%
321-60-8	2-Fluorobiphenyl	90%		30-130%
1718-51-0	Terphenyl-d14	101%		30-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-03(7-9')		
Lab Sample ID:	MC28371-4	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8082 SW846 3546	**Percent Solids:**	86.7
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ88235.D	1	02/23/14	AP	02/20/14	OP36913	GYZ7500
Run #2							

	Initial Weight	Final Volume
Run #1	15.3 g	10.0 ml
Run #2		

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	38	ug/kg	
11104-28-2	Aroclor 1221	ND	38	ug/kg	
11141-16-5	Aroclor 1232	ND	38	ug/kg	
53469-21-9	Aroclor 1242	ND	38	ug/kg	
12672-29-6	Aroclor 1248	ND	38	ug/kg	
11097-69-1	Aroclor 1254	ND	38	ug/kg	
11096-82-5	Aroclor 1260	ND	38	ug/kg	
37324-23-5	Aroclor 1262	ND	38	ug/kg	
11100-14-4	Aroclor 1268	ND	38	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	86%		30-150%
877-09-8	Tetrachloro-m-xylene	64%		30-150%
2051-24-3	Decachlorobiphenyl	89%		30-150%
2051-24-3	Decachlorobiphenyl	71%		30-150%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-03(7-9')		
Lab Sample ID:	MC28371-4	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846-8015 SW846 3546	**Percent Solids:**	86.7
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BI32045.D	5	02/25/14	KN	02/21/14	OP36912	GBI1174
Run #2							

	Initial Weight	Final Volume
Run #1	15.7 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (Semi-VOA)	2120	92	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	85%		40-140%

(a) Sample process using TPH8100 method requirement.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-03(7-9')		
Lab Sample ID:	MC28371-4	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	86.7
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	6.8	0.89	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Barium	49.6	4.4	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Cadmium	< 0.35	0.35	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Chromium	18.9	0.89	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Lead	101	0.89	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Mercury	0.093	0.034	mg/kg	1	02/25/14	02/26/14	SA	SW846 7471B [2]	SW846 7471B [4]
Selenium	< 0.89	0.89	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Silver	< 0.44	0.44	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]

(1) Instrument QC Batch: MA16778
(2) Instrument QC Batch: MA16785
(3) Prep QC Batch: MP22532
(4) Prep QC Batch: MP22554

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TP-03(7-9')		
Lab Sample ID:	MC28371-4	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	86.7
Project:	Cobble Hill, Washington, Somerville, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide Reactivity	< 1.7	1.7	mg/kg	1	02/25/14 09:00	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	02/21/14	MA	SW846 1020
Solids, Percent	86.7		%	1	02/20/14	BF	SM21 2540 B MOD.
Specific Conductivity	172	0.50	umhos/cm	1	02/21/14	MA	EPA 120.1M
Sulfide Reactivity	< 58	58	mg/kg	1	02/25/14	BF	SW846 CHAP7
pH	7.9		su	1	02/21/14	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TP-03(7-9')		
Lab Sample ID:	MC28371-4A	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	86.7
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 0.010	D004	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Barium	< 0.50	D005	100	0.50	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Cadmium	< 0.0040	D006	1.0	0.0040	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 0.010	D007	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Lead	0.22	D008	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	02/25/14	02/27/14	SA	SW846 7470A [1]	SW846 7470A [3]
Selenium	< 0.025	D010	1.0	0.025	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Silver	< 0.0050	D011	5.0	0.0050	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA16783
(2) Instrument QC Batch: MA16792
(3) Prep QC Batch: MP22552
(4) Prep QC Batch: MP22558

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)

Report of Analysis

Client Sample ID:	TP-04(0-4')		
Lab Sample ID:	MC28371-5	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	90.3
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28185.D	1	02/25/14	AMY	n/a	n/a	MSV1057
Run #2							

	Initial Weight	Final Volume
Run #1	5.89 g	5.0 ml
Run #2		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	9.4	ug/kg	
71-43-2	Benzene	ND	0.47	ug/kg	
108-86-1	Bromobenzene	ND	4.7	ug/kg	
74-97-5	Bromochloromethane	ND	4.7	ug/kg	
75-27-4	Bromodichloromethane	ND	1.9	ug/kg	
75-25-2	Bromoform	ND	1.9	ug/kg	
74-83-9	Bromomethane	ND	1.9	ug/kg	
78-93-3	2-Butanone (MEK)	ND	9.4	ug/kg	
104-51-8	n-Butylbenzene	ND	4.7	ug/kg	
135-98-8	sec-Butylbenzene	ND	4.7	ug/kg	
98-06-6	tert-Butylbenzene	ND	4.7	ug/kg	
75-15-0	Carbon disulfide	ND	4.7	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.9	ug/kg	
108-90-7	Chlorobenzene	ND	1.9	ug/kg	
75-00-3	Chloroethane	ND	4.7	ug/kg	
67-66-3	Chloroform	ND	1.9	ug/kg	
74-87-3	Chloromethane	ND	4.7	ug/kg	
95-49-8	o-Chlorotoluene	ND	4.7	ug/kg	
106-43-4	p-Chlorotoluene	ND	4.7	ug/kg	
108-20-3	Di-Isopropyl ether	ND	1.9	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	4.7	ug/kg	
124-48-1	Dibromochloromethane	ND	1.9	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.9	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.9	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.9	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.9	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	1.9	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.9	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.9	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.9	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.9	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.9	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-04(0-4')		
Lab Sample ID:	MC28371-5	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	90.3
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	1.9	ug/kg	
142-28-9	1,3-Dichloropropane	ND	4.7	ug/kg	
594-20-7	2,2-Dichloropropane	ND	4.7	ug/kg	
563-58-6	1,1-Dichloropropene	ND	4.7	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.9	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.9	ug/kg	
123-91-1	1,4-Dioxane	ND	24	ug/kg	
60-29-7	Ethyl Ether	ND	4.7	ug/kg	
100-41-4	Ethylbenzene	ND	1.9	ug/kg	
87-68-3	Hexachlorobutadiene	ND	4.7	ug/kg	
591-78-6	2-Hexanone	ND	9.4	ug/kg	
98-82-8	Isopropylbenzene	ND	4.7	ug/kg	
99-87-6	p-Isopropyltoluene	ND	4.7	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.9	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.7	ug/kg	
74-95-3	Methylene bromide	ND	4.7	ug/kg	
75-09-2	Methylene chloride	ND	1.9	ug/kg	
91-20-3	Naphthalene	ND	4.7	ug/kg	
103-65-1	n-Propylbenzene	ND	4.7	ug/kg	
100-42-5	Styrene	ND	4.7	ug/kg	
994-05-8	tert-Amyl Methyl Ether	ND	4.7	ug/kg	
637-92-3	tert-Butyl Ethyl Ether	ND	1.9	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	4.7	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.9	ug/kg	
127-18-4	Tetrachloroethene	ND	1.9	ug/kg	
109-99-9	Tetrahydrofuran	ND	9.4	ug/kg	
108-88-3	Toluene	ND	4.7	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	4.7	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	4.7	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.9	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.9	ug/kg	
79-01-6	Trichloroethene	ND	1.9	ug/kg	
75-69-4	Trichlorofluoromethane	ND	1.9	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	4.7	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	4.7	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	4.7	ug/kg	
75-01-4	Vinyl chloride	ND	1.9	ug/kg	
	m,p-Xylene	ND	1.9	ug/kg	
95-47-6	o-Xylene	ND	1.9	ug/kg	
1330-20-7	Xylene (total)	ND	1.9	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-04(0-4')		
Lab Sample ID:	MC28371-5	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	90.3
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	84%		70-130%
2037-26-5	Toluene-D8	83%		70-130%
460-00-4	4-Bromofluorobenzene	88%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-04(0-4')		
Lab Sample ID:	MC28371-5	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	90.3
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W17826.D	5	02/24/14	WK	02/20/14	OP36911	MSW783
Run #2							

	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	2700	ug/kg	
95-57-8	2-Chlorophenol	ND	1400	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2700	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2700	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2700	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5500	ug/kg	
95-48-7	2-Methylphenol	ND	2700	ug/kg	
	3&4-Methylphenol	ND	2700	ug/kg	
88-75-5	2-Nitrophenol	ND	2700	ug/kg	
100-02-7	4-Nitrophenol	ND	5500	ug/kg	
87-86-5	Pentachlorophenol	ND	2700	ug/kg	
108-95-2	Phenol	ND	1400	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2700	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2700	ug/kg	
83-32-9	Acenaphthene	ND	550	ug/kg	
208-96-8	Acenaphthylene	1630	550	ug/kg	
98-86-2	Acetophenone	ND	2700	ug/kg	
62-53-3	Aniline	ND	2700	ug/kg	
120-12-7	Anthracene	1730	550	ug/kg	
56-55-3	Benzo(a)anthracene	6450	550	ug/kg	
50-32-8	Benzo(a)pyrene	6410	550	ug/kg	
205-99-2	Benzo(b)fluoranthene	5300	550	ug/kg	
191-24-2	Benzo(g,h,i)perylene	3900	550	ug/kg	
207-08-9	Benzo(k)fluoranthene	5150	550	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	ug/kg	
106-47-8	4-Chloroaniline	ND	2700	ug/kg	
218-01-9	Chrysene	5920	550	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-04(0-4')		
Lab Sample ID:	MC28371-5	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	90.3
Project:	Cobble Hill, Washington, Somerville, MA		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	1400	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2700	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2700	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	1230	550	ug/kg	
132-64-9	Dibenzofuran	ND	550	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	ug/kg	
206-44-0	Fluoranthene	10300	550	ug/kg	
86-73-7	Fluorene	ND	550	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	ug/kg	
67-72-1	Hexachloroethane	ND	1400	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	3690	550	ug/kg	
78-59-1	Isophorone	ND	1400	ug/kg	
91-57-6	2-Methylnaphthalene	ND	550	ug/kg	
91-20-3	Naphthalene	ND	550	ug/kg	
98-95-3	Nitrobenzene	ND	1400	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	ug/kg	
85-01-8	Phenanthrene	4600	550	ug/kg	
129-00-0	Pyrene	10200	550	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	52%		30-130%
4165-62-2	Phenol-d5	52%		30-130%
118-79-6	2,4,6-Tribromophenol	88%		30-130%
4165-60-0	Nitrobenzene-d5	55%		30-130%
321-60-8	2-Fluorobiphenyl	79%		30-130%
1718-51-0	Terphenyl-d14	88%		30-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-04(0-4')		
Lab Sample ID:	MC28371-5	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8082 SW846 3546	**Percent Solids:**	90.3
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ88236.D	1	02/23/14	AP	02/20/14	OP36913	GYZ7500
Run #2							

	Initial Weight	Final Volume
Run #1	15.4 g	10.0 ml
Run #2		

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	36	ug/kg	
11104-28-2	Aroclor 1221	ND	36	ug/kg	
11141-16-5	Aroclor 1232	ND	36	ug/kg	
53469-21-9	Aroclor 1242	ND	36	ug/kg	
12672-29-6	Aroclor 1248	ND	36	ug/kg	
11097-69-1	Aroclor 1254	53.7	36	ug/kg	
11096-82-5	Aroclor 1260 [a]	37.4	36	ug/kg	
37324-23-5	Aroclor 1262	ND	36	ug/kg	
11100-14-4	Aroclor 1268	ND	36	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	83%		30-150%
877-09-8	Tetrachloro-m-xylene	59%		30-150%
2051-24-3	Decachlorobiphenyl	89%		30-150%
2051-24-3	Decachlorobiphenyl	68%		30-150%

(a) Estimated value due to the presence of other Aroclor pattern.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-04(0-4')		
Lab Sample ID:	MC28371-5	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846-8015 SW846 3546	**Percent Solids:**	90.3
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BI32037.D	5	02/25/14	KN	02/21/14	OP36912	GBI1174
Run #2							

	Initial Weight	Final Volume
Run #1	15.8 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (Semi-VOA)	1180	88	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	84%		40-140%

(a) Sample process using TPH8100 method requirement.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-04(0-4')		
Lab Sample ID:	MC28371-5	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	90.3
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	6.5	0.90	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Barium	45.7	4.5	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Cadmium	< 0.36	0.36	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Chromium	19.0	0.90	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Lead	177	0.90	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Mercury	0.22	0.035	mg/kg	1	02/25/14	02/26/14	SA	SW846 7471B [2]	SW846 7471B [4]
Selenium	< 0.90	0.90	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Silver	< 0.45	0.45	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]

(1) Instrument QC Batch: MA16778
(2) Instrument QC Batch: MA16785
(3) Prep QC Batch: MP22532
(4) Prep QC Batch: MP22554

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TP-04(0-4')		
Lab Sample ID:	MC28371-5	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	90.3
Project:	Cobble Hill, Washington, Somerville, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide Reactivity	< 1.6	1.6	mg/kg	1	02/25/14 09:00	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	02/21/14	MA	SW846 1020
Solids, Percent	90.3		%	1	02/20/14	BF	SM21 2540 B MOD.
Specific Conductivity	130	0.50	umhos/cm	1	02/21/14	MA	EPA 120.1M
Sulfide Reactivity	< 55	55	mg/kg	1	02/25/14	BF	SW846 CHAP7
pH	7.8		su	1	02/21/14	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Client Sample ID: TP-04(0-4')
Lab Sample ID: MC28371-5A
Matrix: SO - Soil
Project: Cobble Hill, Washington, Somerville, MA

Date Sampled: 02/19/14
Date Received: 02/20/14
Percent Solids: 90.3

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 0.010	D004	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Barium	0.57	D005	100	0.50	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Cadmium	0.0041	D006	1.0	0.0040	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 0.010	D007	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Lead	0.33	D008	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	02/25/14	02/27/14	SA	SW846 7470A [1]	SW846 7470A [3]
Selenium	< 0.025	D010	1.0	0.025	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Silver	< 0.0050	D011	5.0	0.0050	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA16783
(2) Instrument QC Batch: MA16792
(3) Prep QC Batch: MP22552
(4) Prep QC Batch: MP22558

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)

Report of Analysis

Client Sample ID:	TP-04(6-7')		
Lab Sample ID:	MC28371-6	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	87.9
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28174.D	1	02/25/14	AMY	n/a	n/a	MSV1057
Run #2							

	Initial Weight	Final Volume
Run #1	7.38 g	5.0 ml
Run #2		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	30.0	7.7	ug/kg	
71-43-2	Benzene	1.0	0.39	ug/kg	
108-86-1	Bromobenzene	ND	3.9	ug/kg	
74-97-5	Bromochloromethane	ND	3.9	ug/kg	
75-27-4	Bromodichloromethane	ND	1.5	ug/kg	
75-25-2	Bromoform	ND	1.5	ug/kg	
74-83-9	Bromomethane	ND	1.5	ug/kg	
78-93-3	2-Butanone (MEK)	ND	7.7	ug/kg	
104-51-8	n-Butylbenzene	ND	3.9	ug/kg	
135-98-8	sec-Butylbenzene	ND	3.9	ug/kg	
98-06-6	tert-Butylbenzene	ND	3.9	ug/kg	
75-15-0	Carbon disulfide	ND	3.9	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.5	ug/kg	
108-90-7	Chlorobenzene	ND	1.5	ug/kg	
75-00-3	Chloroethane	ND	3.9	ug/kg	
67-66-3	Chloroform	ND	1.5	ug/kg	
74-87-3	Chloromethane	ND	3.9	ug/kg	
95-49-8	o-Chlorotoluene	ND	3.9	ug/kg	
106-43-4	p-Chlorotoluene	ND	3.9	ug/kg	
108-20-3	Di-Isopropyl ether	ND	1.5	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	3.9	ug/kg	
124-48-1	Dibromochloromethane	ND	1.5	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.5	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.5	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.5	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.5	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	1.5	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.5	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.5	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.5	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.5	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.5	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-04(6-7')		
Lab Sample ID:	MC28371-6	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	87.9
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	1.5	ug/kg	
142-28-9	1,3-Dichloropropane	ND	3.9	ug/kg	
594-20-7	2,2-Dichloropropane	ND	3.9	ug/kg	
563-58-6	1,1-Dichloropropene	ND	3.9	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.5	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.5	ug/kg	
123-91-1	1,4-Dioxane	ND	19	ug/kg	
60-29-7	Ethyl Ether	ND	3.9	ug/kg	
100-41-4	Ethylbenzene	ND	1.5	ug/kg	
87-68-3	Hexachlorobutadiene	ND	3.9	ug/kg	
591-78-6	2-Hexanone	ND	7.7	ug/kg	
98-82-8	Isopropylbenzene	ND	3.9	ug/kg	
99-87-6	p-Isopropyltoluene	ND	3.9	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.5	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	3.9	ug/kg	
74-95-3	Methylene bromide	ND	3.9	ug/kg	
75-09-2	Methylene chloride	ND	1.5	ug/kg	
91-20-3	Naphthalene	ND	3.9	ug/kg	
103-65-1	n-Propylbenzene	ND	3.9	ug/kg	
100-42-5	Styrene	ND	3.9	ug/kg	
994-05-8	tert-Amyl Methyl Ether	ND	3.9	ug/kg	
637-92-3	tert-Butyl Ethyl Ether	ND	1.5	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	3.9	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.5	ug/kg	
127-18-4	Tetrachloroethene	ND	1.5	ug/kg	
109-99-9	Tetrahydrofuran	ND	7.7	ug/kg	
108-88-3	Toluene	ND	3.9	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	3.9	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	3.9	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.5	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.5	ug/kg	
79-01-6	Trichloroethene	ND	1.5	ug/kg	
75-69-4	Trichlorofluoromethane	ND	1.5	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	3.9	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	3.9	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	3.9	ug/kg	
75-01-4	Vinyl chloride	ND	1.5	ug/kg	
	m,p-Xylene	ND	1.5	ug/kg	
95-47-6	o-Xylene	ND	1.5	ug/kg	
1330-20-7	Xylene (total)	ND	1.5	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-04(6-7')		
Lab Sample ID:	MC28371-6	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	87.9
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		70-130%
2037-26-5	Toluene-D8	78%		70-130%
460-00-4	4-Bromofluorobenzene	105%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-04(6-7')		
Lab Sample ID:	MC28371-6	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	87.9
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W17827.D	5	02/24/14	WK	02/20/14	OP36911	MSW783
Run #2							

	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	2800	ug/kg	
95-57-8	2-Chlorophenol	ND	1400	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5600	ug/kg	
95-48-7	2-Methylphenol	ND	2800	ug/kg	
	3&4-Methylphenol	ND	2800	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	ug/kg	
100-02-7	4-Nitrophenol	ND	5600	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	ug/kg	
108-95-2	Phenol	ND	1400	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	ug/kg	
83-32-9	Acenaphthene	ND	560	ug/kg	
208-96-8	Acenaphthylene	1350	560	ug/kg	
98-86-2	Acetophenone	ND	2800	ug/kg	
62-53-3	Aniline	ND	2800	ug/kg	
120-12-7	Anthracene	1360	560	ug/kg	
56-55-3	Benzo(a)anthracene	4740	560	ug/kg	
50-32-8	Benzo(a)pyrene	5140	560	ug/kg	
205-99-2	Benzo(b)fluoranthene	3960	560	ug/kg	
191-24-2	Benzo(g,h,i)perylene	3050	560	ug/kg	
207-08-9	Benzo(k)fluoranthene	4210	560	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	ug/kg	
218-01-9	Chrysene	4610	560	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-04(6-7')		
Lab Sample ID:	MC28371-6	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	87.9
Project:	Cobble Hill, Washington, Somerville, MA		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	1400	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	1050	560	ug/kg	
132-64-9	Dibenzofuran	ND	560	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	ug/kg	
206-44-0	Fluoranthene	8000	560	ug/kg	
86-73-7	Fluorene	ND	560	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	ug/kg	
67-72-1	Hexachloroethane	ND	1400	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	2840	560	ug/kg	
78-59-1	Isophorone	ND	1400	ug/kg	
91-57-6	2-Methylnaphthalene	ND	560	ug/kg	
91-20-3	Naphthalene	ND	560	ug/kg	
98-95-3	Nitrobenzene	ND	1400	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	ug/kg	
85-01-8	Phenanthrene	3680	560	ug/kg	
129-00-0	Pyrene	7790	560	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	58%		30-130%
4165-62-2	Phenol-d5	59%		30-130%
118-79-6	2,4,6-Tribromophenol	82%		30-130%
4165-60-0	Nitrobenzene-d5	69%		30-130%
321-60-8	2-Fluorobiphenyl	79%		30-130%
1718-51-0	Terphenyl-d14	91%		30-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-04(6-7')		
Lab Sample ID:	MC28371-6	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8082 SW846 3546	**Percent Solids:**	87.9
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ88237.D	1	02/23/14	AP	02/20/14	OP36913	GYZ7500
Run #2							

	Initial Weight	Final Volume
Run #1	15.4 g	10.0 ml
Run #2		

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	37	ug/kg	
11104-28-2	Aroclor 1221	ND	37	ug/kg	
11141-16-5	Aroclor 1232	ND	37	ug/kg	
53469-21-9	Aroclor 1242	ND	37	ug/kg	
12672-29-6	Aroclor 1248	ND	37	ug/kg	
11097-69-1	Aroclor 1254	52.8	37	ug/kg	
11096-82-5	Aroclor 1260 [a]	40.0	37	ug/kg	
37324-23-5	Aroclor 1262	ND	37	ug/kg	
11100-14-4	Aroclor 1268	ND	37	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	82%		30-150%
877-09-8	Tetrachloro-m-xylene	61%		30-150%
2051-24-3	Decachlorobiphenyl	93%		30-150%
2051-24-3	Decachlorobiphenyl	71%		30-150%

(a) Estimated value due to the presence of other Aroclor pattern.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-04(6-7')		
Lab Sample ID:	MC28371-6	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846-8015 SW846 3546	**Percent Solids:**	87.9
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BI32041.D	5	02/25/14	KN	02/21/14	OP36912	GBI1174
Run #2							

	Initial Weight	Final Volume
Run #1	15.4 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (Semi-VOA)	1260	92	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	72%		40-140%

(a) Sample process using TPH8100 method requirement.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-04(6-7')		
Lab Sample ID:	MC28371-6	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	87.9
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	7.7	0.93	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Barium	54.0	4.7	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Cadmium	< 0.37	0.37	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Chromium	20.5	0.93	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Lead	214	0.93	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Mercury	0.17	0.034	mg/kg	1	02/25/14	02/26/14	SA	SW846 7471B [2]	SW846 7471B [4]
Selenium	< 0.93	0.93	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Silver	< 0.47	0.47	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]

(1) Instrument QC Batch: MA16778
(2) Instrument QC Batch: MA16785
(3) Prep QC Batch: MP22532
(4) Prep QC Batch: MP22554

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TP-04(6-7')		
Lab Sample ID:	MC28371-6	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	87.9
Project:	Cobble Hill, Washington, Somerville, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide Reactivity	< 1.7	1.7	mg/kg	1	02/25/14 09:00	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	02/22/14	MA	SW846 1020
Solids, Percent	87.9		%	1	02/20/14	BF	SM21 2540 B MOD.
Specific Conductivity	165	0.50	umhos/cm	1	02/21/14	MA	EPA 120.1M
Sulfide Reactivity	< 57	57	mg/kg	1	02/25/14	BF	SW846 CHAP7
pH	7.8		su	1	02/21/14	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TP-04(6-7')		
Lab Sample ID:	MC28371-6A	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	87.9
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 0.010	D004	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Barium	< 0.50	D005	100	0.50	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Cadmium	< 0.0040	D006	1.0	0.0040	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Chromium	0.020	D007	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Lead	0.35	D008	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	02/25/14	02/27/14	SA	SW846 7470A [1]	SW846 7470A [3]
Selenium	< 0.025	D010	1.0	0.025	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Silver	< 0.0050	D011	5.0	0.0050	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA16783
(2) Instrument QC Batch: MA16792
(3) Prep QC Batch: MP22552
(4) Prep QC Batch: MP22558

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)

Report of Analysis

Client Sample ID:	TP-05(0-4')		
Lab Sample ID:	MC28371-7	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	88.0
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28186.D	1	02/25/14	AMY	n/a	n/a	MSV1057
Run #2							

	Initial Weight	Final Volume
Run #1	6.46 g	5.0 ml
Run #2		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	31.2	8.8	ug/kg	
71-43-2	Benzene	1.9	0.44	ug/kg	
108-86-1	Bromobenzene	ND	4.4	ug/kg	
74-97-5	Bromochloromethane	ND	4.4	ug/kg	
75-27-4	Bromodichloromethane	ND	1.8	ug/kg	
75-25-2	Bromoform	ND	1.8	ug/kg	
74-83-9	Bromomethane	ND	1.8	ug/kg	
78-93-3	2-Butanone (MEK)	ND	8.8	ug/kg	
104-51-8	n-Butylbenzene	ND	4.4	ug/kg	
135-98-8	sec-Butylbenzene	ND	4.4	ug/kg	
98-06-6	tert-Butylbenzene	ND	4.4	ug/kg	
75-15-0	Carbon disulfide	ND	4.4	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.8	ug/kg	
108-90-7	Chlorobenzene	ND	1.8	ug/kg	
75-00-3	Chloroethane	ND	4.4	ug/kg	
67-66-3	Chloroform	ND	1.8	ug/kg	
74-87-3	Chloromethane	ND	4.4	ug/kg	
95-49-8	o-Chlorotoluene	ND	4.4	ug/kg	
106-43-4	p-Chlorotoluene	ND	4.4	ug/kg	
108-20-3	Di-Isopropyl ether	ND	1.8	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	4.4	ug/kg	
124-48-1	Dibromochloromethane	ND	1.8	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.8	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.8	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.8	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.8	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	1.8	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.8	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.8	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.8	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.8	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.8	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-05(0-4')		
Lab Sample ID:	MC28371-7	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	88.0
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	1.8	ug/kg	
142-28-9	1,3-Dichloropropane	ND	4.4	ug/kg	
594-20-7	2,2-Dichloropropane	ND	4.4	ug/kg	
563-58-6	1,1-Dichloropropene	ND	4.4	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.8	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.8	ug/kg	
123-91-1	1,4-Dioxane	ND	22	ug/kg	
60-29-7	Ethyl Ether	ND	4.4	ug/kg	
100-41-4	Ethylbenzene	ND	1.8	ug/kg	
87-68-3	Hexachlorobutadiene	ND	4.4	ug/kg	
591-78-6	2-Hexanone	ND	8.8	ug/kg	
98-82-8	Isopropylbenzene	ND	4.4	ug/kg	
99-87-6	p-Isopropyltoluene	ND	4.4	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.8	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.4	ug/kg	
74-95-3	Methylene bromide	ND	4.4	ug/kg	
75-09-2	Methylene chloride	ND	1.8	ug/kg	
91-20-3	Naphthalene	ND	4.4	ug/kg	
103-65-1	n-Propylbenzene	ND	4.4	ug/kg	
100-42-5	Styrene	ND	4.4	ug/kg	
994-05-8	tert-Amyl Methyl Ether	ND	4.4	ug/kg	
637-92-3	tert-Butyl Ethyl Ether	ND	1.8	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	4.4	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.8	ug/kg	
127-18-4	Tetrachloroethene	ND	1.8	ug/kg	
109-99-9	Tetrahydrofuran	ND	8.8	ug/kg	
108-88-3	Toluene	ND	4.4	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	4.4	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	4.4	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.8	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.8	ug/kg	
79-01-6	Trichloroethene	ND	1.8	ug/kg	
75-69-4	Trichlorofluoromethane	ND	1.8	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	4.4	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	4.4	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	4.4	ug/kg	
75-01-4	Vinyl chloride	ND	1.8	ug/kg	
	m,p-Xylene	ND	1.8	ug/kg	
95-47-6	o-Xylene	ND	1.8	ug/kg	
1330-20-7	Xylene (total)	ND	1.8	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-05(0-4')		
Lab Sample ID:	MC28371-7	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	88.0
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		70-130%
2037-26-5	Toluene-D8	79%		70-130%
460-00-4	4-Bromofluorobenzene	115%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-05(0-4')		
Lab Sample ID:	MC28371-7	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	88.0
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W17828.D	5	02/24/14	WK	02/20/14	OP36911	MSW783
Run #2							

	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	2800	ug/kg	
95-57-8	2-Chlorophenol	ND	1400	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5600	ug/kg	
95-48-7	2-Methylphenol	ND	2800	ug/kg	
	3&4-Methylphenol	ND	2800	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	ug/kg	
100-02-7	4-Nitrophenol	ND	5600	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	ug/kg	
108-95-2	Phenol	ND	1400	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	ug/kg	
83-32-9	Acenaphthene	1030	560	ug/kg	
208-96-8	Acenaphthylene	973	560	ug/kg	
98-86-2	Acetophenone	ND	2800	ug/kg	
62-53-3	Aniline	ND	2800	ug/kg	
120-12-7	Anthracene	3480	560	ug/kg	
56-55-3	Benzo(a)anthracene	8780	560	ug/kg	
50-32-8	Benzo(a)pyrene	8030	560	ug/kg	
205-99-2	Benzo(b)fluoranthene	7180	560	ug/kg	
191-24-2	Benzo(g,h,i)perylene	4410	560	ug/kg	
207-08-9	Benzo(k)fluoranthene	5930	560	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	ug/kg	
218-01-9	Chrysene	8170	560	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-05(0-4')		
Lab Sample ID:	MC28371-7	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	88.0
Project:	Cobble Hill, Washington, Somerville, MA		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	1400	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	1550	560	ug/kg	
132-64-9	Dibenzofuran	583	560	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	ug/kg	
206-44-0	Fluoranthene	16600	560	ug/kg	
86-73-7	Fluorene	1210	560	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	ug/kg	
67-72-1	Hexachloroethane	ND	1400	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	4040	560	ug/kg	
78-59-1	Isophorone	ND	1400	ug/kg	
91-57-6	2-Methylnaphthalene	ND	560	ug/kg	
91-20-3	Naphthalene	ND	560	ug/kg	
98-95-3	Nitrobenzene	ND	1400	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	ug/kg	
85-01-8	Phenanthrene	11500	560	ug/kg	
129-00-0	Pyrene	15600	560	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	48%		30-130%
4165-62-2	Phenol-d5	49%		30-130%
118-79-6	2,4,6-Tribromophenol	89%		30-130%
4165-60-0	Nitrobenzene-d5	66%		30-130%
321-60-8	2-Fluorobiphenyl	79%		30-130%
1718-51-0	Terphenyl-d14	96%		30-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-05(0-4')		
Lab Sample ID:	MC28371-7	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8082 SW846 3546	**Percent Solids:**	88.0
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ88238.D	1	02/23/14	AP	02/20/14	OP36913	GYZ7500
Run #2							

	Initial Weight	Final Volume
Run #1	15.1 g	10.0 ml
Run #2		

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	38	ug/kg	
11104-28-2	Aroclor 1221	ND	38	ug/kg	
11141-16-5	Aroclor 1232	ND	38	ug/kg	
53469-21-9	Aroclor 1242	ND	38	ug/kg	
12672-29-6	Aroclor 1248	ND	38	ug/kg	
11097-69-1	Aroclor 1254	154	38	ug/kg	
11096-82-5	Aroclor 1260 [a]	58.5	38	ug/kg	
37324-23-5	Aroclor 1262	ND	38	ug/kg	
11100-14-4	Aroclor 1268	ND	38	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	87%		30-150%
877-09-8	Tetrachloro-m-xylene	64%		30-150%
2051-24-3	Decachlorobiphenyl	91%		30-150%
2051-24-3	Decachlorobiphenyl	70%		30-150%

(a) Estimated value due to the presence of other Aroclor pattern.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-05(0-4')		
Lab Sample ID:	MC28371-7	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846-8015 SW846 3546	**Percent Solids:**	88.0
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BI32035.D	5	02/25/14	KN	02/21/14	OP36912	GBI1174
Run #2							

	Initial Weight	Final Volume
Run #1	15.6 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (Semi-VOA)	1320	91	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	56%		40-140%

(a) Sample process using TPH8100 method requirement.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-05(0-4')		
Lab Sample ID:	MC28371-7	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	88.0
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	8.2	0.87	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Barium	101	4.4	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Cadmium	0.53	0.35	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Chromium	19.6	0.87	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Lead	280	0.87	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Mercury	0.57	0.035	mg/kg	1	02/25/14	02/26/14	SA	SW846 7471B [2]	SW846 7471B [4]
Selenium	< 0.87	0.87	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Silver	< 0.44	0.44	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]

(1) Instrument QC Batch: MA16778
(2) Instrument QC Batch: MA16785
(3) Prep QC Batch: MP22532
(4) Prep QC Batch: MP22554

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TP-05(0-4')		
Lab Sample ID:	MC28371-7	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	88.0
Project:	Cobble Hill, Washington, Somerville, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide Reactivity	< 1.7	1.7	mg/kg	1	02/25/14 09:15	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	02/22/14	MA	SW846 1020
Solids, Percent	88		%	1	02/20/14	BF	SM21 2540 B MOD.
Specific Conductivity	185	0.50	umhos/cm	1	02/21/14	MA	EPA 120.1M
Sulfide Reactivity	< 57	57	mg/kg	1	02/25/14	BF	SW846 CHAP7
pH	7.7		su	1	02/21/14	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Client Sample ID: TP-05(0-4')
Lab Sample ID: MC28371-7A
Matrix: SO - Soil
Project: Cobble Hill, Washington, Somerville, MA

Date Sampled: 02/19/14
Date Received: 02/20/14
Percent Solids: 88.0

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 0.010	D004	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Barium	0.76	D005	100	0.50	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Cadmium	0.0059	D006	1.0	0.0040	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 0.010	D007	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Lead	0.32	D008	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	02/25/14	02/27/14	SA	SW846 7470A [1]	SW846 7470A [3]
Selenium	< 0.025	D010	1.0	0.025	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Silver	< 0.0050	D011	5.0	0.0050	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA16783
(2) Instrument QC Batch: MA16792
(3) Prep QC Batch: MP22552
(4) Prep QC Batch: MP22558

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)

Report of Analysis

Client Sample ID:	TP-05(7-8')		
Lab Sample ID:	MC28371-8	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	86.3
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G135224.D	1	02/21/14	JM	n/a	n/a	MSG5205
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	7.81 g	10.0 ml	100 ul
Run #2			

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	820	ug/kg	
71-43-2	Benzene	ND	41	ug/kg	
108-86-1	Bromobenzene	ND	410	ug/kg	
74-97-5	Bromochloromethane	ND	410	ug/kg	
75-27-4	Bromodichloromethane	ND	160	ug/kg	
75-25-2	Bromoform	ND	160	ug/kg	
74-83-9	Bromomethane	ND	160	ug/kg	
78-93-3	2-Butanone (MEK)	ND	820	ug/kg	
104-51-8	n-Butylbenzene	ND	410	ug/kg	
135-98-8	sec-Butylbenzene	ND	410	ug/kg	
98-06-6	tert-Butylbenzene	ND	410	ug/kg	
75-15-0	Carbon disulfide	ND	410	ug/kg	
56-23-5	Carbon tetrachloride	ND	160	ug/kg	
108-90-7	Chlorobenzene	ND	160	ug/kg	
75-00-3	Chloroethane	ND	410	ug/kg	
67-66-3	Chloroform	ND	160	ug/kg	
74-87-3	Chloromethane	ND	410	ug/kg	
95-49-8	o-Chlorotoluene	ND	410	ug/kg	
106-43-4	p-Chlorotoluene	ND	410	ug/kg	
108-20-3	Di-Isopropyl ether	ND	160	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	410	ug/kg	
124-48-1	Dibromochloromethane	ND	160	ug/kg	
106-93-4	1,2-Dibromoethane	ND	160	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	160	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	160	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	160	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	160	ug/kg	
75-34-3	1,1-Dichloroethane	ND	160	ug/kg	
107-06-2	1,2-Dichloroethane	ND	160	ug/kg	
75-35-4	1,1-Dichloroethene	ND	160	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	160	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	160	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-05(7-8')		
Lab Sample ID:	MC28371-8	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	86.3
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	160	ug/kg	
142-28-9	1,3-Dichloropropane	ND	410	ug/kg	
594-20-7	2,2-Dichloropropane	ND	410	ug/kg	
563-58-6	1,1-Dichloropropene	ND	410	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	160	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	160	ug/kg	
123-91-1	1,4-Dioxane	ND	2100	ug/kg	
60-29-7	Ethyl Ether	ND	410	ug/kg	
100-41-4	Ethylbenzene	ND	160	ug/kg	
87-68-3	Hexachlorobutadiene	ND	410	ug/kg	
591-78-6	2-Hexanone	ND	820	ug/kg	
98-82-8	Isopropylbenzene	ND	410	ug/kg	
99-87-6	p-Isopropyltoluene	ND	410	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	160	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	410	ug/kg	
74-95-3	Methylene bromide	ND	410	ug/kg	
75-09-2	Methylene chloride	ND	160	ug/kg	
91-20-3	Naphthalene	2980	410	ug/kg	
103-65-1	n-Propylbenzene	ND	410	ug/kg	
100-42-5	Styrene	ND	410	ug/kg	
994-05-8	tert-Amyl Methyl Ether	ND	410	ug/kg	
637-92-3	tert-Butyl Ethyl Ether	ND	160	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	410	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	160	ug/kg	
127-18-4	Tetrachloroethene	ND	160	ug/kg	
109-99-9	Tetrahydrofuran	ND	820	ug/kg	
108-88-3	Toluene	ND	410	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	410	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	410	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	160	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	160	ug/kg	
79-01-6	Trichloroethene	ND	160	ug/kg	
75-69-4	Trichlorofluoromethane	ND	160	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	410	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	410	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	410	ug/kg	
75-01-4	Vinyl chloride	ND	160	ug/kg	
	m,p-Xylene	ND	160	ug/kg	
95-47-6	o-Xylene	ND	160	ug/kg	
1330-20-7	Xylene (total)	ND	160	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-05(7-8')		
Lab Sample ID:	MC28371-8	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	86.3
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		70-130%
2037-26-5	Toluene-D8	105%		70-130%
460-00-4	4-Bromofluorobenzene	106%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-05(7-8')		
Lab Sample ID:	MC28371-8	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	86.3
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W17829.D	5	02/24/14	WK	02/20/14	OP36911	MSW783
Run #2							

	Initial Weight	Final Volume
Run #1	21.0 g	1.0 ml
Run #2		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	2800	ug/kg	
95-57-8	2-Chlorophenol	ND	1400	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5500	ug/kg	
95-48-7	2-Methylphenol	ND	2800	ug/kg	
	3&4-Methylphenol	ND	2800	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	ug/kg	
100-02-7	4-Nitrophenol	ND	5500	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	ug/kg	
108-95-2	Phenol	ND	1400	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	ug/kg	
83-32-9	Acenaphthene	1330	550	ug/kg	
208-96-8	Acenaphthylene	2300	550	ug/kg	
98-86-2	Acetophenone	ND	2800	ug/kg	
62-53-3	Aniline	ND	2800	ug/kg	
120-12-7	Anthracene	6190	550	ug/kg	
56-55-3	Benzo(a)anthracene	12300	550	ug/kg	
50-32-8	Benzo(a)pyrene	10200	550	ug/kg	
205-99-2	Benzo(b)fluoranthene	8170	550	ug/kg	
191-24-2	Benzo(g,h,i)perylene	4820	550	ug/kg	
207-08-9	Benzo(k)fluoranthene	8310	550	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	ug/kg	
218-01-9	Chrysene	11500	550	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-05(7-8')		
Lab Sample ID:	MC28371-8	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	86.3
Project:	Cobble Hill, Washington, Somerville, MA		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	1400	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	1800	550	ug/kg	
132-64-9	Dibenzofuran	1410	550	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	ug/kg	
206-44-0	Fluoranthene	25200	550	ug/kg	
86-73-7	Fluorene	2710	550	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	ug/kg	
67-72-1	Hexachloroethane	ND	1400	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	4600	550	ug/kg	
78-59-1	Isophorone	ND	1400	ug/kg	
91-57-6	2-Methylnaphthalene	ND	550	ug/kg	
91-20-3	Naphthalene	578	550	ug/kg	
98-95-3	Nitrobenzene	ND	1400	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	ug/kg	
85-01-8	Phenanthrene	21000	550	ug/kg	
129-00-0	Pyrene	22700	550	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	52%		30-130%
4165-62-2	Phenol-d5	56%		30-130%
118-79-6	2,4,6-Tribromophenol	102%		30-130%
4165-60-0	Nitrobenzene-d5	69%		30-130%
321-60-8	2-Fluorobiphenyl	93%		30-130%
1718-51-0	Terphenyl-d14	103%		30-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-05(7-8')		
Lab Sample ID:	MC28371-8	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8082 SW846 3546	**Percent Solids:**	86.3
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ88239.D	1	02/23/14	AP	02/20/14	OP36913	GYZ7500
Run #2							

	Initial Weight	Final Volume
Run #1	15.2 g	10.0 ml
Run #2		

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	38	ug/kg	
11104-28-2	Aroclor 1221	ND	38	ug/kg	
11141-16-5	Aroclor 1232	ND	38	ug/kg	
53469-21-9	Aroclor 1242	ND	38	ug/kg	
12672-29-6	Aroclor 1248	ND	38	ug/kg	
11097-69-1	Aroclor 1254	53.3	38	ug/kg	
11096-82-5	Aroclor 1260	ND	38	ug/kg	
37324-23-5	Aroclor 1262	ND	38	ug/kg	
11100-14-4	Aroclor 1268	ND	38	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	85%		30-150%
877-09-8	Tetrachloro-m-xylene	68%		30-150%
2051-24-3	Decachlorobiphenyl	96%		30-150%
2051-24-3	Decachlorobiphenyl	72%		30-150%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-05(7-8')		
Lab Sample ID:	MC28371-8	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846-8015 SW846 3546	**Percent Solids:**	86.3
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BI32051.D	5	02/25/14	KN	02/21/14	OP36912	GBI1174
Run #2							

	Initial Weight	Final Volume
Run #1	15.7 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (Semi-VOA)	1340	92	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	59%		40-140%

(a) Sample process using TPH8100 method requirement.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-05(7-8')		
Lab Sample ID:	MC28371-8	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	86.3
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	5.9	0.93	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Barium	46.6	4.7	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Cadmium	< 0.37	0.37	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Chromium	15.7	0.93	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Lead	102	0.93	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Mercury	0.086	0.036	mg/kg	1	02/25/14	02/26/14	SA	SW846 7471B [2]	SW846 7471B [4]
Selenium	< 0.93	0.93	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Silver	< 0.47	0.47	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]

(1) Instrument QC Batch: MA16778
(2) Instrument QC Batch: MA16785
(3) Prep QC Batch: MP22532
(4) Prep QC Batch: MP22554

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TP-05(7-8')		
Lab Sample ID:	MC28371-8	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	86.3
Project:	Cobble Hill, Washington, Somerville, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide Reactivity	< 1.7	1.7	mg/kg	1	02/25/14 09:15	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	02/22/14	MA	SW846 1020
Solids, Percent	86.3		%	1	02/20/14	BF	SM21 2540 B MOD.
Specific Conductivity	315	0.50	umhos/cm	1	02/21/14	MA	EPA 120.1M
Sulfide Reactivity	< 58	58	mg/kg	1	02/25/14	BF	SW846 CHAP7
pH	7.6		su	1	02/21/14	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TP-05(7-8')		
Lab Sample ID:	MC28371-8A	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	86.3
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 0.010	D004	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Barium	< 0.50	D005	100	0.50	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Cadmium	0.0043	D006	1.0	0.0040	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 0.010	D007	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Lead	0.25	D008	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	02/25/14	02/27/14	SA	SW846 7470A [1]	SW846 7470A [3]
Selenium	< 0.025	D010	1.0	0.025	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Silver	< 0.0050	D011	5.0	0.0050	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA16783
(2) Instrument QC Batch: MA16792
(3) Prep QC Batch: MP22552
(4) Prep QC Batch: MP22558

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)

Report of Analysis

Client Sample ID:	TP-06(0-4')		
Lab Sample ID:	MC28371-9	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	89.6
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	G135229.D	1	02/21/14	JM	n/a	n/a	MSG5205
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	13.1 g	10.0 ml	100 ul
Run #2			

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	490	ug/kg	
71-43-2	Benzene	ND	24	ug/kg	
108-86-1	Bromobenzene	ND	240	ug/kg	
74-97-5	Bromochloromethane	ND	240	ug/kg	
75-27-4	Bromodichloromethane	ND	97	ug/kg	
75-25-2	Bromoform	ND	97	ug/kg	
74-83-9	Bromomethane	ND	97	ug/kg	
78-93-3	2-Butanone (MEK)	ND	490	ug/kg	
104-51-8	n-Butylbenzene	ND	240	ug/kg	
135-98-8	sec-Butylbenzene	ND	240	ug/kg	
98-06-6	tert-Butylbenzene	ND	240	ug/kg	
75-15-0	Carbon disulfide	ND	240	ug/kg	
56-23-5	Carbon tetrachloride	ND	97	ug/kg	
108-90-7	Chlorobenzene	ND	97	ug/kg	
75-00-3	Chloroethane	ND	240	ug/kg	
67-66-3	Chloroform	ND	97	ug/kg	
74-87-3	Chloromethane	ND	240	ug/kg	
95-49-8	o-Chlorotoluene	ND	240	ug/kg	
106-43-4	p-Chlorotoluene	ND	240	ug/kg	
108-20-3	Di-Isopropyl ether	ND	97	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	240	ug/kg	
124-48-1	Dibromochloromethane	ND	97	ug/kg	
106-93-4	1,2-Dibromoethane	ND	97	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	97	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	97	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	97	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	97	ug/kg	
75-34-3	1,1-Dichloroethane	ND	97	ug/kg	
107-06-2	1,2-Dichloroethane	ND	97	ug/kg	
75-35-4	1,1-Dichloroethene	ND	97	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	97	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	97	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-06(0-4')		
Lab Sample ID:	MC28371-9	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	89.6
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	97	ug/kg	
142-28-9	1,3-Dichloropropane	ND	240	ug/kg	
594-20-7	2,2-Dichloropropane	ND	240	ug/kg	
563-58-6	1,1-Dichloropropene	ND	240	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	97	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	97	ug/kg	
123-91-1	1,4-Dioxane	ND	1200	ug/kg	
60-29-7	Ethyl Ether	ND	240	ug/kg	
100-41-4	Ethylbenzene	ND	97	ug/kg	
87-68-3	Hexachlorobutadiene	ND	240	ug/kg	
591-78-6	2-Hexanone	ND	490	ug/kg	
98-82-8	Isopropylbenzene	ND	240	ug/kg	
99-87-6	p-Isopropyltoluene	ND	240	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	97	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	240	ug/kg	
74-95-3	Methylene bromide	ND	240	ug/kg	
75-09-2	Methylene chloride	ND	97	ug/kg	
91-20-3	Naphthalene	ND	240	ug/kg	
103-65-1	n-Propylbenzene	ND	240	ug/kg	
100-42-5	Styrene	ND	240	ug/kg	
994-05-8	tert-Amyl Methyl Ether	ND	240	ug/kg	
637-92-3	tert-Butyl Ethyl Ether	ND	97	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	240	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	97	ug/kg	
127-18-4	Tetrachloroethene	ND	97	ug/kg	
109-99-9	Tetrahydrofuran	ND	490	ug/kg	
108-88-3	Toluene	ND	240	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	240	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	240	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	97	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	97	ug/kg	
79-01-6	Trichloroethene	ND	97	ug/kg	
75-69-4	Trichlorofluoromethane	ND	97	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	240	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	240	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	240	ug/kg	
75-01-4	Vinyl chloride	ND	97	ug/kg	
	m,p-Xylene	ND	97	ug/kg	
95-47-6	o-Xylene	ND	97	ug/kg	
1330-20-7	Xylene (total)	ND	97	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-06(0-4')		
Lab Sample ID:	MC28371-9	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	89.6
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		70-130%
2037-26-5	Toluene-D8	106%		70-130%
460-00-4	4-Bromofluorobenzene	102%		70-130%

(a) Elevated RL due to dilution required for matrix interference.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-06(0-4')		
Lab Sample ID:	MC28371-9	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	89.6
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W17830.D	5	02/24/14	WK	02/20/14	OP36911	MSW783
Run #2							

	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	2800	ug/kg	
95-57-8	2-Chlorophenol	ND	1400	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5500	ug/kg	
95-48-7	2-Methylphenol	ND	2800	ug/kg	
	3&4-Methylphenol	ND	2800	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	ug/kg	
100-02-7	4-Nitrophenol	ND	5500	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	ug/kg	
108-95-2	Phenol	ND	1400	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	ug/kg	
83-32-9	Acenaphthene	ND	550	ug/kg	
208-96-8	Acenaphthylene	ND	550	ug/kg	
98-86-2	Acetophenone	ND	2800	ug/kg	
62-53-3	Aniline	ND	2800	ug/kg	
120-12-7	Anthracene	1320	550	ug/kg	
56-55-3	Benzo(a)anthracene	3300	550	ug/kg	
50-32-8	Benzo(a)pyrene	3630	550	ug/kg	
205-99-2	Benzo(b)fluoranthene	2710	550	ug/kg	
191-24-2	Benzo(g,h,i)perylene	2330	550	ug/kg	
207-08-9	Benzo(k)fluoranthene	3000	550	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	ug/kg	
218-01-9	Chrysene	3300	550	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-06(0-4')		
Lab Sample ID:	MC28371-9	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	89.6
Project:	Cobble Hill, Washington, Somerville, MA		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	1400	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	757	550	ug/kg	
132-64-9	Dibenzofuran	ND	550	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	ug/kg	
206-44-0	Fluoranthene	6260	550	ug/kg	
86-73-7	Fluorene	812	550	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	ug/kg	
67-72-1	Hexachloroethane	ND	1400	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	2150	550	ug/kg	
78-59-1	Isophorone	ND	1400	ug/kg	
91-57-6	2-Methylnaphthalene	1380	550	ug/kg	
91-20-3	Naphthalene	596	550	ug/kg	
98-95-3	Nitrobenzene	ND	1400	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	ug/kg	
85-01-8	Phenanthrene	4170	550	ug/kg	
129-00-0	Pyrene	5720	550	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	50%		30-130%
4165-62-2	Phenol-d5	56%		30-130%
118-79-6	2,4,6-Tribromophenol	96%		30-130%
4165-60-0	Nitrobenzene-d5	58%		30-130%
321-60-8	2-Fluorobiphenyl	83%		30-130%
1718-51-0	Terphenyl-d14	98%		30-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-06(0-4')		
Lab Sample ID:	MC28371-9	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8082 SW846 3546	**Percent Solids:**	89.6
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ88240.D	1	02/23/14	AP	02/20/14	OP36913	GYZ7500
Run #2							

	Initial Weight	Final Volume
Run #1	15.0 g	10.0 ml
Run #2		

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	37	ug/kg	
11104-28-2	Aroclor 1221	ND	37	ug/kg	
11141-16-5	Aroclor 1232	ND	37	ug/kg	
53469-21-9	Aroclor 1242	ND	37	ug/kg	
12672-29-6	Aroclor 1248	ND	37	ug/kg	
11097-69-1	Aroclor 1254	149	37	ug/kg	
11096-82-5	Aroclor 1260	ND	37	ug/kg	
37324-23-5	Aroclor 1262	ND	37	ug/kg	
11100-14-4	Aroclor 1268	ND	37	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	73%		30-150%
877-09-8	Tetrachloro-m-xylene	50%		30-150%
2051-24-3	Decachlorobiphenyl	88%		30-150%
2051-24-3	Decachlorobiphenyl	66%		30-150%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-06(0-4')		
Lab Sample ID:	MC28371-9	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846-8015 SW846 3546	**Percent Solids:**	89.6
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BI32053.D	5	02/25/14	KN	02/21/14	OP36912	GBI1174
Run #2							

	Initial Weight	Final Volume
Run #1	15.7 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (Semi-VOA)	2630	89	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	73%		40-140%

(a) Sample process using TPH8100 method requirement.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-06(0-4')		
Lab Sample ID:	MC28371-9	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	89.6
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	6.2	0.89	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Barium	64.6	4.5	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Cadmium	0.40	0.36	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Chromium	17.5	0.89	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Lead	179	0.89	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Mercury	0.30	0.034	mg/kg	1	02/25/14	02/26/14	SA	SW846 7471B [2]	SW846 7471B [4]
Selenium	< 0.89	0.89	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Silver	< 0.45	0.45	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]

(1) Instrument QC Batch: MA16778
(2) Instrument QC Batch: MA16785
(3) Prep QC Batch: MP22532
(4) Prep QC Batch: MP22554

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TP-06(0-4')		
Lab Sample ID:	MC28371-9	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	89.6
Project:	Cobble Hill, Washington, Somerville, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide Reactivity	< 1.6	1.6	mg/kg	1	02/25/14 09:15	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	02/22/14	MA	SW846 1020
Solids, Percent	89.6		%	1	02/20/14	BF	SM21 2540 B MOD.
Specific Conductivity	265	0.50	umhos/cm	1	02/21/14	MA	EPA 120.1M
Sulfide Reactivity	< 56	56	mg/kg	1	02/25/14	BF	SW846 CHAP7
pH	7.7		su	1	02/21/14	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TP-06(0-4')		
Lab Sample ID:	MC28371-9A	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	89.6
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	0.011	D004	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Barium	0.62	D005	100	0.50	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Cadmium	0.0051	D006	1.0	0.0040	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 0.010	D007	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Lead	0.31	D008	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	02/25/14	02/27/14	SA	SW846 7470A [1]	SW846 7470A [3]
Selenium	< 0.025	D010	1.0	0.025	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Silver	< 0.0050	D011	5.0	0.0050	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA16783
(2) Instrument QC Batch: MA16792
(3) Prep QC Batch: MP22552
(4) Prep QC Batch: MP22558

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)

Report of Analysis

Client Sample ID:	TP-06(6.5-7.5')		
Lab Sample ID:	MC28371-10	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	87.6
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G135230.D	1	02/21/14	JM	n/a	n/a	MSG5205
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	11.5 g	10.0 ml	100 ul
Run #2			

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	570	ug/kg	
71-43-2	Benzene	ND	28	ug/kg	
108-86-1	Bromobenzene	ND	280	ug/kg	
74-97-5	Bromochloromethane	ND	280	ug/kg	
75-27-4	Bromodichloromethane	ND	110	ug/kg	
75-25-2	Bromoform	ND	110	ug/kg	
74-83-9	Bromomethane	ND	110	ug/kg	
78-93-3	2-Butanone (MEK)	ND	570	ug/kg	
104-51-8	n-Butylbenzene	ND	280	ug/kg	
135-98-8	sec-Butylbenzene	ND	280	ug/kg	
98-06-6	tert-Butylbenzene	ND	280	ug/kg	
75-15-0	Carbon disulfide	ND	280	ug/kg	
56-23-5	Carbon tetrachloride	ND	110	ug/kg	
108-90-7	Chlorobenzene	ND	110	ug/kg	
75-00-3	Chloroethane	ND	280	ug/kg	
67-66-3	Chloroform	ND	110	ug/kg	
74-87-3	Chloromethane	ND	280	ug/kg	
95-49-8	o-Chlorotoluene	ND	280	ug/kg	
106-43-4	p-Chlorotoluene	ND	280	ug/kg	
108-20-3	Di-Isopropyl ether	ND	110	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	280	ug/kg	
124-48-1	Dibromochloromethane	ND	110	ug/kg	
106-93-4	1,2-Dibromoethane	ND	110	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	110	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	110	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	110	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	110	ug/kg	
75-34-3	1,1-Dichloroethane	ND	110	ug/kg	
107-06-2	1,2-Dichloroethane	ND	110	ug/kg	
75-35-4	1,1-Dichloroethene	ND	110	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	110	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	110	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-06(6.5-7.5')		
Lab Sample ID:	MC28371-10	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	87.6
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	110	ug/kg	
142-28-9	1,3-Dichloropropane	ND	280	ug/kg	
594-20-7	2,2-Dichloropropane	ND	280	ug/kg	
563-58-6	1,1-Dichloropropene	ND	280	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	110	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	110	ug/kg	
123-91-1	1,4-Dioxane	ND	1400	ug/kg	
60-29-7	Ethyl Ether	ND	280	ug/kg	
100-41-4	Ethylbenzene	ND	110	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	ug/kg	
591-78-6	2-Hexanone	ND	570	ug/kg	
98-82-8	Isopropylbenzene	ND	280	ug/kg	
99-87-6	p-Isopropyltoluene	ND	280	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	110	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	280	ug/kg	
74-95-3	Methylene bromide	ND	280	ug/kg	
75-09-2	Methylene chloride	ND	110	ug/kg	
91-20-3	Naphthalene	1540	280	ug/kg	
103-65-1	n-Propylbenzene	ND	280	ug/kg	
100-42-5	Styrene	ND	280	ug/kg	
994-05-8	tert-Amyl Methyl Ether	ND	280	ug/kg	
637-92-3	tert-Butyl Ethyl Ether	ND	110	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	280	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	110	ug/kg	
127-18-4	Tetrachloroethene	ND	110	ug/kg	
109-99-9	Tetrahydrofuran	ND	570	ug/kg	
108-88-3	Toluene	ND	280	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	280	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	280	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	110	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	110	ug/kg	
79-01-6	Trichloroethene	ND	110	ug/kg	
75-69-4	Trichlorofluoromethane	ND	110	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	280	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	280	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	280	ug/kg	
75-01-4	Vinyl chloride	ND	110	ug/kg	
	m,p-Xylene	131	110	ug/kg	
95-47-6	o-Xylene	ND	110	ug/kg	
1330-20-7	Xylene (total)	204	110	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-06(6.5-7.5')		
Lab Sample ID:	MC28371-10	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	87.6
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		70-130%
2037-26-5	Toluene-D8	108%		70-130%
460-00-4	4-Bromofluorobenzene	105%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-06(6.5-7.5')		
Lab Sample ID:	MC28371-10	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	87.6
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W17831.D	5	02/24/14	WK	02/20/14	OP36911	MSW783
Run #2							

	Initial Weight	Final Volume
Run #1	20.5 g	1.0 ml
Run #2		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	2800	ug/kg	
95-57-8	2-Chlorophenol	ND	1400	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5600	ug/kg	
95-48-7	2-Methylphenol	ND	2800	ug/kg	
	3&4-Methylphenol	ND	2800	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	ug/kg	
100-02-7	4-Nitrophenol	ND	5600	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	ug/kg	
108-95-2	Phenol	ND	1400	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	ug/kg	
83-32-9	Acenaphthene	1360	560	ug/kg	
208-96-8	Acenaphthylene	995	560	ug/kg	
98-86-2	Acetophenone	ND	2800	ug/kg	
62-53-3	Aniline	ND	2800	ug/kg	
120-12-7	Anthracene	2430	560	ug/kg	
56-55-3	Benzo(a)anthracene	4910	560	ug/kg	
50-32-8	Benzo(a)pyrene	4820	560	ug/kg	
205-99-2	Benzo(b)fluoranthene	4330	560	ug/kg	
191-24-2	Benzo(g,h,i)perylene	2660	560	ug/kg	
207-08-9	Benzo(k)fluoranthene	3520	560	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	ug/kg	
218-01-9	Chrysene	4730	560	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-06(6.5-7.5')		
Lab Sample ID:	MC28371-10	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	87.6
Project:	Cobble Hill, Washington, Somerville, MA		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	1400	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	862	560	ug/kg	
132-64-9	Dibenzofuran	827	560	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	ug/kg	
206-44-0	Fluoranthene	10200	560	ug/kg	
86-73-7	Fluorene	1540	560	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	ug/kg	
67-72-1	Hexachloroethane	ND	1400	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	2370	560	ug/kg	
78-59-1	Isophorone	ND	1400	ug/kg	
91-57-6	2-Methylnaphthalene	2830	560	ug/kg	
91-20-3	Naphthalene	2410	560	ug/kg	
98-95-3	Nitrobenzene	ND	1400	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	ug/kg	
85-01-8	Phenanthrene	7970	560	ug/kg	
129-00-0	Pyrene	9610	560	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	57%		30-130%
4165-62-2	Phenol-d5	51%		30-130%
118-79-6	2,4,6-Tribromophenol	93%		30-130%
4165-60-0	Nitrobenzene-d5	62%		30-130%
321-60-8	2-Fluorobiphenyl	83%		30-130%
1718-51-0	Terphenyl-d14	94%		30-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-06(6.5-7.5')		
Lab Sample ID:	MC28371-10	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8082 SW846 3546	**Percent Solids:**	87.6
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ88241.D	1	02/23/14	AP	02/20/14	OP36913	GYZ7500
Run #2							

	Initial Weight	Final Volume
Run #1	15.5 g	10.0 ml
Run #2		

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	37	ug/kg	
11104-28-2	Aroclor 1221	ND	37	ug/kg	
11141-16-5	Aroclor 1232	ND	37	ug/kg	
53469-21-9	Aroclor 1242	ND	37	ug/kg	
12672-29-6	Aroclor 1248	ND	37	ug/kg	
11097-69-1	Aroclor 1254	115	37	ug/kg	
11096-82-5	Aroclor 1260	ND	37	ug/kg	
37324-23-5	Aroclor 1262	ND	37	ug/kg	
11100-14-4	Aroclor 1268	ND	37	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	76%		30-150%
877-09-8	Tetrachloro-m-xylene	57%		30-150%
2051-24-3	Decachlorobiphenyl	92%		30-150%
2051-24-3	Decachlorobiphenyl	69%		30-150%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-06(6.5-7.5')		
Lab Sample ID:	MC28371-10	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846-8015 SW846 3546	**Percent Solids:**	87.6
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BI32055.D	5	02/25/14	KN	02/21/14	OP36912	GBI1174
Run #2							

	Initial Weight	Final Volume
Run #1	15.3 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (Semi-VOA)	3060	93	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	65%		40-140%

(a) Sample process using TPH8100 method requirement.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-06(6.5-7.5')		
Lab Sample ID:	MC28371-10	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	87.6
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	7.0	0.90	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Barium	56.6	4.5	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Cadmium	< 0.36	0.36	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Chromium	18.0	0.90	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Lead	189	0.90	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Mercury	0.33	0.035	mg/kg	1	02/25/14	02/26/14	SA	SW846 7471B [2]	SW846 7471B [4]
Selenium	< 0.90	0.90	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Silver	< 0.45	0.45	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]

(1) Instrument QC Batch: MA16778
(2) Instrument QC Batch: MA16785
(3) Prep QC Batch: MP22532
(4) Prep QC Batch: MP22554

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TP-06(6.5-7.5')		
Lab Sample ID:	MC28371-10	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	87.6
Project:	Cobble Hill, Washington, Somerville, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide Reactivity	< 1.6	1.6	mg/kg	1	02/25/14 09:15	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	02/22/14	MA	SW846 1020
Solids, Percent	87.6		%	1	02/20/14	BF	SM21 2540 B MOD.
Specific Conductivity	285	0.50	umhos/cm	1	02/21/14	MA	EPA 120.1M
Sulfide Reactivity	< 57	57	mg/kg	1	02/25/14	BF	SW846 CHAP7
pH	7.6		su	1	02/21/14	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Client Sample ID: TP-06(6.5-7.5')
Lab Sample ID: MC28371-10A
Matrix: SO - Soil
Project: Cobble Hill, Washington, Somerville, MA

Date Sampled: 02/19/14
Date Received: 02/20/14
Percent Solids: 87.6

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	0.017	D004	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Barium	0.58	D005	100	0.50	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Cadmium	0.0043	D006	1.0	0.0040	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 0.010	D007	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Lead	0.60	D008	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	02/25/14	02/27/14	SA	SW846 7470A [1]	SW846 7470A [3]
Selenium	< 0.025	D010	1.0	0.025	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Silver	< 0.0050	D011	5.0	0.0050	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA16783
(2) Instrument QC Batch: MA16792
(3) Prep QC Batch: MP22552
(4) Prep QC Batch: MP22558

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)

Report of Analysis

Client Sample ID:	TP-07(0-4')		
Lab Sample ID:	MC28371-11	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	85.9
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28187.D	1	02/25/14	AMY	n/a	n/a	MSV1057
Run #2							

	Initial Weight	Final Volume
Run #1	6.58 g	5.0 ml
Run #2		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	28.9	8.8	ug/kg	
71-43-2	Benzene	0.45	0.44	ug/kg	
108-86-1	Bromobenzene	ND	4.4	ug/kg	
74-97-5	Bromochloromethane	ND	4.4	ug/kg	
75-27-4	Bromodichloromethane	ND	1.8	ug/kg	
75-25-2	Bromoform	ND	1.8	ug/kg	
74-83-9	Bromomethane	ND	1.8	ug/kg	
78-93-3	2-Butanone (MEK)	ND	8.8	ug/kg	
104-51-8	n-Butylbenzene	ND	4.4	ug/kg	
135-98-8	sec-Butylbenzene	ND	4.4	ug/kg	
98-06-6	tert-Butylbenzene	ND	4.4	ug/kg	
75-15-0	Carbon disulfide	ND	4.4	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.8	ug/kg	
108-90-7	Chlorobenzene	ND	1.8	ug/kg	
75-00-3	Chloroethane	ND	4.4	ug/kg	
67-66-3	Chloroform	ND	1.8	ug/kg	
74-87-3	Chloromethane	ND	4.4	ug/kg	
95-49-8	o-Chlorotoluene	ND	4.4	ug/kg	
106-43-4	p-Chlorotoluene	ND	4.4	ug/kg	
108-20-3	Di-Isopropyl ether	ND	1.8	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	4.4	ug/kg	
124-48-1	Dibromochloromethane	ND	1.8	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.8	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.8	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.8	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.8	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	1.8	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.8	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.8	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.8	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.8	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.8	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-07(0-4')		
Lab Sample ID:	MC28371-11	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	85.9
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	1.8	ug/kg	
142-28-9	1,3-Dichloropropane	ND	4.4	ug/kg	
594-20-7	2,2-Dichloropropane	ND	4.4	ug/kg	
563-58-6	1,1-Dichloropropene	ND	4.4	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.8	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.8	ug/kg	
123-91-1	1,4-Dioxane	ND	22	ug/kg	
60-29-7	Ethyl Ether	ND	4.4	ug/kg	
100-41-4	Ethylbenzene	ND	1.8	ug/kg	
87-68-3	Hexachlorobutadiene	ND	4.4	ug/kg	
591-78-6	2-Hexanone	ND	8.8	ug/kg	
98-82-8	Isopropylbenzene	ND	4.4	ug/kg	
99-87-6	p-Isopropyltoluene	ND	4.4	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.8	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.4	ug/kg	
74-95-3	Methylene bromide	ND	4.4	ug/kg	
75-09-2	Methylene chloride	ND	1.8	ug/kg	
91-20-3	Naphthalene	ND	4.4	ug/kg	
103-65-1	n-Propylbenzene	ND	4.4	ug/kg	
100-42-5	Styrene	ND	4.4	ug/kg	
994-05-8	tert-Amyl Methyl Ether	ND	4.4	ug/kg	
637-92-3	tert-Butyl Ethyl Ether	ND	1.8	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	4.4	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.8	ug/kg	
127-18-4	Tetrachloroethene	ND	1.8	ug/kg	
109-99-9	Tetrahydrofuran	ND	8.8	ug/kg	
108-88-3	Toluene	ND	4.4	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	4.4	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	4.4	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.8	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.8	ug/kg	
79-01-6	Trichloroethene	ND	1.8	ug/kg	
75-69-4	Trichlorofluoromethane	ND	1.8	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	4.4	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	4.4	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	4.4	ug/kg	
75-01-4	Vinyl chloride	ND	1.8	ug/kg	
	m,p-Xylene	ND	1.8	ug/kg	
95-47-6	o-Xylene	ND	1.8	ug/kg	
1330-20-7	Xylene (total)	ND	1.8	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-07(0-4')		
Lab Sample ID:	MC28371-11	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	85.9
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	85%		70-130%
2037-26-5	Toluene-D8	84%		70-130%
460-00-4	4-Bromofluorobenzene	87%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-07(0-4')		
Lab Sample ID:	MC28371-11	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	85.9
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W17832.D	5	02/24/14	WK	02/20/14	OP36911	MSW783
Run #2							

	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	2900	ug/kg	
95-57-8	2-Chlorophenol	ND	1400	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2900	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2900	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2900	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5700	ug/kg	
95-48-7	2-Methylphenol	ND	2900	ug/kg	
	3&4-Methylphenol	ND	2900	ug/kg	
88-75-5	2-Nitrophenol	ND	2900	ug/kg	
100-02-7	4-Nitrophenol	ND	5700	ug/kg	
87-86-5	Pentachlorophenol	ND	2900	ug/kg	
108-95-2	Phenol	ND	1400	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2900	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2900	ug/kg	
83-32-9	Acenaphthene	ND	570	ug/kg	
208-96-8	Acenaphthylene	703	570	ug/kg	
98-86-2	Acetophenone	ND	2900	ug/kg	
62-53-3	Aniline	ND	2900	ug/kg	
120-12-7	Anthracene	1070	570	ug/kg	
56-55-3	Benzo(a)anthracene	5120	570	ug/kg	
50-32-8	Benzo(a)pyrene	5350	570	ug/kg	
205-99-2	Benzo(b)fluoranthene	4510	570	ug/kg	
191-24-2	Benzo(g,h,i)perylene	2860	570	ug/kg	
207-08-9	Benzo(k)fluoranthene	3120	570	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	ug/kg	
106-47-8	4-Chloroaniline	ND	2900	ug/kg	
218-01-9	Chrysene	5280	570	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-07(0-4')		
Lab Sample ID:	MC28371-11	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	85.9
Project:	Cobble Hill, Washington, Somerville, MA		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	1400	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2900	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2900	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	946	570	ug/kg	
132-64-9	Dibenzofuran	ND	570	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	ug/kg	
206-44-0	Fluoranthene	6530	570	ug/kg	
86-73-7	Fluorene	ND	570	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2900	ug/kg	
67-72-1	Hexachloroethane	ND	1400	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	2550	570	ug/kg	
78-59-1	Isophorone	ND	1400	ug/kg	
91-57-6	2-Methylnaphthalene	ND	570	ug/kg	
91-20-3	Naphthalene	ND	570	ug/kg	
98-95-3	Nitrobenzene	ND	1400	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	ug/kg	
85-01-8	Phenanthrene	2880	570	ug/kg	
129-00-0	Pyrene	8570	570	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	55%		30-130%
4165-62-2	Phenol-d5	56%		30-130%
118-79-6	2,4,6-Tribromophenol	104%		30-130%
4165-60-0	Nitrobenzene-d5	66%		30-130%
321-60-8	2-Fluorobiphenyl	86%		30-130%
1718-51-0	Terphenyl-d14	101%		30-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-07(0-4')		
Lab Sample ID:	MC28371-11	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8082 SW846 3546	**Percent Solids:**	85.9
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ88242.D	1	02/23/14	AP	02/20/14	OP36913	GYZ7500
Run #2							

	Initial Weight	Final Volume
Run #1	15.2 g	10.0 ml
Run #2		

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	38	ug/kg	
11104-28-2	Aroclor 1221	ND	38	ug/kg	
11141-16-5	Aroclor 1232	ND	38	ug/kg	
53469-21-9	Aroclor 1242	ND	38	ug/kg	
12672-29-6	Aroclor 1248 [a]	53.4	38	ug/kg	
11097-69-1	Aroclor 1254	64.3	38	ug/kg	
11096-82-5	Aroclor 1260	ND	38	ug/kg	
37324-23-5	Aroclor 1262	ND	38	ug/kg	
11100-14-4	Aroclor 1268	ND	38	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	91%		30-150%
877-09-8	Tetrachloro-m-xylene	61%		30-150%
2051-24-3	Decachlorobiphenyl	92%		30-150%
2051-24-3	Decachlorobiphenyl	67%		30-150%

(a) Estimated value due to the presence of other Aroclor pattern.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-07(0-4')		
Lab Sample ID:	MC28371-11	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846-8015 SW846 3546	**Percent Solids:**	85.9
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BI32013.D	5	02/25/14	KN	02/21/14	OP36912	GBI1174
Run #2							

	Initial Weight	Final Volume
Run #1	15.7 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (Semi-VOA)	844	93	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	77%		40-140%

(a) Sample process using TPH8100 method requirement.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-07(0-4')		
Lab Sample ID:	MC28371-11	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	85.9
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	9.0	0.90	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Barium	60.0	4.5	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Cadmium	< 0.36	0.36	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Chromium	31.2	0.90	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Lead	132	0.90	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Mercury	0.16	0.035	mg/kg	1	02/25/14	02/26/14	SA	SW846 7471B [2]	SW846 7471B [4]
Selenium	< 0.90	0.90	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Silver	< 0.45	0.45	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]

(1) Instrument QC Batch: MA16778
(2) Instrument QC Batch: MA16785
(3) Prep QC Batch: MP22532
(4) Prep QC Batch: MP22554

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TP-07(0-4')		
Lab Sample ID:	MC28371-11	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	85.9
Project:	Cobble Hill, Washington, Somerville, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide Reactivity	< 1.7	1.7	mg/kg	1	02/25/14 09:15	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	02/22/14	MA	SW846 1020
Solids, Percent	85.9		%	1	02/20/14	BF	SM21 2540 B MOD.
Specific Conductivity	164	0.50	umhos/cm	1	02/21/14	MA	EPA 120.1M
Sulfide Reactivity	< 58	58	mg/kg	1	02/25/14	BF	SW846 CHAP7
pH	7.6		su	1	02/21/14	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TP-07(0-4')		
Lab Sample ID:	MC28371-11A	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	85.9
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 0.010	D004	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Barium	< 0.50	D005	100	0.50	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Cadmium	< 0.0040	D006	1.0	0.0040	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 0.010	D007	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Lead	0.064	D008	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	02/25/14	02/27/14	SA	SW846 7470A [1]	SW846 7470A [3]
Selenium	< 0.025	D010	1.0	0.025	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Silver	< 0.0050	D011	5.0	0.0050	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA16783
(2) Instrument QC Batch: MA16792
(3) Prep QC Batch: MP22552
(4) Prep QC Batch: MP22558

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)

Report of Analysis

Client Sample ID:	TP-07(6-7')		
Lab Sample ID:	MC28371-12	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	89.1
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G135226.D	1	02/21/14	JM	n/a	n/a	MSG5205
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	18.4 g	10.0 ml	100 ul
Run #2			

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	370	ug/kg	
71-43-2	Benzene	ND	18	ug/kg	
108-86-1	Bromobenzene	ND	180	ug/kg	
74-97-5	Bromochloromethane	ND	180	ug/kg	
75-27-4	Bromodichloromethane	ND	73	ug/kg	
75-25-2	Bromoform	ND	73	ug/kg	
74-83-9	Bromomethane	ND	73	ug/kg	
78-93-3	2-Butanone (MEK)	ND	370	ug/kg	
104-51-8	n-Butylbenzene	ND	180	ug/kg	
135-98-8	sec-Butylbenzene	ND	180	ug/kg	
98-06-6	tert-Butylbenzene	ND	180	ug/kg	
75-15-0	Carbon disulfide	ND	180	ug/kg	
56-23-5	Carbon tetrachloride	ND	73	ug/kg	
108-90-7	Chlorobenzene	ND	73	ug/kg	
75-00-3	Chloroethane	ND	180	ug/kg	
67-66-3	Chloroform	ND	73	ug/kg	
74-87-3	Chloromethane	ND	180	ug/kg	
95-49-8	o-Chlorotoluene	ND	180	ug/kg	
106-43-4	p-Chlorotoluene	ND	180	ug/kg	
108-20-3	Di-Isopropyl ether	ND	73	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	180	ug/kg	
124-48-1	Dibromochloromethane	ND	73	ug/kg	
106-93-4	1,2-Dibromoethane	ND	73	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	73	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	73	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	73	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	73	ug/kg	
75-34-3	1,1-Dichloroethane	ND	73	ug/kg	
107-06-2	1,2-Dichloroethane	ND	73	ug/kg	
75-35-4	1,1-Dichloroethene	ND	73	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	73	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	73	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-07(6-7')		
Lab Sample ID:	MC28371-12	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	89.1
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	73	ug/kg	
142-28-9	1,3-Dichloropropane	ND	180	ug/kg	
594-20-7	2,2-Dichloropropane	ND	180	ug/kg	
563-58-6	1,1-Dichloropropene	ND	180	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	73	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	73	ug/kg	
123-91-1	1,4-Dioxane	ND	910	ug/kg	
60-29-7	Ethyl Ether	ND	180	ug/kg	
100-41-4	Ethylbenzene	ND	73	ug/kg	
87-68-3	Hexachlorobutadiene	ND	180	ug/kg	
591-78-6	2-Hexanone	ND	370	ug/kg	
98-82-8	Isopropylbenzene	ND	180	ug/kg	
99-87-6	p-Isopropyltoluene	ND	180	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	73	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	180	ug/kg	
74-95-3	Methylene bromide	ND	180	ug/kg	
75-09-2	Methylene chloride	ND	73	ug/kg	
91-20-3	Naphthalene	3500	180	ug/kg	
103-65-1	n-Propylbenzene	ND	180	ug/kg	
100-42-5	Styrene	ND	180	ug/kg	
994-05-8	tert-Amyl Methyl Ether	ND	180	ug/kg	
637-92-3	tert-Butyl Ethyl Ether	ND	73	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	180	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	73	ug/kg	
127-18-4	Tetrachloroethene	ND	73	ug/kg	
109-99-9	Tetrahydrofuran	ND	370	ug/kg	
108-88-3	Toluene	ND	180	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	180	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	180	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	73	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	73	ug/kg	
79-01-6	Trichloroethene	ND	73	ug/kg	
75-69-4	Trichlorofluoromethane	ND	73	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	180	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	180	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	180	ug/kg	
75-01-4	Vinyl chloride	ND	73	ug/kg	
	m,p-Xylene	ND	73	ug/kg	
95-47-6	o-Xylene	ND	73	ug/kg	
1330-20-7	Xylene (total)	ND	73	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-07(6-7')		
Lab Sample ID:	MC28371-12	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	89.1
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		70-130%
2037-26-5	Toluene-D8	107%		70-130%
460-00-4	4-Bromofluorobenzene	107%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-07(6-7')		
Lab Sample ID:	MC28371-12	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	89.1
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W17833.D	5	02/24/14	WK	02/20/14	OP36911	MSW783
Run #2							

	Initial Weight	Final Volume
Run #1	20.5 g	1.0 ml
Run #2		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	2700	ug/kg	
95-57-8	2-Chlorophenol	ND	1400	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2700	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2700	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2700	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5500	ug/kg	
95-48-7	2-Methylphenol	ND	2700	ug/kg	
	3&4-Methylphenol	ND	2700	ug/kg	
88-75-5	2-Nitrophenol	ND	2700	ug/kg	
100-02-7	4-Nitrophenol	ND	5500	ug/kg	
87-86-5	Pentachlorophenol	ND	2700	ug/kg	
108-95-2	Phenol	ND	1400	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2700	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2700	ug/kg	
83-32-9	Acenaphthene	2090	550	ug/kg	
208-96-8	Acenaphthylene	1250	550	ug/kg	
98-86-2	Acetophenone	ND	2700	ug/kg	
62-53-3	Aniline	ND	2700	ug/kg	
120-12-7	Anthracene	4980	550	ug/kg	
56-55-3	Benzo(a)anthracene	10200	550	ug/kg	
50-32-8	Benzo(a)pyrene	8840	550	ug/kg	
205-99-2	Benzo(b)fluoranthene	7140	550	ug/kg	
191-24-2	Benzo(g,h,i)perylene	4380	550	ug/kg	
207-08-9	Benzo(k)fluoranthene	7250	550	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	ug/kg	
106-47-8	4-Chloroaniline	ND	2700	ug/kg	
218-01-9	Chrysene	9160	550	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-07(6-7')		
Lab Sample ID:	MC28371-12	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	89.1
Project:	Cobble Hill, Washington, Somerville, MA		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	1400	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2700	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2700	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	1560	550	ug/kg	
132-64-9	Dibenzofuran	1700	550	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	ug/kg	
206-44-0	Fluoranthene	21400	550	ug/kg	
86-73-7	Fluorene	2640	550	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	ug/kg	
67-72-1	Hexachloroethane	ND	1400	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	4040	550	ug/kg	
78-59-1	Isophorone	ND	1400	ug/kg	
91-57-6	2-Methylnaphthalene	659	550	ug/kg	
91-20-3	Naphthalene	1100	550	ug/kg	
98-95-3	Nitrobenzene	ND	1400	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	ug/kg	
85-01-8	Phenanthrene	14500	550	ug/kg	
129-00-0	Pyrene	19000	550	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	54%		30-130%
4165-62-2	Phenol-d5	58%		30-130%
118-79-6	2,4,6-Tribromophenol	100%		30-130%
4165-60-0	Nitrobenzene-d5	63%		30-130%
321-60-8	2-Fluorobiphenyl	93%		30-130%
1718-51-0	Terphenyl-d14	110%		30-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-07(6-7')		
Lab Sample ID:	MC28371-12	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8082 SW846 3546	**Percent Solids:**	89.1
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ88243.D	1	02/23/14	AP	02/20/14	OP36913	GYZ7500
Run #2							

	Initial Weight	Final Volume
Run #1	15.6 g	10.0 ml
Run #2		

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	36	ug/kg	
11104-28-2	Aroclor 1221	ND	36	ug/kg	
11141-16-5	Aroclor 1232	ND	36	ug/kg	
53469-21-9	Aroclor 1242	ND	36	ug/kg	
12672-29-6	Aroclor 1248	426	36	ug/kg	
11097-69-1	Aroclor 1254 [a]	118	36	ug/kg	
11096-82-5	Aroclor 1260 [a]	80.7	36	ug/kg	
37324-23-5	Aroclor 1262	ND	36	ug/kg	
11100-14-4	Aroclor 1268	ND	36	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	78%		30-150%
877-09-8	Tetrachloro-m-xylene	53%		30-150%
2051-24-3	Decachlorobiphenyl	109%		30-150%
2051-24-3	Decachlorobiphenyl	64%		30-150%

(a) Estimated value due to the presence of other Aroclor pattern.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-07(6-7')		
Lab Sample ID:	MC28371-12	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846-8015 SW846 3546	**Percent Solids:**	89.1
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BI32057.D	5	02/25/14	KN	02/21/14	OP36912	GBI1174
Run #2							

	Initial Weight	Final Volume
Run #1	15.9 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (Semi-VOA)	1590	88	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	56%		40-140%

(a) Sample process using TPH8100 method requirement.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-07(6-7')		
Lab Sample ID:	MC28371-12	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	89.1
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	7.4	0.92	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Barium	103	4.6	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Cadmium	0.39	0.37	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Chromium	21.2	0.92	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Lead	165	0.92	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Mercury	0.28	0.034	mg/kg	1	02/25/14	02/26/14	SA	SW846 7471B [2]	SW846 7471B [4]
Selenium	< 0.92	0.92	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Silver	< 0.46	0.46	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]

(1) Instrument QC Batch: MA16778
(2) Instrument QC Batch: MA16785
(3) Prep QC Batch: MP22532
(4) Prep QC Batch: MP22554

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TP-07(6-7')		
Lab Sample ID:	MC28371-12	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	89.1
Project:	Cobble Hill, Washington, Somerville, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide Reactivity	< 1.7	1.7	mg/kg	1	02/25/14 09:15	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	02/22/14	MA	SW846 1020
Solids, Percent	89.1		%	1	02/24/14	MC	SM21 2540 B MOD.
Specific Conductivity	292	0.50	umhos/cm	1	02/21/14	MA	EPA 120.1M
Sulfide Reactivity	< 56	56	mg/kg	1	02/25/14	BF	SW846 CHAP7
pH	7.8		su	1	02/21/14	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TP-07(6-7')		
Lab Sample ID:	MC28371-12A	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	89.1
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 0.010	D004	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Barium	0.61	D005	100	0.50	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Cadmium	0.0051	D006	1.0	0.0040	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 0.010	D007	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Lead	1.1	D008	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	02/25/14	02/27/14	SA	SW846 7470A [1]	SW846 7470A [3]
Selenium	< 0.025	D010	1.0	0.025	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Silver	< 0.0050	D011	5.0	0.0050	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA16783
(2) Instrument QC Batch: MA16792
(3) Prep QC Batch: MP22552
(4) Prep QC Batch: MP22558

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)

Report of Analysis

Client Sample ID:	TP-08(0-4')		
Lab Sample ID:	MC28371-13	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	88.6
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28177.D	1	02/25/14	AMY	n/a	n/a	MSV1057
Run #2							

	Initial Weight	Final Volume
Run #1	5.52 g	5.0 ml
Run #2		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	38.2	10	ug/kg	
71-43-2	Benzene	5.6	0.51	ug/kg	
108-86-1	Bromobenzene	ND	5.1	ug/kg	
74-97-5	Bromochloromethane	ND	5.1	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	ug/kg	
75-25-2	Bromoform	ND	2.0	ug/kg	
74-83-9	Bromomethane	ND	2.0	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	ug/kg	
104-51-8	n-Butylbenzene	ND	5.1	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.1	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.1	ug/kg	
75-15-0	Carbon disulfide	ND	5.1	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	ug/kg	
75-00-3	Chloroethane	ND	5.1	ug/kg	
67-66-3	Chloroform	ND	2.0	ug/kg	
74-87-3	Chloromethane	ND	5.1	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.1	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.1	ug/kg	
108-20-3	Di-Isopropyl ether	ND	2.0	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.1	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.0	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.0	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.0	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.0	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.0	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.0	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-08(0-4')		
Lab Sample ID:	MC28371-13	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	88.6
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	ug/kg	
142-28-9	1,3-Dichloropropane	ND	5.1	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.1	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.1	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	ug/kg	
123-91-1	1,4-Dioxane	ND	26	ug/kg	
60-29-7	Ethyl Ether	ND	5.1	ug/kg	
100-41-4	Ethylbenzene	ND	2.0	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.1	ug/kg	
591-78-6	2-Hexanone	ND	10	ug/kg	
98-82-8	Isopropylbenzene	ND	5.1	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.1	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.1	ug/kg	
74-95-3	Methylene bromide	ND	5.1	ug/kg	
75-09-2	Methylene chloride	ND	2.0	ug/kg	
91-20-3	Naphthalene	ND	5.1	ug/kg	
103-65-1	n-Propylbenzene	ND	5.1	ug/kg	
100-42-5	Styrene	ND	5.1	ug/kg	
994-05-8	tert-Amyl Methyl Ether	ND	5.1	ug/kg	
637-92-3	tert-Butyl Ethyl Ether	ND	2.0	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.1	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	ug/kg	
109-99-9	Tetrahydrofuran	ND	10	ug/kg	
108-88-3	Toluene	ND	5.1	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.1	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.1	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.0	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.0	ug/kg	
79-01-6	Trichloroethene	ND	2.0	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.0	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.1	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.1	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.1	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	ug/kg	
	m,p-Xylene	ND	2.0	ug/kg	
95-47-6	o-Xylene	ND	2.0	ug/kg	
1330-20-7	Xylene (total)	ND	2.0	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-08(0-4')		
Lab Sample ID:	MC28371-13	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	88.6
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		70-130%
2037-26-5	Toluene-D8	81%		70-130%
460-00-4	4-Bromofluorobenzene	93%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-08(0-4')		
Lab Sample ID:	MC28371-13	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	88.6
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W17834.D	5	02/24/14	WK	02/20/14	OP36911	MSW783
Run #2							

	Initial Weight	Final Volume
Run #1	20.2 g	1.0 ml
Run #2		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	2800	ug/kg	
95-57-8	2-Chlorophenol	ND	1400	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5600	ug/kg	
95-48-7	2-Methylphenol	ND	2800	ug/kg	
	3&4-Methylphenol	ND	2800	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	ug/kg	
100-02-7	4-Nitrophenol	ND	5600	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	ug/kg	
108-95-2	Phenol	ND	1400	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	ug/kg	
83-32-9	Acenaphthene	1270	560	ug/kg	
208-96-8	Acenaphthylene	1220	560	ug/kg	
98-86-2	Acetophenone	ND	2800	ug/kg	
62-53-3	Aniline	ND	2800	ug/kg	
120-12-7	Anthracene	4620	560	ug/kg	
56-55-3	Benzo(a)anthracene	11100	560	ug/kg	
50-32-8	Benzo(a)pyrene	9800	560	ug/kg	
205-99-2	Benzo(b)fluoranthene	7310	560	ug/kg	
191-24-2	Benzo(g,h,i)perylene	5020	560	ug/kg	
207-08-9	Benzo(k)fluoranthene	7920	560	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	ug/kg	
218-01-9	Chrysene	10100	560	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-08(0-4')		
Lab Sample ID:	MC28371-13	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	88.6
Project:	Cobble Hill, Washington, Somerville, MA		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	1400	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	1720	560	ug/kg	
132-64-9	Dibenzofuran	905	560	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	ug/kg	
206-44-0	Fluoranthene	19600	560	ug/kg	
86-73-7	Fluorene	1570	560	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	ug/kg	
67-72-1	Hexachloroethane	ND	1400	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	4420	560	ug/kg	
78-59-1	Isophorone	ND	1400	ug/kg	
91-57-6	2-Methylnaphthalene	820	560	ug/kg	
91-20-3	Naphthalene	1250	560	ug/kg	
98-95-3	Nitrobenzene	ND	1400	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	ug/kg	
85-01-8	Phenanthrene	14700	560	ug/kg	
129-00-0	Pyrene	20700	560	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	57%		30-130%
4165-62-2	Phenol-d5	63%		30-130%
118-79-6	2,4,6-Tribromophenol	98%		30-130%
4165-60-0	Nitrobenzene-d5	58%		30-130%
321-60-8	2-Fluorobiphenyl	90%		30-130%
1718-51-0	Terphenyl-d14	104%		30-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-08(0-4')		
Lab Sample ID:	MC28371-13	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8082 SW846 3546	**Percent Solids:**	88.6
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ88244.D	1	02/23/14	AP	02/20/14	OP36913	GYZ7500
Run #2							

	Initial Weight	Final Volume
Run #1	15.1 g	10.0 ml
Run #2		

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	37	ug/kg	
11104-28-2	Aroclor 1221	ND	37	ug/kg	
11141-16-5	Aroclor 1232	ND	37	ug/kg	
53469-21-9	Aroclor 1242	ND	37	ug/kg	
12672-29-6	Aroclor 1248	ND	37	ug/kg	
11097-69-1	Aroclor 1254	100	37	ug/kg	
11096-82-5	Aroclor 1260	ND	37	ug/kg	
37324-23-5	Aroclor 1262	ND	37	ug/kg	
11100-14-4	Aroclor 1268	ND	37	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	80%		30-150%
877-09-8	Tetrachloro-m-xylene	61%		30-150%
2051-24-3	Decachlorobiphenyl	98%		30-150%
2051-24-3	Decachlorobiphenyl	68%		30-150%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-08(0-4')		
Lab Sample ID:	MC28371-13	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846-8015 SW846 3546	**Percent Solids:**	88.6
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BI32059.D	5	02/25/14	KN	02/21/14	OP36912	GBI1174
Run #2							

	Initial Weight	Final Volume
Run #1	15.9 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (Semi-VOA)	1270	89	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	67%		40-140%

(a) Sample process using TPH8100 method requirement.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-08(0-4')		
Lab Sample ID:	MC28371-13	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	88.6
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	8.4	0.87	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Barium	85.0	4.4	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Cadmium	0.47	0.35	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Chromium	23.1	0.87	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Lead	217	0.87	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Mercury	0.60	0.034	mg/kg	1	02/25/14	02/26/14	SA	SW846 7471B [2]	SW846 7471B [4]
Selenium	< 0.87	0.87	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Silver	< 0.44	0.44	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]

(1) Instrument QC Batch: MA16778
(2) Instrument QC Batch: MA16785
(3) Prep QC Batch: MP22532
(4) Prep QC Batch: MP22554

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TP-08(0-4')		
Lab Sample ID:	MC28371-13	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	88.6
Project:	Cobble Hill, Washington, Somerville, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide Reactivity	< 1.7	1.7	mg/kg	1	02/25/14 09:15	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	02/22/14	MA	SW846 1020
Solids, Percent	88.6		%	1	02/24/14	MC	SM21 2540 B MOD.
Specific Conductivity	175	0.50	umhos/cm	1	02/21/14	MA	EPA 120.1M
Sulfide Reactivity	< 56	56	mg/kg	1	02/25/14	BF	SW846 CHAP7
pH	7.8		su	1	02/21/14	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Client Sample ID: TP-08(0-4')
Lab Sample ID: MC28371-13A
Matrix: SO - Soil
Project: Cobble Hill, Washington, Somerville, MA

Date Sampled: 02/19/14
Date Received: 02/20/14
Percent Solids: 88.6

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 0.010	D004	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Barium	0.71	D005	100	0.50	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Cadmium	0.0052	D006	1.0	0.0040	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Chromium	0.014	D007	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Lead	0.18	D008	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	02/25/14	02/27/14	SA	SW846 7470A [1]	SW846 7470A [3]
Selenium	< 0.025	D010	1.0	0.025	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Silver	< 0.0050	D011	5.0	0.0050	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA16783
(2) Instrument QC Batch: MA16792
(3) Prep QC Batch: MP22552
(4) Prep QC Batch: MP22558

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)

Report of Analysis

Client Sample ID:	TP-08(4-5')		
Lab Sample ID:	MC28371-14	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	87.0
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G135225.D	1	02/21/14	JM	n/a	n/a	MSG5205
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	14.8 g	10.0 ml	100 ul
Run #2			

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	460	ug/kg	
71-43-2	Benzene	30.8	23	ug/kg	
108-86-1	Bromobenzene	ND	230	ug/kg	
74-97-5	Bromochloromethane	ND	230	ug/kg	
75-27-4	Bromodichloromethane	ND	93	ug/kg	
75-25-2	Bromoform	ND	93	ug/kg	
74-83-9	Bromomethane	ND	93	ug/kg	
78-93-3	2-Butanone (MEK)	ND	460	ug/kg	
104-51-8	n-Butylbenzene	ND	230	ug/kg	
135-98-8	sec-Butylbenzene	ND	230	ug/kg	
98-06-6	tert-Butylbenzene	ND	230	ug/kg	
75-15-0	Carbon disulfide	ND	230	ug/kg	
56-23-5	Carbon tetrachloride	ND	93	ug/kg	
108-90-7	Chlorobenzene	ND	93	ug/kg	
75-00-3	Chloroethane	ND	230	ug/kg	
67-66-3	Chloroform	ND	93	ug/kg	
74-87-3	Chloromethane	ND	230	ug/kg	
95-49-8	o-Chlorotoluene	ND	230	ug/kg	
106-43-4	p-Chlorotoluene	ND	230	ug/kg	
108-20-3	Di-Isopropyl ether	ND	93	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	230	ug/kg	
124-48-1	Dibromochloromethane	ND	93	ug/kg	
106-93-4	1,2-Dibromoethane	ND	93	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	93	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	93	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	93	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	93	ug/kg	
75-34-3	1,1-Dichloroethane	ND	93	ug/kg	
107-06-2	1,2-Dichloroethane	ND	93	ug/kg	
75-35-4	1,1-Dichloroethene	ND	93	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	93	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	93	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-08(4-5')		
Lab Sample ID:	MC28371-14	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	87.0
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	93	ug/kg	
142-28-9	1,3-Dichloropropane	ND	230	ug/kg	
594-20-7	2,2-Dichloropropane	ND	230	ug/kg	
563-58-6	1,1-Dichloropropene	ND	230	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	93	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	93	ug/kg	
123-91-1	1,4-Dioxane	ND	1200	ug/kg	
60-29-7	Ethyl Ether	ND	230	ug/kg	
100-41-4	Ethylbenzene	ND	93	ug/kg	
87-68-3	Hexachlorobutadiene	ND	230	ug/kg	
591-78-6	2-Hexanone	ND	460	ug/kg	
98-82-8	Isopropylbenzene	ND	230	ug/kg	
99-87-6	p-Isopropyltoluene	ND	230	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	93	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	230	ug/kg	
74-95-3	Methylene bromide	ND	230	ug/kg	
75-09-2	Methylene chloride	ND	93	ug/kg	
91-20-3	Naphthalene	1080	230	ug/kg	
103-65-1	n-Propylbenzene	ND	230	ug/kg	
100-42-5	Styrene	ND	230	ug/kg	
994-05-8	tert-Amyl Methyl Ether	ND	230	ug/kg	
637-92-3	tert-Butyl Ethyl Ether	ND	93	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	230	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	93	ug/kg	
127-18-4	Tetrachloroethene	ND	93	ug/kg	
109-99-9	Tetrahydrofuran	ND	460	ug/kg	
108-88-3	Toluene	ND	230	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	230	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	230	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	93	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	93	ug/kg	
79-01-6	Trichloroethene	ND	93	ug/kg	
75-69-4	Trichlorofluoromethane	ND	93	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	230	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	230	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	230	ug/kg	
75-01-4	Vinyl chloride	ND	93	ug/kg	
	m,p-Xylene	ND	93	ug/kg	
95-47-6	o-Xylene	ND	93	ug/kg	
1330-20-7	Xylene (total)	100	93	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-08(4-5')		
Lab Sample ID:	MC28371-14	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	87.0
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		70-130%
2037-26-5	Toluene-D8	108%		70-130%
460-00-4	4-Bromofluorobenzene	105%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-08(4-5')		
Lab Sample ID:	MC28371-14	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	87.0
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W17835.D	5	02/24/14	WK	02/20/14	OP36911	MSW783
Run #2							

	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	2800	ug/kg	
95-57-8	2-Chlorophenol	ND	1400	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5600	ug/kg	
95-48-7	2-Methylphenol	ND	2800	ug/kg	
	3&4-Methylphenol	ND	2800	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	ug/kg	
100-02-7	4-Nitrophenol	ND	5600	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	ug/kg	
108-95-2	Phenol	ND	1400	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	ug/kg	
83-32-9	Acenaphthene	ND	560	ug/kg	
208-96-8	Acenaphthylene	826	560	ug/kg	
98-86-2	Acetophenone	ND	2800	ug/kg	
62-53-3	Aniline	ND	2800	ug/kg	
120-12-7	Anthracene	1580	560	ug/kg	
56-55-3	Benzo(a)anthracene	3860	560	ug/kg	
50-32-8	Benzo(a)pyrene	3970	560	ug/kg	
205-99-2	Benzo(b)fluoranthene	3490	560	ug/kg	
191-24-2	Benzo(g,h,i)perylene	2290	560	ug/kg	
207-08-9	Benzo(k)fluoranthene	2720	560	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	ug/kg	
218-01-9	Chrysene	3710	560	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-08(4-5')		
Lab Sample ID:	MC28371-14	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	87.0
Project:	Cobble Hill, Washington, Somerville, MA		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	1400	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	643	560	ug/kg	
132-64-9	Dibenzofuran	ND	560	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	ug/kg	
206-44-0	Fluoranthene	7650	560	ug/kg	
86-73-7	Fluorene	676	560	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	ug/kg	
67-72-1	Hexachloroethane	ND	1400	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	1950	560	ug/kg	
78-59-1	Isophorone	ND	1400	ug/kg	
91-57-6	2-Methylnaphthalene	613	560	ug/kg	
91-20-3	Naphthalene	747	560	ug/kg	
98-95-3	Nitrobenzene	ND	1400	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	ug/kg	
85-01-8	Phenanthrene	4980	560	ug/kg	
129-00-0	Pyrene	7240	560	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	52%		30-130%
4165-62-2	Phenol-d5	58%		30-130%
118-79-6	2,4,6-Tribromophenol	86%		30-130%
4165-60-0	Nitrobenzene-d5	59%		30-130%
321-60-8	2-Fluorobiphenyl	81%		30-130%
1718-51-0	Terphenyl-d14	86%		30-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-08(4-5')		
Lab Sample ID:	MC28371-14	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8082 SW846 3546	**Percent Solids:**	87.0
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ88247.D	1	02/23/14	AP	02/20/14	OP36913	GYZ7500
Run #2							

	Initial Weight	Final Volume
Run #1	15.7 g	10.0 ml
Run #2		

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	37	ug/kg	
11104-28-2	Aroclor 1221	ND	37	ug/kg	
11141-16-5	Aroclor 1232	ND	37	ug/kg	
53469-21-9	Aroclor 1242	ND	37	ug/kg	
12672-29-6	Aroclor 1248	216	37	ug/kg	
11097-69-1	Aroclor 1254 [a]	85.2	37	ug/kg	
11096-82-5	Aroclor 1260	ND	37	ug/kg	
37324-23-5	Aroclor 1262	ND	37	ug/kg	
11100-14-4	Aroclor 1268	ND	37	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	65%		30-150%
877-09-8	Tetrachloro-m-xylene	46%		30-150%
2051-24-3	Decachlorobiphenyl	86%		30-150%
2051-24-3	Decachlorobiphenyl	55%		30-150%

(a) Estimated value due to the presence of other Aroclor pattern.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-08(4-5')		
Lab Sample ID:	MC28371-14	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846-8015 SW846 3546	**Percent Solids:**	87.0
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BI32063.D	5	02/25/14	KN	02/21/14	OP36912	GBI1174
Run #2							

	Initial Weight	Final Volume
Run #1	15.6 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (Semi-VOA)	1790	92	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	70%		40-140%

(a) Sample process using TPH8100 method requirement.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-08(4-5')		
Lab Sample ID:	MC28371-14	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	87.0
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	6.9	0.91	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Barium	67.9	4.6	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Cadmium	0.40	0.36	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Chromium	19.0	0.91	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Lead	169	0.91	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Mercury	0.23	0.034	mg/kg	1	02/25/14	02/26/14	SA	SW846 7471B [2]	SW846 7471B [4]
Selenium	< 0.91	0.91	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Silver	< 0.46	0.46	mg/kg	1	02/21/14	02/21/14	EAL	SW846 6010C [1]	SW846 3050B [3]

(1) Instrument QC Batch: MA16778
(2) Instrument QC Batch: MA16785
(3) Prep QC Batch: MP22532
(4) Prep QC Batch: MP22554

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TP-08(4-5')		
Lab Sample ID:	MC28371-14	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	87.0
Project:	Cobble Hill, Washington, Somerville, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide Reactivity	< 1.7	1.7	mg/kg	1	02/25/14 09:15	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	02/22/14	MA	SW846 1020
Solids, Percent	87		%	1	02/24/14	MC	SM21 2540 B MOD.
Specific Conductivity	246	0.50	umhos/cm	1	02/21/14	MA	EPA 120.1M
Sulfide Reactivity	< 57	57	mg/kg	1	02/25/14	BF	SW846 CHAP7
pH	7.7		su	1	02/21/14	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TP-08(4-5')		
Lab Sample ID:	MC28371-14A	**Date Sampled:**	02/19/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	87.0
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 0.010	D004	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Barium	0.70	D005	100	0.50	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Cadmium	0.0052	D006	1.0	0.0040	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 0.010	D007	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Lead	0.43	D008	5.0	0.010	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	02/25/14	02/27/14	SA	SW846 7470A [1]	SW846 7470A [3]
Selenium	< 0.025	D010	1.0	0.025	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Silver	< 0.0050	D011	5.0	0.0050	mg/l	1	02/25/14	02/25/14	EAL	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA16783
(2) Instrument QC Batch: MA16792
(3) Prep QC Batch: MP22552
(4) Prep QC Batch: MP22558

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)

New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- MCP Form

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

Accutest Laboratories of New England
495 Technology Center West, Building One
TEL. 508-481-6200 FAX: 508-481-7753
www.accutest.com

PAGE 1 OF 2

FED-EX Tracking #: | Bottle Order Control #:
Accutest Quote #: | Accutest Job #: MC28371

Client / Reporting Information

Company Name: EBI Consulting
Street Address: 21 B St
City: Burlington State: MA Zip: 01803
Project Contact: Dan Bellucci E-mail:
Phone #: Fax #:
dbellucci@ebiconsulting.com
Sampler(s) Name(s): D. Bellucci Phone #:

Project Information

Project Name: Cobble Hill
Street: 90 & 84 Washington St.
City: Somerville, MA
Project #: 214002
Client PO#:
Project Manager: D. Bellucci

Billing Information (If different from Report to)

Company Name:
Street Address:
City State Zip:
Attention: PO#:

Requested Analysis (see TEST CODE sheet)

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED - Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB - Field Blank; EB - Equipment Blank; RB - Rinse Blank; TB - Trip Blank

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Preservation: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Bisulfate	VOC 8260	SVOC 8270	PCB 8021	TPH	RCRA 8 Metals	pH, Cond, TSS	Reactivity	TCLP Metals	LAB USE ONLY
-1	TP-01 (7.5-8.5')		02/19/14	0935	BB	S	4					1		1		2	x	x	x	x	x	x	x	x	
-2	TP-02 (2-4')			1015								1		1		2	x	x	x	x	x	x	x	x	
-3	TP-03 (0-4')			1100								1		1		2	x	x	x	x	x	x	x	x	
-4	TP-03(7-9')			1115								1		1		2	x	x	x	x	x	x	x	x	
-5	TP-04 (0-4')			1145								1		1		2	x	x	x	x	x	x	x	x	
-6	TP-04 (6-7')			1200								1		1		2	x	x	x	x	x	x	x	x	
-7	TP-05 (0-4')			1230								1		1		2	x	x	x	x	x	x	x	x	
-8	TP-05 (7-8')			1245								1		1		2	x	x	x	x	x	x	x	x	
-9	TP-06 (0-4')			1315								1		1		2	x	x	x	x	x	x	x	x	
-10	TP-06 (6.5-7.5')			1330								1		1		2	x	x	x	x	x	x	x	x	12F, 10E3
-11	TP-07 (0-4')			1345								1		1		2	x	x	x	x	x	x	x	x	
-12	TP-07 (6-7')			1400								1		1		2	x	x	x	x	x	x	x	x	

Turnaround Time (Business days)

Approved By (Accutest PM): / Date:

- [ ] Std. 10 Business Days
- [x] Std. 5 Business Days (By Contract only)
- [ ] 5 Day *RUSH*
- [ ] 3 Day *EMERGENCY*
- [ ] 2 Day *EMERGENCY*
- [ ] 1 Day *EMERGENCY*

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] CT RCP
- [x] MA MCP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [ ] Other

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary

Comments / Special Instructions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
	2/20/14 07:30	1	2		2
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	Intact / Not Intact	Preserved where applicable

On Ice: [x] Cooler Temp: 2.5°c

MC28371: Chain of Custody
Page 1 of 3

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

Accutest Laboratories of New England
495 Technology Center West, Building One
TEL. 508-481-6200 FAX: 508-481-7753
www.accutest.com

FED-EX Tracking # | Bottle Order Control #
Accutest Quote # | Accutest Job # MC28371

Client / Reporting Information

- Company Name: EBL Consulting
- Street Address: 21 B St
- City, State, Zip: Burlington, MA 01803
- Project Contact: D. Bellucci
- E-mail: dbellucci@eblconsulting.com
- Phone #:
- Fax #:
- Sampler(s) Name(s): D. Bellucci
- Phone #:

Project Information

- Project Name: Cobble Hill
- Street: 84-90 Washington St
- City: Somerville, MA
- Project#: 12140021
- Client PO#:
- Project Manager: D. Bellucci

Billing Information (If different from Report to)

- Company Name:
- Street Address:
- City / State / Zip:
- Attention: / PO#:

Requested Analysis (see TEST CODE sheet): VOC 8260, SVOC 8270, PCB 8082, TPH, RCRA 8 Metals, pH, Cond, Flash Pt, Reactivity, TCLP Metals

Matrix Codes: DW - Drinking Water, GW - Ground Water, WW - Water, SW - Surface Water, SO - Soil, SL- Sludge, SED-Sediment, OI - Oil, LIQ - Other Liquid, AIR - Air, SOL - Other Solid, WP - Wipe, FB-Field Blank, EB- Equipment Blank, RB- Rinse Blank, TB-Trip Blank

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Bisulfate	VOC 8260	SVOC 8270	PCB 8082	TPH	RCRA 8 Metals	pH, Cond, Flash Pt	Reactivity	TCLP Metals	LAB USE ONLY
-13	TP-08(0-4')		02/19/14	1415	DB	S	4					1	1			2	X	X	X	X	X	X	X	X	
-14	TP-08(4-5')		⊥	1430	⊥	⊥	⊥					1	1			2	X	X	X	X	X	X	X	X	

Turnaround Time (Business days)

- ☐ Std. 10 Business Days
- ☒ Std. 5 Business Days (By Contract only)
- ☐ 5 Day RUSH
- ☐ 3 Day EMERGENCY
- ☐ 2 Day EMERGENCY
- ☐ 1 Day EMERGENCY

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information

- ☐ Commercial "A" (Level 1)
- ☐ Commercial "B" (Level 2)
- ☐ FULLT1 (Level 3+4)
- ☐ CT RCP
- ☒ MA MCP
- ☐ NYASP Category A
- ☐ NYASP Category B
- ☐ State Forms
- ☐ EDD Format
- ☐ Other

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary

Comments / Special Instructions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler: 1 D. Bellucci	Date Time: 02/20/14 07:30	Received By: 1 [signature]	Relinquished By: 2	Date Time:	Received By: 2
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	☐ Intact ☐ Not intact	Preserved where applicable ☐ On Ice ☑ Cooler Temp. 2.5°C

5.1
5

MC28371: Chain of Custody
Page 2 of 3

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC28371 **Client:** EBI **Immediate Client Services Action Required:** No

Date / Time Received: 2/20/2014 **Delivery Method:** **Client Service Action Required at Login:** No

Project: COBBLE HILL **No. Coolers:** 1 **Airbill #'s:**

Cooler Security	Y	N		Y	N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:	Infared gun	
3. Cooler media:	Ice (bag)	

Quality Control Preservation	Y	N	N/A
1. Trip Blank present / cooler:	☐	☑	☐
2. Trip Blank listed on COC:	☐	☑	☐
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☐	☐	☑

Sample Integrity - Documentation	Y	N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

Accutest Laboratories
V:508.481.6200

495 Technology Center West, Bldg One
F: 508.481.7753

Marlborough, MA
www/accutest.com

MC28371: Chain of Custody
Page 3 of 3

Exhibit VII A-2: MassDEP Analytical Protocol Certification Form

MassDEP Analytical Protocol Certification Form

Laboratory Name:	Accutest Laboratories of New England	Project #:	MC28371
Project Location:	Cobble Hill, Washington, Somerville, MA	MADEP RTN	None

This form provides certifications for the following data set: list Laboratory Sample ID Numbers(s)
MC28371-1,MC28371-10,MC28371-10A,MC28371-11,MC28371-11A,MC28371-12,MC28371-12A
MC28371-13,MC28371-13A,MC28371-14,MC28371-14A,MC28371-1A,MC28371-2,MC28371-2A
MC28371-3,MC28371
MC28371-6A,MC28371-7,MC28371-7A,MC28371-8,MC28371-8A,MC28371-9,MC28371-9A

Matrices: Groundwater/Surface Water ( ) Soil/Sediment (X) Drinking Water ( ) Air ( ) Other ( )

CAM Protocol (check all that apply below):

8260 VOC (X) CAM IIA	7470/7471 Hg (X) CAM III B	MassDEP VPH ( ) CAM IV A	8081 Pesticides ( ) CAM V B	7196 Hex Cr ( ) CAM VI B	Mass DEP APH ( ) CAM IX A
8270 SVOC (X) CAM II B	7010 Metals ( ) CAM III C	MassDEP EPH ( ) CAM IV B	8151 Herbicides ( ) CAM V C	8330 Explosives ( ) CAM VIII A	TO-15 VOC ( ) CAM IX B
6010 Metals (X) CAM III A	6020 Metals ( ) CAM III D	8082 PCB (X) CAM V A	9014 Total Cyanide/PAC ( ) CAM VI A	6860 Perchlorate ( ) CAM VIII B	

Affirmative Responses to Questions A Through F are required for "Presumptive Certainty status

A	Were all samples received in a condition consistent with those described on the Chain-of Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	☑ Yes	☐ No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	☑ Yes	☐ No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	☑ Yes	☐ No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	☑ Yes	☐ No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☑ Yes ☑ Yes	☐ No ☐ No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	☑ Yes	☐ No

Responses to questions G, H, and I below is required for "Presumptive Certainty" status

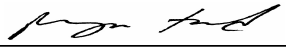
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocols	☑ Yes	☐ No [1]

Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data useability and representativeness requirements described in 310 CMR 40.1056(2)(k) and WSC-07-350.

H	Were **all** QC performance standards specified in the CAM protocol(s) achieved?	☐ Yes	☑ No [1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	☐ Yes	☑ No [1]

[1] ***All Negative responses must be addressed in an attached Environmental Laboratory case narrative.***

I the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature:  **Position:** **Laboratory Director**

Printed Name: **Reza Tand** **Date:** **02/27/2014**

New England ACCUTEST LABORATORIES

02/28/14

Technical Report for

EBI Consulting

Cobble Hill, Washington, Somerville, MA

12140021

Accutest Job Number: MC28372

Sampling Date: 02/18/14

Report to:

EBI Consulting

DBellucci@ebiconsulting.com

ATTN: Daniel Bellucci

Total number of pages in report: **121**

NELAP ACCREDITED TNI LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Reza Tand
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

Test results relate only to samples analyzed.

Sections: 1 2 3 4 5

Table of Contents

-1-

Sample Summary

EBI Consulting

Job No: MC28372

Cobble Hill, Washington, Somerville, MA
Project No: 12140021

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
MC28372-1	02/18/14	08:45	DB	02/20/14	SO	Soil	EB-301(0-4')
MC28372-1A	02/18/14	08:45	DB	02/20/14	SO	Soil	EB-301(0-4')
MC28372-2	02/18/14	09:00	DB	02/20/14	SO	Soil	EB-302(0-4')
MC28372-2A	02/18/14	09:00	DB	02/20/14	SO	Soil	EB-302(0-4')
MC28372-3	02/18/14	09:15	DB	02/20/14	SO	Soil	EB-303(0-8')
MC28372-3A	02/18/14	09:15	DB	02/20/14	SO	Soil	EB-303(0-8')
MC28372-4	02/18/14	09:30	DB	02/20/14	SO	Soil	EB-304(0-5')
MC28372-4A	02/18/14	09:30	DB	02/20/14	SO	Soil	EB-304(0-5')
MC28372-5	02/18/14	09:45	DB	02/20/14	SO	Soil	EB-305(0-4')
MC28372-5A	02/18/14	09:45	DB	02/20/14	SO	Soil	EB-305(0-4')
MC28372-6	02/18/14	11:15	DB	02/20/14	SO	Soil	EB-307(11-15')
MC28372-6A	02/18/14	11:15	DB	02/20/14	SO	Soil	EB-307(11-15')
MC28372-7	02/18/14	12:45	DB	02/20/14	SO	Soil	EB-309(0-4')

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Summary
(continued)

EBI Consulting

Job No: MC28372

Cobble Hill, Washington, Somerville, MA
Project No: 12140021

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
MC28372-7A	02/18/14	12:45	DB	02/20/14	SO	Soil	EB-309(0-4')
MC28372-8	02/18/14	13:00	DB	02/20/14	SO	Soil	EB-310(0-4')
MC28372-8A	02/18/14	13:00	DB	02/20/14	SO	Soil	EB-310(0-4')
MC28372-9	02/18/14	13:15	DB	02/20/14	SO	Soil	EB-311(0-4')
MC28372-9A	02/18/14	13:15	DB	02/20/14	SO	Soil	EB-311(0-4')
MC28372-10	02/18/14	13:30	DB	02/20/14	SO	Soil	EB-312(0-3')
MC28372-10A	02/18/14	13:30	DB	02/20/14	SO	Soil	EB-312(0-3')

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: EBI Consulting **Job No** MC28372

Site: Cobble Hill, Washington, Somerville, MA **Report Date** 2/27/2014 4:40:17 PM

10 Sample(s) were collected on 02/18/2014 and were received at Accutest on 02/20/2014 properly preserved, at 2.1 Deg. C and intact. These Samples received an Accutest job number of MC28372. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix SO **Batch ID:** MSG5206

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- The response factor (RF) for the 2-Butanone low point (0.079) and average point (0.075) in the initial calibration MSG5204-ICC5204 is less than the required RF of 0.1 as noted in Table 4 of SW846 8260C.
- Continuing calibration check standard MSG5206-CC5204 for acetone, 2-butanone, 1,2-dibromo-3-chloropropane, naphthalene, 1,2,3-trichlorobenzene exceed 20% Difference. This check standard met MCP criteria.

Matrix SO **Batch ID:** MSM2224

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 2-Hexanone, Acetone are outside control limits. Blank Spike meets program technical requirements.
- RPD of MSM2224-BSD for 1,2,4-Trichlorobenzene: Outside control limits. Individual spike recoveries within acceptance limits.
- Quadratic regression is employed for initial calibration standard MSM2195-ICC2195 for 2-hexanone.
- The response factor (RF) for Acetone, 2-Butanone at low point (0.084, 0.074) and average point (0.080,0.087) in the initial MSM2222-ICC2222 are less than the required RF of 0.1 as noted in Table 4 of SW846 8260C.
- Continuing calibration check standard MSM2224-CC2222 for acetone, 2-butanone, 2-hexanone exceed 20% Difference. This check standard met MCP criteria.

Matrix SO **Batch ID:** MSV1057

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- MSV1057-BS Recovery(s) for 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, 2-Hexanone, Chloroethane, Dichlorodifluoromethane are outside control limits. Blank Spike meets program technical requirements.
- MSV1057-BSD Recovery(s) for acetone, Dichlorodifluoromethane are outside control limits. Blank Spike meets program technical requirements.
- The response factor (RF) for Acetone, 2-Butanone at low point (0.047, 0.046) and average point (0.061, 0.057) in the initial MSV1053-ICC1053 are less than the required RF of 0.1 as noted in Table 4 of SW846 8260C.
- Quadratic regression is employed for initial calibration standard MSV1053-ICC1053 for acetone.
- Continuing calibration check standard MSV1057-CC1053 for acetone, 2-butanone, 2-hexanone, bromoform, trans-1,4-dichloro-2-butene, 1,2,3-trichloropropane, 1,2-dibromo-3-chloropropane exceed 20% Difference. This check standard met MCP criteria.

Extractables by GCMS By Method SW846 8270D

Matrix SO **Batch ID:** OP36914

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Continuing calibration check standard MSW782-CC768 for Hexachlorobutadiene, 2,4-Dinitrophenol exceed 20% Difference. This check standard met MCP criteria.

Extractables by GC By Method SW846 8082

Matrix SO **Batch ID:** OP36916

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC28372-10, MC28372-8 have compound(s) reported with a "B" qualifier, indicating analyte is found in the associated method blank.
- MC28372-5 for Tetrachloro-m-xylene: Outside control limits due to possible matrix interference.
- MC28372-9 for Aroclor 1254: Estimated value due to the presence of other Aroclor pattern.
- MC28372-5 for Tetrachloro-m-xylene, Decachlorobiphenyl: Outside control limits due to dilution.

Extractables by GC By Method SW846-8015

Matrix SO **Batch ID:** OP36917

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- MC28372-1 through MC28372-10: Sample process using TPH8100 method requirement.

Metals By Method SW846 6010C

Matrix LEACHATE **Batch ID:** MP22564

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC28372-1ASDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Cadmium, Chromium, Selenium, Silver are outside control limits for sample MP22564-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- Only selected metals requested.

Matrix SO **Batch ID:** MP22546

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC28372-5SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Selenium are outside control limits for sample MP22546-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- Only selected metals requested.

Metals By Method SW846 7470A

Matrix	LEACHATE	Batch ID:	MP22561

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Metals By Method SW846 7471B

Matrix	SO	Batch ID:	MP22554

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Matrix	SO	Batch ID:	MP22565

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Wet Chemistry By Method EPA 120.1M

Matrix	SO	Batch ID:	GN45996

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Wet Chemistry By Method SW846 CHAP7

Matrix	SO	Batch ID:	GP17261

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Matrix	SO	Batch ID:	GP17262

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Accutest may not have met all requested limits due to methodology limitations, sample matrix, dilutions, or percents solids.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC28372).

Summary of Hits

Job Number: MC28372
Account: EBI Consulting
Project: Cobble Hill, Washington, Somerville, MA
Collected: 02/18/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC28372-1	**EB-301(0-4')**					
Benzene		33.2	27		ug/kg	SW846 8260C
Naphthalene		1420	270		ug/kg	SW846 8260C
Acenaphthylene		1750	560		ug/kg	SW846 8270D
Anthracene		1620	560		ug/kg	SW846 8270D
Benzo(a)anthracene		5180	560		ug/kg	SW846 8270D
Benzo(a)pyrene		5300	560		ug/kg	SW846 8270D
Benzo(b)fluoranthene		4330	560		ug/kg	SW846 8270D
Benzo(g,h,i)perylene		3000	560		ug/kg	SW846 8270D
Benzo(k)fluoranthene		4150	560		ug/kg	SW846 8270D
Chrysene		4930	560		ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		1020	560		ug/kg	SW846 8270D
Fluoranthene		8270	560		ug/kg	SW846 8270D
Fluorene		763	560		ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		2790	560		ug/kg	SW846 8270D
Phenanthrene		5060	560		ug/kg	SW846 8270D
Pyrene		7900	560		ug/kg	SW846 8270D
TPH-DRO (Semi-VOA) [a]		1130	90		mg/kg	SW846-8015
Arsenic		8.5	0.93		mg/kg	SW846 6010C
Barium		47.5	4.7		mg/kg	SW846 6010C
Chromium		18.1	0.93		mg/kg	SW846 6010C
Lead		102	0.93		mg/kg	SW846 6010C
Mercury		0.12	0.034		mg/kg	SW846 7471B
Ignitability (Flashpoint)		> 230			Deg. F	SW846 1020
Specific Conductivity		120	0.50		umhos/cm	EPA 120.1M
pH		6.7			su	SW846 9045D
MC28372-1A	**EB-301(0-4')**					
Lead		0.047	0.010		mg/l	SW846 6010C
MC28372-2	**EB-302(0-4')**					
Acetone		21.7	8.8		ug/kg	SW846 8260C
Benzene		0.69	0.44		ug/kg	SW846 8260C
Acenaphthylene		2540	580		ug/kg	SW846 8270D
Anthracene		2180	580		ug/kg	SW846 8270D
Benzo(a)anthracene		7820	580		ug/kg	SW846 8270D
Benzo(a)pyrene		9640	580		ug/kg	SW846 8270D
Benzo(b)fluoranthene		7580	580		ug/kg	SW846 8270D
Benzo(g,h,i)perylene		6080	580		ug/kg	SW846 8270D
Benzo(k)fluoranthene		6890	580		ug/kg	SW846 8270D
Chrysene		7570	580		ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		1620	580		ug/kg	SW846 8270D

Summary of Hits

Job Number: MC28372
Account: EBI Consulting
Project: Cobble Hill, Washington, Somerville, MA
Collected: 02/18/14

Lab Sample ID / Client Sample ID / Analyte	Result/ Qual	RL	MDL	Units	Method
Fluoranthene	13300	580		ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	5390	580		ug/kg	SW846 8270D
Naphthalene	1210	580		ug/kg	SW846 8270D
Phenanthrene	2710	580		ug/kg	SW846 8270D
Pyrene	13400	580		ug/kg	SW846 8270D
TPH-DRO (Semi-VOA) [a]	1580	94		mg/kg	SW846-8015
Arsenic	7.1	0.95		mg/kg	SW846 6010C
Barium	55.8	4.8		mg/kg	SW846 6010C
Chromium	13.6	0.95		mg/kg	SW846 6010C
Lead	148	0.95		mg/kg	SW846 6010C
Mercury	0.37	0.034		mg/kg	SW846 7471B
Ignitability (Flashpoint)	> 230			Deg. F	SW846 1020
Specific Conductivity	248	0.50		umhos/cm	EPA 120.1M
pH	7.7			su	SW846 9045D
MC28372-2A EB-302(0-4')					
Arsenic	0.010	0.010		mg/l	SW846 6010C
Barium	0.67	0.50		mg/l	SW846 6010C
Cadmium	0.0047	0.0040		mg/l	SW846 6010C
Lead	0.46	0.010		mg/l	SW846 6010C
MC28372-3 EB-303(0-8')					
Acenaphthene	666	550		ug/kg	SW846 8270D
Anthracene	1470	550		ug/kg	SW846 8270D
Benzo(a)anthracene	3930	550		ug/kg	SW846 8270D
Benzo(a)pyrene	3310	550		ug/kg	SW846 8270D
Benzo(b)fluoranthene	3100	550		ug/kg	SW846 8270D
Benzo(g,h,i)perylene	1750	550		ug/kg	SW846 8270D
Benzo(k)fluoranthene	2430	550		ug/kg	SW846 8270D
Chrysene	3950	550		ug/kg	SW846 8270D
Dibenzo(a,h)anthracene	643	550		ug/kg	SW846 8270D
Fluoranthene	8630	550		ug/kg	SW846 8270D
Fluorene	637	550		ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	1730	550		ug/kg	SW846 8270D
Phenanthrene	6490	550		ug/kg	SW846 8270D
Pyrene	7730	550		ug/kg	SW846 8270D
TPH-DRO (Semi-VOA) [a]	2330	90		mg/kg	SW846-8015
Arsenic	5.6	0.89		mg/kg	SW846 6010C
Barium	125	4.4		mg/kg	SW846 6010C
Cadmium	3.9	0.36		mg/kg	SW846 6010C
Chromium	13.4	0.89		mg/kg	SW846 6010C
Lead	370	0.89		mg/kg	SW846 6010C
Mercury	0.096	0.036		mg/kg	SW846 7471B

Summary of Hits

Job Number: MC28372
Account: EBI Consulting
Project: Cobble Hill, Washington, Somerville, MA
Collected: 02/18/14

Lab Sample ID / Client Sample ID / Analyte	Result/ Qual	RL	MDL	Units	Method
Ignitability (Flashpoint)	> 230			Deg. F	SW846 1020
Specific Conductivity	2360	0.50		umhos/cm	EPA 120.1M
pH	8.1			su	SW846 9045D
MC28372-3A EB-303(0-8')					
Cadmium	0.20	0.0040		mg/l	SW846 6010C
Lead	0.44	0.010		mg/l	SW846 6010C
MC28372-4 EB-304(0-5')					
Benzene	398	130		ug/kg	SW846 8260C
Naphthalene	76600	1300		ug/kg	SW846 8260C
1,2,4-Trimethylbenzene	1580	1300		ug/kg	SW846 8260C
m,p-Xylene	1270	530		ug/kg	SW846 8260C
o-Xylene	546	530		ug/kg	SW846 8260C
Xylene (total)	1820	530		ug/kg	SW846 8260C
Acenaphthene	55900	5400		ug/kg	SW846 8270D
Acenaphthylene	14000	550		ug/kg	SW846 8270D
Anthracene	60900	5400		ug/kg	SW846 8270D
Benzo(a)anthracene	51900	5400		ug/kg	SW846 8270D
Benzo(a)pyrene	48700	5400		ug/kg	SW846 8270D
Benzo(b)fluoranthene	35000	5400		ug/kg	SW846 8270D
Benzo(g,h,i)perylene	27800	550		ug/kg	SW846 8270D
Benzo(k)fluoranthene	26400	550		ug/kg	SW846 8270D
Chrysene	45600	5400		ug/kg	SW846 8270D
Dibenzo(a,h)anthracene	7350	550		ug/kg	SW846 8270D
Dibenzofuran	20700	550		ug/kg	SW846 8270D
Fluoranthene	164000	5400		ug/kg	SW846 8270D
Fluorene	39600	550		ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	25600	550		ug/kg	SW846 8270D
2-Methylnaphthalene	34800	550		ug/kg	SW846 8270D
Naphthalene	70200	5400		ug/kg	SW846 8270D
Phenanthrene	192000	5400		ug/kg	SW846 8270D
Pyrene	131000	5400		ug/kg	SW846 8270D
TPH-DRO (Semi-VOA) [a]	2660	90		mg/kg	SW846-8015
Arsenic	7.0	0.92		mg/kg	SW846 6010C
Barium	64.9	4.6		mg/kg	SW846 6010C
Cadmium	0.54	0.37		mg/kg	SW846 6010C
Chromium	16.6	0.92		mg/kg	SW846 6010C
Lead	209	0.92		mg/kg	SW846 6010C
Mercury	0.56	0.035		mg/kg	SW846 7471B
Ignitability (Flashpoint)	> 230			Deg. F	SW846 1020
Specific Conductivity	646	0.50		umhos/cm	EPA 120.1M
pH	7.9			su	SW846 9045D

Summary of Hits

Job Number: MC28372
Account: EBI Consulting
Project: Cobble Hill, Washington, Somerville, MA
Collected: 02/18/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC28372-4A	**EB-304(0-5')**					
Arsenic		0.024	0.010		mg/l	SW846 6010C
Cadmium		0.0044	0.0040		mg/l	SW846 6010C
Lead		0.35	0.010		mg/l	SW846 6010C
MC28372-5	**EB-305(0-4')**					
Benzene		287	130		ug/kg	SW846 8260C
Chlorobenzene		20300	510		ug/kg	SW846 8260C
1,2-Dichlorobenzene		2330	510		ug/kg	SW846 8260C
1,3-Dichlorobenzene		11500	510		ug/kg	SW846 8260C
1,4-Dichlorobenzene		50700	510		ug/kg	SW846 8260C
Naphthalene		3460	1300		ug/kg	SW846 8260C
1,2,3-Trichlorobenzene		6730	1300		ug/kg	SW846 8260C
1,2,4-Trichlorobenzene		62400	1300		ug/kg	SW846 8260C
Acenaphthene		543	520		ug/kg	SW846 8270D
Acenaphthylene		750	520		ug/kg	SW846 8270D
Anthracene		1100	520		ug/kg	SW846 8270D
Benzo(a)anthracene		3590	520		ug/kg	SW846 8270D
Benzo(a)pyrene		3010	520		ug/kg	SW846 8270D
Benzo(b)fluoranthene		2550	520		ug/kg	SW846 8270D
Benzo(g,h,i)perylene		1630	520		ug/kg	SW846 8270D
Benzo(k)fluoranthene		2870	520		ug/kg	SW846 8270D
Chrysene		3480	520		ug/kg	SW846 8270D
1,2-Dichlorobenzene		2860	1300		ug/kg	SW846 8270D
1,3-Dichlorobenzene		10300	1300		ug/kg	SW846 8270D
1,4-Dichlorobenzene		34400	1300		ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		592	520		ug/kg	SW846 8270D
bis(2-Ethylhexyl)phthalate		15900	1300		ug/kg	SW846 8270D
Fluoranthene		5670	520		ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		1470	520		ug/kg	SW846 8270D
Phenanthrene		2570	520		ug/kg	SW846 8270D
Pyrene		6100	520		ug/kg	SW846 8270D
Aroclor 1248		48900	3500		ug/kg	SW846 8082
TPH-DRO (Semi-VOA) [a]		1880	88		mg/kg	SW846-8015
Arsenic		7.1	0.88		mg/kg	SW846 6010C
Barium		38.8	4.4		mg/kg	SW846 6010C
Cadmium		1.0	0.35		mg/kg	SW846 6010C
Chromium		17.6	0.88		mg/kg	SW846 6010C
Lead		99.5	0.88		mg/kg	SW846 6010C
Mercury		0.34	0.034		mg/kg	SW846 7471B
Ignitability (Flashpoint)		> 230			Deg. F	SW846 1020
Specific Conductivity		880	0.50		umhos/cm	EPA 120.1M

Summary of Hits

Job Number: MC28372
Account: EBI Consulting
Project: Cobble Hill, Washington, Somerville, MA
Collected: 02/18/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
pH		8.5			su	SW846 9045D
MC28372-5A	**EB-305(0-4')**					
Arsenic		0.019	0.010		mg/l	SW846 6010C
Barium		0.60	0.50		mg/l	SW846 6010C
Cadmium		0.12	0.0040		mg/l	SW846 6010C
Lead		2.2	0.010		mg/l	SW846 6010C
MC28372-6	**EB-307(11-15')**					
n-Butylbenzene		387	270		ug/kg	SW846 8260C
n-Propylbenzene		318	270		ug/kg	SW846 8260C
Dibenzofuran		304	130		ug/kg	SW846 8270D
Fluorene		735	130		ug/kg	SW846 8270D
Phenanthrene		658	130		ug/kg	SW846 8270D
TPH-DRO (Semi-VOA) [a]		653	20		mg/kg	SW846-8015
Arsenic		1.1	0.99		mg/kg	SW846 6010C
Barium		9.8	4.9		mg/kg	SW846 6010C
Chromium		7.0	0.99		mg/kg	SW846 6010C
Lead		3.2	0.99		mg/kg	SW846 6010C
Ignitability (Flashpoint)		> 230			Deg. F	SW846 1020
Specific Conductivity		571	0.50		umhos/cm	EPA 120.1M
pH		7.9			su	SW846 9045D
MC28372-6A	**EB-307(11-15')**					
Lead		0.022	0.010		mg/l	SW846 6010C
MC28372-7	**EB-309(0-4')**					
Benzene		67.7	24		ug/kg	SW846 8260C
Naphthalene		542	240		ug/kg	SW846 8260C
Xylene (total)		110	98		ug/kg	SW846 8260C
Acenaphthene		3040	560		ug/kg	SW846 8270D
Acenaphthylene		2840	560		ug/kg	SW846 8270D
Anthracene		8010	560		ug/kg	SW846 8270D
Benzo(a)anthracene		14500	560		ug/kg	SW846 8270D
Benzo(a)pyrene		12600	560		ug/kg	SW846 8270D
Benzo(b)fluoranthene		9930	560		ug/kg	SW846 8270D
Benzo(g,h,i)perylene		5720	560		ug/kg	SW846 8270D
Benzo(k)fluoranthene		9270	560		ug/kg	SW846 8270D
Chrysene		13100	560		ug/kg	SW846 8270D
2,4-Dinitrotoluene		19300	2800		ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		2280	560		ug/kg	SW846 8270D

Summary of Hits

Job Number: MC28372
Account: EBI Consulting
Project: Cobble Hill, Washington, Somerville, MA
Collected: 02/18/14

Lab Sample ID / Client Sample ID / Analyte	Result/ Qual	RL	MDL	Units	Method
Dibenzofuran	3130	560		ug/kg	SW846 8270D
Fluoranthene	28900	560		ug/kg	SW846 8270D
Fluorene	6010	560		ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	5870	560		ug/kg	SW846 8270D
2-Methylnaphthalene	2400	560		ug/kg	SW846 8270D
Naphthalene	3620	560		ug/kg	SW846 8270D
Phenanthrene	27800	560		ug/kg	SW846 8270D
Pyrene	25800	560		ug/kg	SW846 8270D
TPH-DRO (Semi-VOA) [a]	1930	91		mg/kg	SW846-8015
Arsenic	4.2	0.90		mg/kg	SW846 6010C
Barium	22.5	4.5		mg/kg	SW846 6010C
Chromium	9.3	0.90		mg/kg	SW846 6010C
Lead	26.2	0.90		mg/kg	SW846 6010C
Mercury	0.16	0.033		mg/kg	SW846 7471B
Ignitability (Flashpoint)	> 230			Deg. F	SW846 1020
Specific Conductivity	494	0.50		umhos/cm	EPA 120.1M
pH	7.9			su	SW846 9045D
MC28372-7A EB-309(0-4')					
Lead	0.18	0.010		mg/l	SW846 6010C
MC28372-8 EB-310(0-4')					
Acetone	41.0	7.4		ug/kg	SW846 8260C
Benzene	1.0	0.37		ug/kg	SW846 8260C
Carbon disulfide	4.3	3.7		ug/kg	SW846 8260C
Naphthalene	4.5	3.7		ug/kg	SW846 8260C
Acenaphthene	768	560		ug/kg	SW846 8270D
Acenaphthylene	792	560		ug/kg	SW846 8270D
Anthracene	3580	560		ug/kg	SW846 8270D
Benzo(a)anthracene	7540	560		ug/kg	SW846 8270D
Benzo(a)pyrene	6780	560		ug/kg	SW846 8270D
Benzo(b)fluoranthene	5150	560		ug/kg	SW846 8270D
Benzo(g,h,i)perylene	3140	560		ug/kg	SW846 8270D
Benzo(k)fluoranthene	5230	560		ug/kg	SW846 8270D
Chrysene	6700	560		ug/kg	SW846 8270D
Dibenzo(a,h)anthracene	1160	560		ug/kg	SW846 8270D
Dibenzofuran	825	560		ug/kg	SW846 8270D
Fluoranthene	14800	560		ug/kg	SW846 8270D
Fluorene	997	560		ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	3140	560		ug/kg	SW846 8270D
Phenanthrene	6760	560		ug/kg	SW846 8270D
Pyrene	13200	560		ug/kg	SW846 8270D
Aroclor 1260	43.4 B	37		ug/kg	SW846 8082

Summary of Hits

Job Number: MC28372
Account: EBI Consulting
Project: Cobble Hill, Washington, Somerville, MA
Collected: 02/18/14

Lab Sample ID / Client Sample ID / Analyte	Result/ Qual	RL	MDL	Units	Method
TPH-DRO (Semi-VOA) [a]	1050	91		mg/kg	SW846-8015
Arsenic	6.4	0.91		mg/kg	SW846 6010C
Barium	49.2	4.5		mg/kg	SW846 6010C
Chromium	17.4	0.91		mg/kg	SW846 6010C
Lead	91.1	0.91		mg/kg	SW846 6010C
Mercury	0.053	0.034		mg/kg	SW846 7471B
Ignitability (Flashpoint)	> 230			Deg. F	SW846 1020
Specific Conductivity	561	0.50		umhos/cm	EPA 120.1M
pH	7.8			su	SW846 9045D
MC28372-8A EB-310(0-4')					
Lead	0.080	0.010		mg/l	SW846 6010C
MC28372-9 EB-311(0-4')					
Acetone	17.7	7.3		ug/kg	SW846 8260C
Acenaphthylene	679	550		ug/kg	SW846 8270D
Anthracene	1470	550		ug/kg	SW846 8270D
Benzo(a)anthracene	4900	550		ug/kg	SW846 8270D
Benzo(a)pyrene	4950	550		ug/kg	SW846 8270D
Benzo(b)fluoranthene	3910	550		ug/kg	SW846 8270D
Benzo(g,h,i)perylene	2350	550		ug/kg	SW846 8270D
Benzo(k)fluoranthene	3800	550		ug/kg	SW846 8270D
Chrysene	4590	550		ug/kg	SW846 8270D
Dibenzo(a,h)anthracene	874	550		ug/kg	SW846 8270D
Fluoranthene	7890	550		ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	2270	550		ug/kg	SW846 8270D
Phenanthrene	3380	550		ug/kg	SW846 8270D
Pyrene	7710	550		ug/kg	SW846 8270D
Aroclor 1254 [b]	556	190		ug/kg	SW846 8082
Aroclor 1260	1140	190		ug/kg	SW846 8082
TPH-DRO (Semi-VOA) [a]	1160	91		mg/kg	SW846-8015
Arsenic	7.0	0.89		mg/kg	SW846 6010C
Barium	61.8	4.5		mg/kg	SW846 6010C
Chromium	16.4	0.89		mg/kg	SW846 6010C
Lead	155	0.89		mg/kg	SW846 6010C
Mercury	0.16	0.034		mg/kg	SW846 7471B
Ignitability (Flashpoint)	> 230			Deg. F	SW846 1020
Specific Conductivity	531	0.50		umhos/cm	EPA 120.1M
pH	7.9			su	SW846 9045D
MC28372-9A EB-311(0-4')					
Lead	0.38	0.010		mg/l	SW846 6010C

Summary of Hits

Job Number: MC28372
Account: EBI Consulting
Project: Cobble Hill, Washington, Somerville, MA
Collected: 02/18/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC28372-10	**EB-312(0-3')**					
Benzene		22.7	20		ug/kg	SW846 8260C
Naphthalene		14400	200		ug/kg	SW846 8260C
Xylene (total)		89.0	81		ug/kg	SW846 8260C
Acenaphthene		1550	530		ug/kg	SW846 8270D
Acenaphthylene		5190	530		ug/kg	SW846 8270D
Anthracene		7940	530		ug/kg	SW846 8270D
Benzo(a)anthracene		11200	530		ug/kg	SW846 8270D
Benzo(a)pyrene		8700	530		ug/kg	SW846 8270D
Benzo(b)fluoranthene		7140	530		ug/kg	SW846 8270D
Benzo(g,h,i)perylene		3670	530		ug/kg	SW846 8270D
Benzo(k)fluoranthene		7130	530		ug/kg	SW846 8270D
Chrysene		10500	530		ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		1460	530		ug/kg	SW846 8270D
Dibenzofuran		3590	530		ug/kg	SW846 8270D
Fluoranthene		26700	530		ug/kg	SW846 8270D
Fluorene		6730	530		ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		3710	530		ug/kg	SW846 8270D
2-Methylnaphthalene		4380	530		ug/kg	SW846 8270D
Naphthalene		8640	530		ug/kg	SW846 8270D
Phenanthrene		36000	530		ug/kg	SW846 8270D
Pyrene		22700	530		ug/kg	SW846 8270D
Aroclor 1260		67.7 B	35		ug/kg	SW846 8082
TPH-DRO (Semi-VOA) [a]		1710	90		mg/kg	SW846-8015
Arsenic		8.7	0.88		mg/kg	SW846 6010C
Barium		36.4	4.4		mg/kg	SW846 6010C
Chromium		10.4	0.88		mg/kg	SW846 6010C
Lead		128	0.88		mg/kg	SW846 6010C
Mercury		0.070	0.032		mg/kg	SW846 7471B
Ignitability (Flashpoint)		> 230			Deg. F	SW846 1020
Specific Conductivity		1550	0.50		umhos/cm	EPA 120.1M
pH		7.6			su	SW846 9045D
MC28372-10A	**EB-312(0-3')**					
Cadmium		0.0043	0.0040		mg/l	SW846 6010C
Lead		0.20	0.010		mg/l	SW846 6010C

(a) Sample process using TPH8100 method requirement.
(b) Estimated value due to the presence of other Aroclor pattern.

New England ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	EB-301(0-4')		
Lab Sample ID:	MC28372-1	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	87.2
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G135260.D	1	02/24/14	JM	n/a	n/a	MSG5206
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	12.5 g	10.0 ml	100 ul
Run #2			

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	530	ug/kg	
71-43-2	Benzene	33.2	27	ug/kg	
108-86-1	Bromobenzene	ND	270	ug/kg	
74-97-5	Bromochloromethane	ND	270	ug/kg	
75-27-4	Bromodichloromethane	ND	110	ug/kg	
75-25-2	Bromoform	ND	110	ug/kg	
74-83-9	Bromomethane	ND	110	ug/kg	
78-93-3	2-Butanone (MEK)	ND	530	ug/kg	
104-51-8	n-Butylbenzene	ND	270	ug/kg	
135-98-8	sec-Butylbenzene	ND	270	ug/kg	
98-06-6	tert-Butylbenzene	ND	270	ug/kg	
75-15-0	Carbon disulfide	ND	270	ug/kg	
56-23-5	Carbon tetrachloride	ND	110	ug/kg	
108-90-7	Chlorobenzene	ND	110	ug/kg	
75-00-3	Chloroethane	ND	270	ug/kg	
67-66-3	Chloroform	ND	110	ug/kg	
74-87-3	Chloromethane	ND	270	ug/kg	
95-49-8	o-Chlorotoluene	ND	270	ug/kg	
106-43-4	p-Chlorotoluene	ND	270	ug/kg	
108-20-3	Di-Isopropyl ether	ND	110	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	270	ug/kg	
124-48-1	Dibromochloromethane	ND	110	ug/kg	
106-93-4	1,2-Dibromoethane	ND	110	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	110	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	110	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	110	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	110	ug/kg	
75-34-3	1,1-Dichloroethane	ND	110	ug/kg	
107-06-2	1,2-Dichloroethane	ND	110	ug/kg	
75-35-4	1,1-Dichloroethene	ND	110	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	110	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	110	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-301(0-4')		
Lab Sample ID:	MC28372-1	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	87.2
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	110	ug/kg	
142-28-9	1,3-Dichloropropane	ND	270	ug/kg	
594-20-7	2,2-Dichloropropane	ND	270	ug/kg	
563-58-6	1,1-Dichloropropene	ND	270	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	110	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	110	ug/kg	
123-91-1	1,4-Dioxane	ND	1300	ug/kg	
60-29-7	Ethyl Ether	ND	270	ug/kg	
100-41-4	Ethylbenzene	ND	110	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	ug/kg	
591-78-6	2-Hexanone	ND	530	ug/kg	
98-82-8	Isopropylbenzene	ND	270	ug/kg	
99-87-6	p-Isopropyltoluene	ND	270	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	110	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	270	ug/kg	
74-95-3	Methylene bromide	ND	270	ug/kg	
75-09-2	Methylene chloride	ND	110	ug/kg	
91-20-3	Naphthalene	1420	270	ug/kg	
103-65-1	n-Propylbenzene	ND	270	ug/kg	
100-42-5	Styrene	ND	270	ug/kg	
994-05-8	tert-Amyl Methyl Ether	ND	270	ug/kg	
637-92-3	tert-Butyl Ethyl Ether	ND	110	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	270	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	110	ug/kg	
127-18-4	Tetrachloroethene	ND	110	ug/kg	
109-99-9	Tetrahydrofuran	ND	530	ug/kg	
108-88-3	Toluene	ND	270	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	270	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	110	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	110	ug/kg	
79-01-6	Trichloroethene	ND	110	ug/kg	
75-69-4	Trichlorofluoromethane	ND	110	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	270	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	270	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	270	ug/kg	
75-01-4	Vinyl chloride	ND	110	ug/kg	
	m,p-Xylene	ND	110	ug/kg	
95-47-6	o-Xylene	ND	110	ug/kg	
1330-20-7	Xylene (total)	ND	110	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-301(0-4')		
Lab Sample ID:	MC28372-1	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	87.2
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		70-130%
2037-26-5	Toluene-D8	103%		70-130%
460-00-4	4-Bromofluorobenzene	92%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-301(0-4')		
Lab Sample ID:	MC28372-1	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	87.2
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W17802.D	5	02/21/14	KR	02/20/14	OP36914	MSW782
Run #2							

	Initial Weight	Final Volume
Run #1	20.5 g	1.0 ml
Run #2		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	2800	ug/kg	
95-57-8	2-Chlorophenol	ND	1400	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5600	ug/kg	
95-48-7	2-Methylphenol	ND	2800	ug/kg	
	3&4-Methylphenol	ND	2800	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	ug/kg	
100-02-7	4-Nitrophenol	ND	5600	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	ug/kg	
108-95-2	Phenol	ND	1400	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	ug/kg	
83-32-9	Acenaphthene	ND	560	ug/kg	
208-96-8	Acenaphthylene	1750	560	ug/kg	
98-86-2	Acetophenone	ND	2800	ug/kg	
62-53-3	Aniline	ND	2800	ug/kg	
120-12-7	Anthracene	1620	560	ug/kg	
56-55-3	Benzo(a)anthracene	5180	560	ug/kg	
50-32-8	Benzo(a)pyrene	5300	560	ug/kg	
205-99-2	Benzo(b)fluoranthene	4330	560	ug/kg	
191-24-2	Benzo(g,h,i)perylene	3000	560	ug/kg	
207-08-9	Benzo(k)fluoranthene	4150	560	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	ug/kg	
218-01-9	Chrysene	4930	560	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-301(0-4')		
Lab Sample ID:	MC28372-1	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	87.2
Project:	Cobble Hill, Washington, Somerville, MA		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	1400	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	1020	560	ug/kg	
132-64-9	Dibenzofuran	ND	560	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	ug/kg	
206-44-0	Fluoranthene	8270	560	ug/kg	
86-73-7	Fluorene	763	560	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	ug/kg	
67-72-1	Hexachloroethane	ND	1400	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	2790	560	ug/kg	
78-59-1	Isophorone	ND	1400	ug/kg	
91-57-6	2-Methylnaphthalene	ND	560	ug/kg	
91-20-3	Naphthalene	ND	560	ug/kg	
98-95-3	Nitrobenzene	ND	1400	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	ug/kg	
85-01-8	Phenanthrene	5060	560	ug/kg	
129-00-0	Pyrene	7900	560	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	49%		30-130%
4165-62-2	Phenol-d5	67%		30-130%
118-79-6	2,4,6-Tribromophenol	92%		30-130%
4165-60-0	Nitrobenzene-d5	69%		30-130%
321-60-8	2-Fluorobiphenyl	83%		30-130%
1718-51-0	Terphenyl-d14	99%		30-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-301(0-4')		
Lab Sample ID:	MC28372-1	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8082 SW846 3546	**Percent Solids:**	87.2
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ88213.D	1	02/22/14	AP	02/20/14	OP36916	GYZ7500
Run #2							

	Initial Weight	Final Volume
Run #1	15.3 g	10.0 ml
Run #2		

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	38	ug/kg	
11104-28-2	Aroclor 1221	ND	38	ug/kg	
11141-16-5	Aroclor 1232	ND	38	ug/kg	
53469-21-9	Aroclor 1242	ND	38	ug/kg	
12672-29-6	Aroclor 1248	ND	38	ug/kg	
11097-69-1	Aroclor 1254	ND	38	ug/kg	
11096-82-5	Aroclor 1260	ND	38	ug/kg	
37324-23-5	Aroclor 1262	ND	38	ug/kg	
11100-14-4	Aroclor 1268	ND	38	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	89%		30-150%
877-09-8	Tetrachloro-m-xylene	92%		30-150%
2051-24-3	Decachlorobiphenyl	97%		30-150%
2051-24-3	Decachlorobiphenyl	90%		30-150%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-301(0-4')		
Lab Sample ID:	MC28372-1	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846-8015 SW846 3546	**Percent Solids:**	87.2
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BI32019.D	5	02/25/14	KN	02/21/14	OP36917	GBI1174
Run #2							

	Initial Weight	Final Volume
Run #1	15.9 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (Semi-VOA)	1130	90	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	93%		40-140%

(a) Sample process using TPH8100 method requirement.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-301(0-4')		
Lab Sample ID:	MC28372-1	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	87.2
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	8.5	0.93	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Barium	47.5	4.7	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Cadmium	< 0.37	0.37	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Chromium	18.1	0.93	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Lead	102	0.93	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Mercury	0.12	0.034	mg/kg	1	02/25/14	02/26/14	SA	SW846 7471B [1]	SW846 7471B [4]
Selenium	< 0.93	0.93	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Silver	< 0.47	0.47	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]

(1) Instrument QC Batch: MA16785
(2) Instrument QC Batch: MA16787
(3) Prep QC Batch: MP22546
(4) Prep QC Batch: MP22554

RL = Reporting Limit

Report of Analysis

Client Sample ID: EB-301(0-4')
Lab Sample ID: MC28372-1
Matrix: SO - Soil
Project: Cobble Hill, Washington, Somerville, MA

Date Sampled: 02/18/14
Date Received: 02/20/14
Percent Solids: 87.2

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide Reactivity	< 1.7	1.7	mg/kg	1	02/25/14 09:35	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	02/22/14	MA	SW846 1020
Solids, Percent	87.2		%	1	02/24/14	MC	SM21 2540 B MOD.
Specific Conductivity	120	0.50	umhos/cm	1	02/21/14	MA	EPA 120.1M
Sulfide Reactivity	< 57	57	mg/kg	1	02/25/14	BF	SW846 CHAP7
pH	6.7		su	1	02/21/14	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Client Sample ID: EB-301(0-4')
Lab Sample ID: MC28372-1A
Matrix: SO - Soil
Project: Cobble Hill, Washington, Somerville, MA

Date Sampled: 02/18/14
Date Received: 02/20/14
Percent Solids: 87.2

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 0.010	D004	5.0	0.010	mg/l	1	02/26/14	02/26/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Barium	< 0.50	D005	100	0.50	mg/l	1	02/26/14	02/26/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Cadmium	< 0.0040	D006	1.0	0.0040	mg/l	1	02/26/14	02/26/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 0.010	D007	5.0	0.010	mg/l	1	02/26/14	02/26/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Lead	0.047	D008	5.0	0.010	mg/l	1	02/26/14	02/26/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	02/26/14	02/27/14	SA	SW846 7470A [1]	SW846 7470A [3]
Selenium	< 0.025	D010	1.0	0.025	mg/l	1	02/26/14	02/26/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Silver	< 0.0050	D011	5.0	0.0050	mg/l	1	02/26/14	02/26/14	EAL	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA16793
(2) Instrument QC Batch: MA16799
(3) Prep QC Batch: MP22561
(4) Prep QC Batch: MP22564

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)

Report of Analysis

Client Sample ID:	EB-302(0-4')		
Lab Sample ID:	MC28372-2	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	85.3
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28178.D	1	02/25/14	AMY	n/a	n/a	MSV1057
Run #2							

	Initial Weight	Final Volume
Run #1	6.63 g	5.0 ml
Run #2		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	21.7	8.8	ug/kg	
71-43-2	Benzene	0.69	0.44	ug/kg	
108-86-1	Bromobenzene	ND	4.4	ug/kg	
74-97-5	Bromochloromethane	ND	4.4	ug/kg	
75-27-4	Bromodichloromethane	ND	1.8	ug/kg	
75-25-2	Bromoform	ND	1.8	ug/kg	
74-83-9	Bromomethane	ND	1.8	ug/kg	
78-93-3	2-Butanone (MEK)	ND	8.8	ug/kg	
104-51-8	n-Butylbenzene	ND	4.4	ug/kg	
135-98-8	sec-Butylbenzene	ND	4.4	ug/kg	
98-06-6	tert-Butylbenzene	ND	4.4	ug/kg	
75-15-0	Carbon disulfide	ND	4.4	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.8	ug/kg	
108-90-7	Chlorobenzene	ND	1.8	ug/kg	
75-00-3	Chloroethane	ND	4.4	ug/kg	
67-66-3	Chloroform	ND	1.8	ug/kg	
74-87-3	Chloromethane	ND	4.4	ug/kg	
95-49-8	o-Chlorotoluene	ND	4.4	ug/kg	
106-43-4	p-Chlorotoluene	ND	4.4	ug/kg	
108-20-3	Di-Isopropyl ether	ND	1.8	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	4.4	ug/kg	
124-48-1	Dibromochloromethane	ND	1.8	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.8	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.8	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.8	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.8	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	1.8	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.8	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.8	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.8	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.8	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.8	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-302(0-4')		
Lab Sample ID:	MC28372-2	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	85.3
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	1.8	ug/kg	
142-28-9	1,3-Dichloropropane	ND	4.4	ug/kg	
594-20-7	2,2-Dichloropropane	ND	4.4	ug/kg	
563-58-6	1,1-Dichloropropene	ND	4.4	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.8	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.8	ug/kg	
123-91-1	1,4-Dioxane	ND	22	ug/kg	
60-29-7	Ethyl Ether	ND	4.4	ug/kg	
100-41-4	Ethylbenzene	ND	1.8	ug/kg	
87-68-3	Hexachlorobutadiene	ND	4.4	ug/kg	
591-78-6	2-Hexanone	ND	8.8	ug/kg	
98-82-8	Isopropylbenzene	ND	4.4	ug/kg	
99-87-6	p-Isopropyltoluene	ND	4.4	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.8	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.4	ug/kg	
74-95-3	Methylene bromide	ND	4.4	ug/kg	
75-09-2	Methylene chloride	ND	1.8	ug/kg	
91-20-3	Naphthalene	ND	4.4	ug/kg	
103-65-1	n-Propylbenzene	ND	4.4	ug/kg	
100-42-5	Styrene	ND	4.4	ug/kg	
994-05-8	tert-Amyl Methyl Ether	ND	4.4	ug/kg	
637-92-3	tert-Butyl Ethyl Ether	ND	1.8	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	4.4	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.8	ug/kg	
127-18-4	Tetrachloroethene	ND	1.8	ug/kg	
109-99-9	Tetrahydrofuran	ND	8.8	ug/kg	
108-88-3	Toluene	ND	4.4	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	4.4	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	4.4	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.8	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.8	ug/kg	
79-01-6	Trichloroethene	ND	1.8	ug/kg	
75-69-4	Trichlorofluoromethane	ND	1.8	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	4.4	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	4.4	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	4.4	ug/kg	
75-01-4	Vinyl chloride	ND	1.8	ug/kg	
	m,p-Xylene	ND	1.8	ug/kg	
95-47-6	o-Xylene	ND	1.8	ug/kg	
1330-20-7	Xylene (total)	ND	1.8	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-302(0-4')		
Lab Sample ID:	MC28372-2	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	85.3
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		70-130%
2037-26-5	Toluene-D8	81%		70-130%
460-00-4	4-Bromofluorobenzene	92%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-302(0-4')		
Lab Sample ID:	MC28372-2	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	85.3
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W17803.D	5	02/21/14	KR	02/20/14	OP36914	MSW782
Run #2							

	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	2900	ug/kg	
95-57-8	2-Chlorophenol	ND	1500	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2900	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2900	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2900	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5800	ug/kg	
95-48-7	2-Methylphenol	ND	2900	ug/kg	
	3&4-Methylphenol	ND	2900	ug/kg	
88-75-5	2-Nitrophenol	ND	2900	ug/kg	
100-02-7	4-Nitrophenol	ND	5800	ug/kg	
87-86-5	Pentachlorophenol	ND	2900	ug/kg	
108-95-2	Phenol	ND	1500	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2900	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2900	ug/kg	
83-32-9	Acenaphthene	ND	580	ug/kg	
208-96-8	Acenaphthylene	2540	580	ug/kg	
98-86-2	Acetophenone	ND	2900	ug/kg	
62-53-3	Aniline	ND	2900	ug/kg	
120-12-7	Anthracene	2180	580	ug/kg	
56-55-3	Benzo(a)anthracene	7820	580	ug/kg	
50-32-8	Benzo(a)pyrene	9640	580	ug/kg	
205-99-2	Benzo(b)fluoranthene	7580	580	ug/kg	
191-24-2	Benzo(g,h,i)perylene	6080	580	ug/kg	
207-08-9	Benzo(k)fluoranthene	6890	580	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1500	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1500	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1500	ug/kg	
106-47-8	4-Chloroaniline	ND	2900	ug/kg	
218-01-9	Chrysene	7570	580	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1500	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1500	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1500	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-302(0-4')		
Lab Sample ID:	MC28372-2	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	85.3
Project:	Cobble Hill, Washington, Somerville, MA		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1500	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	1500	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1500	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1500	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2900	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2900	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1500	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	1620	580	ug/kg	
132-64-9	Dibenzofuran	ND	580	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1500	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1500	ug/kg	
84-66-2	Diethyl phthalate	ND	1500	ug/kg	
131-11-3	Dimethyl phthalate	ND	1500	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1500	ug/kg	
206-44-0	Fluoranthene	13300	580	ug/kg	
86-73-7	Fluorene	ND	580	ug/kg	
118-74-1	Hexachlorobenzene	ND	1500	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1500	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2900	ug/kg	
67-72-1	Hexachloroethane	ND	1500	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	5390	580	ug/kg	
78-59-1	Isophorone	ND	1500	ug/kg	
91-57-6	2-Methylnaphthalene	ND	580	ug/kg	
91-20-3	Naphthalene	1210	580	ug/kg	
98-95-3	Nitrobenzene	ND	1500	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1500	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1500	ug/kg	
85-01-8	Phenanthrene	2710	580	ug/kg	
129-00-0	Pyrene	13400	580	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1500	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	73%		30-130%
4165-62-2	Phenol-d5	85%		30-130%
118-79-6	2,4,6-Tribromophenol	118%		30-130%
4165-60-0	Nitrobenzene-d5	90%		30-130%
321-60-8	2-Fluorobiphenyl	104%		30-130%
1718-51-0	Terphenyl-d14	122%		30-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-302(0-4')		
Lab Sample ID:	MC28372-2	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8082 SW846 3546	**Percent Solids:**	85.3
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ88214.D	1	02/22/14	AP	02/20/14	OP36916	GYZ7500
Run #2							

	Initial Weight	Final Volume
Run #1	15.5 g	10.0 ml
Run #2		

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	38	ug/kg	
11104-28-2	Aroclor 1221	ND	38	ug/kg	
11141-16-5	Aroclor 1232	ND	38	ug/kg	
53469-21-9	Aroclor 1242	ND	38	ug/kg	
12672-29-6	Aroclor 1248	ND	38	ug/kg	
11097-69-1	Aroclor 1254	ND	38	ug/kg	
11096-82-5	Aroclor 1260	ND	38	ug/kg	
37324-23-5	Aroclor 1262	ND	38	ug/kg	
11100-14-4	Aroclor 1268	ND	38	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	89%		30-150%
877-09-8	Tetrachloro-m-xylene	87%		30-150%
2051-24-3	Decachlorobiphenyl	94%		30-150%
2051-24-3	Decachlorobiphenyl	86%		30-150%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-302(0-4')		
Lab Sample ID:	MC28372-2	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846-8015 SW846 3546	**Percent Solids:**	85.3
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BI32021.D	5	02/25/14	KN	02/21/14	OP36917	GBI1174
Run #2							

	Initial Weight	Final Volume
Run #1	15.5 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (Semi-VOA)	1580	94	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	78%		40-140%

(a) Sample process using TPH8100 method requirement.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-302(0-4')		
Lab Sample ID:	MC28372-2	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	85.3
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	7.1	0.95	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Barium	55.8	4.8	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Cadmium	< 0.38	0.38	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Chromium	13.6	0.95	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Lead	148	0.95	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Mercury	0.37	0.034	mg/kg	1	02/25/14	02/26/14	SA	SW846 7471B [1]	SW846 7471B [4]
Selenium	< 0.95	0.95	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Silver	< 0.48	0.48	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]

(1) Instrument QC Batch: MA16785
(2) Instrument QC Batch: MA16787
(3) Prep QC Batch: MP22546
(4) Prep QC Batch: MP22554

RL = Reporting Limit

Report of Analysis

Client Sample ID:	EB-302(0-4')		
Lab Sample ID:	MC28372-2	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	85.3
Project:	Cobble Hill, Washington, Somerville, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide Reactivity	< 1.7	1.7	mg/kg	1	02/25/14 09:35	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	02/25/14	BF	SW846 1020
Solids, Percent	85.3		%	1	02/24/14	MC	SM21 2540 B MOD.
Specific Conductivity	248	0.50	umhos/cm	1	02/21/14	MA	EPA 120.1M
Sulfide Reactivity	< 59	59	mg/kg	1	02/25/14	BF	SW846 CHAP7
pH	7.7		su	1	02/21/14	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Client Sample ID:	EB-302(0-4')		
Lab Sample ID:	MC28372-2A	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	85.3
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	0.010	D004	5.0	0.010	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Barium	0.67	D005	100	0.50	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Cadmium	0.0047	D006	1.0	0.0040	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 0.010	D007	5.0	0.010	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Lead	0.46	D008	5.0	0.010	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	02/26/14	02/27/14	SA	SW846 7470A [1]	SW846 7470A [3]
Selenium	< 0.025	D010	1.0	0.025	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Silver	< 0.0050	D011	5.0	0.0050	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA16793
(2) Instrument QC Batch: MA16799
(3) Prep QC Batch: MP22561
(4) Prep QC Batch: MP22564

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)

Report of Analysis

Client Sample ID:	EB-303(0-8')		
Lab Sample ID:	MC28372-3	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	90.1
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63461.D	1	02/27/14	KD	n/a	n/a	MSM2224
Run #2							

	Initial Weight	Final Volume
Run #1	6.03 g	5.0 ml
Run #2		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	9.2	ug/kg	
71-43-2	Benzene	ND	0.46	ug/kg	
108-86-1	Bromobenzene	ND	4.6	ug/kg	
74-97-5	Bromochloromethane	ND	4.6	ug/kg	
75-27-4	Bromodichloromethane	ND	1.8	ug/kg	
75-25-2	Bromoform	ND	1.8	ug/kg	
74-83-9	Bromomethane	ND	1.8	ug/kg	
78-93-3	2-Butanone (MEK)	ND	9.2	ug/kg	
104-51-8	n-Butylbenzene	ND	4.6	ug/kg	
135-98-8	sec-Butylbenzene	ND	4.6	ug/kg	
98-06-6	tert-Butylbenzene	ND	4.6	ug/kg	
75-15-0	Carbon disulfide	ND	4.6	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.8	ug/kg	
108-90-7	Chlorobenzene	ND	1.8	ug/kg	
75-00-3	Chloroethane	ND	4.6	ug/kg	
67-66-3	Chloroform	ND	1.8	ug/kg	
74-87-3	Chloromethane	ND	4.6	ug/kg	
95-49-8	o-Chlorotoluene	ND	4.6	ug/kg	
106-43-4	p-Chlorotoluene	ND	4.6	ug/kg	
108-20-3	Di-Isopropyl ether	ND	1.8	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	4.6	ug/kg	
124-48-1	Dibromochloromethane	ND	1.8	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.8	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.8	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.8	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.8	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	1.8	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.8	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.8	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.8	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.8	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.8	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-303(0-8')		
Lab Sample ID:	MC28372-3	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	90.1
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	1.8	ug/kg	
142-28-9	1,3-Dichloropropane	ND	4.6	ug/kg	
594-20-7	2,2-Dichloropropane	ND	4.6	ug/kg	
563-58-6	1,1-Dichloropropene	ND	4.6	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.8	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.8	ug/kg	
123-91-1	1,4-Dioxane	ND	23	ug/kg	
60-29-7	Ethyl Ether	ND	4.6	ug/kg	
100-41-4	Ethylbenzene	ND	1.8	ug/kg	
87-68-3	Hexachlorobutadiene	ND	4.6	ug/kg	
591-78-6	2-Hexanone	ND	9.2	ug/kg	
98-82-8	Isopropylbenzene	ND	4.6	ug/kg	
99-87-6	p-Isopropyltoluene	ND	4.6	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.8	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.6	ug/kg	
74-95-3	Methylene bromide	ND	4.6	ug/kg	
75-09-2	Methylene chloride	ND	1.8	ug/kg	
91-20-3	Naphthalene	ND	4.6	ug/kg	
103-65-1	n-Propylbenzene	ND	4.6	ug/kg	
100-42-5	Styrene	ND	4.6	ug/kg	
994-05-8	tert-Amyl Methyl Ether	ND	4.6	ug/kg	
637-92-3	tert-Butyl Ethyl Ether	ND	1.8	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	4.6	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.8	ug/kg	
127-18-4	Tetrachloroethene	ND	1.8	ug/kg	
109-99-9	Tetrahydrofuran	ND	9.2	ug/kg	
108-88-3	Toluene	ND	4.6	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	4.6	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	4.6	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.8	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.8	ug/kg	
79-01-6	Trichloroethene	ND	1.8	ug/kg	
75-69-4	Trichlorofluoromethane	ND	1.8	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	4.6	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	4.6	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	4.6	ug/kg	
75-01-4	Vinyl chloride	ND	1.8	ug/kg	
	m,p-Xylene	ND	1.8	ug/kg	
95-47-6	o-Xylene	ND	1.8	ug/kg	
1330-20-7	Xylene (total)	ND	1.8	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-303(0-8')		
Lab Sample ID:	MC28372-3	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	90.1
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		70-130%
2037-26-5	Toluene-D8	103%		70-130%
460-00-4	4-Bromofluorobenzene	105%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-303(0-8')		
Lab Sample ID:	MC28372-3	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	90.1
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W17804.D	5	02/21/14	KR	02/20/14	OP36914	MSW782
Run #2							

	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	2700	ug/kg	
95-57-8	2-Chlorophenol	ND	1400	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2700	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2700	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2700	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5500	ug/kg	
95-48-7	2-Methylphenol	ND	2700	ug/kg	
	3&4-Methylphenol	ND	2700	ug/kg	
88-75-5	2-Nitrophenol	ND	2700	ug/kg	
100-02-7	4-Nitrophenol	ND	5500	ug/kg	
87-86-5	Pentachlorophenol	ND	2700	ug/kg	
108-95-2	Phenol	ND	1400	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2700	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2700	ug/kg	
83-32-9	Acenaphthene	666	550	ug/kg	
208-96-8	Acenaphthylene	ND	550	ug/kg	
98-86-2	Acetophenone	ND	2700	ug/kg	
62-53-3	Aniline	ND	2700	ug/kg	
120-12-7	Anthracene	1470	550	ug/kg	
56-55-3	Benzo(a)anthracene	3930	550	ug/kg	
50-32-8	Benzo(a)pyrene	3310	550	ug/kg	
205-99-2	Benzo(b)fluoranthene	3100	550	ug/kg	
191-24-2	Benzo(g,h,i)perylene	1750	550	ug/kg	
207-08-9	Benzo(k)fluoranthene	2430	550	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	ug/kg	
106-47-8	4-Chloroaniline	ND	2700	ug/kg	
218-01-9	Chrysene	3950	550	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-303(0-8')		
Lab Sample ID:	MC28372-3	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	90.1
Project:	Cobble Hill, Washington, Somerville, MA		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	1400	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2700	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2700	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	643	550	ug/kg	
132-64-9	Dibenzofuran	ND	550	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	ug/kg	
206-44-0	Fluoranthene	8630	550	ug/kg	
86-73-7	Fluorene	637	550	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	ug/kg	
67-72-1	Hexachloroethane	ND	1400	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	1730	550	ug/kg	
78-59-1	Isophorone	ND	1400	ug/kg	
91-57-6	2-Methylnaphthalene	ND	550	ug/kg	
91-20-3	Naphthalene	ND	550	ug/kg	
98-95-3	Nitrobenzene	ND	1400	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	ug/kg	
85-01-8	Phenanthrene	6490	550	ug/kg	
129-00-0	Pyrene	7730	550	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	67%		30-130%
4165-62-2	Phenol-d5	75%		30-130%
118-79-6	2,4,6-Tribromophenol	101%		30-130%
4165-60-0	Nitrobenzene-d5	84%		30-130%
321-60-8	2-Fluorobiphenyl	96%		30-130%
1718-51-0	Terphenyl-d14	111%		30-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-303(0-8')		
Lab Sample ID:	MC28372-3	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8082 SW846 3546	**Percent Solids:**	90.1
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ88215.D	1	02/22/14	AP	02/20/14	OP36916	GYZ7500
Run #2							

	Initial Weight	Final Volume
Run #1	15.9 g	10.0 ml
Run #2		

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	35	ug/kg	
11104-28-2	Aroclor 1221	ND	35	ug/kg	
11141-16-5	Aroclor 1232	ND	35	ug/kg	
53469-21-9	Aroclor 1242	ND	35	ug/kg	
12672-29-6	Aroclor 1248	ND	35	ug/kg	
11097-69-1	Aroclor 1254	ND	35	ug/kg	
11096-82-5	Aroclor 1260	ND	35	ug/kg	
37324-23-5	Aroclor 1262	ND	35	ug/kg	
11100-14-4	Aroclor 1268	ND	35	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	80%		30-150%
877-09-8	Tetrachloro-m-xylene	72%		30-150%
2051-24-3	Decachlorobiphenyl	82%		30-150%
2051-24-3	Decachlorobiphenyl	67%		30-150%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-303(0-8')		
Lab Sample ID:	MC28372-3	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846-8015 SW846 3546	**Percent Solids:**	90.1
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BI32023.D	5	02/25/14	KN	02/21/14	OP36917	GBI1174
Run #2							

	Initial Weight	Final Volume
Run #1	15.4 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (Semi-VOA)	2330	90	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	64%		40-140%

(a) Sample process using TPH8100 method requirement.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-303(0-8')		
Lab Sample ID:	MC28372-3	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	90.1
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	5.6	0.89	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Barium	125	4.4	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Cadmium	3.9	0.36	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Chromium	13.4	0.89	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Lead	370	0.89	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Mercury	0.096	0.036	mg/kg	1	02/25/14	02/26/14	SA	SW846 7471B [1]	SW846 7471B [4]
Selenium	< 0.89	0.89	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Silver	< 0.44	0.44	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]

(1) Instrument QC Batch: MA16785
(2) Instrument QC Batch: MA16787
(3) Prep QC Batch: MP22546
(4) Prep QC Batch: MP22554

RL = Reporting Limit

Report of Analysis

Client Sample ID:	EB-303(0-8')		
Lab Sample ID:	MC28372-3	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	90.1
Project:	Cobble Hill, Washington, Somerville, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide Reactivity	< 1.7	1.7	mg/kg	1	02/25/14 09:35	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	02/25/14	BF	SW846 1020
Solids, Percent	90.1		%	1	02/24/14	MC	SM21 2540 B MOD.
Specific Conductivity	2360	0.50	umhos/cm	1	02/21/14	MA	EPA 120.1M
Sulfide Reactivity	< 55	55	mg/kg	1	02/25/14	BF	SW846 CHAP7
pH	8.1		su	1	02/21/14	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Client Sample ID: EB-303(0-8')
Lab Sample ID: MC28372-3A
Matrix: SO - Soil
Project: Cobble Hill, Washington, Somerville, MA

Date Sampled: 02/18/14
Date Received: 02/20/14
Percent Solids: 90.1

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 0.010	D004	5.0	0.010	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Barium	< 0.50	D005	100	0.50	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Cadmium	0.20	D006	1.0	0.0040	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 0.010	D007	5.0	0.010	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Lead	0.44	D008	5.0	0.010	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	02/26/14	02/27/14	SA	SW846 7470A [1]	SW846 7470A [3]
Selenium	< 0.025	D010	1.0	0.025	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Silver	< 0.0050	D011	5.0	0.0050	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA16793
(2) Instrument QC Batch: MA16799
(3) Prep QC Batch: MP22561
(4) Prep QC Batch: MP22564

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)

Report of Analysis

Client Sample ID:	EB-304(0-5')		
Lab Sample ID:	MC28372-4	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	89.1
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G135274.D	1	02/24/14	JM	n/a	n/a	MSG5206
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	12.0 g	10.0 ml	20.0 ul
Run #2			

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	2600	ug/kg	
71-43-2	Benzene	398	130	ug/kg	
108-86-1	Bromobenzene	ND	1300	ug/kg	
74-97-5	Bromochloromethane	ND	1300	ug/kg	
75-27-4	Bromodichloromethane	ND	530	ug/kg	
75-25-2	Bromoform	ND	530	ug/kg	
74-83-9	Bromomethane	ND	530	ug/kg	
78-93-3	2-Butanone (MEK)	ND	2600	ug/kg	
104-51-8	n-Butylbenzene	ND	1300	ug/kg	
135-98-8	sec-Butylbenzene	ND	1300	ug/kg	
98-06-6	tert-Butylbenzene	ND	1300	ug/kg	
75-15-0	Carbon disulfide	ND	1300	ug/kg	
56-23-5	Carbon tetrachloride	ND	530	ug/kg	
108-90-7	Chlorobenzene	ND	530	ug/kg	
75-00-3	Chloroethane	ND	1300	ug/kg	
67-66-3	Chloroform	ND	530	ug/kg	
74-87-3	Chloromethane	ND	1300	ug/kg	
95-49-8	o-Chlorotoluene	ND	1300	ug/kg	
106-43-4	p-Chlorotoluene	ND	1300	ug/kg	
108-20-3	Di-Isopropyl ether	ND	530	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1300	ug/kg	
124-48-1	Dibromochloromethane	ND	530	ug/kg	
106-93-4	1,2-Dibromoethane	ND	530	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	530	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	530	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	530	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	530	ug/kg	
75-34-3	1,1-Dichloroethane	ND	530	ug/kg	
107-06-2	1,2-Dichloroethane	ND	530	ug/kg	
75-35-4	1,1-Dichloroethene	ND	530	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	530	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	530	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-304(0-5')		
Lab Sample ID:	MC28372-4	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	89.1
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	530	ug/kg	
142-28-9	1,3-Dichloropropane	ND	1300	ug/kg	
594-20-7	2,2-Dichloropropane	ND	1300	ug/kg	
563-58-6	1,1-Dichloropropene	ND	1300	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	530	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	530	ug/kg	
123-91-1	1,4-Dioxane	ND	6600	ug/kg	
60-29-7	Ethyl Ether	ND	1300	ug/kg	
100-41-4	Ethylbenzene	ND	530	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1300	ug/kg	
591-78-6	2-Hexanone	ND	2600	ug/kg	
98-82-8	Isopropylbenzene	ND	1300	ug/kg	
99-87-6	p-Isopropyltoluene	ND	1300	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	530	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	1300	ug/kg	
74-95-3	Methylene bromide	ND	1300	ug/kg	
75-09-2	Methylene chloride	ND	530	ug/kg	
91-20-3	Naphthalene	76600	1300	ug/kg	
103-65-1	n-Propylbenzene	ND	1300	ug/kg	
100-42-5	Styrene	ND	1300	ug/kg	
994-05-8	tert-Amyl Methyl Ether	ND	1300	ug/kg	
637-92-3	tert-Butyl Ethyl Ether	ND	530	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1300	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	530	ug/kg	
127-18-4	Tetrachloroethene	ND	530	ug/kg	
109-99-9	Tetrahydrofuran	ND	2600	ug/kg	
108-88-3	Toluene	ND	1300	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	1300	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1300	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	530	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	530	ug/kg	
79-01-6	Trichloroethene	ND	530	ug/kg	
75-69-4	Trichlorofluoromethane	ND	530	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	1300	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	1580	1300	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	1300	ug/kg	
75-01-4	Vinyl chloride	ND	530	ug/kg	
	m,p-Xylene	1270	530	ug/kg	
95-47-6	o-Xylene	546	530	ug/kg	
1330-20-7	Xylene (total)	1820	530	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-304(0-5')		
Lab Sample ID:	MC28372-4	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	89.1
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%		70-130%
2037-26-5	Toluene-D8	108%		70-130%
460-00-4	4-Bromofluorobenzene	101%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-304(0-5')		
Lab Sample ID:	MC28372-4	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	89.1
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W17805.D	5	02/21/14	KR	02/20/14	OP36914	MSW782
Run #2	R37194.D	50	02/24/14	WK	02/20/14	OP36914	MSR1371

	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2	20.6 g	1.0 ml

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	2700	ug/kg	
95-57-8	2-Chlorophenol	ND	1400	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2700	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2700	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2700	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5500	ug/kg	
95-48-7	2-Methylphenol	ND	2700	ug/kg	
	3&4-Methylphenol	ND	2700	ug/kg	
88-75-5	2-Nitrophenol	ND	2700	ug/kg	
100-02-7	4-Nitrophenol	ND	5500	ug/kg	
87-86-5	Pentachlorophenol	ND	2700	ug/kg	
108-95-2	Phenol	ND	1400	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2700	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2700	ug/kg	
83-32-9	Acenaphthene	55900 [a]	5400	ug/kg	
208-96-8	Acenaphthylene	14000	550	ug/kg	
98-86-2	Acetophenone	ND	2700	ug/kg	
62-53-3	Aniline	ND	2700	ug/kg	
120-12-7	Anthracene	60900 [a]	5400	ug/kg	
56-55-3	Benzo(a)anthracene	51900 [a]	5400	ug/kg	
50-32-8	Benzo(a)pyrene	48700 [a]	5400	ug/kg	
205-99-2	Benzo(b)fluoranthene	35000 [a]	5400	ug/kg	
191-24-2	Benzo(g,h,i)perylene	27800	550	ug/kg	
207-08-9	Benzo(k)fluoranthene	26400	550	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	ug/kg	
106-47-8	4-Chloroaniline	ND	2700	ug/kg	
218-01-9	Chrysene	45600 [a]	5400	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-304(0-5')		
Lab Sample ID:	MC28372-4	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	89.1
Project:	Cobble Hill, Washington, Somerville, MA		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	1400	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2700	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2700	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	7350	550	ug/kg	
132-64-9	Dibenzofuran	20700	550	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	ug/kg	
206-44-0	Fluoranthene	164000 [a]	5400	ug/kg	
86-73-7	Fluorene	39600	550	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	ug/kg	
67-72-1	Hexachloroethane	ND	1400	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	25600	550	ug/kg	
78-59-1	Isophorone	ND	1400	ug/kg	
91-57-6	2-Methylnaphthalene	34800	550	ug/kg	
91-20-3	Naphthalene	70200 [a]	5400	ug/kg	
98-95-3	Nitrobenzene	ND	1400	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	ug/kg	
85-01-8	Phenanthrene	192000 [a]	5400	ug/kg	
129-00-0	Pyrene	131000 [a]	5400	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	64%	38%	30-130%
4165-62-2	Phenol-d5	74%	47%	30-130%
118-79-6	2,4,6-Tribromophenol	108%	88%	30-130%
4165-60-0	Nitrobenzene-d5	81%	74%	30-130%
321-60-8	2-Fluorobiphenyl	96%	97%	30-130%
1718-51-0	Terphenyl-d14	116%	111%	30-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-304(0-5')		
Lab Sample ID:	MC28372-4	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	89.1
Project:	Cobble Hill, Washington, Somerville, MA		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q

(a) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-304(0-5')		
Lab Sample ID:	MC28372-4	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8082 SW846 3546	**Percent Solids:**	89.1
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ88216.D	1	02/22/14	AP	02/20/14	OP36916	GYZ7500
Run #2							

	Initial Weight	Final Volume
Run #1	15.8 g	10.0 ml
Run #2		

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	36	ug/kg	
11104-28-2	Aroclor 1221	ND	36	ug/kg	
11141-16-5	Aroclor 1232	ND	36	ug/kg	
53469-21-9	Aroclor 1242	ND	36	ug/kg	
12672-29-6	Aroclor 1248	ND	36	ug/kg	
11097-69-1	Aroclor 1254	ND	36	ug/kg	
11096-82-5	Aroclor 1260	ND	36	ug/kg	
37324-23-5	Aroclor 1262	ND	36	ug/kg	
11100-14-4	Aroclor 1268	ND	36	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	85%		30-150%
877-09-8	Tetrachloro-m-xylene	65%		30-150%
2051-24-3	Decachlorobiphenyl	81%		30-150%
2051-24-3	Decachlorobiphenyl	65%		30-150%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-304(0-5')		
Lab Sample ID:	MC28372-4	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846-8015 SW846 3546	**Percent Solids:**	89.1
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BI32025.D	5	02/25/14	KN	02/21/14	OP36917	GBI1174
Run #2							

	Initial Weight	Final Volume
Run #1	15.6 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (Semi-VOA)	2660	90	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	65%		40-140%

(a) Sample process using TPH8100 method requirement.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-304(0-5')		
Lab Sample ID:	MC28372-4	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	89.1
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	7.0	0.92	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Barium	64.9	4.6	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Cadmium	0.54	0.37	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Chromium	16.6	0.92	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Lead	209	0.92	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Mercury	0.56	0.035	mg/kg	1	02/25/14	02/26/14	SA	SW846 7471B [1]	SW846 7471B [4]
Selenium	< 0.92	0.92	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Silver	< 0.46	0.46	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]

(1) Instrument QC Batch: MA16785
(2) Instrument QC Batch: MA16787
(3) Prep QC Batch: MP22546
(4) Prep QC Batch: MP22554

RL = Reporting Limit

Report of Analysis

Client Sample ID:	EB-304(0-5')		
Lab Sample ID:	MC28372-4	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	89.1
Project:	Cobble Hill, Washington, Somerville, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide Reactivity	< 1.7	1.7	mg/kg	1	02/25/14 09:35	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	02/25/14	BF	SW846 1020
Solids, Percent	89.1		%	1	02/24/14	MC	SM21 2540 B MOD.
Specific Conductivity	646	0.50	umhos/cm	1	02/21/14	MA	EPA 120.1M
Sulfide Reactivity	< 56	56	mg/kg	1	02/25/14	BF	SW846 CHAP7
pH	7.9		su	1	02/21/14	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Client Sample ID: EB-304(0-5')
Lab Sample ID: MC28372-4A
Matrix: SO - Soil
Project: Cobble Hill, Washington, Somerville, MA

Date Sampled: 02/18/14
Date Received: 02/20/14
Percent Solids: 89.1

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	0.024	D004	5.0	0.010	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Barium	< 0.50	D005	100	0.50	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Cadmium	0.0044	D006	1.0	0.0040	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 0.010	D007	5.0	0.010	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Lead	0.35	D008	5.0	0.010	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	02/26/14	02/27/14	SA	SW846 7470A [1]	SW846 7470A [3]
Selenium	< 0.025	D010	1.0	0.025	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Silver	< 0.0050	D011	5.0	0.0050	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA16793
(2) Instrument QC Batch: MA16799
(3) Prep QC Batch: MP22561
(4) Prep QC Batch: MP22564

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)

Report of Analysis

Client Sample ID:	EB-305(0-4')		
Lab Sample ID:	MC28372-5	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	92.5
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G135275.D	1	02/24/14	JM	n/a	n/a	MSG5206
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	11.5 g	10.0 ml	20.0 ul
Run #2			

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	2500	ug/kg	
71-43-2	Benzene	287	130	ug/kg	
108-86-1	Bromobenzene	ND	1300	ug/kg	
74-97-5	Bromochloromethane	ND	1300	ug/kg	
75-27-4	Bromodichloromethane	ND	510	ug/kg	
75-25-2	Bromoform	ND	510	ug/kg	
74-83-9	Bromomethane	ND	510	ug/kg	
78-93-3	2-Butanone (MEK)	ND	2500	ug/kg	
104-51-8	n-Butylbenzene	ND	1300	ug/kg	
135-98-8	sec-Butylbenzene	ND	1300	ug/kg	
98-06-6	tert-Butylbenzene	ND	1300	ug/kg	
75-15-0	Carbon disulfide	ND	1300	ug/kg	
56-23-5	Carbon tetrachloride	ND	510	ug/kg	
108-90-7	Chlorobenzene	20300	510	ug/kg	
75-00-3	Chloroethane	ND	1300	ug/kg	
67-66-3	Chloroform	ND	510	ug/kg	
74-87-3	Chloromethane	ND	1300	ug/kg	
95-49-8	o-Chlorotoluene	ND	1300	ug/kg	
106-43-4	p-Chlorotoluene	ND	1300	ug/kg	
108-20-3	Di-Isopropyl ether	ND	510	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1300	ug/kg	
124-48-1	Dibromochloromethane	ND	510	ug/kg	
106-93-4	1,2-Dibromoethane	ND	510	ug/kg	
95-50-1	1,2-Dichlorobenzene	2330	510	ug/kg	
541-73-1	1,3-Dichlorobenzene	11500	510	ug/kg	
106-46-7	1,4-Dichlorobenzene	50700	510	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	510	ug/kg	
75-34-3	1,1-Dichloroethane	ND	510	ug/kg	
107-06-2	1,2-Dichloroethane	ND	510	ug/kg	
75-35-4	1,1-Dichloroethene	ND	510	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	510	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	510	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-305(0-4')		
Lab Sample ID:	MC28372-5	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	92.5
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	510	ug/kg	
142-28-9	1,3-Dichloropropane	ND	1300	ug/kg	
594-20-7	2,2-Dichloropropane	ND	1300	ug/kg	
563-58-6	1,1-Dichloropropene	ND	1300	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	510	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	510	ug/kg	
123-91-1	1,4-Dioxane	ND	6400	ug/kg	
60-29-7	Ethyl Ether	ND	1300	ug/kg	
100-41-4	Ethylbenzene	ND	510	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1300	ug/kg	
591-78-6	2-Hexanone	ND	2500	ug/kg	
98-82-8	Isopropylbenzene	ND	1300	ug/kg	
99-87-6	p-Isopropyltoluene	ND	1300	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	510	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	1300	ug/kg	
74-95-3	Methylene bromide	ND	1300	ug/kg	
75-09-2	Methylene chloride	ND	510	ug/kg	
91-20-3	Naphthalene	3460	1300	ug/kg	
103-65-1	n-Propylbenzene	ND	1300	ug/kg	
100-42-5	Styrene	ND	1300	ug/kg	
994-05-8	tert-Amyl Methyl Ether	ND	1300	ug/kg	
637-92-3	tert-Butyl Ethyl Ether	ND	510	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1300	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	510	ug/kg	
127-18-4	Tetrachloroethene	ND	510	ug/kg	
109-99-9	Tetrahydrofuran	ND	2500	ug/kg	
108-88-3	Toluene	ND	1300	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	6730	1300	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	62400	1300	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	510	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	510	ug/kg	
79-01-6	Trichloroethene	ND	510	ug/kg	
75-69-4	Trichlorofluoromethane	ND	510	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	1300	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	1300	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	1300	ug/kg	
75-01-4	Vinyl chloride	ND	510	ug/kg	
	m,p-Xylene	ND	510	ug/kg	
95-47-6	o-Xylene	ND	510	ug/kg	
1330-20-7	Xylene (total)	ND	510	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-305(0-4')		
Lab Sample ID:	MC28372-5	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	92.5
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		70-130%
2037-26-5	Toluene-D8	107%		70-130%
460-00-4	4-Bromofluorobenzene	99%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-305(0-4')		
Lab Sample ID:	MC28372-5	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	92.5
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W17806.D	5	02/21/14	KR	02/20/14	OP36914	MSW782
Run #2							

	Initial Weight	Final Volume
Run #1	20.8 g	1.0 ml
Run #2		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	2600	ug/kg	
95-57-8	2-Chlorophenol	ND	1300	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2600	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2600	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2600	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5200	ug/kg	
95-48-7	2-Methylphenol	ND	2600	ug/kg	
	3&4-Methylphenol	ND	2600	ug/kg	
88-75-5	2-Nitrophenol	ND	2600	ug/kg	
100-02-7	4-Nitrophenol	ND	5200	ug/kg	
87-86-5	Pentachlorophenol	ND	2600	ug/kg	
108-95-2	Phenol	ND	1300	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2600	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2600	ug/kg	
83-32-9	Acenaphthene	543	520	ug/kg	
208-96-8	Acenaphthylene	750	520	ug/kg	
98-86-2	Acetophenone	ND	2600	ug/kg	
62-53-3	Aniline	ND	2600	ug/kg	
120-12-7	Anthracene	1100	520	ug/kg	
56-55-3	Benzo(a)anthracene	3590	520	ug/kg	
50-32-8	Benzo(a)pyrene	3010	520	ug/kg	
205-99-2	Benzo(b)fluoranthene	2550	520	ug/kg	
191-24-2	Benzo(g,h,i)perylene	1630	520	ug/kg	
207-08-9	Benzo(k)fluoranthene	2870	520	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1300	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1300	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1300	ug/kg	
106-47-8	4-Chloroaniline	ND	2600	ug/kg	
218-01-9	Chrysene	3480	520	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1300	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1300	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1300	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-305(0-4')		
Lab Sample ID:	MC28372-5	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	92.5
Project:	Cobble Hill, Washington, Somerville, MA		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	1,2-Dichlorobenzene	2860	1300	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	1300	ug/kg	
541-73-1	1,3-Dichlorobenzene	10300	1300	ug/kg	
106-46-7	1,4-Dichlorobenzene	34400	1300	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2600	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2600	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1300	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	592	520	ug/kg	
132-64-9	Dibenzofuran	ND	520	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1300	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1300	ug/kg	
84-66-2	Diethyl phthalate	ND	1300	ug/kg	
131-11-3	Dimethyl phthalate	ND	1300	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	15900	1300	ug/kg	
206-44-0	Fluoranthene	5670	520	ug/kg	
86-73-7	Fluorene	ND	520	ug/kg	
118-74-1	Hexachlorobenzene	ND	1300	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1300	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2600	ug/kg	
67-72-1	Hexachloroethane	ND	1300	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	1470	520	ug/kg	
78-59-1	Isophorone	ND	1300	ug/kg	
91-57-6	2-Methylnaphthalene	ND	520	ug/kg	
91-20-3	Naphthalene	ND	520	ug/kg	
98-95-3	Nitrobenzene	ND	1300	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1300	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1300	ug/kg	
85-01-8	Phenanthrene	2570	520	ug/kg	
129-00-0	Pyrene	6100	520	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1300	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	50%		30-130%
4165-62-2	Phenol-d5	63%		30-130%
118-79-6	2,4,6-Tribromophenol	95%		30-130%
4165-60-0	Nitrobenzene-d5	65%		30-130%
321-60-8	2-Fluorobiphenyl	77%		30-130%
1718-51-0	Terphenyl-d14	96%		30-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-305(0-4')		
Lab Sample ID:	MC28372-5	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8082 SW846 3546	**Percent Solids:**	92.5
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ88217.D	1	02/22/14	AP	02/20/14	OP36916	GYZ7500
Run #2	YZ88275.D	100	02/25/14	AP	02/20/14	OP36916	GYZ7501

	Initial Weight	Final Volume
Run #1	15.6 g	10.0 ml
Run #2	15.6 g	10.0 ml

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	35	ug/kg	
11104-28-2	Aroclor 1221	ND	35	ug/kg	
11141-16-5	Aroclor 1232	ND	35	ug/kg	
53469-21-9	Aroclor 1242	ND	35	ug/kg	
12672-29-6	Aroclor 1248	48900 [a]	3500	ug/kg	
11097-69-1	Aroclor 1254	ND	35	ug/kg	
11096-82-5	Aroclor 1260	ND	35	ug/kg	
37324-23-5	Aroclor 1262	ND	35	ug/kg	
11100-14-4	Aroclor 1268	ND	35	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	1513% [c]	0% [b]	30-150%
877-09-8	Tetrachloro-m-xylene	1214% [c]	0% [b]	30-150%
2051-24-3	Decachlorobiphenyl	102%	0% [b]	30-150%
2051-24-3	Decachlorobiphenyl	136%	0% [b]	30-150%

(a) Result is from Run# 2
(b) Outside control limits due to dilution.
(c) Outside control limits due to possible matrix interference.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-305(0-4')		
Lab Sample ID:	MC28372-5	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846-8015 SW846 3546	**Percent Solids:**	92.5
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BI32029.D	5	02/25/14	KN	02/21/14	OP36917	GBI1174
Run #2							

	Initial Weight	Final Volume
Run #1	15.4 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (Semi-VOA)	1880	88	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	80%		40-140%

(a) Sample process using TPH8100 method requirement.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-305(0-4')		
Lab Sample ID:	MC28372-5	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	92.5
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	7.1	0.88	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Barium	38.8	4.4	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Cadmium	1.0	0.35	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Chromium	17.6	0.88	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Lead	99.5	0.88	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Mercury	0.34	0.034	mg/kg	1	02/25/14	02/26/14	SA	SW846 7471B [1]	SW846 7471B [4]
Selenium	< 0.88	0.88	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Silver	< 0.44	0.44	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]

(1) Instrument QC Batch: MA16785
(2) Instrument QC Batch: MA16787
(3) Prep QC Batch: MP22546
(4) Prep QC Batch: MP22554

RL = Reporting Limit

Report of Analysis

Client Sample ID:	EB-305(0-4')		
Lab Sample ID:	MC28372-5	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	92.5
Project:	Cobble Hill, Washington, Somerville, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide Reactivity	< 1.6	1.6	mg/kg	1	02/25/14 09:35	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	02/25/14	BF	SW846 1020
Solids, Percent	92.5		%	1	02/24/14	MC	SM21 2540 B MOD.
Specific Conductivity	880	0.50	umhos/cm	1	02/21/14	MA	EPA 120.1M
Sulfide Reactivity	< 54	54	mg/kg	1	02/25/14	BF	SW846 CHAP7
pH	8.5		su	1	02/21/14	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Client Sample ID: EB-305(0-4')
Lab Sample ID: MC28372-5A
Matrix: SO - Soil
Project: Cobble Hill, Washington, Somerville, MA

Date Sampled: 02/18/14
Date Received: 02/20/14
Percent Solids: 92.5

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	0.019	D004	5.0	0.010	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Barium	0.60	D005	100	0.50	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Cadmium	0.12	D006	1.0	0.0040	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 0.010	D007	5.0	0.010	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Lead	2.2	D008	5.0	0.010	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	02/26/14	02/27/14	SA	SW846 7470A [1]	SW846 7470A [3]
Selenium	< 0.025	D010	1.0	0.025	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Silver	< 0.0050	D011	5.0	0.0050	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA16793
(2) Instrument QC Batch: MA16799
(3) Prep QC Batch: MP22561
(4) Prep QC Batch: MP22564

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)

Report of Analysis

Client Sample ID:	EB-307(11-15')		
Lab Sample ID:	MC28372-6	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	79.1
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G135261.D	1	02/24/14	JM	n/a	n/a	MSG5206
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	15.2 g	10.0 ml	100 ul
Run #2			

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	550	ug/kg	
71-43-2	Benzene	ND	27	ug/kg	
108-86-1	Bromobenzene	ND	270	ug/kg	
74-97-5	Bromochloromethane	ND	270	ug/kg	
75-27-4	Bromodichloromethane	ND	110	ug/kg	
75-25-2	Bromoform	ND	110	ug/kg	
74-83-9	Bromomethane	ND	110	ug/kg	
78-93-3	2-Butanone (MEK)	ND	550	ug/kg	
104-51-8	n-Butylbenzene	387	270	ug/kg	
135-98-8	sec-Butylbenzene	ND	270	ug/kg	
98-06-6	tert-Butylbenzene	ND	270	ug/kg	
75-15-0	Carbon disulfide	ND	270	ug/kg	
56-23-5	Carbon tetrachloride	ND	110	ug/kg	
108-90-7	Chlorobenzene	ND	110	ug/kg	
75-00-3	Chloroethane	ND	270	ug/kg	
67-66-3	Chloroform	ND	110	ug/kg	
74-87-3	Chloromethane	ND	270	ug/kg	
95-49-8	o-Chlorotoluene	ND	270	ug/kg	
106-43-4	p-Chlorotoluene	ND	270	ug/kg	
108-20-3	Di-Isopropyl ether	ND	110	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	270	ug/kg	
124-48-1	Dibromochloromethane	ND	110	ug/kg	
106-93-4	1,2-Dibromoethane	ND	110	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	110	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	110	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	110	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	110	ug/kg	
75-34-3	1,1-Dichloroethane	ND	110	ug/kg	
107-06-2	1,2-Dichloroethane	ND	110	ug/kg	
75-35-4	1,1-Dichloroethene	ND	110	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	110	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	110	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-307(11-15')		
Lab Sample ID:	MC28372-6	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	79.1
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	110	ug/kg	
142-28-9	1,3-Dichloropropane	ND	270	ug/kg	
594-20-7	2,2-Dichloropropane	ND	270	ug/kg	
563-58-6	1,1-Dichloropropene	ND	270	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	110	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	110	ug/kg	
123-91-1	1,4-Dioxane	ND	1400	ug/kg	
60-29-7	Ethyl Ether	ND	270	ug/kg	
100-41-4	Ethylbenzene	ND	110	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	ug/kg	
591-78-6	2-Hexanone	ND	550	ug/kg	
98-82-8	Isopropylbenzene	ND	270	ug/kg	
99-87-6	p-Isopropyltoluene	ND	270	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	110	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	270	ug/kg	
74-95-3	Methylene bromide	ND	270	ug/kg	
75-09-2	Methylene chloride	ND	110	ug/kg	
91-20-3	Naphthalene	ND	270	ug/kg	
103-65-1	n-Propylbenzene	318	270	ug/kg	
100-42-5	Styrene	ND	270	ug/kg	
994-05-8	tert-Amyl Methyl Ether	ND	270	ug/kg	
637-92-3	tert-Butyl Ethyl Ether	ND	110	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	270	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	110	ug/kg	
127-18-4	Tetrachloroethene	ND	110	ug/kg	
109-99-9	Tetrahydrofuran	ND	550	ug/kg	
108-88-3	Toluene	ND	270	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	270	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	110	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	110	ug/kg	
79-01-6	Trichloroethene	ND	110	ug/kg	
75-69-4	Trichlorofluoromethane	ND	110	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	270	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	270	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	270	ug/kg	
75-01-4	Vinyl chloride	ND	110	ug/kg	
	m,p-Xylene	ND	110	ug/kg	
95-47-6	o-Xylene	ND	110	ug/kg	
1330-20-7	Xylene (total)	ND	110	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-307(11-15')		
Lab Sample ID:	MC28372-6	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	79.1
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%		70-130%
2037-26-5	Toluene-D8	107%		70-130%
460-00-4	4-Bromofluorobenzene	99%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-307(11-15')		
Lab Sample ID:	MC28372-6	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	79.1
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W17807.D	1	02/21/14	KR	02/20/14	OP36914	MSW782
Run #2							

	Initial Weight	Final Volume
Run #1	20.0 g	1.0 ml
Run #2		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	630	ug/kg	
95-57-8	2-Chlorophenol	ND	320	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	630	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	630	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	630	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1300	ug/kg	
95-48-7	2-Methylphenol	ND	630	ug/kg	
	3&4-Methylphenol	ND	630	ug/kg	
88-75-5	2-Nitrophenol	ND	630	ug/kg	
100-02-7	4-Nitrophenol	ND	1300	ug/kg	
87-86-5	Pentachlorophenol	ND	630	ug/kg	
108-95-2	Phenol	ND	320	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	630	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	630	ug/kg	
83-32-9	Acenaphthene	ND	130	ug/kg	
208-96-8	Acenaphthylene	ND	130	ug/kg	
98-86-2	Acetophenone	ND	630	ug/kg	
62-53-3	Aniline	ND	630	ug/kg	
120-12-7	Anthracene	ND	130	ug/kg	
56-55-3	Benzo(a)anthracene	ND	130	ug/kg	
50-32-8	Benzo(a)pyrene	ND	130	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	130	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	130	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	130	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	320	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	320	ug/kg	
91-58-7	2-Chloronaphthalene	ND	320	ug/kg	
106-47-8	4-Chloroaniline	ND	630	ug/kg	
218-01-9	Chrysene	ND	130	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	320	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	320	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	320	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-307(11-15')		
Lab Sample ID:	MC28372-6	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	79.1
Project:	Cobble Hill, Washington, Somerville, MA		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	320	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	320	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	320	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	320	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	630	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	630	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	320	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	130	ug/kg	
132-64-9	Dibenzofuran	304	130	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	320	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	320	ug/kg	
84-66-2	Diethyl phthalate	ND	320	ug/kg	
131-11-3	Dimethyl phthalate	ND	320	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	320	ug/kg	
206-44-0	Fluoranthene	ND	130	ug/kg	
86-73-7	Fluorene	735	130	ug/kg	
118-74-1	Hexachlorobenzene	ND	320	ug/kg	
87-68-3	Hexachlorobutadiene	ND	320	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	630	ug/kg	
67-72-1	Hexachloroethane	ND	320	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	130	ug/kg	
78-59-1	Isophorone	ND	320	ug/kg	
91-57-6	2-Methylnaphthalene	ND	130	ug/kg	
91-20-3	Naphthalene	ND	130	ug/kg	
98-95-3	Nitrobenzene	ND	320	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	320	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	320	ug/kg	
85-01-8	Phenanthrene	658	130	ug/kg	
129-00-0	Pyrene	ND	130	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	320	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	78%		30-130%
4165-62-2	Phenol-d5	74%		30-130%
118-79-6	2,4,6-Tribromophenol	113%		30-130%
4165-60-0	Nitrobenzene-d5	84%		30-130%
321-60-8	2-Fluorobiphenyl	100%		30-130%
1718-51-0	Terphenyl-d14	113%		30-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-307(11-15')		
Lab Sample ID:	MC28372-6	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8082 SW846 3546	**Percent Solids:**	79.1
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ88218.D	1	02/22/14	AP	02/20/14	OP36916	GYZ7500
Run #2							

	Initial Weight	Final Volume
Run #1	15.5 g	10.0 ml
Run #2		

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	41	ug/kg	
11104-28-2	Aroclor 1221	ND	41	ug/kg	
11141-16-5	Aroclor 1232	ND	41	ug/kg	
53469-21-9	Aroclor 1242	ND	41	ug/kg	
12672-29-6	Aroclor 1248	ND	41	ug/kg	
11097-69-1	Aroclor 1254	ND	41	ug/kg	
11096-82-5	Aroclor 1260	ND	41	ug/kg	
37324-23-5	Aroclor 1262	ND	41	ug/kg	
11100-14-4	Aroclor 1268	ND	41	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	69%		30-150%
877-09-8	Tetrachloro-m-xylene	58%		30-150%
2051-24-3	Decachlorobiphenyl	130%		30-150%
2051-24-3	Decachlorobiphenyl	86%		30-150%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-307(11-15')		
Lab Sample ID:	MC28372-6	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846-8015 SW846 3546	**Percent Solids:**	79.1
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BI32001.D	1	02/24/14	KN	02/21/14	OP36917	GBI1174
Run #2							

	Initial Weight	Final Volume
Run #1	15.8 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (Semi-VOA)	653	20	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	82%		40-140%

(a) Sample process using TPH8100 method requirement.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-307(11-15')		
Lab Sample ID:	MC28372-6	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	79.1
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	1.1	0.99	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Barium	9.8	4.9	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Cadmium	< 0.40	0.40	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Chromium	7.0	0.99	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Lead	3.2	0.99	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Mercury	< 0.035	0.035	mg/kg	1	02/25/14	02/26/14	SA	SW846 7471B [1]	SW846 7471B [4]
Selenium	< 0.99	0.99	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Silver	< 0.49	0.49	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]

(1) Instrument QC Batch: MA16785
(2) Instrument QC Batch: MA16787
(3) Prep QC Batch: MP22546
(4) Prep QC Batch: MP22554

RL = Reporting Limit

Report of Analysis

Client Sample ID:	EB-307(11-15')		
Lab Sample ID:	MC28372-6	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	79.1
Project:	Cobble Hill, Washington, Somerville, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide Reactivity	< 1.9	1.9	mg/kg	1	02/25/14 09:35	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	02/25/14	BF	SW846 1020
Solids, Percent	79.1		%	1	02/24/14	MC	SM21 2540 B MOD.
Specific Conductivity	571	0.50	umhos/cm	1	02/21/14	MA	EPA 120.1M
Sulfide Reactivity	< 63	63	mg/kg	1	02/25/14	BF	SW846 CHAP7
pH	7.9		su	1	02/21/14	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Client Sample ID: EB-307(11-15')
Lab Sample ID: MC28372-6A
Matrix: SO - Soil
Project: Cobble Hill, Washington, Somerville, MA

Date Sampled: 02/18/14
Date Received: 02/20/14
Percent Solids: 79.1

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 0.010	D004	5.0	0.010	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Barium	< 0.50	D005	100	0.50	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Cadmium	< 0.0040	D006	1.0	0.0040	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 0.010	D007	5.0	0.010	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Lead	0.022	D008	5.0	0.010	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	02/26/14	02/27/14	SA	SW846 7470A [1]	SW846 7470A [3]
Selenium	< 0.025	D010	1.0	0.025	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Silver	< 0.0050	D011	5.0	0.0050	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA16793
(2) Instrument QC Batch: MA16799
(3) Prep QC Batch: MP22561
(4) Prep QC Batch: MP22564

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)

Report of Analysis

Client Sample ID:	EB-309(0-4')		
Lab Sample ID:	MC28372-7	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	88.9
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G135262.D	1	02/24/14	JM	n/a	n/a	MSG5206
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	13.2 g	10.0 ml	100 ul
Run #2			

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	490	ug/kg	
71-43-2	Benzene	67.7	24	ug/kg	
108-86-1	Bromobenzene	ND	240	ug/kg	
74-97-5	Bromochloromethane	ND	240	ug/kg	
75-27-4	Bromodichloromethane	ND	98	ug/kg	
75-25-2	Bromoform	ND	98	ug/kg	
74-83-9	Bromomethane	ND	98	ug/kg	
78-93-3	2-Butanone (MEK)	ND	490	ug/kg	
104-51-8	n-Butylbenzene	ND	240	ug/kg	
135-98-8	sec-Butylbenzene	ND	240	ug/kg	
98-06-6	tert-Butylbenzene	ND	240	ug/kg	
75-15-0	Carbon disulfide	ND	240	ug/kg	
56-23-5	Carbon tetrachloride	ND	98	ug/kg	
108-90-7	Chlorobenzene	ND	98	ug/kg	
75-00-3	Chloroethane	ND	240	ug/kg	
67-66-3	Chloroform	ND	98	ug/kg	
74-87-3	Chloromethane	ND	240	ug/kg	
95-49-8	o-Chlorotoluene	ND	240	ug/kg	
106-43-4	p-Chlorotoluene	ND	240	ug/kg	
108-20-3	Di-Isopropyl ether	ND	98	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	240	ug/kg	
124-48-1	Dibromochloromethane	ND	98	ug/kg	
106-93-4	1,2-Dibromoethane	ND	98	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	98	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	98	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	98	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	98	ug/kg	
75-34-3	1,1-Dichloroethane	ND	98	ug/kg	
107-06-2	1,2-Dichloroethane	ND	98	ug/kg	
75-35-4	1,1-Dichloroethene	ND	98	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	98	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	98	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-309(0-4')		
Lab Sample ID:	MC28372-7	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	88.9
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	98	ug/kg	
142-28-9	1,3-Dichloropropane	ND	240	ug/kg	
594-20-7	2,2-Dichloropropane	ND	240	ug/kg	
563-58-6	1,1-Dichloropropene	ND	240	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	98	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	98	ug/kg	
123-91-1	1,4-Dioxane	ND	1200	ug/kg	
60-29-7	Ethyl Ether	ND	240	ug/kg	
100-41-4	Ethylbenzene	ND	98	ug/kg	
87-68-3	Hexachlorobutadiene	ND	240	ug/kg	
591-78-6	2-Hexanone	ND	490	ug/kg	
98-82-8	Isopropylbenzene	ND	240	ug/kg	
99-87-6	p-Isopropyltoluene	ND	240	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	98	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	240	ug/kg	
74-95-3	Methylene bromide	ND	240	ug/kg	
75-09-2	Methylene chloride	ND	98	ug/kg	
91-20-3	Naphthalene	542	240	ug/kg	
103-65-1	n-Propylbenzene	ND	240	ug/kg	
100-42-5	Styrene	ND	240	ug/kg	
994-05-8	tert-Amyl Methyl Ether	ND	240	ug/kg	
637-92-3	tert-Butyl Ethyl Ether	ND	98	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	240	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	98	ug/kg	
127-18-4	Tetrachloroethene	ND	98	ug/kg	
109-99-9	Tetrahydrofuran	ND	490	ug/kg	
108-88-3	Toluene	ND	240	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	240	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	240	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	98	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	98	ug/kg	
79-01-6	Trichloroethene	ND	98	ug/kg	
75-69-4	Trichlorofluoromethane	ND	98	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	240	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	240	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	240	ug/kg	
75-01-4	Vinyl chloride	ND	98	ug/kg	
	m,p-Xylene	ND	98	ug/kg	
95-47-6	o-Xylene	ND	98	ug/kg	
1330-20-7	Xylene (total)	110	98	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-309(0-4')		
Lab Sample ID:	MC28372-7	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	88.9
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	113%		70-130%
2037-26-5	Toluene-D8	108%		70-130%
460-00-4	4-Bromofluorobenzene	103%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-309(0-4')		
Lab Sample ID:	MC28372-7	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	88.9
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W17808.D	5	02/21/14	KR	02/20/14	OP36914	MSW782
Run #2							

	Initial Weight	Final Volume
Run #1	20.2 g	1.0 ml
Run #2		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	2800	ug/kg	
95-57-8	2-Chlorophenol	ND	1400	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5600	ug/kg	
95-48-7	2-Methylphenol	ND	2800	ug/kg	
	3&4-Methylphenol	ND	2800	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	ug/kg	
100-02-7	4-Nitrophenol	ND	5600	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	ug/kg	
108-95-2	Phenol	ND	1400	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	ug/kg	
83-32-9	Acenaphthene	3040	560	ug/kg	
208-96-8	Acenaphthylene	2840	560	ug/kg	
98-86-2	Acetophenone	ND	2800	ug/kg	
62-53-3	Aniline	ND	2800	ug/kg	
120-12-7	Anthracene	8010	560	ug/kg	
56-55-3	Benzo(a)anthracene	14500	560	ug/kg	
50-32-8	Benzo(a)pyrene	12600	560	ug/kg	
205-99-2	Benzo(b)fluoranthene	9930	560	ug/kg	
191-24-2	Benzo(g,h,i)perylene	5720	560	ug/kg	
207-08-9	Benzo(k)fluoranthene	9270	560	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	ug/kg	
218-01-9	Chrysene	13100	560	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-309(0-4')		
Lab Sample ID:	MC28372-7	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	88.9
Project:	Cobble Hill, Washington, Somerville, MA		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	1400	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	ug/kg	
121-14-2	2,4-Dinitrotoluene	19300	2800	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	2280	560	ug/kg	
132-64-9	Dibenzofuran	3130	560	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	ug/kg	
206-44-0	Fluoranthene	28900	560	ug/kg	
86-73-7	Fluorene	6010	560	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	ug/kg	
67-72-1	Hexachloroethane	ND	1400	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	5870	560	ug/kg	
78-59-1	Isophorone	ND	1400	ug/kg	
91-57-6	2-Methylnaphthalene	2400	560	ug/kg	
91-20-3	Naphthalene	3620	560	ug/kg	
98-95-3	Nitrobenzene	ND	1400	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	ug/kg	
85-01-8	Phenanthrene	27800	560	ug/kg	
129-00-0	Pyrene	25800	560	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	73%		30-130%
4165-62-2	Phenol-d5	79%		30-130%
118-79-6	2,4,6-Tribromophenol	114%		30-130%
4165-60-0	Nitrobenzene-d5	84%		30-130%
321-60-8	2-Fluorobiphenyl	102%		30-130%
1718-51-0	Terphenyl-d14	123%		30-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-309(0-4')		
Lab Sample ID:	MC28372-7	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8082 SW846 3546	**Percent Solids:**	88.9
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ88223.D	1	02/23/14	AP	02/20/14	OP36916	GYZ7500
Run #2							

	Initial Weight	Final Volume
Run #1	15.3 g	10.0 ml
Run #2		

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	37	ug/kg	
11104-28-2	Aroclor 1221	ND	37	ug/kg	
11141-16-5	Aroclor 1232	ND	37	ug/kg	
53469-21-9	Aroclor 1242	ND	37	ug/kg	
12672-29-6	Aroclor 1248	ND	37	ug/kg	
11097-69-1	Aroclor 1254	ND	37	ug/kg	
11096-82-5	Aroclor 1260	ND	37	ug/kg	
37324-23-5	Aroclor 1262	ND	37	ug/kg	
11100-14-4	Aroclor 1268	ND	37	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	93%		30-150%
877-09-8	Tetrachloro-m-xylene	74%		30-150%
2051-24-3	Decachlorobiphenyl	96%		30-150%
2051-24-3	Decachlorobiphenyl	81%		30-150%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-309(0-4')		
Lab Sample ID:	MC28372-7	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846-8015 SW846 3546	**Percent Solids:**	88.9
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BI32031.D	5	02/25/14	KN	02/21/14	OP36917	GBI1174
Run #2							

	Initial Weight	Final Volume
Run #1	15.5 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (Semi-VOA)	1930	91	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	64%		40-140%

(a) Sample process using TPH8100 method requirement.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-309(0-4')		
Lab Sample ID:	MC28372-7	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	88.9
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	4.2	0.90	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Barium	22.5	4.5	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Cadmium	< 0.36	0.36	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Chromium	9.3	0.90	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Lead	26.2	0.90	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Mercury	0.16	0.033	mg/kg	1	02/25/14	02/26/14	SA	SW846 7471B [1]	SW846 7471B [4]
Selenium	< 0.90	0.90	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Silver	< 0.45	0.45	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]

(1) Instrument QC Batch: MA16785
(2) Instrument QC Batch: MA16787
(3) Prep QC Batch: MP22546
(4) Prep QC Batch: MP22554

RL = Reporting Limit

Report of Analysis

Client Sample ID:	EB-309(0-4')		
Lab Sample ID:	MC28372-7	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	88.9
Project:	Cobble Hill, Washington, Somerville, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide Reactivity	< 1.7	1.7	mg/kg	1	02/25/14 09:45	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	02/25/14	BF	SW846 1020
Solids, Percent	88.9		%	1	02/24/14	MC	SM21 2540 B MOD.
Specific Conductivity	494	0.50	umhos/cm	1	02/21/14	MA	EPA 120.1M
Sulfide Reactivity	< 56	56	mg/kg	1	02/25/14	BF	SW846 CHAP7
pH	7.9		su	1	02/21/14	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Client Sample ID:	EB-309(0-4')		
Lab Sample ID:	MC28372-7A	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	88.9
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 0.010	D004	5.0	0.010	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Barium	< 0.50	D005	100	0.50	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Cadmium	< 0.0040	D006	1.0	0.0040	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 0.010	D007	5.0	0.010	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Lead	0.18	D008	5.0	0.010	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	02/26/14	02/27/14	SA	SW846 7470A [1]	SW846 7470A [3]
Selenium	< 0.025	D010	1.0	0.025	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Silver	< 0.0050	D011	5.0	0.0050	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA16793
(2) Instrument QC Batch: MA16799
(3) Prep QC Batch: MP22561
(4) Prep QC Batch: MP22564

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)

Report of Analysis

Client Sample ID:	EB-310(0-4')		
Lab Sample ID:	MC28372-8	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	89.0
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28180.D	1	02/25/14	AMY	n/a	n/a	MSV1057
Run #2							

	Initial Weight	Final Volume
Run #1	7.56 g	5.0 ml
Run #2		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	41.0	7.4	ug/kg	
71-43-2	Benzene	1.0	0.37	ug/kg	
108-86-1	Bromobenzene	ND	3.7	ug/kg	
74-97-5	Bromochloromethane	ND	3.7	ug/kg	
75-27-4	Bromodichloromethane	ND	1.5	ug/kg	
75-25-2	Bromoform	ND	1.5	ug/kg	
74-83-9	Bromomethane	ND	1.5	ug/kg	
78-93-3	2-Butanone (MEK)	ND	7.4	ug/kg	
104-51-8	n-Butylbenzene	ND	3.7	ug/kg	
135-98-8	sec-Butylbenzene	ND	3.7	ug/kg	
98-06-6	tert-Butylbenzene	ND	3.7	ug/kg	
75-15-0	Carbon disulfide	4.3	3.7	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.5	ug/kg	
108-90-7	Chlorobenzene	ND	1.5	ug/kg	
75-00-3	Chloroethane	ND	3.7	ug/kg	
67-66-3	Chloroform	ND	1.5	ug/kg	
74-87-3	Chloromethane	ND	3.7	ug/kg	
95-49-8	o-Chlorotoluene	ND	3.7	ug/kg	
106-43-4	p-Chlorotoluene	ND	3.7	ug/kg	
108-20-3	Di-Isopropyl ether	ND	1.5	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	3.7	ug/kg	
124-48-1	Dibromochloromethane	ND	1.5	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.5	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.5	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.5	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.5	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	1.5	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.5	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.5	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.5	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.5	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.5	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-310(0-4')		
Lab Sample ID:	MC28372-8	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	89.0
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	1.5	ug/kg	
142-28-9	1,3-Dichloropropane	ND	3.7	ug/kg	
594-20-7	2,2-Dichloropropane	ND	3.7	ug/kg	
563-58-6	1,1-Dichloropropene	ND	3.7	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.5	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.5	ug/kg	
123-91-1	1,4-Dioxane	ND	19	ug/kg	
60-29-7	Ethyl Ether	ND	3.7	ug/kg	
100-41-4	Ethylbenzene	ND	1.5	ug/kg	
87-68-3	Hexachlorobutadiene	ND	3.7	ug/kg	
591-78-6	2-Hexanone	ND	7.4	ug/kg	
98-82-8	Isopropylbenzene	ND	3.7	ug/kg	
99-87-6	p-Isopropyltoluene	ND	3.7	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.5	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	3.7	ug/kg	
74-95-3	Methylene bromide	ND	3.7	ug/kg	
75-09-2	Methylene chloride	ND	1.5	ug/kg	
91-20-3	Naphthalene	4.5	3.7	ug/kg	
103-65-1	n-Propylbenzene	ND	3.7	ug/kg	
100-42-5	Styrene	ND	3.7	ug/kg	
994-05-8	tert-Amyl Methyl Ether	ND	3.7	ug/kg	
637-92-3	tert-Butyl Ethyl Ether	ND	1.5	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	3.7	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.5	ug/kg	
127-18-4	Tetrachloroethene	ND	1.5	ug/kg	
109-99-9	Tetrahydrofuran	ND	7.4	ug/kg	
108-88-3	Toluene	ND	3.7	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	3.7	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	3.7	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.5	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.5	ug/kg	
79-01-6	Trichloroethene	ND	1.5	ug/kg	
75-69-4	Trichlorofluoromethane	ND	1.5	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	3.7	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	3.7	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	3.7	ug/kg	
75-01-4	Vinyl chloride	ND	1.5	ug/kg	
	m,p-Xylene	ND	1.5	ug/kg	
95-47-6	o-Xylene	ND	1.5	ug/kg	
1330-20-7	Xylene (total)	ND	1.5	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-310(0-4')		
Lab Sample ID:	MC28372-8	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	89.0
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		70-130%
2037-26-5	Toluene-D8	76%		70-130%
460-00-4	4-Bromofluorobenzene	117%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-310(0-4')		
Lab Sample ID:	MC28372-8	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	89.0
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W17809.D	5	02/21/14	KR	02/20/14	OP36914	MSW782
Run #2							

	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	2800	ug/kg	
95-57-8	2-Chlorophenol	ND	1400	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5600	ug/kg	
95-48-7	2-Methylphenol	ND	2800	ug/kg	
	3&4-Methylphenol	ND	2800	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	ug/kg	
100-02-7	4-Nitrophenol	ND	5600	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	ug/kg	
108-95-2	Phenol	ND	1400	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	ug/kg	
83-32-9	Acenaphthene	768	560	ug/kg	
208-96-8	Acenaphthylene	792	560	ug/kg	
98-86-2	Acetophenone	ND	2800	ug/kg	
62-53-3	Aniline	ND	2800	ug/kg	
120-12-7	Anthracene	3580	560	ug/kg	
56-55-3	Benzo(a)anthracene	7540	560	ug/kg	
50-32-8	Benzo(a)pyrene	6780	560	ug/kg	
205-99-2	Benzo(b)fluoranthene	5150	560	ug/kg	
191-24-2	Benzo(g,h,i)perylene	3140	560	ug/kg	
207-08-9	Benzo(k)fluoranthene	5230	560	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	ug/kg	
218-01-9	Chrysene	6700	560	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-310(0-4')		
Lab Sample ID:	MC28372-8	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	89.0
Project:	Cobble Hill, Washington, Somerville, MA		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	1400	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	1160	560	ug/kg	
132-64-9	Dibenzofuran	825	560	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	ug/kg	
206-44-0	Fluoranthene	14800	560	ug/kg	
86-73-7	Fluorene	997	560	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	ug/kg	
67-72-1	Hexachloroethane	ND	1400	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	3140	560	ug/kg	
78-59-1	Isophorone	ND	1400	ug/kg	
91-57-6	2-Methylnaphthalene	ND	560	ug/kg	
91-20-3	Naphthalene	ND	560	ug/kg	
98-95-3	Nitrobenzene	ND	1400	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	ug/kg	
85-01-8	Phenanthrene	6760	560	ug/kg	
129-00-0	Pyrene	13200	560	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	71%		30-130%
4165-62-2	Phenol-d5	80%		30-130%
118-79-6	2,4,6-Tribromophenol	118%		30-130%
4165-60-0	Nitrobenzene-d5	83%		30-130%
321-60-8	2-Fluorobiphenyl	101%		30-130%
1718-51-0	Terphenyl-d14	126%		30-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-310(0-4')		
Lab Sample ID:	MC28372-8	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8082 SW846 3546	**Percent Solids:**	89.0
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ88224.D	1	02/23/14	AP	02/20/14	OP36916	GYZ7500
Run #2							

	Initial Weight	Final Volume
Run #1	15.2 g	10.0 ml
Run #2		

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	37	ug/kg	
11104-28-2	Aroclor 1221	ND	37	ug/kg	
11141-16-5	Aroclor 1232	ND	37	ug/kg	
53469-21-9	Aroclor 1242	ND	37	ug/kg	
12672-29-6	Aroclor 1248	ND	37	ug/kg	
11097-69-1	Aroclor 1254	ND	37	ug/kg	
11096-82-5	Aroclor 1260	43.4	37	ug/kg	B
37324-23-5	Aroclor 1262	ND	37	ug/kg	
11100-14-4	Aroclor 1268	ND	37	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	91%		30-150%
877-09-8	Tetrachloro-m-xylene	78%		30-150%
2051-24-3	Decachlorobiphenyl	99%		30-150%
2051-24-3	Decachlorobiphenyl	82%		30-150%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-310(0-4')		
Lab Sample ID:	MC28372-8	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846-8015 SW846 3546	**Percent Solids:**	89.0
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BI32009.D	5	02/25/14	KN	02/21/14	OP36917	GBI1174
Run #2							

	Initial Weight	Final Volume
Run #1	15.4 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (Semi-VOA)	1050	91	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	74%		40-140%

(a) Sample process using TPH8100 method requirement.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-310(0-4')		
Lab Sample ID:	MC28372-8	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	89.0
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	6.4	0.91	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Barium	49.2	4.5	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Cadmium	< 0.36	0.36	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Chromium	17.4	0.91	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Lead	91.1	0.91	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Mercury	0.053	0.034	mg/kg	1	02/25/14	02/26/14	SA	SW846 7471B [1]	SW846 7471B [4]
Selenium	< 0.91	0.91	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]
Silver	< 0.45	0.45	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [2]	SW846 3050B [3]

(1) Instrument QC Batch: MA16785
(2) Instrument QC Batch: MA16787
(3) Prep QC Batch: MP22546
(4) Prep QC Batch: MP22554

RL = Reporting Limit

Report of Analysis

Client Sample ID:	EB-310(0-4')		
Lab Sample ID:	MC28372-8	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	89.0
Project:	Cobble Hill, Washington, Somerville, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide Reactivity	< 1.6	1.6	mg/kg	1	02/25/14 09:45	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	02/25/14	BF	SW846 1020
Solids, Percent	89		%	1	02/24/14	MC	SM21 2540 B MOD.
Specific Conductivity	561	0.50	umhos/cm	1	02/21/14	MA	EPA 120.1M
Sulfide Reactivity	< 56	56	mg/kg	1	02/25/14	BF	SW846 CHAP7
pH	7.8		su	1	02/21/14	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Client Sample ID:	EB-310(0-4')		
Lab Sample ID:	MC28372-8A	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	89.0
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 0.010	D004	5.0	0.010	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Barium	< 0.50	D005	100	0.50	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Cadmium	< 0.0040	D006	1.0	0.0040	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 0.010	D007	5.0	0.010	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Lead	0.080	D008	5.0	0.010	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	02/26/14	02/27/14	SA	SW846 7470A [1]	SW846 7470A [3]
Selenium	< 0.025	D010	1.0	0.025	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Silver	< 0.0050	D011	5.0	0.0050	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA16793
(2) Instrument QC Batch: MA16799
(3) Prep QC Batch: MP22561
(4) Prep QC Batch: MP22564

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)

Report of Analysis

Client Sample ID:	EB-311(0-4')		
Lab Sample ID:	MC28372-9	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	89.1
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28181.D	1	02/25/14	AMY	n/a	n/a	MSV1057
Run #2							

	Initial Weight	Final Volume
Run #1	7.72 g	5.0 ml
Run #2		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	17.7	7.3	ug/kg	
71-43-2	Benzene	ND	0.36	ug/kg	
108-86-1	Bromobenzene	ND	3.6	ug/kg	
74-97-5	Bromochloromethane	ND	3.6	ug/kg	
75-27-4	Bromodichloromethane	ND	1.5	ug/kg	
75-25-2	Bromoform	ND	1.5	ug/kg	
74-83-9	Bromomethane	ND	1.5	ug/kg	
78-93-3	2-Butanone (MEK)	ND	7.3	ug/kg	
104-51-8	n-Butylbenzene	ND	3.6	ug/kg	
135-98-8	sec-Butylbenzene	ND	3.6	ug/kg	
98-06-6	tert-Butylbenzene	ND	3.6	ug/kg	
75-15-0	Carbon disulfide	ND	3.6	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.5	ug/kg	
108-90-7	Chlorobenzene	ND	1.5	ug/kg	
75-00-3	Chloroethane	ND	3.6	ug/kg	
67-66-3	Chloroform	ND	1.5	ug/kg	
74-87-3	Chloromethane	ND	3.6	ug/kg	
95-49-8	o-Chlorotoluene	ND	3.6	ug/kg	
106-43-4	p-Chlorotoluene	ND	3.6	ug/kg	
108-20-3	Di-Isopropyl ether	ND	1.5	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	3.6	ug/kg	
124-48-1	Dibromochloromethane	ND	1.5	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.5	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.5	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.5	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.5	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	1.5	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.5	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.5	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.5	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.5	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.5	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-311(0-4')		
Lab Sample ID:	MC28372-9	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	89.1
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	1.5	ug/kg	
142-28-9	1,3-Dichloropropane	ND	3.6	ug/kg	
594-20-7	2,2-Dichloropropane	ND	3.6	ug/kg	
563-58-6	1,1-Dichloropropene	ND	3.6	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.5	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.5	ug/kg	
123-91-1	1,4-Dioxane	ND	18	ug/kg	
60-29-7	Ethyl Ether	ND	3.6	ug/kg	
100-41-4	Ethylbenzene	ND	1.5	ug/kg	
87-68-3	Hexachlorobutadiene	ND	3.6	ug/kg	
591-78-6	2-Hexanone	ND	7.3	ug/kg	
98-82-8	Isopropylbenzene	ND	3.6	ug/kg	
99-87-6	p-Isopropyltoluene	ND	3.6	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.5	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	3.6	ug/kg	
74-95-3	Methylene bromide	ND	3.6	ug/kg	
75-09-2	Methylene chloride	ND	1.5	ug/kg	
91-20-3	Naphthalene	ND	3.6	ug/kg	
103-65-1	n-Propylbenzene	ND	3.6	ug/kg	
100-42-5	Styrene	ND	3.6	ug/kg	
994-05-8	tert-Amyl Methyl Ether	ND	3.6	ug/kg	
637-92-3	tert-Butyl Ethyl Ether	ND	1.5	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	3.6	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.5	ug/kg	
127-18-4	Tetrachloroethene	ND	1.5	ug/kg	
109-99-9	Tetrahydrofuran	ND	7.3	ug/kg	
108-88-3	Toluene	ND	3.6	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	3.6	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	3.6	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.5	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.5	ug/kg	
79-01-6	Trichloroethene	ND	1.5	ug/kg	
75-69-4	Trichlorofluoromethane	ND	1.5	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	3.6	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	3.6	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	3.6	ug/kg	
75-01-4	Vinyl chloride	ND	1.5	ug/kg	
	m,p-Xylene	ND	1.5	ug/kg	
95-47-6	o-Xylene	ND	1.5	ug/kg	
1330-20-7	Xylene (total)	ND	1.5	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-311(0-4')		
Lab Sample ID:	MC28372-9	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	89.1
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		70-130%
2037-26-5	Toluene-D8	81%		70-130%
460-00-4	4-Bromofluorobenzene	83%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-311(0-4')		
Lab Sample ID:	MC28372-9	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	89.1
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W17810.D	5	02/21/14	KR	02/20/14	OP36914	MSW782
Run #2							

	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	2800	ug/kg	
95-57-8	2-Chlorophenol	ND	1400	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5500	ug/kg	
95-48-7	2-Methylphenol	ND	2800	ug/kg	
	3&4-Methylphenol	ND	2800	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	ug/kg	
100-02-7	4-Nitrophenol	ND	5500	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	ug/kg	
108-95-2	Phenol	ND	1400	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	ug/kg	
83-32-9	Acenaphthene	ND	550	ug/kg	
208-96-8	Acenaphthylene	679	550	ug/kg	
98-86-2	Acetophenone	ND	2800	ug/kg	
62-53-3	Aniline	ND	2800	ug/kg	
120-12-7	Anthracene	1470	550	ug/kg	
56-55-3	Benzo(a)anthracene	4900	550	ug/kg	
50-32-8	Benzo(a)pyrene	4950	550	ug/kg	
205-99-2	Benzo(b)fluoranthene	3910	550	ug/kg	
191-24-2	Benzo(g,h,i)perylene	2350	550	ug/kg	
207-08-9	Benzo(k)fluoranthene	3800	550	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	ug/kg	
218-01-9	Chrysene	4590	550	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-311(0-4')		
Lab Sample ID:	MC28372-9	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	89.1
Project:	Cobble Hill, Washington, Somerville, MA		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	1400	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	874	550	ug/kg	
132-64-9	Dibenzofuran	ND	550	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	ug/kg	
206-44-0	Fluoranthene	7890	550	ug/kg	
86-73-7	Fluorene	ND	550	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	ug/kg	
67-72-1	Hexachloroethane	ND	1400	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	2270	550	ug/kg	
78-59-1	Isophorone	ND	1400	ug/kg	
91-57-6	2-Methylnaphthalene	ND	550	ug/kg	
91-20-3	Naphthalene	ND	550	ug/kg	
98-95-3	Nitrobenzene	ND	1400	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	ug/kg	
85-01-8	Phenanthrene	3380	550	ug/kg	
129-00-0	Pyrene	7710	550	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	62%		30-130%
4165-62-2	Phenol-d5	72%		30-130%
118-79-6	2,4,6-Tribromophenol	101%		30-130%
4165-60-0	Nitrobenzene-d5	80%		30-130%
321-60-8	2-Fluorobiphenyl	91%		30-130%
1718-51-0	Terphenyl-d14	107%		30-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-311(0-4')		
Lab Sample ID:	MC28372-9	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8082 SW846 3546	**Percent Solids:**	89.1
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ88225.D	1	02/23/14	AP	02/20/14	OP36916	GYZ7500
Run #2	YZ88274.D	5	02/25/14	AP	02/20/14	OP36916	GYZ7501

	Initial Weight	Final Volume
Run #1	15.1 g	10.0 ml
Run #2	15.1 g	10.0 ml

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	37	ug/kg	
11104-28-2	Aroclor 1221	ND	37	ug/kg	
11141-16-5	Aroclor 1232	ND	37	ug/kg	
53469-21-9	Aroclor 1242	ND	37	ug/kg	
12672-29-6	Aroclor 1248	ND	37	ug/kg	
11097-69-1	Aroclor 1254 [a]	556 [b]	190	ug/kg	
11096-82-5	Aroclor 1260	1140 [b]	190	ug/kg	
37324-23-5	Aroclor 1262	ND	37	ug/kg	
11100-14-4	Aroclor 1268	ND	37	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	88%	123%	30-150%
877-09-8	Tetrachloro-m-xylene	78%	129%	30-150%
2051-24-3	Decachlorobiphenyl	89%	127%	30-150%
2051-24-3	Decachlorobiphenyl	67%	129%	30-150%

(a) Estimated value due to the presence of other Aroclor pattern.
(b) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-311(0-4')		
Lab Sample ID:	MC28372-9	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846-8015 SW846 3546	**Percent Solids:**	89.1
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BI32015.D	5	02/25/14	KN	02/21/14	OP36917	GBI1174
Run #2							

	Initial Weight	Final Volume
Run #1	15.5 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (Semi-VOA)	1160	91	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	74%		40-140%

(a) Sample process using TPH8100 method requirement.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-311(0-4')		
Lab Sample ID:	MC28372-9	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	89.1
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	7.0	0.89	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Barium	61.8	4.5	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Cadmium	< 0.36	0.36	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Chromium	16.4	0.89	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Lead	155	0.89	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Mercury	0.16	0.034	mg/kg	1	02/27/14	02/27/14	SA	SW846 7471B [2]	SW846 7471B [4]
Selenium	< 0.89	0.89	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Silver	< 0.45	0.45	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [1]	SW846 3050B [3]

(1) Instrument QC Batch: MA16787
(2) Instrument QC Batch: MA16796
(3) Prep QC Batch: MP22546
(4) Prep QC Batch: MP22565

RL = Reporting Limit

Report of Analysis

Client Sample ID:	EB-311(0-4')		
Lab Sample ID:	MC28372-9	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	89.1
Project:	Cobble Hill, Washington, Somerville, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide Reactivity	< 1.7	1.7	mg/kg	1	02/25/14 09:45	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	02/25/14	BF	SW846 1020
Solids, Percent	89.1		%	1	02/24/14	MC	SM21 2540 B MOD.
Specific Conductivity	531	0.50	umhos/cm	1	02/21/14	MA	EPA 120.1M
Sulfide Reactivity	< 56	56	mg/kg	1	02/25/14	BF	SW846 CHAP7
pH	7.9		su	1	02/21/14	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Client Sample ID:	EB-311(0-4')		
Lab Sample ID:	MC28372-9A	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	89.1
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 0.010	D004	5.0	0.010	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Barium	< 0.50	D005	100	0.50	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Cadmium	< 0.0040	D006	1.0	0.0040	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 0.010	D007	5.0	0.010	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Lead	0.38	D008	5.0	0.010	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	02/26/14	02/27/14	SA	SW846 7470A [1]	SW846 7470A [3]
Selenium	< 0.025	D010	1.0	0.025	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Silver	< 0.0050	D011	5.0	0.0050	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA16793
(2) Instrument QC Batch: MA16799
(3) Prep QC Batch: MP22561
(4) Prep QC Batch: MP22564

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)

Report of Analysis

Client Sample ID:	EB-312(0-3')		
Lab Sample ID:	MC28372-10	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	91.9
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G135273.D	1	02/24/14	JM	n/a	n/a	MSG5206
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	15.1 g	10.0 ml	100 ul
Run #2			

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	410	ug/kg	
71-43-2	Benzene	22.7	20	ug/kg	
108-86-1	Bromobenzene	ND	200	ug/kg	
74-97-5	Bromochloromethane	ND	200	ug/kg	
75-27-4	Bromodichloromethane	ND	81	ug/kg	
75-25-2	Bromoform	ND	81	ug/kg	
74-83-9	Bromomethane	ND	81	ug/kg	
78-93-3	2-Butanone (MEK)	ND	410	ug/kg	
104-51-8	n-Butylbenzene	ND	200	ug/kg	
135-98-8	sec-Butylbenzene	ND	200	ug/kg	
98-06-6	tert-Butylbenzene	ND	200	ug/kg	
75-15-0	Carbon disulfide	ND	200	ug/kg	
56-23-5	Carbon tetrachloride	ND	81	ug/kg	
108-90-7	Chlorobenzene	ND	81	ug/kg	
75-00-3	Chloroethane	ND	200	ug/kg	
67-66-3	Chloroform	ND	81	ug/kg	
74-87-3	Chloromethane	ND	200	ug/kg	
95-49-8	o-Chlorotoluene	ND	200	ug/kg	
106-43-4	p-Chlorotoluene	ND	200	ug/kg	
108-20-3	Di-Isopropyl ether	ND	81	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	200	ug/kg	
124-48-1	Dibromochloromethane	ND	81	ug/kg	
106-93-4	1,2-Dibromoethane	ND	81	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	81	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	81	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	81	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	81	ug/kg	
75-34-3	1,1-Dichloroethane	ND	81	ug/kg	
107-06-2	1,2-Dichloroethane	ND	81	ug/kg	
75-35-4	1,1-Dichloroethene	ND	81	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	81	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	81	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-312(0-3')		
Lab Sample ID:	MC28372-10	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	91.9
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	81	ug/kg	
142-28-9	1,3-Dichloropropane	ND	200	ug/kg	
594-20-7	2,2-Dichloropropane	ND	200	ug/kg	
563-58-6	1,1-Dichloropropene	ND	200	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	81	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	81	ug/kg	
123-91-1	1,4-Dioxane	ND	1000	ug/kg	
60-29-7	Ethyl Ether	ND	200	ug/kg	
100-41-4	Ethylbenzene	ND	81	ug/kg	
87-68-3	Hexachlorobutadiene	ND	200	ug/kg	
591-78-6	2-Hexanone	ND	410	ug/kg	
98-82-8	Isopropylbenzene	ND	200	ug/kg	
99-87-6	p-Isopropyltoluene	ND	200	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	81	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	200	ug/kg	
74-95-3	Methylene bromide	ND	200	ug/kg	
75-09-2	Methylene chloride	ND	81	ug/kg	
91-20-3	Naphthalene	14400	200	ug/kg	
103-65-1	n-Propylbenzene	ND	200	ug/kg	
100-42-5	Styrene	ND	200	ug/kg	
994-05-8	tert-Amyl Methyl Ether	ND	200	ug/kg	
637-92-3	tert-Butyl Ethyl Ether	ND	81	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	200	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	81	ug/kg	
127-18-4	Tetrachloroethene	ND	81	ug/kg	
109-99-9	Tetrahydrofuran	ND	410	ug/kg	
108-88-3	Toluene	ND	200	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	200	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	200	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	81	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	81	ug/kg	
79-01-6	Trichloroethene	ND	81	ug/kg	
75-69-4	Trichlorofluoromethane	ND	81	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	200	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	200	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	200	ug/kg	
75-01-4	Vinyl chloride	ND	81	ug/kg	
	m,p-Xylene	ND	81	ug/kg	
95-47-6	o-Xylene	ND	81	ug/kg	
1330-20-7	Xylene (total)	89.0	81	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-312(0-3')		
Lab Sample ID:	MC28372-10	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8260C	**Percent Solids:**	91.9
Project:	Cobble Hill, Washington, Somerville, MA		

VOA MCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		70-130%
2037-26-5	Toluene-D8	102%		70-130%
460-00-4	4-Bromofluorobenzene	95%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-312(0-3')		
Lab Sample ID:	MC28372-10	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	91.9
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W17811.D	5	02/21/14	KR	02/20/14	OP36914	MSW782
Run #2							

	Initial Weight	Final Volume
Run #1	20.7 g	1.0 ml
Run #2		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	2600	ug/kg	
95-57-8	2-Chlorophenol	ND	1300	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2600	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2600	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2600	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5300	ug/kg	
95-48-7	2-Methylphenol	ND	2600	ug/kg	
	3&4-Methylphenol	ND	2600	ug/kg	
88-75-5	2-Nitrophenol	ND	2600	ug/kg	
100-02-7	4-Nitrophenol	ND	5300	ug/kg	
87-86-5	Pentachlorophenol	ND	2600	ug/kg	
108-95-2	Phenol	ND	1300	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2600	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2600	ug/kg	
83-32-9	Acenaphthene	1550	530	ug/kg	
208-96-8	Acenaphthylene	5190	530	ug/kg	
98-86-2	Acetophenone	ND	2600	ug/kg	
62-53-3	Aniline	ND	2600	ug/kg	
120-12-7	Anthracene	7940	530	ug/kg	
56-55-3	Benzo(a)anthracene	11200	530	ug/kg	
50-32-8	Benzo(a)pyrene	8700	530	ug/kg	
205-99-2	Benzo(b)fluoranthene	7140	530	ug/kg	
191-24-2	Benzo(g,h,i)perylene	3670	530	ug/kg	
207-08-9	Benzo(k)fluoranthene	7130	530	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1300	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1300	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1300	ug/kg	
106-47-8	4-Chloroaniline	ND	2600	ug/kg	
218-01-9	Chrysene	10500	530	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1300	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1300	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1300	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-312(0-3')		
Lab Sample ID:	MC28372-10	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8270D SW846 3546	**Percent Solids:**	91.9
Project:	Cobble Hill, Washington, Somerville, MA		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1300	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	1300	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1300	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1300	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2600	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2600	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1300	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	1460	530	ug/kg	
132-64-9	Dibenzofuran	3590	530	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1300	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1300	ug/kg	
84-66-2	Diethyl phthalate	ND	1300	ug/kg	
131-11-3	Dimethyl phthalate	ND	1300	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1300	ug/kg	
206-44-0	Fluoranthene	26700	530	ug/kg	
86-73-7	Fluorene	6730	530	ug/kg	
118-74-1	Hexachlorobenzene	ND	1300	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1300	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2600	ug/kg	
67-72-1	Hexachloroethane	ND	1300	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	3710	530	ug/kg	
78-59-1	Isophorone	ND	1300	ug/kg	
91-57-6	2-Methylnaphthalene	4380	530	ug/kg	
91-20-3	Naphthalene	8640	530	ug/kg	
98-95-3	Nitrobenzene	ND	1300	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1300	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1300	ug/kg	
85-01-8	Phenanthrene	36000	530	ug/kg	
129-00-0	Pyrene	22700	530	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1300	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	60%		30-130%
4165-62-2	Phenol-d5	74%		30-130%
118-79-6	2,4,6-Tribromophenol	90%		30-130%
4165-60-0	Nitrobenzene-d5	74%		30-130%
321-60-8	2-Fluorobiphenyl	91%		30-130%
1718-51-0	Terphenyl-d14	108%		30-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-312(0-3')		
Lab Sample ID:	MC28372-10	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
Method:	SW846 8082 SW846 3546	**Percent Solids:**	91.9
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ88226.D	1	02/23/14	AP	02/20/14	OP36916	GYZ7500
Run #2							

	Initial Weight	Final Volume
Run #1	15.8 g	10.0 ml
Run #2		

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	35	ug/kg	
11104-28-2	Aroclor 1221	ND	35	ug/kg	
11141-16-5	Aroclor 1232	ND	35	ug/kg	
53469-21-9	Aroclor 1242	ND	35	ug/kg	
12672-29-6	Aroclor 1248	ND	35	ug/kg	
11097-69-1	Aroclor 1254	ND	35	ug/kg	
11096-82-5	Aroclor 1260	67.7	35	ug/kg	B
37324-23-5	Aroclor 1262	ND	35	ug/kg	
11100-14-4	Aroclor 1268	ND	35	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	88%		30-150%
877-09-8	Tetrachloro-m-xylene	65%		30-150%
2051-24-3	Decachlorobiphenyl	81%		30-150%
2051-24-3	Decachlorobiphenyl	64%		30-150%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: EB-312(0-3')
Lab Sample ID: MC28372-10
Matrix: SO - Soil
Method: SW846-8015 SW846 3546
Project: Cobble Hill, Washington, Somerville, MA

Date Sampled: 02/18/14
Date Received: 02/20/14
Percent Solids: 91.9

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BI32027.D	5	02/25/14	KN	02/21/14	OP36917	GBI1174
Run #2							

	Initial Weight	Final Volume
Run #1	15.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (Semi-VOA)	1710	90	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	51%		40-140%

(a) Sample process using TPH8100 method requirement.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-312(0-3')		
Lab Sample ID:	MC28372-10	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	91.9
Project:	Cobble Hill, Washington, Somerville, MA		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	8.7	0.88	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Barium	36.4	4.4	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Cadmium	< 0.35	0.35	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Chromium	10.4	0.88	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Lead	128	0.88	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Mercury	0.070	0.032	mg/kg	1	02/27/14	02/27/14	SA	SW846 7471B [2]	SW846 7471B [4]
Selenium	< 0.88	0.88	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [1]	SW846 3050B [3]
Silver	< 0.44	0.44	mg/kg	1	02/24/14	02/24/14	EAL	SW846 6010C [1]	SW846 3050B [3]

(1) Instrument QC Batch: MA16787
(2) Instrument QC Batch: MA16796
(3) Prep QC Batch: MP22546
(4) Prep QC Batch: MP22565

RL = Reporting Limit

Report of Analysis

Client Sample ID:	EB-312(0-3')		
Lab Sample ID:	MC28372-10	**Date Sampled:**	02/18/14
Matrix:	SO - Soil	**Date Received:**	02/20/14
		Percent Solids:	91.9
Project:	Cobble Hill, Washington, Somerville, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide Reactivity	< 1.6	1.6	mg/kg	1	02/25/14 09:45	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	02/25/14	BF	SW846 1020
Solids, Percent	91.9		%	1	02/24/14	MC	SM21 2540 B MOD.
Specific Conductivity	1550	0.50	umhos/cm	1	02/21/14	MA	EPA 120.1M
Sulfide Reactivity	< 54	54	mg/kg	1	02/25/14	BF	SW846 CHAP7
pH	7.6		su	1	02/21/14	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Client Sample ID: EB-312(0-3')
Lab Sample ID: MC28372-10A
Matrix: SO - Soil
Project: Cobble Hill, Washington, Somerville, MA

Date Sampled: 02/18/14
Date Received: 02/20/14
Percent Solids: 91.9

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 0.010	D004	5.0	0.010	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Barium	< 0.50	D005	100	0.50	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Cadmium	0.0043	D006	1.0	0.0040	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 0.010	D007	5.0	0.010	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Lead	0.20	D008	5.0	0.010	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	02/26/14	02/27/14	SA	SW846 7470A [1]	SW846 7470A [3]
Selenium	< 0.025	D010	1.0	0.025	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]
Silver	< 0.0050	D011	5.0	0.0050	mg/l	1	02/26/14	02/27/14	EAL	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA16793
(2) Instrument QC Batch: MA16799
(3) Prep QC Batch: MP22561
(4) Prep QC Batch: MP22564

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)

New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- MCP Form

CHAIN OF CUSTODY

ACCUTEST LABORATORIES

Accutest Laboratories of New England
495 Technology Center West, Building One
TEL. 508-481-6200 FAX: 508-481-7753
www.accutest.com

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # MC28372

Client / Reporting Information	Project Information	Billing Information (If different from Report to)
Company Name: ESI Consulting	Project Name: Cobble Hill	Company Name
Street Address: 2 ? St	Street: 84 & 90 Washington St.	Street Address
City / State / Zip: Burlington, MA 01803	City: Somerville, MA	City / State / Zip
Project Contact / E-mail: Daniel Belluci	Project#: 1214002	
Phone # / Fax #: dbelluci@esi consulting.com	Client PO#	Attention: / PO#
Sampler(s) Name(s) / Phone #: D. Belluci	Project Manager: D. Belluci	

Requested Analysis (see TEST CODE sheet): VOC 8260, SVOC 8270, PCB 8082, TPH, RCRA 8 Metals, EPH (Carbon Ranges), Reactivity, TCLP Metals

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Date	Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Bisulfate	VOC 8260	SVOC 8270	PCB 8082	TPH	RCRA 8 Metals	EPH	Reactivity	TCLP Metals	LAB USE ONLY
-1	EB-301 (0-4')		02/18/14	0845	DB	S	4					1		1		2	X	X	X	X	X	X	X	X	
-2	EB-302 (0-4')			0900								1		1		2	X	X	X	X	X	X	X	X	
-3	EB-303 (0-8')			0915								1		1		2	X	X	X	X	X	X	X	X	
-4	EB-304 (0-5')			0930								1		1		2	X	X	X	X	X	X	X	X	
-5	EB-305 (0-4')			0945								1		1		2	X	X	X	X	X	X	X	X	
~~06~~	~~EB-306 (0-4')~~			~~1000~~												~~2~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	
-6	EB-307 (11-15')			1115								1		1		2	X	X	X	X	X	X	X	X	
-7	EB-309 (0-4')			1245								1		1		2	X	X	X	X	X	X	X	X	
-8	EB-310 (0-4')			1300								1		1		2	X	X	X	X	X	X	X	X	12F, 10E4
-9	EB-311 (0-4')			1315								1		1		2	X	X	X	X	X	X	X	X	
-10	EB-312 (0-3')			1330								1		1		2	X	X	X	X	X	X	X	X	

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED - Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB - Field Blank; EB - Equipment Blank; RB - Rinse Blank; TB - Trip Blank

Turnaround Time (Business days)

- ☐ Std. 10 Business Days
- ☒ Std. 5 Business Days (By Contract only)
- ☐ 5 Day *RUSH*
- ☐ 3 Day *EMERGENCY*
- ☐ 2 Day *EMERGENCY*
- ☐ 1 Day *EMERGENCY*

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information

- ☐ Commercial "A" (Level 1)
- ☐ Commercial "B" (Level 2)
- ☐ FULLT1 (Level 3+4)
- ☐ CT RCP
- ☒ MA MCP
- ☐ NYASP Category A
- ☐ NYASP Category B
- ☐ State Forms
- ☐ EDD Format
- ☐ Other

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary

Comments / Special Instructions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 D. Belluci	02/20/14 07:30	1 [signature]	2		2
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	☐ Intact ☒ Not intact	Preserved where applicable ☐ / On Ice ☒ / Cooler Temp. 2.1°

5.1

5

MC28372: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC28372 **Client:** EBI **Immediate Client Services Action Required:** No

Date / Time Received: 2/20/2014 **Delivery Method:** **Client Service Action Required at Login:** No

Project: COBBLE HILL **No. Coolers:** 1 **Airbill #'s:**

Cooler Security	Y	N		Y	N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:	Infared gun	
3. Cooler media:	Ice (bag)	

Quality Control Preservation	Y	N	N/A
1. Trip Blank present / cooler:	☐	☑	☐
2. Trip Blank listed on COC:	☐	☑	☐
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☐	☐	☑

Sample Integrity - Documentation	Y	N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

Accutest Laboratories
V:508.481.6200

495 Technology Center West, Bldg One
F: 508.481.7753

Marlborough, MA
www/accutest.com

MC28372: Chain of Custody
Page 2 of 2

Exhibit VII A-2: MassDEP Analytical Protocol Certification Form

MassDEP Analytical Protocol Certification Form

Laboratory Name:	Accutest Laboratories of New England	Project #:	MC28372
Project Location:	Cobble Hill, Washington, Somerville, MA	MADEP RTN	None

This form provides certifications for the following data set: list Laboratory Sample ID Numbers(s)
MC28372-1 through MC28372-10

Matrices: Groundwater/Surface Water ( ) Soil/Sediment (X) Drinking Water ( ) Air ( ) Other ( )

CAM Protocol (check all that apply below):

8260 VOC (X) CAM IIA	7470/7471 Hg (X) CAM III B	MassDEP VPH ( ) CAM IV A	8081 Pesticides ( ) CAM V B	7196 Hex Cr ( ) CAM VI B	Mass DEP APH ( ) CAM IX A
8270 SVOC (X) CAM II B	7010 Metals ( ) CAM III C	MassDEP EPH ( ) CAM IV B	8151 Herbicides ( ) CAM V C	8330 Explosives ( ) CAM VIII A	TO-15 VOC ( ) CAM IX B
6010 Metals (X) CAM III A	6020 Metals ( ) CAM III D	8082 PCB (X) CAM V A	9014 Total Cyanide/PAC ( ) CAM VI A	6860 Perchlorate ( ) CAM VIII B	

Affirmative Responses to Questions A Through F are required for "Presumptive Certainty status

A	Were all samples received in a condition consistent with those described on the Chain-of Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	☑ Yes	☐ No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	☑ Yes	☐ No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	☑ Yes	☐ No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	☑ Yes	☐ No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	☑ Yes	☐ No
	b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☑ Yes	☐ No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	☑ Yes	☐ No

Responses to questions G, H, and I below is required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocols	☐ Yes	☑ No [1]

Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data useability and representativeness requirements described in 310 CMR 40.1056(2)(k) and WSC-07-350.

H	Were **all** QC performance standards specified in the CAM protocol(s) achieved?	☐ Yes	☑ No [1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	☐ Yes	☑ No [1]

[1] ***All Negative responses must be addressed in an attached Environmental Laboratory case narrative.***

I the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: _____ **Position:** **Laboratory Director**

Printed Name: **Reza Tand** **Date:** **02/27/2014**

New England ACCUTEST LABORATORIES

04/01/14

Technical Report for

EBI Consulting

Cobble Hill, Washington, Somerville, MA

12140021

Accutest Job Number: MC29228

Sampling Date: 03/26/14

Report to:

EBI Consulting
21 B Street
Burlington, MA 01803
dbellucci@ebiconsulting.com

ATTN: Dan Bellucci

Total number of pages in report: **24**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Reza Tand
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

Test results relate only to samples analyzed.

Sections: 1 2 3 4 5 6

Table of Contents

Sample Summary

EBI Consulting

Job No: MC29228

Cobble Hill, Washington, Somerville, MA
Project No: 12140021

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
MC29228-1	03/26/14	08:30	DB	03/26/14	SO	Soil	EB-401(1-3.5')
MC29228-2	03/26/14	08:45	DB	03/26/14	SO	Soil	EB-402(1-3.5')
MC29228-3	03/26/14	09:00	DB	03/26/14	SO	Soil	EB-403(1-4')
MC29228-4	03/26/14	09:10	DB	03/26/14	SO	Soil	EB-403(4-8')
MC29228-5	03/26/14	09:20	DB	03/26/14	SO	Soil	EB-404(1-4')
MC29228-6	03/26/14	09:30	DB	03/26/14	SO	Soil	EB-404(4-8')
MC29228-7	03/26/14	09:45	DB	03/26/14	SO	Soil	EB-405(4-6')
MC29228-8	03/26/14	10:00	DB	03/26/14	SO	Soil	EB-406(1-3.5')

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	EBI Consulting	**Job No**	MC29228
Site:	Cobble Hill, Washington, Somerville, MA	**Report Date**	4/1/2014 6:55:28 AM

8 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were collected on 03/26/2014 and were received at Accutest on 03/26/2014 properly preserved, at 1.1 Deg. C and intact. These Samples received an Accutest job number of MC29228. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Extractables by GC By Method SW846 8082

Matrix: SO **Batch ID:** OP37323

- All samples were extracted and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- MC29228-2, 8 for Tetrachloro-m-xylene, Decachlorobiphenyl: Outside control limits due to dilution.
- MC29228- 3 for Tetrachloro-m-xylene: Outside control limits due to dilution.
- MC29228-2 for Tetrachloro-m-xylene: Outside control limits due to possible matrix interference.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC29228).

Summary of Hits

Job Number: MC29228
Account: EBI Consulting
Project: Cobble Hill, Washington, Somerville, MA
Collected: 03/26/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC29228-1	**EB-401(1-3.5')**					
Aroclor 1248		85.3	40		ug/kg	SW846 8082
MC29228-2	**EB-402(1-3.5')**					
Aroclor 1248		11700	720		ug/kg	SW846 8082
MC29228-3	**EB-403(1-4')**					
Aroclor 1248		2140	360		ug/kg	SW846 8082
MC29228-4	**EB-403(4-8')**					
No hits reported in this sample.						
MC29228-5	**EB-404(1-4')**					
No hits reported in this sample.						
MC29228-6	**EB-404(4-8')**					
No hits reported in this sample.						
MC29228-7	**EB-405(4-6')**					
No hits reported in this sample.						
MC29228-8	**EB-406(1-3.5')**					
Aroclor 1248		20700	3500		ug/kg	SW846 8082

New England ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	EB-401(1-3.5')		
Lab Sample ID:	MC29228-1	**Date Sampled:**	03/26/14
Matrix:	SO - Soil	**Date Received:**	03/26/14
Method:	SW846 8082 SW846 3546	**Percent Solids:**	78.8
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK35730.D	1	03/27/14	NK	03/26/14	OP37323	GBK1180
Run #2							

	Initial Weight	Final Volume
Run #1	15.9 g	10.0 ml
Run #2		

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	40	ug/kg	
11104-28-2	Aroclor 1221	ND	40	ug/kg	
11141-16-5	Aroclor 1232	ND	40	ug/kg	
53469-21-9	Aroclor 1242	ND	40	ug/kg	
12672-29-6	Aroclor 1248	85.3	40	ug/kg	
11097-69-1	Aroclor 1254	ND	40	ug/kg	
11096-82-5	Aroclor 1260	ND	40	ug/kg	
37324-23-5	Aroclor 1262	ND	40	ug/kg	
11100-14-4	Aroclor 1268	ND	40	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	119%		30-150%
877-09-8	Tetrachloro-m-xylene	109%		30-150%
2051-24-3	Decachlorobiphenyl	72%		30-150%
2051-24-3	Decachlorobiphenyl	86%		30-150%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-402(1-3.5')		
Lab Sample ID:	MC29228-2	**Date Sampled:**	03/26/14
Matrix:	SO - Soil	**Date Received:**	03/26/14
Method:	SW846 8082 SW846 3546	**Percent Solids:**	91.0
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK35731.D	1	03/27/14	NK	03/26/14	OP37323	GBK1180
Run #2	BK35746.D	20	03/28/14	AP	03/26/14	OP37323	GBK1181

	Initial Weight	Final Volume
Run #1	15.2 g	10.0 ml
Run #2	15.2 g	10.0 ml

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	36	ug/kg	
11104-28-2	Aroclor 1221	ND	36	ug/kg	
11141-16-5	Aroclor 1232	ND	36	ug/kg	
53469-21-9	Aroclor 1242	ND	36	ug/kg	
12672-29-6	Aroclor 1248	11700 [a]	720	ug/kg	
11097-69-1	Aroclor 1254	ND	36	ug/kg	
11096-82-5	Aroclor 1260	ND	36	ug/kg	
37324-23-5	Aroclor 1262	ND	36	ug/kg	
11100-14-4	Aroclor 1268	ND	36	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	110%	0% [b]	30-150%
877-09-8	Tetrachloro-m-xylene	154% [c]	0% [b]	30-150%
2051-24-3	Decachlorobiphenyl	42%	0% [b]	30-150%
2051-24-3	Decachlorobiphenyl	122%	0% [b]	30-150%

(a) Result is from Run# 2
(b) Outside control limits due to dilution.
(c) Outside control limits due to possible matrix interference.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-403(1-4')		
Lab Sample ID:	MC29228-3	**Date Sampled:**	03/26/14
Matrix:	SO - Soil	**Date Received:**	03/26/14
Method:	SW846 8082 SW846 3546	**Percent Solids:**	91.8
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK35732.D	1	03/27/14	NK	03/26/14	OP37323	GBK1180
Run #2	BK35747.D	10	03/28/14	AP	03/26/14	OP37323	GBK1181

	Initial Weight	Final Volume
Run #1	15.3 g	10.0 ml
Run #2	15.3 g	10.0 ml

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	36	ug/kg	
11104-28-2	Aroclor 1221	ND	36	ug/kg	
11141-16-5	Aroclor 1232	ND	36	ug/kg	
53469-21-9	Aroclor 1242	ND	36	ug/kg	
12672-29-6	Aroclor 1248	2140 [a]	360	ug/kg	
11097-69-1	Aroclor 1254	ND	36	ug/kg	
11096-82-5	Aroclor 1260	ND	36	ug/kg	
37324-23-5	Aroclor 1262	ND	36	ug/kg	
11100-14-4	Aroclor 1268	ND	36	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	39%	281% [b]	30-150%
877-09-8	Tetrachloro-m-xylene	43%	356% [b]	30-150%
2051-24-3	Decachlorobiphenyl	49%	79%	30-150%
2051-24-3	Decachlorobiphenyl	56%	132%	30-150%

(a) Result is from Run# 2
(b) Outside control limits due to dilution.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: EB-403(4-8')
Lab Sample ID: MC29228-4
Matrix: SO - Soil
Method: SW846 8082 SW846 3546
Project: Cobble Hill, Washington, Somerville, MA

Date Sampled: 03/26/14
Date Received: 03/26/14
Percent Solids: 88.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK35733.D	1	03/27/14	NK	03/26/14	OP37323	GBK1180
Run #2							

	Initial Weight	Final Volume
Run #1	15.3 g	10.0 ml
Run #2		

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	37	ug/kg	
11104-28-2	Aroclor 1221	ND	37	ug/kg	
11141-16-5	Aroclor 1232	ND	37	ug/kg	
53469-21-9	Aroclor 1242	ND	37	ug/kg	
12672-29-6	Aroclor 1248	ND	37	ug/kg	
11097-69-1	Aroclor 1254	ND	37	ug/kg	
11096-82-5	Aroclor 1260	ND	37	ug/kg	
37324-23-5	Aroclor 1262	ND	37	ug/kg	
11100-14-4	Aroclor 1268	ND	37	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	85%		30-150%
877-09-8	Tetrachloro-m-xylene	79%		30-150%
2051-24-3	Decachlorobiphenyl	65%		30-150%
2051-24-3	Decachlorobiphenyl	74%		30-150%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-404(1-4')		
Lab Sample ID:	MC29228-5	**Date Sampled:**	03/26/14
Matrix:	SO - Soil	**Date Received:**	03/26/14
Method:	SW846 8082 SW846 3546	**Percent Solids:**	91.0
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK35734.D	1	03/27/14	NK	03/26/14	OP37323	GBK1180
Run #2							

	Initial Weight	Final Volume
Run #1	15.6 g	10.0 ml
Run #2		

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	35	ug/kg	
11104-28-2	Aroclor 1221	ND	35	ug/kg	
11141-16-5	Aroclor 1232	ND	35	ug/kg	
53469-21-9	Aroclor 1242	ND	35	ug/kg	
12672-29-6	Aroclor 1248	ND	35	ug/kg	
11097-69-1	Aroclor 1254	ND	35	ug/kg	
11096-82-5	Aroclor 1260	ND	35	ug/kg	
37324-23-5	Aroclor 1262	ND	35	ug/kg	
11100-14-4	Aroclor 1268	ND	35	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	116%		30-150%
877-09-8	Tetrachloro-m-xylene	104%		30-150%
2051-24-3	Decachlorobiphenyl	73%		30-150%
2051-24-3	Decachlorobiphenyl	83%		30-150%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: EB-404(4-8')
Lab Sample ID: MC29228-6
Matrix: SO - Soil
Method: SW846 8082 SW846 3546
Project: Cobble Hill, Washington, Somerville, MA

Date Sampled: 03/26/14
Date Received: 03/26/14
Percent Solids: 88.5

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK35735.D	1	03/27/14	NK	03/26/14	OP37323	GBK1180
Run #2							

	Initial Weight	Final Volume
Run #1	15.2 g	10.0 ml
Run #2		

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	37	ug/kg	
11104-28-2	Aroclor 1221	ND	37	ug/kg	
11141-16-5	Aroclor 1232	ND	37	ug/kg	
53469-21-9	Aroclor 1242	ND	37	ug/kg	
12672-29-6	Aroclor 1248	ND	37	ug/kg	
11097-69-1	Aroclor 1254	ND	37	ug/kg	
11096-82-5	Aroclor 1260	ND	37	ug/kg	
37324-23-5	Aroclor 1262	ND	37	ug/kg	
11100-14-4	Aroclor 1268	ND	37	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	33%		30-150%
877-09-8	Tetrachloro-m-xylene	45%		30-150%
2051-24-3	Decachlorobiphenyl	94%		30-150%
2051-24-3	Decachlorobiphenyl	97%		30-150%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-405(4-6')		
Lab Sample ID:	MC29228-7	**Date Sampled:**	03/26/14
Matrix:	SO - Soil	**Date Received:**	03/26/14
Method:	SW846 8082 SW846 3546	**Percent Solids:**	87.0
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK35736.D	1	03/27/14	NK	03/26/14	OP37323	GBK1180
Run #2							

	Initial Weight	Final Volume
Run #1	15.4 g	10.0 ml
Run #2		

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	37	ug/kg	
11104-28-2	Aroclor 1221	ND	37	ug/kg	
11141-16-5	Aroclor 1232	ND	37	ug/kg	
53469-21-9	Aroclor 1242	ND	37	ug/kg	
12672-29-6	Aroclor 1248	ND	37	ug/kg	
11097-69-1	Aroclor 1254	ND	37	ug/kg	
11096-82-5	Aroclor 1260	ND	37	ug/kg	
37324-23-5	Aroclor 1262	ND	37	ug/kg	
11100-14-4	Aroclor 1268	ND	37	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	93%		30-150%
877-09-8	Tetrachloro-m-xylene	86%		30-150%
2051-24-3	Decachlorobiphenyl	73%		30-150%
2051-24-3	Decachlorobiphenyl	64%		30-150%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-406(1-3.5')		
Lab Sample ID:	MC29228-8	**Date Sampled:**	03/26/14
Matrix:	SO - Soil	**Date Received:**	03/26/14
Method:	SW846 8082 SW846 3546	**Percent Solids:**	90.1
Project:	Cobble Hill, Washington, Somerville, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK35737.D	1	03/27/14	NK	03/26/14	OP37323	GBK1180
Run #2	BK35748.D	100	03/28/14	AP	03/26/14	OP37323	GBK1181

	Initial Weight	Final Volume
Run #1	15.7 g	10.0 ml
Run #2	15.7 g	10.0 ml

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	35	ug/kg	
11104-28-2	Aroclor 1221	ND	35	ug/kg	
11141-16-5	Aroclor 1232	ND	35	ug/kg	
53469-21-9	Aroclor 1242	ND	35	ug/kg	
12672-29-6	Aroclor 1248	20700 [a]	3500	ug/kg	
11097-69-1	Aroclor 1254	ND	35	ug/kg	
11096-82-5	Aroclor 1260	ND	35	ug/kg	
37324-23-5	Aroclor 1262	ND	35	ug/kg	
11100-14-4	Aroclor 1268	ND	35	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	38%	0% [b]	30-150%
877-09-8	Tetrachloro-m-xylene	41%	0% [b]	30-150%
2051-24-3	Decachlorobiphenyl	119%	0% [b]	30-150%
2051-24-3	Decachlorobiphenyl	82%	0% [b]	30-150%

(a) Result is from Run# 2
(b) Outside control limits due to dilution.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- MCP Form
- Sample Tracking Chronicle

CHAIN OF CUSTODY

ACCUTEST LABORATORIES

Accutest Laboratories of New England
495 Technology Center West, Building One
TEL. 508-481-6200 FAX: 508-481-7753
www.accutest.com

PAGE 1 OF 1

FED-EX Tracking # | Bottle Order Control #
Accutest Quote # | Accutest Job # MC29228

Client / Reporting Information

Company Name: EBI Consulting
Street Address: 21B St
City: Burlington State: MA Zip: 01803
Project Contact: D. Bellucci E-mail:
Phone #: Fax #:
dbellucci@ebiconsulting.com
Sampler(s) Name(s): Dan Bellucci Phone #:

Project Information

Project Name: Cobble Hill
Street: 90 Washington St
City: Somerville State: MA Zip:
Project #: 121402
Client PO#:
Project Manager: Dan Bellucci

Billing Information (If different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention: PO#:

Requested Analysis (see TEST CODE sheet)

PCBs 8081

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB- Equipment Blank
RB- Rinse Blank
TB-Trip Blank

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Bisulfate	LAB USE ONLY
-1	EB-401 (1-3.5')		03/26/14	08:30	DB	S	1					1					
-2	EB-402 (1-3.5')			08:45			1					1					
-3	EB-403 (1-4')			09:00			1					1					
-4	EB-403 (4-8')			09:10			1					1					
-5	EB-404 (1-4')			09:20			1					1					
-6	EB-404 (4-8')			09:30			1					1					
-7	EB-405 (4-6')			09:45			1					1					
-8	EB-406 (1-3.5')			10:00		L	1					1					
																	9C

Turnaround Time (Business days)

- [ ] Std. 10 Business Days
- [X] Std. 5 Business Days (By Contract only)
- [ ] 5 Day *RUSH*
- [ ] 3 Day *EMERGENCY*
- [ ] 2 Day *EMERGENCY*
- [ ] 1 Day *EMERGENCY*

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] CT RCP
- [X] MA MCP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [ ] Other

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary

Comments / Special Instructions

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		3/26/14	1	2	3/26/14 1440	2
3			3	4		4
5			5			

Custody Seal # | [ ] Intact [ ] Not Intact | Preserved where applicable [ ] | On Ice [ ] | Cooler Temp. 1.1°C

5.1 5

MC29228: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC29228 **Client:** EBI **Immediate Client Services Action Required:** No

Date / Time Received: 3/26/2014 **Delivery Method:** **Client Service Action Required at Login:** No

Project: COBBLE HILL **No. Coolers:** 1 **Airbill #'s:**

Cooler Security	Y	N		Y	N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:	Infared gun	
3. Cooler media:	Ice (bag)	

Quality Control Preservation	Y	N	N/A
1. Trip Blank present / cooler:	☐	☐	☑
2. Trip Blank listed on COC:	☐	☐	☑
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☐	☐	☑

Sample Integrity - Documentation	Y	N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

Accutest Laboratories
V:508.481.6200

495 Technology Center West, Bldg One
F: 508.481.7753

Marlborough, MA
www/accutest.com

MC29228: Chain of Custody
Page 2 of 2

Exhibit VII A-2: MassDEP Analytical Protocol Certification Form

MassDEP Analytical Protocol Certification Form

Laboratory Name:	Accutest Laboratories of New England	Project #:	MC29228
Project Location:	Cobble Hill, Washington, Somerville, MA	MADEP RTN	None

This form provides certifications for the following data set: list Laboratory Sample ID Numbers(s)
MC29228-1,MC29228-2,MC29228-3,MC29228-4,MC29228-5,MC29228-6,MC29228-7,MC29228-8

Matrices: Groundwater/Surface Water ( ) Soil/Sediment (X) Drinking Water ( ) Air ( ) Other ( )

CAM Protocol (check all that apply below):

8260 VOC ( ) CAM IIA	7470/7471 Hg ( ) CAM III B	MassDEP VPH ( ) CAM IV A	8081 Pesticides ( ) CAM V B	7196 Hex Cr ( ) CAM VI B	Mass DEP APH ( ) CAM IX A
8270 SVOC ( ) CAM II B	7010 Metals ( ) CAM III C	MassDEP EPH ( ) CAM IV B	8151 Herbicides ( ) CAM V C	8330 Explosives ( ) CAM VIII A	TO-15 VOC ( ) CAM IX B
6010 Metals ( ) CAM III A	6020 Metals ( ) CAM III D	8082 PCB (X) CAM V A	9014 Total Cyanide/PAC ( ) CAM VI A	6860 Perchlorate ( ) CAM VIII B	

Affirmative Responses to Questions A Through F are required for "Presumptive Certainty status

A	Were all samples received in a condition consistent with those described on the Chain-of Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	☑ Yes	☐ No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	☑ Yes	☐ No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	☑ Yes	☐ No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	☑ Yes	☐ No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☑ Yes ☑ Yes	☐ No ☐ No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	☑ Yes	☐ No

Responses to questions G, H, and I below is required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocols	☑ Yes	☐ No [1]
	Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data useability and representativeness requirements described in 310 CMR 40.1056(2)(k) and WSC-07-350.		
H	Were **all** QC performance standards specified in the CAM protocol(s) achieved?	☐ Yes	☑ No [1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	☑ Yes	☐ No [1]

[1] ***All Negative responses must be addressed in an attached Environmental Laboratory case narrative.***

I the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: [signature] **Position:** **Laboratory Director**

Printed Name: **Reza Tand** **Date:** **04/01/2014**

Internal Sample Tracking Chronicle

EBI Consulting

Job No: MC29228

Cobble Hill, Washington, Somerville, MA
Project No: 12140021

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC29228-1 Collected: 26-MAR-14 08:30 By: DB Received: 26-MAR-14 By: EB-401(1-3.5')						
MC29228-1	SM21 2540 B MOD.	27-MAR-14	MC			%SOL
MC29228-1	SW846 8082	27-MAR-14 21:13	NK	26-MAR-14	AJ	P8082MCP
MC29228-2 Collected: 26-MAR-14 08:45 By: DB Received: 26-MAR-14 By: EB-402(1-3.5')						
MC29228-2	SM21 2540 B MOD.	27-MAR-14	MC			%SOL
MC29228-2	SW846 8082	27-MAR-14 21:32	NK	26-MAR-14	AJ	P8082MCP
MC29228-2	SW846 8082	28-MAR-14 12:53	AP	26-MAR-14	AJ	P8082MCP
MC29228-3 Collected: 26-MAR-14 09:00 By: DB Received: 26-MAR-14 By: EB-403(1-4')						
MC29228-3	SM21 2540 B MOD.	27-MAR-14	MC			%SOL
MC29228-3	SW846 8082	27-MAR-14 21:51	NK	26-MAR-14	AJ	P8082MCP
MC29228-3	SW846 8082	28-MAR-14 13:12	AP	26-MAR-14	AJ	P8082MCP
MC29228-4 Collected: 26-MAR-14 09:10 By: DB Received: 26-MAR-14 By: EB-403(4-8')						
MC29228-4	SM21 2540 B MOD.	27-MAR-14	MC			%SOL
MC29228-4	SW846 8082	27-MAR-14 22:10	NK	26-MAR-14	AJ	P8082MCP
MC29228-5 Collected: 26-MAR-14 09:20 By: DB Received: 26-MAR-14 By: EB-404(1-4')						
MC29228-5	SM21 2540 B MOD.	27-MAR-14	MC			%SOL
MC29228-5	SW846 8082	27-MAR-14 22:28	NK	26-MAR-14	AJ	P8082MCP
MC29228-6 Collected: 26-MAR-14 09:30 By: DB Received: 26-MAR-14 By: EB-404(4-8')						
MC29228-6	SM21 2540 B MOD.	27-MAR-14	MC			%SOL
MC29228-6	SW846 8082	27-MAR-14 22:47	NK	26-MAR-14	AJ	P8082MCP

Internal Sample Tracking Chronicle

EBI Consulting

Job No: MC29228

Cobble Hill, Washington, Somerville, MA
Project No: 12140021

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC29228-7 Collected: 26-MAR-14 09:45 By: DB EB-405(4-6')			Received: 26-MAR-14 By:			
MC29228-7	SM21 2540 B MOD.	27-MAR-14	MC			%SOL
MC29228-7	SW846 8082	27-MAR-14 23:06	NK	26-MAR-14	AJ	P8082MCP
MC29228-8 Collected: 26-MAR-14 10:00 By: DB EB-406(1-3.5')			Received: 26-MAR-14 By:			
MC29228-8	SM21 2540 B MOD.	27-MAR-14	MC			%SOL
MC29228-8	SW846 8082	27-MAR-14 23:25	NK	26-MAR-14	AJ	P8082MCP
MC29228-8	SW846 8082	28-MAR-14 13:31	AP	26-MAR-14	AJ	P8082MCP

New England ACCUTEST LABORATORIES

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC29228
Account: EBIMAB EBI Consulting
Project: Cobble Hill, Washington, Somerville, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP37323-MB	BK35724.D	1	03/27/14	NK	03/26/14	OP37323	GBK1180

The QC reported here applies to the following samples: **Method:** SW846 8082

MC29228-1, MC29228-2, MC29228-3, MC29228-4, MC29228-5, MC29228-6, MC29228-7, MC29228-8

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	33	ug/kg	
11104-28-2	Aroclor 1221	ND	33	ug/kg	
11141-16-5	Aroclor 1232	ND	33	ug/kg	
53469-21-9	Aroclor 1242	ND	33	ug/kg	
12672-29-6	Aroclor 1248	ND	33	ug/kg	
11097-69-1	Aroclor 1254	ND	33	ug/kg	
11096-82-5	Aroclor 1260	ND	33	ug/kg	
37324-23-5	Aroclor 1262	ND	33	ug/kg	
11100-14-4	Aroclor 1268	ND	33	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	115%	30-150%
877-09-8	Tetrachloro-m-xylene	110%	30-150%
2051-24-3	Decachlorobiphenyl	115%	30-150%
2051-24-3	Decachlorobiphenyl	114%	30-150%

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC29228
Account: EBIMAB EBI Consulting
Project: Cobble Hill, Washington, Somerville, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP37323-BS	BK35728.D	1	03/27/14	NK	03/26/14	OP37323	GBK1180
OP37323-BSD	BK35767A.D	1	03/28/14	AP	03/26/14	OP37323	GBK1181

The QC reported here applies to the following samples: **Method:** SW846 8082

MC29228-1, MC29228-2, MC29228-3, MC29228-4, MC29228-5, MC29228-6, MC29228-7, MC29228-8

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	261	281	107	276	108	2	40-140/30
11104-28-2	Aroclor 1221		ND		ND		nc	40-140/30
11141-16-5	Aroclor 1232		ND		ND		nc	40-140/30
53469-21-9	Aroclor 1242		ND		ND		nc	40-140/30
12672-29-6	Aroclor 1248		ND		ND		nc	40-140/30
11097-69-1	Aroclor 1254		ND		ND		nc	40-140/30
11096-82-5	Aroclor 1260	261	300	115	272	106	10	40-140/30
37324-23-5	Aroclor 1262		ND		ND		nc	40-140/30
11100-14-4	Aroclor 1268		ND		ND		nc	40-140/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	135%	109%	30-150%
877-09-8	Tetrachloro-m-xylene	125%	98%	30-150%
2051-24-3	Decachlorobiphenyl	125%	73%	30-150%
2051-24-3	Decachlorobiphenyl	125%	73%	30-150%

* = Outside of Control Limits.

Semivolatile Surrogate Recovery Summary

Job Number: MC29228
Account: EBIMAB EBI Consulting
Project: Cobble Hill, Washington, Somerville, MA

Method: SW846 8082 **Matrix:** SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]	S2 [a]	S2 [b]
MC29228-1	BK35730.D	119	109	72	86
MC29228-2	BK35746.D	0* [c]	0* [c]	0* [c]	0* [c]
MC29228-2	BK35731.D	110	154* [d]	42	122
MC29228-3	BK35747.D	281* [c]	356* [c]	79	132
MC29228-3	BK35732.D	39	43	49	56
MC29228-4	BK35733.D	85	79	65	74
MC29228-5	BK35734.D	116	104	73	83
MC29228-6	BK35735.D	33	45	94	97
MC29228-7	BK35736.D	93	86	73	64
MC29228-8	BK35748.D	0* [c]	0* [c]	0* [c]	0* [c]
MC29228-8	BK35737.D	38	41	119	82
OP37323-BS	BK35728.D	135	125	125	125
OP37323-BSD	BK35767A.D	109	98	73	73
OP37323-MB	BK35724.D	115	110	115	114

Surrogate Compounds	Recovery Limits
S1 = Tetrachloro-m-xylene	30-150%
S2 = Decachlorobiphenyl	30-150%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2
(c) Outside control limits due to dilution.
(d) Outside control limits due to possible matrix interference.

APPENDIX D:

LABORATORY ANALYTICAL REPORTS

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

May 14, 2014

Dan Bellucci
EBI Consultants
21 B Street
Burlington, MA 01803

Project Location: 84 & 90 Cobble Hill Washington St, Somerville, MA
Client Job Number:
Project Number: 12140021
Laboratory Work Order Number: 14E0281

Enclosed are results of analyses for samples received by the laboratory on May 7, 2014. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Meghan E. Kelley
Project Manager

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

EBI Consultants
21 B Street
Burlington, MA 01803
ATTN: Dan Bellucci

REPORT DATE: 5/14/2014

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 12140021

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 14E0281

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: 84 & 90 Cobble Hill Washington St, Somerville, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
EB-501 (0-2)	14E0281-01	Soil		SM 2540G	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	
EB-501 (2-4)	14E0281-02	Soil		SM 2540G	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	
EB-502 (0-2)	14E0281-03	Soil		SM 2540G	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	
EB-502 (2-4)	14E0281-04	Soil		SM 2540G	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	
EB-503 (0-2)	14E0281-05	Soil		SM 2540G	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	
EB-503 (2-4)	14E0281-06	Soil		SM 2540G	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	
EB-504 (0-2)	14E0281-07	Soil		SM 2540G	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	
EB-504 (2-4)	14E0281-08	Soil		SM 2540G	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	
EB-505 (0-2)	14E0281-09	Soil		SM 2540G	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	
EB-505 (2-4)	14E0281-10	Soil		SM 2540G	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

EBI Consultants
21 B Street
Burlington, MA 01803
ATTN: Dan Bellucci

REPORT DATE: 5/14/2014

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 12140021

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 14E0281

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: 84 & 90 Cobble Hill Washington St, Somerville, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
EB-506 (0-2)	14E0281-11	Soil		SM 2540G	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	
EB-506 (2-4)	14E0281-12	Soil		SM 2540G	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	
EB-507 (0-2)	14E0281-13	Soil		SM 2540G	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	
EB-507 (2-4)	14E0281-14	Soil		SM 2540G	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	
EB-508 (0-2)	14E0281-15	Soil		SM 2540G	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	
EB-508 (2-4)	14E0281-16	Soil		SM 2540G	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

For method 8270 only PAHs were requested and reported.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

SW-846 8082A

Qualifications:

Matrix spike and/or spike duplicate recovery bias high due to contribution of other Aroclors present in the source sample.

Analyte & Samples(s) Qualified:

Aroclor-1016, Aroclor-1016 [2C], Aroclor-1260, Aroclor-1260 [2C]

B095400-MS1, B095400-MSD1

Sample contains two incompletely resolved aroclors. Aroclor with the closest matching pattern is reported.

Analyte & Samples(s) Qualified:

Aroclor-1254, Aroclor-1254 [2C]

14E0281-16[EB-508 (2-4)]

Matrix spike duplicate RPD is outside of control limits. Reduced precision is anticipated for reported result for this compound in this sample.

Analyte & Samples(s) Qualified:

Aroclor-1016, Aroclor-1016 [2C], Aroclor-1260, Aroclor-1260 [2C]

14E0281-16[EB-508 (2-4)], B095400-MS1, B095400-MSD1

SW-846 8260C

Qualifications:

Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

2,2-Dichloropropane, Naphthalene

14E0281-08[EB-504 (2-4)], 14E0281-09[EB-505 (0-2)], B095241-BLK1, B095241-BS1, B095241-BSD1, 14E0281-01[EB-501 (0-2)], 14E0281-02[EB-501 (2-4)], 14E0281-03[EB-502 (0-2)], 14E0281-04[EB-502 (2-4)], 14E0281-05[EB-503 (0-2)], 14E0281-06[EB-503 (2-4)], 14E0281-07[EB-504 (0-2)], 14E0281-10[EB-505 (2-4)], 14E0281-11[EB-506 (0-2)], 14E0281-12[EB-506 (2-4)], 14E0281-13[EB-507 (0-2)], 14E0281-14[EB-507 (2-4)], 14E0281-15[EB-508 (0-2)], 14E0281-16[EB-508 (2-4)], B095376-BLK1, B095376-BS1, B095376-BSD1, B095376-MS1

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

Analyte & Samples(s) Qualified:

1,2,3-Trichlorobenzene

B095376-BS1

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD outside of control limits. Reduced precision anticipated for any reported result for this compound.

Analyte & Samples(s) Qualified:

1,2,3-Trichlorobenzene, Naphthalene

B095241-BSD1

Compound classified by MA CAM as difficult with acceptable recoveries of 40-160%. Recovery does not meet 70-130% criteria but does meet difficult compound criteria.

Analyte & Samples(s) Qualified:

1,4-Dioxane, Bromomethane

B095241-BS1, B095241-BSD1, B095376-BS1, B095376-BSD1

Matrix spike recovery is outside of control limits. Analysis is in control based on laboratory fortified blank recovery. Possiblity of sample matrix effects that lead to low bias for reported result or non-homogeneous sample aliquot cannot be eliminated.

Analyte & Samples(s) Qualified:

1,2,4-Trichlorobenzene, 1,2-Dibromo-3-chloropropane (DBCP), 2-Butanone (MEK), 2-Hexanone (MBK), 4-Methyl-2-pentanone (MIBK), Acetone, Bromomethane, Hexachlorobutadiene, n-Butylbenzene, Tetrahydrofuran
14E0281-07[EB-504 (0-2)], B095376-MS1

Matrix spike recovery outside of control limits. Possibility of sample matrix effects that lead to a low bias for reported result or non-homogeneous sample aliquots cannot be eliminated.

Analyte & Samples(s) Qualified:

1,2,3-Trichlorobenzene, Naphthalene
14E0281-07[EB-504 (0-2)], B095376-MS1

Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.

Analyte & Samples(s) Qualified:

1,2,3-Trichlorobenzene, 1,2-Dibromo-3-chloropropane (DBCP), 1,4-Dioxane, 2-Butanone (MEK), 2-Hexanone (MBK), 4-Methyl-2-pentanone (MIBK), Chloromethane, Naphthalene
14E0281-08[EB-504 (2-4)], 14E0281-09[EB-505 (0-2)], B095241-BLK1, B095241-BS1, B095241-BSD1

Elevated reporting limit due to high concentration of target compounds. MA CAM reporting limit not met.

Analyte & Samples(s) Qualified:

14E0281-09[EB-505 (0-2)]

Elevated reporting limit due to high concentration of non-target compounds. MA CAM reporting limit not met.

Analyte & Samples(s) Qualified:

14E0281-08[EB-504 (2-4)]

Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene, 2,2-Dichloropropane, Naphthalene
14E0281-01[EB-501 (0-2)], 14E0281-02[EB-501 (2-4)], 14E0281-03[EB-502 (0-2)], 14E0281-04[EB-502 (2-4)], 14E0281-05[EB-503 (0-2)], 14E0281-06[EB-503 (2-4)], 14E0281-07[EB-504 (0-2)], 14E0281-08[EB-504 (2-4)], 14E0281-09[EB-505 (0-2)], 14E0281-10[EB-505 (2-4)], 14E0281-11[EB-506 (0-2)], 14E0281-12[EB-506 (2-4)], 14E0281-13[EB-507 (0-2)], 14E0281-14[EB-507 (2-4)], 14E0281-15[EB-508 (0-2)], 14E0281-16[EB-508 (2-4)], B095241-BLK1, B095241-BS1, B095241-BSD1, B095376-BLK1, B095376-BS1, B095376-BSD1, B095376-MS1

Response factor is less than method specified minimum acceptable value. Reduced precision and accuracy may be associated with reported result.

Analyte & Samples(s) Qualified:

1,4-Dioxane, Tetrahydrofuran
14E0281-01[EB-501 (0-2)], 14E0281-02[EB-501 (2-4)], 14E0281-03[EB-502 (0-2)], 14E0281-04[EB-502 (2-4)], 14E0281-05[EB-503 (0-2)], 14E0281-06[EB-503 (2-4)], 14E0281-07[EB-504 (0-2)], 14E0281-08[EB-504 (2-4)], 14E0281-09[EB-505 (0-2)], 14E0281-10[EB-505 (2-4)], 14E0281-11[EB-506 (0-2)], 14E0281-12[EB-506 (2-4)], 14E0281-13[EB-507 (0-2)], 14E0281-14[EB-507 (2-4)], 14E0281-15[EB-508 (0-2)], 14E0281-16[EB-508 (2-4)], B095241-BLK1, B095241-BS1, B095241-BSD1, B095376-BLK1, B095376-BS1, B095376-BSD1, B095376-MS1

Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:

Carbon Disulfide
B095241-BS1, B095241-BSD1

Qualifications:

Matrix spike recovery and matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a high bias for reported result or non-homogeneous sample aliquots cannot be eliminated.

Analyte & Samples(s) Qualified:

Benzo(a)pyrene, Phenanthrene

B095399-MS1, B095399-MSD1, 14E0281-16RE1[EB-508 (2-4)]

Either matrix spike or MS duplicate is outside of control limits, but the other is within limits. RPD between the two MS/MSD results is within method specified criteria.

Analyte & Samples(s) Qualified:

Anthracene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Benzo(k)fluoranthene, Chrysene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Pyrene

B095399-MSD1, B095399-MS1

Elevated reporting limit due to matrix interference.

Analyte & Samples(s) Qualified:

14E0281-05[EB-503 (0-2)], 14E0281-12[EB-506 (2-4)], 14E0281-14[EB-507 (2-4)]

One associated surrogate standard recovery is outside of control limits but the other(s) is/are within limits. All recoveries are > 10%.

Analyte & Samples(s) Qualified:

p-Terphenyl-d14

14E0281-07[EB-504 (0-2)], B095399-BLK1

Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

Pyrene

14E0281-01[EB-501 (0-2)], 14E0281-03[EB-502 (0-2)], 14E0281-04[EB-502 (2-4)], 14E0281-06[EB-503 (2-4)], 14E0281-07[EB-504 (0-2)], B095399-BLK1, B095399-BS1, B095399-BSD1

Continuing calibration did not meet method specifications and was biased on the high side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the high side.

Analyte & Samples(s) Qualified:

Benzo(g,h,i)perylene, Dibenz(a,h)anthracene, Indeno(1,2,3-cd)pyrene

14E0281-08[EB-504 (2-4)], 14E0281-10RE1[EB-505 (2-4)], B095399-MS1, B095399-MSD1

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

SW-846 8260C

Laboratory control sample recoveries for required MCP Data Enhancement 8260 compounds were all within limits specified by the method except for “difficult analytes” where recovery control limits of 40-160% are used and/or unless otherwise listed in this narrative. Difficult analytes: MIBK, MEK, acetone, 1,4-dioxane, chloromethane, dichlorodifluoromethane, 2-hexanone, and bromomethane.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Daren J. Damboragian
Laboratory Manager

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-501 (0-2) | Sampled: 5/7/2014 09:30

Sample ID: 14E0281-01

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.10	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Benzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Bromobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Bromochloromethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Bromodichloromethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Bromoform	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Bromomethane	ND	0.010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
2-Butanone (MEK)	ND	0.042	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
n-Butylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
sec-Butylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
tert-Butylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Carbon Disulfide	ND	0.021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Carbon Tetrachloride	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Chlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Chlorodibromomethane	ND	0.0010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Chloroethane	ND	0.010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Chloroform	ND	0.0042	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Chloromethane	ND	0.010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
2-Chlorotoluene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
4-Chlorotoluene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,2-Dibromoethane (EDB)	ND	0.0010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Dibromomethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,2-Dichlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,3-Dichlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,4-Dichlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,1-Dichloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,2-Dichloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,1-Dichloroethylene	ND	0.0042	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
cis-1,2-Dichloroethylene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
trans-1,2-Dichloroethylene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,2-Dichloropropane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,3-Dichloropropane	ND	0.0010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
2,2-Dichloropropane	ND	0.0042	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,1-Dichloropropene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
cis-1,3-Dichloropropene	ND	0.0010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
trans-1,3-Dichloropropene	ND	0.0010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Diethyl Ether	ND	0.010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Diisopropyl Ether (DIPE)	ND	0.0010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,4-Dioxane	ND	0.10	mg/Kg dry	1	V-16	SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Ethylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-501 (0-2) | Sampled: 5/7/2014 09:30

Sample ID: 14E0281-01

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
2-Hexanone (MBK)	ND	0.021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Isopropylbenzene (Cumene)	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0042	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Methylene Chloride	ND	0.010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Naphthalene	ND	0.010	mg/Kg dry	1	L-04, V-05	SW-846 8260C	5/8/14	5/8/14 8:56	MFF
n-Propylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Styrene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,1,1,2-Tetrachloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,1,2,2-Tetrachloroethane	ND	0.0010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Tetrachloroethylene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Tetrahydrofuran	ND	0.010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Toluene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,2,3-Trichlorobenzene	ND	0.0042	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,2,4-Trichlorobenzene	ND	0.0042	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,1,1-Trichloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,1,2-Trichloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Trichloroethylene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Trichlorofluoromethane (Freon 11)	ND	0.010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,2,3-Trichloropropane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,2,4-Trimethylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,3,5-Trimethylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Vinyl Chloride	ND	0.010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
m+p Xylene	ND	0.0042	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
o-Xylene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	99.4	70-130		5/8/14 8:56
Toluene-d8	97.6	70-130		5/8/14 8:56
4-Bromofluorobenzene	91.4	70-130		5/8/14 8:56

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-501 (0-2) | Sampled: 5/7/2014 09:30

Sample ID: 14E0281-01

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	1.1	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 13:49	CMR
Acenaphthylene	0.80	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 13:49	CMR
Anthracene	2.5	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 13:49	CMR
Benzo(a)anthracene	5.7	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 13:49	CMR
Benzo(a)pyrene	5.8	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 13:49	CMR
Benzo(b)fluoranthene	6.8	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 13:49	CMR
Benzo(g,h,i)perylene	3.7	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 13:49	CMR
Benzo(k)fluoranthene	2.4	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 13:49	CMR
Chrysene	5.6	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 13:49	CMR
Dibenz(a,h)anthracene	0.90	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 13:49	CMR
Fluoranthene	14	0.75	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 18:22	CMR
Fluorene	1.2	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 13:49	CMR
Indeno(1,2,3-cd)pyrene	4.2	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 13:49	CMR
2-Methylnaphthalene	0.95	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 13:49	CMR
Naphthalene	1.4	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 13:49	CMR
Phenanthrene	6.6	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 13:49	CMR
Pyrene	6.7	0.37	mg/Kg dry	1	V-05	SW-846 8270D	5/8/14	5/10/14 13:49	CMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	101	30-130		5/10/14 13:49
2-Fluorobiphenyl	120	30-130		5/10/14 13:49
p-Terphenyl-d14	95.4	30-130		5/10/14 13:49

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-501 (0-2) Sampled: 5/7/2014 09:30

Sample ID: 14E0281-01

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 15:43	MJC
Aroclor-1221 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 15:43	MJC
Aroclor-1232 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 15:43	MJC
Aroclor-1242 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 15:43	MJC
Aroclor-1248 [2]	0.19	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 15:43	MJC
Aroclor-1254 [2]	0.13	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 15:43	MJC
Aroclor-1260 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 15:43	MJC
Aroclor-1262 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 15:43	MJC
Aroclor-1268 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 15:43	MJC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	76.9	30-150		5/9/14 15:43
Decachlorobiphenyl [2]	71.6	30-150		5/9/14 15:43
Tetrachloro-m-xylene [1]	70.1	30-150		5/9/14 15:43
Tetrachloro-m-xylene [2]	76.3	30-150		5/9/14 15:43

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-501 (0-2) Sampled: 5/7/2014 09:30

Sample ID: 14E0281-01

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	89.7		% Wt	1		SM 2540G	5/7/14	5/8/14 9:25	MXG

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-501 (2-4) | Sampled: 5/7/2014 09:35

Sample ID: 14E0281-02

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.14	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Benzene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Bromobenzene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Bromochloromethane	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Bromodichloromethane	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Bromoform	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Bromomethane	ND	0.014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
2-Butanone (MEK)	ND	0.055	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
n-Butylbenzene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
sec-Butylbenzene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
tert-Butylbenzene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Carbon Disulfide	ND	0.027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Carbon Tetrachloride	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Chlorobenzene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Chlorodibromomethane	ND	0.0014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Chloroethane	ND	0.014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Chloroform	ND	0.0055	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Chloromethane	ND	0.014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
2-Chlorotoluene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
4-Chlorotoluene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,2-Dibromoethane (EDB)	ND	0.0014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Dibromomethane	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,2-Dichlorobenzene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,3-Dichlorobenzene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,4-Dichlorobenzene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,1-Dichloroethane	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,2-Dichloroethane	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,1-Dichloroethylene	ND	0.0055	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
cis-1,2-Dichloroethylene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
trans-1,2-Dichloroethylene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,2-Dichloropropane	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,3-Dichloropropane	ND	0.0014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
2,2-Dichloropropane	ND	0.0055	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,1-Dichloropropene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
cis-1,3-Dichloropropene	ND	0.0014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
trans-1,3-Dichloropropene	ND	0.0014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Diethyl Ether	ND	0.014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Diisopropyl Ether (DIPE)	ND	0.0014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,4-Dioxane	ND	0.14	mg/Kg dry	1	V-16	SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Ethylbenzene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-501 (2-4) | Sampled: 5/7/2014 09:35

Sample ID: 14E0281-02

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
2-Hexanone (MBK)	ND	0.027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Isopropylbenzene (Cumene)	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0055	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Methylene Chloride	ND	0.014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Naphthalene	ND	0.014	mg/Kg dry	1	L-04, V-05	SW-846 8260C	5/8/14	5/8/14 10:18	MFF
n-Propylbenzene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Styrene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,1,1,2-Tetrachloroethane	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,1,2,2-Tetrachloroethane	ND	0.0014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Tetrachloroethylene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Tetrahydrofuran	ND	0.014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Toluene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,2,3-Trichlorobenzene	ND	0.0055	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,2,4-Trichlorobenzene	ND	0.0055	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,1,1-Trichloroethane	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,1,2-Trichloroethane	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Trichloroethylene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Trichlorofluoromethane (Freon 11)	ND	0.014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,2,3-Trichloropropane	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,2,4-Trimethylbenzene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,3,5-Trimethylbenzene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Vinyl Chloride	ND	0.014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
m+p Xylene	ND	0.0055	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
o-Xylene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	98.4	70-130		5/8/14 10:18
Toluene-d8	99.0	70-130		5/8/14 10:18
4-Bromofluorobenzene	89.8	70-130		5/8/14 10:18

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-501 (2-4) Sampled: 5/7/2014 09:35

Sample ID: 14E0281-02

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	0.78	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:21	CMR
Acenaphthylene	0.69	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:21	CMR
Anthracene	3.5	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:21	CMR
Benzo(a)anthracene	7.1	1.5	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 18:55	CMR
Benzo(a)pyrene	8.6	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:21	CMR
Benzo(b)fluoranthene	8.4	1.5	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 18:55	CMR
Benzo(g,h,i)perylene	4.2	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:21	CMR
Benzo(k)fluoranthene	3.7	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:21	CMR
Chrysene	8.3	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:21	CMR
Dibenz(a,h)anthracene	1.2	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:21	CMR
Fluoranthene	18	1.5	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 18:55	CMR
Fluorene	1.3	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:21	CMR
Indeno(1,2,3-cd)pyrene	5.3	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:21	CMR
2-Methylnaphthalene	ND	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:21	CMR
Naphthalene	0.42	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:21	CMR
Phenanthrene	8.2	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:21	CMR
Pyrene	9.2	1.5	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 18:55	CMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	101	30-130		5/10/14 14:21
2-Fluorobiphenyl	124	30-130		5/10/14 14:21
p-Terphenyl-d14	106	30-130		5/10/14 14:21

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-501 (2-4) Sampled: 5/7/2014 09:35

Sample ID: 14E0281-02

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:01	MJC
Aroclor-1221 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:01	MJC
Aroclor-1232 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:01	MJC
Aroclor-1242 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:01	MJC
Aroclor-1248 [2]	0.13	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:01	MJC
Aroclor-1254 [2]	0.14	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:01	MJC
Aroclor-1260 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:01	MJC
Aroclor-1262 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:01	MJC
Aroclor-1268 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:01	MJC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	70.9	30-150		5/9/14 16:01
Decachlorobiphenyl [2]	65.0	30-150		5/9/14 16:01
Tetrachloro-m-xylene [1]	70.8	30-150		5/9/14 16:01
Tetrachloro-m-xylene [2]	75.0	30-150		5/9/14 16:01

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-501 (2-4) Sampled: 5/7/2014 09:35

Sample ID: 14E0281-02

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	90.2		% Wt	1		SM 2540G	5/7/14	5/8/14 9:25	MXG

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-502 (0-2) | Sampled: 5/7/2014 10:00

Sample ID: 14E0281-03

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Benzene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Bromobenzene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Bromochloromethane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Bromodichloromethane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Bromoform	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Bromomethane	ND	0.0062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
2-Butanone (MEK)	ND	0.025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
n-Butylbenzene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
sec-Butylbenzene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
tert-Butylbenzene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Carbon Disulfide	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Carbon Tetrachloride	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Chlorobenzene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Chlorodibromomethane	ND	0.00062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Chloroethane	ND	0.0062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Chloroform	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Chloromethane	ND	0.0062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
2-Chlorotoluene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
4-Chlorotoluene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,2-Dibromoethane (EDB)	ND	0.00062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Dibromomethane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,2-Dichlorobenzene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,3-Dichlorobenzene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,4-Dichlorobenzene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.0062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,1-Dichloroethane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,2-Dichloroethane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,1-Dichloroethylene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
cis-1,2-Dichloroethylene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
trans-1,2-Dichloroethylene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,2-Dichloropropane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,3-Dichloropropane	ND	0.00062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
2,2-Dichloropropane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,1-Dichloropropene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
cis-1,3-Dichloropropene	ND	0.00062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
trans-1,3-Dichloropropene	ND	0.00062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Diethyl Ether	ND	0.0062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Diisopropyl Ether (DIPE)	ND	0.00062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,4-Dioxane	ND	0.062	mg/Kg dry	1	V-16	SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Ethylbenzene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-502 (0-2) | Sampled: 5/7/2014 10:00

Sample ID: 14E0281-03

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
2-Hexanone (MBK)	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Isopropylbenzene (Cumene)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Methylene Chloride	ND	0.0062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Naphthalene	ND	0.0062	mg/Kg dry	1	L-04, V-05	SW-846 8260C	5/8/14	5/8/14 10:46	MFF
n-Propylbenzene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Styrene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,1,1,2-Tetrachloroethane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,1,2,2-Tetrachloroethane	ND	0.00062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Tetrachloroethylene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Tetrahydrofuran	ND	0.0062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Toluene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,2,3-Trichlorobenzene	ND	0.0025	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,2,4-Trichlorobenzene	ND	0.0025	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,1,1-Trichloroethane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,1,2-Trichloroethane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Trichloroethylene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,2,3-Trichloropropane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,2,4-Trimethylbenzene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,3,5-Trimethylbenzene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Vinyl Chloride	ND	0.0062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
m+p Xylene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
o-Xylene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	92.2	70-130		5/8/14 10:46
Toluene-d8	97.4	70-130		5/8/14 10:46
4-Bromofluorobenzene	90.6	70-130		5/8/14 10:46

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-502 (0-2) Sampled: 5/7/2014 10:00

Sample ID: 14E0281-03

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:54	CMR
Acenaphthylene	ND	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:54	CMR
Anthracene	0.31	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:54	CMR
Benzo(a)anthracene	0.73	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:54	CMR
Benzo(a)pyrene	0.89	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:54	CMR
Benzo(b)fluoranthene	1.0	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:54	CMR
Benzo(g,h,i)perylene	0.53	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:54	CMR
Benzo(k)fluoranthene	0.39	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:54	CMR
Chrysene	0.76	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:54	CMR
Dibenz(a,h)anthracene	ND	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:54	CMR
Fluoranthene	1.6	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:54	CMR
Fluorene	ND	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:54	CMR
Indeno(1,2,3-cd)pyrene	0.61	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:54	CMR
2-Methylnaphthalene	0.21	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:54	CMR
Naphthalene	ND	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:54	CMR
Phenanthrene	0.46	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:54	CMR
Pyrene	1.1	0.18	mg/Kg dry	1	V-05	SW-846 8270D	5/8/14	5/10/14 14:54	CMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	83.4	30-130		5/10/14 14:54
2-Fluorobiphenyl	97.9	30-130		5/10/14 14:54
p-Terphenyl-d14	95.6	30-130		5/10/14 14:54

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-502 (0-2) Sampled: 5/7/2014 10:00

Sample ID: 14E0281-03

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:19	MJC
Aroclor-1221 [1]	ND	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:19	MJC
Aroclor-1232 [1]	ND	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:19	MJC
Aroclor-1242 [1]	ND	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:19	MJC
Aroclor-1248 [1]	ND	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:19	MJC
Aroclor-1254 [1]	ND	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:19	MJC
Aroclor-1260 [1]	ND	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:19	MJC
Aroclor-1262 [1]	ND	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:19	MJC
Aroclor-1268 [1]	ND	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:19	MJC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	85.2	30-150		5/9/14 16:19
Decachlorobiphenyl [2]	76.0	30-150		5/9/14 16:19
Tetrachloro-m-xylene [1]	76.2	30-150		5/9/14 16:19
Tetrachloro-m-xylene [2]	83.2	30-150		5/9/14 16:19

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-502 (0-2) Sampled: 5/7/2014 10:00

Sample ID: 14E0281-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	93.5		% Wt	1		SM 2540G	5/7/14	5/8/14 9:25	MXG

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-502 (2-4) | Sampled: 5/7/2014 10:05

Sample ID: 14E0281-04

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.13	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Benzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Bromobenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Bromochloromethane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Bromodichloromethane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Bromoform	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Bromomethane	ND	0.013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
2-Butanone (MEK)	ND	0.050	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
n-Butylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
sec-Butylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
tert-Butylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Carbon Disulfide	ND	0.025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Carbon Tetrachloride	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Chlorobenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Chlorodibromomethane	ND	0.0013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Chloroethane	ND	0.013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Chloroform	ND	0.0050	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Chloromethane	ND	0.013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
2-Chlorotoluene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
4-Chlorotoluene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,2-Dibromoethane (EDB)	ND	0.0013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Dibromomethane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,2-Dichlorobenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,3-Dichlorobenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,4-Dichlorobenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,1-Dichloroethane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,2-Dichloroethane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,1-Dichloroethylene	ND	0.0050	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
cis-1,2-Dichloroethylene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
trans-1,2-Dichloroethylene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,2-Dichloropropane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,3-Dichloropropane	ND	0.0013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
2,2-Dichloropropane	ND	0.0050	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,1-Dichloropropene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
cis-1,3-Dichloropropene	ND	0.0013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
trans-1,3-Dichloropropene	ND	0.0013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Diethyl Ether	ND	0.013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Diisopropyl Ether (DIPE)	ND	0.0013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,4-Dioxane	ND	0.13	mg/Kg dry	1	V-16	SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Ethylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-502 (2-4) | Sampled: 5/7/2014 10:05

Sample ID: 14E0281-04

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
2-Hexanone (MBK)	ND	0.025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Isopropylbenzene (Cumene)	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0050	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Methylene Chloride	ND	0.013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Naphthalene	ND	0.013	mg/Kg dry	1	L-04, V-05	SW-846 8260C	5/8/14	5/8/14 11:13	MFF
n-Propylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Styrene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,1,1,2-Tetrachloroethane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,1,2,2-Tetrachloroethane	ND	0.0013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Tetrachloroethylene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Tetrahydrofuran	ND	0.013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Toluene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,2,3-Trichlorobenzene	ND	0.0050	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,2,4-Trichlorobenzene	ND	0.0050	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,1,1-Trichloroethane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,1,2-Trichloroethane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Trichloroethylene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Trichlorofluoromethane (Freon 11)	ND	0.013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,2,3-Trichloropropane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,2,4-Trimethylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,3,5-Trimethylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Vinyl Chloride	ND	0.013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
m+p Xylene	ND	0.0050	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
o-Xylene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	95.7	70-130		5/8/14 11:13
Toluene-d8	96.8	70-130		5/8/14 11:13
4-Bromofluorobenzene	88.0	70-130		5/8/14 11:13

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-502 (2-4) | Sampled: 5/7/2014 10:05

Sample ID: 14E0281-04

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	0.27	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 15:26	CMR
Acenaphthylene	ND	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 15:26	CMR
Anthracene	0.78	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 15:26	CMR
Benzo(a)anthracene	1.9	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 15:26	CMR
Benzo(a)pyrene	1.9	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 15:26	CMR
Benzo(b)fluoranthene	2.3	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 15:26	CMR
Benzo(g,h,i)perylene	1.1	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 15:26	CMR
Benzo(k)fluoranthene	0.85	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 15:26	CMR
Chrysene	1.9	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 15:26	CMR
Dibenz(a,h)anthracene	0.30	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 15:26	CMR
Fluoranthene	4.5	0.39	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 19:28	CMR
Fluorene	0.34	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 15:26	CMR
Indeno(1,2,3-cd)pyrene	1.2	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 15:26	CMR
2-Methylnaphthalene	0.21	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 15:26	CMR
Naphthalene	0.36	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 15:26	CMR
Phenanthrene	2.4	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 15:26	CMR
Pyrene	2.9	0.19	mg/Kg dry	1	V-05	SW-846 8270D	5/8/14	5/10/14 15:26	CMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
Nitrobenzene-d5	84.6	30-130		5/10/14 15:26	
2-Fluorobiphenyl	97.6	30-130		5/10/14 15:26	
p-Terphenyl-d14	105	30-130		5/10/14 15:26	

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-502 (2-4) | Sampled: 5/7/2014 10:05

Sample ID: 14E0281-04

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:37	MJC
Aroclor-1221 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:37	MJC
Aroclor-1232 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:37	MJC
Aroclor-1242 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:37	MJC
Aroclor-1248 [1]	0.14	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:37	MJC
Aroclor-1254 [2]	0.23	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:37	MJC
Aroclor-1260 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:37	MJC
Aroclor-1262 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:37	MJC
Aroclor-1268 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:37	MJC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	86.2	30-150		5/9/14 16:37
Decachlorobiphenyl [2]	77.2	30-150		5/9/14 16:37
Tetrachloro-m-xylene [1]	88.2	30-150		5/9/14 16:37
Tetrachloro-m-xylene [2]	91.7	30-150		5/9/14 16:37

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-502 (2-4) | Sampled: 5/7/2014 10:05

Sample ID: 14E0281-04

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.7		% Wt	1		SM 2540G	5/7/14	5/8/14 9:25	MXG

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-503 (0-2) | Sampled: 5/7/2014 10:30

Sample ID: 14E0281-05

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.12	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Benzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Bromobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Bromochloromethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Bromodichloromethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Bromoform	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Bromomethane	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
2-Butanone (MEK)	ND	0.048	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
n-Butylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
sec-Butylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
tert-Butylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Carbon Disulfide	ND	0.024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Carbon Tetrachloride	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Chlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Chlorodibromomethane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Chloroethane	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Chloroform	ND	0.0048	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Chloromethane	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
2-Chlorotoluene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
4-Chlorotoluene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,2-Dibromoethane (EDB)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Dibromomethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,2-Dichlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,3-Dichlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,4-Dichlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,1-Dichloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,2-Dichloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,1-Dichloroethylene	ND	0.0048	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
cis-1,2-Dichloroethylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
trans-1,2-Dichloroethylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,2-Dichloropropane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,3-Dichloropropane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
2,2-Dichloropropane	ND	0.0048	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,1-Dichloropropene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
cis-1,3-Dichloropropene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
trans-1,3-Dichloropropene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Diethyl Ether	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Diisopropyl Ether (DIPE)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,4-Dioxane	ND	0.12	mg/Kg dry	1	V-16	SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Ethylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-503 (0-2) | Sampled: 5/7/2014 10:30

Sample ID: 14E0281-05

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
2-Hexanone (MBK)	ND	0.024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Isopropylbenzene (Cumene)	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0048	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Methylene Chloride	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Naphthalene	ND	0.012	mg/Kg dry	1	L-04, V-05	SW-846 8260C	5/8/14	5/8/14 11:41	MFF
n-Propylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Styrene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,1,1,2-Tetrachloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,1,2,2-Tetrachloroethane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Tetrachloroethylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Tetrahydrofuran	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Toluene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,2,3-Trichlorobenzene	ND	0.0048	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,2,4-Trichlorobenzene	ND	0.0048	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,1,1-Trichloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,1,2-Trichloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Trichloroethylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Trichlorofluoromethane (Freon 11)	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,2,3-Trichloropropane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,2,4-Trimethylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,3,5-Trimethylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Vinyl Chloride	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
m+p Xylene	ND	0.0048	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
o-Xylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	94.4	70-130		5/8/14 11:41
Toluene-d8	97.5	70-130		5/8/14 11:41
4-Bromofluorobenzene	88.6	70-130		5/8/14 11:41

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-503 (0-2) | Sampled: 5/7/2014 10:30

Sample ID: 14E0281-05

Sample Matrix: Soil

Sample Flags: RL-12

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 17:17	CMR
Acenaphthylene	ND	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 17:17	CMR
Anthracene	ND	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 17:17	CMR
Benzo(a)anthracene	ND	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 17:17	CMR
Benzo(a)pyrene	ND	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 17:17	CMR
Benzo(b)fluoranthene	ND	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 17:17	CMR
Benzo(g,h,i)perylene	ND	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 17:17	CMR
Benzo(k)fluoranthene	ND	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 17:17	CMR
Chrysene	ND	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 17:17	CMR
Dibenz(a,h)anthracene	ND	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 17:17	CMR
Fluoranthene	0.73	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 17:17	CMR
Fluorene	ND	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 17:17	CMR
Indeno(1,2,3-cd)pyrene	ND	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 17:17	CMR
2-Methylnaphthalene	ND	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 17:17	CMR
Naphthalene	ND	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 17:17	CMR
Phenanthrene	ND	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 17:17	CMR
Pyrene	ND	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 17:17	CMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	94.1	30-130		5/12/14 17:17
2-Fluorobiphenyl	117	30-130		5/12/14 17:17
p-Terphenyl-d14	89.3	30-130		5/12/14 17:17

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-503 (0-2) | Sampled: 5/7/2014 10:30

Sample ID: 14E0281-05

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:56	MJC
Aroclor-1221 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:56	MJC
Aroclor-1232 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:56	MJC
Aroclor-1242 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:56	MJC
Aroclor-1248 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:56	MJC
Aroclor-1254 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:56	MJC
Aroclor-1260 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:56	MJC
Aroclor-1262 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:56	MJC
Aroclor-1268 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:56	MJC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	88.5	30-150		5/9/14 16:56
Decachlorobiphenyl [2]	77.5	30-150		5/9/14 16:56
Tetrachloro-m-xylene [1]	93.8	30-150		5/9/14 16:56
Tetrachloro-m-xylene [2]	97.5	30-150		5/9/14 16:56

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-503 (0-2) | Sampled: 5/7/2014 10:30

Sample ID: 14E0281-05

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	92.6		% Wt	1		SM 2540G	5/7/14	5/8/14 9:25	MXG

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-503 (2-4) | Sampled: 5/7/2014 10:35

Sample ID: 14E0281-06

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Benzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Bromobenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Bromochloromethane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Bromodichloromethane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Bromoform	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Bromomethane	ND	0.0098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
2-Butanone (MEK)	ND	0.039	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
n-Butylbenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
sec-Butylbenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
tert-Butylbenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Carbon Disulfide	ND	0.020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Carbon Tetrachloride	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Chlorobenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Chlorodibromomethane	ND	0.00098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Chloroethane	ND	0.0098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Chloroform	ND	0.0039	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Chloromethane	ND	0.0098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
2-Chlorotoluene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
4-Chlorotoluene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,2-Dibromoethane (EDB)	ND	0.00098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Dibromomethane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,2-Dichlorobenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,3-Dichlorobenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,4-Dichlorobenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.0098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,1-Dichloroethane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,2-Dichloroethane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,1-Dichloroethylene	ND	0.0039	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
cis-1,2-Dichloroethylene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
trans-1,2-Dichloroethylene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,2-Dichloropropane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,3-Dichloropropane	ND	0.00098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
2,2-Dichloropropane	ND	0.0039	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,1-Dichloropropene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
cis-1,3-Dichloropropene	ND	0.00098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
trans-1,3-Dichloropropene	ND	0.00098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Diethyl Ether	ND	0.0098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Diisopropyl Ether (DIPE)	ND	0.00098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,4-Dioxane	ND	0.098	mg/Kg dry	1	V-16	SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Ethylbenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-503 (2-4) | Sampled: 5/7/2014 10:35

Sample ID: 14E0281-06

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
2-Hexanone (MBK)	ND	0.020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Isopropylbenzene (Cumene)	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0039	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Methylene Chloride	ND	0.0098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Naphthalene	ND	0.0098	mg/Kg dry	1	L-04, V-05	SW-846 8260C	5/8/14	5/8/14 12:08	MFF
n-Propylbenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Styrene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,1,1,2-Tetrachloroethane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,1,2,2-Tetrachloroethane	ND	0.00098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Tetrachloroethylene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Tetrahydrofuran	ND	0.0098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Toluene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,2,3-Trichlorobenzene	ND	0.0039	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,2,4-Trichlorobenzene	ND	0.0039	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,1,1-Trichloroethane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,1,2-Trichloroethane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Trichloroethylene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,2,3-Trichloropropane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,2,4-Trimethylbenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,3,5-Trimethylbenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Vinyl Chloride	ND	0.0098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
m+p Xylene	ND	0.0039	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
o-Xylene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	94.4	70-130		5/8/14 12:08
Toluene-d8	98.0	70-130		5/8/14 12:08
4-Bromofluorobenzene	87.4	70-130		5/8/14 12:08

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-503 (2-4) | Sampled: 5/7/2014 10:35

Sample ID: 14E0281-06

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 16:31	CMR
Acenaphthylene	ND	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 16:31	CMR
Anthracene	0.28	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 16:31	CMR
Benzo(a)anthracene	0.71	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 16:31	CMR
Benzo(a)pyrene	0.65	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 16:31	CMR
Benzo(b)fluoranthene	0.80	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 16:31	CMR
Benzo(g,h,i)perylene	0.37	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 16:31	CMR
Benzo(k)fluoranthene	0.34	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 16:31	CMR
Chrysene	0.68	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 16:31	CMR
Dibenz(a,h)anthracene	ND	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 16:31	CMR
Fluoranthene	1.8	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 16:31	CMR
Fluorene	ND	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 16:31	CMR
Indeno(1,2,3-cd)pyrene	0.28	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 16:31	CMR
2-Methylnaphthalene	ND	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 16:31	CMR
Naphthalene	ND	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 16:31	CMR
Phenanthrene	0.81	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 16:31	CMR
Pyrene	1.3	0.19	mg/Kg dry	1	V-05	SW-846 8270D	5/8/14	5/10/14 16:31	CMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	86.2	30-130		5/10/14 16:31
2-Fluorobiphenyl	101	30-130		5/10/14 16:31
p-Terphenyl-d14	122	30-130		5/10/14 16:31

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-503 (2-4) | Sampled: 5/7/2014 10:35

Sample ID: 14E0281-06

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:14	MJC
Aroclor-1221 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:14	MJC
Aroclor-1232 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:14	MJC
Aroclor-1242 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:14	MJC
Aroclor-1248 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:14	MJC
Aroclor-1254 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:14	MJC
Aroclor-1260 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:14	MJC
Aroclor-1262 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:14	MJC
Aroclor-1268 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:14	MJC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	79.9	30-150		5/9/14 17:14
Decachlorobiphenyl [2]	69.6	30-150		5/9/14 17:14
Tetrachloro-m-xylene [1]	86.3	30-150		5/9/14 17:14
Tetrachloro-m-xylene [2]	89.2	30-150		5/9/14 17:14

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-503 (2-4) | Sampled: 5/7/2014 10:35

Sample ID: 14E0281-06

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	90.1		% Wt	1		SM 2540G	5/7/14	5/8/14 9:25	MXG

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-504 (0-2) | Sampled: 5/7/2014 11:00

Sample ID: 14E0281-07

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.085	mg/Kg dry	1	MS-07	SW-846 8260C	5/8/14	5/8/14 8:29	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00085	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Benzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Bromobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Bromochloromethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Bromodichloromethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Bromoform	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Bromomethane	ND	0.0085	mg/Kg dry	1	MS-07	SW-846 8260C	5/8/14	5/8/14 8:29	MFF
2-Butanone (MEK)	ND	0.034	mg/Kg dry	1	MS-07	SW-846 8260C	5/8/14	5/8/14 8:29	MFF
n-Butylbenzene	ND	0.0017	mg/Kg dry	1	MS-07	SW-846 8260C	5/8/14	5/8/14 8:29	MFF
sec-Butylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
tert-Butylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00085	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Carbon Disulfide	ND	0.017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Carbon Tetrachloride	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Chlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Chlorodibromomethane	ND	0.00085	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Chloroethane	ND	0.0085	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Chloroform	ND	0.0034	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Chloromethane	ND	0.0085	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
2-Chlorotoluene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
4-Chlorotoluene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0017	mg/Kg dry	1	MS-07	SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,2-Dibromoethane (EDB)	ND	0.00085	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Dibromomethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,2-Dichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,3-Dichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,4-Dichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.0085	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,1-Dichloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,2-Dichloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,1-Dichloroethylene	ND	0.0034	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
cis-1,2-Dichloroethylene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
trans-1,2-Dichloroethylene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,2-Dichloropropane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,3-Dichloropropane	ND	0.00085	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
2,2-Dichloropropane	ND	0.0034	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,1-Dichloropropene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
cis-1,3-Dichloropropene	ND	0.00085	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
trans-1,3-Dichloropropene	ND	0.00085	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Diethyl Ether	ND	0.0085	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Diisopropyl Ether (DIPE)	ND	0.00085	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,4-Dioxane	ND	0.085	mg/Kg dry	1	V-16	SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Ethylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-504 (0-2) | Sampled: 5/7/2014 11:00

Sample ID: 14E0281-07

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0017	mg/Kg dry	1	MS-07	SW-846 8260C	5/8/14	5/8/14 8:29	MFF
2-Hexanone (MBK)	ND	0.017	mg/Kg dry	1	MS-07	SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Isopropylbenzene (Cumene)	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0034	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Methylene Chloride	ND	0.0085	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.017	mg/Kg dry	1	MS-07	SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Naphthalene	ND	0.0085	mg/Kg dry	1	L-04, MS-08, V-05	SW-846 8260C	5/8/14	5/8/14 8:29	MFF
n-Propylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Styrene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,1,1,2-Tetrachloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,1,2,2-Tetrachloroethane	ND	0.00085	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Tetrachloroethylene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Tetrahydrofuran	ND	0.0085	mg/Kg dry	1	MS-07	SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Toluene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,2,3-Trichlorobenzene	ND	0.0034	mg/Kg dry	1	MS-08, V-05	SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,2,4-Trichlorobenzene	ND	0.0034	mg/Kg dry	1	MS-07, V-05	SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,1,1-Trichloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,1,2-Trichloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Trichloroethylene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0085	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,2,3-Trichloropropane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,2,4-Trimethylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,3,5-Trimethylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Vinyl Chloride	ND	0.0085	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
m+p Xylene	ND	0.0034	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
o-Xylene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
1,2-Dichloroethane-d4	89.1	70-130		5/8/14	8:29
Toluene-d8	99.2	70-130		5/8/14	8:29
4-Bromofluorobenzene	88.1	70-130		5/8/14	8:29

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-504 (0-2) Sampled: 5/7/2014 11:00

Sample ID: 14E0281-07

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 17:03	CMR
Acenaphthylene	0.24	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 17:03	CMR
Anthracene	0.52	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 17:03	CMR
Benzo(a)anthracene	1.8	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 17:03	CMR
Benzo(a)pyrene	1.7	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 17:03	CMR
Benzo(b)fluoranthene	2.3	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 17:03	CMR
Benzo(g,h,i)perylene	0.95	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 17:03	CMR
Benzo(k)fluoranthene	0.83	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 17:03	CMR
Chrysene	2.0	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 17:03	CMR
Dibenz(a,h)anthracene	0.25	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 17:03	CMR
Fluoranthene	5.2	0.37	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 20:00	CMR
Fluorene	0.23	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 17:03	CMR
Indeno(1,2,3-cd)pyrene	0.95	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 17:03	CMR
2-Methylnaphthalene	ND	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 17:03	CMR
Naphthalene	0.28	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 17:03	CMR
Phenanthrene	2.3	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 17:03	CMR
Pyrene	3.7	0.19	mg/Kg dry	1	V-05	SW-846 8270D	5/8/14	5/10/14 17:03	CMR

Surrogates	% Recovery		Recovery Limits	Flag/Qual	
Nitrobenzene-d5	89.9		30-130		5/10/14 17:03
2-Fluorobiphenyl	99.7		30-130		5/10/14 17:03
p-Terphenyl-d14	**149**	*	30-130	S-07	5/10/14 17:03

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-504 (0-2) | Sampled: 5/7/2014 11:00

Sample ID: 14E0281-07

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:32	MJC
Aroclor-1221 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:32	MJC
Aroclor-1232 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:32	MJC
Aroclor-1242 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:32	MJC
Aroclor-1248 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:32	MJC
Aroclor-1254 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:32	MJC
Aroclor-1260 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:32	MJC
Aroclor-1262 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:32	MJC
Aroclor-1268 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:32	MJC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	85.6	30-150		5/9/14 17:32
Decachlorobiphenyl [2]	84.4	30-150		5/9/14 17:32
Tetrachloro-m-xylene [1]	82.4	30-150		5/9/14 17:32
Tetrachloro-m-xylene [2]	84.8	30-150		5/9/14 17:32

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-504 (0-2) Sampled: 5/7/2014 11:00

Sample ID: 14E0281-07

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	90.0		% Wt	1		SM 2540G	5/7/14	5/8/14 9:25	MXG

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-504 (2-4) | Sampled: 5/7/2014 11:05

Sample ID: 14E0281-08

Sample Matrix: Soil

Sample Flags: RL-06

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	4.3	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.043	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Benzene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Bromobenzene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Bromochloromethane	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Bromodichloromethane	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Bromoform	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Bromomethane	ND	0.43	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
2-Butanone (MEK)	ND	4.3	mg/Kg dry	2	R-05	SW-846 8260C	5/9/14	5/11/14 8:22	EEH
n-Butylbenzene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
sec-Butylbenzene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
tert-Butylbenzene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	0.043	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Carbon Disulfide	ND	0.86	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Carbon Tetrachloride	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Chlorobenzene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Chlorodibromomethane	ND	0.043	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Chloroethane	ND	0.17	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Chloroform	ND	0.17	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Chloromethane	ND	0.43	mg/Kg dry	2	R-05	SW-846 8260C	5/9/14	5/11/14 8:22	EEH
2-Chlorotoluene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
4-Chlorotoluene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.43	mg/Kg dry	2	R-05	SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,2-Dibromoethane (EDB)	ND	0.043	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Dibromomethane	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,2-Dichlorobenzene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,3-Dichlorobenzene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,4-Dichlorobenzene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Dichlorodifluoromethane (Freon 12)	ND	0.17	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,1-Dichloroethane	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,2-Dichloroethane	ND	0.43	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,1-Dichloroethylene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
cis-1,2-Dichloroethylene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
trans-1,2-Dichloroethylene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,2-Dichloropropane	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,3-Dichloropropane	ND	0.043	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
2,2-Dichloropropane	ND	0.086	mg/Kg dry	2	L-04, V-05	SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,1-Dichloropropene	ND	0.17	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
cis-1,3-Dichloropropene	ND	0.043	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
trans-1,3-Dichloropropene	ND	0.043	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Diethyl Ether	ND	0.17	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Diisopropyl Ether (DIPE)	ND	0.043	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,4-Dioxane	ND	4.3	mg/Kg dry	2	R-05, V-16	SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Ethylbenzene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-504 (2-4) | Sampled: 5/7/2014 11:05

Sample ID: 14E0281-08

Sample Matrix: Soil

Sample Flags: RL-06

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
2-Hexanone (MBK)	ND	0.86	mg/Kg dry	2	R-05	SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Isopropylbenzene (Cumene)	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
p-Isopropyltoluene (p-Cymene)	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Methyl tert-Butyl Ether (MTBE)	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Methylene Chloride	ND	0.43	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
4-Methyl-2-pentanone (MIBK)	ND	0.86	mg/Kg dry	2	R-05	SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Naphthalene	ND	0.17	mg/Kg dry	2	R-05, V-05	SW-846 8260C	5/9/14	5/11/14 8:22	EEH
n-Propylbenzene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Styrene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,1,1,2-Tetrachloroethane	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,1,2,2-Tetrachloroethane	ND	0.043	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Tetrachloroethylene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Tetrahydrofuran	ND	0.34	mg/Kg dry	2	V-16	SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Toluene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,2,3-Trichlorobenzene	ND	0.34	mg/Kg dry	2	R-05, V-05	SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,2,4-Trichlorobenzene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,1,1-Trichloroethane	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,1,2-Trichloroethane	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Trichloroethylene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Trichlorofluoromethane (Freon 11)	ND	0.17	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,2,3-Trichloropropane	ND	0.17	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,2,4-Trimethylbenzene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,3,5-Trimethylbenzene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Vinyl Chloride	ND	0.17	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
m+p Xylene	ND	0.17	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
o-Xylene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	92.0	70-130		5/11/14 8:22
Toluene-d8	104	70-130		5/11/14 8:22
4-Bromofluorobenzene	101	70-130		5/11/14 8:22

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-504 (2-4) | Sampled: 5/7/2014 11:05

Sample ID: 14E0281-08

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	4.1	1.9	mg/Kg dry	10		SW-846 8270D	5/8/14	5/13/14 10:06	CMR
Acenaphthylene	ND	1.9	mg/Kg dry	10		SW-846 8270D	5/8/14	5/13/14 10:06	CMR
Anthracene	6.5	1.9	mg/Kg dry	10		SW-846 8270D	5/8/14	5/13/14 10:06	CMR
Benzo(a)anthracene	9.1	1.9	mg/Kg dry	10		SW-846 8270D	5/8/14	5/13/14 10:06	CMR
Benzo(a)pyrene	9.3	1.9	mg/Kg dry	10		SW-846 8270D	5/8/14	5/13/14 10:06	CMR
Benzo(b)fluoranthene	9.4	1.9	mg/Kg dry	10		SW-846 8270D	5/8/14	5/13/14 10:06	CMR
Benzo(g,h,i)perylene	5.4	1.9	mg/Kg dry	10	V-06	SW-846 8270D	5/8/14	5/13/14 10:06	CMR
Benzo(k)fluoranthene	3.5	1.9	mg/Kg dry	10		SW-846 8270D	5/8/14	5/13/14 10:06	CMR
Chrysene	8.7	1.9	mg/Kg dry	10		SW-846 8270D	5/8/14	5/13/14 10:06	CMR
Dibenz(a,h)anthracene	ND	1.9	mg/Kg dry	10	V-06	SW-846 8270D	5/8/14	5/13/14 10:06	CMR
Fluoranthene	24	1.9	mg/Kg dry	10		SW-846 8270D	5/8/14	5/13/14 10:06	CMR
Fluorene	7.2	1.9	mg/Kg dry	10		SW-846 8270D	5/8/14	5/13/14 10:06	CMR
Indeno(1,2,3-cd)pyrene	6.8	1.9	mg/Kg dry	10	V-06	SW-846 8270D	5/8/14	5/13/14 10:06	CMR
2-Methylnaphthalene	2.0	1.9	mg/Kg dry	10		SW-846 8270D	5/8/14	5/13/14 10:06	CMR
Naphthalene	2.1	1.9	mg/Kg dry	10		SW-846 8270D	5/8/14	5/13/14 10:06	CMR
Phenanthrene	21	1.9	mg/Kg dry	10		SW-846 8270D	5/8/14	5/13/14 10:06	CMR
Pyrene	20	1.9	mg/Kg dry	10		SW-846 8270D	5/8/14	5/13/14 10:06	CMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	72.1	30-130		5/13/14 10:06
2-Fluorobiphenyl	73.1	30-130		5/13/14 10:06
p-Terphenyl-d14	84.6	30-130		5/13/14 10:06

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-504 (2-4) | Sampled: 5/7/2014 11:05

Sample ID: 14E0281-08

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:50	MJC
Aroclor-1221 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:50	MJC
Aroclor-1232 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:50	MJC
Aroclor-1242 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:50	MJC
Aroclor-1248 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:50	MJC
Aroclor-1254 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:50	MJC
Aroclor-1260 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:50	MJC
Aroclor-1262 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:50	MJC
Aroclor-1268 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:50	MJC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	76.4	30-150		5/9/14 17:50
Decachlorobiphenyl [2]	73.5	30-150		5/9/14 17:50
Tetrachloro-m-xylene [1]	65.7	30-150		5/9/14 17:50
Tetrachloro-m-xylene [2]	72.7	30-150		5/9/14 17:50

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-504 (2-4) | Sampled: 5/7/2014 11:05

Sample ID: 14E0281-08

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	90.1		% Wt	1		SM 2540G	5/7/14	5/8/14 9:25	MXG

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-505 (0-2) | Sampled: 5/7/2014 11:15

Sample ID: 14E0281-09

Sample Matrix: Soil

Sample Flags: RL-05

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	5.4	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.054	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Benzene	0.11	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Bromobenzene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Bromochloromethane	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Bromodichloromethane	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Bromoform	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Bromomethane	ND	0.54	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
2-Butanone (MEK)	ND	5.4	mg/Kg dry	2	R-05	SW-846 8260C	5/9/14	5/11/14 8:49	EEH
n-Butylbenzene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
sec-Butylbenzene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
tert-Butylbenzene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	0.054	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Carbon Disulfide	ND	1.1	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Carbon Tetrachloride	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Chlorobenzene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Chlorodibromomethane	ND	0.054	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Chloroethane	ND	0.22	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Chloroform	ND	0.22	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Chloromethane	ND	0.54	mg/Kg dry	2	R-05	SW-846 8260C	5/9/14	5/11/14 8:49	EEH
2-Chlorotoluene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
4-Chlorotoluene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.54	mg/Kg dry	2	R-05	SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,2-Dibromoethane (EDB)	ND	0.054	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Dibromomethane	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,2-Dichlorobenzene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,3-Dichlorobenzene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,4-Dichlorobenzene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Dichlorodifluoromethane (Freon 12)	ND	0.22	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,1-Dichloroethane	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,2-Dichloroethane	ND	0.54	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,1-Dichloroethylene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
cis-1,2-Dichloroethylene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
trans-1,2-Dichloroethylene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,2-Dichloropropane	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,3-Dichloropropane	ND	0.054	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
2,2-Dichloropropane	ND	0.11	mg/Kg dry	2	V-05, L-04	SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,1-Dichloropropene	ND	0.22	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
cis-1,3-Dichloropropene	ND	0.054	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
trans-1,3-Dichloropropene	ND	0.054	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Diethyl Ether	ND	0.22	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Diisopropyl Ether (DIPE)	ND	0.054	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,4-Dioxane	ND	5.4	mg/Kg dry	2	R-05, V-16	SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Ethylbenzene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-505 (0-2) | Sampled: 5/7/2014 11:15

Sample ID: 14E0281-09

Sample Matrix: Soil

Sample Flags: RL-05

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
2-Hexanone (MBK)	ND	1.1	mg/Kg dry	2	R-05	SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Isopropylbenzene (Cumene)	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
p-Isopropyltoluene (p-Cymene)	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Methyl tert-Butyl Ether (MTBE)	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Methylene Chloride	ND	0.54	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
4-Methyl-2-pentanone (MIBK)	ND	1.1	mg/Kg dry	2	R-05	SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Naphthalene	3.1	0.22	mg/Kg dry	2	R-05, V-05	SW-846 8260C	5/9/14	5/11/14 8:49	EEH
n-Propylbenzene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Styrene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,1,1,2-Tetrachloroethane	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,1,2,2-Tetrachloroethane	ND	0.054	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Tetrachloroethylene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Tetrahydrofuran	ND	0.43	mg/Kg dry	2	V-16	SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Toluene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,2,3-Trichlorobenzene	ND	0.43	mg/Kg dry	2	R-05, V-05	SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,2,4-Trichlorobenzene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,1,1-Trichloroethane	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,1,2-Trichloroethane	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Trichloroethylene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Trichlorofluoromethane (Freon 11)	ND	0.22	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,2,3-Trichloropropane	ND	0.22	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,2,4-Trimethylbenzene	0.18	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,3,5-Trimethylbenzene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Vinyl Chloride	ND	0.22	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
m+p Xylene	ND	0.22	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
o-Xylene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	97.9	70-130		5/11/14 8:49
Toluene-d8	103	70-130		5/11/14 8:49
4-Bromofluorobenzene	99.2	70-130		5/11/14 8:49

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-505 (0-2) | Sampled: 5/7/2014 11:15

Sample ID: 14E0281-09

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	2.9	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 10:37	CMR
Acenaphthylene	3.0	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 10:37	CMR
Anthracene	5.5	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 10:37	CMR
Benzo(a)anthracene	10	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 10:37	CMR
Benzo(a)pyrene	9.6	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 10:37	CMR
Benzo(b)fluoranthene	12	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 10:37	CMR
Benzo(g,h,i)perylene	5.5	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 10:37	CMR
Benzo(k)fluoranthene	4.2	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 10:37	CMR
Chrysene	11	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 10:37	CMR
Dibenz(a,h)anthracene	1.2	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 10:37	CMR
Fluoranthene	24	1.8	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 10:38	CMR
Fluorene	4.7	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 10:37	CMR
Indeno(1,2,3-cd)pyrene	6.1	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 10:37	CMR
2-Methylnaphthalene	1.8	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 10:37	CMR
Naphthalene	4.1	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 10:37	CMR
Phenanthrene	19	1.8	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 10:38	CMR
Pyrene	17	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 10:37	CMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	102	30-130		5/12/14 10:37
2-Fluorobiphenyl	109	30-130		5/12/14 10:37
p-Terphenyl-d14	72.2	30-130		5/12/14 10:37

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-505 (0-2) | Sampled: 5/7/2014 11:15

Sample ID: 14E0281-09

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:08	MJC
Aroclor-1221 [1]	ND	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:08	MJC
Aroclor-1232 [1]	ND	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:08	MJC
Aroclor-1242 [1]	ND	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:08	MJC
Aroclor-1248 [1]	0.23	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:08	MJC
Aroclor-1254 [1]	ND	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:08	MJC
Aroclor-1260 [1]	ND	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:08	MJC
Aroclor-1262 [1]	ND	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:08	MJC
Aroclor-1268 [1]	ND	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:08	MJC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	86.4	30-150		5/9/14 18:08
Decachlorobiphenyl [2]	80.6	30-150		5/9/14 18:08
Tetrachloro-m-xylene [1]	83.5	30-150		5/9/14 18:08
Tetrachloro-m-xylene [2]	89.7	30-150		5/9/14 18:08

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-505 (0-2) Sampled: 5/7/2014 11:15

Sample ID: 14E0281-09

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	93.7		% Wt	1		SM 2540G	5/7/14	5/8/14 9:25	MXG

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-505 (2-4) | Sampled: 5/7/2014 11:20

Sample ID: 14E0281-10

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Benzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Bromobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Bromochloromethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Bromodichloromethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Bromoform	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Bromomethane	ND	0.0092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
2-Butanone (MEK)	ND	0.037	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
n-Butylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
sec-Butylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
tert-Butylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Carbon Disulfide	ND	0.018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Carbon Tetrachloride	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Chlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Chlorodibromomethane	ND	0.00092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Chloroethane	ND	0.0092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Chloroform	ND	0.0037	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Chloromethane	ND	0.0092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
2-Chlorotoluene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
4-Chlorotoluene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,2-Dibromoethane (EDB)	ND	0.00092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Dibromomethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,2-Dichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,3-Dichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,4-Dichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.0092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,1-Dichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,2-Dichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,1-Dichloroethylene	ND	0.0037	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
cis-1,2-Dichloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
trans-1,2-Dichloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,2-Dichloropropane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,3-Dichloropropane	ND	0.00092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
2,2-Dichloropropane	ND	0.0037	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,1-Dichloropropene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
cis-1,3-Dichloropropene	ND	0.00092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
trans-1,3-Dichloropropene	ND	0.00092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Diethyl Ether	ND	0.0092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Diisopropyl Ether (DIPE)	ND	0.00092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,4-Dioxane	ND	0.092	mg/Kg dry	1	V-16	SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Ethylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-505 (2-4) | Sampled: 5/7/2014 11:20

Sample ID: 14E0281-10

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
2-Hexanone (MBK)	ND	0.018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Isopropylbenzene (Cumene)	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0037	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Methylene Chloride	ND	0.0092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Naphthalene	0.018	0.0092	mg/Kg dry	1	L-04, V-05	SW-846 8260C	5/8/14	5/8/14 12:35	MFF
n-Propylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Styrene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,1,1,2-Tetrachloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,1,2,2-Tetrachloroethane	ND	0.00092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Tetrachloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Tetrahydrofuran	ND	0.0092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Toluene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,2,3-Trichlorobenzene	ND	0.0037	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,2,4-Trichlorobenzene	ND	0.0037	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,1,1-Trichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,1,2-Trichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Trichloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,2,3-Trichloropropane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,2,4-Trimethylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,3,5-Trimethylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Vinyl Chloride	ND	0.0092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
m+p Xylene	ND	0.0037	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
o-Xylene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	104	70-130		5/8/14 12:35
Toluene-d8	95.6	70-130		5/8/14 12:35
4-Bromofluorobenzene	92.8	70-130		5/8/14 12:35

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-505 (2-4) | Sampled: 5/7/2014 11:20

Sample ID: 14E0281-10

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	3.8	0.95	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 11:10	CMR
Acenaphthylene	2.2	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 11:09	CMR
Anthracene	8.5	0.95	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 11:10	CMR
Benzo(a)anthracene	19	0.95	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 11:10	CMR
Benzo(a)pyrene	17	0.95	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 11:10	CMR
Benzo(b)fluoranthene	19	0.95	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 11:10	CMR
Benzo(g,h,i)perylene	7.4	0.95	mg/Kg dry	5	V-06	SW-846 8270D	5/8/14	5/13/14 11:10	CMR
Benzo(k)fluoranthene	6.8	0.95	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 11:10	CMR
Chrysene	19	0.95	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 11:10	CMR
Dibenz(a,h)anthracene	2.9	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 11:09	CMR
Fluoranthene	40	3.8	mg/Kg dry	20		SW-846 8270D	5/8/14	5/13/14 13:49	CMR
Fluorene	5.3	0.95	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 11:10	CMR
Indeno(1,2,3-cd)pyrene	9.9	0.95	mg/Kg dry	5	V-06	SW-846 8270D	5/8/14	5/13/14 11:10	CMR
2-Methylnaphthalene	0.69	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 11:09	CMR
Naphthalene	1.8	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 11:09	CMR
Phenanthrene	20	0.95	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 11:10	CMR
Pyrene	27	3.8	mg/Kg dry	20		SW-846 8270D	5/8/14	5/13/14 13:49	CMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	46.7	30-130		5/12/14 11:09
2-Fluorobiphenyl	62.4	30-130		5/12/14 11:09
p-Terphenyl-d14	65.2	30-130		5/12/14 11:09

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-505 (2-4) | Sampled: 5/7/2014 11:20

Sample ID: 14E0281-10

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:26	MJC
Aroclor-1221 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:26	MJC
Aroclor-1232 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:26	MJC
Aroclor-1242 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:26	MJC
Aroclor-1248 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:26	MJC
Aroclor-1254 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:26	MJC
Aroclor-1260 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:26	MJC
Aroclor-1262 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:26	MJC
Aroclor-1268 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:26	MJC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	73.1	30-150		5/9/14 18:26
Decachlorobiphenyl [2]	83.7	30-150		5/9/14 18:26
Tetrachloro-m-xylene [1]	68.5	30-150		5/9/14 18:26
Tetrachloro-m-xylene [2]	74.7	30-150		5/9/14 18:26

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-505 (2-4) Sampled: 5/7/2014 11:20

Sample ID: 14E0281-10

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	89.6		% Wt	1		SM 2540G	5/7/14	5/8/14 9:25	MXG

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-506 (0-2) | Sampled: 5/7/2014 11:30

Sample ID: 14E0281-11

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.11	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Benzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Bromobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Bromochloromethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Bromodichloromethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Bromoform	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Bromomethane	ND	0.011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
2-Butanone (MEK)	ND	0.043	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
n-Butylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
sec-Butylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
tert-Butylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Carbon Disulfide	ND	0.021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Carbon Tetrachloride	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Chlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Chlorodibromomethane	ND	0.0011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Chloroethane	ND	0.011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Chloroform	ND	0.0043	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Chloromethane	ND	0.011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
2-Chlorotoluene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
4-Chlorotoluene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,2-Dibromoethane (EDB)	ND	0.0011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Dibromomethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,2-Dichlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,3-Dichlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,4-Dichlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,1-Dichloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,2-Dichloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,1-Dichloroethylene	ND	0.0043	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
cis-1,2-Dichloroethylene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
trans-1,2-Dichloroethylene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,2-Dichloropropane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,3-Dichloropropane	ND	0.0011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
2,2-Dichloropropane	ND	0.0043	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,1-Dichloropropene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
cis-1,3-Dichloropropene	ND	0.0011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
trans-1,3-Dichloropropene	ND	0.0011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Diethyl Ether	ND	0.011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Diisopropyl Ether (DIPE)	ND	0.0011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,4-Dioxane	ND	0.11	mg/Kg dry	1	V-16	SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Ethylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-506 (0-2) | Sampled: 5/7/2014 11:30

Sample ID: 14E0281-11

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
2-Hexanone (MBK)	ND	0.021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Isopropylbenzene (Cumene)	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
p-Isopropyltoluene (p-Cymene)	0.0070	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0043	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Methylene Chloride	ND	0.011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Naphthalene	ND	0.011	mg/Kg dry	1	L-04, V-05	SW-846 8260C	5/8/14	5/8/14 13:03	MFF
n-Propylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Styrene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,1,1,2-Tetrachloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,1,2,2-Tetrachloroethane	ND	0.0011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Tetrachloroethylene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Tetrahydrofuran	ND	0.011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Toluene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,2,3-Trichlorobenzene	ND	0.0043	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,2,4-Trichlorobenzene	ND	0.0043	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,1,1-Trichloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,1,2-Trichloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Trichloroethylene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Trichlorofluoromethane (Freon 11)	ND	0.011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,2,3-Trichloropropane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,2,4-Trimethylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,3,5-Trimethylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Vinyl Chloride	ND	0.011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
m+p Xylene	ND	0.0043	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
o-Xylene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	93.4	70-130		5/8/14 13:03
Toluene-d8	98.4	70-130		5/8/14 13:03
4-Bromofluorobenzene	92.5	70-130		5/8/14 13:03

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-506 (0-2) Sampled: 5/7/2014 11:30

Sample ID: 14E0281-11

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	1.6	0.37	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 11:41	CMR
Acenaphthylene	ND	0.37	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 11:41	CMR
Anthracene	2.9	0.37	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 11:41	CMR
Benzo(a)anthracene	3.0	0.37	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 11:41	CMR
Benzo(a)pyrene	2.6	0.37	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 11:41	CMR
Benzo(b)fluoranthene	3.1	0.37	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 11:41	CMR
Benzo(g,h,i)perylene	1.1	0.37	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 11:41	CMR
Benzo(k)fluoranthene	1.2	0.37	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 11:41	CMR
Chrysene	2.8	0.37	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 11:41	CMR
Dibenz(a,h)anthracene	ND	0.37	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 11:41	CMR
Fluoranthene	5.3	0.92	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 11:41	CMR
Fluorene	2.1	0.37	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 11:41	CMR
Indeno(1,2,3-cd)pyrene	1.4	0.37	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 11:41	CMR
2-Methylnaphthalene	0.62	0.37	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 11:41	CMR
Naphthalene	1.4	0.37	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 11:41	CMR
Phenanthrene	8.3	0.37	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 11:41	CMR
Pyrene	3.7	0.37	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 11:41	CMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	50.2	30-130		5/12/14 11:41
2-Fluorobiphenyl	65.1	30-130		5/12/14 11:41
p-Terphenyl-d14	39.4	30-130		5/12/14 11:41

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-506 (0-2) Sampled: 5/7/2014 11:30

Sample ID: 14E0281-11

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:15	MJC
Aroclor-1221 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:15	MJC
Aroclor-1232 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:15	MJC
Aroclor-1242 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:15	MJC
Aroclor-1248 [2]	0.15	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:15	MJC
Aroclor-1254 [2]	0.12	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:15	MJC
Aroclor-1260 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:15	MJC
Aroclor-1262 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:15	MJC
Aroclor-1268 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:15	MJC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	79.3	30-150		5/9/14 19:15
Decachlorobiphenyl [2]	77.4	30-150		5/9/14 19:15
Tetrachloro-m-xylene [1]	78.8	30-150		5/9/14 19:15
Tetrachloro-m-xylene [2]	83.2	30-150		5/9/14 19:15

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-506 (0-2) | Sampled: 5/7/2014 11:30

Sample ID: 14E0281-11

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	90.7		% Wt	1		SM 2540G	5/7/14	5/8/14 9:25	MXG

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-506 (2-4) | Sampled: 5/7/2014 11:35

Sample ID: 14E0281-12

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Benzene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Bromobenzene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Bromochloromethane	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Bromodichloromethane	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Bromoform	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Bromomethane	ND	0.0097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
2-Butanone (MEK)	ND	0.039	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
n-Butylbenzene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
sec-Butylbenzene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
tert-Butylbenzene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Carbon Disulfide	ND	0.019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Carbon Tetrachloride	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Chlorobenzene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Chlorodibromomethane	ND	0.00097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Chloroethane	ND	0.0097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Chloroform	ND	0.0039	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Chloromethane	ND	0.0097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
2-Chlorotoluene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
4-Chlorotoluene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,2-Dibromoethane (EDB)	ND	0.00097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Dibromomethane	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,2-Dichlorobenzene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,3-Dichlorobenzene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,4-Dichlorobenzene	0.0033	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.0097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,1-Dichloroethane	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,2-Dichloroethane	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,1-Dichloroethylene	ND	0.0039	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
cis-1,2-Dichloroethylene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
trans-1,2-Dichloroethylene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,2-Dichloropropane	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,3-Dichloropropane	ND	0.00097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
2,2-Dichloropropane	ND	0.0039	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,1-Dichloropropene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
cis-1,3-Dichloropropene	ND	0.00097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
trans-1,3-Dichloropropene	ND	0.00097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Diethyl Ether	ND	0.0097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Diisopropyl Ether (DIPE)	ND	0.00097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,4-Dioxane	ND	0.097	mg/Kg dry	1	V-16	SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Ethylbenzene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-506 (2-4) | Sampled: 5/7/2014 11:35

Sample ID: 14E0281-12

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
2-Hexanone (MBK)	ND	0.019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Isopropylbenzene (Cumene)	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0039	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Methylene Chloride	ND	0.0097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Naphthalene	ND	0.0097	mg/Kg dry	1	L-04, V-05	SW-846 8260C	5/8/14	5/8/14 13:30	MFF
n-Propylbenzene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Styrene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,1,1,2-Tetrachloroethane	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,1,2,2-Tetrachloroethane	ND	0.00097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Tetrachloroethylene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Tetrahydrofuran	ND	0.0097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Toluene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,2,3-Trichlorobenzene	ND	0.0039	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,2,4-Trichlorobenzene	ND	0.0039	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,1,1-Trichloroethane	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,1,2-Trichloroethane	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Trichloroethylene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,2,3-Trichloropropane	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,2,4-Trimethylbenzene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,3,5-Trimethylbenzene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Vinyl Chloride	ND	0.0097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
m+p Xylene	ND	0.0039	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
o-Xylene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	94.2	70-130		5/8/14 13:30
Toluene-d8	98.4	70-130		5/8/14 13:30
4-Bromofluorobenzene	90.2	70-130		5/8/14 13:30

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-506 (2-4) | Sampled: 5/7/2014 11:35

Sample ID: 14E0281-12

Sample Matrix: Soil

Sample Flags: RL-12

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.36	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 12:14	CMR
Acenaphthylene	ND	0.36	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 12:14	CMR
Anthracene	0.61	0.36	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 12:14	CMR
Benzo(a)anthracene	1.6	0.36	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 12:14	CMR
Benzo(a)pyrene	1.4	0.36	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 12:14	CMR
Benzo(b)fluoranthene	1.9	0.36	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 12:14	CMR
Benzo(g,h,i)perylene	0.70	0.36	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 12:14	CMR
Benzo(k)fluoranthene	0.68	0.36	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 12:14	CMR
Chrysene	1.8	0.36	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 12:14	CMR
Dibenz(a,h)anthracene	ND	0.36	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 12:14	CMR
Fluoranthene	6.2	0.36	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 12:14	CMR
Fluorene	ND	0.36	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 12:14	CMR
Indeno(1,2,3-cd)pyrene	0.85	0.36	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 12:14	CMR
2-Methylnaphthalene	ND	0.36	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 12:14	CMR
Naphthalene	ND	0.36	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 12:14	CMR
Phenanthrene	3.0	0.36	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 12:14	CMR
Pyrene	3.2	0.36	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 12:14	CMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	58.1	30-130		5/12/14 12:14
2-Fluorobiphenyl	73.6	30-130		5/12/14 12:14
p-Terphenyl-d14	65.6	30-130		5/12/14 12:14

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-506 (2-4) | Sampled: 5/7/2014 11:35

Sample ID: 14E0281-12

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.42	mg/Kg dry	20		SW-846 8082A	5/8/14	5/10/14 8:41	MJC
Aroclor-1221 [1]	ND	0.42	mg/Kg dry	20		SW-846 8082A	5/8/14	5/10/14 8:41	MJC
Aroclor-1232 [1]	ND	0.42	mg/Kg dry	20		SW-846 8082A	5/8/14	5/10/14 8:41	MJC
Aroclor-1242 [1]	ND	0.42	mg/Kg dry	20		SW-846 8082A	5/8/14	5/10/14 8:41	MJC
Aroclor-1248 [2]	3.0	0.42	mg/Kg dry	20		SW-846 8082A	5/8/14	5/10/14 8:41	MJC
Aroclor-1254 [1]	1.8	0.42	mg/Kg dry	20		SW-846 8082A	5/8/14	5/10/14 8:41	MJC
Aroclor-1260 [1]	ND	0.42	mg/Kg dry	20		SW-846 8082A	5/8/14	5/10/14 8:41	MJC
Aroclor-1262 [1]	ND	0.42	mg/Kg dry	20		SW-846 8082A	5/8/14	5/10/14 8:41	MJC
Aroclor-1268 [1]	ND	0.42	mg/Kg dry	20		SW-846 8082A	5/8/14	5/10/14 8:41	MJC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	83.0	30-150		5/10/14 8:41
Decachlorobiphenyl [2]	75.4	30-150		5/10/14 8:41
Tetrachloro-m-xylene [1]	125	30-150		5/10/14 8:41
Tetrachloro-m-xylene [2]	132	30-150		5/10/14 8:41

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-506 (2-4) Sampled: 5/7/2014 11:35

Sample ID: 14E0281-12

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	94.7		% Wt	1		SM 2540G	5/7/14	5/8/14 9:25	MXG

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-507 (0-2) | Sampled: 5/7/2014 11:45

Sample ID: 14E0281-13

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.12	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Benzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Bromobenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Bromochloromethane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Bromodichloromethane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Bromoform	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Bromomethane	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
2-Butanone (MEK)	ND	0.049	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
n-Butylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
sec-Butylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
tert-Butylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Carbon Disulfide	ND	0.025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Carbon Tetrachloride	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Chlorobenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Chlorodibromomethane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Chloroethane	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Chloroform	ND	0.0049	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Chloromethane	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
2-Chlorotoluene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
4-Chlorotoluene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,2-Dibromoethane (EDB)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Dibromomethane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,2-Dichlorobenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,3-Dichlorobenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,4-Dichlorobenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,1-Dichloroethane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,2-Dichloroethane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,1-Dichloroethylene	ND	0.0049	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
cis-1,2-Dichloroethylene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
trans-1,2-Dichloroethylene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,2-Dichloropropane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,3-Dichloropropane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
2,2-Dichloropropane	ND	0.0049	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,1-Dichloropropene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
cis-1,3-Dichloropropene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
trans-1,3-Dichloropropene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Diethyl Ether	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Diisopropyl Ether (DIPE)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,4-Dioxane	ND	0.12	mg/Kg dry	1	V-16	SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Ethylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-507 (0-2) | Sampled: 5/7/2014 11:45

Sample ID: 14E0281-13

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
2-Hexanone (MBK)	ND	0.025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Isopropylbenzene (Cumene)	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0049	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Methylene Chloride	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Naphthalene	ND	0.012	mg/Kg dry	1	L-04, V-05	SW-846 8260C	5/8/14	5/8/14 13:58	MFF
n-Propylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Styrene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,1,1,2-Tetrachloroethane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,1,2,2-Tetrachloroethane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Tetrachloroethylene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Tetrahydrofuran	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Toluene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,2,3-Trichlorobenzene	ND	0.0049	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,2,4-Trichlorobenzene	ND	0.0049	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,1,1-Trichloroethane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,1,2-Trichloroethane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Trichloroethylene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Trichlorofluoromethane (Freon 11)	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,2,3-Trichloropropane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,2,4-Trimethylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,3,5-Trimethylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Vinyl Chloride	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
m+p Xylene	ND	0.0049	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
o-Xylene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	92.0	70-130		5/8/14 13:58
Toluene-d8	98.2	70-130		5/8/14 13:58
4-Bromofluorobenzene	87.4	70-130		5/8/14 13:58

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-507 (0-2) Sampled: 5/7/2014 11:45

Sample ID: 14E0281-13

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 12:46	CMR
Acenaphthylene	0.66	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 12:46	CMR
Anthracene	1.1	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 12:46	CMR
Benzo(a)anthracene	3.9	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 12:46	CMR
Benzo(a)pyrene	3.7	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 12:46	CMR
Benzo(b)fluoranthene	4.1	0.78	mg/Kg dry	4		SW-846 8270D	5/8/14	5/13/14 12:13	CMR
Benzo(g,h,i)perylene	2.1	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 12:46	CMR
Benzo(k)fluoranthene	1.8	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 12:46	CMR
Chrysene	3.8	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 12:46	CMR
Dibenz(a,h)anthracene	0.53	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 12:46	CMR
Fluoranthene	6.0	0.78	mg/Kg dry	4		SW-846 8270D	5/8/14	5/13/14 12:13	CMR
Fluorene	0.40	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 12:46	CMR
Indeno(1,2,3-cd)pyrene	2.5	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 12:46	CMR
2-Methylnaphthalene	0.23	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 12:46	CMR
Naphthalene	0.45	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 12:46	CMR
Phenanthrene	4.3	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 12:46	CMR
Pyrene	4.4	0.78	mg/Kg dry	4		SW-846 8270D	5/8/14	5/13/14 12:13	CMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	78.0	30-130		5/12/14 12:46
2-Fluorobiphenyl	100	30-130		5/12/14 12:46
p-Terphenyl-d14	110	30-130		5/12/14 12:46

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-507 (0-2) Sampled: 5/7/2014 11:45

Sample ID: 14E0281-13

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:52	MJC
Aroclor-1221 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:52	MJC
Aroclor-1232 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:52	MJC
Aroclor-1242 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:52	MJC
Aroclor-1248 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:52	MJC
Aroclor-1254 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:52	MJC
Aroclor-1260 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:52	MJC
Aroclor-1262 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:52	MJC
Aroclor-1268 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:52	MJC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	74.0	30-150		5/9/14 19:52
Decachlorobiphenyl [2]	69.8	30-150		5/9/14 19:52
Tetrachloro-m-xylene [1]	84.1	30-150		5/9/14 19:52
Tetrachloro-m-xylene [2]	85.7	30-150		5/9/14 19:52

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-507 (0-2) Sampled: 5/7/2014 11:45

Sample ID: 14E0281-13

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.4		% Wt	1		SM 2540G	5/7/14	5/8/14 9:25	MXG

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-507 (2-4) | Sampled: 5/7/2014 11:50

Sample ID: 14E0281-14

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.16	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Benzene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Bromobenzene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Bromochloromethane	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Bromodichloromethane	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Bromoform	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Bromomethane	ND	0.016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
2-Butanone (MEK)	ND	0.063	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
n-Butylbenzene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
sec-Butylbenzene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
tert-Butylbenzene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Carbon Disulfide	ND	0.031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Carbon Tetrachloride	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Chlorobenzene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Chlorodibromomethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Chloroethane	ND	0.016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Chloroform	ND	0.0063	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Chloromethane	ND	0.016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
2-Chlorotoluene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
4-Chlorotoluene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,2-Dibromoethane (EDB)	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Dibromomethane	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,2-Dichlorobenzene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,3-Dichlorobenzene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,4-Dichlorobenzene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,1-Dichloroethane	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,2-Dichloroethane	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,1-Dichloroethylene	ND	0.0063	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
cis-1,2-Dichloroethylene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
trans-1,2-Dichloroethylene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,2-Dichloropropane	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,3-Dichloropropane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
2,2-Dichloropropane	ND	0.0063	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,1-Dichloropropene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
cis-1,3-Dichloropropene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
trans-1,3-Dichloropropene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Diethyl Ether	ND	0.016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Diisopropyl Ether (DIPE)	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,4-Dioxane	ND	0.16	mg/Kg dry	1	V-16	SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Ethylbenzene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-507 (2-4) | Sampled: 5/7/2014 11:50

Sample ID: 14E0281-14

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
2-Hexanone (MBK)	ND	0.031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Isopropylbenzene (Cumene)	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0063	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Methylene Chloride	ND	0.016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Naphthalene	ND	0.016	mg/Kg dry	1	L-04, V-05	SW-846 8260C	5/8/14	5/8/14 14:25	MFF
n-Propylbenzene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Styrene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,1,1,2-Tetrachloroethane	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,1,2,2-Tetrachloroethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Tetrachloroethylene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Tetrahydrofuran	ND	0.016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Toluene	0.0046	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,2,3-Trichlorobenzene	ND	0.0063	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,2,4-Trichlorobenzene	ND	0.0063	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,1,1-Trichloroethane	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,1,2-Trichloroethane	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Trichloroethylene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Trichlorofluoromethane (Freon 11)	ND	0.016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,2,3-Trichloropropane	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,2,4-Trimethylbenzene	0.015	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,3,5-Trimethylbenzene	0.0077	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Vinyl Chloride	ND	0.016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
m+p Xylene	0.017	0.0063	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
o-Xylene	0.012	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	96.6	70-130		5/8/14 14:25
Toluene-d8	98.2	70-130		5/8/14 14:25
4-Bromofluorobenzene	91.2	70-130		5/8/14 14:25

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-507 (2-4) | Sampled: 5/7/2014 11:50

Sample ID: 14E0281-14

Sample Matrix: Soil

Sample Flags: RL-12

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	1.6	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 13:19	CMR
Acenaphthylene	ND	1.6	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 13:19	CMR
Anthracene	ND	1.6	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 13:19	CMR
Benzo(a)anthracene	ND	1.6	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 13:19	CMR
Benzo(a)pyrene	2.2	1.6	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 13:19	CMR
Benzo(b)fluoranthene	2.1	1.6	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 13:19	CMR
Benzo(g,h,i)perylene	2.2	1.6	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 13:19	CMR
Benzo(k)fluoranthene	ND	1.6	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 13:19	CMR
Chrysene	2.4	1.6	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 13:19	CMR
Dibenz(a,h)anthracene	ND	1.6	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 13:19	CMR
Fluoranthene	2.6	1.6	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 13:19	CMR
Fluorene	ND	1.6	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 13:19	CMR
Indeno(1,2,3-cd)pyrene	ND	1.6	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 13:19	CMR
2-Methylnaphthalene	ND	1.6	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 13:19	CMR
Naphthalene	ND	1.6	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 13:19	CMR
Phenanthrene	ND	1.6	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 13:19	CMR
Pyrene	5.5	1.6	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 13:19	CMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	73.6	30-130		5/12/14 13:19
2-Fluorobiphenyl	90.3	30-130		5/12/14 13:19
p-Terphenyl-d14	110	30-130		5/12/14 13:19

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-507 (2-4) | Sampled: 5/7/2014 11:50

Sample ID: 14E0281-14

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.12	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:10	MJC
Aroclor-1221 [1]	ND	0.12	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:10	MJC
Aroclor-1232 [1]	ND	0.12	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:10	MJC
Aroclor-1242 [1]	ND	0.12	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:10	MJC
Aroclor-1248 [1]	ND	0.12	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:10	MJC
Aroclor-1254 [1]	ND	0.12	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:10	MJC
Aroclor-1260 [1]	ND	0.12	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:10	MJC
Aroclor-1262 [1]	ND	0.12	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:10	MJC
Aroclor-1268 [1]	ND	0.12	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:10	MJC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	71.6	30-150		5/9/14 20:10
Decachlorobiphenyl [2]	65.0	30-150		5/9/14 20:10
Tetrachloro-m-xylene [1]	65.7	30-150		5/9/14 20:10
Tetrachloro-m-xylene [2]	73.7	30-150		5/9/14 20:10

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-507 (2-4) Sampled: 5/7/2014 11:50

Sample ID: 14E0281-14

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	82.3		% Wt	1		SM 2540G	5/7/14	5/8/14 9:25	MXG

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-508 (0-2) | Sampled: 5/7/2014 12:10

Sample ID: 14E0281-15

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Benzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Bromobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Bromochloromethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Bromodichloromethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Bromoform	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Bromomethane	ND	0.0078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
2-Butanone (MEK)	ND	0.031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
n-Butylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
sec-Butylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
tert-Butylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Carbon Disulfide	ND	0.016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Carbon Tetrachloride	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Chlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Chlorodibromomethane	ND	0.00078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Chloroethane	ND	0.0078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Chloroform	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Chloromethane	ND	0.0078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
2-Chlorotoluene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
4-Chlorotoluene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,2-Dibromoethane (EDB)	ND	0.00078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Dibromomethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,2-Dichlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,3-Dichlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,4-Dichlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.0078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,1-Dichloroethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,2-Dichloroethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,1-Dichloroethylene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
cis-1,2-Dichloroethylene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
trans-1,2-Dichloroethylene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,2-Dichloropropane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,3-Dichloropropane	ND	0.00078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
2,2-Dichloropropane	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,1-Dichloropropene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
cis-1,3-Dichloropropene	ND	0.00078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
trans-1,3-Dichloropropene	ND	0.00078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Diethyl Ether	ND	0.0078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Diisopropyl Ether (DIPE)	ND	0.00078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,4-Dioxane	ND	0.078	mg/Kg dry	1	V-16	SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Ethylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-508 (0-2) | Sampled: 5/7/2014 12:10

Sample ID: 14E0281-15

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
2-Hexanone (MBK)	ND	0.016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Isopropylbenzene (Cumene)	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Methylene Chloride	ND	0.0078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Naphthalene	ND	0.0078	mg/Kg dry	1	L-04, V-05	SW-846 8260C	5/8/14	5/8/14 14:53	MFF
n-Propylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Styrene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,1,1,2-Tetrachloroethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,1,2,2-Tetrachloroethane	ND	0.00078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Tetrachloroethylene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Tetrahydrofuran	ND	0.0078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Toluene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,2,3-Trichlorobenzene	ND	0.0031	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,2,4-Trichlorobenzene	ND	0.0031	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,1,1-Trichloroethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,1,2-Trichloroethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Trichloroethylene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,2,3-Trichloropropane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,2,4-Trimethylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,3,5-Trimethylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Vinyl Chloride	ND	0.0078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
m+p Xylene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
o-Xylene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	97.4	70-130		5/8/14 14:53
Toluene-d8	96.9	70-130		5/8/14 14:53
4-Bromofluorobenzene	88.0	70-130		5/8/14 14:53

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-508 (0-2) | Sampled: 5/7/2014 12:10

Sample ID: 14E0281-15

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	0.54	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:11	CMR
Acenaphthylene	0.43	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:11	CMR
Anthracene	2.0	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:11	CMR
Benzo(a)anthracene	4.4	0.91	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 12:45	CMR
Benzo(a)pyrene	3.4	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:11	CMR
Benzo(b)fluoranthene	4.1	0.91	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 12:45	CMR
Benzo(g,h,i)perylene	1.5	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:11	CMR
Benzo(k)fluoranthene	1.7	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:11	CMR
Chrysene	4.1	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:11	CMR
Dibenz(a,h)anthracene	0.45	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:11	CMR
Fluoranthene	10	0.91	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 12:45	CMR
Fluorene	0.67	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:11	CMR
Indeno(1,2,3-cd)pyrene	1.9	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:11	CMR
2-Methylnaphthalene	ND	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:11	CMR
Naphthalene	ND	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:11	CMR
Phenanthrene	5.2	0.91	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 12:45	CMR
Pyrene	5.7	0.91	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 12:45	CMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	82.0	30-130		5/12/14 16:11
2-Fluorobiphenyl	99.8	30-130		5/12/14 16:11
p-Terphenyl-d14	79.4	30-130		5/12/14 16:11

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-508 (0-2) | Sampled: 5/7/2014 12:10

Sample ID: 14E0281-15

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:28	MJC
Aroclor-1221 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:28	MJC
Aroclor-1232 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:28	MJC
Aroclor-1242 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:28	MJC
Aroclor-1248 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:28	MJC
Aroclor-1254 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:28	MJC
Aroclor-1260 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:28	MJC
Aroclor-1262 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:28	MJC
Aroclor-1268 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:28	MJC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	72.8	30-150		5/9/14 20:28
Decachlorobiphenyl [2]	63.2	30-150		5/9/14 20:28
Tetrachloro-m-xylene [1]	81.2	30-150		5/9/14 20:28
Tetrachloro-m-xylene [2]	87.1	30-150		5/9/14 20:28

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-508 (0-2) | Sampled: 5/7/2014 12:10

Sample ID: 14E0281-15

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	92.6		% Wt	1		SM 2540G	5/7/14	5/8/14 9:25	MXG

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-508 (2-4) | Sampled: 5/7/2014 12:15

Sample ID: 14E0281-16

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.12	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Benzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Bromobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Bromochloromethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Bromodichloromethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Bromoform	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Bromomethane	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
2-Butanone (MEK)	ND	0.047	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
n-Butylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
sec-Butylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
tert-Butylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Carbon Disulfide	ND	0.024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Carbon Tetrachloride	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Chlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Chlorodibromomethane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Chloroethane	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Chloroform	ND	0.0047	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Chloromethane	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
2-Chlorotoluene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
4-Chlorotoluene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,2-Dibromoethane (EDB)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Dibromomethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,2-Dichlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,3-Dichlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,4-Dichlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,1-Dichloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,2-Dichloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,1-Dichloroethylene	ND	0.0047	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
cis-1,2-Dichloroethylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
trans-1,2-Dichloroethylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,2-Dichloropropane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,3-Dichloropropane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
2,2-Dichloropropane	ND	0.0047	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,1-Dichloropropene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
cis-1,3-Dichloropropene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
trans-1,3-Dichloropropene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Diethyl Ether	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Diisopropyl Ether (DIPE)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,4-Dioxane	ND	0.12	mg/Kg dry	1	V-16	SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Ethylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-508 (2-4) | Sampled: 5/7/2014 12:15

Sample ID: 14E0281-16

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
2-Hexanone (MBK)	ND	0.024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Isopropylbenzene (Cumene)	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0047	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Methylene Chloride	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Naphthalene	ND	0.012	mg/Kg dry	1	L-04, V-05	SW-846 8260C	5/8/14	5/8/14 15:20	MFF
n-Propylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Styrene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,1,1,2-Tetrachloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,1,2,2-Tetrachloroethane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Tetrachloroethylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Tetrahydrofuran	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Toluene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,2,3-Trichlorobenzene	ND	0.0047	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,2,4-Trichlorobenzene	ND	0.0047	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,1,1-Trichloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,1,2-Trichloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Trichloroethylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Trichlorofluoromethane (Freon 11)	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,2,3-Trichloropropane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,2,4-Trimethylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,3,5-Trimethylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Vinyl Chloride	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
m+p Xylene	ND	0.0047	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
o-Xylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	101	70-130		5/8/14 15:20
Toluene-d8	97.6	70-130		5/8/14 15:20
4-Bromofluorobenzene	92.4	70-130		5/8/14 15:20

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-508 (2-4) Sampled: 5/7/2014 12:15

Sample ID: 14E0281-16

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	0.29	0.20	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:44	CMR
Acenaphthylene	0.88	0.20	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:44	CMR
Anthracene	1.8	0.20	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:44	CMR
Benzo(a)anthracene	4.7	1.0	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 13:17	CMR
Benzo(a)pyrene	3.8	0.20	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:44	CMR
Benzo(b)fluoranthene	5.5	1.0	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 13:17	CMR
Benzo(g,h,i)perylene	2.8	0.20	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:44	CMR
Benzo(k)fluoranthene	2.2	0.20	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:44	CMR
Chrysene	4.7	1.0	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 13:17	CMR
Dibenz(a,h)anthracene	0.72	0.20	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:44	CMR
Fluoranthene	9.6	1.0	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 13:17	CMR
Fluorene	0.44	0.20	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:44	CMR
Indeno(1,2,3-cd)pyrene	2.9	0.20	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:44	CMR
2-Methylnaphthalene	0.33	0.20	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:44	CMR
Naphthalene	0.76	0.20	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:44	CMR
Phenanthrene	4.8	1.0	mg/Kg dry	5	MS-12	SW-846 8270D	5/8/14	5/13/14 13:17	CMR
Pyrene	5.9	1.0	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 13:17	CMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	81.3	30-130		5/12/14 16:44
2-Fluorobiphenyl	108	30-130		5/12/14 16:44
p-Terphenyl-d14	93.6	30-130		5/12/14 16:44

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-508 (2-4) | Sampled: 5/7/2014 12:15

Sample ID: 14E0281-16

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.46	mg/Kg dry	20	R-06	SW-846 8082A	5/8/14	5/10/14 9:07	MJC
Aroclor-1221 [1]	ND	0.46	mg/Kg dry	20		SW-846 8082A	5/8/14	5/10/14 9:07	MJC
Aroclor-1232 [1]	ND	0.46	mg/Kg dry	20		SW-846 8082A	5/8/14	5/10/14 9:07	MJC
Aroclor-1242 [1]	ND	0.46	mg/Kg dry	20		SW-846 8082A	5/8/14	5/10/14 9:07	MJC
Aroclor-1248 [1]	ND	0.46	mg/Kg dry	20		SW-846 8082A	5/8/14	5/10/14 9:07	MJC
Aroclor-1254 [2]	3.2	0.46	mg/Kg dry	20	O-03	SW-846 8082A	5/8/14	5/10/14 9:07	MJC
Aroclor-1260 [1]	ND	0.46	mg/Kg dry	20	R-06	SW-846 8082A	5/8/14	5/10/14 9:07	MJC
Aroclor-1262 [1]	ND	0.46	mg/Kg dry	20		SW-846 8082A	5/8/14	5/10/14 9:07	MJC
Aroclor-1268 [1]	ND	0.46	mg/Kg dry	20		SW-846 8082A	5/8/14	5/10/14 9:07	MJC

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
Decachlorobiphenyl [1]	70.8	30-150		5/10/14	9:07
Decachlorobiphenyl [2]	71.8	30-150		5/10/14	9:07
Tetrachloro-m-xylene [1]	77.3	30-150		5/10/14	9:07
Tetrachloro-m-xylene [2]	80.7	30-150		5/10/14	9:07

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-508 (2-4) Sampled: 5/7/2014 12:15

Sample ID: 14E0281-16

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	84.3		% Wt	1		SM 2540G	5/7/14	5/8/14 9:25	MXG

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: % Solids-SM 2540G

Lab Number [Field ID]	Batch	Date
14E0281-01 [EB-501 (0-2)]	B095318	05/07/14
14E0281-02 [EB-501 (2-4)]	B095318	05/07/14
14E0281-03 [EB-502 (0-2)]	B095318	05/07/14
14E0281-04 [EB-502 (2-4)]	B095318	05/07/14
14E0281-05 [EB-503 (0-2)]	B095318	05/07/14
14E0281-06 [EB-503 (2-4)]	B095318	05/07/14
14E0281-07 [EB-504 (0-2)]	B095318	05/07/14
14E0281-08 [EB-504 (2-4)]	B095318	05/07/14
14E0281-09 [EB-505 (0-2)]	B095318	05/07/14
14E0281-10 [EB-505 (2-4)]	B095318	05/07/14
14E0281-11 [EB-506 (0-2)]	B095318	05/07/14
14E0281-12 [EB-506 (2-4)]	B095318	05/07/14
14E0281-13 [EB-507 (0-2)]	B095318	05/07/14
14E0281-14 [EB-507 (2-4)]	B095318	05/07/14
14E0281-15 [EB-508 (0-2)]	B095318	05/07/14
14E0281-16 [EB-508 (2-4)]	B095318	05/07/14

Prep Method: SW-846 3546-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
14E0281-01 [EB-501 (0-2)]	B095400	10.1	10.0	05/08/14
14E0281-02 [EB-501 (2-4)]	B095400	10.3	10.0	05/08/14
14E0281-03 [EB-502 (0-2)]	B095400	10.3	10.0	05/08/14
14E0281-04 [EB-502 (2-4)]	B095400	10.2	10.0	05/08/14
14E0281-05 [EB-503 (0-2)]	B095400	10.1	10.0	05/08/14
14E0281-06 [EB-503 (2-4)]	B095400	10.3	10.0	05/08/14
14E0281-07 [EB-504 (0-2)]	B095400	10.2	10.0	05/08/14
14E0281-08 [EB-504 (2-4)]	B095400	10.3	10.0	05/08/14
14E0281-09 [EB-505 (0-2)]	B095400	10.3	10.0	05/08/14
14E0281-10 [EB-505 (2-4)]	B095400	10.3	10.0	05/08/14
14E0281-11 [EB-506 (0-2)]	B095400	10.3	10.0	05/08/14
14E0281-12 [EB-506 (2-4)]	B095400	10.1	10.0	05/08/14
14E0281-13 [EB-507 (0-2)]	B095400	10.2	10.0	05/08/14
14E0281-14 [EB-507 (2-4)]	B095400	10.4	10.0	05/08/14
14E0281-15 [EB-508 (0-2)]	B095400	10.2	10.0	05/08/14
14E0281-16 [EB-508 (2-4)]	B095400	10.3	10.0	05/08/14

Prep Method: SW-846 5035-SW-846 8260C

Lab Number [Field ID]	Batch	Sample Amount(g)	Methanol Volume(mL)	Methanol Aliquot(mL)	Final Volume(mL)	Date
14E0281-08 [EB-504 (2-4)]	B095241	22.3	17.3	0.5	50	05/09/14
14E0281-09 [EB-505 (0-2)]	B095241	16.0	16.1	0.5	50	05/09/14

Prep Method: SW-846 5035-SW-846 8260C

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
14E0281-01 [EB-501 (0-2)]	B095376	5.31	10.0	05/08/14
14E0281-02 [EB-501 (2-4)]	B095376	4.04	10.0	05/08/14
14E0281-03 [EB-502 (0-2)]	B095376	8.65	10.0	05/08/14
14E0281-04 [EB-502 (2-4)]	B095376	4.53	10.0	05/08/14
14E0281-05 [EB-503 (0-2)]	B095376	4.53	10.0	05/08/14

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: SW-846 5035-SW-846 8260C

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
14E0281-06 [EB-503 (2-4)]	B095376	5.65	10.0	05/08/14
14E0281-07 [EB-504 (0-2)]	B095376	6.55	10.0	05/08/14
14E0281-10 [EB-505 (2-4)]	B095376	6.05	10.0	05/08/14
14E0281-11 [EB-506 (0-2)]	B095376	5.18	10.0	05/08/14
14E0281-12 [EB-506 (2-4)]	B095376	5.47	10.0	05/08/14
14E0281-13 [EB-507 (0-2)]	B095376	4.77	10.0	05/08/14
14E0281-14 [EB-507 (2-4)]	B095376	3.87	10.0	05/08/14
14E0281-15 [EB-508 (0-2)]	B095376	6.94	10.0	05/08/14
14E0281-16 [EB-508 (2-4)]	B095376	5.04	10.0	05/08/14

Prep Method: SW-846 3546-SW-846 8270D

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
14E0281-01 [EB-501 (0-2)]	B095399	30.4	2.00	05/08/14
14E0281-01RE1 [EB-501 (0-2)]	B095399	30.4	2.00	05/08/14
14E0281-02 [EB-501 (2-4)]	B095399	30.5	2.00	05/08/14
14E0281-02RE1 [EB-501 (2-4)]	B095399	30.5	2.00	05/08/14
14E0281-03 [EB-502 (0-2)]	B095399	30.1	1.00	05/08/14
14E0281-04 [EB-502 (2-4)]	B095399	30.1	1.00	05/08/14
14E0281-04RE1 [EB-502 (2-4)]	B095399	30.1	1.00	05/08/14
14E0281-05 [EB-503 (0-2)]	B095399	30.5	2.00	05/08/14
14E0281-06 [EB-503 (2-4)]	B095399	30.1	1.00	05/08/14
14E0281-07 [EB-504 (0-2)]	B095399	30.4	1.00	05/08/14
14E0281-07RE1 [EB-504 (0-2)]	B095399	30.4	1.00	05/08/14
14E0281-08 [EB-504 (2-4)]	B095399	30.2	1.00	05/08/14
14E0281-09 [EB-505 (0-2)]	B095399	30.2	2.00	05/08/14
14E0281-09RE1 [EB-505 (0-2)]	B095399	30.2	2.00	05/08/14
14E0281-10 [EB-505 (2-4)]	B095399	30.0	1.00	05/08/14
14E0281-10RE1 [EB-505 (2-4)]	B095399	30.0	1.00	05/08/14
14E0281-10RE2 [EB-505 (2-4)]	B095399	30.0	1.00	05/08/14
14E0281-11 [EB-506 (0-2)]	B095399	30.7	1.00	05/08/14
14E0281-11RE1 [EB-506 (0-2)]	B095399	30.7	1.00	05/08/14
14E0281-12 [EB-506 (2-4)]	B095399	30.3	1.00	05/08/14
14E0281-13 [EB-507 (0-2)]	B095399	30.8	1.00	05/08/14
14E0281-13RE1 [EB-507 (0-2)]	B095399	30.8	1.00	05/08/14
14E0281-14 [EB-507 (2-4)]	B095399	30.3	2.00	05/08/14
14E0281-15 [EB-508 (0-2)]	B095399	30.4	1.00	05/08/14
14E0281-15RE1 [EB-508 (0-2)]	B095399	30.4	1.00	05/08/14
14E0281-16 [EB-508 (2-4)]	B095399	30.1	1.00	05/08/14
14E0281-16RE1 [EB-508 (2-4)]	B095399	30.1	1.00	05/08/14

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B095241 - SW-846 5035										
Blank (B095241-BLK1)				Prepared: 05/07/14 Analyzed: 05/10/14						
Acetone	ND	2.5	mg/Kg wet							
tert-Amyl Methyl Ether (TAME)	ND	0.025	mg/Kg wet							
Benzene	ND	0.050	mg/Kg wet							
Bromobenzene	ND	0.050	mg/Kg wet							
Bromochloromethane	ND	0.050	mg/Kg wet							
Bromodichloromethane	ND	0.050	mg/Kg wet							
Bromoform	ND	0.050	mg/Kg wet							
Bromomethane	ND	0.25	mg/Kg wet							
2-Butanone (MEK)	ND	2.5	mg/Kg wet							R-05
n-Butylbenzene	ND	0.050	mg/Kg wet							
sec-Butylbenzene	ND	0.050	mg/Kg wet							
tert-Butylbenzene	ND	0.050	mg/Kg wet							
tert-Butyl Ethyl Ether (TBEE)	ND	0.025	mg/Kg wet							
Carbon Disulfide	ND	0.50	mg/Kg wet							
Carbon Tetrachloride	ND	0.050	mg/Kg wet							
Chlorobenzene	ND	0.050	mg/Kg wet							
Chlorodibromomethane	ND	0.025	mg/Kg wet							
Chloroethane	ND	0.10	mg/Kg wet							
Chloroform	ND	0.10	mg/Kg wet							
Chloromethane	ND	0.25	mg/Kg wet							R-05
2-Chlorotoluene	ND	0.050	mg/Kg wet							
4-Chlorotoluene	ND	0.050	mg/Kg wet							
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.25	mg/Kg wet							R-05
1,2-Dibromoethane (EDB)	ND	0.025	mg/Kg wet							
Dibromomethane	ND	0.050	mg/Kg wet							
1,2-Dichlorobenzene	ND	0.050	mg/Kg wet							
1,3-Dichlorobenzene	ND	0.050	mg/Kg wet							
1,4-Dichlorobenzene	ND	0.050	mg/Kg wet							
Dichlorodifluoromethane (Freon 12)	ND	0.10	mg/Kg wet							
1,1-Dichloroethane	ND	0.050	mg/Kg wet							
1,2-Dichloroethane	ND	0.25	mg/Kg wet							
1,1-Dichloroethylene	ND	0.050	mg/Kg wet							
cis-1,2-Dichloroethylene	ND	0.050	mg/Kg wet							
trans-1,2-Dichloroethylene	ND	0.050	mg/Kg wet							
1,2-Dichloropropane	ND	0.050	mg/Kg wet							
1,3-Dichloropropane	ND	0.025	mg/Kg wet							
2,2-Dichloropropane	ND	0.050	mg/Kg wet							L-04, V-05
1,1-Dichloropropene	ND	0.10	mg/Kg wet							
cis-1,3-Dichloropropene	ND	0.025	mg/Kg wet							
trans-1,3-Dichloropropene	ND	0.025	mg/Kg wet							
Diethyl Ether	ND	0.10	mg/Kg wet							
Diisopropyl Ether (DIPE)	ND	0.025	mg/Kg wet							
1,4-Dioxane	ND	2.5	mg/Kg wet							R-05, V-16
Ethylbenzene	ND	0.050	mg/Kg wet							
Hexachlorobutadiene	ND	0.050	mg/Kg wet							
2-Hexanone (MBK)	ND	0.50	mg/Kg wet							R-05
Isopropylbenzene (Cumene)	ND	0.050	mg/Kg wet							
p-Isopropyltoluene (p-Cymene)	ND	0.050	mg/Kg wet							
Methyl tert-Butyl Ether (MTBE)	ND	0.050	mg/Kg wet							
Methylene Chloride	ND	0.25	mg/Kg wet							
4-Methyl-2-pentanone (MIBK)	ND	0.50	mg/Kg wet							R-05
Naphthalene	ND	0.10	mg/Kg wet							V-05, R-05

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B095241 - SW-846 5035											
Blank (B095241-BLK1)				Prepared: 05/07/14 Analyzed: 05/10/14							
n-Propylbenzene	ND	0.050	mg/Kg wet								
Styrene	ND	0.050	mg/Kg wet								
1,1,1,2-Tetrachloroethane	ND	0.050	mg/Kg wet								
1,1,2,2-Tetrachloroethane	ND	0.025	mg/Kg wet								
Tetrachloroethylene	ND	0.050	mg/Kg wet								
Tetrahydrofuran	ND	0.20	mg/Kg wet							V-16	
Toluene	ND	0.050	mg/Kg wet								
1,2,3-Trichlorobenzene	ND	0.20	mg/Kg wet							R-05, V-05	
1,2,4-Trichlorobenzene	ND	0.050	mg/Kg wet								
1,1,1-Trichloroethane	ND	0.050	mg/Kg wet								
1,1,2-Trichloroethane	ND	0.050	mg/Kg wet								
Trichloroethylene	ND	0.050	mg/Kg wet								
Trichlorofluoromethane (Freon 11)	ND	0.10	mg/Kg wet								
1,2,3-Trichloropropane	ND	0.10	mg/Kg wet								
1,2,4-Trimethylbenzene	ND	0.050	mg/Kg wet								
1,3,5-Trimethylbenzene	ND	0.050	mg/Kg wet								
Vinyl Chloride	ND	0.10	mg/Kg wet								
m+p Xylene	ND	0.10	mg/Kg wet								
o-Xylene	ND	0.050	mg/Kg wet								
Surrogate: 1,2-Dichloroethane-d4	*0.0228*		mg/Kg wet	0.0250		91.4	70-130				
Surrogate: Toluene-d8	*0.0257*		mg/Kg wet	0.0250		103	70-130				
Surrogate: 4-Bromofluorobenzene	*0.0245*		mg/Kg wet	0.0250		97.9	70-130				
LCS (B095241-BS1)				Prepared: 05/07/14 Analyzed: 05/10/14							
Acetone	0.0976	0.057	mg/Kg wet	0.113		86.2	40-160				†
tert-Amyl Methyl Ether (TAME)	0.0117	0.00057	mg/Kg wet	0.0113		103	70-130				
Benzene	0.0126	0.0011	mg/Kg wet	0.0113		111	70-130				
Bromobenzene	0.0115	0.0011	mg/Kg wet	0.0113		102	70-130				
Bromochloromethane	0.0138	0.0011	mg/Kg wet	0.0113		122	70-130				
Bromodichloromethane	0.0112	0.0011	mg/Kg wet	0.0113		98.6	70-130				
Bromoform	0.0130	0.0011	mg/Kg wet	0.0113		115	70-130				
Bromomethane	0.00680	0.0057	mg/Kg wet	0.0113		60.0	40-160			L-14	†
2-Butanone (MEK)	0.119	0.057	mg/Kg wet	0.113		105	40-160			R-05	†
n-Butylbenzene	0.0114	0.0011	mg/Kg wet	0.0113		101	70-130				
sec-Butylbenzene	0.0112	0.0011	mg/Kg wet	0.0113		99.1	70-130				
tert-Butylbenzene	0.0114	0.0011	mg/Kg wet	0.0113		101	70-130				
tert-Butyl Ethyl Ether (TBEE)	0.0127	0.00057	mg/Kg wet	0.0113		112	70-130				
Carbon Disulfide	0.0136	0.011	mg/Kg wet	0.0113		120	70-130			V-20	
Carbon Tetrachloride	0.0118	0.0011	mg/Kg wet	0.0113		104	70-130				
Chlorobenzene	0.0110	0.0011	mg/Kg wet	0.0113		97.4	70-130				
Chlorodibromomethane	0.0105	0.00057	mg/Kg wet	0.0113		92.8	70-130				
Chloroethane	0.0115	0.0023	mg/Kg wet	0.0113		102	70-130				
Chloroform	0.0119	0.0023	mg/Kg wet	0.0113		105	70-130				
Chloromethane	0.00851	0.0057	mg/Kg wet	0.0113		75.1	40-160			R-05	†
2-Chlorotoluene	0.0102	0.0011	mg/Kg wet	0.0113		90.2	70-130				
4-Chlorotoluene	0.0110	0.0011	mg/Kg wet	0.0113		96.8	70-130				
1,2-Dibromo-3-chloropropane (DBCP)	0.0108	0.0057	mg/Kg wet	0.0113		95.7	70-130			R-05	
1,2-Dibromoethane (EDB)	0.0120	0.00057	mg/Kg wet	0.0113		106	70-130				
Dibromomethane	0.0122	0.0011	mg/Kg wet	0.0113		107	70-130				
1,2-Dichlorobenzene	0.0111	0.0011	mg/Kg wet	0.0113		98.2	70-130				
1,3-Dichlorobenzene	0.0109	0.0011	mg/Kg wet	0.0113		95.8	70-130				
1,4-Dichlorobenzene	0.0112	0.0011	mg/Kg wet	0.0113		98.8	70-130				

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B095241 - SW-846 5035												
LCS (B095241-BS1)				Prepared: 05/07/14 Analyzed: 05/10/14								
Dichlorodifluoromethane (Freon 12)	0.00923	0.0023	mg/Kg wet	0.0113		81.4		40-160				†
1,1-Dichloroethane	0.0138	0.0011	mg/Kg wet	0.0113		122		70-130				
1,2-Dichloroethane	0.0112	0.0057	mg/Kg wet	0.0113		99.2		70-130				
1,1-Dichloroethylene	0.0109	0.0011	mg/Kg wet	0.0113		96.1		70-130				
cis-1,2-Dichloroethylene	0.0122	0.0011	mg/Kg wet	0.0113		108		70-130				
trans-1,2-Dichloroethylene	0.0132	0.0011	mg/Kg wet	0.0113		116		70-130				
1,2-Dichloropropane	0.0126	0.0011	mg/Kg wet	0.0113		111		70-130				
1,3-Dichloropropane	0.0123	0.00057	mg/Kg wet	0.0113		109		70-130				
2,2-Dichloropropane	0.00776	0.0011	mg/Kg wet	0.0113		**68.5**	*	70-130			L-04, V-05	
1,1-Dichloropropene	0.0121	0.0023	mg/Kg wet	0.0113		107		70-130				
cis-1,3-Dichloropropene	0.0104	0.00057	mg/Kg wet	0.0113		91.4		70-130				
trans-1,3-Dichloropropene	0.0115	0.00057	mg/Kg wet	0.0113		102		70-130				
Diethyl Ether	0.0114	0.0023	mg/Kg wet	0.0113		101		70-130				
Diisopropyl Ether (DIPE)	0.0126	0.00057	mg/Kg wet	0.0113		111		70-130				
1,4-Dioxane	0.162	0.057	mg/Kg wet	0.113		142		40-160			L-14, R-05, V-16	†
Ethylbenzene	0.0116	0.0011	mg/Kg wet	0.0113		103		70-130				
Hexachlorobutadiene	0.0118	0.0011	mg/Kg wet	0.0113		104		70-130				
2-Hexanone (MBK)	0.127	0.011	mg/Kg wet	0.113		112		40-160			R-05	†
Isopropylbenzene (Cumene)	0.0109	0.0011	mg/Kg wet	0.0113		96.5		70-130				
p-Isopropyltoluene (p-Cymene)	0.0118	0.0011	mg/Kg wet	0.0113		104		70-130				
Methyl tert-Butyl Ether (MTBE)	0.0126	0.0011	mg/Kg wet	0.0113		112		70-130				
Methylene Chloride	0.0116	0.0057	mg/Kg wet	0.0113		102		70-130				
4-Methyl-2-pentanone (MIBK)	0.125	0.011	mg/Kg wet	0.113		111		40-160			R-05	†
Naphthalene	0.0112	0.0023	mg/Kg wet	0.0113		98.9		70-130			R-05, V-05	
n-Propylbenzene	0.0112	0.0011	mg/Kg wet	0.0113		98.6		70-130				
Styrene	0.0116	0.0011	mg/Kg wet	0.0113		103		70-130				
1,1,1,2-Tetrachloroethane	0.0109	0.0011	mg/Kg wet	0.0113		96.1		70-130				
1,1,2,2-Tetrachloroethane	0.0101	0.00057	mg/Kg wet	0.0113		89.1		70-130				
Tetrachloroethylene	0.0117	0.0011	mg/Kg wet	0.0113		103		70-130				
Tetrahydrofuran	0.0118	0.0045	mg/Kg wet	0.0113		104		70-130			V-16	
Toluene	0.0117	0.0011	mg/Kg wet	0.0113		104		70-130				
1,2,3-Trichlorobenzene	0.0107	0.0045	mg/Kg wet	0.0113		94.4		70-130			R-05, V-05	
1,2,4-Trichlorobenzene	0.0110	0.0011	mg/Kg wet	0.0113		96.7		70-130				
1,1,1-Trichloroethane	0.0122	0.0011	mg/Kg wet	0.0113		108		70-130				
1,1,2-Trichloroethane	0.0119	0.0011	mg/Kg wet	0.0113		105		70-130				
Trichloroethylene	0.0133	0.0011	mg/Kg wet	0.0113		118		70-130				
Trichlorofluoromethane (Freon 11)	0.00976	0.0023	mg/Kg wet	0.0113		86.1		70-130				
1,2,3-Trichloropropane	0.0119	0.0023	mg/Kg wet	0.0113		105		70-130				
1,2,4-Trimethylbenzene	0.0116	0.0011	mg/Kg wet	0.0113		102		70-130				
1,3,5-Trimethylbenzene	0.0108	0.0011	mg/Kg wet	0.0113		95.6		70-130				
Vinyl Chloride	0.00958	0.0023	mg/Kg wet	0.0113		84.5		70-130				
m+p Xylene	0.0218	0.0023	mg/Kg wet	0.0227		96.2		70-130				
o-Xylene	0.0110	0.0011	mg/Kg wet	0.0113		96.8		70-130				
Surrogate: 1,2-Dichloroethane-d4	*0.0276*		mg/Kg wet	0.0283		97.4		70-130				
Surrogate: Toluene-d8	*0.0283*		mg/Kg wet	0.0283		99.8		70-130				
Surrogate: 4-Bromofluorobenzene	*0.0277*		mg/Kg wet	0.0283		97.8		70-130				

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD		RPD Limit	Notes	
Batch B095241 - SW-846 5035													
LCS Dup (B095241-BSD1)				Prepared: 05/07/14 Analyzed: 05/10/14									
Acetone	0.0856	0.057	mg/Kg wet	0.113		75.6		40-160	13.1		20		†
tert-Amyl Methyl Ether (TAME)	0.0106	0.00057	mg/Kg wet	0.0113		93.5		70-130	9.86		20		
Benzene	0.0128	0.0011	mg/Kg wet	0.0113		113		70-130	1.25		20		
Bromobenzene	0.0119	0.0011	mg/Kg wet	0.0113		105		70-130	2.81		20		
Bromochloromethane	0.0141	0.0011	mg/Kg wet	0.0113		124		70-130	1.95		20		
Bromodichloromethane	0.0111	0.0011	mg/Kg wet	0.0113		97.8		70-130	0.815		20		
Bromoform	0.0122	0.0011	mg/Kg wet	0.0113		108		70-130	6.11		20		
Bromomethane	0.00692	0.0057	mg/Kg wet	0.0113		61.1		40-160	1.82		20	L-14	†
2-Butanone (MEK)	0.0954	0.057	mg/Kg wet	0.113		84.2		40-160	**22.2**	*	20	R-05	†
n-Butylbenzene	0.0116	0.0011	mg/Kg wet	0.0113		103		70-130	1.67		20		
sec-Butylbenzene	0.0113	0.0011	mg/Kg wet	0.0113		99.6		70-130	0.503		20		
tert-Butylbenzene	0.0117	0.0011	mg/Kg wet	0.0113		103		70-130	2.25		20		
tert-Butyl Ethyl Ether (TBEE)	0.0118	0.00057	mg/Kg wet	0.0113		104		70-130	7.41		20		
Carbon Disulfide	0.0130	0.011	mg/Kg wet	0.0113		115		70-130	4.52		20	V-20	
Carbon Tetrachloride	0.0118	0.0011	mg/Kg wet	0.0113		104		70-130	0.384		20		
Chlorobenzene	0.0112	0.0011	mg/Kg wet	0.0113		99.0		70-130	1.63		20		
Chlorodibromomethane	0.0101	0.00057	mg/Kg wet	0.0113		88.8		70-130	4.41		20		
Chloroethane	0.0111	0.0023	mg/Kg wet	0.0113		97.6		70-130	4.11		20		
Chloroform	0.0117	0.0023	mg/Kg wet	0.0113		103		70-130	1.25		20		
Chloromethane	0.0109	0.0057	mg/Kg wet	0.0113		96.2		40-160	**24.6**	*	20	R-05	†
2-Chlorotoluene	0.0103	0.0011	mg/Kg wet	0.0113		91.1		70-130	0.993		20		
4-Chlorotoluene	0.0113	0.0011	mg/Kg wet	0.0113		99.9		70-130	3.15		20		
1,2-Dibromo-3-chloropropane (DBCP)	0.00839	0.0057	mg/Kg wet	0.0113		74.0		70-130	**25.6**	*	20	R-05	
1,2-Dibromoethane (EDB)	0.0107	0.00057	mg/Kg wet	0.0113		94.6		70-130	11.5		20		
Dibromomethane	0.0112	0.0011	mg/Kg wet	0.0113		98.4		70-130	8.75		20		
1,2-Dichlorobenzene	0.0109	0.0011	mg/Kg wet	0.0113		96.5		70-130	1.75		20		
1,3-Dichlorobenzene	0.0109	0.0011	mg/Kg wet	0.0113		95.8		70-130	0.00		20		
1,4-Dichlorobenzene	0.0114	0.0011	mg/Kg wet	0.0113		101		70-130	1.81		20		
Dichlorodifluoromethane (Freon 12)	0.00920	0.0023	mg/Kg wet	0.0113		81.2		40-160	0.246		20		†
1,1-Dichloroethane	0.0137	0.0011	mg/Kg wet	0.0113		121		70-130	0.658		20		
1,2-Dichloroethane	0.0108	0.0057	mg/Kg wet	0.0113		95.0		70-130	4.33		20		
1,1-Dichloroethylene	0.0110	0.0011	mg/Kg wet	0.0113		97.5		70-130	1.45		20		
cis-1,2-Dichloroethylene	0.0123	0.0011	mg/Kg wet	0.0113		108		70-130	0.370		20		
trans-1,2-Dichloroethylene	0.0131	0.0011	mg/Kg wet	0.0113		115		70-130	1.04		20		
1,2-Dichloropropane	0.0128	0.0011	mg/Kg wet	0.0113		112		70-130	1.07		20		
1,3-Dichloropropane	0.0115	0.00057	mg/Kg wet	0.0113		101		70-130	7.13		20		
2,2-Dichloropropane	0.00751	0.0011	mg/Kg wet	0.0113		**66.3**	*	70-130	3.26		20	L-04, V-05	
1,1-Dichloropropene	0.0122	0.0023	mg/Kg wet	0.0113		108		70-130	1.30		20		
cis-1,3-Dichloropropene	0.0103	0.00057	mg/Kg wet	0.0113		90.9		70-130	0.549		20		
trans-1,3-Dichloropropene	0.0108	0.00057	mg/Kg wet	0.0113		95.3		70-130	6.30		20		
Diethyl Ether	0.0107	0.0023	mg/Kg wet	0.0113		94.5		70-130	6.45		20		
Diisopropyl Ether (DIPE)	0.0125	0.00057	mg/Kg wet	0.0113		110		70-130	0.813		20		
1,4-Dioxane	0.120	0.057	mg/Kg wet	0.113		106		40-160	**29.7**	*	20	R-05, V-16	†
Ethylbenzene	0.0121	0.0011	mg/Kg wet	0.0113		107		70-130	3.92		20		
Hexachlorobutadiene	0.0112	0.0011	mg/Kg wet	0.0113		98.8		70-130	5.03		20		
2-Hexanone (MBK)	0.0991	0.011	mg/Kg wet	0.113		87.5		40-160	**24.9**	*	20	R-05	†
Isopropylbenzene (Cumene)	0.0112	0.0011	mg/Kg wet	0.0113		99.1		70-130	2.66		20		
p-Isopropyltoluene (p-Cymene)	0.0118	0.0011	mg/Kg wet	0.0113		104		70-130	0.481		20		
Methyl tert-Butyl Ether (MTBE)	0.0115	0.0011	mg/Kg wet	0.0113		102		70-130	9.19		20		
Methylene Chloride	0.0113	0.0057	mg/Kg wet	0.0113		99.5		70-130	2.58		20		
4-Methyl-2-pentanone (MIBK)	0.100	0.011	mg/Kg wet	0.113		88.7		40-160	**22.1**	*	20	R-05	†
Naphthalene	0.00741	0.0023	mg/Kg wet	0.0113		**65.4**	*	70-130	**40.8**	*	20	L-07A, R-05, V-05	

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD		RPD Limit	Notes
Batch B095241 - SW-846 5035												
LCS Dup (B095241-BSD1)				Prepared: 05/07/14 Analyzed: 05/10/14								
n-Propylbenzene	0.0115	0.0011	mg/Kg wet	0.0113		101		70-130	2.80		20	
Styrene	0.0120	0.0011	mg/Kg wet	0.0113		106		70-130	2.88		20	
1,1,1,2-Tetrachloroethane	0.0111	0.0011	mg/Kg wet	0.0113		98.3		70-130	2.26		20	
1,1,2,2-Tetrachloroethane	0.00938	0.00057	mg/Kg wet	0.0113		82.8		70-130	7.33		20	
Tetrachloroethylene	0.0117	0.0011	mg/Kg wet	0.0113		103		70-130	0.00		20	
Tetrahydrofuran	0.0122	0.0045	mg/Kg wet	0.0113		108		70-130	3.30		20	V-16
Toluene	0.0118	0.0011	mg/Kg wet	0.0113		104		70-130	0.577		20	
1,2,3-Trichlorobenzene	0.00756	0.0045	mg/Kg wet	0.0113		**66.7**	*	70-130	**34.4**	*	20	L-07A, R-05, V-05
1,2,4-Trichlorobenzene	0.00929	0.0011	mg/Kg wet	0.0113		82.0		70-130	16.5		20	
1,1,1-Trichloroethane	0.0117	0.0011	mg/Kg wet	0.0113		104		70-130	3.79		20	
1,1,2-Trichloroethane	0.0109	0.0011	mg/Kg wet	0.0113		95.9		70-130	8.87		20	
Trichloroethylene	0.0132	0.0011	mg/Kg wet	0.0113		117		70-130	0.682		20	
Trichlorofluoromethane (Freon 11)	0.00949	0.0023	mg/Kg wet	0.0113		83.7		70-130	2.83		20	
1,2,3-Trichloropropane	0.0106	0.0023	mg/Kg wet	0.0113		93.8		70-130	11.5		20	
1,2,4-Trimethylbenzene	0.0119	0.0011	mg/Kg wet	0.0113		105		70-130	2.51		20	
1,3,5-Trimethylbenzene	0.0112	0.0011	mg/Kg wet	0.0113		98.8		70-130	3.29		20	
Vinyl Chloride	0.00972	0.0023	mg/Kg wet	0.0113		85.8		70-130	1.53		20	
m+p Xylene	0.0226	0.0023	mg/Kg wet	0.0227		99.5		70-130	3.32		20	
o-Xylene	0.0112	0.0011	mg/Kg wet	0.0113		99.2		70-130	2.45		20	
Surrogate: 1,2-Dichloroethane-d4	*0.0261*		mg/Kg wet	0.0283		92.0		70-130				
Surrogate: Toluene-d8	*0.0281*		mg/Kg wet	0.0283		99.1		70-130				
Surrogate: 4-Bromofluorobenzene	*0.0280*		mg/Kg wet	0.0283		98.8		70-130				
Batch B095376 - SW-846 5035												
Blank (B095376-BLK1)				Prepared & Analyzed: 05/08/14								
Acetone	ND	0.10	mg/Kg wet									
tert-Amyl Methyl Ether (TAME)	ND	0.0010	mg/Kg wet									
Benzene	ND	0.0020	mg/Kg wet									
Bromobenzene	ND	0.0020	mg/Kg wet									
Bromochloromethane	ND	0.0020	mg/Kg wet									
Bromodichloromethane	ND	0.0020	mg/Kg wet									
Bromoform	ND	0.0020	mg/Kg wet									
Bromomethane	ND	0.010	mg/Kg wet									
2-Butanone (MEK)	ND	0.040	mg/Kg wet									
n-Butylbenzene	ND	0.0020	mg/Kg wet									
sec-Butylbenzene	ND	0.0020	mg/Kg wet									
tert-Butylbenzene	ND	0.0020	mg/Kg wet									
tert-Butyl Ethyl Ether (TBEE)	ND	0.0010	mg/Kg wet									
Carbon Disulfide	ND	0.020	mg/Kg wet									
Carbon Tetrachloride	ND	0.0020	mg/Kg wet									
Chlorobenzene	ND	0.0020	mg/Kg wet									
Chlorodibromomethane	ND	0.0010	mg/Kg wet									
Chloroethane	ND	0.010	mg/Kg wet									
Chloroform	ND	0.0040	mg/Kg wet									
Chloromethane	ND	0.010	mg/Kg wet									
2-Chlorotoluene	ND	0.0020	mg/Kg wet									
4-Chlorotoluene	ND	0.0020	mg/Kg wet									
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0020	mg/Kg wet									
1,2-Dibromoethane (EDB)	ND	0.0010	mg/Kg wet									
Dibromomethane	ND	0.0020	mg/Kg wet									
1,2-Dichlorobenzene	ND	0.0020	mg/Kg wet									
1,3-Dichlorobenzene	ND	0.0020	mg/Kg wet									

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B095376 - SW-846 5035										
Blank (B095376-BLK1)				Prepared & Analyzed: 05/08/14						
1,4-Dichlorobenzene	ND	0.0020	mg/Kg wet							
Dichlorodifluoromethane (Freon 12)	ND	0.010	mg/Kg wet							
1,1-Dichloroethane	ND	0.0020	mg/Kg wet							
1,2-Dichloroethane	ND	0.0020	mg/Kg wet							
1,1-Dichloroethylene	ND	0.0040	mg/Kg wet							
cis-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet							
trans-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet							
1,2-Dichloropropane	ND	0.0020	mg/Kg wet							
1,3-Dichloropropane	ND	0.0010	mg/Kg wet							
2,2-Dichloropropane	ND	0.0040	mg/Kg wet							
1,1-Dichloropropene	ND	0.0020	mg/Kg wet							
cis-1,3-Dichloropropene	ND	0.0010	mg/Kg wet							
trans-1,3-Dichloropropene	ND	0.0010	mg/Kg wet							
Diethyl Ether	ND	0.010	mg/Kg wet							
Diisopropyl Ether (DIPE)	ND	0.0010	mg/Kg wet							
1,4-Dioxane	ND	0.10	mg/Kg wet							V-16
Ethylbenzene	ND	0.0020	mg/Kg wet							
Hexachlorobutadiene	ND	0.0020	mg/Kg wet							
2-Hexanone (MBK)	ND	0.020	mg/Kg wet							
Isopropylbenzene (Cumene)	ND	0.0020	mg/Kg wet							
p-Isopropyltoluene (p-Cymene)	ND	0.0020	mg/Kg wet							
Methyl tert-Butyl Ether (MTBE)	ND	0.0040	mg/Kg wet							
Methylene Chloride	ND	0.010	mg/Kg wet							
4-Methyl-2-pentanone (MIBK)	ND	0.020	mg/Kg wet							
Naphthalene	ND	0.010	mg/Kg wet							L-04, V-05
n-Propylbenzene	ND	0.0020	mg/Kg wet							
Styrene	ND	0.0020	mg/Kg wet							
1,1,1,2-Tetrachloroethane	ND	0.0020	mg/Kg wet							
1,1,2,2-Tetrachloroethane	ND	0.0010	mg/Kg wet							
Tetrachloroethylene	ND	0.0020	mg/Kg wet							
Tetrahydrofuran	ND	0.010	mg/Kg wet							
Toluene	ND	0.0020	mg/Kg wet							
1,2,3-Trichlorobenzene	ND	0.0040	mg/Kg wet							V-05
1,2,4-Trichlorobenzene	ND	0.0040	mg/Kg wet							V-05
1,1,1-Trichloroethane	ND	0.0020	mg/Kg wet							
1,1,2-Trichloroethane	ND	0.0020	mg/Kg wet							
Trichloroethylene	ND	0.0020	mg/Kg wet							
Trichlorofluoromethane (Freon 11)	ND	0.010	mg/Kg wet							
1,2,3-Trichloropropane	ND	0.0020	mg/Kg wet							
1,2,4-Trimethylbenzene	ND	0.0020	mg/Kg wet							
1,3,5-Trimethylbenzene	ND	0.0020	mg/Kg wet							
Vinyl Chloride	ND	0.010	mg/Kg wet							
m+p Xylene	ND	0.0040	mg/Kg wet							
o-Xylene	ND	0.0020	mg/Kg wet							
Surrogate: 1,2-Dichloroethane-d4	*0.0477*		mg/Kg wet	0.0500		95.4	70-130			
Surrogate: Toluene-d8	*0.0488*		mg/Kg wet	0.0500		97.6	70-130			
Surrogate: 4-Bromofluorobenzene	*0.0452*		mg/Kg wet	0.0500		90.4	70-130			

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B095376 - SW-846 5035												
LCS (B095376-BS1)				Prepared & Analyzed: 05/08/14								
Acetone	0.163	0.10	mg/Kg wet	0.200		81.4		40-160				†
tert-Amyl Methyl Ether (TAME)	0.0191	0.0010	mg/Kg wet	0.0200		95.6		70-130				
Benzene	0.0201	0.0020	mg/Kg wet	0.0200		100		70-130				
Bromobenzene	0.0206	0.0020	mg/Kg wet	0.0200		103		70-130				
Bromochloromethane	0.0218	0.0020	mg/Kg wet	0.0200		109		70-130				
Bromodichloromethane	0.0217	0.0020	mg/Kg wet	0.0200		109		70-130				
Bromoform	0.0218	0.0020	mg/Kg wet	0.0200		109		70-130				
Bromomethane	0.00844	0.010	mg/Kg wet	0.0200		42.2		40-160			L-14	†
2-Butanone (MEK)	0.168	0.040	mg/Kg wet	0.200		83.8		40-160				†
n-Butylbenzene	0.0232	0.0020	mg/Kg wet	0.0200		116		70-130				
sec-Butylbenzene	0.0249	0.0020	mg/Kg wet	0.0200		125		70-130				
tert-Butylbenzene	0.0247	0.0020	mg/Kg wet	0.0200		124		70-130				
tert-Butyl Ethyl Ether (TBEE)	0.0209	0.0010	mg/Kg wet	0.0200		105		70-130				
Carbon Disulfide	0.0195	0.020	mg/Kg wet	0.0200		97.3		70-130				
Carbon Tetrachloride	0.0252	0.0020	mg/Kg wet	0.0200		126		70-130				
Chlorobenzene	0.0206	0.0020	mg/Kg wet	0.0200		103		70-130				
Chlorodibromomethane	0.0207	0.0010	mg/Kg wet	0.0200		104		70-130				
Chloroethane	0.0252	0.010	mg/Kg wet	0.0200		126		70-130				
Chloroform	0.0212	0.0040	mg/Kg wet	0.0200		106		70-130				
Chloromethane	0.0162	0.010	mg/Kg wet	0.0200		81.0		40-160				†
2-Chlorotoluene	0.0226	0.0020	mg/Kg wet	0.0200		113		70-130				
4-Chlorotoluene	0.0230	0.0020	mg/Kg wet	0.0200		115		70-130				
1,2-Dibromo-3-chloropropane (DBCP)	0.0166	0.0020	mg/Kg wet	0.0200		83.2		70-130				
1,2-Dibromoethane (EDB)	0.0208	0.0010	mg/Kg wet	0.0200		104		70-130				
Dibromomethane	0.0211	0.0020	mg/Kg wet	0.0200		106		70-130				
1,2-Dichlorobenzene	0.0209	0.0020	mg/Kg wet	0.0200		105		70-130				
1,3-Dichlorobenzene	0.0216	0.0020	mg/Kg wet	0.0200		108		70-130				
1,4-Dichlorobenzene	0.0212	0.0020	mg/Kg wet	0.0200		106		70-130				
Dichlorodifluoromethane (Freon 12)	0.0158	0.010	mg/Kg wet	0.0200		78.9		40-160				†
1,1-Dichloroethane	0.0197	0.0020	mg/Kg wet	0.0200		98.3		70-130				
1,2-Dichloroethane	0.0207	0.0020	mg/Kg wet	0.0200		104		70-130				
1,1-Dichloroethylene	0.0227	0.0040	mg/Kg wet	0.0200		113		70-130				
cis-1,2-Dichloroethylene	0.0201	0.0020	mg/Kg wet	0.0200		101		70-130				
trans-1,2-Dichloroethylene	0.0210	0.0020	mg/Kg wet	0.0200		105		70-130				
1,2-Dichloropropane	0.0213	0.0020	mg/Kg wet	0.0200		106		70-130				
1,3-Dichloropropane	0.0203	0.0010	mg/Kg wet	0.0200		102		70-130				
2,2-Dichloropropane	0.0223	0.0040	mg/Kg wet	0.0200		112		70-130				
1,1-Dichloropropene	0.0216	0.0020	mg/Kg wet	0.0200		108		70-130				
cis-1,3-Dichloropropene	0.0200	0.0010	mg/Kg wet	0.0200		99.8		70-130				
trans-1,3-Dichloropropene	0.0223	0.0010	mg/Kg wet	0.0200		112		70-130				
Diethyl Ether	0.0211	0.010	mg/Kg wet	0.0200		106		70-130				
Diisopropyl Ether (DIPE)	0.0213	0.0010	mg/Kg wet	0.0200		107		70-130				
1,4-Dioxane	0.193	0.10	mg/Kg wet	0.200		96.3		40-160			V-16	†
Ethylbenzene	0.0240	0.0020	mg/Kg wet	0.0200		120		70-130				
Hexachlorobutadiene	0.0255	0.0020	mg/Kg wet	0.0200		128		70-130				
2-Hexanone (MBK)	0.166	0.020	mg/Kg wet	0.200		83.2		40-160				†
Isopropylbenzene (Cumene)	0.0239	0.0020	mg/Kg wet	0.0200		119		70-130				
p-Isopropyltoluene (p-Cymene)	0.0256	0.0020	mg/Kg wet	0.0200		128		70-130				
Methyl tert-Butyl Ether (MTBE)	0.0198	0.0040	mg/Kg wet	0.0200		98.8		70-130				
Methylene Chloride	0.0206	0.010	mg/Kg wet	0.0200		103		70-130				
4-Methyl-2-pentanone (MIBK)	0.180	0.020	mg/Kg wet	0.200		89.9		40-160				†
Naphthalene	0.0117	0.010	mg/Kg wet	0.0200		**58.6**	*	70-130			L-04, V-05	

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B095376 - SW-846 5035												
LCS (B095376-BS1)				Prepared & Analyzed: 05/08/14								
n-Propylbenzene	0.0245	0.0020	mg/Kg wet	0.0200		122		70-130				
Styrene	0.0233	0.0020	mg/Kg wet	0.0200		116		70-130				
1,1,1,2-Tetrachloroethane	0.0229	0.0020	mg/Kg wet	0.0200		114		70-130				
1,1,2,2-Tetrachloroethane	0.0207	0.0010	mg/Kg wet	0.0200		104		70-130				
Tetrachloroethylene	0.0239	0.0020	mg/Kg wet	0.0200		120		70-130				
Tetrahydrofuran	0.0206	0.010	mg/Kg wet	0.0200		103		70-130				
Toluene	0.0215	0.0020	mg/Kg wet	0.0200		108		70-130				
1,2,3-Trichlorobenzene	0.0137	0.0040	mg/Kg wet	0.0200		**68.4**	*	70-130			L-07, V-05	
1,2,4-Trichlorobenzene	0.0147	0.0040	mg/Kg wet	0.0200		73.3		70-130			V-05	
1,1,1-Trichloroethane	0.0220	0.0020	mg/Kg wet	0.0200		110		70-130				
1,1,2-Trichloroethane	0.0205	0.0020	mg/Kg wet	0.0200		103		70-130				
Trichloroethylene	0.0222	0.0020	mg/Kg wet	0.0200		111		70-130				
Trichlorofluoromethane (Freon 11)	0.0222	0.010	mg/Kg wet	0.0200		111		70-130				
1,2,3-Trichloropropane	0.0192	0.0020	mg/Kg wet	0.0200		95.9		70-130				
1,2,4-Trimethylbenzene	0.0245	0.0020	mg/Kg wet	0.0200		122		70-130				
1,3,5-Trimethylbenzene	0.0246	0.0020	mg/Kg wet	0.0200		123		70-130				
Vinyl Chloride	0.0196	0.010	mg/Kg wet	0.0200		98.0		70-130				
m+p Xylene	0.0480	0.0040	mg/Kg wet	0.0400		120		70-130				
o-Xylene	0.0232	0.0020	mg/Kg wet	0.0200		116		70-130				
Surrogate: 1,2-Dichloroethane-d4	*0.0492*		mg/Kg wet	0.0500		98.4		70-130				
Surrogate: Toluene-d8	*0.0500*		mg/Kg wet	0.0500		100		70-130				
Surrogate: 4-Bromofluorobenzene	*0.0508*		mg/Kg wet	0.0500		102		70-130				
LCS Dup (B095376-BSD1)				Prepared & Analyzed: 05/08/14								
Acetone	0.163	0.10	mg/Kg wet	0.200		81.7		40-160	0.368	20		†
tert-Amyl Methyl Ether (TAME)	0.0187	0.0010	mg/Kg wet	0.0200		93.4		70-130	2.33	20		
Benzene	0.0200	0.0020	mg/Kg wet	0.0200		100		70-130	0.299	20		
Bromobenzene	0.0205	0.0020	mg/Kg wet	0.0200		102		70-130	0.487	20		
Bromochloromethane	0.0223	0.0020	mg/Kg wet	0.0200		112		70-130	2.36	20		
Bromodichloromethane	0.0210	0.0020	mg/Kg wet	0.0200		105		70-130	3.28	20		
Bromoform	0.0219	0.0020	mg/Kg wet	0.0200		110		70-130	0.366	20		
Bromomethane	0.00978	0.010	mg/Kg wet	0.0200		48.9		40-160	14.7	20	L-14	†
2-Butanone (MEK)	0.158	0.040	mg/Kg wet	0.200		79.1		40-160	5.68	20		†
n-Butylbenzene	0.0227	0.0020	mg/Kg wet	0.0200		113		70-130	2.35	20		
sec-Butylbenzene	0.0250	0.0020	mg/Kg wet	0.0200		125		70-130	0.240	20		
tert-Butylbenzene	0.0250	0.0020	mg/Kg wet	0.0200		125		70-130	1.05	20		
tert-Butyl Ethyl Ether (TBEE)	0.0208	0.0010	mg/Kg wet	0.0200		104		70-130	0.479	20		
Carbon Disulfide	0.0195	0.020	mg/Kg wet	0.0200		97.3		70-130	0.00	20		
Carbon Tetrachloride	0.0254	0.0020	mg/Kg wet	0.0200		127		70-130	0.869	20		
Chlorobenzene	0.0208	0.0020	mg/Kg wet	0.0200		104		70-130	1.16	20		
Chlorodibromomethane	0.0202	0.0010	mg/Kg wet	0.0200		101		70-130	2.64	20		
Chloroethane	0.0243	0.010	mg/Kg wet	0.0200		121		70-130	3.88	20		
Chloroform	0.0206	0.0040	mg/Kg wet	0.0200		103		70-130	2.49	20		
Chloromethane	0.0181	0.010	mg/Kg wet	0.0200		90.3		40-160	10.9	20		†
2-Chlorotoluene	0.0224	0.0020	mg/Kg wet	0.0200		112		70-130	0.800	20		
4-Chlorotoluene	0.0228	0.0020	mg/Kg wet	0.0200		114		70-130	0.962	20		
1,2-Dibromo-3-chloropropane (DBCP)	0.0178	0.0020	mg/Kg wet	0.0200		89.2		70-130	6.96	20		
1,2-Dibromoethane (EDB)	0.0203	0.0010	mg/Kg wet	0.0200		101		70-130	2.53	20		
Dibromomethane	0.0214	0.0020	mg/Kg wet	0.0200		107		70-130	1.32	20		
1,2-Dichlorobenzene	0.0212	0.0020	mg/Kg wet	0.0200		106		70-130	1.42	20		
1,3-Dichlorobenzene	0.0218	0.0020	mg/Kg wet	0.0200		109		70-130	0.828	20		
1,4-Dichlorobenzene	0.0213	0.0020	mg/Kg wet	0.0200		107		70-130	0.564	20		

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B095376 - SW-846 5035												
LCS Dup (B095376-BSD1)				Prepared & Analyzed: 05/08/14								
Dichlorodifluoromethane (Freon 12)	0.0158	0.010	mg/Kg wet	0.0200		78.8		40-160	0.127	20		†
1,1-Dichloroethane	0.0199	0.0020	mg/Kg wet	0.0200		99.5		70-130	1.21	20		
1,2-Dichloroethane	0.0213	0.0020	mg/Kg wet	0.0200		106		70-130	2.48	20		
1,1-Dichloroethylene	0.0228	0.0040	mg/Kg wet	0.0200		114		70-130	0.528	20		
cis-1,2-Dichloroethylene	0.0199	0.0020	mg/Kg wet	0.0200		99.6		70-130	1.10	20		
trans-1,2-Dichloroethylene	0.0212	0.0020	mg/Kg wet	0.0200		106		70-130	1.23	20		
1,2-Dichloropropane	0.0209	0.0020	mg/Kg wet	0.0200		105		70-130	1.70	20		
1,3-Dichloropropane	0.0199	0.0010	mg/Kg wet	0.0200		99.7		70-130	1.79	20		
2,2-Dichloropropane	0.0221	0.0040	mg/Kg wet	0.0200		110		70-130	1.08	20		
1,1-Dichloropropene	0.0221	0.0020	mg/Kg wet	0.0200		111		70-130	2.29	20		
cis-1,3-Dichloropropene	0.0195	0.0010	mg/Kg wet	0.0200		97.4		70-130	2.43	20		
trans-1,3-Dichloropropene	0.0212	0.0010	mg/Kg wet	0.0200		106		70-130	5.33	20		
Diethyl Ether	0.0214	0.010	mg/Kg wet	0.0200		107		70-130	1.32	20		
Diisopropyl Ether (DIPE)	0.0208	0.0010	mg/Kg wet	0.0200		104		70-130	2.37	20		
1,4-Dioxane	0.208	0.10	mg/Kg wet	0.200		104		40-160	7.70	20	V-16	†
Ethylbenzene	0.0238	0.0020	mg/Kg wet	0.0200		119		70-130	0.502	20		
Hexachlorobutadiene	0.0254	0.0020	mg/Kg wet	0.0200		127		70-130	0.471	20		
2-Hexanone (MBK)	0.161	0.020	mg/Kg wet	0.200		80.7		40-160	2.99	20		†
Isopropylbenzene (Cumene)	0.0234	0.0020	mg/Kg wet	0.0200		117		70-130	2.03	20		
p-Isopropyltoluene (p-Cymene)	0.0254	0.0020	mg/Kg wet	0.0200		127		70-130	0.627	20		
Methyl tert-Butyl Ether (MTBE)	0.0195	0.0040	mg/Kg wet	0.0200		97.4		70-130	1.43	20		
Methylene Chloride	0.0201	0.010	mg/Kg wet	0.0200		100		70-130	2.65	20		
4-Methyl-2-pentanone (MIBK)	0.172	0.020	mg/Kg wet	0.200		86.1		40-160	4.35	20		†
Naphthalene	0.0118	0.010	mg/Kg wet	0.0200		**59.2**	*	70-130	1.02	20	L-04, V-05	
n-Propylbenzene	0.0238	0.0020	mg/Kg wet	0.0200		119		70-130	2.73	20		
Styrene	0.0233	0.0020	mg/Kg wet	0.0200		116		70-130	0.0860	20		
1,1,1,2-Tetrachloroethane	0.0227	0.0020	mg/Kg wet	0.0200		114		70-130	0.614	20		
1,1,2,2-Tetrachloroethane	0.0207	0.0010	mg/Kg wet	0.0200		103		70-130	0.290	20		
Tetrachloroethylene	0.0238	0.0020	mg/Kg wet	0.0200		119		70-130	0.335	20		
Tetrahydrofuran	0.0202	0.010	mg/Kg wet	0.0200		101		70-130	1.96	20		
Toluene	0.0212	0.0020	mg/Kg wet	0.0200		106		70-130	1.40	20		
1,2,3-Trichlorobenzene	0.0141	0.0040	mg/Kg wet	0.0200		70.4		70-130	2.88	20	V-05	
1,2,4-Trichlorobenzene	0.0144	0.0040	mg/Kg wet	0.0200		71.8		70-130	2.07	20	V-05	
1,1,1-Trichloroethane	0.0216	0.0020	mg/Kg wet	0.0200		108		70-130	1.74	20		
1,1,2-Trichloroethane	0.0201	0.0020	mg/Kg wet	0.0200		100		70-130	2.27	20		
Trichloroethylene	0.0217	0.0020	mg/Kg wet	0.0200		109		70-130	2.28	20		
Trichlorofluoromethane (Freon 11)	0.0224	0.010	mg/Kg wet	0.0200		112		70-130	0.898	20		
1,2,3-Trichloropropane	0.0198	0.0020	mg/Kg wet	0.0200		99.0		70-130	3.18	20		
1,2,4-Trimethylbenzene	0.0242	0.0020	mg/Kg wet	0.0200		121		70-130	1.15	20		
1,3,5-Trimethylbenzene	0.0242	0.0020	mg/Kg wet	0.0200		121		70-130	1.80	20		
Vinyl Chloride	0.0195	0.010	mg/Kg wet	0.0200		97.4		70-130	0.614	20		
m+p Xylene	0.0477	0.0040	mg/Kg wet	0.0400		119		70-130	0.794	20		
o-Xylene	0.0226	0.0020	mg/Kg wet	0.0200		113		70-130	2.71	20		
Surrogate: 1,2-Dichloroethane-d4	*0.0486*		mg/Kg wet	0.0500		97.2		70-130				
Surrogate: Toluene-d8	*0.0499*		mg/Kg wet	0.0500		99.8		70-130				
Surrogate: 4-Bromofluorobenzene	*0.0508*		mg/Kg wet	0.0500		102		70-130				

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B095376 - SW-846 5035											
Matrix Spike (B095376-MS1)		**Source: 14E0281-07**		Prepared & Analyzed: 05/08/14							
Acetone	0.134	0.11	mg/Kg dry	0.224	ND	**60.0**	*	70-130			MS-07
tert-Amyl Methyl Ether (TAME)	0.0161	0.0011	mg/Kg dry	0.0224	ND	71.8		70-130			
Benzene	0.0168	0.0022	mg/Kg dry	0.0224	ND	74.9		70-130			
Bromobenzene	0.0165	0.0022	mg/Kg dry	0.0224	ND	73.8		70-130			
Bromochloromethane	0.0194	0.0022	mg/Kg dry	0.0224	ND	86.8		70-130			
Bromodichloromethane	0.0183	0.0022	mg/Kg dry	0.0224	ND	81.6		70-130			
Bromoform	0.0175	0.0022	mg/Kg dry	0.0224	ND	78.1		70-130			
Bromomethane	0.00878	0.011	mg/Kg dry	0.0224	ND	**39.2**	*	70-130			MS-07
2-Butanone (MEK)	0.135	0.045	mg/Kg dry	0.224	ND	**60.3**	*	70-130			MS-07
n-Butylbenzene	0.0127	0.0022	mg/Kg dry	0.0224	ND	**56.5**	*	70-130			MS-07
sec-Butylbenzene	0.0162	0.0022	mg/Kg dry	0.0224	ND	72.2		70-130			
tert-Butylbenzene	0.0176	0.0022	mg/Kg dry	0.0224	ND	78.6		70-130			
tert-Butyl Ethyl Ether (TBEE)	0.0183	0.0011	mg/Kg dry	0.0224	ND	81.8		70-130			
Carbon Disulfide	0.0160	0.022	mg/Kg dry	0.0224	ND	71.3		70-130			
Carbon Tetrachloride	0.0195	0.0022	mg/Kg dry	0.0224	ND	86.9		70-130			
Chlorobenzene	0.0170	0.0022	mg/Kg dry	0.0224	ND	76.1		70-130			
Chlorodibromomethane	0.0175	0.0011	mg/Kg dry	0.0224	ND	77.9		70-130			
Chloroethane	0.0206	0.011	mg/Kg dry	0.0224	ND	91.9		70-130			
Chloroform	0.0176	0.0045	mg/Kg dry	0.0224	ND	78.4		70-130			
Chloromethane	0.0165	0.011	mg/Kg dry	0.0224	ND	73.7		70-130			
2-Chlorotoluene	0.0167	0.0022	mg/Kg dry	0.0224	ND	74.5		70-130			
4-Chlorotoluene	0.0170	0.0022	mg/Kg dry	0.0224	ND	75.9		70-130			
1,2-Dibromo-3-chloropropane (DBCP)	0.0137	0.0022	mg/Kg dry	0.0224	ND	**61.0**	*	70-130			MS-07
1,2-Dibromoethane (EDB)	0.0185	0.0011	mg/Kg dry	0.0224	ND	82.6		70-130			
Dibromomethane	0.0186	0.0022	mg/Kg dry	0.0224	ND	82.9		70-130			
1,2-Dichlorobenzene	0.0160	0.0022	mg/Kg dry	0.0224	ND	71.6		70-130			
1,3-Dichlorobenzene	0.0160	0.0022	mg/Kg dry	0.0224	ND	71.6		70-130			
1,4-Dichlorobenzene	0.0162	0.0022	mg/Kg dry	0.0224	ND	72.4		70-130			
Dichlorodifluoromethane (Freon 12)	0.0164	0.011	mg/Kg dry	0.0224	ND	73.2		70-130			
1,1-Dichloroethane	0.0162	0.0022	mg/Kg dry	0.0224	ND	72.2		70-130			
1,2-Dichloroethane	0.0185	0.0022	mg/Kg dry	0.0224	ND	82.6		70-130			
1,1-Dichloroethylene	0.0186	0.0045	mg/Kg dry	0.0224	ND	82.9		70-130			
cis-1,2-Dichloroethylene	0.0164	0.0022	mg/Kg dry	0.0224	ND	73.4		70-130			
trans-1,2-Dichloroethylene	0.0174	0.0022	mg/Kg dry	0.0224	ND	77.6		70-130			
1,2-Dichloropropane	0.0181	0.0022	mg/Kg dry	0.0224	ND	80.8		70-130			
1,3-Dichloropropane	0.0174	0.0011	mg/Kg dry	0.0224	ND	77.7		70-130			
2,2-Dichloropropane	0.0172	0.0045	mg/Kg dry	0.0224	ND	77.0		70-130			
1,1-Dichloropropene	0.0172	0.0022	mg/Kg dry	0.0224	ND	76.7		70-130			
cis-1,3-Dichloropropene	0.0168	0.0011	mg/Kg dry	0.0224	ND	75.0		70-130			
trans-1,3-Dichloropropene	0.0178	0.0011	mg/Kg dry	0.0224	ND	79.3		70-130			
Diethyl Ether	0.0189	0.011	mg/Kg dry	0.0224	ND	84.2		70-130			
Diisopropyl Ether (DIPE)	0.0183	0.0011	mg/Kg dry	0.0224	ND	81.6		70-130			
1,4-Dioxane	0.175	0.11	mg/Kg dry	0.224	ND	78.1		70-130			V-16
Ethylbenzene	0.0183	0.0022	mg/Kg dry	0.0224	ND	81.6		70-130			
Hexachlorobutadiene	0.00988	0.0022	mg/Kg dry	0.0224	ND	**44.1**	*	70-130			MS-07
2-Hexanone (MBK)	0.138	0.022	mg/Kg dry	0.224	ND	**61.6**	*	70-130			MS-07
Isopropylbenzene (Cumene)	0.0171	0.0022	mg/Kg dry	0.0224	ND	76.2		70-130			
p-Isopropyltoluene (p-Cymene)	0.0168	0.0022	mg/Kg dry	0.0224	ND	74.8		70-130			
Methyl tert-Butyl Ether (MTBE)	0.0170	0.0045	mg/Kg dry	0.0224	ND	75.7		70-130			
Methylene Chloride	0.0181	0.011	mg/Kg dry	0.0224	ND	80.8		70-130			
4-Methyl-2-pentanone (MIBK)	0.152	0.022	mg/Kg dry	0.224	ND	**67.7**	*	70-130			MS-07
Naphthalene	0.00918	0.011	mg/Kg dry	0.0224	ND	**41.0**	*	70-130			L-04, MS-08, V-05

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B095376 - SW-846 5035											
Matrix Spike (B095376-MS1)		**Source: 14E0281-07**		Prepared & Analyzed: 05/08/14							
n-Propylbenzene	0.0168	0.0022	mg/Kg dry	0.0224	ND	74.9		70-130			
Styrene	0.0184	0.0022	mg/Kg dry	0.0224	ND	82.0		70-130			
1,1,1,2-Tetrachloroethane	0.0190	0.0022	mg/Kg dry	0.0224	ND	84.9		70-130			
1,1,2,2-Tetrachloroethane	0.0173	0.0011	mg/Kg dry	0.0224	ND	77.2		70-130			
Tetrachloroethylene	0.0189	0.0022	mg/Kg dry	0.0224	ND	84.2		70-130			
Tetrahydrofuran	0.0144	0.011	mg/Kg dry	0.0224	ND	**64.4**	*	70-130			MS-07
Toluene	0.0177	0.0022	mg/Kg dry	0.0224	ND	78.8		70-130			
1,2,3-Trichlorobenzene	0.00903	0.0045	mg/Kg dry	0.0224	ND	**40.3**	*	70-130			MS-08, V-05
1,2,4-Trichlorobenzene	0.00943	0.0045	mg/Kg dry	0.0224	ND	**42.1**	*	70-130			MS-07, V-05
1,1,1-Trichloroethane	0.0174	0.0022	mg/Kg dry	0.0224	ND	77.6		70-130			
1,1,2-Trichloroethane	0.0178	0.0022	mg/Kg dry	0.0224	ND	79.4		70-130			
Trichloroethylene	0.0179	0.0022	mg/Kg dry	0.0224	ND	79.7		70-130			
Trichlorofluoromethane (Freon 11)	0.0174	0.011	mg/Kg dry	0.0224	ND	77.5		70-130			
1,2,3-Trichloropropane	0.0164	0.0022	mg/Kg dry	0.0224	ND	73.3		70-130			
1,2,4-Trimethylbenzene	0.0184	0.0022	mg/Kg dry	0.0224	ND	82.1		70-130			
1,3,5-Trimethylbenzene	0.0174	0.0022	mg/Kg dry	0.0224	ND	77.8		70-130			
Vinyl Chloride	0.0175	0.011	mg/Kg dry	0.0224	ND	77.9		70-130			
m+p Xylene	0.0369	0.0045	mg/Kg dry	0.0448	ND	82.3		70-130			
o-Xylene	0.0180	0.0022	mg/Kg dry	0.0224	ND	80.2		70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0503*		mg/Kg dry	0.0560		89.8		70-130			
Surrogate: Toluene-d8	*0.0568*		mg/Kg dry	0.0560		101		70-130			
Surrogate: 4-Bromofluorobenzene	*0.0557*		mg/Kg dry	0.0560		99.4		70-130			

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B095399 - SW-846 3546										
Blank (B095399-BLK1)				Prepared: 05/08/14 Analyzed: 05/09/14						
Acenaphthene	ND	0.17	mg/Kg wet							
Acenaphthylene	ND	0.17	mg/Kg wet							
Anthracene	ND	0.17	mg/Kg wet							
Benzo(a)anthracene	ND	0.17	mg/Kg wet							
Benzo(a)pyrene	ND	0.17	mg/Kg wet							
Benzo(b)fluoranthene	ND	0.17	mg/Kg wet							
Benzo(g,h,i)perylene	ND	0.17	mg/Kg wet							
Benzo(k)fluoranthene	ND	0.17	mg/Kg wet							
Chrysene	ND	0.17	mg/Kg wet							
Dibenz(a,h)anthracene	ND	0.17	mg/Kg wet							
Fluoranthene	ND	0.17	mg/Kg wet							
Fluorene	ND	0.17	mg/Kg wet							
Indeno(1,2,3-cd)pyrene	ND	0.17	mg/Kg wet							
2-Methylnaphthalene	ND	0.17	mg/Kg wet							
Naphthalene	ND	0.17	mg/Kg wet							
Phenanthrene	ND	0.17	mg/Kg wet							
Pyrene	ND	0.17	mg/Kg wet							V-05
Surrogate: Nitrobenzene-d5	*2.75*		mg/Kg wet	3.33		82.6	30-130			
Surrogate: 2-Fluorobiphenyl	*2.78*		mg/Kg wet	3.33		83.5	30-130			
Surrogate: p-Terphenyl-d14	*6.51*		mg/Kg wet	3.33		**195** *	30-130			S-07
LCS (B095399-BS1)				Prepared: 05/08/14 Analyzed: 05/09/14						
Acenaphthene	1.48	0.17	mg/Kg wet	1.67		88.5	40-140			
Acenaphthylene	1.50	0.17	mg/Kg wet	1.67		89.9	40-140			
Anthracene	1.61	0.17	mg/Kg wet	1.67		96.6	40-140			
Benzo(a)anthracene	1.72	0.17	mg/Kg wet	1.67		103	40-140			
Benzo(a)pyrene	1.74	0.17	mg/Kg wet	1.67		104	40-140			
Benzo(b)fluoranthene	1.64	0.17	mg/Kg wet	1.67		98.7	40-140			
Benzo(g,h,i)perylene	1.41	0.17	mg/Kg wet	1.67		84.4	40-140			
Benzo(k)fluoranthene	1.61	0.17	mg/Kg wet	1.67		96.5	40-140			
Chrysene	1.64	0.17	mg/Kg wet	1.67		98.6	40-140			
Dibenz(a,h)anthracene	1.50	0.17	mg/Kg wet	1.67		90.2	40-140			
Fluoranthene	1.36	0.17	mg/Kg wet	1.67		81.6	40-140			
Fluorene	1.52	0.17	mg/Kg wet	1.67		91.4	40-140			
Indeno(1,2,3-cd)pyrene	1.54	0.17	mg/Kg wet	1.67		92.6	40-140			
2-Methylnaphthalene	1.43	0.17	mg/Kg wet	1.67		85.7	40-140			
Naphthalene	1.28	0.17	mg/Kg wet	1.67		76.6	40-140			
Phenanthrene	1.60	0.17	mg/Kg wet	1.67		96.3	40-140			
Pyrene	1.58	0.17	mg/Kg wet	1.67		94.8	40-140			V-05
Surrogate: Nitrobenzene-d5	*2.67*		mg/Kg wet	3.33		80.0	30-130			
Surrogate: 2-Fluorobiphenyl	*3.05*		mg/Kg wet	3.33		91.6	30-130			
Surrogate: p-Terphenyl-d14	*3.82*		mg/Kg wet	3.33		115	30-130			

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B095399 - SW-846 3546											
LCS Dup (B095399-BSD1)				Prepared: 05/08/14 Analyzed: 05/09/14							
Acenaphthene	1.62	0.17	mg/Kg wet	1.67		97.1		40-140	9.23	30	
Acenaphthylene	1.63	0.17	mg/Kg wet	1.67		97.7		40-140	8.38	30	
Anthracene	1.72	0.17	mg/Kg wet	1.67		103		40-140	6.78	30	
Benzo(a)anthracene	1.84	0.17	mg/Kg wet	1.67		110		40-140	6.45	30	
Benzo(a)pyrene	1.82	0.17	mg/Kg wet	1.67		109		40-140	4.36	30	
Benzo(b)fluoranthene	1.69	0.17	mg/Kg wet	1.67		102		40-140	2.88	30	
Benzo(g,h,i)perylene	1.51	0.17	mg/Kg wet	1.67		90.4		40-140	6.80	30	
Benzo(k)fluoranthene	1.65	0.17	mg/Kg wet	1.67		99.0		40-140	2.54	30	
Chrysene	1.74	0.17	mg/Kg wet	1.67		104		40-140	5.71	30	
Dibenz(a,h)anthracene	1.67	0.17	mg/Kg wet	1.67		100		40-140	10.7	30	
Fluoranthene	1.36	0.17	mg/Kg wet	1.67		81.5		40-140	0.172	30	
Fluorene	1.65	0.17	mg/Kg wet	1.67		99.0		40-140	8.01	30	
Indeno(1,2,3-cd)pyrene	1.72	0.17	mg/Kg wet	1.67		103		40-140	10.8	30	
2-Methylnaphthalene	1.63	0.17	mg/Kg wet	1.67		97.7		40-140	13.1	30	
Naphthalene	1.44	0.17	mg/Kg wet	1.67		86.3		40-140	11.9	30	
Phenanthrene	1.72	0.17	mg/Kg wet	1.67		103		40-140	6.67	30	
Pyrene	1.61	0.17	mg/Kg wet	1.67		96.5		40-140	1.84	30	V-05
Surrogate: Nitrobenzene-d5	*2.92*		mg/Kg wet	3.33		87.5		30-130			
Surrogate: 2-Fluorobiphenyl	*3.26*		mg/Kg wet	3.33		97.7		30-130			
Surrogate: p-Terphenyl-d14	*3.85*		mg/Kg wet	3.33		116		30-130			
Matrix Spike (B095399-MS1)	**Source: 14E0281-16**			Prepared: 05/08/14 Analyzed: 05/13/14							
Acenaphthene	2.23	1.0	mg/Kg dry	1.97	0.290	98.6		40-140			
Acenaphthylene	2.47	1.0	mg/Kg dry	1.97	0.877	81.0		40-140			
Anthracene	4.16	1.0	mg/Kg dry	1.97	1.83	118		40-140			
Benzo(a)anthracene	8.08	1.0	mg/Kg dry	1.97	5.45	134		40-140			
Benzo(a)pyrene	8.02	1.0	mg/Kg dry	1.97	3.83	**212**	*	40-140			MS-12
Benzo(b)fluoranthene	8.69	1.0	mg/Kg dry	1.97	6.55	109		40-140			
Benzo(g,h,i)perylene	4.62	1.0	mg/Kg dry	1.97	2.82	91.0		40-140			V-06
Benzo(k)fluoranthene	4.43	1.0	mg/Kg dry	1.97	2.23	111		40-140			
Chrysene	7.92	1.0	mg/Kg dry	1.97	5.24	136		40-140			
Dibenz(a,h)anthracene	2.30	1.0	mg/Kg dry	1.97	0.715	80.3		40-140			V-06
Fluoranthene	14.2	1.0	mg/Kg dry	1.97	16.1	**-96.0**	*	40-140			MS-22
Fluorene	2.66	1.0	mg/Kg dry	1.97	0.444	112		40-140			
Indeno(1,2,3-cd)pyrene	5.21	1.0	mg/Kg dry	1.97	2.91	117		40-140			V-06
2-Methylnaphthalene	2.08	1.0	mg/Kg dry	1.97	0.330	88.6		40-140			
Naphthalene	2.27	1.0	mg/Kg dry	1.97	0.757	76.8		40-140			
Phenanthrene	9.93	1.0	mg/Kg dry	1.97	5.32	**234**	*	40-140			MS-12
Pyrene	8.96	1.0	mg/Kg dry	1.97	8.66	**15.4**	*	40-140			MS-22
Surrogate: Nitrobenzene-d5	*3.13*		mg/Kg dry	3.94		79.5		30-130			
Surrogate: 2-Fluorobiphenyl	*3.36*		mg/Kg dry	3.94		85.4		30-130			
Surrogate: p-Terphenyl-d14	*2.56*		mg/Kg dry	3.94		64.8		30-130			

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B095399 - SW-846 3546											
Matrix Spike Dup (B095399-MSD1)	**Source: 14E0281-16**			Prepared: 05/08/14 Analyzed: 05/13/14							
Acenaphthene	2.39	1.0	mg/Kg dry	1.96	0.290	107		40-140	6.82	30	
Acenaphthylene	3.10	1.0	mg/Kg dry	1.96	0.877	113		40-140	22.4	30	
Anthracene	4.70	1.0	mg/Kg dry	1.96	1.83	**146**	*	40-140	12.1	30	MS-22
Benzo(a)anthracene	9.64	1.0	mg/Kg dry	1.96	5.45	**213**	*	40-140	17.5	30	MS-22
Benzo(a)pyrene	9.75	1.0	mg/Kg dry	1.96	3.83	**301**	*	40-140	19.4	30	MS-12
Benzo(b)fluoranthene	10.8	1.0	mg/Kg dry	1.96	6.55	**217**	*	40-140	21.8	30	MS-22
Benzo(g,h,i)perylene	5.79	1.0	mg/Kg dry	1.96	2.82	**151**	*	40-140	22.6	30	V-06, MS-22
Benzo(k)fluoranthene	5.14	1.0	mg/Kg dry	1.96	2.23	**148**	*	40-140	15.0	30	MS-22
Chrysene	9.53	1.0	mg/Kg dry	1.96	5.24	**219**	*	40-140	18.5	30	MS-22
Dibenz(a,h)anthracene	2.79	1.0	mg/Kg dry	1.96	0.715	106		40-140	19.5	30	V-06
Fluoranthene	17.9	1.0	mg/Kg dry	1.96	16.1	90.3		40-140	22.8	30	
Fluorene	2.86	1.0	mg/Kg dry	1.96	0.444	123		40-140	7.30	30	
Indeno(1,2,3-cd)pyrene	6.34	1.0	mg/Kg dry	1.96	2.91	**175**	*	40-140	19.5	30	V-06, MS-22
2-Methylnaphthalene	2.21	1.0	mg/Kg dry	1.96	0.330	95.7		40-140	6.19	30	
Naphthalene	2.75	1.0	mg/Kg dry	1.96	0.757	101		40-140	19.0	30	
Phenanthrene	11.0	1.0	mg/Kg dry	1.96	5.32	**290**	*	40-140	10.4	30	MS-12
Pyrene	10.6	1.0	mg/Kg dry	1.96	8.66	98.2		40-140	16.6	30	
Surrogate: Nitrobenzene-d5	*3.89*		mg/Kg dry	3.93		99.1		30-130			
Surrogate: 2-Fluorobiphenyl	*4.20*		mg/Kg dry	3.93		107		30-130			
Surrogate: p-Terphenyl-d14	*2.88*		mg/Kg dry	3.93		73.4		30-130			

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B095400 - SW-846 3546										
Blank (B095400-BLK1)				Prepared: 05/08/14 Analyzed: 05/09/14						
Aroclor-1016	ND	0.020	mg/Kg wet							
Aroclor-1016 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1221	ND	0.020	mg/Kg wet							
Aroclor-1221 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1232	ND	0.020	mg/Kg wet							
Aroclor-1232 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1242	ND	0.020	mg/Kg wet							
Aroclor-1242 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1248	ND	0.020	mg/Kg wet							
Aroclor-1248 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1254	ND	0.020	mg/Kg wet							
Aroclor-1254 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1260	ND	0.020	mg/Kg wet							
Aroclor-1260 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1262	ND	0.020	mg/Kg wet							
Aroclor-1262 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1268	ND	0.020	mg/Kg wet							
Aroclor-1268 [2C]	ND	0.020	mg/Kg wet							
Surrogate: Decachlorobiphenyl	*0.183*		mg/Kg wet	0.200		91.6	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.148*		mg/Kg wet	0.200		73.8	30-150			
Surrogate: Tetrachloro-m-xylene	*0.168*		mg/Kg wet	0.200		84.1	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.184*		mg/Kg wet	0.200		91.8	30-150			
LCS (B095400-BS1)				Prepared: 05/08/14 Analyzed: 05/09/14						
Aroclor-1016	0.20	0.10	mg/Kg wet	0.200		98.5	40-140			
Aroclor-1016 [2C]	0.21	0.10	mg/Kg wet	0.200		105	40-140			
Aroclor-1260	0.19	0.10	mg/Kg wet	0.200		95.5	40-140			
Aroclor-1260 [2C]	0.20	0.10	mg/Kg wet	0.200		98.7	40-140			
Surrogate: Decachlorobiphenyl	*0.209*		mg/Kg wet	0.200		104	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.167*		mg/Kg wet	0.200		83.4	30-150			
Surrogate: Tetrachloro-m-xylene	*0.188*		mg/Kg wet	0.200		93.8	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.195*		mg/Kg wet	0.200		97.5	30-150			
LCS Dup (B095400-BSD1)				Prepared: 05/08/14 Analyzed: 05/09/14						
Aroclor-1016	0.20	0.10	mg/Kg wet	0.200		102	40-140	3.47	30	
Aroclor-1016 [2C]	0.21	0.10	mg/Kg wet	0.200		107	40-140	2.30	30	
Aroclor-1260	0.20	0.10	mg/Kg wet	0.200		98.4	40-140	3.01	30	
Aroclor-1260 [2C]	0.20	0.10	mg/Kg wet	0.200		102	40-140	3.36	30	
Surrogate: Decachlorobiphenyl	*0.211*		mg/Kg wet	0.200		106	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.164*		mg/Kg wet	0.200		82.2	30-150			
Surrogate: Tetrachloro-m-xylene	*0.183*		mg/Kg wet	0.200		91.4	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.190*		mg/Kg wet	0.200		95.1	30-150			

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD		RPD Limit	Notes
Batch B095400 - SW-846 3546												
Matrix Spike (B095400-MS1)	**Source: 14E0281-16**			Prepared: 05/08/14 Analyzed: 05/09/14								
Aroclor-1016	0.77	0.12	mg/Kg dry	0.233	ND	**331**	*	40-140				MS-21, R-06
Aroclor-1016 [2C]	0.70	0.12	mg/Kg dry	0.233	ND	**302**	*	40-140				MS-21, R-06
Aroclor-1260	1.8	0.12	mg/Kg dry	0.233	ND	**787**	*	40-140				MS-21, R-06
Aroclor-1260 [2C]	2.2	0.12	mg/Kg dry	0.233	ND	**938**	*	40-140				MS-21, R-06
Surrogate: Decachlorobiphenyl	*0.177*		mg/Kg dry	0.233		76.0		30-150				
Surrogate: Decachlorobiphenyl [2C]	*0.168*		mg/Kg dry	0.233		72.4		30-150				
Surrogate: Tetrachloro-m-xylene	*0.165*		mg/Kg dry	0.233		71.1		30-150				
Surrogate: Tetrachloro-m-xylene [2C]	*0.179*		mg/Kg dry	0.233		77.0		30-150				
Matrix Spike Dup (B095400-MSD1)	**Source: 14E0281-16**			Prepared: 05/08/14 Analyzed: 05/09/14								
Aroclor-1016	0.46	0.12	mg/Kg dry	0.237	ND	**194**	*	40-140	**50.3**	*	30	R-06, MS-21
Aroclor-1016 [2C]	0.52	0.12	mg/Kg dry	0.237	ND	**218**	*	40-140	**30.6**	*	30	R-06, MS-21
Aroclor-1260	1.3	0.12	mg/Kg dry	0.237	ND	**551**	*	40-140	**33.4**	*	30	R-06, MS-21
Aroclor-1260 [2C]	1.6	0.12	mg/Kg dry	0.237	ND	**654**	*	40-140	**33.8**	*	30	R-06, MS-21
Surrogate: Decachlorobiphenyl	*0.156*		mg/Kg dry	0.237		65.9		30-150				
Surrogate: Decachlorobiphenyl [2C]	*0.158*		mg/Kg dry	0.237		66.6		30-150				
Surrogate: Tetrachloro-m-xylene	*0.154*		mg/Kg dry	0.237		64.9		30-150				
Surrogate: Tetrachloro-m-xylene [2C]	*0.166*		mg/Kg dry	0.237		69.8		30-150				

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B095318 - % Solids										
Duplicate (B095318-DUP2)	**Source: 14E0281-12**		Prepared: 05/07/14 Analyzed: 05/08/14							
% Solids	93.4		% Wt		94.7			1.38	20	

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
L-04	Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.
L-07	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.
L-07A	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD outside of control limits. Reduced precision anticipated for any reported result for this compound.
L-14	Compound classified by MA CAM as difficult with acceptable recoveries of 40-160%. Recovery does not meet 70-130% criteria but does meet difficult compound criteria.
MS-07	Matrix spike recovery is outside of control limits. Analysis is in control based on laboratory fortified blank recovery. Possiblity of sample matrix effects that lead to low bias for reported result or non-homogeneous sample aliquot cannot be eliminated.
MS-08	Matrix spike recovery outside of control limits. Possibility of sample matrix effects that lead to a low bias for reported result or non-homogeneous sample aliquots cannot be eliminated.
MS-12	Matrix spike recovery and matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a high bias for reported result or non-homogeneous sample aliquots cannot be eliminated.
MS-21	Matrix spike and/or spike duplicate recovery bias high due to contribution of other Aroclors present in the source sample.
MS-22	Either matrix spike or MS duplicate is outside of control limits, but the other is within limits. RPD between the two MS/MSD results is within method specified criteria.
O-03	Sample contains two incompletely resolved aroclors. Aroclor with the closest matching pattern is reported.
R-05	Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.
R-06	Matrix spike duplicate RPD is outside of control limits. Reduced precision is anticipated for reported result for this compound in this sample.
RL-05	Elevated reporting limit due to high concentration of target compounds. MA CAM reporting limit not met.
RL-06	Elevated reporting limit due to high concentration of non-target compounds. MA CAM reporting limit not met.
RL-12	Elevated reporting limit due to matrix interference.
S-07	One associated surrogate standard recovery is outside of control limits but the other(s) is/are within limits. All recoveries are > 10%.
V-05	Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.
V-06	Continuing calibration did not meet method specifications and was biased on the high side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the high side.
V-16	Response factor is less than method specified minimum acceptable value. Reduced precision and accuracy may be associated with reported result.
V-20	Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8082A in Soil	
Aroclor-1016	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1016 [2C]	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1221	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1221 [2C]	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1232	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1232 [2C]	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1242	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1242 [2C]	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1248	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1248 [2C]	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1254	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1254 [2C]	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1260	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1260 [2C]	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1262	NC
Aroclor-1262 [2C]	NC
Aroclor-1268	NC
Aroclor-1268 [2C]	NC
SW-846 8260C in Soil	
Acetone	CT,NH,NY,ME
Acetone	CT,NH,NY,ME
Benzene	CT,NH,NY,ME
Benzene	CT,NH,NY,ME
Bromobenzene	NH,NY,ME
Bromobenzene	NH,NY,ME
Bromochloromethane	NH,NY,ME
Bromochloromethane	NH,NY,ME
Bromodichloromethane	CT,NH,NY,ME
Bromodichloromethane	CT,NH,NY,ME
Bromoform	CT,NH,NY,ME
Bromoform	CT,NH,NY,ME
Bromomethane	CT,NH,NY,ME
Bromomethane	CT,NH,NY,ME
2-Butanone (MEK)	CT,NH,NY,ME
2-Butanone (MEK)	CT,NH,NY,ME
n-Butylbenzene	CT,NH,NY,ME
n-Butylbenzene	CT,NH,NY,ME
sec-Butylbenzene	CT,NH,NY,ME
sec-Butylbenzene	CT,NH,NY,ME
tert-Butylbenzene	CT,NH,NY,ME
tert-Butylbenzene	CT,NH,NY,ME
Carbon Disulfide	CT,NH,NY,ME
Carbon Disulfide	CT,NH,NY,ME
Carbon Tetrachloride	CT,NH,NY,ME
Carbon Tetrachloride	CT,NH,NY,ME
Chlorobenzene	CT,NH,NY,ME

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8260C in Soil	
Chlorobenzene	CT,NH,NY,ME
Chlorodibromomethane	CT,NH,NY,ME
Chlorodibromomethane	CT,NH,NY,ME
Chloroethane	CT,NH,NY,ME
Chloroethane	CT,NH,NY,ME
Chloroform	CT,NH,NY,ME
Chloroform	CT,NH,NY,ME
Chloromethane	CT,NH,NY,ME
Chloromethane	CT,NH,NY,ME
2-Chlorotoluene	CT,NH,NY,ME
2-Chlorotoluene	CT,NH,NY,ME
4-Chlorotoluene	CT,NH,NY,ME
4-Chlorotoluene	CT,NH,NY,ME
Dibromomethane	NH,NY,ME
Dibromomethane	NH,NY,ME
1,2-Dichlorobenzene	CT,NH,NY,ME
1,2-Dichlorobenzene	CT,NH,NY,ME
1,3-Dichlorobenzene	CT,NH,NY,ME
1,3-Dichlorobenzene	CT,NH,NY,ME
1,4-Dichlorobenzene	CT,NH,NY,ME
1,4-Dichlorobenzene	CT,NH,NY,ME
Dichlorodifluoromethane (Freon 12)	NY,ME
Dichlorodifluoromethane (Freon 12)	NY,ME
1,1-Dichloroethane	CT,NH,NY,ME
1,1-Dichloroethane	CT,NH,NY,ME
1,2-Dichloroethane	CT,NH,NY,ME
1,2-Dichloroethane	CT,NH,NY,ME
1,1-Dichloroethylene	CT,NH,NY,ME
1,1-Dichloroethylene	CT,NH,NY,ME
cis-1,2-Dichloroethylene	CT,NH,NY,ME
cis-1,2-Dichloroethylene	CT,NH,NY,ME
trans-1,2-Dichloroethylene	CT,NH,NY,ME
trans-1,2-Dichloroethylene	CT,NH,NY,ME
1,2-Dichloropropane	CT,NH,NY,ME
1,2-Dichloropropane	CT,NH,NY,ME
1,3-Dichloropropane	NH,NY,ME
1,3-Dichloropropane	NH,NY,ME
2,2-Dichloropropane	NH,NY,ME
2,2-Dichloropropane	NH,NY,ME
1,1-Dichloropropene	NH,NY,ME
1,1-Dichloropropene	NH,NY,ME
cis-1,3-Dichloropropene	CT,NH,NY,ME
cis-1,3-Dichloropropene	CT,NH,NY,ME
trans-1,3-Dichloropropene	CT,NH,NY,ME
trans-1,3-Dichloropropene	CT,NH,NY,ME
Ethylbenzene	CT,NH,NY,ME
Ethylbenzene	CT,NH,NY,ME

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8260C in Soil	
Hexachlorobutadiene	NH,NY,ME
Hexachlorobutadiene	NH,NY,ME
2-Hexanone (MBK)	CT,NH,NY,ME
2-Hexanone (MBK)	CT,NH,NY,ME
Isopropylbenzene (Cumene)	CT,NH,NY,ME
Isopropylbenzene (Cumene)	CT,NH,NY,ME
p-Isopropyltoluene (p-Cymene)	NH,NY
p-Isopropyltoluene (p-Cymene)	NH,NY
Methyl tert-Butyl Ether (MTBE)	NY
Methyl tert-Butyl Ether (MTBE)	NY
Methylene Chloride	CT,NH,NY,ME
Methylene Chloride	CT,NH,NY,ME
4-Methyl-2-pentanone (MIBK)	CT,NH,NY
4-Methyl-2-pentanone (MIBK)	CT,NH,NY
Naphthalene	NH,NY,ME
Naphthalene	NH,NY,ME
n-Propylbenzene	NH,NY
n-Propylbenzene	NH,NY
Styrene	CT,NH,NY,ME
Styrene	CT,NH,NY,ME
1,1,1,2-Tetrachloroethane	CT,NH,NY,ME
1,1,1,2-Tetrachloroethane	CT,NH,NY,ME
1,1,2,2-Tetrachloroethane	CT,NH,NY,ME
1,1,2,2-Tetrachloroethane	CT,NH,NY,ME
Tetrachloroethylene	CT,NH,NY,ME
Tetrachloroethylene	CT,NH,NY,ME
Toluene	CT,NH,NY,ME
Toluene	CT,NH,NY,ME
1,2,3-Trichlorobenzene	ME
1,2,4-Trichlorobenzene	NH,NY,ME
1,2,4-Trichlorobenzene	NH,NY,ME
1,1,1-Trichloroethane	CT,NH,NY,ME
1,1,1-Trichloroethane	CT,NH,NY,ME
1,1,2-Trichloroethane	CT,NH,NY,ME
1,1,2-Trichloroethane	CT,NH,NY,ME
Trichloroethylene	CT,NH,NY,ME
Trichloroethylene	CT,NH,NY,ME
Trichlorofluoromethane (Freon 11)	CT,NH,NY,ME
Trichlorofluoromethane (Freon 11)	CT,NH,NY,ME
1,2,3-Trichloropropane	NH,NY,ME
1,2,3-Trichloropropane	NH,NY,ME
1,2,4-Trimethylbenzene	CT,NH,NY,ME
1,2,4-Trimethylbenzene	CT,NH,NY,ME
1,3,5-Trimethylbenzene	CT,NH,NY,ME
1,3,5-Trimethylbenzene	CT,NH,NY,ME
Vinyl Chloride	CT,NH,NY,ME
Vinyl Chloride	CT,NH,NY,ME

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8260C in Soil	
m+p Xylene	CT,NH,NY,ME
m+p Xylene	CT,NH,NY,ME
o-Xylene	CT,NH,NY,ME
o-Xylene	CT,NH,NY,ME
SW-846 8270D in Soil	
Acenaphthene	CT,NY,NH,ME,NC,VA,NJ
Acenaphthylene	CT,NY,NH,ME,NC,VA,NJ
Anthracene	CT,NY,NH,ME,NC,VA,NJ
Benzo(a)anthracene	CT,NY,NH,ME,NC,VA,NJ
Benzo(a)pyrene	CT,NY,NH,ME,NC,VA,NJ
Benzo(b)fluoranthene	CT,NY,NH,ME,NC,VA,NJ
Benzo(g,h,i)perylene	CT,NY,NH,ME,NC,VA,NJ
Benzo(k)fluoranthene	CT,NY,NH,ME,NC,VA,NJ
Chrysene	CT,NY,NH,ME,NC,VA,NJ
Dibenz(a,h)anthracene	CT,NY,NH,ME,NC,VA,NJ
Fluoranthene	CT,NY,NH,ME,NC,VA,NJ
Fluorene	CT,NY,NH,ME,NC,VA,NJ
Indeno(1,2,3-cd)pyrene	CT,NY,NH,ME,NC,VA,NJ
2-Methylnaphthalene	CT,NY,NH,ME,NC,VA,NJ
Naphthalene	CT,NY,NH,ME,NC,VA,NJ
Phenanthrene	CT,NY,NH,ME,NC,VA,NJ
Pyrene	CT,NY,NH,ME,NC,VA,NJ

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2016
MA	Massachusetts DEP	M-MA100	06/30/2014
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2015
NY	New York State Department of Health	10899 NELAP	04/1/2015
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2015
RI	Rhode Island Department of Health	LAO00112	12/30/2014
NC	North Carolina Div. of Water Quality	652	12/31/2014
NJ	New Jersey DEP	MA007 NELAP	06/30/2014
FL	Florida Department of Health	E871027 NELAP	06/30/2014
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2014
WA	State of Washington Department of Ecology	C2065	02/23/2015
ME	State of Maine	2011028	06/9/2015
VA	Commonwealth of Virginia	460217	12/14/2014
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2014

con-test® ANALYTICAL LABORATORY

Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

CHAIN OF CUSTODY RECORD

14E0281

Rev 04.05.12

39 Spruce Street
East longmeadow, MA 01028

Company Name: EBI Consulting
Address: 21 B St.
Burlington MA 01803
Attention: Meghan Kelley
Project Location: 84 & 90 Washington St, Somerville, MA (Cobble Hill)
Sampled By: DB

Project Proposal Provided? (for billing purposes)
○ yes ____ proposal date

Telephone: 781-418-2344
Project #: 1214002
Client PO#:

DATA DELIVERY (check all that apply)
○ FAX ◉ EMAIL ◉ WEBSITE
Fax #:
Email: dbellucci@ebiconsulting.com
Format: ○ PDF ○ EXCEL ○ GIS
○ OTHER ____
○ "Enhanced Data Package"

ANALYSIS REQUESTED

Con-Test Lab ID (laboratory use only)	Client Sample ID / Description	Collection Beginning Date/Time	Collection Ending Date/Time	Composite	Grab	*Matrix Code	Conc Code	PAHs 8270	VOCs 8260	PCBs 8082
01	EB-501 (0-2')	05/07/14	09:30		X	S	M	X	X	X
02	EB-501 (2-4')		09:35		X	S	M	X	X	X
03	EB-502 (0-2')		10:00		X	S	M	X	X	X
04	EB-502 (2-4')		10:05		X	S	M	X	X	X
05	EB-503 (0-2')		10:30		X	S	M	X	X	X
06	EB-503 (2-4')		10:35		X	S	M	X	X	X
07	EB-504 (0-2')		11:00		X	S	M	X	X	X
08	EB-504 (2-4')		11:05		X	S	*H	X	X	X
09	EB-505 (0-2')		11:15		X	S	M	X	X	X
10	EB-505 (2-4')		11:20		X	S	M	X	X	X

\# of Containers
** Preservation
***Container Code

Dissolved Metals
○ Field Filtered
○ Lab to Filter

*****Cont. Code:**
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

****Preservation**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other ____

***Matrix Code:**
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other ____

Comments: ~~04 Day TAT~~ * Results 05/14 *

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

		Date/Time
Relinquished by: (signature) [signature]	05/07/14	12:40
Received by: (signature) [signature]	5/7/14	12:40pm
Relinquished by: (signature) [signature]	5/7/14	3:25pm
Received by: (signature) [signature] 6°	5.7.14	1525

Turnaround ††
☐ 7-Day
☐ 10-Day
☒ Other 5
RUSH †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

Detection Limit Requirements
Massachusetts: EDD
Connecticut:
Other:

Is your project MCP or RCP ?
○ MCP Form Required
○ RCP Form Required
○ MA State DW Form Required PWSID # ____

NELAC & AIHA-LAP, LLC Accredited
WBE/DBE Certified

†† TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

CHAIN OF CUSTODY RECORD

14E0281

Rev 04.05.12

con-test ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com
39 Spruce Street
East longmeadow, MA 01028

Company Name: EBI Consulting
Address:
Attention: Meghan Kelley
Project Location: 84 & 90 Washington St., Somerville, MA
Sampled By: DB Cobble Hill

Telephone:
Project # 12140021
Client PO#

DATA DELIVERY (check all that apply)
○ FAX ◉ EMAIL ◉ WEBSITE
Fax #
Email:
Format: ◉ PDF ◉ EXCEL ○ GIS
○ OTHER
○ "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

Con-Test Lab ID (laboratory use only)	Client Sample ID / Description	Collection Beginning Date/Time	Collection Ending Date/Time	Composite	Grab	*Matrix Code	Conc Code	ANALYSIS REQUESTED: PAHs 8270	VOCs 8260	PCB 8082	# of Containers	** Preservation	***Container Code
11	EB-506 (0-2')	05/07/14	11:30		X	S	M	X	X	X			
12	EB-506 (2-4')		11:35		X	S	M	X	X	X			
13	EB-507 (0-2')		11:45		X	S	M	X	X	X			
14	EB-507 (2-4')		11:50		X	S	M	X	X	X			
15	EB-508 (0-2')		12:10		X	S	M	X	X	X			
16	EB-508 (2-4')		12:15		X	S	M	X	X	X			

Dissolved Metals
○ Field Filtered
○ Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL= sludge
O = other

Comments: *1-day TAT* Results 05/14 *

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	05/07/14	Date/Time: 12:40
Received by: (signature)	5/7/14	Date/Time: 1240 pm
Relinquished by: (signature)	5/7/14	Date/Time: 3:25 pm
Received by: (signature)	6° 5.7.14	Date/Time: 1525

Turnaround ††
☐ 7-Day
☐ 10-Day
☒ Other 5
RUSH †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☒ †4-Day
† Require lab approval

Detection Limit Requirements
Massachusetts: EPH
Connecticut:
Other:

Is your project MCP or RCP ?
○ MCP Form Required
○ RCP Form Required
○ MA State DW Form Required PWSID # _____

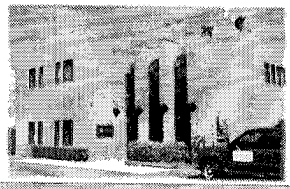
NELAC & AIHA-LAP, LLC Accredited
WBE/DBE Certified

†† TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

39 Spruce St.
East Longmeadow, MA. 01028
P: 413-525-2332
F: 413-525-6405
www.contestlabs.com

con-test® ANALYTICAL LABORATORY



Sample Receipt Checklist

CLIENT NAME: EBI Consulting **RECEIVED BY:** CC **DATE:** 5-7-14

1) **Was the chain(s) of custody relinquished and signed?** (Yes) No No CoC Included
2) **Does the chain agree with the samples?** (Yes) No
   If not, explain:
3) **Are all the samples in good condition?** (Yes) No
   If not, explain:
4) **How were the samples received:**
   On Ice [X] Direct from Sampling [ ] Ambient [ ] In Cooler(s) [X]
   Were the samples received in Temperature Compliance of (2-6°C)? (Yes) No N/A
   Temperature °C by Temp blank _____ Temperature °C by Temp gun 6°
5) **Are there Dissolved samples for the lab to filter?** Yes (No)
   Who was notified _____ Date _____ Time _____
6) **Are there any RUSH or SHORT HOLDING TIME samples?** Yes (No)
   Who was notified _____ Date _____ Time _____
7) **Location where samples are stored:** 19

Permission to subcontract samples? Yes No
(Walk-in clients only) if not already approved
Client Signature: _____

8) **Do all samples have the proper Acid pH:** Yes No (N/A) _____
9) **Do all samples have the proper Base pH:** Yes No (N/A) _____
10) **Was the PC notified of any discrepancies with the CoC vs the samples:** Yes No (N/A)

Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber		8 oz amber/clear jar	16 A
500 mL Amber		4 oz amber/clear jar	
250 mL Amber (8oz amber)		2 oz amber/clear jar	
1 Liter Plastic		Plastic Bag / Ziploc	
500 mL Plastic		SOC Kit	
250 mL plastic		Non-ConTest Container	
40 mL Vial - type listed below	48	Perchlorate Kit	
Colisure / bacteria bottle		Flashpoint bottle	
Dissolved Oxygen bottle		Other glass jar	
Encore		Other	

Laboratory Comments:

40 mL vials: # HCl _____ # Methanol 16
Bisulfate 32 # DI Water _____
Thiosulfate _____ Unpreserved _____

Time and Date Frozen:

Login Sample Receipt Checklist

(Rejection Criteria Listing - Using Sample Acceptance Policy)

Any False statement will be brought to the attention of Client

Question	Answer (True/False) T/F/NA	Comment
1) The cooler's custody seal, if present, is intact.	NA	
2) The cooler or samples do not appear to have been compromised or tampered with.	T	
3) Samples were received on ice.	T	
4) Cooler Temperature is acceptable.	T	
5) Cooler Temperature is recorded.	T	
6) COC is filled out in ink and legible.	T	
7) COC is filled out with all pertinent information.	T	
8) Field Sampler's name present on COC.	T	
9) There are no discrepancies between the sample IDs on the container and the COC.	T	
10) Samples are received within Holding Time.	T	
11) Sample containers have legible labels.	T	
12) Containers are not broken or leaking.	T	
13) Air Cassettes are not broken/open.	NA	
14) Sample collection date/times are provided.	T	
15) Appropriate sample containers are used.	T	
16) Proper collection media used.	T	
17) No headspace sample bottles are completely filled.	T	
18) There is sufficient volume for all requsted analyses, including any requested MS/MSDs.	T	
19) Trip blanks provided if applicable.	T	
20) VOA sample vials do not have head space or bubble is <6mm (1/4") in diameter.	NA	
21) Samples do not require splitting or compositing.	T	

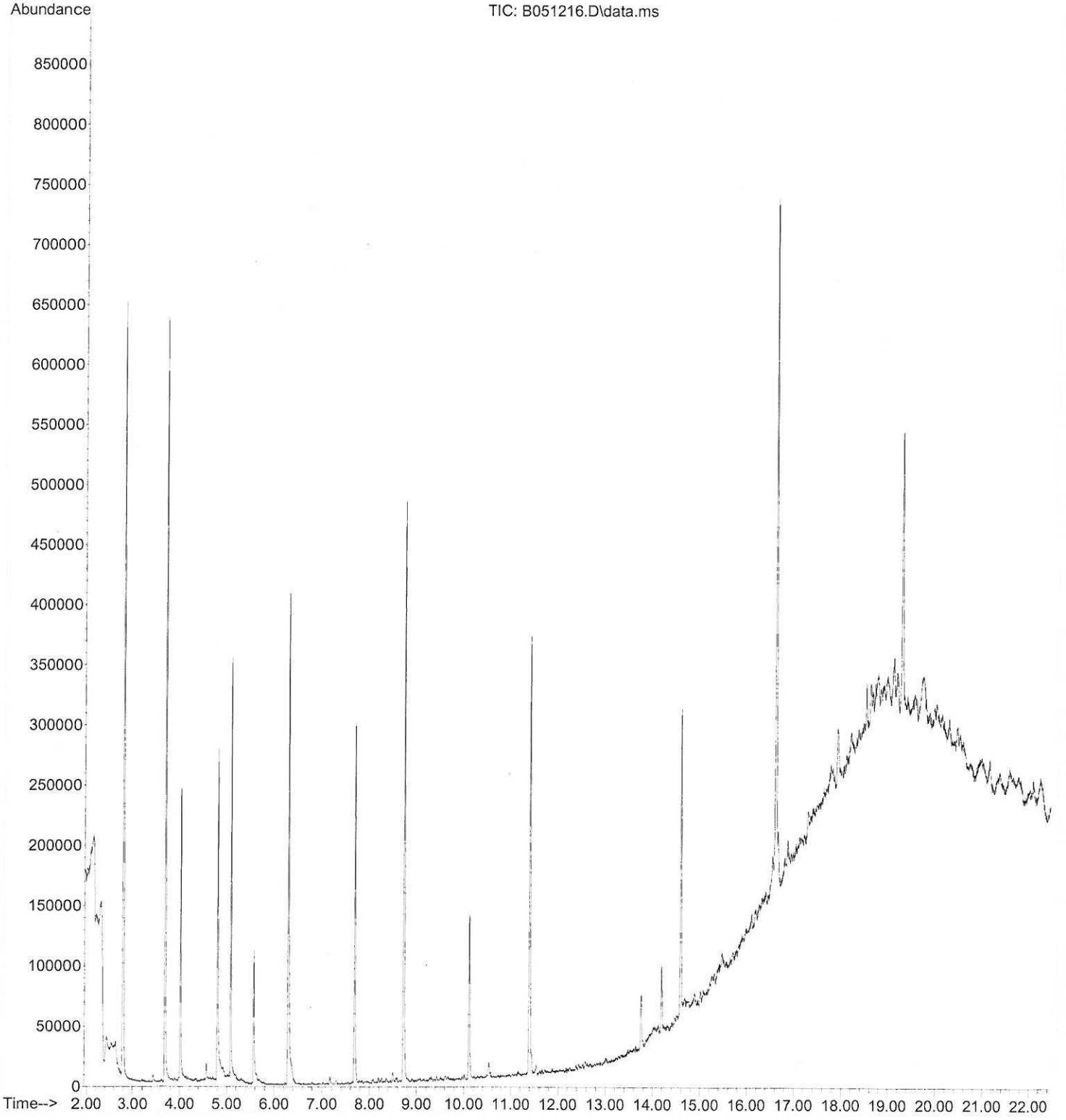
Who notified of False statements? **Date/Time:**

Doc #277 Rev. 4 August 2013 **Log-In Technician Initials:** CC **Date/Time:** 5.7.14 1525

Quantitation Report (QT Reviewed)

Data Path : Z:\DATA\051214\
Data File : B051216.D
Acq On : 12 May 2014 5:17 pm
Operator : BGL
Sample : 14E0281-05@/2x 2ml Inst : GCMSSV2
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 13 10:13:23 2014
Quant Method : Z:\METHODS\BN205074.M
Quant Title : 625/8270 SVMS2 (B)
QLast Update : Wed Mar 26 10:52:49 2014
Response via : Initial Calibration

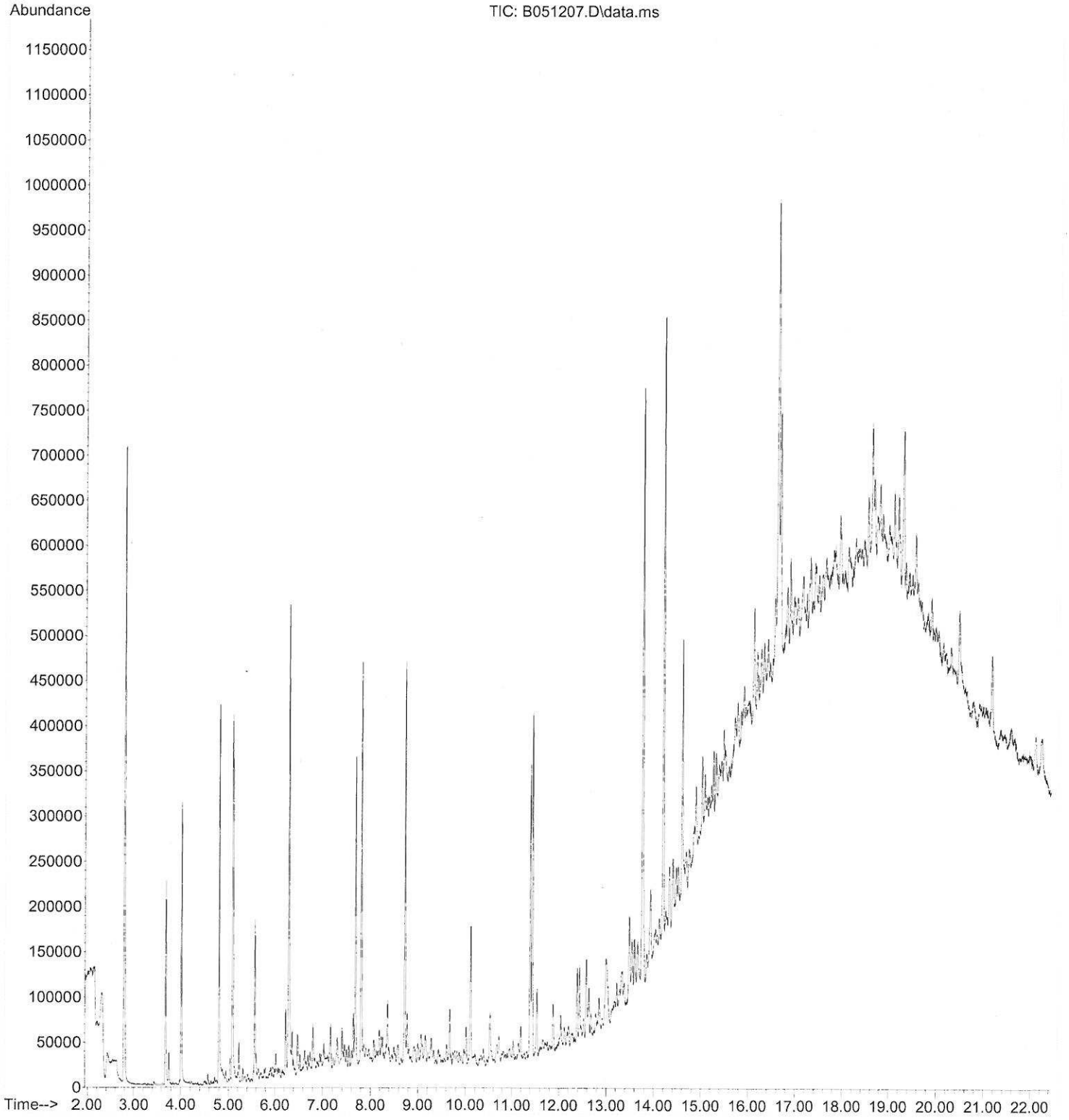


BN205074.M Tue May 13 10:13:58 2014

Quantitation Report (QT Reviewed)

Data Path : Z:\DATA\051214\
Data File : B051207.D
Acq On : 12 May 2014 12:14 pm
Operator : BGL
Sample : 14E0281-12@/ 2X 2ML Inst : GCMSSV2
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 12 15:34:53 2014
Quant Method : Z:\METHODS\BN205074.M
Quant Title : 625/8270 SVMS2 (B)
QLast Update : Wed Mar 26 10:52:49 2014
Response via : Initial Calibration

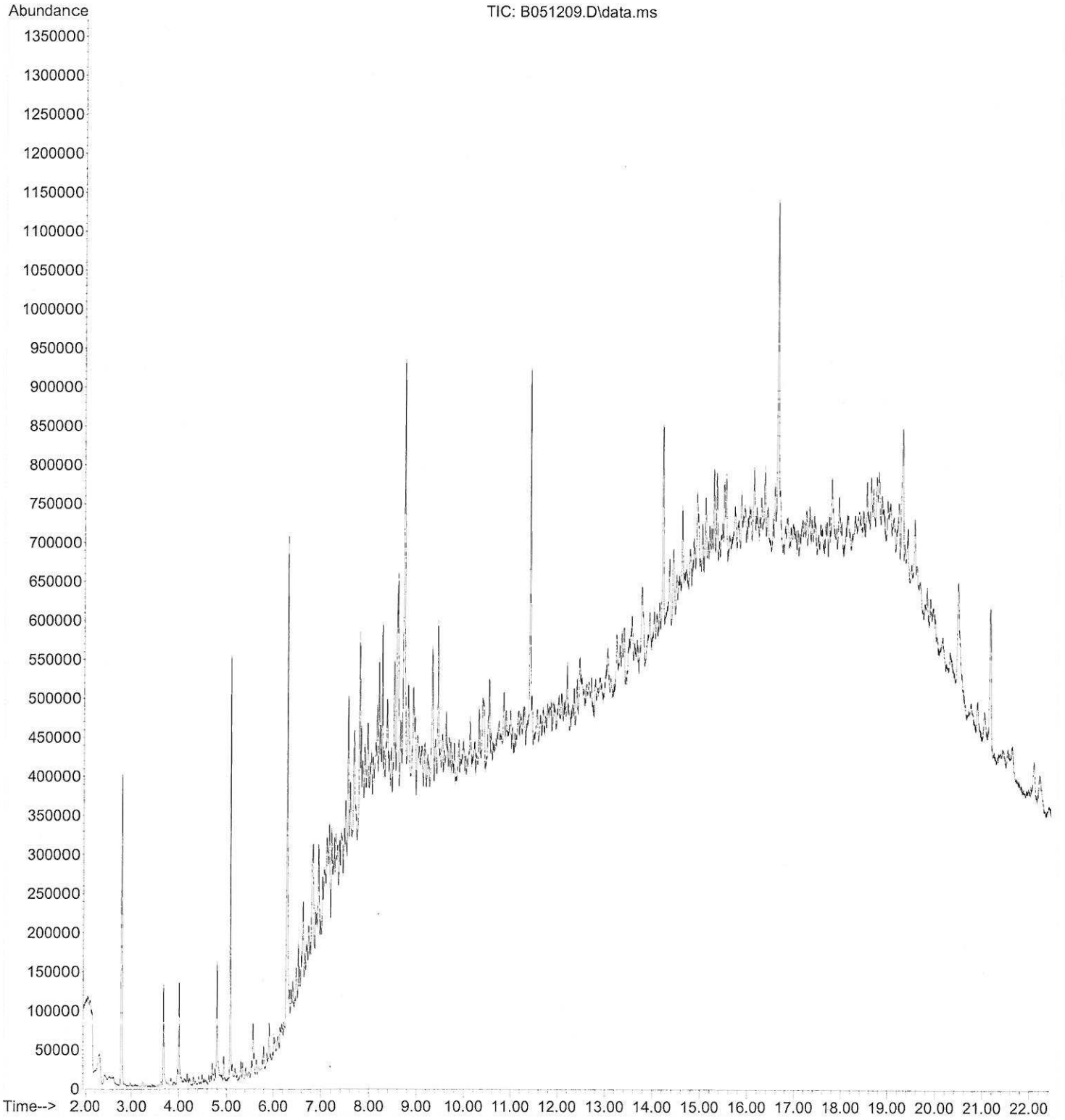


BN205074.M Mon May 12 15:35:29 2014

Quantitation Report (Not Reviewed)

Data Path : Z:\DATA\051214\
Data File : B051209.D
Acq On : 12 May 2014 1:19 pm
Operator : BGL
Sample : 14E0281-14@/4X 2 ML Inst : GCMSSV2
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 12 15:20:53 2014
Quant Method : Z:\METHODS\BN205074.M
Quant Title : 625/8270 SVMS2 (B)
QLast Update : Wed Mar 26 10:52:49 2014
Response via : Initial Calibration



ANALYTICAL REPORT

Lab Number:	L1833423
Client:	McPhail Associates 2269 Massachusetts Avenue Cambridge, MA 02140
ATTN:	Ambrose Donovan
Phone:	(617) 868-1420
Project Name:	90 WASHINGTON ST.
Project Number:	5471
Report Date:	08/27/18

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: 90 WASHINGTON ST.
Project Number: 5471

Lab Number: L1833423
Report Date: 08/27/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1833423-01	B-603, S-2	FILL	SOMERVILLE	08/22/18 09:00	08/23/18
L1833423-02	B-604, S-2	FILL	SOMERVILLE	08/22/18 09:15	08/23/18
L1833423-03	B-605, S-2	FILL	SOMERVILLE	08/22/18 09:30	08/23/18
L1833423-04	B-606, S-2	FILL	SOMERVILLE	08/22/18 09:45	08/23/18
L1833423-05	B-607, S-2	FILL	SOMERVILLE	08/22/18 10:15	08/23/18
L1833423-06	B-608, S-3	FILL	SOMERVILLE	08/22/18 10:45	08/23/18
L1833423-07	B-608, S-6	FILL	SOMERVILLE	08/22/18 11:00	08/23/18
L1833423-08	B-609, S-2	FILL	SOMERVILLE	08/22/18 11:45	08/23/18
L1833423-09	B-611, S-2	FILL	SOMERVILLE	08/22/18 12:00	08/23/18

Project Name: 90 WASHINGTON ST. **Lab Number:** L1833423

Project Number: 5471 **Report Date:** 08/27/18

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	YES
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.

Project Name: 90 WASHINGTON ST. **Lab Number:** L1833423
Project Number: 5471 **Report Date:** 08/27/18

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	90 WASHINGTON ST.	**Lab Number:**	L1833423
Project Number:	5471	**Report Date:**	08/27/18

Case Narrative (continued)

MCP Related Narratives

EPH

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Cristin Walker

Title: Technical Director/Representative Date: 08/27/18

ORGANICS

PETROLEUM HYDROCARBONS

Project Name: 90 WASHINGTON ST. **Lab Number:** L1833423

Project Number: 5471 **Report Date:** 08/27/18

SAMPLE RESULTS

Lab ID:	L1833423-07	Date Collected:	08/22/18 11:00
Client ID:	B-608, S-6	Date Received:	08/23/18
Sample Location:	SOMERVILLE	Field Prep:	Not Specified
Sample Depth:	12.5-15		
Matrix:	Fill		
Analytical Method:	131,VPH-18-2.1		
Analytical Date:	08/24/18 18:38		
Analyst:	MZ		
Percent Solids:	88%		

Trap:	EST, Carbopack B/Carboxen 1000&1001	Analytical Column:	Restek, RTX-502.2, 105m, 0.53ID, 3um

Quality Control Information

Condition of sample received:	Satisfactory
Sample Temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1.4:1

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Petroleum Hydrocarbons - Westborough Lab						
C5-C8 Aliphatics	23.4		mg/kg	4.55	--	1
C9-C12 Aliphatics	91.1		mg/kg	4.55	--	1
C9-C10 Aromatics	67.1		mg/kg	4.55	--	1
C5-C8 Aliphatics, Adjusted	23.4		mg/kg	4.55	--	1
C9-C12 Aliphatics, Adjusted	23.8		mg/kg	4.55	--	1
Benzene	ND		mg/kg	0.182	--	1
Toluene	ND		mg/kg	0.182	--	1
Ethylbenzene	ND		mg/kg	0.182	--	1
p/m-Xylene	ND		mg/kg	0.182	--	1
o-Xylene	0.226		mg/kg	0.182	--	1
Methyl tert butyl ether	ND		mg/kg	0.091	--	1
Naphthalene	0.745		mg/kg	0.364	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	110		70-130
2,5-Dibromotoluene-FID	121		70-130

Project Name: 90 WASHINGTON ST. **Lab Number:** L1833423

Project Number: 5471 **Report Date:** 08/27/18

SAMPLE RESULTS

Lab ID:	L1833423-07	D	Date Collected:	08/22/18 11:00
Client ID:	B-608, S-6		Date Received:	08/23/18
Sample Location:	SOMERVILLE		Field Prep:	Not Specified
Sample Depth:	12.5-15			
Matrix:	Fill		Extraction Method:	EPA 3546
Analytical Method:	98,EPH-04-1.1		Extraction Date:	08/24/18 11:23
Analytical Date:	08/27/18 11:14		Cleanup Method1:	EPH-04-1
Analyst:	DG		Cleanup Date1:	08/26/18
Percent Solids:	88%			

Quality Control Information

Condition of sample received:	Satisfactory
Sample Temperature upon receipt:	Received on Ice
Sample Extraction method:	Extracted Per the Method

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Extractable Petroleum Hydrocarbons - Westborough Lab						
C9-C18 Aliphatics	1240		mg/kg	14.4	--	2
C19-C36 Aliphatics	135		mg/kg	14.4	--	2
C11-C22 Aromatics	401		mg/kg	14.4	--	2
C11-C22 Aromatics, Adjusted	398		mg/kg	14.4	--	2
Naphthalene	ND		mg/kg	0.718	--	2
2-Methylnaphthalene	ND		mg/kg	0.718	--	2
Acenaphthylene	ND		mg/kg	0.718	--	2
Acenaphthene	ND		mg/kg	0.718	--	2
Fluorene	ND		mg/kg	0.718	--	2
Phenanthrene	1.89		mg/kg	0.718	--	2
Anthracene	ND		mg/kg	0.718	--	2
Fluoranthene	0.762		mg/kg	0.718	--	2
Pyrene	ND		mg/kg	0.718	--	2
Benzo(a)anthracene	ND		mg/kg	0.718	--	2
Chrysene	ND		mg/kg	0.718	--	2
Benzo(b)fluoranthene	ND		mg/kg	0.718	--	2
Benzo(k)fluoranthene	ND		mg/kg	0.718	--	2
Benzo(a)pyrene	ND		mg/kg	0.718	--	2
Indeno(1,2,3-cd)Pyrene	ND		mg/kg	0.718	--	2
Dibenzo(a,h)anthracene	ND		mg/kg	0.718	--	2
Benzo(ghi)perylene	ND		mg/kg	0.718	--	2

Project Name: 90 WASHINGTON ST. **Lab Number:** L1833423

Project Number: 5471 **Report Date:** 08/27/18

SAMPLE RESULTS

Lab ID:	L1833423-07	D	Date Collected:	08/22/18 11:00
Client ID:	B-608, S-6		Date Received:	08/23/18
Sample Location:	SOMERVILLE		Field Prep:	Not Specified
Sample Depth:	12.5-15			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Extractable Petroleum Hydrocarbons - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	69		40-140
o-Terphenyl	52		40-140
2-Fluorobiphenyl	81		40-140
2-Bromonaphthalene	77		40-140

Project Name: 90 WASHINGTON ST.
Project Number: 5471
Lab Number: L1833423
Report Date: 08/27/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 98,EPH-04-1.1
Analytical Date: 08/26/18 19:03
Analyst: DG

Extraction Method: EPA 3546
Extraction Date: 08/23/18 21:29
Cleanup Method: EPH-04-1
Cleanup Date: 08/26/18

Parameter	Result	Qualifier	Units	RL	MDL
Extractable Petroleum Hydrocarbons - Westborough Lab for sample(s): 07 Batch: WG1150031-1					
C9-C18 Aliphatics	ND		mg/kg	6.53	--
C19-C36 Aliphatics	ND		mg/kg	6.53	--
C11-C22 Aromatics	ND		mg/kg	6.53	--
C11-C22 Aromatics, Adjusted	ND		mg/kg	6.53	--
Naphthalene	ND		mg/kg	0.326	--
2-Methylnaphthalene	ND		mg/kg	0.326	--
Acenaphthylene	ND		mg/kg	0.326	--
Acenaphthene	ND		mg/kg	0.326	--
Fluorene	ND		mg/kg	0.326	--
Phenanthrene	ND		mg/kg	0.326	--
Anthracene	ND		mg/kg	0.326	--
Fluoranthene	ND		mg/kg	0.326	--
Pyrene	ND		mg/kg	0.326	--
Benzo(a)anthracene	ND		mg/kg	0.326	--
Chrysene	ND		mg/kg	0.326	--
Benzo(b)fluoranthene	ND		mg/kg	0.326	--
Benzo(k)fluoranthene	ND		mg/kg	0.326	--
Benzo(a)pyrene	ND		mg/kg	0.326	--
Indeno(1,2,3-cd)Pyrene	ND		mg/kg	0.326	--
Dibenzo(a,h)anthracene	ND		mg/kg	0.326	--
Benzo(ghi)perylene	ND		mg/kg	0.326	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	44		40-140
o-Terphenyl	46		40-140
2-Fluorobiphenyl	79		40-140
2-Bromonaphthalene	78		40-140

Project Name: 90 WASHINGTON ST. **Lab Number:** L1833423

Project Number: 5471 **Report Date:** 08/27/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 131,VPH-18-2.1
Analytical Date: 08/24/18 10:51
Analyst: MZ

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 07 Batch: WG1150648-4					
C5-C8 Aliphatics	ND		mg/kg	2.50	--
C9-C12 Aliphatics	ND		mg/kg	2.50	--
C9-C10 Aromatics	ND		mg/kg	2.50	--
C5-C8 Aliphatics, Adjusted	ND		mg/kg	2.50	--
C9-C12 Aliphatics, Adjusted	ND		mg/kg	2.50	--
Benzene	ND		mg/kg	0.100	--
Toluene	ND		mg/kg	0.100	--
Ethylbenzene	ND		mg/kg	0.100	--
p/m-Xylene	ND		mg/kg	0.100	--
o-Xylene	ND		mg/kg	0.100	--
Methyl tert butyl ether	ND		mg/kg	0.050	--
Naphthalene	ND		mg/kg	0.200	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	103		70-130
2,5-Dibromotoluene-FID	110		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 90 WASHINGTON ST.
Project Number: 5471

Lab Number: L1833423
Report Date: 08/27/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 07 Batch: WG1150031-2 WG1150031-3								
C9-C18 Aliphatics	68		78		40-140	14		25
C19-C36 Aliphatics	80		81		40-140	1		25
C11-C22 Aromatics	70		64		40-140	9		25
Naphthalene	62		60		40-140	3		25
2-Methylnaphthalene	62		61		40-140	2		25
Acenaphthylene	65		64		40-140	2		25
Acenaphthene	66		65		40-140	2		25
Fluorene	67		65		40-140	3		25
Phenanthrene	71		66		40-140	7		25
Anthracene	72		66		40-140	9		25
Fluoranthene	72		65		40-140	10		25
Pyrene	74		66		40-140	11		25
Benzo(a)anthracene	70		64		40-140	9		25
Chrysene	67		61		40-140	9		25
Benzo(b)fluoranthene	72		63		40-140	13		25
Benzo(k)fluoranthene	66		61		40-140	8		25
Benzo(a)pyrene	67		60		40-140	11		25
Indeno(1,2,3-cd)Pyrene	64		58		40-140	10		25
Dibenzo(a,h)anthracene	62		56		40-140	10		25
Benzo(ghi)perylene	59		53		40-140	11		25
Nonane (C9)	54		64		30-140	17		25
Decane (C10)	59		69		40-140	16		25
Dodecane (C12)	62		73		40-140	16		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: 90 WASHINGTON ST.

Project Number: 5471

Lab Number: L1833423

Report Date: 08/27/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 07 Batch: WG1150031-2 WG1150031-3								
Tetradecane (C14)	64		77		40-140	18		25
Hexadecane (C16)	68		78		40-140	14		25
Octadecane (C18)	73		79		40-140	8		25
Nonadecane (C19)	74		78		40-140	5		25
Eicosane (C20)	75		78		40-140	4		25
Docosane (C22)	75		78		40-140	4		25
Tetracosane (C24)	74		76		40-140	3		25
Hexacosane (C26)	73		76		40-140	4		25
Octacosane (C28)	72		75		40-140	4		25
Triacontane (C30)	71		76		40-140	7		25
Hexatriacontane (C36)	74		78		40-140	5		25

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Chloro-Octadecane	57		63		40-140
o-Terphenyl	60		54		40-140
2-Fluorobiphenyl	79		66		40-140
2-Bromonaphthalene	77		64		40-140
% Naphthalene Breakthrough	0		0		
% 2-Methylnaphthalene Breakthrough	0		0		

Lab Control Sample Analysis
Batch Quality Control

Project Name: 90 WASHINGTON ST.
Project Number: 5471

Lab Number: L1833423
Report Date: 08/27/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 07 Batch: WG1150648-2 WG1150648-3								
C5-C8 Aliphatics	107		105		70-130	2		25
C9-C12 Aliphatics	113		111		70-130	2		25
C9-C10 Aromatics	102		100		70-130	2		25
Benzene	96		95		70-130	0		25
Toluene	96		95		70-130	1		25
Ethylbenzene	100		98		70-130	1		25
p/m-Xylene	99		98		70-130	1		25
o-Xylene	97		96		70-130	1		25
Methyl tert butyl ether	100		100		70-130	0		25
Naphthalene	100		99		70-130	1		25
1,2,4-Trimethylbenzene	102		100		70-130	2		25
Pentane	99		98		70-130	1		25
2-Methylpentane	112		109		70-130	3		25
2,2,4-Trimethylpentane	108		106		70-130	2		25
n-Nonane	110		108		30-130	2		25
n-Decane	117		114		70-130	3		25
n-Butylcyclohexane	114		112		70-130	2		25

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,5-Dibromotoluene-PID	104		102		70-130
2,5-Dibromotoluene-FID	110		108		70-130

PCBS

Project Name: 90 WASHINGTON ST.
Lab Number: L1833423
Project Number: 5471
Report Date: 08/27/18

SAMPLE RESULTS

Lab ID: L1833423-01
Client ID: B-603, S-2
Sample Location: SOMERVILLE

Date Collected: 08/22/18 09:00
Date Received: 08/23/18
Field Prep: Not Specified

Sample Depth: 2.5-5
Matrix: Fill
Analytical Method: 97,8082A
Analytical Date: 08/26/18 17:10
Analyst: HT
Percent Solids: 88%

Extraction Method: EPA 3546
Extraction Date: 08/24/18 10:58
Cleanup Method: EPA 3665A
Cleanup Date: 08/24/18
Cleanup Method: EPA 3660B
Cleanup Date: 08/25/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		ug/kg	36.1	--	1	A
Aroclor 1221	ND		ug/kg	36.1	--	1	A
Aroclor 1232	ND		ug/kg	36.1	--	1	A
Aroclor 1242	ND		ug/kg	36.1	--	1	A
Aroclor 1248	ND		ug/kg	36.1	--	1	A
Aroclor 1254	68.2		ug/kg	36.1	--	1	A
Aroclor 1260	100		ug/kg	36.1	--	1	B
Aroclor 1262	ND		ug/kg	36.1	--	1	A
Aroclor 1268	ND		ug/kg	36.1	--	1	A
PCBs, Total	168		ug/kg	36.1	--	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	67		30-150	B
Decachlorobiphenyl	85		30-150	B
2,4,5,6-Tetrachloro-m-xylene	66		30-150	A
Decachlorobiphenyl	84		30-150	A

Project Name: 90 WASHINGTON ST.
Lab Number: L1833423
Project Number: 5471
Report Date: 08/27/18

SAMPLE RESULTS

Lab ID: L1833423-02
Client ID: B-604, S-2
Sample Location: SOMERVILLE

Date Collected: 08/22/18 09:15
Date Received: 08/23/18
Field Prep: Not Specified

Sample Depth: 2.5-5
Matrix: Fill
Analytical Method: 97,8082A
Analytical Date: 08/26/18 17:23
Analyst: HT
Percent Solids: 88%

Extraction Method: EPA 3546
Extraction Date: 08/24/18 10:58
Cleanup Method: EPA 3665A
Cleanup Date: 08/24/18
Cleanup Method: EPA 3660B
Cleanup Date: 08/25/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		ug/kg	37.5	--	1	A
Aroclor 1221	ND		ug/kg	37.5	--	1	A
Aroclor 1232	ND		ug/kg	37.5	--	1	A
Aroclor 1242	ND		ug/kg	37.5	--	1	A
Aroclor 1248	ND		ug/kg	37.5	--	1	A
Aroclor 1254	ND		ug/kg	37.5	--	1	B
Aroclor 1260	ND		ug/kg	37.5	--	1	A
Aroclor 1262	ND		ug/kg	37.5	--	1	A
Aroclor 1268	ND		ug/kg	37.5	--	1	A
PCBs, Total	ND		ug/kg	37.5	--	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		30-150	B
Decachlorobiphenyl	64		30-150	B
2,4,5,6-Tetrachloro-m-xylene	59		30-150	A
Decachlorobiphenyl	47		30-150	A

Project Name: 90 WASHINGTON ST.
Lab Number: L1833423
Project Number: 5471
Report Date: 08/27/18

SAMPLE RESULTS

Lab ID: L1833423-03
Client ID: B-605, S-2
Sample Location: SOMERVILLE

Date Collected: 08/22/18 09:30
Date Received: 08/23/18
Field Prep: Not Specified

Sample Depth: 2.5-5
Matrix: Fill
Analytical Method: 97,8082A
Analytical Date: 08/26/18 17:36
Analyst: HT
Percent Solids: 92%

Extraction Method: EPA 3546
Extraction Date: 08/24/18 10:58
Cleanup Method: EPA 3665A
Cleanup Date: 08/24/18
Cleanup Method: EPA 3660B
Cleanup Date: 08/25/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		ug/kg	35.1	--	1	A
Aroclor 1221	ND		ug/kg	35.1	--	1	A
Aroclor 1232	ND		ug/kg	35.1	--	1	A
Aroclor 1242	ND		ug/kg	35.1	--	1	A
Aroclor 1248	ND		ug/kg	35.1	--	1	A
Aroclor 1254	ND		ug/kg	35.1	--	1	A
Aroclor 1260	ND		ug/kg	35.1	--	1	A
Aroclor 1262	ND		ug/kg	35.1	--	1	A
Aroclor 1268	ND		ug/kg	35.1	--	1	A
PCBs, Total	ND		ug/kg	35.1	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		30-150	B
Decachlorobiphenyl	74		30-150	B
2,4,5,6-Tetrachloro-m-xylene	73		30-150	A
Decachlorobiphenyl	71		30-150	A

Project Name: 90 WASHINGTON ST.
Lab Number: L1833423
Project Number: 5471
Report Date: 08/27/18

SAMPLE RESULTS

Lab ID: L1833423-04
Client ID: B-606, S-2
Sample Location: SOMERVILLE

Date Collected: 08/22/18 09:45
Date Received: 08/23/18
Field Prep: Not Specified

Sample Depth: 2.5-5
Matrix: Fill
Analytical Method: 97,8082A
Analytical Date: 08/26/18 17:49
Analyst: HT
Percent Solids: 96%

Extraction Method: EPA 3546
Extraction Date: 08/24/18 10:58
Cleanup Method: EPA 3665A
Cleanup Date: 08/24/18
Cleanup Method: EPA 3660B
Cleanup Date: 08/25/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		ug/kg	34.0	--	1	A
Aroclor 1221	ND		ug/kg	34.0	--	1	A
Aroclor 1232	ND		ug/kg	34.0	--	1	A
Aroclor 1242	ND		ug/kg	34.0	--	1	A
Aroclor 1248	ND		ug/kg	34.0	--	1	A
Aroclor 1254	ND		ug/kg	34.0	--	1	B
Aroclor 1260	ND		ug/kg	34.0	--	1	B
Aroclor 1262	ND		ug/kg	34.0	--	1	A
Aroclor 1268	ND		ug/kg	34.0	--	1	A
PCBs, Total	ND		ug/kg	34.0	--	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	35		30-150	B
Decachlorobiphenyl	37		30-150	B
2,4,5,6-Tetrachloro-m-xylene	34		30-150	A
Decachlorobiphenyl	35		30-150	A

Project Name: 90 WASHINGTON ST.
Project Number: 5471
Lab Number: L1833423
Report Date: 08/27/18

SAMPLE RESULTS

Lab ID: L1833423-05
Client ID: B-607, S-2
Sample Location: SOMERVILLE

Sample Depth: 2.5-5
Matrix: Fill
Analytical Method: 97,8082A
Analytical Date: 08/26/18 18:01
Analyst: HT
Percent Solids: 87%

Date Collected: 08/22/18 10:15
Date Received: 08/23/18
Field Prep: Not Specified

Extraction Method: EPA 3546
Extraction Date: 08/24/18 10:58
Cleanup Method: EPA 3665A
Cleanup Date: 08/24/18
Cleanup Method: EPA 3660B
Cleanup Date: 08/25/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		ug/kg	37.5	--	1	A
Aroclor 1221	ND		ug/kg	37.5	--	1	A
Aroclor 1232	ND		ug/kg	37.5	--	1	A
Aroclor 1242	ND		ug/kg	37.5	--	1	A
Aroclor 1248	ND		ug/kg	37.5	--	1	A
Aroclor 1254	ND		ug/kg	37.5	--	1	A
Aroclor 1260	151		ug/kg	37.5	--	1	A
Aroclor 1262	ND		ug/kg	37.5	--	1	A
Aroclor 1268	ND		ug/kg	37.5	--	1	A
PCBs, Total	151		ug/kg	37.5	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	72		30-150	B
Decachlorobiphenyl	76		30-150	B
2,4,5,6-Tetrachloro-m-xylene	69		30-150	A
Decachlorobiphenyl	66		30-150	A

Project Name: 90 WASHINGTON ST. **Lab Number:** L1833423

Project Number: 5471 **Report Date:** 08/27/18

SAMPLE RESULTS

Lab ID: L1833423-06
Client ID: B-608, S-3
Sample Location: SOMERVILLE

Sample Depth: 5-7.5
Matrix: Fill
Analytical Method: 97,8082A
Analytical Date: 08/26/18 18:14
Analyst: HT
Percent Solids: 89%

Date Collected: 08/22/18 10:45
Date Received: 08/23/18
Field Prep: Not Specified

Extraction Method: EPA 3546
Extraction Date: 08/24/18 10:58
Cleanup Method: EPA 3665A
Cleanup Date: 08/24/18
Cleanup Method: EPA 3660B
Cleanup Date: 08/25/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		ug/kg	35.6	--	1	A
Aroclor 1221	ND		ug/kg	35.6	--	1	A
Aroclor 1232	ND		ug/kg	35.6	--	1	A
Aroclor 1242	ND		ug/kg	35.6	--	1	A
Aroclor 1248	95.7		ug/kg	35.6	--	1	B
Aroclor 1254	59.0		ug/kg	35.6	--	1	A
Aroclor 1260	ND		ug/kg	35.6	--	1	A
Aroclor 1262	ND		ug/kg	35.6	--	1	A
Aroclor 1268	ND		ug/kg	35.6	--	1	A
PCBs, Total	155		ug/kg	35.6	--	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	70		30-150	B
Decachlorobiphenyl	75		30-150	B
2,4,5,6-Tetrachloro-m-xylene	69		30-150	A
Decachlorobiphenyl	71		30-150	A

Project Name: 90 WASHINGTON ST.
Project Number: 5471
Lab Number: L1833423
Report Date: 08/27/18

SAMPLE RESULTS

Lab ID: L1833423-07
Client ID: B-608, S-6
Sample Location: SOMERVILLE

Sample Depth: 12.5-15
Matrix: Fill
Analytical Method: 97,8082A
Analytical Date: 08/26/18 18:27
Analyst: HT
Percent Solids: 88%

Date Collected: 08/22/18 11:00
Date Received: 08/23/18
Field Prep: Not Specified

Extraction Method: EPA 3546
Extraction Date: 08/24/18 10:58
Cleanup Method: EPA 3665A
Cleanup Date: 08/24/18
Cleanup Method: EPA 3660B
Cleanup Date: 08/25/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		ug/kg	35.7	--	1	A
Aroclor 1221	ND		ug/kg	35.7	--	1	A
Aroclor 1232	ND		ug/kg	35.7	--	1	A
Aroclor 1242	ND		ug/kg	35.7	--	1	A
Aroclor 1248	ND		ug/kg	35.7	--	1	A
Aroclor 1254	ND		ug/kg	35.7	--	1	A
Aroclor 1260	ND		ug/kg	35.7	--	1	A
Aroclor 1262	ND		ug/kg	35.7	--	1	A
Aroclor 1268	ND		ug/kg	35.7	--	1	A
PCBs, Total	ND		ug/kg	35.7	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		30-150	B
Decachlorobiphenyl	84		30-150	B
2,4,5,6-Tetrachloro-m-xylene	74		30-150	A
Decachlorobiphenyl	78		30-150	A

Project Name: 90 WASHINGTON ST.
Lab Number: L1833423
Project Number: 5471
Report Date: 08/27/18

SAMPLE RESULTS

Lab ID: L1833423-08
Client ID: B-609, S-2
Sample Location: SOMERVILLE

Date Collected: 08/22/18 11:45
Date Received: 08/23/18
Field Prep: Not Specified

Sample Depth: 2.5-5
Matrix: Fill
Analytical Method: 97,8082A
Analytical Date: 08/26/18 18:40
Analyst: HT
Percent Solids: 97%

Extraction Method: EPA 3546
Extraction Date: 08/24/18 10:58
Cleanup Method: EPA 3665A
Cleanup Date: 08/24/18
Cleanup Method: EPA 3660B
Cleanup Date: 08/25/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		ug/kg	34.1	--	1	A
Aroclor 1221	ND		ug/kg	34.1	--	1	A
Aroclor 1232	ND		ug/kg	34.1	--	1	A
Aroclor 1242	ND		ug/kg	34.1	--	1	A
Aroclor 1248	ND		ug/kg	34.1	--	1	A
Aroclor 1254	69.8		ug/kg	34.1	--	1	B
Aroclor 1260	ND		ug/kg	34.1	--	1	A
Aroclor 1262	ND		ug/kg	34.1	--	1	A
Aroclor 1268	ND		ug/kg	34.1	--	1	A
PCBs, Total	69.8		ug/kg	34.1	--	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	74		30-150	B
Decachlorobiphenyl	78		30-150	B
2,4,5,6-Tetrachloro-m-xylene	72		30-150	A
Decachlorobiphenyl	81		30-150	A

Project Name: 90 WASHINGTON ST. **Lab Number:** L1833423

Project Number: 5471 **Report Date:** 08/27/18

SAMPLE RESULTS

Lab ID: L1833423-09
Client ID: B-611, S-2
Sample Location: SOMERVILLE

Sample Depth: 2.5-5
Matrix: Fill
Analytical Method: 97,8082A
Analytical Date: 08/26/18 18:53
Analyst: HT
Percent Solids: 94%

Date Collected: 08/22/18 12:00
Date Received: 08/23/18
Field Prep: Not Specified

Extraction Method: EPA 3546
Extraction Date: 08/24/18 10:58
Cleanup Method: EPA 3665A
Cleanup Date: 08/24/18
Cleanup Method: EPA 3660B
Cleanup Date: 08/25/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		ug/kg	33.8	--	1	A
Aroclor 1221	ND		ug/kg	33.8	--	1	A
Aroclor 1232	ND		ug/kg	33.8	--	1	A
Aroclor 1242	ND		ug/kg	33.8	--	1	A
Aroclor 1248	ND		ug/kg	33.8	--	1	A
Aroclor 1254	406		ug/kg	33.8	--	1	B
Aroclor 1260	ND		ug/kg	33.8	--	1	A
Aroclor 1262	ND		ug/kg	33.8	--	1	A
Aroclor 1268	ND		ug/kg	33.8	--	1	A
PCBs, Total	406		ug/kg	33.8	--	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	73		30-150	B
Decachlorobiphenyl	75		30-150	B
2,4,5,6-Tetrachloro-m-xylene	70		30-150	A
Decachlorobiphenyl	69		30-150	A

Project Name: 90 WASHINGTON ST.
Project Number: 5471

Lab Number: L1833423
Report Date: 08/27/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8082A
Analytical Date: 08/26/18 19:06
Analyst: HT

Extraction Method: EPA 3546
Extraction Date: 08/24/18 10:58
Cleanup Method: EPA 3665A
Cleanup Date: 08/24/18
Cleanup Method: EPA 3660B
Cleanup Date: 08/25/18

Parameter	Result	Qualifier	Units	RL	MDL	Column
MCP Polychlorinated Biphenyls - Westborough Lab for sample(s): 01-09 Batch: WG1150288-1						
Aroclor 1016	ND		ug/kg	32.5	--	A
Aroclor 1221	ND		ug/kg	32.5	--	A
Aroclor 1232	ND		ug/kg	32.5	--	A
Aroclor 1242	ND		ug/kg	32.5	--	A
Aroclor 1248	ND		ug/kg	32.5	--	A
Aroclor 1254	ND		ug/kg	32.5	--	A
Aroclor 1260	ND		ug/kg	32.5	--	A
Aroclor 1262	ND		ug/kg	32.5	--	A
Aroclor 1268	ND		ug/kg	32.5	--	A
PCBs, Total	ND		ug/kg	32.5	--	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	81		30-150	B
Decachlorobiphenyl	70		30-150	B
2,4,5,6-Tetrachloro-m-xylene	76		30-150	A
Decachlorobiphenyl	68		30-150	A

Lab Control Sample Analysis
Batch Quality Control

Project Name: 90 WASHINGTON ST.
Project Number: 5471

Lab Number: L1833423
Report Date: 08/27/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
MCP Polychlorinated Biphenyls - Westborough Lab Associated sample(s): 01-09 Batch: WG1150288-2 WG1150288-3									
Aroclor 1016	86		84		40-140	2		30	A
Aroclor 1260	73		72		40-140	1		30	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	81		77		30-150	B
Decachlorobiphenyl	69		66		30-150	B
2,4,5,6-Tetrachloro-m-xylene	74		74		30-150	A
Decachlorobiphenyl	63		62		30-150	A

INORGANICS
&
MISCELLANEOUS

Project Name: 90 WASHINGTON ST.
Project Number: 5471

Lab Number: L1833423
Report Date: 08/27/18

SAMPLE RESULTS

Lab ID: L1833423-01
Client ID: B-603, S-2
Sample Location: SOMERVILLE

Date Collected: 08/22/18 09:00
Date Received: 08/23/18
Field Prep: Not Specified

Sample Depth: 2.5-5
Matrix: Fill

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	88.2		%	0.100	NA	1	-	08/24/18 08:53	121,2540G	RI

Project Name: 90 WASHINGTON ST.
Project Number: 5471

Lab Number: L1833423
Report Date: 08/27/18

SAMPLE RESULTS

Lab ID: L1833423-02
Client ID: B-604, S-2
Sample Location: SOMERVILLE

Date Collected: 08/22/18 09:15
Date Received: 08/23/18
Field Prep: Not Specified

Sample Depth: 2.5-5
Matrix: Fill

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	88.3		%	0.100	NA	1	-	08/24/18 08:53	121,2540G	RI

Project Name: 90 WASHINGTON ST.
Project Number: 5471

Lab Number: L1833423
Report Date: 08/27/18

SAMPLE RESULTS

Lab ID: L1833423-03
Client ID: B-605, S-2
Sample Location: SOMERVILLE

Date Collected: 08/22/18 09:30
Date Received: 08/23/18
Field Prep: Not Specified

Sample Depth: 2.5-5
Matrix: Fill

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	92.1		%	0.100	NA	1	-	08/24/18 08:53	121,2540G	RI

Project Name: 90 WASHINGTON ST.
Project Number: 5471

Lab Number: L1833423
Report Date: 08/27/18

SAMPLE RESULTS

Lab ID: L1833423-04
Client ID: B-606, S-2
Sample Location: SOMERVILLE

Date Collected: 08/22/18 09:45
Date Received: 08/23/18
Field Prep: Not Specified

Sample Depth: 2.5-5
Matrix: Fill

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	95.9		%	0.100	NA	1	-	08/24/18 08:53	121,2540G	RI

Project Name: 90 WASHINGTON ST.
Project Number: 5471

Lab Number: L1833423
Report Date: 08/27/18

SAMPLE RESULTS

Lab ID: L1833423-05
Client ID: B-607, S-2
Sample Location: SOMERVILLE

Date Collected: 08/22/18 10:15
Date Received: 08/23/18
Field Prep: Not Specified

Sample Depth: 2.5-5
Matrix: Fill

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87.0		%	0.100	NA	1	-	08/24/18 08:53	121,2540G	RI

Project Name: 90 WASHINGTON ST.
Project Number: 5471
Lab Number: L1833423
Report Date: 08/27/18

SAMPLE RESULTS

Lab ID: L1833423-06
Client ID: B-608, S-3
Sample Location: SOMERVILLE
Sample Depth: 5-7.5
Matrix: Fill
Date Collected: 08/22/18 10:45
Date Received: 08/23/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.2		%	0.100	NA	1	-	08/24/18 08:53	121,2540G	RI

Project Name: 90 WASHINGTON ST.
Project Number: 5471

Lab Number: L1833423
Report Date: 08/27/18

SAMPLE RESULTS

Lab ID: L1833423-07
Client ID: B-608, S-6
Sample Location: SOMERVILLE

Date Collected: 08/22/18 11:00
Date Received: 08/23/18
Field Prep: Not Specified

Sample Depth: 12.5-15
Matrix: Fill

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87.6		%	0.100	NA	1	-	08/24/18 08:53	121,2540G	RI

Project Name: 90 WASHINGTON ST.
Project Number: 5471

Lab Number: L1833423
Report Date: 08/27/18

SAMPLE RESULTS

Lab ID: L1833423-08
Client ID: B-609, S-2
Sample Location: SOMERVILLE

Date Collected: 08/22/18 11:45
Date Received: 08/23/18
Field Prep: Not Specified

Sample Depth: 2.5-5
Matrix: Fill

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	96.6		%	0.100	NA	1	-	08/24/18 08:53	121,2540G	RI

Project Name: 90 WASHINGTON ST.
Project Number: 5471

Lab Number: L1833423
Report Date: 08/27/18

SAMPLE RESULTS

Lab ID: L1833423-09
Client ID: B-611, S-2
Sample Location: SOMERVILLE

Date Collected: 08/22/18 12:00
Date Received: 08/23/18
Field Prep: Not Specified

Sample Depth: 2.5-5
Matrix: Fill

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	94.2		%	0.100	NA	1	-	08/24/18 08:53	121,2540G	RI

Lab Duplicate Analysis

Batch Quality Control

Project Name: 90 WASHINGTON ST.

Project Number: 5471

Lab Number: L1833423

Report Date: 08/27/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG1150189-1 QC Sample: L1833423-01 Client ID: B-603, S-2						
Solids, Total	88.2	89.7	%	2		20

Project Name: 90 WASHINGTON ST.
Project Number: 5471

Lab Number: L1833423
Report Date: 08/27/18

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1833423-01A	Glass 250ml/8oz unpreserved	A	NA		5.2	Y	Absent		MCP-8082-10(365),TS(7)
L1833423-02A	Glass 250ml/8oz unpreserved	A	NA		5.2	Y	Absent		MCP-8082-10(365),TS(7)
L1833423-03A	Glass 250ml/8oz unpreserved	A	NA		5.2	Y	Absent		MCP-8082-10(365),TS(7)
L1833423-04A	Glass 250ml/8oz unpreserved	A	NA		5.2	Y	Absent		MCP-8082-10(365),TS(7)
L1833423-05A	Glass 250ml/8oz unpreserved	A	NA		5.2	Y	Absent		MCP-8082-10(365),TS(7)
L1833423-06A	Glass 250ml/8oz unpreserved	A	NA		5.2	Y	Absent		MCP-8082-10(365),TS(7)
L1833423-07A	Vial MeOH preserved	A	NA		5.2	Y	Absent		VPH-DELUX-18(28)
L1833423-07B	Glass 250ml/8oz unpreserved	A	NA		5.2	Y	Absent		MCP-8082-10(365),TS(7),EPH-DELUX-10(14)
L1833423-08A	Glass 250ml/8oz unpreserved	A	NA		5.2	Y	Absent		MCP-8082-10(365),TS(7)
L1833423-09A	Glass 250ml/8oz unpreserved	A	NA		5.2	Y	Absent		MCP-8082-10(365),TS(7)

*Values in parentheses indicate holding time in days

Project Name:	90 WASHINGTON ST.	**Lab Number:**	L1833423
Project Number:	5471	**Report Date:**	08/27/18

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample¿s toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Report Format: Data Usability Report

Project Name:	90 WASHINGTON ST.	**Lab Number:**	L1833423
Project Number:	5471	**Report Date:**	08/27/18

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name:	90 WASHINGTON ST.	**Lab Number:**	L1833423
Project Number:	5471	**Report Date:**	08/27/18

REFERENCES

97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

98 Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MassDEP, May 2004, Revision 1.1 with QC Requirements & Performance Standards for the Analysis of EPH under the Massachusetts Contingency Plan, WSC-CAM-IVB, July 2010.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

131 Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MassDEP, February 2018, Revision 2.1 with QC Requirements & Performance Standards for the Analysis of VPH under the Massachusetts Contingency Plan, WSC-CAM-IVA, June 1, 2018.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Be, Cd, Cr, Cu, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 8/23/18

ALPHA Job #: L1833423

8 Walkup Drive, Westboro, MA 01581, Tel: 508-898-9220
320 Forbes Blvd, Mansfield, MA 02048, Tel: 508-822-9300

Client Information

Client: McPhail Associates, LLC
Address: 2269 Massachusetts Avenue
Cambridge, MA 02140
Phone: (617) 868-1420
Email: @McPhailgeo.com

Project Information

Project Name: 90 WASHINGTON ST
Project Location: SOMERVILLE
Project #: 5471
Project Manager: MBRADLEY
ALPHA Quote #:

Turn-Around Time

☐ Standard ☐ RUSH *(only confirmed if pre-approved!)*
Date Due:

Report Information - Data Deliverables

☐ ADEx ☐ EMAIL MBRADLEY

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

Additional Project Information:

☐ Run TCLP (if triggered)

Sample "Sample ID" Nomenclature: B-100, S-1

ALPHA Lab ID (Lab Use Only)	Sample ID	Sample Depth	Sample Material	Collection Date	Collection Time	Sampler Initials	Soil Assessment Package IV (less VOC)	VOC: ☐ 8260	Total Solids	SVOC: ☐ PAH	EPH: ☐ Ranges & Targets ☐ Ranges Only	VPH: ☐ Ranges & Targets ☐ Ranges Only	TOTAL METALS: ☐ RCRA8 ☐ PP13 ☐ MCP 14	DISSOLVED METALS: ☐ RCRA8 ☐ PP13 ☐ MCP 14	METALS: Total Sb,Be,Ni,Tl,V,Zn	☐ PCBs ☐ Pesticides	RGP Section A Inorganics				SAMPLE INFO *Filtration* ☐ Field ☐ Lab to do *Preservation* ☐ Lab to do / Sample Comments	TOTAL # BOTTLES
33423 -01	B-603 S2	2.5-5'	F	08-22-18	0900	KH										✓						
-02	B-604 S2	2.5-5'	F	08-22-18	0915	KH										X						
-03	B-605 S2	2.5-5'	F	08-22-18	0930	KH										X						
-04	B-606 S2	2.5-5'	F	08-22-18	0945	KH										X						
-05	B-607 S2	2.5-5'	F	08-22-18	1015	KH										X						
-06	B-608 S3	5-7.5	F	08-22-18	1045	KH										✓						
-07	B-608 S6	12.5-15'	F	08-22-18	1100 1115	KH			X		X	X				X						
-08	B-609 S2	2.5-5'	F	08-22-18	1145	KH										X						
-09	B-611 S2	2.5-5'	F	08-22-18	1200	KH										X						

Container Type
A=Amber glass
B=Bacteria cup
C=Cube
D=BOD bottle
E=Encore
G=Glass
O=Other
P=Plastic
V=Vial

Sample Material
F=Fill S=Sand
O=Organics C=Clay
N=Natural T=Till
GM=Glaciomarine

Preservative
A=None
B=HCl
C=HNO_3
D=H_2SO_4
E=NaOH
F=MeOH
G=$NaHSO_4$
H=$Na_2S_2O_3$
I=Ascorbic Acid
J=NH_4Cl
K=Zn Acetate
O=Other

RGP Section A Inorganics:
Ammonia, Chloride, TRC, TSS, CrVI, CrIII, Total Cyanide, Total RGP Metals

	Container Type																					
	Preservative																					

Relinquished By:	Date/Time
[signature] 1600	8-23-18
McPhail Associates secure sample storage for laboratory pick-up	
[signature] AAL 8/23/18 17:45	

Received By:	Date/Time
McPhail Associates secure sample storage for laboratory pick-up	
[signature] AAL 8/23/18 16:10	
BKelley 8/23/18	1745

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

DOC ID: 25188 Rev 0 (11/28/2017)

ANALYTICAL REPORT

Lab Number:	L1833774
Client:	McPhail Associates 2269 Massachusetts Avenue Cambridge, MA 02140
ATTN:	Ambrose Donovan
Phone:	(617) 868-1420
Project Name:	90 WASHINGTON ST.
Project Number:	5471
Report Date:	08/29/18

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: 90 WASHINGTON ST.
Project Number: 5471

Lab Number: L1833774
Report Date: 08/29/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1833774-01	B-608	GROUNDWATER	90 WASHINGTON ST., SOMERVILLE, MA	08/27/18 13:00	08/27/18
L1833774-02	B-2	GROUNDWATER	90 WASHINGTON ST., SOMERVILLE, MA	08/27/18 11:30	08/27/18

Project Name: 90 WASHINGTON ST. **Lab Number:** L1833774

Project Number: 5471 **Report Date:** 08/29/18

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	YES
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.

Project Name: 90 WASHINGTON ST. **Lab Number:** L1833774
Project Number: 5471 **Report Date:** 08/29/18

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	90 WASHINGTON ST.	**Lab Number:**	L1833774
Project Number:	5471	**Report Date:**	08/29/18

Case Narrative (continued)

MCP Related Narratives

EPH

In reference to question G:

L1833774-01: One or more of the target analytes did not achieve the requested CAM reporting limits.

VPH

In reference to question G:

L1833774-01: One or more of the target analytes did not achieve the requested CAM reporting limits.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Melissa Cripps

Title: Technical Director/Representative Date: 08/29/18

ORGANICS

PETROLEUM HYDROCARBONS

Project Name: 90 WASHINGTON ST. **Lab Number:** L1833774

Project Number: 5471 **Report Date:** 08/29/18

SAMPLE RESULTS

Lab ID:	L1833774-01	Date Collected:	08/27/18 13:00
Client ID:	B-608	Date Received:	08/27/18
Sample Location:	90 WASHINGTON ST., SOMERVILLE, MA	Field Prep:	Not Specified
Sample Depth:			
Matrix:	Groundwater	Extraction Method:	EPA 3510C
Analytical Method:	98,EPH-04-1.1	Extraction Date:	08/27/18 20:35
Analytical Date:	08/29/18 03:06	Cleanup Method1:	EPH-04-1
Analyst:	DG	Cleanup Date1:	08/28/18

Quality Control Information

Condition of sample received:	Satisfactory
Aqueous Preservative:	Laboratory Provided Preserved Container
Sample Temperature upon receipt:	Received on Ice
Sample Extraction method:	Extracted Per the Method

Extractable Petroleum Hydrocarbons - Westborough Lab

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
C9-C18 Aliphatics	179		ug/l	100	--	1
C19-C36 Aliphatics	ND		ug/l	100	--	1
C11-C22 Aromatics	657		ug/l	100	--	1
C11-C22 Aromatics, Adjusted	622		ug/l	100	--	1
Naphthalene	10.1		ug/l	10.0	--	1
2-Methylnaphthalene	24.8		ug/l	10.0	--	1
Acenaphthylene	ND		ug/l	10.0	--	1
Acenaphthene	ND		ug/l	10.0	--	1
Fluorene	ND		ug/l	10.0	--	1
Phenanthrene	ND		ug/l	10.0	--	1
Anthracene	ND		ug/l	10.0	--	1
Fluoranthene	ND		ug/l	10.0	--	1
Pyrene	ND		ug/l	10.0	--	1
Benzo(a)anthracene	ND		ug/l	10.0	--	1
Chrysene	ND		ug/l	10.0	--	1
Benzo(b)fluoranthene	ND		ug/l	10.0	--	1
Benzo(k)fluoranthene	ND		ug/l	10.0	--	1
Benzo(a)pyrene	ND		ug/l	10.0	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/l	10.0	--	1
Dibenzo(a,h)anthracene	ND		ug/l	10.0	--	1
Benzo(ghi)perylene	ND		ug/l	10.0	--	1

Project Name: 90 WASHINGTON ST. **Lab Number:** L1833774

Project Number: 5471 **Report Date:** 08/29/18

SAMPLE RESULTS

Lab ID:	L1833774-01	Date Collected:	08/27/18 13:00
Client ID:	B-608	Date Received:	08/27/18
Sample Location:	90 WASHINGTON ST., SOMERVILLE, MA	Field Prep:	Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Extractable Petroleum Hydrocarbons - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	57		40-140
o-Terphenyl	68		40-140
2-Fluorobiphenyl	72		40-140
2-Bromonaphthalene	67		40-140

Project Name: 90 WASHINGTON ST. **Lab Number:** L1833774

Project Number: 5471 **Report Date:** 08/29/18

SAMPLE RESULTS

Lab ID: L1833774-01 D
Client ID: B-608
Sample Location: 90 WASHINGTON ST., SOMERVILLE, MA

Date Collected: 08/27/18 13:00
Date Received: 08/27/18
Field Prep: Not Specified

Sample Depth:
Matrix: Groundwater
Analytical Method: 131,VPH-18-2.1
Analytical Date: 08/28/18 10:23
Analyst: MZ

Trap: EST, Carbopack B/Carboxen 1000&1001

Analytical Column: Restek, RTX-502.2, 105m, 0.53ID, 3um

Quality Control Information

Condition of sample received: Satisfactory

Aqueous Preservative: Laboratory Provided Preserved Container

Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Petroleum Hydrocarbons - Westborough Lab						
C5-C8 Aliphatics	908		ug/l	100	--	2
C9-C12 Aliphatics	615		ug/l	100	--	2
C9-C10 Aromatics	460		ug/l	100	--	2
C5-C8 Aliphatics, Adjusted	868		ug/l	100	--	2
C9-C12 Aliphatics, Adjusted	147		ug/l	100	--	2
Benzene	34.4		ug/l	4.00	--	2
Toluene	5.72		ug/l	4.00	--	2
Ethylbenzene	ND		ug/l	4.00	--	2
p/m-Xylene	7.88		ug/l	4.00	--	2
o-Xylene	ND		ug/l	4.00	--	2
Methyl tert butyl ether	ND		ug/l	6.00	--	2
Naphthalene	18.5		ug/l	8.00	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	106		70-130
2,5-Dibromotoluene-FID	102		70-130

Project Name: 90 WASHINGTON ST.
Project Number: 5471
Lab Number: L1833774
Report Date: 08/29/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 98,EPH-04-1.1
Analytical Date: 08/29/18 02:34
Analyst: DG

Extraction Method: EPA 3510C
Extraction Date: 08/27/18 20:35
Cleanup Method: EPH-04-1
Cleanup Date: 08/28/18

Parameter	Result	Qualifier	Units	RL	MDL
Extractable Petroleum Hydrocarbons - Westborough Lab for sample(s): 01 Batch: WG1151121-1					
C9-C18 Aliphatics	ND		ug/l	100	--
C19-C36 Aliphatics	ND		ug/l	100	--
C11-C22 Aromatics	ND		ug/l	100	--
C11-C22 Aromatics, Adjusted	ND		ug/l	100	--
Naphthalene	ND		ug/l	10.0	--
2-Methylnaphthalene	ND		ug/l	10.0	--
Acenaphthylene	ND		ug/l	10.0	--
Acenaphthene	ND		ug/l	10.0	--
Fluorene	ND		ug/l	10.0	--
Phenanthrene	ND		ug/l	10.0	--
Anthracene	ND		ug/l	10.0	--
Fluoranthene	ND		ug/l	10.0	--
Pyrene	ND		ug/l	10.0	--
Benzo(a)anthracene	ND		ug/l	10.0	--
Chrysene	ND		ug/l	10.0	--
Benzo(b)fluoranthene	ND		ug/l	10.0	--
Benzo(k)fluoranthene	ND		ug/l	10.0	--
Benzo(a)pyrene	ND		ug/l	10.0	--
Indeno(1,2,3-cd)Pyrene	ND		ug/l	10.0	--
Dibenzo(a,h)anthracene	ND		ug/l	10.0	--
Benzo(ghi)perylene	ND		ug/l	10.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	65		40-140
o-Terphenyl	77		40-140
2-Fluorobiphenyl	83		40-140
2-Bromonaphthalene	76		40-140

Project Name: 90 WASHINGTON ST. **Lab Number:** L1833774

Project Number: 5471 **Report Date:** 08/29/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 131,VPH-18-2.1
Analytical Date: 08/28/18 09:42
Analyst: MZ

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 01 Batch: WG1151717-4					
C5-C8 Aliphatics	ND		ug/l	50.0	--
C9-C12 Aliphatics	ND		ug/l	50.0	--
C9-C10 Aromatics	ND		ug/l	50.0	--
C5-C8 Aliphatics, Adjusted	ND		ug/l	50.0	--
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0	--
Benzene	ND		ug/l	2.00	--
Toluene	ND		ug/l	2.00	--
Ethylbenzene	ND		ug/l	2.00	--
p/m-Xylene	ND		ug/l	2.00	--
o-Xylene	ND		ug/l	2.00	--
Methyl tert butyl ether	ND		ug/l	3.00	--
Naphthalene	ND		ug/l	4.00	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	104		70-130
2,5-Dibromotoluene-FID	107		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 90 WASHINGTON ST.
Project Number: 5471

Lab Number: L1833774
Report Date: 08/29/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 Batch: WG1151121-2 WG1151121-3								
C9-C18 Aliphatics	69		65		40-140	6		25
C19-C36 Aliphatics	79		72		40-140	9		25
C11-C22 Aromatics	102		89		40-140	14		25
Naphthalene	80		71		40-140	12		25
2-Methylnaphthalene	84		73		40-140	14		25
Acenaphthylene	92		80		40-140	14		25
Acenaphthene	95		81		40-140	16		25
Fluorene	99		84		40-140	16		25
Phenanthrene	101		87		40-140	15		25
Anthracene	100		88		40-140	13		25
Fluoranthene	103		89		40-140	15		25
Pyrene	103		90		40-140	13		25
Benzo(a)anthracene	98		87		40-140	12		25
Chrysene	94		85		40-140	10		25
Benzo(b)fluoranthene	101		88		40-140	14		25
Benzo(k)fluoranthene	94		86		40-140	9		25
Benzo(a)pyrene	94		85		40-140	10		25
Indeno(1,2,3-cd)Pyrene	94		84		40-140	11		25
Dibenzo(a,h)anthracene	88		76		40-140	15		25
Benzo(ghi)perylene	85		78		40-140	9		25
Nonane (C9)	41		40		30-140	2		25
Decane (C10)	49		49		40-140	0		25
Dodecane (C12)	59		56		40-140	5		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: 90 WASHINGTON ST.

Project Number: 5471

Lab Number: L1833774

Report Date: 08/29/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 Batch: WG1151121-2 WG1151121-3								
Tetradecane (C14)	68		64		40-140	6		25
Hexadecane (C16)	73		67		40-140	9		25
Octadecane (C18)	77		70		40-140	10		25
Nonadecane (C19)	75		69		40-140	8		25
Eicosane (C20)	77		71		40-140	8		25
Docosane (C22)	77		71		40-140	8		25
Tetracosane (C24)	77		71		40-140	8		25
Hexacosane (C26)	77		71		40-140	8		25
Octacosane (C28)	78		72		40-140	8		25
Triacontane (C30)	77		72		40-140	7		25
Hexatriacontane (C36)	74		70		40-140	6		25

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Chloro-Octadecane	68		64		40-140
o-Terphenyl	88		76		40-140
2-Fluorobiphenyl	90		81		40-140
2-Bromonaphthalene	85		75		40-140
% Naphthalene Breakthrough	0		0		
% 2-Methylnaphthalene Breakthrough	0		0		

Lab Control Sample Analysis
Batch Quality Control

Project Name: 90 WASHINGTON ST.
Project Number: 5471
Lab Number: L1833774
Report Date: 08/29/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 Batch: WG1151717-2 WG1151717-3								
C5-C8 Aliphatics	103		102		70-130	1		25
C9-C12 Aliphatics	108		107		70-130	1		25
C9-C10 Aromatics	100		99		70-130	1		25
Benzene	100		99		70-130	1		25
Toluene	101		100		70-130	1		25
Ethylbenzene	107		106		70-130	1		25
p/m-Xylene	104		102		70-130	2		25
o-Xylene	101		100		70-130	1		25
Methyl tert butyl ether	97		97		70-130	0		25
Naphthalene	100		102		70-130	2		25
1,2,4-Trimethylbenzene	100		99		70-130	1		25
Pentane	109		111		70-130	2		25
2-Methylpentane	99		97		70-130	2		25
2,2,4-Trimethylpentane	104		103		70-130	1		25
n-Nonane	106		105		30-130	1		25
n-Decane	110		109		70-130	1		25
n-Butylcyclohexane	108		108		70-130	0		25

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,5-Dibromotoluene-PID	106		105		70-130
2,5-Dibromotoluene-FID	108		107		70-130

PCBS

Project Name: 90 WASHINGTON ST. **Lab Number:** L1833774

Project Number: 5471 **Report Date:** 08/29/18

SAMPLE RESULTS

Lab ID: L1833774-01
Client ID: B-608
Sample Location: 90 WASHINGTON ST., SOMERVILLE, MA

Date Collected: 08/27/18 13:00
Date Received: 08/27/18
Field Prep: Not Specified

Sample Depth:
Matrix: Groundwater
Analytical Method: 97,8082A
Analytical Date: 08/28/18 04:49
Analyst: JW

Extraction Method: EPA 3510C
Extraction Date: 08/27/18 20:39
Cleanup Method: EPA 3665A
Cleanup Date: 08/28/18
Cleanup Method: EPA 3660B
Cleanup Date: 08/28/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		ug/l	0.250	--	1	A
Aroclor 1221	ND		ug/l	0.250	--	1	A
Aroclor 1232	ND		ug/l	0.250	--	1	A
Aroclor 1242	ND		ug/l	0.250	--	1	A
Aroclor 1248	ND		ug/l	0.250	--	1	A
Aroclor 1254	ND		ug/l	0.250	--	1	A
Aroclor 1260	ND		ug/l	0.250	--	1	A
Aroclor 1262	ND		ug/l	0.250	--	1	A
Aroclor 1268	ND		ug/l	0.250	--	1	A
PCBs, Total	ND		ug/l	0.250	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	66		30-150	A
Decachlorobiphenyl	45		30-150	A
2,4,5,6-Tetrachloro-m-xylene	69		30-150	B
Decachlorobiphenyl	41		30-150	B

Project Name: 90 WASHINGTON ST. **Lab Number:** L1833774

Project Number: 5471 **Report Date:** 08/29/18

SAMPLE RESULTS

Lab ID: L1833774-02
Client ID: B-2
Sample Location: 90 WASHINGTON ST., SOMERVILLE, MA

Date Collected: 08/27/18 11:30
Date Received: 08/27/18
Field Prep: Not Specified

Sample Depth:
Matrix: Groundwater
Analytical Method: 97,8082A
Analytical Date: 08/28/18 05:02
Analyst: JW

Extraction Method: EPA 3510C
Extraction Date: 08/27/18 20:39
Cleanup Method: EPA 3665A
Cleanup Date: 08/28/18
Cleanup Method: EPA 3660B
Cleanup Date: 08/28/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		ug/l	0.250	--	1	A
Aroclor 1221	ND		ug/l	0.250	--	1	A
Aroclor 1232	ND		ug/l	0.250	--	1	A
Aroclor 1242	ND		ug/l	0.250	--	1	A
Aroclor 1248	ND		ug/l	0.250	--	1	A
Aroclor 1254	ND		ug/l	0.250	--	1	A
Aroclor 1260	ND		ug/l	0.250	--	1	A
Aroclor 1262	ND		ug/l	0.250	--	1	A
Aroclor 1268	ND		ug/l	0.250	--	1	A
PCBs, Total	ND		ug/l	0.250	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	69		30-150	A
Decachlorobiphenyl	52		30-150	A
2,4,5,6-Tetrachloro-m-xylene	75		30-150	B
Decachlorobiphenyl	50		30-150	B

Project Name: 90 WASHINGTON ST.
Project Number: 5471

Lab Number: L1833774
Report Date: 08/29/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8082A
Analytical Date: 08/28/18 04:10
Analyst: JW

Extraction Method: EPA 3510C
Extraction Date: 08/27/18 20:39
Cleanup Method: EPA 3665A
Cleanup Date: 08/28/18
Cleanup Method: EPA 3660B
Cleanup Date: 08/28/18

Parameter	Result	Qualifier	Units	RL	MDL	Column
MCP Polychlorinated Biphenyls - Westborough Lab for sample(s): 01-02 Batch: WG1151122-1						
Aroclor 1016	ND		ug/l	0.250	--	A
Aroclor 1221	ND		ug/l	0.250	--	A
Aroclor 1232	ND		ug/l	0.250	--	A
Aroclor 1242	ND		ug/l	0.250	--	A
Aroclor 1248	ND		ug/l	0.250	--	A
Aroclor 1254	ND		ug/l	0.250	--	A
Aroclor 1260	ND		ug/l	0.250	--	A
Aroclor 1262	ND		ug/l	0.250	--	A
Aroclor 1268	ND		ug/l	0.250	--	A
PCBs, Total	ND		ug/l	0.250	--	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	68		30-150	A
Decachlorobiphenyl	78		30-150	A
2,4,5,6-Tetrachloro-m-xylene	77		30-150	B
Decachlorobiphenyl	75		30-150	B

Lab Control Sample Analysis
Batch Quality Control

Project Name: 90 WASHINGTON ST.
Project Number: 5471

Lab Number: L1833774
Report Date: 08/29/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
MCP Polychlorinated Biphenyls - Westborough Lab Associated sample(s): 01-02 Batch: WG1151122-2 WG1151122-3									
Aroclor 1016	76		74		40-140	3		20	A
Aroclor 1260	72		74		40-140	3		20	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71		67		30-150	A
Decachlorobiphenyl	70		73		30-150	A
2,4,5,6-Tetrachloro-m-xylene	74		70		30-150	B
Decachlorobiphenyl	64		67		30-150	B

Project Name: 90 WASHINGTON ST.
Project Number: 5471

Lab Number: L1833774
Report Date: 08/29/18

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1833774-01A	Vial HCl preserved	A	NA		2.5	Y	Absent		VPH-DELUX-18(14)
L1833774-01B	Vial HCl preserved	A	NA		2.5	Y	Absent		VPH-DELUX-18(14)
L1833774-01C	Vial HCl preserved	A	NA		2.5	Y	Absent		VPH-DELUX-18(14)
L1833774-01D	Amber 1000ml unpreserved	A	7	7	2.5	Y	Absent		MCP-8082-10(365)
L1833774-01E	Amber 1000ml unpreserved	A	7	7	2.5	Y	Absent		MCP-8082-10(365)
L1833774-01F	Amber 1000ml HCl preserved	A	<2	<2	2.5	Y	Absent		EPH-DELUX-10(14)
L1833774-01G	Amber 1000ml HCl preserved	A	<2	<2	2.5	Y	Absent		EPH-DELUX-10(14)
L1833774-02A	Amber 1000ml unpreserved	A	7	7	2.5	Y	Absent		MCP-8082-10(365)
L1833774-02B	Amber 1000ml unpreserved	A	7	7	2.5	Y	Absent		MCP-8082-10(365)

*Values in parentheses indicate holding time in days

Project Name:	90 WASHINGTON ST.	**Lab Number:**	L1833774
Project Number:	5471	**Report Date:**	08/29/18

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample¿s toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Report Format: Data Usability Report

Project Name:	90 WASHINGTON ST.	**Lab Number:**	L1833774
Project Number:	5471	**Report Date:**	08/29/18

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name:	90 WASHINGTON ST.	**Lab Number:**	L1833774
Project Number:	5471	**Report Date:**	08/29/18

REFERENCES

97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

98 Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MassDEP, May 2004, Revision 1.1 with QC Requirements & Performance Standards for the Analysis of EPH under the Massachusetts Contingency Plan, WSC-CAM-IVB, July 2010.

131 Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MassDEP, February 2018, Revision 2.1 with QC Requirements & Performance Standards for the Analysis of VPH under the Massachusetts Contingency Plan, WSC-CAM-IVA, June 1, 2018.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Be, Cd, Cr, Cu, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 8/27/18

ALPHA Job #: L1833774

ALPHA ANALYTICAL
8 Walkup Drive, Westboro, MA 01581, Tel: 508-898-9220
320 Forbes Blvd, Mansfield, MA 02048, Tel: 508-822-9300

Client Information

Client: McPhail Associates, LLC
Address: 2269 Massachusetts Avenue
Cambridge, MA 02140
Phone: (617) 868-1420
Email: Mbradley @McPhailgeo.com

Additional Project Information:

☐ Run TCLP (if triggered)

Project Information

Project Name: 90 Washington St.
Project Location: 90 Washington St. Somerville, MA
Project #: 5471.
Project Manager: Mike Bradley
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH *(only confirmed if pre-approved!)*
Date Due: 8/29/18

Report Information - Data Deliverables

☐ ADEx ☐ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☒ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

Sample "Sample ID" Nomenclature: B-100, S-1

ALPHA Lab ID (Lab Use Only)	Sample ID	Sample Depth	Sample Material	Collection Date	Collection Time	Sampler Initials	Soil Assessment Package IV (less VOC)	VOC: ☐ 8260	Total Solids	SVOC: ☐ PAH	EPH: ☐ Ranges & Targets ☐ Ranges Only	VPH: ☐ Ranges & Targets ☐ Ranges Only	TOTAL METALS: ☐ RCRA8 ☐ PP13 ☐ MCP 14	DISSOLVED METALS: ☐ RCRA8 ☐ PP13 ☐ MCP 14	METALS: Total Sb,Be,Ni,Tl,V,Zn	☒ PCBs ☐ Pesticides 8082	RGP Section A Inorganics				SAMPLE INFO *Filtration* ☐ Field ☐ Lab to do *Preservation* ☐ Lab to do Sample Comments	TOTAL # BOTTLES
3774 -01	B-608		GW	8/27/18	13:00	DAT					X	X				X						7
-02	B-2		GW	8/27/18	11:30	DAT										X						2
Container Type											A	V				A						
Preservative											B	B				A						

Container Type
A=Amber glass
B=Bacteria cup
C=Cube
D=BOD bottle
E=Encore
G=Glass
O=Other
P=Plastic
V=Vial

Sample Material
F=Fill S=Sand
O=Organics C=Clay
N=Natural T=Till
GM=Glaciomarine
GW=Groundwater

Preservative
A=None
B=HCl
C=HNO_3
D=H_2SO_4
E=NaOH
F=MeOH
G=$NaHSO_4$
H=$Na_2S_2O_3$
I=Ascorbix Acid
J=NH_4Cl
K=Zn Acetate
O=Other

RGP Section A Inorganics :
Ammonia, Chloride, TRC, TSS, CrVI, CrIII, Total Cyanide, Total RGP Metals

Relinquished By:	Date/Time	Received By:	Date/Time
	8/27/18 14:00	McPhail Associates secure sample storage for laboratory pick-up	8/27/18
McPhail Associates secure sample storage for laboratory pick-up	8/27/18		1400
	8/27/18 1740		1740

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

DOC ID: 25188 Rev 0 (11/28/2017)

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

May 14, 2014

Dan Bellucci
EBI Consultants
21 B Street
Burlington, MA 01803

Project Location: 84 & 90 Cobble Hill Washington St, Somerville, MA
Client Job Number:
Project Number: 12140021
Laboratory Work Order Number: 14E0281

Enclosed are results of analyses for samples received by the laboratory on May 7, 2014. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Meghan E. Kelley
Project Manager

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

EBI Consultants
21 B Street
Burlington, MA 01803
ATTN: Dan Bellucci

REPORT DATE: 5/14/2014

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 12140021

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 14E0281

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: 84 & 90 Cobble Hill Washington St, Somerville, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
EB-501 (0-2)	14E0281-01	Soil		SM 2540G	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	
EB-501 (2-4)	14E0281-02	Soil		SM 2540G	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	
EB-502 (0-2)	14E0281-03	Soil		SM 2540G	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	
EB-502 (2-4)	14E0281-04	Soil		SM 2540G	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	
EB-503 (0-2)	14E0281-05	Soil		SM 2540G	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	
EB-503 (2-4)	14E0281-06	Soil		SM 2540G	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	
EB-504 (0-2)	14E0281-07	Soil		SM 2540G	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	
EB-504 (2-4)	14E0281-08	Soil		SM 2540G	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	
EB-505 (0-2)	14E0281-09	Soil		SM 2540G	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	
EB-505 (2-4)	14E0281-10	Soil		SM 2540G	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

EBI Consultants
21 B Street
Burlington, MA 01803
ATTN: Dan Bellucci

REPORT DATE: 5/14/2014

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 12140021

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 14E0281

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: 84 & 90 Cobble Hill Washington St, Somerville, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
EB-506 (0-2)	14E0281-11	Soil		SM 2540G	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	
EB-506 (2-4)	14E0281-12	Soil		SM 2540G	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	
EB-507 (0-2)	14E0281-13	Soil		SM 2540G	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	
EB-507 (2-4)	14E0281-14	Soil		SM 2540G	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	
EB-508 (0-2)	14E0281-15	Soil		SM 2540G	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	
EB-508 (2-4)	14E0281-16	Soil		SM 2540G	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

For method 8270 only PAHs were requested and reported.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

SW-846 8082A

Qualifications:

Matrix spike and/or spike duplicate recovery bias high due to contribution of other Aroclors present in the source sample.

Analyte & Samples(s) Qualified:

Aroclor-1016, Aroclor-1016 [2C], Aroclor-1260, Aroclor-1260 [2C]

B095400-MS1, B095400-MSD1

Sample contains two incompletely resolved aroclors. Aroclor with the closest matching pattern is reported.

Analyte & Samples(s) Qualified:

Aroclor-1254, Aroclor-1254 [2C]

14E0281-16[EB-508 (2-4)]

Matrix spike duplicate RPD is outside of control limits. Reduced precision is anticipated for reported result for this compound in this sample.

Analyte & Samples(s) Qualified:

Aroclor-1016, Aroclor-1016 [2C], Aroclor-1260, Aroclor-1260 [2C]

14E0281-16[EB-508 (2-4)], B095400-MS1, B095400-MSD1

SW-846 8260C

Qualifications:

Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

2,2-Dichloropropane, Naphthalene

14E0281-08[EB-504 (2-4)], 14E0281-09[EB-505 (0-2)], B095241-BLK1, B095241-BS1, B095241-BSD1, 14E0281-01[EB-501 (0-2)], 14E0281-02[EB-501 (2-4)], 14E0281-03[EB-502 (0-2)], 14E0281-04[EB-502 (2-4)], 14E0281-05[EB-503 (0-2)], 14E0281-06[EB-503 (2-4)], 14E0281-07[EB-504 (0-2)], 14E0281-10[EB-505 (2-4)], 14E0281-11[EB-506 (0-2)], 14E0281-12[EB-506 (2-4)], 14E0281-13[EB-507 (0-2)], 14E0281-14[EB-507 (2-4)], 14E0281-15[EB-508 (0-2)], 14E0281-16[EB-508 (2-4)], B095376-BLK1, B095376-BS1, B095376-BSD1, B095376-MS1

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

Analyte & Samples(s) Qualified:

1,2,3-Trichlorobenzene

B095376-BS1

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD outside of control limits. Reduced precision anticipated for any reported result for this compound.

Analyte & Samples(s) Qualified:

1,2,3-Trichlorobenzene, Naphthalene

B095241-BSD1

Compound classified by MA CAM as difficult with acceptable recoveries of 40-160%. Recovery does not meet 70-130% criteria but does meet difficult compound criteria.

Analyte & Samples(s) Qualified:

1,4-Dioxane, Bromomethane

B095241-BS1, B095241-BSD1, B095376-BS1, B095376-BSD1

Matrix spike recovery is outside of control limits. Analysis is in control based on laboratory fortified blank recovery. Possiblity of sample matrix effects that lead to low bias for reported result or non-homogeneous sample aliquot cannot be eliminated.

Analyte & Samples(s) Qualified:

1,2,4-Trichlorobenzene, 1,2-Dibromo-3-chloropropane (DBCP), 2-Butanone (MEK), 2-Hexanone (MBK), 4-Methyl-2-pentanone (MIBK), Acetone, Bromomethane, Hexachlorobutadiene, n-Butylbenzene, Tetrahydrofuran
14E0281-07[EB-504 (0-2)], B095376-MS1

Matrix spike recovery outside of control limits. Possibility of sample matrix effects that lead to a low bias for reported result or non-homogeneous sample aliquots cannot be eliminated.

Analyte & Samples(s) Qualified:

1,2,3-Trichlorobenzene, Naphthalene
14E0281-07[EB-504 (0-2)], B095376-MS1

Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.

Analyte & Samples(s) Qualified:

1,2,3-Trichlorobenzene, 1,2-Dibromo-3-chloropropane (DBCP), 1,4-Dioxane, 2-Butanone (MEK), 2-Hexanone (MBK), 4-Methyl-2-pentanone (MIBK), Chloromethane, Naphthalene
14E0281-08[EB-504 (2-4)], 14E0281-09[EB-505 (0-2)], B095241-BLK1, B095241-BS1, B095241-BSD1

Elevated reporting limit due to high concentration of target compounds. MA CAM reporting limit not met.

Analyte & Samples(s) Qualified:

14E0281-09[EB-505 (0-2)]

Elevated reporting limit due to high concentration of non-target compounds. MA CAM reporting limit not met.

Analyte & Samples(s) Qualified:

14E0281-08[EB-504 (2-4)]

Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene, 2,2-Dichloropropane, Naphthalene
14E0281-01[EB-501 (0-2)], 14E0281-02[EB-501 (2-4)], 14E0281-03[EB-502 (0-2)], 14E0281-04[EB-502 (2-4)], 14E0281-05[EB-503 (0-2)], 14E0281-06[EB-503 (2-4)], 14E0281-07[EB-504 (0-2)], 14E0281-08[EB-504 (2-4)], 14E0281-09[EB-505 (0-2)], 14E0281-10[EB-505 (2-4)], 14E0281-11[EB-506 (0-2)], 14E0281-12[EB-506 (2-4)], 14E0281-13[EB-507 (0-2)], 14E0281-14[EB-507 (2-4)], 14E0281-15[EB-508 (0-2)], 14E0281-16[EB-508 (2-4)], B095241-BLK1, B095241-BS1, B095241-BSD1, B095376-BLK1, B095376-BS1, B095376-BSD1, B095376-MS1

Response factor is less than method specified minimum acceptable value. Reduced precision and accuracy may be associated with reported result.

Analyte & Samples(s) Qualified:

1,4-Dioxane, Tetrahydrofuran
14E0281-01[EB-501 (0-2)], 14E0281-02[EB-501 (2-4)], 14E0281-03[EB-502 (0-2)], 14E0281-04[EB-502 (2-4)], 14E0281-05[EB-503 (0-2)], 14E0281-06[EB-503 (2-4)], 14E0281-07[EB-504 (0-2)], 14E0281-08[EB-504 (2-4)], 14E0281-09[EB-505 (0-2)], 14E0281-10[EB-505 (2-4)], 14E0281-11[EB-506 (0-2)], 14E0281-12[EB-506 (2-4)], 14E0281-13[EB-507 (0-2)], 14E0281-14[EB-507 (2-4)], 14E0281-15[EB-508 (0-2)], 14E0281-16[EB-508 (2-4)], B095241-BLK1, B095241-BS1, B095241-BSD1, B095376-BLK1, B095376-BS1, B095376-BSD1, B095376-MS1

Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:

Carbon Disulfide
B095241-BS1, B095241-BSD1

Qualifications:

Matrix spike recovery and matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a high bias for reported result or non-homogeneous sample aliquots cannot be eliminated.

Analyte & Samples(s) Qualified:

Benzo(a)pyrene, Phenanthrene

B095399-MS1, B095399-MSD1, 14E0281-16RE1[EB-508 (2-4)]

Either matrix spike or MS duplicate is outside of control limits, but the other is within limits. RPD between the two MS/MSD results is within method specified criteria.

Analyte & Samples(s) Qualified:

Anthracene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Benzo(k)fluoranthene, Chrysene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Pyrene

B095399-MSD1, B095399-MS1

Elevated reporting limit due to matrix interference.

Analyte & Samples(s) Qualified:

14E0281-05[EB-503 (0-2)], 14E0281-12[EB-506 (2-4)], 14E0281-14[EB-507 (2-4)]

One associated surrogate standard recovery is outside of control limits but the other(s) is/are within limits. All recoveries are > 10%.

Analyte & Samples(s) Qualified:

p-Terphenyl-d14

14E0281-07[EB-504 (0-2)], B095399-BLK1

Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

Pyrene

14E0281-01[EB-501 (0-2)], 14E0281-03[EB-502 (0-2)], 14E0281-04[EB-502 (2-4)], 14E0281-06[EB-503 (2-4)], 14E0281-07[EB-504 (0-2)], B095399-BLK1, B095399-BS1, B095399-BSD1

Continuing calibration did not meet method specifications and was biased on the high side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the high side.

Analyte & Samples(s) Qualified:

Benzo(g,h,i)perylene, Dibenz(a,h)anthracene, Indeno(1,2,3-cd)pyrene

14E0281-08[EB-504 (2-4)], 14E0281-10RE1[EB-505 (2-4)], B095399-MS1, B095399-MSD1

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

SW-846 8260C

Laboratory control sample recoveries for required MCP Data Enhancement 8260 compounds were all within limits specified by the method except for “difficult analytes” where recovery control limits of 40-160% are used and/or unless otherwise listed in this narrative. Difficult analytes: MIBK, MEK, acetone, 1,4-dioxane, chloromethane, dichlorodifluoromethane, 2-hexanone, and bromomethane.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Daren J. Damboragian
Laboratory Manager

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-501 (0-2) | Sampled: 5/7/2014 09:30

Sample ID: 14E0281-01

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.10	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Benzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Bromobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Bromochloromethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Bromodichloromethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Bromoform	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Bromomethane	ND	0.010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
2-Butanone (MEK)	ND	0.042	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
n-Butylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
sec-Butylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
tert-Butylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Carbon Disulfide	ND	0.021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Carbon Tetrachloride	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Chlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Chlorodibromomethane	ND	0.0010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Chloroethane	ND	0.010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Chloroform	ND	0.0042	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Chloromethane	ND	0.010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
2-Chlorotoluene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
4-Chlorotoluene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,2-Dibromoethane (EDB)	ND	0.0010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Dibromomethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,2-Dichlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,3-Dichlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,4-Dichlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,1-Dichloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,2-Dichloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,1-Dichloroethylene	ND	0.0042	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
cis-1,2-Dichloroethylene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
trans-1,2-Dichloroethylene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,2-Dichloropropane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,3-Dichloropropane	ND	0.0010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
2,2-Dichloropropane	ND	0.0042	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,1-Dichloropropene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
cis-1,3-Dichloropropene	ND	0.0010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
trans-1,3-Dichloropropene	ND	0.0010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Diethyl Ether	ND	0.010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Diisopropyl Ether (DIPE)	ND	0.0010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,4-Dioxane	ND	0.10	mg/Kg dry	1	V-16	SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Ethylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-501 (0-2) | Sampled: 5/7/2014 09:30

Sample ID: 14E0281-01

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
2-Hexanone (MBK)	ND	0.021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Isopropylbenzene (Cumene)	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0042	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Methylene Chloride	ND	0.010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Naphthalene	ND	0.010	mg/Kg dry	1	L-04, V-05	SW-846 8260C	5/8/14	5/8/14 8:56	MFF
n-Propylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Styrene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,1,1,2-Tetrachloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,1,2,2-Tetrachloroethane	ND	0.0010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Tetrachloroethylene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Tetrahydrofuran	ND	0.010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Toluene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,2,3-Trichlorobenzene	ND	0.0042	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,2,4-Trichlorobenzene	ND	0.0042	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,1,1-Trichloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,1,2-Trichloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Trichloroethylene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Trichlorofluoromethane (Freon 11)	ND	0.010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,2,3-Trichloropropane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,2,4-Trimethylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
1,3,5-Trimethylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
Vinyl Chloride	ND	0.010	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
m+p Xylene	ND	0.0042	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF
o-Xylene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:56	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	99.4	70-130		5/8/14 8:56
Toluene-d8	97.6	70-130		5/8/14 8:56
4-Bromofluorobenzene	91.4	70-130		5/8/14 8:56

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-501 (0-2) | Sampled: 5/7/2014 09:30

Sample ID: 14E0281-01

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	1.1	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 13:49	CMR
Acenaphthylene	0.80	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 13:49	CMR
Anthracene	2.5	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 13:49	CMR
Benzo(a)anthracene	5.7	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 13:49	CMR
Benzo(a)pyrene	5.8	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 13:49	CMR
Benzo(b)fluoranthene	6.8	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 13:49	CMR
Benzo(g,h,i)perylene	3.7	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 13:49	CMR
Benzo(k)fluoranthene	2.4	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 13:49	CMR
Chrysene	5.6	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 13:49	CMR
Dibenz(a,h)anthracene	0.90	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 13:49	CMR
Fluoranthene	14	0.75	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 18:22	CMR
Fluorene	1.2	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 13:49	CMR
Indeno(1,2,3-cd)pyrene	4.2	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 13:49	CMR
2-Methylnaphthalene	0.95	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 13:49	CMR
Naphthalene	1.4	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 13:49	CMR
Phenanthrene	6.6	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 13:49	CMR
Pyrene	6.7	0.37	mg/Kg dry	1	V-05	SW-846 8270D	5/8/14	5/10/14 13:49	CMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	101	30-130		5/10/14 13:49
2-Fluorobiphenyl	120	30-130		5/10/14 13:49
p-Terphenyl-d14	95.4	30-130		5/10/14 13:49

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-501 (0-2) Sampled: 5/7/2014 09:30

Sample ID: 14E0281-01

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 15:43	MJC
Aroclor-1221 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 15:43	MJC
Aroclor-1232 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 15:43	MJC
Aroclor-1242 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 15:43	MJC
Aroclor-1248 [2]	0.19	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 15:43	MJC
Aroclor-1254 [2]	0.13	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 15:43	MJC
Aroclor-1260 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 15:43	MJC
Aroclor-1262 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 15:43	MJC
Aroclor-1268 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 15:43	MJC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	76.9	30-150		5/9/14 15:43
Decachlorobiphenyl [2]	71.6	30-150		5/9/14 15:43
Tetrachloro-m-xylene [1]	70.1	30-150		5/9/14 15:43
Tetrachloro-m-xylene [2]	76.3	30-150		5/9/14 15:43

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-501 (0-2) Sampled: 5/7/2014 09:30

Sample ID: 14E0281-01

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	89.7		% Wt	1		SM 2540G	5/7/14	5/8/14 9:25	MXG

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-501 (2-4) | Sampled: 5/7/2014 09:35

Sample ID: 14E0281-02

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.14	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Benzene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Bromobenzene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Bromochloromethane	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Bromodichloromethane	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Bromoform	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Bromomethane	ND	0.014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
2-Butanone (MEK)	ND	0.055	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
n-Butylbenzene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
sec-Butylbenzene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
tert-Butylbenzene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Carbon Disulfide	ND	0.027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Carbon Tetrachloride	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Chlorobenzene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Chlorodibromomethane	ND	0.0014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Chloroethane	ND	0.014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Chloroform	ND	0.0055	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Chloromethane	ND	0.014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
2-Chlorotoluene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
4-Chlorotoluene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,2-Dibromoethane (EDB)	ND	0.0014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Dibromomethane	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,2-Dichlorobenzene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,3-Dichlorobenzene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,4-Dichlorobenzene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,1-Dichloroethane	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,2-Dichloroethane	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,1-Dichloroethylene	ND	0.0055	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
cis-1,2-Dichloroethylene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
trans-1,2-Dichloroethylene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,2-Dichloropropane	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,3-Dichloropropane	ND	0.0014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
2,2-Dichloropropane	ND	0.0055	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,1-Dichloropropene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
cis-1,3-Dichloropropene	ND	0.0014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
trans-1,3-Dichloropropene	ND	0.0014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Diethyl Ether	ND	0.014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Diisopropyl Ether (DIPE)	ND	0.0014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,4-Dioxane	ND	0.14	mg/Kg dry	1	V-16	SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Ethylbenzene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-501 (2-4) | Sampled: 5/7/2014 09:35

Sample ID: 14E0281-02

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
2-Hexanone (MBK)	ND	0.027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Isopropylbenzene (Cumene)	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0055	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Methylene Chloride	ND	0.014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Naphthalene	ND	0.014	mg/Kg dry	1	L-04, V-05	SW-846 8260C	5/8/14	5/8/14 10:18	MFF
n-Propylbenzene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Styrene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,1,1,2-Tetrachloroethane	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,1,2,2-Tetrachloroethane	ND	0.0014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Tetrachloroethylene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Tetrahydrofuran	ND	0.014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Toluene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,2,3-Trichlorobenzene	ND	0.0055	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,2,4-Trichlorobenzene	ND	0.0055	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,1,1-Trichloroethane	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,1,2-Trichloroethane	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Trichloroethylene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Trichlorofluoromethane (Freon 11)	ND	0.014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,2,3-Trichloropropane	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,2,4-Trimethylbenzene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
1,3,5-Trimethylbenzene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
Vinyl Chloride	ND	0.014	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
m+p Xylene	ND	0.0055	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF
o-Xylene	ND	0.0027	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:18	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	98.4	70-130		5/8/14 10:18
Toluene-d8	99.0	70-130		5/8/14 10:18
4-Bromofluorobenzene	89.8	70-130		5/8/14 10:18

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-501 (2-4) Sampled: 5/7/2014 09:35

Sample ID: 14E0281-02

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	0.78	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:21	CMR
Acenaphthylene	0.69	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:21	CMR
Anthracene	3.5	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:21	CMR
Benzo(a)anthracene	7.1	1.5	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 18:55	CMR
Benzo(a)pyrene	8.6	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:21	CMR
Benzo(b)fluoranthene	8.4	1.5	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 18:55	CMR
Benzo(g,h,i)perylene	4.2	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:21	CMR
Benzo(k)fluoranthene	3.7	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:21	CMR
Chrysene	8.3	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:21	CMR
Dibenz(a,h)anthracene	1.2	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:21	CMR
Fluoranthene	18	1.5	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 18:55	CMR
Fluorene	1.3	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:21	CMR
Indeno(1,2,3-cd)pyrene	5.3	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:21	CMR
2-Methylnaphthalene	ND	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:21	CMR
Naphthalene	0.42	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:21	CMR
Phenanthrene	8.2	0.37	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:21	CMR
Pyrene	9.2	1.5	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 18:55	CMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	101	30-130		5/10/14 14:21
2-Fluorobiphenyl	124	30-130		5/10/14 14:21
p-Terphenyl-d14	106	30-130		5/10/14 14:21

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-501 (2-4) Sampled: 5/7/2014 09:35

Sample ID: 14E0281-02

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:01	MJC
Aroclor-1221 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:01	MJC
Aroclor-1232 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:01	MJC
Aroclor-1242 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:01	MJC
Aroclor-1248 [2]	0.13	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:01	MJC
Aroclor-1254 [2]	0.14	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:01	MJC
Aroclor-1260 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:01	MJC
Aroclor-1262 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:01	MJC
Aroclor-1268 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:01	MJC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	70.9	30-150		5/9/14 16:01
Decachlorobiphenyl [2]	65.0	30-150		5/9/14 16:01
Tetrachloro-m-xylene [1]	70.8	30-150		5/9/14 16:01
Tetrachloro-m-xylene [2]	75.0	30-150		5/9/14 16:01

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-501 (2-4) Sampled: 5/7/2014 09:35

Sample ID: 14E0281-02

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	90.2		% Wt	1		SM 2540G	5/7/14	5/8/14 9:25	MXG

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-502 (0-2) | Sampled: 5/7/2014 10:00

Sample ID: 14E0281-03

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Benzene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Bromobenzene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Bromochloromethane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Bromodichloromethane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Bromoform	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Bromomethane	ND	0.0062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
2-Butanone (MEK)	ND	0.025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
n-Butylbenzene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
sec-Butylbenzene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
tert-Butylbenzene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Carbon Disulfide	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Carbon Tetrachloride	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Chlorobenzene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Chlorodibromomethane	ND	0.00062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Chloroethane	ND	0.0062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Chloroform	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Chloromethane	ND	0.0062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
2-Chlorotoluene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
4-Chlorotoluene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,2-Dibromoethane (EDB)	ND	0.00062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Dibromomethane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,2-Dichlorobenzene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,3-Dichlorobenzene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,4-Dichlorobenzene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.0062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,1-Dichloroethane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,2-Dichloroethane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,1-Dichloroethylene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
cis-1,2-Dichloroethylene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
trans-1,2-Dichloroethylene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,2-Dichloropropane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,3-Dichloropropane	ND	0.00062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
2,2-Dichloropropane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,1-Dichloropropene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
cis-1,3-Dichloropropene	ND	0.00062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
trans-1,3-Dichloropropene	ND	0.00062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Diethyl Ether	ND	0.0062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Diisopropyl Ether (DIPE)	ND	0.00062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,4-Dioxane	ND	0.062	mg/Kg dry	1	V-16	SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Ethylbenzene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-502 (0-2) | Sampled: 5/7/2014 10:00

Sample ID: 14E0281-03

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
2-Hexanone (MBK)	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Isopropylbenzene (Cumene)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Methylene Chloride	ND	0.0062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Naphthalene	ND	0.0062	mg/Kg dry	1	L-04, V-05	SW-846 8260C	5/8/14	5/8/14 10:46	MFF
n-Propylbenzene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Styrene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,1,1,2-Tetrachloroethane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,1,2,2-Tetrachloroethane	ND	0.00062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Tetrachloroethylene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Tetrahydrofuran	ND	0.0062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Toluene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,2,3-Trichlorobenzene	ND	0.0025	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,2,4-Trichlorobenzene	ND	0.0025	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,1,1-Trichloroethane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,1,2-Trichloroethane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Trichloroethylene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,2,3-Trichloropropane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,2,4-Trimethylbenzene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
1,3,5-Trimethylbenzene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
Vinyl Chloride	ND	0.0062	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
m+p Xylene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF
o-Xylene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 10:46	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	92.2	70-130		5/8/14 10:46
Toluene-d8	97.4	70-130		5/8/14 10:46
4-Bromofluorobenzene	90.6	70-130		5/8/14 10:46

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-502 (0-2) Sampled: 5/7/2014 10:00

Sample ID: 14E0281-03

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:54	CMR
Acenaphthylene	ND	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:54	CMR
Anthracene	0.31	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:54	CMR
Benzo(a)anthracene	0.73	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:54	CMR
Benzo(a)pyrene	0.89	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:54	CMR
Benzo(b)fluoranthene	1.0	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:54	CMR
Benzo(g,h,i)perylene	0.53	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:54	CMR
Benzo(k)fluoranthene	0.39	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:54	CMR
Chrysene	0.76	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:54	CMR
Dibenz(a,h)anthracene	ND	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:54	CMR
Fluoranthene	1.6	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:54	CMR
Fluorene	ND	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:54	CMR
Indeno(1,2,3-cd)pyrene	0.61	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:54	CMR
2-Methylnaphthalene	0.21	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:54	CMR
Naphthalene	ND	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:54	CMR
Phenanthrene	0.46	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 14:54	CMR
Pyrene	1.1	0.18	mg/Kg dry	1	V-05	SW-846 8270D	5/8/14	5/10/14 14:54	CMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	83.4	30-130		5/10/14 14:54
2-Fluorobiphenyl	97.9	30-130		5/10/14 14:54
p-Terphenyl-d14	95.6	30-130		5/10/14 14:54

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-502 (0-2) Sampled: 5/7/2014 10:00

Sample ID: 14E0281-03

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:19	MJC
Aroclor-1221 [1]	ND	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:19	MJC
Aroclor-1232 [1]	ND	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:19	MJC
Aroclor-1242 [1]	ND	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:19	MJC
Aroclor-1248 [1]	ND	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:19	MJC
Aroclor-1254 [1]	ND	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:19	MJC
Aroclor-1260 [1]	ND	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:19	MJC
Aroclor-1262 [1]	ND	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:19	MJC
Aroclor-1268 [1]	ND	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:19	MJC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	85.2	30-150		5/9/14 16:19
Decachlorobiphenyl [2]	76.0	30-150		5/9/14 16:19
Tetrachloro-m-xylene [1]	76.2	30-150		5/9/14 16:19
Tetrachloro-m-xylene [2]	83.2	30-150		5/9/14 16:19

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-502 (0-2) Sampled: 5/7/2014 10:00

Sample ID: 14E0281-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	93.5		% Wt	1		SM 2540G	5/7/14	5/8/14 9:25	MXG

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-502 (2-4) | Sampled: 5/7/2014 10:05

Sample ID: 14E0281-04

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.13	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Benzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Bromobenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Bromochloromethane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Bromodichloromethane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Bromoform	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Bromomethane	ND	0.013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
2-Butanone (MEK)	ND	0.050	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
n-Butylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
sec-Butylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
tert-Butylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Carbon Disulfide	ND	0.025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Carbon Tetrachloride	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Chlorobenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Chlorodibromomethane	ND	0.0013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Chloroethane	ND	0.013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Chloroform	ND	0.0050	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Chloromethane	ND	0.013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
2-Chlorotoluene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
4-Chlorotoluene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,2-Dibromoethane (EDB)	ND	0.0013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Dibromomethane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,2-Dichlorobenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,3-Dichlorobenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,4-Dichlorobenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,1-Dichloroethane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,2-Dichloroethane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,1-Dichloroethylene	ND	0.0050	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
cis-1,2-Dichloroethylene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
trans-1,2-Dichloroethylene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,2-Dichloropropane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,3-Dichloropropane	ND	0.0013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
2,2-Dichloropropane	ND	0.0050	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,1-Dichloropropene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
cis-1,3-Dichloropropene	ND	0.0013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
trans-1,3-Dichloropropene	ND	0.0013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Diethyl Ether	ND	0.013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Diisopropyl Ether (DIPE)	ND	0.0013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,4-Dioxane	ND	0.13	mg/Kg dry	1	V-16	SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Ethylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-502 (2-4) | Sampled: 5/7/2014 10:05

Sample ID: 14E0281-04

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
2-Hexanone (MBK)	ND	0.025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Isopropylbenzene (Cumene)	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0050	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Methylene Chloride	ND	0.013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Naphthalene	ND	0.013	mg/Kg dry	1	L-04, V-05	SW-846 8260C	5/8/14	5/8/14 11:13	MFF
n-Propylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Styrene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,1,1,2-Tetrachloroethane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,1,2,2-Tetrachloroethane	ND	0.0013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Tetrachloroethylene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Tetrahydrofuran	ND	0.013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Toluene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,2,3-Trichlorobenzene	ND	0.0050	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,2,4-Trichlorobenzene	ND	0.0050	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,1,1-Trichloroethane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,1,2-Trichloroethane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Trichloroethylene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Trichlorofluoromethane (Freon 11)	ND	0.013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,2,3-Trichloropropane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,2,4-Trimethylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
1,3,5-Trimethylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
Vinyl Chloride	ND	0.013	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
m+p Xylene	ND	0.0050	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF
o-Xylene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:13	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	95.7	70-130		5/8/14 11:13
Toluene-d8	96.8	70-130		5/8/14 11:13
4-Bromofluorobenzene	88.0	70-130		5/8/14 11:13

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-502 (2-4) | Sampled: 5/7/2014 10:05

Sample ID: 14E0281-04

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	0.27	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 15:26	CMR
Acenaphthylene	ND	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 15:26	CMR
Anthracene	0.78	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 15:26	CMR
Benzo(a)anthracene	1.9	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 15:26	CMR
Benzo(a)pyrene	1.9	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 15:26	CMR
Benzo(b)fluoranthene	2.3	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 15:26	CMR
Benzo(g,h,i)perylene	1.1	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 15:26	CMR
Benzo(k)fluoranthene	0.85	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 15:26	CMR
Chrysene	1.9	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 15:26	CMR
Dibenz(a,h)anthracene	0.30	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 15:26	CMR
Fluoranthene	4.5	0.39	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 19:28	CMR
Fluorene	0.34	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 15:26	CMR
Indeno(1,2,3-cd)pyrene	1.2	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 15:26	CMR
2-Methylnaphthalene	0.21	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 15:26	CMR
Naphthalene	0.36	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 15:26	CMR
Phenanthrene	2.4	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 15:26	CMR
Pyrene	2.9	0.19	mg/Kg dry	1	V-05	SW-846 8270D	5/8/14	5/10/14 15:26	CMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
Nitrobenzene-d5	84.6	30-130		5/10/14 15:26	
2-Fluorobiphenyl	97.6	30-130		5/10/14 15:26	
p-Terphenyl-d14	105	30-130		5/10/14 15:26	

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-502 (2-4) | Sampled: 5/7/2014 10:05

Sample ID: 14E0281-04

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:37	MJC
Aroclor-1221 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:37	MJC
Aroclor-1232 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:37	MJC
Aroclor-1242 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:37	MJC
Aroclor-1248 [1]	0.14	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:37	MJC
Aroclor-1254 [2]	0.23	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:37	MJC
Aroclor-1260 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:37	MJC
Aroclor-1262 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:37	MJC
Aroclor-1268 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:37	MJC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	86.2	30-150		5/9/14 16:37
Decachlorobiphenyl [2]	77.2	30-150		5/9/14 16:37
Tetrachloro-m-xylene [1]	88.2	30-150		5/9/14 16:37
Tetrachloro-m-xylene [2]	91.7	30-150		5/9/14 16:37

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-502 (2-4) | Sampled: 5/7/2014 10:05

Sample ID: 14E0281-04

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.7		% Wt	1		SM 2540G	5/7/14	5/8/14 9:25	MXG

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-503 (0-2) | Sampled: 5/7/2014 10:30

Sample ID: 14E0281-05

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.12	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Benzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Bromobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Bromochloromethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Bromodichloromethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Bromoform	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Bromomethane	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
2-Butanone (MEK)	ND	0.048	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
n-Butylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
sec-Butylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
tert-Butylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Carbon Disulfide	ND	0.024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Carbon Tetrachloride	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Chlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Chlorodibromomethane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Chloroethane	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Chloroform	ND	0.0048	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Chloromethane	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
2-Chlorotoluene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
4-Chlorotoluene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,2-Dibromoethane (EDB)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Dibromomethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,2-Dichlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,3-Dichlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,4-Dichlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,1-Dichloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,2-Dichloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,1-Dichloroethylene	ND	0.0048	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
cis-1,2-Dichloroethylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
trans-1,2-Dichloroethylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,2-Dichloropropane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,3-Dichloropropane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
2,2-Dichloropropane	ND	0.0048	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,1-Dichloropropene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
cis-1,3-Dichloropropene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
trans-1,3-Dichloropropene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Diethyl Ether	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Diisopropyl Ether (DIPE)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,4-Dioxane	ND	0.12	mg/Kg dry	1	V-16	SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Ethylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-503 (0-2) | Sampled: 5/7/2014 10:30

Sample ID: 14E0281-05

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
2-Hexanone (MBK)	ND	0.024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Isopropylbenzene (Cumene)	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0048	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Methylene Chloride	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Naphthalene	ND	0.012	mg/Kg dry	1	L-04, V-05	SW-846 8260C	5/8/14	5/8/14 11:41	MFF
n-Propylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Styrene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,1,1,2-Tetrachloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,1,2,2-Tetrachloroethane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Tetrachloroethylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Tetrahydrofuran	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Toluene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,2,3-Trichlorobenzene	ND	0.0048	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,2,4-Trichlorobenzene	ND	0.0048	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,1,1-Trichloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,1,2-Trichloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Trichloroethylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Trichlorofluoromethane (Freon 11)	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,2,3-Trichloropropane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,2,4-Trimethylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
1,3,5-Trimethylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
Vinyl Chloride	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
m+p Xylene	ND	0.0048	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF
o-Xylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 11:41	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	94.4	70-130		5/8/14 11:41
Toluene-d8	97.5	70-130		5/8/14 11:41
4-Bromofluorobenzene	88.6	70-130		5/8/14 11:41

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-503 (0-2) | Sampled: 5/7/2014 10:30

Sample ID: 14E0281-05

Sample Matrix: Soil

Sample Flags: RL-12

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 17:17	CMR
Acenaphthylene	ND	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 17:17	CMR
Anthracene	ND	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 17:17	CMR
Benzo(a)anthracene	ND	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 17:17	CMR
Benzo(a)pyrene	ND	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 17:17	CMR
Benzo(b)fluoranthene	ND	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 17:17	CMR
Benzo(g,h,i)perylene	ND	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 17:17	CMR
Benzo(k)fluoranthene	ND	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 17:17	CMR
Chrysene	ND	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 17:17	CMR
Dibenz(a,h)anthracene	ND	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 17:17	CMR
Fluoranthene	0.73	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 17:17	CMR
Fluorene	ND	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 17:17	CMR
Indeno(1,2,3-cd)pyrene	ND	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 17:17	CMR
2-Methylnaphthalene	ND	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 17:17	CMR
Naphthalene	ND	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 17:17	CMR
Phenanthrene	ND	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 17:17	CMR
Pyrene	ND	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 17:17	CMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	94.1	30-130		5/12/14 17:17
2-Fluorobiphenyl	117	30-130		5/12/14 17:17
p-Terphenyl-d14	89.3	30-130		5/12/14 17:17

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-503 (0-2) | Sampled: 5/7/2014 10:30

Sample ID: 14E0281-05

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:56	MJC
Aroclor-1221 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:56	MJC
Aroclor-1232 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:56	MJC
Aroclor-1242 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:56	MJC
Aroclor-1248 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:56	MJC
Aroclor-1254 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:56	MJC
Aroclor-1260 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:56	MJC
Aroclor-1262 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:56	MJC
Aroclor-1268 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 16:56	MJC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	88.5	30-150		5/9/14 16:56
Decachlorobiphenyl [2]	77.5	30-150		5/9/14 16:56
Tetrachloro-m-xylene [1]	93.8	30-150		5/9/14 16:56
Tetrachloro-m-xylene [2]	97.5	30-150		5/9/14 16:56

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-503 (0-2) | Sampled: 5/7/2014 10:30

Sample ID: 14E0281-05

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	92.6		% Wt	1		SM 2540G	5/7/14	5/8/14 9:25	MXG

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-503 (2-4) | Sampled: 5/7/2014 10:35

Sample ID: 14E0281-06

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Benzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Bromobenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Bromochloromethane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Bromodichloromethane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Bromoform	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Bromomethane	ND	0.0098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
2-Butanone (MEK)	ND	0.039	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
n-Butylbenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
sec-Butylbenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
tert-Butylbenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Carbon Disulfide	ND	0.020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Carbon Tetrachloride	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Chlorobenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Chlorodibromomethane	ND	0.00098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Chloroethane	ND	0.0098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Chloroform	ND	0.0039	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Chloromethane	ND	0.0098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
2-Chlorotoluene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
4-Chlorotoluene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,2-Dibromoethane (EDB)	ND	0.00098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Dibromomethane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,2-Dichlorobenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,3-Dichlorobenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,4-Dichlorobenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.0098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,1-Dichloroethane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,2-Dichloroethane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,1-Dichloroethylene	ND	0.0039	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
cis-1,2-Dichloroethylene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
trans-1,2-Dichloroethylene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,2-Dichloropropane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,3-Dichloropropane	ND	0.00098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
2,2-Dichloropropane	ND	0.0039	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,1-Dichloropropene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
cis-1,3-Dichloropropene	ND	0.00098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
trans-1,3-Dichloropropene	ND	0.00098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Diethyl Ether	ND	0.0098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Diisopropyl Ether (DIPE)	ND	0.00098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,4-Dioxane	ND	0.098	mg/Kg dry	1	V-16	SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Ethylbenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-503 (2-4) | Sampled: 5/7/2014 10:35

Sample ID: 14E0281-06

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
2-Hexanone (MBK)	ND	0.020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Isopropylbenzene (Cumene)	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0039	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Methylene Chloride	ND	0.0098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Naphthalene	ND	0.0098	mg/Kg dry	1	L-04, V-05	SW-846 8260C	5/8/14	5/8/14 12:08	MFF
n-Propylbenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Styrene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,1,1,2-Tetrachloroethane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,1,2,2-Tetrachloroethane	ND	0.00098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Tetrachloroethylene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Tetrahydrofuran	ND	0.0098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Toluene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,2,3-Trichlorobenzene	ND	0.0039	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,2,4-Trichlorobenzene	ND	0.0039	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,1,1-Trichloroethane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,1,2-Trichloroethane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Trichloroethylene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,2,3-Trichloropropane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,2,4-Trimethylbenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
1,3,5-Trimethylbenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
Vinyl Chloride	ND	0.0098	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
m+p Xylene	ND	0.0039	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF
o-Xylene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:08	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	94.4	70-130		5/8/14 12:08
Toluene-d8	98.0	70-130		5/8/14 12:08
4-Bromofluorobenzene	87.4	70-130		5/8/14 12:08

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-503 (2-4) | Sampled: 5/7/2014 10:35

Sample ID: 14E0281-06

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 16:31	CMR
Acenaphthylene	ND	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 16:31	CMR
Anthracene	0.28	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 16:31	CMR
Benzo(a)anthracene	0.71	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 16:31	CMR
Benzo(a)pyrene	0.65	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 16:31	CMR
Benzo(b)fluoranthene	0.80	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 16:31	CMR
Benzo(g,h,i)perylene	0.37	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 16:31	CMR
Benzo(k)fluoranthene	0.34	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 16:31	CMR
Chrysene	0.68	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 16:31	CMR
Dibenz(a,h)anthracene	ND	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 16:31	CMR
Fluoranthene	1.8	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 16:31	CMR
Fluorene	ND	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 16:31	CMR
Indeno(1,2,3-cd)pyrene	0.28	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 16:31	CMR
2-Methylnaphthalene	ND	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 16:31	CMR
Naphthalene	ND	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 16:31	CMR
Phenanthrene	0.81	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 16:31	CMR
Pyrene	1.3	0.19	mg/Kg dry	1	V-05	SW-846 8270D	5/8/14	5/10/14 16:31	CMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	86.2	30-130		5/10/14 16:31
2-Fluorobiphenyl	101	30-130		5/10/14 16:31
p-Terphenyl-d14	122	30-130		5/10/14 16:31

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-503 (2-4) | Sampled: 5/7/2014 10:35

Sample ID: 14E0281-06

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:14	MJC
Aroclor-1221 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:14	MJC
Aroclor-1232 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:14	MJC
Aroclor-1242 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:14	MJC
Aroclor-1248 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:14	MJC
Aroclor-1254 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:14	MJC
Aroclor-1260 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:14	MJC
Aroclor-1262 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:14	MJC
Aroclor-1268 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:14	MJC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	79.9	30-150		5/9/14 17:14
Decachlorobiphenyl [2]	69.6	30-150		5/9/14 17:14
Tetrachloro-m-xylene [1]	86.3	30-150		5/9/14 17:14
Tetrachloro-m-xylene [2]	89.2	30-150		5/9/14 17:14

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-503 (2-4) | Sampled: 5/7/2014 10:35

Sample ID: 14E0281-06

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	90.1		% Wt	1		SM 2540G	5/7/14	5/8/14 9:25	MXG

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-504 (0-2) | Sampled: 5/7/2014 11:00

Sample ID: 14E0281-07

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.085	mg/Kg dry	1	MS-07	SW-846 8260C	5/8/14	5/8/14 8:29	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00085	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Benzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Bromobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Bromochloromethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Bromodichloromethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Bromoform	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Bromomethane	ND	0.0085	mg/Kg dry	1	MS-07	SW-846 8260C	5/8/14	5/8/14 8:29	MFF
2-Butanone (MEK)	ND	0.034	mg/Kg dry	1	MS-07	SW-846 8260C	5/8/14	5/8/14 8:29	MFF
n-Butylbenzene	ND	0.0017	mg/Kg dry	1	MS-07	SW-846 8260C	5/8/14	5/8/14 8:29	MFF
sec-Butylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
tert-Butylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00085	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Carbon Disulfide	ND	0.017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Carbon Tetrachloride	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Chlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Chlorodibromomethane	ND	0.00085	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Chloroethane	ND	0.0085	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Chloroform	ND	0.0034	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Chloromethane	ND	0.0085	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
2-Chlorotoluene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
4-Chlorotoluene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0017	mg/Kg dry	1	MS-07	SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,2-Dibromoethane (EDB)	ND	0.00085	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Dibromomethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,2-Dichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,3-Dichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,4-Dichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.0085	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,1-Dichloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,2-Dichloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,1-Dichloroethylene	ND	0.0034	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
cis-1,2-Dichloroethylene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
trans-1,2-Dichloroethylene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,2-Dichloropropane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,3-Dichloropropane	ND	0.00085	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
2,2-Dichloropropane	ND	0.0034	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,1-Dichloropropene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
cis-1,3-Dichloropropene	ND	0.00085	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
trans-1,3-Dichloropropene	ND	0.00085	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Diethyl Ether	ND	0.0085	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Diisopropyl Ether (DIPE)	ND	0.00085	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,4-Dioxane	ND	0.085	mg/Kg dry	1	V-16	SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Ethylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-504 (0-2) | Sampled: 5/7/2014 11:00

Sample ID: 14E0281-07

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0017	mg/Kg dry	1	MS-07	SW-846 8260C	5/8/14	5/8/14 8:29	MFF
2-Hexanone (MBK)	ND	0.017	mg/Kg dry	1	MS-07	SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Isopropylbenzene (Cumene)	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0034	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Methylene Chloride	ND	0.0085	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.017	mg/Kg dry	1	MS-07	SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Naphthalene	ND	0.0085	mg/Kg dry	1	L-04, MS-08, V-05	SW-846 8260C	5/8/14	5/8/14 8:29	MFF
n-Propylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Styrene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,1,1,2-Tetrachloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,1,2,2-Tetrachloroethane	ND	0.00085	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Tetrachloroethylene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Tetrahydrofuran	ND	0.0085	mg/Kg dry	1	MS-07	SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Toluene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,2,3-Trichlorobenzene	ND	0.0034	mg/Kg dry	1	MS-08, V-05	SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,2,4-Trichlorobenzene	ND	0.0034	mg/Kg dry	1	MS-07, V-05	SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,1,1-Trichloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,1,2-Trichloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Trichloroethylene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0085	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,2,3-Trichloropropane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,2,4-Trimethylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
1,3,5-Trimethylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
Vinyl Chloride	ND	0.0085	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
m+p Xylene	ND	0.0034	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF
o-Xylene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 8:29	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
1,2-Dichloroethane-d4	89.1	70-130		5/8/14	8:29
Toluene-d8	99.2	70-130		5/8/14	8:29
4-Bromofluorobenzene	88.1	70-130		5/8/14	8:29

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-504 (0-2) Sampled: 5/7/2014 11:00

Sample ID: 14E0281-07

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 17:03	CMR
Acenaphthylene	0.24	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 17:03	CMR
Anthracene	0.52	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 17:03	CMR
Benzo(a)anthracene	1.8	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 17:03	CMR
Benzo(a)pyrene	1.7	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 17:03	CMR
Benzo(b)fluoranthene	2.3	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 17:03	CMR
Benzo(g,h,i)perylene	0.95	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 17:03	CMR
Benzo(k)fluoranthene	0.83	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 17:03	CMR
Chrysene	2.0	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 17:03	CMR
Dibenz(a,h)anthracene	0.25	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 17:03	CMR
Fluoranthene	5.2	0.37	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 20:00	CMR
Fluorene	0.23	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 17:03	CMR
Indeno(1,2,3-cd)pyrene	0.95	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 17:03	CMR
2-Methylnaphthalene	ND	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 17:03	CMR
Naphthalene	0.28	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 17:03	CMR
Phenanthrene	2.3	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/10/14 17:03	CMR
Pyrene	3.7	0.19	mg/Kg dry	1	V-05	SW-846 8270D	5/8/14	5/10/14 17:03	CMR

Surrogates	% Recovery		Recovery Limits	Flag/Qual	
Nitrobenzene-d5	89.9		30-130		5/10/14 17:03
2-Fluorobiphenyl	99.7		30-130		5/10/14 17:03
p-Terphenyl-d14	**149**	*	30-130	S-07	5/10/14 17:03

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-504 (0-2) | Sampled: 5/7/2014 11:00

Sample ID: 14E0281-07

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:32	MJC
Aroclor-1221 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:32	MJC
Aroclor-1232 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:32	MJC
Aroclor-1242 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:32	MJC
Aroclor-1248 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:32	MJC
Aroclor-1254 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:32	MJC
Aroclor-1260 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:32	MJC
Aroclor-1262 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:32	MJC
Aroclor-1268 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:32	MJC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	85.6	30-150		5/9/14 17:32
Decachlorobiphenyl [2]	84.4	30-150		5/9/14 17:32
Tetrachloro-m-xylene [1]	82.4	30-150		5/9/14 17:32
Tetrachloro-m-xylene [2]	84.8	30-150		5/9/14 17:32

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-504 (0-2) Sampled: 5/7/2014 11:00

Sample ID: 14E0281-07

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	90.0		% Wt	1		SM 2540G	5/7/14	5/8/14 9:25	MXG

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-504 (2-4) | Sampled: 5/7/2014 11:05

Sample ID: 14E0281-08

Sample Matrix: Soil

Sample Flags: RL-06

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	4.3	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.043	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Benzene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Bromobenzene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Bromochloromethane	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Bromodichloromethane	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Bromoform	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Bromomethane	ND	0.43	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
2-Butanone (MEK)	ND	4.3	mg/Kg dry	2	R-05	SW-846 8260C	5/9/14	5/11/14 8:22	EEH
n-Butylbenzene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
sec-Butylbenzene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
tert-Butylbenzene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	0.043	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Carbon Disulfide	ND	0.86	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Carbon Tetrachloride	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Chlorobenzene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Chlorodibromomethane	ND	0.043	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Chloroethane	ND	0.17	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Chloroform	ND	0.17	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Chloromethane	ND	0.43	mg/Kg dry	2	R-05	SW-846 8260C	5/9/14	5/11/14 8:22	EEH
2-Chlorotoluene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
4-Chlorotoluene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.43	mg/Kg dry	2	R-05	SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,2-Dibromoethane (EDB)	ND	0.043	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Dibromomethane	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,2-Dichlorobenzene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,3-Dichlorobenzene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,4-Dichlorobenzene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Dichlorodifluoromethane (Freon 12)	ND	0.17	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,1-Dichloroethane	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,2-Dichloroethane	ND	0.43	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,1-Dichloroethylene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
cis-1,2-Dichloroethylene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
trans-1,2-Dichloroethylene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,2-Dichloropropane	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,3-Dichloropropane	ND	0.043	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
2,2-Dichloropropane	ND	0.086	mg/Kg dry	2	L-04, V-05	SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,1-Dichloropropene	ND	0.17	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
cis-1,3-Dichloropropene	ND	0.043	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
trans-1,3-Dichloropropene	ND	0.043	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Diethyl Ether	ND	0.17	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Diisopropyl Ether (DIPE)	ND	0.043	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,4-Dioxane	ND	4.3	mg/Kg dry	2	R-05, V-16	SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Ethylbenzene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-504 (2-4) | Sampled: 5/7/2014 11:05

Sample ID: 14E0281-08

Sample Matrix: Soil

Sample Flags: RL-06

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
2-Hexanone (MBK)	ND	0.86	mg/Kg dry	2	R-05	SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Isopropylbenzene (Cumene)	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
p-Isopropyltoluene (p-Cymene)	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Methyl tert-Butyl Ether (MTBE)	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Methylene Chloride	ND	0.43	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
4-Methyl-2-pentanone (MIBK)	ND	0.86	mg/Kg dry	2	R-05	SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Naphthalene	ND	0.17	mg/Kg dry	2	R-05, V-05	SW-846 8260C	5/9/14	5/11/14 8:22	EEH
n-Propylbenzene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Styrene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,1,1,2-Tetrachloroethane	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,1,2,2-Tetrachloroethane	ND	0.043	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Tetrachloroethylene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Tetrahydrofuran	ND	0.34	mg/Kg dry	2	V-16	SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Toluene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,2,3-Trichlorobenzene	ND	0.34	mg/Kg dry	2	R-05, V-05	SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,2,4-Trichlorobenzene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,1,1-Trichloroethane	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,1,2-Trichloroethane	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Trichloroethylene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Trichlorofluoromethane (Freon 11)	ND	0.17	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,2,3-Trichloropropane	ND	0.17	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,2,4-Trimethylbenzene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
1,3,5-Trimethylbenzene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
Vinyl Chloride	ND	0.17	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
m+p Xylene	ND	0.17	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH
o-Xylene	ND	0.086	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:22	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	92.0	70-130		5/11/14 8:22
Toluene-d8	104	70-130		5/11/14 8:22
4-Bromofluorobenzene	101	70-130		5/11/14 8:22

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-504 (2-4) | Sampled: 5/7/2014 11:05

Sample ID: 14E0281-08

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	4.1	1.9	mg/Kg dry	10		SW-846 8270D	5/8/14	5/13/14 10:06	CMR
Acenaphthylene	ND	1.9	mg/Kg dry	10		SW-846 8270D	5/8/14	5/13/14 10:06	CMR
Anthracene	6.5	1.9	mg/Kg dry	10		SW-846 8270D	5/8/14	5/13/14 10:06	CMR
Benzo(a)anthracene	9.1	1.9	mg/Kg dry	10		SW-846 8270D	5/8/14	5/13/14 10:06	CMR
Benzo(a)pyrene	9.3	1.9	mg/Kg dry	10		SW-846 8270D	5/8/14	5/13/14 10:06	CMR
Benzo(b)fluoranthene	9.4	1.9	mg/Kg dry	10		SW-846 8270D	5/8/14	5/13/14 10:06	CMR
Benzo(g,h,i)perylene	5.4	1.9	mg/Kg dry	10	V-06	SW-846 8270D	5/8/14	5/13/14 10:06	CMR
Benzo(k)fluoranthene	3.5	1.9	mg/Kg dry	10		SW-846 8270D	5/8/14	5/13/14 10:06	CMR
Chrysene	8.7	1.9	mg/Kg dry	10		SW-846 8270D	5/8/14	5/13/14 10:06	CMR
Dibenz(a,h)anthracene	ND	1.9	mg/Kg dry	10	V-06	SW-846 8270D	5/8/14	5/13/14 10:06	CMR
Fluoranthene	24	1.9	mg/Kg dry	10		SW-846 8270D	5/8/14	5/13/14 10:06	CMR
Fluorene	7.2	1.9	mg/Kg dry	10		SW-846 8270D	5/8/14	5/13/14 10:06	CMR
Indeno(1,2,3-cd)pyrene	6.8	1.9	mg/Kg dry	10	V-06	SW-846 8270D	5/8/14	5/13/14 10:06	CMR
2-Methylnaphthalene	2.0	1.9	mg/Kg dry	10		SW-846 8270D	5/8/14	5/13/14 10:06	CMR
Naphthalene	2.1	1.9	mg/Kg dry	10		SW-846 8270D	5/8/14	5/13/14 10:06	CMR
Phenanthrene	21	1.9	mg/Kg dry	10		SW-846 8270D	5/8/14	5/13/14 10:06	CMR
Pyrene	20	1.9	mg/Kg dry	10		SW-846 8270D	5/8/14	5/13/14 10:06	CMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	72.1	30-130		5/13/14 10:06
2-Fluorobiphenyl	73.1	30-130		5/13/14 10:06
p-Terphenyl-d14	84.6	30-130		5/13/14 10:06

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-504 (2-4) | Sampled: 5/7/2014 11:05

Sample ID: 14E0281-08

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:50	MJC
Aroclor-1221 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:50	MJC
Aroclor-1232 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:50	MJC
Aroclor-1242 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:50	MJC
Aroclor-1248 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:50	MJC
Aroclor-1254 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:50	MJC
Aroclor-1260 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:50	MJC
Aroclor-1262 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:50	MJC
Aroclor-1268 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 17:50	MJC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	76.4	30-150		5/9/14 17:50
Decachlorobiphenyl [2]	73.5	30-150		5/9/14 17:50
Tetrachloro-m-xylene [1]	65.7	30-150		5/9/14 17:50
Tetrachloro-m-xylene [2]	72.7	30-150		5/9/14 17:50

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-504 (2-4) | Sampled: 5/7/2014 11:05

Sample ID: 14E0281-08

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	90.1		% Wt	1		SM 2540G	5/7/14	5/8/14 9:25	MXG

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-505 (0-2) | Sampled: 5/7/2014 11:15

Sample ID: 14E0281-09

Sample Matrix: Soil

Sample Flags: RL-05

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	5.4	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.054	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Benzene	0.11	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Bromobenzene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Bromochloromethane	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Bromodichloromethane	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Bromoform	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Bromomethane	ND	0.54	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
2-Butanone (MEK)	ND	5.4	mg/Kg dry	2	R-05	SW-846 8260C	5/9/14	5/11/14 8:49	EEH
n-Butylbenzene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
sec-Butylbenzene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
tert-Butylbenzene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	0.054	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Carbon Disulfide	ND	1.1	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Carbon Tetrachloride	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Chlorobenzene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Chlorodibromomethane	ND	0.054	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Chloroethane	ND	0.22	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Chloroform	ND	0.22	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Chloromethane	ND	0.54	mg/Kg dry	2	R-05	SW-846 8260C	5/9/14	5/11/14 8:49	EEH
2-Chlorotoluene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
4-Chlorotoluene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.54	mg/Kg dry	2	R-05	SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,2-Dibromoethane (EDB)	ND	0.054	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Dibromomethane	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,2-Dichlorobenzene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,3-Dichlorobenzene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,4-Dichlorobenzene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Dichlorodifluoromethane (Freon 12)	ND	0.22	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,1-Dichloroethane	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,2-Dichloroethane	ND	0.54	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,1-Dichloroethylene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
cis-1,2-Dichloroethylene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
trans-1,2-Dichloroethylene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,2-Dichloropropane	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,3-Dichloropropane	ND	0.054	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
2,2-Dichloropropane	ND	0.11	mg/Kg dry	2	V-05, L-04	SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,1-Dichloropropene	ND	0.22	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
cis-1,3-Dichloropropene	ND	0.054	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
trans-1,3-Dichloropropene	ND	0.054	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Diethyl Ether	ND	0.22	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Diisopropyl Ether (DIPE)	ND	0.054	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,4-Dioxane	ND	5.4	mg/Kg dry	2	R-05, V-16	SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Ethylbenzene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-505 (0-2) | Sampled: 5/7/2014 11:15

Sample ID: 14E0281-09

Sample Matrix: Soil

Sample Flags: RL-05

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
2-Hexanone (MBK)	ND	1.1	mg/Kg dry	2	R-05	SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Isopropylbenzene (Cumene)	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
p-Isopropyltoluene (p-Cymene)	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Methyl tert-Butyl Ether (MTBE)	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Methylene Chloride	ND	0.54	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
4-Methyl-2-pentanone (MIBK)	ND	1.1	mg/Kg dry	2	R-05	SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Naphthalene	3.1	0.22	mg/Kg dry	2	R-05, V-05	SW-846 8260C	5/9/14	5/11/14 8:49	EEH
n-Propylbenzene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Styrene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,1,1,2-Tetrachloroethane	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,1,2,2-Tetrachloroethane	ND	0.054	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Tetrachloroethylene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Tetrahydrofuran	ND	0.43	mg/Kg dry	2	V-16	SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Toluene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,2,3-Trichlorobenzene	ND	0.43	mg/Kg dry	2	R-05, V-05	SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,2,4-Trichlorobenzene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,1,1-Trichloroethane	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,1,2-Trichloroethane	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Trichloroethylene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Trichlorofluoromethane (Freon 11)	ND	0.22	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,2,3-Trichloropropane	ND	0.22	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,2,4-Trimethylbenzene	0.18	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
1,3,5-Trimethylbenzene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
Vinyl Chloride	ND	0.22	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
m+p Xylene	ND	0.22	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH
o-Xylene	ND	0.11	mg/Kg dry	2		SW-846 8260C	5/9/14	5/11/14 8:49	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	97.9	70-130		5/11/14 8:49
Toluene-d8	103	70-130		5/11/14 8:49
4-Bromofluorobenzene	99.2	70-130		5/11/14 8:49

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-505 (0-2) | Sampled: 5/7/2014 11:15

Sample ID: 14E0281-09

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	2.9	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 10:37	CMR
Acenaphthylene	3.0	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 10:37	CMR
Anthracene	5.5	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 10:37	CMR
Benzo(a)anthracene	10	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 10:37	CMR
Benzo(a)pyrene	9.6	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 10:37	CMR
Benzo(b)fluoranthene	12	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 10:37	CMR
Benzo(g,h,i)perylene	5.5	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 10:37	CMR
Benzo(k)fluoranthene	4.2	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 10:37	CMR
Chrysene	11	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 10:37	CMR
Dibenz(a,h)anthracene	1.2	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 10:37	CMR
Fluoranthene	24	1.8	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 10:38	CMR
Fluorene	4.7	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 10:37	CMR
Indeno(1,2,3-cd)pyrene	6.1	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 10:37	CMR
2-Methylnaphthalene	1.8	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 10:37	CMR
Naphthalene	4.1	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 10:37	CMR
Phenanthrene	19	1.8	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 10:38	CMR
Pyrene	17	0.72	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 10:37	CMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	102	30-130		5/12/14 10:37
2-Fluorobiphenyl	109	30-130		5/12/14 10:37
p-Terphenyl-d14	72.2	30-130		5/12/14 10:37

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-505 (0-2) | Sampled: 5/7/2014 11:15

Sample ID: 14E0281-09

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:08	MJC
Aroclor-1221 [1]	ND	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:08	MJC
Aroclor-1232 [1]	ND	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:08	MJC
Aroclor-1242 [1]	ND	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:08	MJC
Aroclor-1248 [1]	0.23	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:08	MJC
Aroclor-1254 [1]	ND	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:08	MJC
Aroclor-1260 [1]	ND	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:08	MJC
Aroclor-1262 [1]	ND	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:08	MJC
Aroclor-1268 [1]	ND	0.10	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:08	MJC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	86.4	30-150		5/9/14 18:08
Decachlorobiphenyl [2]	80.6	30-150		5/9/14 18:08
Tetrachloro-m-xylene [1]	83.5	30-150		5/9/14 18:08
Tetrachloro-m-xylene [2]	89.7	30-150		5/9/14 18:08

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-505 (0-2) Sampled: 5/7/2014 11:15

Sample ID: 14E0281-09

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	93.7		% Wt	1		SM 2540G	5/7/14	5/8/14 9:25	MXG

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-505 (2-4) | Sampled: 5/7/2014 11:20

Sample ID: 14E0281-10

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Benzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Bromobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Bromochloromethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Bromodichloromethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Bromoform	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Bromomethane	ND	0.0092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
2-Butanone (MEK)	ND	0.037	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
n-Butylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
sec-Butylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
tert-Butylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Carbon Disulfide	ND	0.018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Carbon Tetrachloride	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Chlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Chlorodibromomethane	ND	0.00092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Chloroethane	ND	0.0092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Chloroform	ND	0.0037	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Chloromethane	ND	0.0092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
2-Chlorotoluene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
4-Chlorotoluene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,2-Dibromoethane (EDB)	ND	0.00092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Dibromomethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,2-Dichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,3-Dichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,4-Dichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.0092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,1-Dichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,2-Dichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,1-Dichloroethylene	ND	0.0037	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
cis-1,2-Dichloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
trans-1,2-Dichloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,2-Dichloropropane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,3-Dichloropropane	ND	0.00092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
2,2-Dichloropropane	ND	0.0037	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,1-Dichloropropene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
cis-1,3-Dichloropropene	ND	0.00092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
trans-1,3-Dichloropropene	ND	0.00092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Diethyl Ether	ND	0.0092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Diisopropyl Ether (DIPE)	ND	0.00092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,4-Dioxane	ND	0.092	mg/Kg dry	1	V-16	SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Ethylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-505 (2-4) | Sampled: 5/7/2014 11:20

Sample ID: 14E0281-10

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
2-Hexanone (MBK)	ND	0.018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Isopropylbenzene (Cumene)	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0037	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Methylene Chloride	ND	0.0092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Naphthalene	0.018	0.0092	mg/Kg dry	1	L-04, V-05	SW-846 8260C	5/8/14	5/8/14 12:35	MFF
n-Propylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Styrene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,1,1,2-Tetrachloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,1,2,2-Tetrachloroethane	ND	0.00092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Tetrachloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Tetrahydrofuran	ND	0.0092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Toluene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,2,3-Trichlorobenzene	ND	0.0037	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,2,4-Trichlorobenzene	ND	0.0037	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,1,1-Trichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,1,2-Trichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Trichloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,2,3-Trichloropropane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,2,4-Trimethylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
1,3,5-Trimethylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
Vinyl Chloride	ND	0.0092	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
m+p Xylene	ND	0.0037	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF
o-Xylene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 12:35	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	104	70-130		5/8/14 12:35
Toluene-d8	95.6	70-130		5/8/14 12:35
4-Bromofluorobenzene	92.8	70-130		5/8/14 12:35

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-505 (2-4) | Sampled: 5/7/2014 11:20

Sample ID: 14E0281-10

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	3.8	0.95	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 11:10	CMR
Acenaphthylene	2.2	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 11:09	CMR
Anthracene	8.5	0.95	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 11:10	CMR
Benzo(a)anthracene	19	0.95	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 11:10	CMR
Benzo(a)pyrene	17	0.95	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 11:10	CMR
Benzo(b)fluoranthene	19	0.95	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 11:10	CMR
Benzo(g,h,i)perylene	7.4	0.95	mg/Kg dry	5	V-06	SW-846 8270D	5/8/14	5/13/14 11:10	CMR
Benzo(k)fluoranthene	6.8	0.95	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 11:10	CMR
Chrysene	19	0.95	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 11:10	CMR
Dibenz(a,h)anthracene	2.9	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 11:09	CMR
Fluoranthene	40	3.8	mg/Kg dry	20		SW-846 8270D	5/8/14	5/13/14 13:49	CMR
Fluorene	5.3	0.95	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 11:10	CMR
Indeno(1,2,3-cd)pyrene	9.9	0.95	mg/Kg dry	5	V-06	SW-846 8270D	5/8/14	5/13/14 11:10	CMR
2-Methylnaphthalene	0.69	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 11:09	CMR
Naphthalene	1.8	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 11:09	CMR
Phenanthrene	20	0.95	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 11:10	CMR
Pyrene	27	3.8	mg/Kg dry	20		SW-846 8270D	5/8/14	5/13/14 13:49	CMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	46.7	30-130		5/12/14 11:09
2-Fluorobiphenyl	62.4	30-130		5/12/14 11:09
p-Terphenyl-d14	65.2	30-130		5/12/14 11:09

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-505 (2-4) | Sampled: 5/7/2014 11:20

Sample ID: 14E0281-10

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:26	MJC
Aroclor-1221 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:26	MJC
Aroclor-1232 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:26	MJC
Aroclor-1242 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:26	MJC
Aroclor-1248 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:26	MJC
Aroclor-1254 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:26	MJC
Aroclor-1260 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:26	MJC
Aroclor-1262 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:26	MJC
Aroclor-1268 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 18:26	MJC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	73.1	30-150		5/9/14 18:26
Decachlorobiphenyl [2]	83.7	30-150		5/9/14 18:26
Tetrachloro-m-xylene [1]	68.5	30-150		5/9/14 18:26
Tetrachloro-m-xylene [2]	74.7	30-150		5/9/14 18:26

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-505 (2-4) Sampled: 5/7/2014 11:20

Sample ID: 14E0281-10

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	89.6		% Wt	1		SM 2540G	5/7/14	5/8/14 9:25	MXG

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-506 (0-2) | Sampled: 5/7/2014 11:30

Sample ID: 14E0281-11

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.11	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Benzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Bromobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Bromochloromethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Bromodichloromethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Bromoform	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Bromomethane	ND	0.011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
2-Butanone (MEK)	ND	0.043	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
n-Butylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
sec-Butylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
tert-Butylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Carbon Disulfide	ND	0.021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Carbon Tetrachloride	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Chlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Chlorodibromomethane	ND	0.0011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Chloroethane	ND	0.011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Chloroform	ND	0.0043	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Chloromethane	ND	0.011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
2-Chlorotoluene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
4-Chlorotoluene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,2-Dibromoethane (EDB)	ND	0.0011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Dibromomethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,2-Dichlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,3-Dichlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,4-Dichlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,1-Dichloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,2-Dichloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,1-Dichloroethylene	ND	0.0043	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
cis-1,2-Dichloroethylene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
trans-1,2-Dichloroethylene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,2-Dichloropropane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,3-Dichloropropane	ND	0.0011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
2,2-Dichloropropane	ND	0.0043	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,1-Dichloropropene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
cis-1,3-Dichloropropene	ND	0.0011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
trans-1,3-Dichloropropene	ND	0.0011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Diethyl Ether	ND	0.011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Diisopropyl Ether (DIPE)	ND	0.0011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,4-Dioxane	ND	0.11	mg/Kg dry	1	V-16	SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Ethylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-506 (0-2) | Sampled: 5/7/2014 11:30

Sample ID: 14E0281-11

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
2-Hexanone (MBK)	ND	0.021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Isopropylbenzene (Cumene)	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
p-Isopropyltoluene (p-Cymene)	0.0070	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0043	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Methylene Chloride	ND	0.011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Naphthalene	ND	0.011	mg/Kg dry	1	L-04, V-05	SW-846 8260C	5/8/14	5/8/14 13:03	MFF
n-Propylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Styrene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,1,1,2-Tetrachloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,1,2,2-Tetrachloroethane	ND	0.0011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Tetrachloroethylene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Tetrahydrofuran	ND	0.011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Toluene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,2,3-Trichlorobenzene	ND	0.0043	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,2,4-Trichlorobenzene	ND	0.0043	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,1,1-Trichloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,1,2-Trichloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Trichloroethylene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Trichlorofluoromethane (Freon 11)	ND	0.011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,2,3-Trichloropropane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,2,4-Trimethylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
1,3,5-Trimethylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
Vinyl Chloride	ND	0.011	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
m+p Xylene	ND	0.0043	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF
o-Xylene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:03	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	93.4	70-130		5/8/14 13:03
Toluene-d8	98.4	70-130		5/8/14 13:03
4-Bromofluorobenzene	92.5	70-130		5/8/14 13:03

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-506 (0-2) Sampled: 5/7/2014 11:30

Sample ID: 14E0281-11

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	1.6	0.37	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 11:41	CMR
Acenaphthylene	ND	0.37	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 11:41	CMR
Anthracene	2.9	0.37	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 11:41	CMR
Benzo(a)anthracene	3.0	0.37	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 11:41	CMR
Benzo(a)pyrene	2.6	0.37	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 11:41	CMR
Benzo(b)fluoranthene	3.1	0.37	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 11:41	CMR
Benzo(g,h,i)perylene	1.1	0.37	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 11:41	CMR
Benzo(k)fluoranthene	1.2	0.37	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 11:41	CMR
Chrysene	2.8	0.37	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 11:41	CMR
Dibenz(a,h)anthracene	ND	0.37	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 11:41	CMR
Fluoranthene	5.3	0.92	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 11:41	CMR
Fluorene	2.1	0.37	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 11:41	CMR
Indeno(1,2,3-cd)pyrene	1.4	0.37	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 11:41	CMR
2-Methylnaphthalene	0.62	0.37	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 11:41	CMR
Naphthalene	1.4	0.37	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 11:41	CMR
Phenanthrene	8.3	0.37	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 11:41	CMR
Pyrene	3.7	0.37	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 11:41	CMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	50.2	30-130		5/12/14 11:41
2-Fluorobiphenyl	65.1	30-130		5/12/14 11:41
p-Terphenyl-d14	39.4	30-130		5/12/14 11:41

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-506 (0-2) Sampled: 5/7/2014 11:30

Sample ID: 14E0281-11

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:15	MJC
Aroclor-1221 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:15	MJC
Aroclor-1232 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:15	MJC
Aroclor-1242 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:15	MJC
Aroclor-1248 [2]	0.15	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:15	MJC
Aroclor-1254 [2]	0.12	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:15	MJC
Aroclor-1260 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:15	MJC
Aroclor-1262 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:15	MJC
Aroclor-1268 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:15	MJC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	79.3	30-150		5/9/14 19:15
Decachlorobiphenyl [2]	77.4	30-150		5/9/14 19:15
Tetrachloro-m-xylene [1]	78.8	30-150		5/9/14 19:15
Tetrachloro-m-xylene [2]	83.2	30-150		5/9/14 19:15

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-506 (0-2) | Sampled: 5/7/2014 11:30

Sample ID: 14E0281-11

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	90.7		% Wt	1		SM 2540G	5/7/14	5/8/14 9:25	MXG

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-506 (2-4) | Sampled: 5/7/2014 11:35

Sample ID: 14E0281-12

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Benzene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Bromobenzene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Bromochloromethane	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Bromodichloromethane	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Bromoform	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Bromomethane	ND	0.0097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
2-Butanone (MEK)	ND	0.039	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
n-Butylbenzene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
sec-Butylbenzene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
tert-Butylbenzene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Carbon Disulfide	ND	0.019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Carbon Tetrachloride	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Chlorobenzene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Chlorodibromomethane	ND	0.00097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Chloroethane	ND	0.0097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Chloroform	ND	0.0039	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Chloromethane	ND	0.0097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
2-Chlorotoluene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
4-Chlorotoluene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,2-Dibromoethane (EDB)	ND	0.00097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Dibromomethane	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,2-Dichlorobenzene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,3-Dichlorobenzene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,4-Dichlorobenzene	0.0033	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.0097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,1-Dichloroethane	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,2-Dichloroethane	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,1-Dichloroethylene	ND	0.0039	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
cis-1,2-Dichloroethylene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
trans-1,2-Dichloroethylene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,2-Dichloropropane	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,3-Dichloropropane	ND	0.00097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
2,2-Dichloropropane	ND	0.0039	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,1-Dichloropropene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
cis-1,3-Dichloropropene	ND	0.00097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
trans-1,3-Dichloropropene	ND	0.00097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Diethyl Ether	ND	0.0097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Diisopropyl Ether (DIPE)	ND	0.00097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,4-Dioxane	ND	0.097	mg/Kg dry	1	V-16	SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Ethylbenzene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-506 (2-4) | Sampled: 5/7/2014 11:35

Sample ID: 14E0281-12

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
2-Hexanone (MBK)	ND	0.019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Isopropylbenzene (Cumene)	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0039	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Methylene Chloride	ND	0.0097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Naphthalene	ND	0.0097	mg/Kg dry	1	L-04, V-05	SW-846 8260C	5/8/14	5/8/14 13:30	MFF
n-Propylbenzene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Styrene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,1,1,2-Tetrachloroethane	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,1,2,2-Tetrachloroethane	ND	0.00097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Tetrachloroethylene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Tetrahydrofuran	ND	0.0097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Toluene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,2,3-Trichlorobenzene	ND	0.0039	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,2,4-Trichlorobenzene	ND	0.0039	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,1,1-Trichloroethane	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,1,2-Trichloroethane	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Trichloroethylene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,2,3-Trichloropropane	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,2,4-Trimethylbenzene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
1,3,5-Trimethylbenzene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
Vinyl Chloride	ND	0.0097	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
m+p Xylene	ND	0.0039	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF
o-Xylene	ND	0.0019	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:30	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	94.2	70-130		5/8/14 13:30
Toluene-d8	98.4	70-130		5/8/14 13:30
4-Bromofluorobenzene	90.2	70-130		5/8/14 13:30

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-506 (2-4) | Sampled: 5/7/2014 11:35

Sample ID: 14E0281-12

Sample Matrix: Soil

Sample Flags: RL-12

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.36	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 12:14	CMR
Acenaphthylene	ND	0.36	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 12:14	CMR
Anthracene	0.61	0.36	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 12:14	CMR
Benzo(a)anthracene	1.6	0.36	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 12:14	CMR
Benzo(a)pyrene	1.4	0.36	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 12:14	CMR
Benzo(b)fluoranthene	1.9	0.36	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 12:14	CMR
Benzo(g,h,i)perylene	0.70	0.36	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 12:14	CMR
Benzo(k)fluoranthene	0.68	0.36	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 12:14	CMR
Chrysene	1.8	0.36	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 12:14	CMR
Dibenz(a,h)anthracene	ND	0.36	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 12:14	CMR
Fluoranthene	6.2	0.36	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 12:14	CMR
Fluorene	ND	0.36	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 12:14	CMR
Indeno(1,2,3-cd)pyrene	0.85	0.36	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 12:14	CMR
2-Methylnaphthalene	ND	0.36	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 12:14	CMR
Naphthalene	ND	0.36	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 12:14	CMR
Phenanthrene	3.0	0.36	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 12:14	CMR
Pyrene	3.2	0.36	mg/Kg dry	2		SW-846 8270D	5/8/14	5/12/14 12:14	CMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	58.1	30-130		5/12/14 12:14
2-Fluorobiphenyl	73.6	30-130		5/12/14 12:14
p-Terphenyl-d14	65.6	30-130		5/12/14 12:14

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-506 (2-4) | Sampled: 5/7/2014 11:35

Sample ID: 14E0281-12

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.42	mg/Kg dry	20		SW-846 8082A	5/8/14	5/10/14 8:41	MJC
Aroclor-1221 [1]	ND	0.42	mg/Kg dry	20		SW-846 8082A	5/8/14	5/10/14 8:41	MJC
Aroclor-1232 [1]	ND	0.42	mg/Kg dry	20		SW-846 8082A	5/8/14	5/10/14 8:41	MJC
Aroclor-1242 [1]	ND	0.42	mg/Kg dry	20		SW-846 8082A	5/8/14	5/10/14 8:41	MJC
Aroclor-1248 [2]	3.0	0.42	mg/Kg dry	20		SW-846 8082A	5/8/14	5/10/14 8:41	MJC
Aroclor-1254 [1]	1.8	0.42	mg/Kg dry	20		SW-846 8082A	5/8/14	5/10/14 8:41	MJC
Aroclor-1260 [1]	ND	0.42	mg/Kg dry	20		SW-846 8082A	5/8/14	5/10/14 8:41	MJC
Aroclor-1262 [1]	ND	0.42	mg/Kg dry	20		SW-846 8082A	5/8/14	5/10/14 8:41	MJC
Aroclor-1268 [1]	ND	0.42	mg/Kg dry	20		SW-846 8082A	5/8/14	5/10/14 8:41	MJC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	83.0	30-150		5/10/14 8:41
Decachlorobiphenyl [2]	75.4	30-150		5/10/14 8:41
Tetrachloro-m-xylene [1]	125	30-150		5/10/14 8:41
Tetrachloro-m-xylene [2]	132	30-150		5/10/14 8:41

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-506 (2-4) Sampled: 5/7/2014 11:35

Sample ID: 14E0281-12

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	94.7		% Wt	1		SM 2540G	5/7/14	5/8/14 9:25	MXG

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-507 (0-2) | Sampled: 5/7/2014 11:45

Sample ID: 14E0281-13

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.12	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Benzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Bromobenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Bromochloromethane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Bromodichloromethane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Bromoform	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Bromomethane	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
2-Butanone (MEK)	ND	0.049	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
n-Butylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
sec-Butylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
tert-Butylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Carbon Disulfide	ND	0.025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Carbon Tetrachloride	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Chlorobenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Chlorodibromomethane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Chloroethane	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Chloroform	ND	0.0049	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Chloromethane	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
2-Chlorotoluene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
4-Chlorotoluene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,2-Dibromoethane (EDB)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Dibromomethane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,2-Dichlorobenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,3-Dichlorobenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,4-Dichlorobenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,1-Dichloroethane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,2-Dichloroethane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,1-Dichloroethylene	ND	0.0049	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
cis-1,2-Dichloroethylene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
trans-1,2-Dichloroethylene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,2-Dichloropropane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,3-Dichloropropane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
2,2-Dichloropropane	ND	0.0049	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,1-Dichloropropene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
cis-1,3-Dichloropropene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
trans-1,3-Dichloropropene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Diethyl Ether	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Diisopropyl Ether (DIPE)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,4-Dioxane	ND	0.12	mg/Kg dry	1	V-16	SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Ethylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-507 (0-2) | Sampled: 5/7/2014 11:45

Sample ID: 14E0281-13

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
2-Hexanone (MBK)	ND	0.025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Isopropylbenzene (Cumene)	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0049	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Methylene Chloride	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Naphthalene	ND	0.012	mg/Kg dry	1	L-04, V-05	SW-846 8260C	5/8/14	5/8/14 13:58	MFF
n-Propylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Styrene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,1,1,2-Tetrachloroethane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,1,2,2-Tetrachloroethane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Tetrachloroethylene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Tetrahydrofuran	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Toluene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,2,3-Trichlorobenzene	ND	0.0049	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,2,4-Trichlorobenzene	ND	0.0049	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,1,1-Trichloroethane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,1,2-Trichloroethane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Trichloroethylene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Trichlorofluoromethane (Freon 11)	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,2,3-Trichloropropane	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,2,4-Trimethylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
1,3,5-Trimethylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
Vinyl Chloride	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
m+p Xylene	ND	0.0049	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF
o-Xylene	ND	0.0025	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 13:58	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	92.0	70-130		5/8/14 13:58
Toluene-d8	98.2	70-130		5/8/14 13:58
4-Bromofluorobenzene	87.4	70-130		5/8/14 13:58

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-507 (0-2) Sampled: 5/7/2014 11:45

Sample ID: 14E0281-13

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 12:46	CMR
Acenaphthylene	0.66	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 12:46	CMR
Anthracene	1.1	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 12:46	CMR
Benzo(a)anthracene	3.9	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 12:46	CMR
Benzo(a)pyrene	3.7	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 12:46	CMR
Benzo(b)fluoranthene	4.1	0.78	mg/Kg dry	4		SW-846 8270D	5/8/14	5/13/14 12:13	CMR
Benzo(g,h,i)perylene	2.1	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 12:46	CMR
Benzo(k)fluoranthene	1.8	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 12:46	CMR
Chrysene	3.8	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 12:46	CMR
Dibenz(a,h)anthracene	0.53	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 12:46	CMR
Fluoranthene	6.0	0.78	mg/Kg dry	4		SW-846 8270D	5/8/14	5/13/14 12:13	CMR
Fluorene	0.40	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 12:46	CMR
Indeno(1,2,3-cd)pyrene	2.5	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 12:46	CMR
2-Methylnaphthalene	0.23	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 12:46	CMR
Naphthalene	0.45	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 12:46	CMR
Phenanthrene	4.3	0.19	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 12:46	CMR
Pyrene	4.4	0.78	mg/Kg dry	4		SW-846 8270D	5/8/14	5/13/14 12:13	CMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	78.0	30-130		5/12/14 12:46
2-Fluorobiphenyl	100	30-130		5/12/14 12:46
p-Terphenyl-d14	110	30-130		5/12/14 12:46

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-507 (0-2) Sampled: 5/7/2014 11:45

Sample ID: 14E0281-13

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:52	MJC
Aroclor-1221 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:52	MJC
Aroclor-1232 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:52	MJC
Aroclor-1242 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:52	MJC
Aroclor-1248 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:52	MJC
Aroclor-1254 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:52	MJC
Aroclor-1260 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:52	MJC
Aroclor-1262 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:52	MJC
Aroclor-1268 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 19:52	MJC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	74.0	30-150		5/9/14 19:52
Decachlorobiphenyl [2]	69.8	30-150		5/9/14 19:52
Tetrachloro-m-xylene [1]	84.1	30-150		5/9/14 19:52
Tetrachloro-m-xylene [2]	85.7	30-150		5/9/14 19:52

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-507 (0-2) Sampled: 5/7/2014 11:45

Sample ID: 14E0281-13

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.4		% Wt	1		SM 2540G	5/7/14	5/8/14 9:25	MXG

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-507 (2-4) | Sampled: 5/7/2014 11:50

Sample ID: 14E0281-14

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.16	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Benzene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Bromobenzene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Bromochloromethane	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Bromodichloromethane	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Bromoform	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Bromomethane	ND	0.016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
2-Butanone (MEK)	ND	0.063	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
n-Butylbenzene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
sec-Butylbenzene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
tert-Butylbenzene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Carbon Disulfide	ND	0.031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Carbon Tetrachloride	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Chlorobenzene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Chlorodibromomethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Chloroethane	ND	0.016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Chloroform	ND	0.0063	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Chloromethane	ND	0.016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
2-Chlorotoluene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
4-Chlorotoluene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,2-Dibromoethane (EDB)	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Dibromomethane	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,2-Dichlorobenzene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,3-Dichlorobenzene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,4-Dichlorobenzene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,1-Dichloroethane	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,2-Dichloroethane	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,1-Dichloroethylene	ND	0.0063	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
cis-1,2-Dichloroethylene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
trans-1,2-Dichloroethylene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,2-Dichloropropane	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,3-Dichloropropane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
2,2-Dichloropropane	ND	0.0063	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,1-Dichloropropene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
cis-1,3-Dichloropropene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
trans-1,3-Dichloropropene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Diethyl Ether	ND	0.016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Diisopropyl Ether (DIPE)	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,4-Dioxane	ND	0.16	mg/Kg dry	1	V-16	SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Ethylbenzene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-507 (2-4) | Sampled: 5/7/2014 11:50

Sample ID: 14E0281-14

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
2-Hexanone (MBK)	ND	0.031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Isopropylbenzene (Cumene)	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0063	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Methylene Chloride	ND	0.016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Naphthalene	ND	0.016	mg/Kg dry	1	L-04, V-05	SW-846 8260C	5/8/14	5/8/14 14:25	MFF
n-Propylbenzene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Styrene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,1,1,2-Tetrachloroethane	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,1,2,2-Tetrachloroethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Tetrachloroethylene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Tetrahydrofuran	ND	0.016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Toluene	0.0046	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,2,3-Trichlorobenzene	ND	0.0063	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,2,4-Trichlorobenzene	ND	0.0063	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,1,1-Trichloroethane	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,1,2-Trichloroethane	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Trichloroethylene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Trichlorofluoromethane (Freon 11)	ND	0.016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,2,3-Trichloropropane	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,2,4-Trimethylbenzene	0.015	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
1,3,5-Trimethylbenzene	0.0077	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
Vinyl Chloride	ND	0.016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
m+p Xylene	0.017	0.0063	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF
o-Xylene	0.012	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:25	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	96.6	70-130		5/8/14 14:25
Toluene-d8	98.2	70-130		5/8/14 14:25
4-Bromofluorobenzene	91.2	70-130		5/8/14 14:25

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-507 (2-4) | Sampled: 5/7/2014 11:50

Sample ID: 14E0281-14

Sample Matrix: Soil

Sample Flags: RL-12

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	1.6	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 13:19	CMR
Acenaphthylene	ND	1.6	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 13:19	CMR
Anthracene	ND	1.6	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 13:19	CMR
Benzo(a)anthracene	ND	1.6	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 13:19	CMR
Benzo(a)pyrene	2.2	1.6	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 13:19	CMR
Benzo(b)fluoranthene	2.1	1.6	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 13:19	CMR
Benzo(g,h,i)perylene	2.2	1.6	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 13:19	CMR
Benzo(k)fluoranthene	ND	1.6	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 13:19	CMR
Chrysene	2.4	1.6	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 13:19	CMR
Dibenz(a,h)anthracene	ND	1.6	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 13:19	CMR
Fluoranthene	2.6	1.6	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 13:19	CMR
Fluorene	ND	1.6	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 13:19	CMR
Indeno(1,2,3-cd)pyrene	ND	1.6	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 13:19	CMR
2-Methylnaphthalene	ND	1.6	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 13:19	CMR
Naphthalene	ND	1.6	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 13:19	CMR
Phenanthrene	ND	1.6	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 13:19	CMR
Pyrene	5.5	1.6	mg/Kg dry	4		SW-846 8270D	5/8/14	5/12/14 13:19	CMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	73.6	30-130		5/12/14 13:19
2-Fluorobiphenyl	90.3	30-130		5/12/14 13:19
p-Terphenyl-d14	110	30-130		5/12/14 13:19

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-507 (2-4) | Sampled: 5/7/2014 11:50

Sample ID: 14E0281-14

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.12	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:10	MJC
Aroclor-1221 [1]	ND	0.12	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:10	MJC
Aroclor-1232 [1]	ND	0.12	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:10	MJC
Aroclor-1242 [1]	ND	0.12	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:10	MJC
Aroclor-1248 [1]	ND	0.12	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:10	MJC
Aroclor-1254 [1]	ND	0.12	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:10	MJC
Aroclor-1260 [1]	ND	0.12	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:10	MJC
Aroclor-1262 [1]	ND	0.12	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:10	MJC
Aroclor-1268 [1]	ND	0.12	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:10	MJC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	71.6	30-150		5/9/14 20:10
Decachlorobiphenyl [2]	65.0	30-150		5/9/14 20:10
Tetrachloro-m-xylene [1]	65.7	30-150		5/9/14 20:10
Tetrachloro-m-xylene [2]	73.7	30-150		5/9/14 20:10

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-507 (2-4) Sampled: 5/7/2014 11:50

Sample ID: 14E0281-14

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	82.3		% Wt	1		SM 2540G	5/7/14	5/8/14 9:25	MXG

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-508 (0-2) | Sampled: 5/7/2014 12:10

Sample ID: 14E0281-15

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Benzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Bromobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Bromochloromethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Bromodichloromethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Bromoform	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Bromomethane	ND	0.0078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
2-Butanone (MEK)	ND	0.031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
n-Butylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
sec-Butylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
tert-Butylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Carbon Disulfide	ND	0.016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Carbon Tetrachloride	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Chlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Chlorodibromomethane	ND	0.00078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Chloroethane	ND	0.0078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Chloroform	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Chloromethane	ND	0.0078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
2-Chlorotoluene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
4-Chlorotoluene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,2-Dibromoethane (EDB)	ND	0.00078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Dibromomethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,2-Dichlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,3-Dichlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,4-Dichlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.0078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,1-Dichloroethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,2-Dichloroethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,1-Dichloroethylene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
cis-1,2-Dichloroethylene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
trans-1,2-Dichloroethylene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,2-Dichloropropane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,3-Dichloropropane	ND	0.00078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
2,2-Dichloropropane	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,1-Dichloropropene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
cis-1,3-Dichloropropene	ND	0.00078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
trans-1,3-Dichloropropene	ND	0.00078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Diethyl Ether	ND	0.0078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Diisopropyl Ether (DIPE)	ND	0.00078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,4-Dioxane	ND	0.078	mg/Kg dry	1	V-16	SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Ethylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-508 (0-2) | Sampled: 5/7/2014 12:10

Sample ID: 14E0281-15

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
2-Hexanone (MBK)	ND	0.016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Isopropylbenzene (Cumene)	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Methylene Chloride	ND	0.0078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Naphthalene	ND	0.0078	mg/Kg dry	1	L-04, V-05	SW-846 8260C	5/8/14	5/8/14 14:53	MFF
n-Propylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Styrene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,1,1,2-Tetrachloroethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,1,2,2-Tetrachloroethane	ND	0.00078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Tetrachloroethylene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Tetrahydrofuran	ND	0.0078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Toluene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,2,3-Trichlorobenzene	ND	0.0031	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,2,4-Trichlorobenzene	ND	0.0031	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,1,1-Trichloroethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,1,2-Trichloroethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Trichloroethylene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,2,3-Trichloropropane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,2,4-Trimethylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
1,3,5-Trimethylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
Vinyl Chloride	ND	0.0078	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
m+p Xylene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF
o-Xylene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 14:53	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	97.4	70-130		5/8/14 14:53
Toluene-d8	96.9	70-130		5/8/14 14:53
4-Bromofluorobenzene	88.0	70-130		5/8/14 14:53

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-508 (0-2) | Sampled: 5/7/2014 12:10

Sample ID: 14E0281-15

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	0.54	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:11	CMR
Acenaphthylene	0.43	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:11	CMR
Anthracene	2.0	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:11	CMR
Benzo(a)anthracene	4.4	0.91	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 12:45	CMR
Benzo(a)pyrene	3.4	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:11	CMR
Benzo(b)fluoranthene	4.1	0.91	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 12:45	CMR
Benzo(g,h,i)perylene	1.5	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:11	CMR
Benzo(k)fluoranthene	1.7	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:11	CMR
Chrysene	4.1	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:11	CMR
Dibenz(a,h)anthracene	0.45	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:11	CMR
Fluoranthene	10	0.91	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 12:45	CMR
Fluorene	0.67	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:11	CMR
Indeno(1,2,3-cd)pyrene	1.9	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:11	CMR
2-Methylnaphthalene	ND	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:11	CMR
Naphthalene	ND	0.18	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:11	CMR
Phenanthrene	5.2	0.91	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 12:45	CMR
Pyrene	5.7	0.91	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 12:45	CMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	82.0	30-130		5/12/14 16:11
2-Fluorobiphenyl	99.8	30-130		5/12/14 16:11
p-Terphenyl-d14	79.4	30-130		5/12/14 16:11

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-508 (0-2) | Sampled: 5/7/2014 12:10

Sample ID: 14E0281-15

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:28	MJC
Aroclor-1221 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:28	MJC
Aroclor-1232 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:28	MJC
Aroclor-1242 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:28	MJC
Aroclor-1248 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:28	MJC
Aroclor-1254 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:28	MJC
Aroclor-1260 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:28	MJC
Aroclor-1262 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:28	MJC
Aroclor-1268 [1]	ND	0.11	mg/Kg dry	5		SW-846 8082A	5/8/14	5/9/14 20:28	MJC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	72.8	30-150		5/9/14 20:28
Decachlorobiphenyl [2]	63.2	30-150		5/9/14 20:28
Tetrachloro-m-xylene [1]	81.2	30-150		5/9/14 20:28
Tetrachloro-m-xylene [2]	87.1	30-150		5/9/14 20:28

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-508 (0-2) | Sampled: 5/7/2014 12:10

Sample ID: 14E0281-15

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	92.6		% Wt	1		SM 2540G	5/7/14	5/8/14 9:25	MXG

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-508 (2-4) | Sampled: 5/7/2014 12:15

Sample ID: 14E0281-16

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.12	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Benzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Bromobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Bromochloromethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Bromodichloromethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Bromoform	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Bromomethane	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
2-Butanone (MEK)	ND	0.047	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
n-Butylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
sec-Butylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
tert-Butylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Carbon Disulfide	ND	0.024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Carbon Tetrachloride	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Chlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Chlorodibromomethane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Chloroethane	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Chloroform	ND	0.0047	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Chloromethane	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
2-Chlorotoluene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
4-Chlorotoluene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,2-Dibromoethane (EDB)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Dibromomethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,2-Dichlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,3-Dichlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,4-Dichlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,1-Dichloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,2-Dichloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,1-Dichloroethylene	ND	0.0047	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
cis-1,2-Dichloroethylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
trans-1,2-Dichloroethylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,2-Dichloropropane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,3-Dichloropropane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
2,2-Dichloropropane	ND	0.0047	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,1-Dichloropropene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
cis-1,3-Dichloropropene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
trans-1,3-Dichloropropene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Diethyl Ether	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Diisopropyl Ether (DIPE)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,4-Dioxane	ND	0.12	mg/Kg dry	1	V-16	SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Ethylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-508 (2-4) | Sampled: 5/7/2014 12:15

Sample ID: 14E0281-16

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
2-Hexanone (MBK)	ND	0.024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Isopropylbenzene (Cumene)	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0047	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Methylene Chloride	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Naphthalene	ND	0.012	mg/Kg dry	1	L-04, V-05	SW-846 8260C	5/8/14	5/8/14 15:20	MFF
n-Propylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Styrene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,1,1,2-Tetrachloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,1,2,2-Tetrachloroethane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Tetrachloroethylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Tetrahydrofuran	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Toluene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,2,3-Trichlorobenzene	ND	0.0047	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,2,4-Trichlorobenzene	ND	0.0047	mg/Kg dry	1	V-05	SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,1,1-Trichloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,1,2-Trichloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Trichloroethylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Trichlorofluoromethane (Freon 11)	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,2,3-Trichloropropane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,2,4-Trimethylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
1,3,5-Trimethylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
Vinyl Chloride	ND	0.012	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
m+p Xylene	ND	0.0047	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF
o-Xylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	5/8/14	5/8/14 15:20	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	101	70-130		5/8/14 15:20
Toluene-d8	97.6	70-130		5/8/14 15:20
4-Bromofluorobenzene	92.4	70-130		5/8/14 15:20

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-508 (2-4) Sampled: 5/7/2014 12:15

Sample ID: 14E0281-16

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	0.29	0.20	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:44	CMR
Acenaphthylene	0.88	0.20	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:44	CMR
Anthracene	1.8	0.20	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:44	CMR
Benzo(a)anthracene	4.7	1.0	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 13:17	CMR
Benzo(a)pyrene	3.8	0.20	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:44	CMR
Benzo(b)fluoranthene	5.5	1.0	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 13:17	CMR
Benzo(g,h,i)perylene	2.8	0.20	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:44	CMR
Benzo(k)fluoranthene	2.2	0.20	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:44	CMR
Chrysene	4.7	1.0	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 13:17	CMR
Dibenz(a,h)anthracene	0.72	0.20	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:44	CMR
Fluoranthene	9.6	1.0	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 13:17	CMR
Fluorene	0.44	0.20	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:44	CMR
Indeno(1,2,3-cd)pyrene	2.9	0.20	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:44	CMR
2-Methylnaphthalene	0.33	0.20	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:44	CMR
Naphthalene	0.76	0.20	mg/Kg dry	1		SW-846 8270D	5/8/14	5/12/14 16:44	CMR
Phenanthrene	4.8	1.0	mg/Kg dry	5	MS-12	SW-846 8270D	5/8/14	5/13/14 13:17	CMR
Pyrene	5.9	1.0	mg/Kg dry	5		SW-846 8270D	5/8/14	5/13/14 13:17	CMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	81.3	30-130		5/12/14 16:44
2-Fluorobiphenyl	108	30-130		5/12/14 16:44
p-Terphenyl-d14	93.6	30-130		5/12/14 16:44

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington | Sample Description: | Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-508 (2-4) | Sampled: 5/7/2014 12:15

Sample ID: 14E0281-16

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.46	mg/Kg dry	20	R-06	SW-846 8082A	5/8/14	5/10/14 9:07	MJC
Aroclor-1221 [1]	ND	0.46	mg/Kg dry	20		SW-846 8082A	5/8/14	5/10/14 9:07	MJC
Aroclor-1232 [1]	ND	0.46	mg/Kg dry	20		SW-846 8082A	5/8/14	5/10/14 9:07	MJC
Aroclor-1242 [1]	ND	0.46	mg/Kg dry	20		SW-846 8082A	5/8/14	5/10/14 9:07	MJC
Aroclor-1248 [1]	ND	0.46	mg/Kg dry	20		SW-846 8082A	5/8/14	5/10/14 9:07	MJC
Aroclor-1254 [2]	3.2	0.46	mg/Kg dry	20	O-03	SW-846 8082A	5/8/14	5/10/14 9:07	MJC
Aroclor-1260 [1]	ND	0.46	mg/Kg dry	20	R-06	SW-846 8082A	5/8/14	5/10/14 9:07	MJC
Aroclor-1262 [1]	ND	0.46	mg/Kg dry	20		SW-846 8082A	5/8/14	5/10/14 9:07	MJC
Aroclor-1268 [1]	ND	0.46	mg/Kg dry	20		SW-846 8082A	5/8/14	5/10/14 9:07	MJC

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
Decachlorobiphenyl [1]	70.8	30-150		5/10/14	9:07
Decachlorobiphenyl [2]	71.8	30-150		5/10/14	9:07
Tetrachloro-m-xylene [1]	77.3	30-150		5/10/14	9:07
Tetrachloro-m-xylene [2]	80.7	30-150		5/10/14	9:07

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 84 & 90 Cobble Hill Washington Sample Description: Work Order: 14E0281

Date Received: 5/7/2014

Field Sample #: EB-508 (2-4) Sampled: 5/7/2014 12:15

Sample ID: 14E0281-16

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	84.3		% Wt	1		SM 2540G	5/7/14	5/8/14 9:25	MXG

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: % Solids-SM 2540G

Lab Number [Field ID]	Batch	Date
14E0281-01 [EB-501 (0-2)]	B095318	05/07/14
14E0281-02 [EB-501 (2-4)]	B095318	05/07/14
14E0281-03 [EB-502 (0-2)]	B095318	05/07/14
14E0281-04 [EB-502 (2-4)]	B095318	05/07/14
14E0281-05 [EB-503 (0-2)]	B095318	05/07/14
14E0281-06 [EB-503 (2-4)]	B095318	05/07/14
14E0281-07 [EB-504 (0-2)]	B095318	05/07/14
14E0281-08 [EB-504 (2-4)]	B095318	05/07/14
14E0281-09 [EB-505 (0-2)]	B095318	05/07/14
14E0281-10 [EB-505 (2-4)]	B095318	05/07/14
14E0281-11 [EB-506 (0-2)]	B095318	05/07/14
14E0281-12 [EB-506 (2-4)]	B095318	05/07/14
14E0281-13 [EB-507 (0-2)]	B095318	05/07/14
14E0281-14 [EB-507 (2-4)]	B095318	05/07/14
14E0281-15 [EB-508 (0-2)]	B095318	05/07/14
14E0281-16 [EB-508 (2-4)]	B095318	05/07/14

Prep Method: SW-846 3546-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
14E0281-01 [EB-501 (0-2)]	B095400	10.1	10.0	05/08/14
14E0281-02 [EB-501 (2-4)]	B095400	10.3	10.0	05/08/14
14E0281-03 [EB-502 (0-2)]	B095400	10.3	10.0	05/08/14
14E0281-04 [EB-502 (2-4)]	B095400	10.2	10.0	05/08/14
14E0281-05 [EB-503 (0-2)]	B095400	10.1	10.0	05/08/14
14E0281-06 [EB-503 (2-4)]	B095400	10.3	10.0	05/08/14
14E0281-07 [EB-504 (0-2)]	B095400	10.2	10.0	05/08/14
14E0281-08 [EB-504 (2-4)]	B095400	10.3	10.0	05/08/14
14E0281-09 [EB-505 (0-2)]	B095400	10.3	10.0	05/08/14
14E0281-10 [EB-505 (2-4)]	B095400	10.3	10.0	05/08/14
14E0281-11 [EB-506 (0-2)]	B095400	10.3	10.0	05/08/14
14E0281-12 [EB-506 (2-4)]	B095400	10.1	10.0	05/08/14
14E0281-13 [EB-507 (0-2)]	B095400	10.2	10.0	05/08/14
14E0281-14 [EB-507 (2-4)]	B095400	10.4	10.0	05/08/14
14E0281-15 [EB-508 (0-2)]	B095400	10.2	10.0	05/08/14
14E0281-16 [EB-508 (2-4)]	B095400	10.3	10.0	05/08/14

Prep Method: SW-846 5035-SW-846 8260C

Lab Number [Field ID]	Batch	Sample Amount(g)	Methanol Volume(mL)	Methanol Aliquot(mL)	Final Volume(mL)	Date
14E0281-08 [EB-504 (2-4)]	B095241	22.3	17.3	0.5	50	05/09/14
14E0281-09 [EB-505 (0-2)]	B095241	16.0	16.1	0.5	50	05/09/14

Prep Method: SW-846 5035-SW-846 8260C

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
14E0281-01 [EB-501 (0-2)]	B095376	5.31	10.0	05/08/14
14E0281-02 [EB-501 (2-4)]	B095376	4.04	10.0	05/08/14
14E0281-03 [EB-502 (0-2)]	B095376	8.65	10.0	05/08/14
14E0281-04 [EB-502 (2-4)]	B095376	4.53	10.0	05/08/14
14E0281-05 [EB-503 (0-2)]	B095376	4.53	10.0	05/08/14

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: SW-846 5035-SW-846 8260C

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
14E0281-06 [EB-503 (2-4)]	B095376	5.65	10.0	05/08/14
14E0281-07 [EB-504 (0-2)]	B095376	6.55	10.0	05/08/14
14E0281-10 [EB-505 (2-4)]	B095376	6.05	10.0	05/08/14
14E0281-11 [EB-506 (0-2)]	B095376	5.18	10.0	05/08/14
14E0281-12 [EB-506 (2-4)]	B095376	5.47	10.0	05/08/14
14E0281-13 [EB-507 (0-2)]	B095376	4.77	10.0	05/08/14
14E0281-14 [EB-507 (2-4)]	B095376	3.87	10.0	05/08/14
14E0281-15 [EB-508 (0-2)]	B095376	6.94	10.0	05/08/14
14E0281-16 [EB-508 (2-4)]	B095376	5.04	10.0	05/08/14

Prep Method: SW-846 3546-SW-846 8270D

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
14E0281-01 [EB-501 (0-2)]	B095399	30.4	2.00	05/08/14
14E0281-01RE1 [EB-501 (0-2)]	B095399	30.4	2.00	05/08/14
14E0281-02 [EB-501 (2-4)]	B095399	30.5	2.00	05/08/14
14E0281-02RE1 [EB-501 (2-4)]	B095399	30.5	2.00	05/08/14
14E0281-03 [EB-502 (0-2)]	B095399	30.1	1.00	05/08/14
14E0281-04 [EB-502 (2-4)]	B095399	30.1	1.00	05/08/14
14E0281-04RE1 [EB-502 (2-4)]	B095399	30.1	1.00	05/08/14
14E0281-05 [EB-503 (0-2)]	B095399	30.5	2.00	05/08/14
14E0281-06 [EB-503 (2-4)]	B095399	30.1	1.00	05/08/14
14E0281-07 [EB-504 (0-2)]	B095399	30.4	1.00	05/08/14
14E0281-07RE1 [EB-504 (0-2)]	B095399	30.4	1.00	05/08/14
14E0281-08 [EB-504 (2-4)]	B095399	30.2	1.00	05/08/14
14E0281-09 [EB-505 (0-2)]	B095399	30.2	2.00	05/08/14
14E0281-09RE1 [EB-505 (0-2)]	B095399	30.2	2.00	05/08/14
14E0281-10 [EB-505 (2-4)]	B095399	30.0	1.00	05/08/14
14E0281-10RE1 [EB-505 (2-4)]	B095399	30.0	1.00	05/08/14
14E0281-10RE2 [EB-505 (2-4)]	B095399	30.0	1.00	05/08/14
14E0281-11 [EB-506 (0-2)]	B095399	30.7	1.00	05/08/14
14E0281-11RE1 [EB-506 (0-2)]	B095399	30.7	1.00	05/08/14
14E0281-12 [EB-506 (2-4)]	B095399	30.3	1.00	05/08/14
14E0281-13 [EB-507 (0-2)]	B095399	30.8	1.00	05/08/14
14E0281-13RE1 [EB-507 (0-2)]	B095399	30.8	1.00	05/08/14
14E0281-14 [EB-507 (2-4)]	B095399	30.3	2.00	05/08/14
14E0281-15 [EB-508 (0-2)]	B095399	30.4	1.00	05/08/14
14E0281-15RE1 [EB-508 (0-2)]	B095399	30.4	1.00	05/08/14
14E0281-16 [EB-508 (2-4)]	B095399	30.1	1.00	05/08/14
14E0281-16RE1 [EB-508 (2-4)]	B095399	30.1	1.00	05/08/14

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B095241 - SW-846 5035										
Blank (B095241-BLK1)				Prepared: 05/07/14 Analyzed: 05/10/14						
Acetone	ND	2.5	mg/Kg wet							
tert-Amyl Methyl Ether (TAME)	ND	0.025	mg/Kg wet							
Benzene	ND	0.050	mg/Kg wet							
Bromobenzene	ND	0.050	mg/Kg wet							
Bromochloromethane	ND	0.050	mg/Kg wet							
Bromodichloromethane	ND	0.050	mg/Kg wet							
Bromoform	ND	0.050	mg/Kg wet							
Bromomethane	ND	0.25	mg/Kg wet							
2-Butanone (MEK)	ND	2.5	mg/Kg wet							R-05
n-Butylbenzene	ND	0.050	mg/Kg wet							
sec-Butylbenzene	ND	0.050	mg/Kg wet							
tert-Butylbenzene	ND	0.050	mg/Kg wet							
tert-Butyl Ethyl Ether (TBEE)	ND	0.025	mg/Kg wet							
Carbon Disulfide	ND	0.50	mg/Kg wet							
Carbon Tetrachloride	ND	0.050	mg/Kg wet							
Chlorobenzene	ND	0.050	mg/Kg wet							
Chlorodibromomethane	ND	0.025	mg/Kg wet							
Chloroethane	ND	0.10	mg/Kg wet							
Chloroform	ND	0.10	mg/Kg wet							
Chloromethane	ND	0.25	mg/Kg wet							R-05
2-Chlorotoluene	ND	0.050	mg/Kg wet							
4-Chlorotoluene	ND	0.050	mg/Kg wet							
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.25	mg/Kg wet							R-05
1,2-Dibromoethane (EDB)	ND	0.025	mg/Kg wet							
Dibromomethane	ND	0.050	mg/Kg wet							
1,2-Dichlorobenzene	ND	0.050	mg/Kg wet							
1,3-Dichlorobenzene	ND	0.050	mg/Kg wet							
1,4-Dichlorobenzene	ND	0.050	mg/Kg wet							
Dichlorodifluoromethane (Freon 12)	ND	0.10	mg/Kg wet							
1,1-Dichloroethane	ND	0.050	mg/Kg wet							
1,2-Dichloroethane	ND	0.25	mg/Kg wet							
1,1-Dichloroethylene	ND	0.050	mg/Kg wet							
cis-1,2-Dichloroethylene	ND	0.050	mg/Kg wet							
trans-1,2-Dichloroethylene	ND	0.050	mg/Kg wet							
1,2-Dichloropropane	ND	0.050	mg/Kg wet							
1,3-Dichloropropane	ND	0.025	mg/Kg wet							
2,2-Dichloropropane	ND	0.050	mg/Kg wet							L-04, V-05
1,1-Dichloropropene	ND	0.10	mg/Kg wet							
cis-1,3-Dichloropropene	ND	0.025	mg/Kg wet							
trans-1,3-Dichloropropene	ND	0.025	mg/Kg wet							
Diethyl Ether	ND	0.10	mg/Kg wet							
Diisopropyl Ether (DIPE)	ND	0.025	mg/Kg wet							
1,4-Dioxane	ND	2.5	mg/Kg wet							R-05, V-16
Ethylbenzene	ND	0.050	mg/Kg wet							
Hexachlorobutadiene	ND	0.050	mg/Kg wet							
2-Hexanone (MBK)	ND	0.50	mg/Kg wet							R-05
Isopropylbenzene (Cumene)	ND	0.050	mg/Kg wet							
p-Isopropyltoluene (p-Cymene)	ND	0.050	mg/Kg wet							
Methyl tert-Butyl Ether (MTBE)	ND	0.050	mg/Kg wet							
Methylene Chloride	ND	0.25	mg/Kg wet							
4-Methyl-2-pentanone (MIBK)	ND	0.50	mg/Kg wet							R-05
Naphthalene	ND	0.10	mg/Kg wet							V-05, R-05

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B095241 - SW-846 5035											
Blank (B095241-BLK1)				Prepared: 05/07/14 Analyzed: 05/10/14							
n-Propylbenzene	ND	0.050	mg/Kg wet								
Styrene	ND	0.050	mg/Kg wet								
1,1,1,2-Tetrachloroethane	ND	0.050	mg/Kg wet								
1,1,2,2-Tetrachloroethane	ND	0.025	mg/Kg wet								
Tetrachloroethylene	ND	0.050	mg/Kg wet								
Tetrahydrofuran	ND	0.20	mg/Kg wet							V-16	
Toluene	ND	0.050	mg/Kg wet								
1,2,3-Trichlorobenzene	ND	0.20	mg/Kg wet							R-05, V-05	
1,2,4-Trichlorobenzene	ND	0.050	mg/Kg wet								
1,1,1-Trichloroethane	ND	0.050	mg/Kg wet								
1,1,2-Trichloroethane	ND	0.050	mg/Kg wet								
Trichloroethylene	ND	0.050	mg/Kg wet								
Trichlorofluoromethane (Freon 11)	ND	0.10	mg/Kg wet								
1,2,3-Trichloropropane	ND	0.10	mg/Kg wet								
1,2,4-Trimethylbenzene	ND	0.050	mg/Kg wet								
1,3,5-Trimethylbenzene	ND	0.050	mg/Kg wet								
Vinyl Chloride	ND	0.10	mg/Kg wet								
m+p Xylene	ND	0.10	mg/Kg wet								
o-Xylene	ND	0.050	mg/Kg wet								
Surrogate: 1,2-Dichloroethane-d4	*0.0228*		mg/Kg wet	0.0250		91.4	70-130				
Surrogate: Toluene-d8	*0.0257*		mg/Kg wet	0.0250		103	70-130				
Surrogate: 4-Bromofluorobenzene	*0.0245*		mg/Kg wet	0.0250		97.9	70-130				
LCS (B095241-BS1)				Prepared: 05/07/14 Analyzed: 05/10/14							
Acetone	0.0976	0.057	mg/Kg wet	0.113		86.2	40-160				†
tert-Amyl Methyl Ether (TAME)	0.0117	0.00057	mg/Kg wet	0.0113		103	70-130				
Benzene	0.0126	0.0011	mg/Kg wet	0.0113		111	70-130				
Bromobenzene	0.0115	0.0011	mg/Kg wet	0.0113		102	70-130				
Bromochloromethane	0.0138	0.0011	mg/Kg wet	0.0113		122	70-130				
Bromodichloromethane	0.0112	0.0011	mg/Kg wet	0.0113		98.6	70-130				
Bromoform	0.0130	0.0011	mg/Kg wet	0.0113		115	70-130				
Bromomethane	0.00680	0.0057	mg/Kg wet	0.0113		60.0	40-160			L-14	†
2-Butanone (MEK)	0.119	0.057	mg/Kg wet	0.113		105	40-160			R-05	†
n-Butylbenzene	0.0114	0.0011	mg/Kg wet	0.0113		101	70-130				
sec-Butylbenzene	0.0112	0.0011	mg/Kg wet	0.0113		99.1	70-130				
tert-Butylbenzene	0.0114	0.0011	mg/Kg wet	0.0113		101	70-130				
tert-Butyl Ethyl Ether (TBEE)	0.0127	0.00057	mg/Kg wet	0.0113		112	70-130				
Carbon Disulfide	0.0136	0.011	mg/Kg wet	0.0113		120	70-130			V-20	
Carbon Tetrachloride	0.0118	0.0011	mg/Kg wet	0.0113		104	70-130				
Chlorobenzene	0.0110	0.0011	mg/Kg wet	0.0113		97.4	70-130				
Chlorodibromomethane	0.0105	0.00057	mg/Kg wet	0.0113		92.8	70-130				
Chloroethane	0.0115	0.0023	mg/Kg wet	0.0113		102	70-130				
Chloroform	0.0119	0.0023	mg/Kg wet	0.0113		105	70-130				
Chloromethane	0.00851	0.0057	mg/Kg wet	0.0113		75.1	40-160			R-05	†
2-Chlorotoluene	0.0102	0.0011	mg/Kg wet	0.0113		90.2	70-130				
4-Chlorotoluene	0.0110	0.0011	mg/Kg wet	0.0113		96.8	70-130				
1,2-Dibromo-3-chloropropane (DBCP)	0.0108	0.0057	mg/Kg wet	0.0113		95.7	70-130			R-05	
1,2-Dibromoethane (EDB)	0.0120	0.00057	mg/Kg wet	0.0113		106	70-130				
Dibromomethane	0.0122	0.0011	mg/Kg wet	0.0113		107	70-130				
1,2-Dichlorobenzene	0.0111	0.0011	mg/Kg wet	0.0113		98.2	70-130				
1,3-Dichlorobenzene	0.0109	0.0011	mg/Kg wet	0.0113		95.8	70-130				
1,4-Dichlorobenzene	0.0112	0.0011	mg/Kg wet	0.0113		98.8	70-130				

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B095241 - SW-846 5035												
LCS (B095241-BS1)				Prepared: 05/07/14 Analyzed: 05/10/14								
Dichlorodifluoromethane (Freon 12)	0.00923	0.0023	mg/Kg wet	0.0113		81.4		40-160				†
1,1-Dichloroethane	0.0138	0.0011	mg/Kg wet	0.0113		122		70-130				
1,2-Dichloroethane	0.0112	0.0057	mg/Kg wet	0.0113		99.2		70-130				
1,1-Dichloroethylene	0.0109	0.0011	mg/Kg wet	0.0113		96.1		70-130				
cis-1,2-Dichloroethylene	0.0122	0.0011	mg/Kg wet	0.0113		108		70-130				
trans-1,2-Dichloroethylene	0.0132	0.0011	mg/Kg wet	0.0113		116		70-130				
1,2-Dichloropropane	0.0126	0.0011	mg/Kg wet	0.0113		111		70-130				
1,3-Dichloropropane	0.0123	0.00057	mg/Kg wet	0.0113		109		70-130				
2,2-Dichloropropane	0.00776	0.0011	mg/Kg wet	0.0113		**68.5**	*	70-130			L-04, V-05	
1,1-Dichloropropene	0.0121	0.0023	mg/Kg wet	0.0113		107		70-130				
cis-1,3-Dichloropropene	0.0104	0.00057	mg/Kg wet	0.0113		91.4		70-130				
trans-1,3-Dichloropropene	0.0115	0.00057	mg/Kg wet	0.0113		102		70-130				
Diethyl Ether	0.0114	0.0023	mg/Kg wet	0.0113		101		70-130				
Diisopropyl Ether (DIPE)	0.0126	0.00057	mg/Kg wet	0.0113		111		70-130				
1,4-Dioxane	0.162	0.057	mg/Kg wet	0.113		142		40-160			L-14, R-05, V-16	†
Ethylbenzene	0.0116	0.0011	mg/Kg wet	0.0113		103		70-130				
Hexachlorobutadiene	0.0118	0.0011	mg/Kg wet	0.0113		104		70-130				
2-Hexanone (MBK)	0.127	0.011	mg/Kg wet	0.113		112		40-160			R-05	†
Isopropylbenzene (Cumene)	0.0109	0.0011	mg/Kg wet	0.0113		96.5		70-130				
p-Isopropyltoluene (p-Cymene)	0.0118	0.0011	mg/Kg wet	0.0113		104		70-130				
Methyl tert-Butyl Ether (MTBE)	0.0126	0.0011	mg/Kg wet	0.0113		112		70-130				
Methylene Chloride	0.0116	0.0057	mg/Kg wet	0.0113		102		70-130				
4-Methyl-2-pentanone (MIBK)	0.125	0.011	mg/Kg wet	0.113		111		40-160			R-05	†
Naphthalene	0.0112	0.0023	mg/Kg wet	0.0113		98.9		70-130			R-05, V-05	
n-Propylbenzene	0.0112	0.0011	mg/Kg wet	0.0113		98.6		70-130				
Styrene	0.0116	0.0011	mg/Kg wet	0.0113		103		70-130				
1,1,1,2-Tetrachloroethane	0.0109	0.0011	mg/Kg wet	0.0113		96.1		70-130				
1,1,2,2-Tetrachloroethane	0.0101	0.00057	mg/Kg wet	0.0113		89.1		70-130				
Tetrachloroethylene	0.0117	0.0011	mg/Kg wet	0.0113		103		70-130				
Tetrahydrofuran	0.0118	0.0045	mg/Kg wet	0.0113		104		70-130			V-16	
Toluene	0.0117	0.0011	mg/Kg wet	0.0113		104		70-130				
1,2,3-Trichlorobenzene	0.0107	0.0045	mg/Kg wet	0.0113		94.4		70-130			R-05, V-05	
1,2,4-Trichlorobenzene	0.0110	0.0011	mg/Kg wet	0.0113		96.7		70-130				
1,1,1-Trichloroethane	0.0122	0.0011	mg/Kg wet	0.0113		108		70-130				
1,1,2-Trichloroethane	0.0119	0.0011	mg/Kg wet	0.0113		105		70-130				
Trichloroethylene	0.0133	0.0011	mg/Kg wet	0.0113		118		70-130				
Trichlorofluoromethane (Freon 11)	0.00976	0.0023	mg/Kg wet	0.0113		86.1		70-130				
1,2,3-Trichloropropane	0.0119	0.0023	mg/Kg wet	0.0113		105		70-130				
1,2,4-Trimethylbenzene	0.0116	0.0011	mg/Kg wet	0.0113		102		70-130				
1,3,5-Trimethylbenzene	0.0108	0.0011	mg/Kg wet	0.0113		95.6		70-130				
Vinyl Chloride	0.00958	0.0023	mg/Kg wet	0.0113		84.5		70-130				
m+p Xylene	0.0218	0.0023	mg/Kg wet	0.0227		96.2		70-130				
o-Xylene	0.0110	0.0011	mg/Kg wet	0.0113		96.8		70-130				
Surrogate: 1,2-Dichloroethane-d4	*0.0276*		mg/Kg wet	0.0283		97.4		70-130				
Surrogate: Toluene-d8	*0.0283*		mg/Kg wet	0.0283		99.8		70-130				
Surrogate: 4-Bromofluorobenzene	*0.0277*		mg/Kg wet	0.0283		97.8		70-130				

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD		RPD Limit	Notes	
Batch B095241 - SW-846 5035													
LCS Dup (B095241-BSD1)				Prepared: 05/07/14 Analyzed: 05/10/14									
Acetone	0.0856	0.057	mg/Kg wet	0.113		75.6		40-160	13.1		20		†
tert-Amyl Methyl Ether (TAME)	0.0106	0.00057	mg/Kg wet	0.0113		93.5		70-130	9.86		20		
Benzene	0.0128	0.0011	mg/Kg wet	0.0113		113		70-130	1.25		20		
Bromobenzene	0.0119	0.0011	mg/Kg wet	0.0113		105		70-130	2.81		20		
Bromochloromethane	0.0141	0.0011	mg/Kg wet	0.0113		124		70-130	1.95		20		
Bromodichloromethane	0.0111	0.0011	mg/Kg wet	0.0113		97.8		70-130	0.815		20		
Bromoform	0.0122	0.0011	mg/Kg wet	0.0113		108		70-130	6.11		20		
Bromomethane	0.00692	0.0057	mg/Kg wet	0.0113		61.1		40-160	1.82		20	L-14	†
2-Butanone (MEK)	0.0954	0.057	mg/Kg wet	0.113		84.2		40-160	**22.2**	*	20	R-05	†
n-Butylbenzene	0.0116	0.0011	mg/Kg wet	0.0113		103		70-130	1.67		20		
sec-Butylbenzene	0.0113	0.0011	mg/Kg wet	0.0113		99.6		70-130	0.503		20		
tert-Butylbenzene	0.0117	0.0011	mg/Kg wet	0.0113		103		70-130	2.25		20		
tert-Butyl Ethyl Ether (TBEE)	0.0118	0.00057	mg/Kg wet	0.0113		104		70-130	7.41		20		
Carbon Disulfide	0.0130	0.011	mg/Kg wet	0.0113		115		70-130	4.52		20	V-20	
Carbon Tetrachloride	0.0118	0.0011	mg/Kg wet	0.0113		104		70-130	0.384		20		
Chlorobenzene	0.0112	0.0011	mg/Kg wet	0.0113		99.0		70-130	1.63		20		
Chlorodibromomethane	0.0101	0.00057	mg/Kg wet	0.0113		88.8		70-130	4.41		20		
Chloroethane	0.0111	0.0023	mg/Kg wet	0.0113		97.6		70-130	4.11		20		
Chloroform	0.0117	0.0023	mg/Kg wet	0.0113		103		70-130	1.25		20		
Chloromethane	0.0109	0.0057	mg/Kg wet	0.0113		96.2		40-160	**24.6**	*	20	R-05	†
2-Chlorotoluene	0.0103	0.0011	mg/Kg wet	0.0113		91.1		70-130	0.993		20		
4-Chlorotoluene	0.0113	0.0011	mg/Kg wet	0.0113		99.9		70-130	3.15		20		
1,2-Dibromo-3-chloropropane (DBCP)	0.00839	0.0057	mg/Kg wet	0.0113		74.0		70-130	**25.6**	*	20	R-05	
1,2-Dibromoethane (EDB)	0.0107	0.00057	mg/Kg wet	0.0113		94.6		70-130	11.5		20		
Dibromomethane	0.0112	0.0011	mg/Kg wet	0.0113		98.4		70-130	8.75		20		
1,2-Dichlorobenzene	0.0109	0.0011	mg/Kg wet	0.0113		96.5		70-130	1.75		20		
1,3-Dichlorobenzene	0.0109	0.0011	mg/Kg wet	0.0113		95.8		70-130	0.00		20		
1,4-Dichlorobenzene	0.0114	0.0011	mg/Kg wet	0.0113		101		70-130	1.81		20		
Dichlorodifluoromethane (Freon 12)	0.00920	0.0023	mg/Kg wet	0.0113		81.2		40-160	0.246		20		†
1,1-Dichloroethane	0.0137	0.0011	mg/Kg wet	0.0113		121		70-130	0.658		20		
1,2-Dichloroethane	0.0108	0.0057	mg/Kg wet	0.0113		95.0		70-130	4.33		20		
1,1-Dichloroethylene	0.0110	0.0011	mg/Kg wet	0.0113		97.5		70-130	1.45		20		
cis-1,2-Dichloroethylene	0.0123	0.0011	mg/Kg wet	0.0113		108		70-130	0.370		20		
trans-1,2-Dichloroethylene	0.0131	0.0011	mg/Kg wet	0.0113		115		70-130	1.04		20		
1,2-Dichloropropane	0.0128	0.0011	mg/Kg wet	0.0113		112		70-130	1.07		20		
1,3-Dichloropropane	0.0115	0.00057	mg/Kg wet	0.0113		101		70-130	7.13		20		
2,2-Dichloropropane	0.00751	0.0011	mg/Kg wet	0.0113		**66.3**	*	70-130	3.26		20	L-04, V-05	
1,1-Dichloropropene	0.0122	0.0023	mg/Kg wet	0.0113		108		70-130	1.30		20		
cis-1,3-Dichloropropene	0.0103	0.00057	mg/Kg wet	0.0113		90.9		70-130	0.549		20		
trans-1,3-Dichloropropene	0.0108	0.00057	mg/Kg wet	0.0113		95.3		70-130	6.30		20		
Diethyl Ether	0.0107	0.0023	mg/Kg wet	0.0113		94.5		70-130	6.45		20		
Diisopropyl Ether (DIPE)	0.0125	0.00057	mg/Kg wet	0.0113		110		70-130	0.813		20		
1,4-Dioxane	0.120	0.057	mg/Kg wet	0.113		106		40-160	**29.7**	*	20	R-05, V-16	†
Ethylbenzene	0.0121	0.0011	mg/Kg wet	0.0113		107		70-130	3.92		20		
Hexachlorobutadiene	0.0112	0.0011	mg/Kg wet	0.0113		98.8		70-130	5.03		20		
2-Hexanone (MBK)	0.0991	0.011	mg/Kg wet	0.113		87.5		40-160	**24.9**	*	20	R-05	†
Isopropylbenzene (Cumene)	0.0112	0.0011	mg/Kg wet	0.0113		99.1		70-130	2.66		20		
p-Isopropyltoluene (p-Cymene)	0.0118	0.0011	mg/Kg wet	0.0113		104		70-130	0.481		20		
Methyl tert-Butyl Ether (MTBE)	0.0115	0.0011	mg/Kg wet	0.0113		102		70-130	9.19		20		
Methylene Chloride	0.0113	0.0057	mg/Kg wet	0.0113		99.5		70-130	2.58		20		
4-Methyl-2-pentanone (MIBK)	0.100	0.011	mg/Kg wet	0.113		88.7		40-160	**22.1**	*	20	R-05	†
Naphthalene	0.00741	0.0023	mg/Kg wet	0.0113		**65.4**	*	70-130	**40.8**	*	20	L-07A, R-05, V-05	

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD		RPD Limit	Notes
Batch B095241 - SW-846 5035												
LCS Dup (B095241-BSD1)				Prepared: 05/07/14 Analyzed: 05/10/14								
n-Propylbenzene	0.0115	0.0011	mg/Kg wet	0.0113		101		70-130	2.80		20	
Styrene	0.0120	0.0011	mg/Kg wet	0.0113		106		70-130	2.88		20	
1,1,1,2-Tetrachloroethane	0.0111	0.0011	mg/Kg wet	0.0113		98.3		70-130	2.26		20	
1,1,2,2-Tetrachloroethane	0.00938	0.00057	mg/Kg wet	0.0113		82.8		70-130	7.33		20	
Tetrachloroethylene	0.0117	0.0011	mg/Kg wet	0.0113		103		70-130	0.00		20	
Tetrahydrofuran	0.0122	0.0045	mg/Kg wet	0.0113		108		70-130	3.30		20	V-16
Toluene	0.0118	0.0011	mg/Kg wet	0.0113		104		70-130	0.577		20	
1,2,3-Trichlorobenzene	0.00756	0.0045	mg/Kg wet	0.0113		**66.7**	*	70-130	**34.4**	*	20	L-07A, R-05, V-05
1,2,4-Trichlorobenzene	0.00929	0.0011	mg/Kg wet	0.0113		82.0		70-130	16.5		20	
1,1,1-Trichloroethane	0.0117	0.0011	mg/Kg wet	0.0113		104		70-130	3.79		20	
1,1,2-Trichloroethane	0.0109	0.0011	mg/Kg wet	0.0113		95.9		70-130	8.87		20	
Trichloroethylene	0.0132	0.0011	mg/Kg wet	0.0113		117		70-130	0.682		20	
Trichlorofluoromethane (Freon 11)	0.00949	0.0023	mg/Kg wet	0.0113		83.7		70-130	2.83		20	
1,2,3-Trichloropropane	0.0106	0.0023	mg/Kg wet	0.0113		93.8		70-130	11.5		20	
1,2,4-Trimethylbenzene	0.0119	0.0011	mg/Kg wet	0.0113		105		70-130	2.51		20	
1,3,5-Trimethylbenzene	0.0112	0.0011	mg/Kg wet	0.0113		98.8		70-130	3.29		20	
Vinyl Chloride	0.00972	0.0023	mg/Kg wet	0.0113		85.8		70-130	1.53		20	
m+p Xylene	0.0226	0.0023	mg/Kg wet	0.0227		99.5		70-130	3.32		20	
o-Xylene	0.0112	0.0011	mg/Kg wet	0.0113		99.2		70-130	2.45		20	
Surrogate: 1,2-Dichloroethane-d4	*0.0261*		mg/Kg wet	0.0283		92.0		70-130				
Surrogate: Toluene-d8	*0.0281*		mg/Kg wet	0.0283		99.1		70-130				
Surrogate: 4-Bromofluorobenzene	*0.0280*		mg/Kg wet	0.0283		98.8		70-130				
Batch B095376 - SW-846 5035												
Blank (B095376-BLK1)				Prepared & Analyzed: 05/08/14								
Acetone	ND	0.10	mg/Kg wet									
tert-Amyl Methyl Ether (TAME)	ND	0.0010	mg/Kg wet									
Benzene	ND	0.0020	mg/Kg wet									
Bromobenzene	ND	0.0020	mg/Kg wet									
Bromochloromethane	ND	0.0020	mg/Kg wet									
Bromodichloromethane	ND	0.0020	mg/Kg wet									
Bromoform	ND	0.0020	mg/Kg wet									
Bromomethane	ND	0.010	mg/Kg wet									
2-Butanone (MEK)	ND	0.040	mg/Kg wet									
n-Butylbenzene	ND	0.0020	mg/Kg wet									
sec-Butylbenzene	ND	0.0020	mg/Kg wet									
tert-Butylbenzene	ND	0.0020	mg/Kg wet									
tert-Butyl Ethyl Ether (TBEE)	ND	0.0010	mg/Kg wet									
Carbon Disulfide	ND	0.020	mg/Kg wet									
Carbon Tetrachloride	ND	0.0020	mg/Kg wet									
Chlorobenzene	ND	0.0020	mg/Kg wet									
Chlorodibromomethane	ND	0.0010	mg/Kg wet									
Chloroethane	ND	0.010	mg/Kg wet									
Chloroform	ND	0.0040	mg/Kg wet									
Chloromethane	ND	0.010	mg/Kg wet									
2-Chlorotoluene	ND	0.0020	mg/Kg wet									
4-Chlorotoluene	ND	0.0020	mg/Kg wet									
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0020	mg/Kg wet									
1,2-Dibromoethane (EDB)	ND	0.0010	mg/Kg wet									
Dibromomethane	ND	0.0020	mg/Kg wet									
1,2-Dichlorobenzene	ND	0.0020	mg/Kg wet									
1,3-Dichlorobenzene	ND	0.0020	mg/Kg wet									

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B095376 - SW-846 5035										
Blank (B095376-BLK1)				Prepared & Analyzed: 05/08/14						
1,4-Dichlorobenzene	ND	0.0020	mg/Kg wet							
Dichlorodifluoromethane (Freon 12)	ND	0.010	mg/Kg wet							
1,1-Dichloroethane	ND	0.0020	mg/Kg wet							
1,2-Dichloroethane	ND	0.0020	mg/Kg wet							
1,1-Dichloroethylene	ND	0.0040	mg/Kg wet							
cis-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet							
trans-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet							
1,2-Dichloropropane	ND	0.0020	mg/Kg wet							
1,3-Dichloropropane	ND	0.0010	mg/Kg wet							
2,2-Dichloropropane	ND	0.0040	mg/Kg wet							
1,1-Dichloropropene	ND	0.0020	mg/Kg wet							
cis-1,3-Dichloropropene	ND	0.0010	mg/Kg wet							
trans-1,3-Dichloropropene	ND	0.0010	mg/Kg wet							
Diethyl Ether	ND	0.010	mg/Kg wet							
Diisopropyl Ether (DIPE)	ND	0.0010	mg/Kg wet							
1,4-Dioxane	ND	0.10	mg/Kg wet							V-16
Ethylbenzene	ND	0.0020	mg/Kg wet							
Hexachlorobutadiene	ND	0.0020	mg/Kg wet							
2-Hexanone (MBK)	ND	0.020	mg/Kg wet							
Isopropylbenzene (Cumene)	ND	0.0020	mg/Kg wet							
p-Isopropyltoluene (p-Cymene)	ND	0.0020	mg/Kg wet							
Methyl tert-Butyl Ether (MTBE)	ND	0.0040	mg/Kg wet							
Methylene Chloride	ND	0.010	mg/Kg wet							
4-Methyl-2-pentanone (MIBK)	ND	0.020	mg/Kg wet							
Naphthalene	ND	0.010	mg/Kg wet							L-04, V-05
n-Propylbenzene	ND	0.0020	mg/Kg wet							
Styrene	ND	0.0020	mg/Kg wet							
1,1,1,2-Tetrachloroethane	ND	0.0020	mg/Kg wet							
1,1,2,2-Tetrachloroethane	ND	0.0010	mg/Kg wet							
Tetrachloroethylene	ND	0.0020	mg/Kg wet							
Tetrahydrofuran	ND	0.010	mg/Kg wet							
Toluene	ND	0.0020	mg/Kg wet							
1,2,3-Trichlorobenzene	ND	0.0040	mg/Kg wet							V-05
1,2,4-Trichlorobenzene	ND	0.0040	mg/Kg wet							V-05
1,1,1-Trichloroethane	ND	0.0020	mg/Kg wet							
1,1,2-Trichloroethane	ND	0.0020	mg/Kg wet							
Trichloroethylene	ND	0.0020	mg/Kg wet							
Trichlorofluoromethane (Freon 11)	ND	0.010	mg/Kg wet							
1,2,3-Trichloropropane	ND	0.0020	mg/Kg wet							
1,2,4-Trimethylbenzene	ND	0.0020	mg/Kg wet							
1,3,5-Trimethylbenzene	ND	0.0020	mg/Kg wet							
Vinyl Chloride	ND	0.010	mg/Kg wet							
m+p Xylene	ND	0.0040	mg/Kg wet							
o-Xylene	ND	0.0020	mg/Kg wet							
Surrogate: 1,2-Dichloroethane-d4	*0.0477*		mg/Kg wet	0.0500		95.4	70-130			
Surrogate: Toluene-d8	*0.0488*		mg/Kg wet	0.0500		97.6	70-130			
Surrogate: 4-Bromofluorobenzene	*0.0452*		mg/Kg wet	0.0500		90.4	70-130			

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B095376 - SW-846 5035												
LCS (B095376-BS1)				Prepared & Analyzed: 05/08/14								
Acetone	0.163	0.10	mg/Kg wet	0.200		81.4		40-160				†
tert-Amyl Methyl Ether (TAME)	0.0191	0.0010	mg/Kg wet	0.0200		95.6		70-130				
Benzene	0.0201	0.0020	mg/Kg wet	0.0200		100		70-130				
Bromobenzene	0.0206	0.0020	mg/Kg wet	0.0200		103		70-130				
Bromochloromethane	0.0218	0.0020	mg/Kg wet	0.0200		109		70-130				
Bromodichloromethane	0.0217	0.0020	mg/Kg wet	0.0200		109		70-130				
Bromoform	0.0218	0.0020	mg/Kg wet	0.0200		109		70-130				
Bromomethane	0.00844	0.010	mg/Kg wet	0.0200		42.2		40-160			L-14	†
2-Butanone (MEK)	0.168	0.040	mg/Kg wet	0.200		83.8		40-160				†
n-Butylbenzene	0.0232	0.0020	mg/Kg wet	0.0200		116		70-130				
sec-Butylbenzene	0.0249	0.0020	mg/Kg wet	0.0200		125		70-130				
tert-Butylbenzene	0.0247	0.0020	mg/Kg wet	0.0200		124		70-130				
tert-Butyl Ethyl Ether (TBEE)	0.0209	0.0010	mg/Kg wet	0.0200		105		70-130				
Carbon Disulfide	0.0195	0.020	mg/Kg wet	0.0200		97.3		70-130				
Carbon Tetrachloride	0.0252	0.0020	mg/Kg wet	0.0200		126		70-130				
Chlorobenzene	0.0206	0.0020	mg/Kg wet	0.0200		103		70-130				
Chlorodibromomethane	0.0207	0.0010	mg/Kg wet	0.0200		104		70-130				
Chloroethane	0.0252	0.010	mg/Kg wet	0.0200		126		70-130				
Chloroform	0.0212	0.0040	mg/Kg wet	0.0200		106		70-130				
Chloromethane	0.0162	0.010	mg/Kg wet	0.0200		81.0		40-160				†
2-Chlorotoluene	0.0226	0.0020	mg/Kg wet	0.0200		113		70-130				
4-Chlorotoluene	0.0230	0.0020	mg/Kg wet	0.0200		115		70-130				
1,2-Dibromo-3-chloropropane (DBCP)	0.0166	0.0020	mg/Kg wet	0.0200		83.2		70-130				
1,2-Dibromoethane (EDB)	0.0208	0.0010	mg/Kg wet	0.0200		104		70-130				
Dibromomethane	0.0211	0.0020	mg/Kg wet	0.0200		106		70-130				
1,2-Dichlorobenzene	0.0209	0.0020	mg/Kg wet	0.0200		105		70-130				
1,3-Dichlorobenzene	0.0216	0.0020	mg/Kg wet	0.0200		108		70-130				
1,4-Dichlorobenzene	0.0212	0.0020	mg/Kg wet	0.0200		106		70-130				
Dichlorodifluoromethane (Freon 12)	0.0158	0.010	mg/Kg wet	0.0200		78.9		40-160				†
1,1-Dichloroethane	0.0197	0.0020	mg/Kg wet	0.0200		98.3		70-130				
1,2-Dichloroethane	0.0207	0.0020	mg/Kg wet	0.0200		104		70-130				
1,1-Dichloroethylene	0.0227	0.0040	mg/Kg wet	0.0200		113		70-130				
cis-1,2-Dichloroethylene	0.0201	0.0020	mg/Kg wet	0.0200		101		70-130				
trans-1,2-Dichloroethylene	0.0210	0.0020	mg/Kg wet	0.0200		105		70-130				
1,2-Dichloropropane	0.0213	0.0020	mg/Kg wet	0.0200		106		70-130				
1,3-Dichloropropane	0.0203	0.0010	mg/Kg wet	0.0200		102		70-130				
2,2-Dichloropropane	0.0223	0.0040	mg/Kg wet	0.0200		112		70-130				
1,1-Dichloropropene	0.0216	0.0020	mg/Kg wet	0.0200		108		70-130				
cis-1,3-Dichloropropene	0.0200	0.0010	mg/Kg wet	0.0200		99.8		70-130				
trans-1,3-Dichloropropene	0.0223	0.0010	mg/Kg wet	0.0200		112		70-130				
Diethyl Ether	0.0211	0.010	mg/Kg wet	0.0200		106		70-130				
Diisopropyl Ether (DIPE)	0.0213	0.0010	mg/Kg wet	0.0200		107		70-130				
1,4-Dioxane	0.193	0.10	mg/Kg wet	0.200		96.3		40-160			V-16	†
Ethylbenzene	0.0240	0.0020	mg/Kg wet	0.0200		120		70-130				
Hexachlorobutadiene	0.0255	0.0020	mg/Kg wet	0.0200		128		70-130				
2-Hexanone (MBK)	0.166	0.020	mg/Kg wet	0.200		83.2		40-160				†
Isopropylbenzene (Cumene)	0.0239	0.0020	mg/Kg wet	0.0200		119		70-130				
p-Isopropyltoluene (p-Cymene)	0.0256	0.0020	mg/Kg wet	0.0200		128		70-130				
Methyl tert-Butyl Ether (MTBE)	0.0198	0.0040	mg/Kg wet	0.0200		98.8		70-130				
Methylene Chloride	0.0206	0.010	mg/Kg wet	0.0200		103		70-130				
4-Methyl-2-pentanone (MIBK)	0.180	0.020	mg/Kg wet	0.200		89.9		40-160				†
Naphthalene	0.0117	0.010	mg/Kg wet	0.0200		**58.6**	*	70-130			L-04, V-05	

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B095376 - SW-846 5035												
LCS (B095376-BS1)				Prepared & Analyzed: 05/08/14								
n-Propylbenzene	0.0245	0.0020	mg/Kg wet	0.0200		122		70-130				
Styrene	0.0233	0.0020	mg/Kg wet	0.0200		116		70-130				
1,1,1,2-Tetrachloroethane	0.0229	0.0020	mg/Kg wet	0.0200		114		70-130				
1,1,2,2-Tetrachloroethane	0.0207	0.0010	mg/Kg wet	0.0200		104		70-130				
Tetrachloroethylene	0.0239	0.0020	mg/Kg wet	0.0200		120		70-130				
Tetrahydrofuran	0.0206	0.010	mg/Kg wet	0.0200		103		70-130				
Toluene	0.0215	0.0020	mg/Kg wet	0.0200		108		70-130				
1,2,3-Trichlorobenzene	0.0137	0.0040	mg/Kg wet	0.0200		**68.4**	*	70-130			L-07, V-05	
1,2,4-Trichlorobenzene	0.0147	0.0040	mg/Kg wet	0.0200		73.3		70-130			V-05	
1,1,1-Trichloroethane	0.0220	0.0020	mg/Kg wet	0.0200		110		70-130				
1,1,2-Trichloroethane	0.0205	0.0020	mg/Kg wet	0.0200		103		70-130				
Trichloroethylene	0.0222	0.0020	mg/Kg wet	0.0200		111		70-130				
Trichlorofluoromethane (Freon 11)	0.0222	0.010	mg/Kg wet	0.0200		111		70-130				
1,2,3-Trichloropropane	0.0192	0.0020	mg/Kg wet	0.0200		95.9		70-130				
1,2,4-Trimethylbenzene	0.0245	0.0020	mg/Kg wet	0.0200		122		70-130				
1,3,5-Trimethylbenzene	0.0246	0.0020	mg/Kg wet	0.0200		123		70-130				
Vinyl Chloride	0.0196	0.010	mg/Kg wet	0.0200		98.0		70-130				
m+p Xylene	0.0480	0.0040	mg/Kg wet	0.0400		120		70-130				
o-Xylene	0.0232	0.0020	mg/Kg wet	0.0200		116		70-130				
Surrogate: 1,2-Dichloroethane-d4	*0.0492*		mg/Kg wet	0.0500		98.4		70-130				
Surrogate: Toluene-d8	*0.0500*		mg/Kg wet	0.0500		100		70-130				
Surrogate: 4-Bromofluorobenzene	*0.0508*		mg/Kg wet	0.0500		102		70-130				
LCS Dup (B095376-BSD1)				Prepared & Analyzed: 05/08/14								
Acetone	0.163	0.10	mg/Kg wet	0.200		81.7		40-160	0.368	20		†
tert-Amyl Methyl Ether (TAME)	0.0187	0.0010	mg/Kg wet	0.0200		93.4		70-130	2.33	20		
Benzene	0.0200	0.0020	mg/Kg wet	0.0200		100		70-130	0.299	20		
Bromobenzene	0.0205	0.0020	mg/Kg wet	0.0200		102		70-130	0.487	20		
Bromochloromethane	0.0223	0.0020	mg/Kg wet	0.0200		112		70-130	2.36	20		
Bromodichloromethane	0.0210	0.0020	mg/Kg wet	0.0200		105		70-130	3.28	20		
Bromoform	0.0219	0.0020	mg/Kg wet	0.0200		110		70-130	0.366	20		
Bromomethane	0.00978	0.010	mg/Kg wet	0.0200		48.9		40-160	14.7	20	L-14	†
2-Butanone (MEK)	0.158	0.040	mg/Kg wet	0.200		79.1		40-160	5.68	20		†
n-Butylbenzene	0.0227	0.0020	mg/Kg wet	0.0200		113		70-130	2.35	20		
sec-Butylbenzene	0.0250	0.0020	mg/Kg wet	0.0200		125		70-130	0.240	20		
tert-Butylbenzene	0.0250	0.0020	mg/Kg wet	0.0200		125		70-130	1.05	20		
tert-Butyl Ethyl Ether (TBEE)	0.0208	0.0010	mg/Kg wet	0.0200		104		70-130	0.479	20		
Carbon Disulfide	0.0195	0.020	mg/Kg wet	0.0200		97.3		70-130	0.00	20		
Carbon Tetrachloride	0.0254	0.0020	mg/Kg wet	0.0200		127		70-130	0.869	20		
Chlorobenzene	0.0208	0.0020	mg/Kg wet	0.0200		104		70-130	1.16	20		
Chlorodibromomethane	0.0202	0.0010	mg/Kg wet	0.0200		101		70-130	2.64	20		
Chloroethane	0.0243	0.010	mg/Kg wet	0.0200		121		70-130	3.88	20		
Chloroform	0.0206	0.0040	mg/Kg wet	0.0200		103		70-130	2.49	20		
Chloromethane	0.0181	0.010	mg/Kg wet	0.0200		90.3		40-160	10.9	20		†
2-Chlorotoluene	0.0224	0.0020	mg/Kg wet	0.0200		112		70-130	0.800	20		
4-Chlorotoluene	0.0228	0.0020	mg/Kg wet	0.0200		114		70-130	0.962	20		
1,2-Dibromo-3-chloropropane (DBCP)	0.0178	0.0020	mg/Kg wet	0.0200		89.2		70-130	6.96	20		
1,2-Dibromoethane (EDB)	0.0203	0.0010	mg/Kg wet	0.0200		101		70-130	2.53	20		
Dibromomethane	0.0214	0.0020	mg/Kg wet	0.0200		107		70-130	1.32	20		
1,2-Dichlorobenzene	0.0212	0.0020	mg/Kg wet	0.0200		106		70-130	1.42	20		
1,3-Dichlorobenzene	0.0218	0.0020	mg/Kg wet	0.0200		109		70-130	0.828	20		
1,4-Dichlorobenzene	0.0213	0.0020	mg/Kg wet	0.0200		107		70-130	0.564	20		

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B095376 - SW-846 5035												
LCS Dup (B095376-BSD1)				Prepared & Analyzed: 05/08/14								
Dichlorodifluoromethane (Freon 12)	0.0158	0.010	mg/Kg wet	0.0200		78.8		40-160	0.127	20		†
1,1-Dichloroethane	0.0199	0.0020	mg/Kg wet	0.0200		99.5		70-130	1.21	20		
1,2-Dichloroethane	0.0213	0.0020	mg/Kg wet	0.0200		106		70-130	2.48	20		
1,1-Dichloroethylene	0.0228	0.0040	mg/Kg wet	0.0200		114		70-130	0.528	20		
cis-1,2-Dichloroethylene	0.0199	0.0020	mg/Kg wet	0.0200		99.6		70-130	1.10	20		
trans-1,2-Dichloroethylene	0.0212	0.0020	mg/Kg wet	0.0200		106		70-130	1.23	20		
1,2-Dichloropropane	0.0209	0.0020	mg/Kg wet	0.0200		105		70-130	1.70	20		
1,3-Dichloropropane	0.0199	0.0010	mg/Kg wet	0.0200		99.7		70-130	1.79	20		
2,2-Dichloropropane	0.0221	0.0040	mg/Kg wet	0.0200		110		70-130	1.08	20		
1,1-Dichloropropene	0.0221	0.0020	mg/Kg wet	0.0200		111		70-130	2.29	20		
cis-1,3-Dichloropropene	0.0195	0.0010	mg/Kg wet	0.0200		97.4		70-130	2.43	20		
trans-1,3-Dichloropropene	0.0212	0.0010	mg/Kg wet	0.0200		106		70-130	5.33	20		
Diethyl Ether	0.0214	0.010	mg/Kg wet	0.0200		107		70-130	1.32	20		
Diisopropyl Ether (DIPE)	0.0208	0.0010	mg/Kg wet	0.0200		104		70-130	2.37	20		
1,4-Dioxane	0.208	0.10	mg/Kg wet	0.200		104		40-160	7.70	20	V-16	†
Ethylbenzene	0.0238	0.0020	mg/Kg wet	0.0200		119		70-130	0.502	20		
Hexachlorobutadiene	0.0254	0.0020	mg/Kg wet	0.0200		127		70-130	0.471	20		
2-Hexanone (MBK)	0.161	0.020	mg/Kg wet	0.200		80.7		40-160	2.99	20		†
Isopropylbenzene (Cumene)	0.0234	0.0020	mg/Kg wet	0.0200		117		70-130	2.03	20		
p-Isopropyltoluene (p-Cymene)	0.0254	0.0020	mg/Kg wet	0.0200		127		70-130	0.627	20		
Methyl tert-Butyl Ether (MTBE)	0.0195	0.0040	mg/Kg wet	0.0200		97.4		70-130	1.43	20		
Methylene Chloride	0.0201	0.010	mg/Kg wet	0.0200		100		70-130	2.65	20		
4-Methyl-2-pentanone (MIBK)	0.172	0.020	mg/Kg wet	0.200		86.1		40-160	4.35	20		†
Naphthalene	0.0118	0.010	mg/Kg wet	0.0200		**59.2**	*	70-130	1.02	20	L-04, V-05	
n-Propylbenzene	0.0238	0.0020	mg/Kg wet	0.0200		119		70-130	2.73	20		
Styrene	0.0233	0.0020	mg/Kg wet	0.0200		116		70-130	0.0860	20		
1,1,1,2-Tetrachloroethane	0.0227	0.0020	mg/Kg wet	0.0200		114		70-130	0.614	20		
1,1,2,2-Tetrachloroethane	0.0207	0.0010	mg/Kg wet	0.0200		103		70-130	0.290	20		
Tetrachloroethylene	0.0238	0.0020	mg/Kg wet	0.0200		119		70-130	0.335	20		
Tetrahydrofuran	0.0202	0.010	mg/Kg wet	0.0200		101		70-130	1.96	20		
Toluene	0.0212	0.0020	mg/Kg wet	0.0200		106		70-130	1.40	20		
1,2,3-Trichlorobenzene	0.0141	0.0040	mg/Kg wet	0.0200		70.4		70-130	2.88	20	V-05	
1,2,4-Trichlorobenzene	0.0144	0.0040	mg/Kg wet	0.0200		71.8		70-130	2.07	20	V-05	
1,1,1-Trichloroethane	0.0216	0.0020	mg/Kg wet	0.0200		108		70-130	1.74	20		
1,1,2-Trichloroethane	0.0201	0.0020	mg/Kg wet	0.0200		100		70-130	2.27	20		
Trichloroethylene	0.0217	0.0020	mg/Kg wet	0.0200		109		70-130	2.28	20		
Trichlorofluoromethane (Freon 11)	0.0224	0.010	mg/Kg wet	0.0200		112		70-130	0.898	20		
1,2,3-Trichloropropane	0.0198	0.0020	mg/Kg wet	0.0200		99.0		70-130	3.18	20		
1,2,4-Trimethylbenzene	0.0242	0.0020	mg/Kg wet	0.0200		121		70-130	1.15	20		
1,3,5-Trimethylbenzene	0.0242	0.0020	mg/Kg wet	0.0200		121		70-130	1.80	20		
Vinyl Chloride	0.0195	0.010	mg/Kg wet	0.0200		97.4		70-130	0.614	20		
m+p Xylene	0.0477	0.0040	mg/Kg wet	0.0400		119		70-130	0.794	20		
o-Xylene	0.0226	0.0020	mg/Kg wet	0.0200		113		70-130	2.71	20		
Surrogate: 1,2-Dichloroethane-d4	*0.0486*		mg/Kg wet	0.0500		97.2		70-130				
Surrogate: Toluene-d8	*0.0499*		mg/Kg wet	0.0500		99.8		70-130				
Surrogate: 4-Bromofluorobenzene	*0.0508*		mg/Kg wet	0.0500		102		70-130				

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B095376 - SW-846 5035											
Matrix Spike (B095376-MS1)		**Source: 14E0281-07**		Prepared & Analyzed: 05/08/14							
Acetone	0.134	0.11	mg/Kg dry	0.224	ND	**60.0**	*	70-130			MS-07
tert-Amyl Methyl Ether (TAME)	0.0161	0.0011	mg/Kg dry	0.0224	ND	71.8		70-130			
Benzene	0.0168	0.0022	mg/Kg dry	0.0224	ND	74.9		70-130			
Bromobenzene	0.0165	0.0022	mg/Kg dry	0.0224	ND	73.8		70-130			
Bromochloromethane	0.0194	0.0022	mg/Kg dry	0.0224	ND	86.8		70-130			
Bromodichloromethane	0.0183	0.0022	mg/Kg dry	0.0224	ND	81.6		70-130			
Bromoform	0.0175	0.0022	mg/Kg dry	0.0224	ND	78.1		70-130			
Bromomethane	0.00878	0.011	mg/Kg dry	0.0224	ND	**39.2**	*	70-130			MS-07
2-Butanone (MEK)	0.135	0.045	mg/Kg dry	0.224	ND	**60.3**	*	70-130			MS-07
n-Butylbenzene	0.0127	0.0022	mg/Kg dry	0.0224	ND	**56.5**	*	70-130			MS-07
sec-Butylbenzene	0.0162	0.0022	mg/Kg dry	0.0224	ND	72.2		70-130			
tert-Butylbenzene	0.0176	0.0022	mg/Kg dry	0.0224	ND	78.6		70-130			
tert-Butyl Ethyl Ether (TBEE)	0.0183	0.0011	mg/Kg dry	0.0224	ND	81.8		70-130			
Carbon Disulfide	0.0160	0.022	mg/Kg dry	0.0224	ND	71.3		70-130			
Carbon Tetrachloride	0.0195	0.0022	mg/Kg dry	0.0224	ND	86.9		70-130			
Chlorobenzene	0.0170	0.0022	mg/Kg dry	0.0224	ND	76.1		70-130			
Chlorodibromomethane	0.0175	0.0011	mg/Kg dry	0.0224	ND	77.9		70-130			
Chloroethane	0.0206	0.011	mg/Kg dry	0.0224	ND	91.9		70-130			
Chloroform	0.0176	0.0045	mg/Kg dry	0.0224	ND	78.4		70-130			
Chloromethane	0.0165	0.011	mg/Kg dry	0.0224	ND	73.7		70-130			
2-Chlorotoluene	0.0167	0.0022	mg/Kg dry	0.0224	ND	74.5		70-130			
4-Chlorotoluene	0.0170	0.0022	mg/Kg dry	0.0224	ND	75.9		70-130			
1,2-Dibromo-3-chloropropane (DBCP)	0.0137	0.0022	mg/Kg dry	0.0224	ND	**61.0**	*	70-130			MS-07
1,2-Dibromoethane (EDB)	0.0185	0.0011	mg/Kg dry	0.0224	ND	82.6		70-130			
Dibromomethane	0.0186	0.0022	mg/Kg dry	0.0224	ND	82.9		70-130			
1,2-Dichlorobenzene	0.0160	0.0022	mg/Kg dry	0.0224	ND	71.6		70-130			
1,3-Dichlorobenzene	0.0160	0.0022	mg/Kg dry	0.0224	ND	71.6		70-130			
1,4-Dichlorobenzene	0.0162	0.0022	mg/Kg dry	0.0224	ND	72.4		70-130			
Dichlorodifluoromethane (Freon 12)	0.0164	0.011	mg/Kg dry	0.0224	ND	73.2		70-130			
1,1-Dichloroethane	0.0162	0.0022	mg/Kg dry	0.0224	ND	72.2		70-130			
1,2-Dichloroethane	0.0185	0.0022	mg/Kg dry	0.0224	ND	82.6		70-130			
1,1-Dichloroethylene	0.0186	0.0045	mg/Kg dry	0.0224	ND	82.9		70-130			
cis-1,2-Dichloroethylene	0.0164	0.0022	mg/Kg dry	0.0224	ND	73.4		70-130			
trans-1,2-Dichloroethylene	0.0174	0.0022	mg/Kg dry	0.0224	ND	77.6		70-130			
1,2-Dichloropropane	0.0181	0.0022	mg/Kg dry	0.0224	ND	80.8		70-130			
1,3-Dichloropropane	0.0174	0.0011	mg/Kg dry	0.0224	ND	77.7		70-130			
2,2-Dichloropropane	0.0172	0.0045	mg/Kg dry	0.0224	ND	77.0		70-130			
1,1-Dichloropropene	0.0172	0.0022	mg/Kg dry	0.0224	ND	76.7		70-130			
cis-1,3-Dichloropropene	0.0168	0.0011	mg/Kg dry	0.0224	ND	75.0		70-130			
trans-1,3-Dichloropropene	0.0178	0.0011	mg/Kg dry	0.0224	ND	79.3		70-130			
Diethyl Ether	0.0189	0.011	mg/Kg dry	0.0224	ND	84.2		70-130			
Diisopropyl Ether (DIPE)	0.0183	0.0011	mg/Kg dry	0.0224	ND	81.6		70-130			
1,4-Dioxane	0.175	0.11	mg/Kg dry	0.224	ND	78.1		70-130			V-16
Ethylbenzene	0.0183	0.0022	mg/Kg dry	0.0224	ND	81.6		70-130			
Hexachlorobutadiene	0.00988	0.0022	mg/Kg dry	0.0224	ND	**44.1**	*	70-130			MS-07
2-Hexanone (MBK)	0.138	0.022	mg/Kg dry	0.224	ND	**61.6**	*	70-130			MS-07
Isopropylbenzene (Cumene)	0.0171	0.0022	mg/Kg dry	0.0224	ND	76.2		70-130			
p-Isopropyltoluene (p-Cymene)	0.0168	0.0022	mg/Kg dry	0.0224	ND	74.8		70-130			
Methyl tert-Butyl Ether (MTBE)	0.0170	0.0045	mg/Kg dry	0.0224	ND	75.7		70-130			
Methylene Chloride	0.0181	0.011	mg/Kg dry	0.0224	ND	80.8		70-130			
4-Methyl-2-pentanone (MIBK)	0.152	0.022	mg/Kg dry	0.224	ND	**67.7**	*	70-130			MS-07
Naphthalene	0.00918	0.011	mg/Kg dry	0.0224	ND	**41.0**	*	70-130			L-04, MS-08, V-05

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B095376 - SW-846 5035											
Matrix Spike (B095376-MS1)		**Source: 14E0281-07**		Prepared & Analyzed: 05/08/14							
n-Propylbenzene	0.0168	0.0022	mg/Kg dry	0.0224	ND	74.9		70-130			
Styrene	0.0184	0.0022	mg/Kg dry	0.0224	ND	82.0		70-130			
1,1,1,2-Tetrachloroethane	0.0190	0.0022	mg/Kg dry	0.0224	ND	84.9		70-130			
1,1,2,2-Tetrachloroethane	0.0173	0.0011	mg/Kg dry	0.0224	ND	77.2		70-130			
Tetrachloroethylene	0.0189	0.0022	mg/Kg dry	0.0224	ND	84.2		70-130			
Tetrahydrofuran	0.0144	0.011	mg/Kg dry	0.0224	ND	**64.4**	*	70-130			MS-07
Toluene	0.0177	0.0022	mg/Kg dry	0.0224	ND	78.8		70-130			
1,2,3-Trichlorobenzene	0.00903	0.0045	mg/Kg dry	0.0224	ND	**40.3**	*	70-130			MS-08, V-05
1,2,4-Trichlorobenzene	0.00943	0.0045	mg/Kg dry	0.0224	ND	**42.1**	*	70-130			MS-07, V-05
1,1,1-Trichloroethane	0.0174	0.0022	mg/Kg dry	0.0224	ND	77.6		70-130			
1,1,2-Trichloroethane	0.0178	0.0022	mg/Kg dry	0.0224	ND	79.4		70-130			
Trichloroethylene	0.0179	0.0022	mg/Kg dry	0.0224	ND	79.7		70-130			
Trichlorofluoromethane (Freon 11)	0.0174	0.011	mg/Kg dry	0.0224	ND	77.5		70-130			
1,2,3-Trichloropropane	0.0164	0.0022	mg/Kg dry	0.0224	ND	73.3		70-130			
1,2,4-Trimethylbenzene	0.0184	0.0022	mg/Kg dry	0.0224	ND	82.1		70-130			
1,3,5-Trimethylbenzene	0.0174	0.0022	mg/Kg dry	0.0224	ND	77.8		70-130			
Vinyl Chloride	0.0175	0.011	mg/Kg dry	0.0224	ND	77.9		70-130			
m+p Xylene	0.0369	0.0045	mg/Kg dry	0.0448	ND	82.3		70-130			
o-Xylene	0.0180	0.0022	mg/Kg dry	0.0224	ND	80.2		70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0503*		mg/Kg dry	0.0560		89.8		70-130			
Surrogate: Toluene-d8	*0.0568*		mg/Kg dry	0.0560		101		70-130			
Surrogate: 4-Bromofluorobenzene	*0.0557*		mg/Kg dry	0.0560		99.4		70-130			

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B095399 - SW-846 3546										
Blank (B095399-BLK1)				Prepared: 05/08/14 Analyzed: 05/09/14						
Acenaphthene	ND	0.17	mg/Kg wet							
Acenaphthylene	ND	0.17	mg/Kg wet							
Anthracene	ND	0.17	mg/Kg wet							
Benzo(a)anthracene	ND	0.17	mg/Kg wet							
Benzo(a)pyrene	ND	0.17	mg/Kg wet							
Benzo(b)fluoranthene	ND	0.17	mg/Kg wet							
Benzo(g,h,i)perylene	ND	0.17	mg/Kg wet							
Benzo(k)fluoranthene	ND	0.17	mg/Kg wet							
Chrysene	ND	0.17	mg/Kg wet							
Dibenz(a,h)anthracene	ND	0.17	mg/Kg wet							
Fluoranthene	ND	0.17	mg/Kg wet							
Fluorene	ND	0.17	mg/Kg wet							
Indeno(1,2,3-cd)pyrene	ND	0.17	mg/Kg wet							
2-Methylnaphthalene	ND	0.17	mg/Kg wet							
Naphthalene	ND	0.17	mg/Kg wet							
Phenanthrene	ND	0.17	mg/Kg wet							
Pyrene	ND	0.17	mg/Kg wet							V-05
Surrogate: Nitrobenzene-d5	*2.75*		mg/Kg wet	3.33		82.6	30-130			
Surrogate: 2-Fluorobiphenyl	*2.78*		mg/Kg wet	3.33		83.5	30-130			
Surrogate: p-Terphenyl-d14	*6.51*		mg/Kg wet	3.33		**195** *	30-130			S-07
LCS (B095399-BS1)				Prepared: 05/08/14 Analyzed: 05/09/14						
Acenaphthene	1.48	0.17	mg/Kg wet	1.67		88.5	40-140			
Acenaphthylene	1.50	0.17	mg/Kg wet	1.67		89.9	40-140			
Anthracene	1.61	0.17	mg/Kg wet	1.67		96.6	40-140			
Benzo(a)anthracene	1.72	0.17	mg/Kg wet	1.67		103	40-140			
Benzo(a)pyrene	1.74	0.17	mg/Kg wet	1.67		104	40-140			
Benzo(b)fluoranthene	1.64	0.17	mg/Kg wet	1.67		98.7	40-140			
Benzo(g,h,i)perylene	1.41	0.17	mg/Kg wet	1.67		84.4	40-140			
Benzo(k)fluoranthene	1.61	0.17	mg/Kg wet	1.67		96.5	40-140			
Chrysene	1.64	0.17	mg/Kg wet	1.67		98.6	40-140			
Dibenz(a,h)anthracene	1.50	0.17	mg/Kg wet	1.67		90.2	40-140			
Fluoranthene	1.36	0.17	mg/Kg wet	1.67		81.6	40-140			
Fluorene	1.52	0.17	mg/Kg wet	1.67		91.4	40-140			
Indeno(1,2,3-cd)pyrene	1.54	0.17	mg/Kg wet	1.67		92.6	40-140			
2-Methylnaphthalene	1.43	0.17	mg/Kg wet	1.67		85.7	40-140			
Naphthalene	1.28	0.17	mg/Kg wet	1.67		76.6	40-140			
Phenanthrene	1.60	0.17	mg/Kg wet	1.67		96.3	40-140			
Pyrene	1.58	0.17	mg/Kg wet	1.67		94.8	40-140			V-05
Surrogate: Nitrobenzene-d5	*2.67*		mg/Kg wet	3.33		80.0	30-130			
Surrogate: 2-Fluorobiphenyl	*3.05*		mg/Kg wet	3.33		91.6	30-130			
Surrogate: p-Terphenyl-d14	*3.82*		mg/Kg wet	3.33		115	30-130			

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B095399 - SW-846 3546											
LCS Dup (B095399-BSD1)				Prepared: 05/08/14 Analyzed: 05/09/14							
Acenaphthene	1.62	0.17	mg/Kg wet	1.67		97.1		40-140	9.23	30	
Acenaphthylene	1.63	0.17	mg/Kg wet	1.67		97.7		40-140	8.38	30	
Anthracene	1.72	0.17	mg/Kg wet	1.67		103		40-140	6.78	30	
Benzo(a)anthracene	1.84	0.17	mg/Kg wet	1.67		110		40-140	6.45	30	
Benzo(a)pyrene	1.82	0.17	mg/Kg wet	1.67		109		40-140	4.36	30	
Benzo(b)fluoranthene	1.69	0.17	mg/Kg wet	1.67		102		40-140	2.88	30	
Benzo(g,h,i)perylene	1.51	0.17	mg/Kg wet	1.67		90.4		40-140	6.80	30	
Benzo(k)fluoranthene	1.65	0.17	mg/Kg wet	1.67		99.0		40-140	2.54	30	
Chrysene	1.74	0.17	mg/Kg wet	1.67		104		40-140	5.71	30	
Dibenz(a,h)anthracene	1.67	0.17	mg/Kg wet	1.67		100		40-140	10.7	30	
Fluoranthene	1.36	0.17	mg/Kg wet	1.67		81.5		40-140	0.172	30	
Fluorene	1.65	0.17	mg/Kg wet	1.67		99.0		40-140	8.01	30	
Indeno(1,2,3-cd)pyrene	1.72	0.17	mg/Kg wet	1.67		103		40-140	10.8	30	
2-Methylnaphthalene	1.63	0.17	mg/Kg wet	1.67		97.7		40-140	13.1	30	
Naphthalene	1.44	0.17	mg/Kg wet	1.67		86.3		40-140	11.9	30	
Phenanthrene	1.72	0.17	mg/Kg wet	1.67		103		40-140	6.67	30	
Pyrene	1.61	0.17	mg/Kg wet	1.67		96.5		40-140	1.84	30	V-05
Surrogate: Nitrobenzene-d5	*2.92*		mg/Kg wet	3.33		87.5		30-130			
Surrogate: 2-Fluorobiphenyl	*3.26*		mg/Kg wet	3.33		97.7		30-130			
Surrogate: p-Terphenyl-d14	*3.85*		mg/Kg wet	3.33		116		30-130			
Matrix Spike (B095399-MS1)	**Source: 14E0281-16**			Prepared: 05/08/14 Analyzed: 05/13/14							
Acenaphthene	2.23	1.0	mg/Kg dry	1.97	0.290	98.6		40-140			
Acenaphthylene	2.47	1.0	mg/Kg dry	1.97	0.877	81.0		40-140			
Anthracene	4.16	1.0	mg/Kg dry	1.97	1.83	118		40-140			
Benzo(a)anthracene	8.08	1.0	mg/Kg dry	1.97	5.45	134		40-140			
Benzo(a)pyrene	8.02	1.0	mg/Kg dry	1.97	3.83	**212**	*	40-140			MS-12
Benzo(b)fluoranthene	8.69	1.0	mg/Kg dry	1.97	6.55	109		40-140			
Benzo(g,h,i)perylene	4.62	1.0	mg/Kg dry	1.97	2.82	91.0		40-140			V-06
Benzo(k)fluoranthene	4.43	1.0	mg/Kg dry	1.97	2.23	111		40-140			
Chrysene	7.92	1.0	mg/Kg dry	1.97	5.24	136		40-140			
Dibenz(a,h)anthracene	2.30	1.0	mg/Kg dry	1.97	0.715	80.3		40-140			V-06
Fluoranthene	14.2	1.0	mg/Kg dry	1.97	16.1	**-96.0**	*	40-140			MS-22
Fluorene	2.66	1.0	mg/Kg dry	1.97	0.444	112		40-140			
Indeno(1,2,3-cd)pyrene	5.21	1.0	mg/Kg dry	1.97	2.91	117		40-140			V-06
2-Methylnaphthalene	2.08	1.0	mg/Kg dry	1.97	0.330	88.6		40-140			
Naphthalene	2.27	1.0	mg/Kg dry	1.97	0.757	76.8		40-140			
Phenanthrene	9.93	1.0	mg/Kg dry	1.97	5.32	**234**	*	40-140			MS-12
Pyrene	8.96	1.0	mg/Kg dry	1.97	8.66	**15.4**	*	40-140			MS-22
Surrogate: Nitrobenzene-d5	*3.13*		mg/Kg dry	3.94		79.5		30-130			
Surrogate: 2-Fluorobiphenyl	*3.36*		mg/Kg dry	3.94		85.4		30-130			
Surrogate: p-Terphenyl-d14	*2.56*		mg/Kg dry	3.94		64.8		30-130			

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B095399 - SW-846 3546											
Matrix Spike Dup (B095399-MSD1)	**Source: 14E0281-16**			Prepared: 05/08/14 Analyzed: 05/13/14							
Acenaphthene	2.39	1.0	mg/Kg dry	1.96	0.290	107		40-140	6.82	30	
Acenaphthylene	3.10	1.0	mg/Kg dry	1.96	0.877	113		40-140	22.4	30	
Anthracene	4.70	1.0	mg/Kg dry	1.96	1.83	**146**	*	40-140	12.1	30	MS-22
Benzo(a)anthracene	9.64	1.0	mg/Kg dry	1.96	5.45	**213**	*	40-140	17.5	30	MS-22
Benzo(a)pyrene	9.75	1.0	mg/Kg dry	1.96	3.83	**301**	*	40-140	19.4	30	MS-12
Benzo(b)fluoranthene	10.8	1.0	mg/Kg dry	1.96	6.55	**217**	*	40-140	21.8	30	MS-22
Benzo(g,h,i)perylene	5.79	1.0	mg/Kg dry	1.96	2.82	**151**	*	40-140	22.6	30	V-06, MS-22
Benzo(k)fluoranthene	5.14	1.0	mg/Kg dry	1.96	2.23	**148**	*	40-140	15.0	30	MS-22
Chrysene	9.53	1.0	mg/Kg dry	1.96	5.24	**219**	*	40-140	18.5	30	MS-22
Dibenz(a,h)anthracene	2.79	1.0	mg/Kg dry	1.96	0.715	106		40-140	19.5	30	V-06
Fluoranthene	17.9	1.0	mg/Kg dry	1.96	16.1	90.3		40-140	22.8	30	
Fluorene	2.86	1.0	mg/Kg dry	1.96	0.444	123		40-140	7.30	30	
Indeno(1,2,3-cd)pyrene	6.34	1.0	mg/Kg dry	1.96	2.91	**175**	*	40-140	19.5	30	V-06, MS-22
2-Methylnaphthalene	2.21	1.0	mg/Kg dry	1.96	0.330	95.7		40-140	6.19	30	
Naphthalene	2.75	1.0	mg/Kg dry	1.96	0.757	101		40-140	19.0	30	
Phenanthrene	11.0	1.0	mg/Kg dry	1.96	5.32	**290**	*	40-140	10.4	30	MS-12
Pyrene	10.6	1.0	mg/Kg dry	1.96	8.66	98.2		40-140	16.6	30	
Surrogate: Nitrobenzene-d5	*3.89*		mg/Kg dry	3.93		99.1		30-130			
Surrogate: 2-Fluorobiphenyl	*4.20*		mg/Kg dry	3.93		107		30-130			
Surrogate: p-Terphenyl-d14	*2.88*		mg/Kg dry	3.93		73.4		30-130			

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B095400 - SW-846 3546										
Blank (B095400-BLK1)				Prepared: 05/08/14 Analyzed: 05/09/14						
Aroclor-1016	ND	0.020	mg/Kg wet							
Aroclor-1016 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1221	ND	0.020	mg/Kg wet							
Aroclor-1221 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1232	ND	0.020	mg/Kg wet							
Aroclor-1232 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1242	ND	0.020	mg/Kg wet							
Aroclor-1242 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1248	ND	0.020	mg/Kg wet							
Aroclor-1248 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1254	ND	0.020	mg/Kg wet							
Aroclor-1254 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1260	ND	0.020	mg/Kg wet							
Aroclor-1260 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1262	ND	0.020	mg/Kg wet							
Aroclor-1262 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1268	ND	0.020	mg/Kg wet							
Aroclor-1268 [2C]	ND	0.020	mg/Kg wet							
Surrogate: Decachlorobiphenyl	*0.183*		mg/Kg wet	0.200		91.6	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.148*		mg/Kg wet	0.200		73.8	30-150			
Surrogate: Tetrachloro-m-xylene	*0.168*		mg/Kg wet	0.200		84.1	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.184*		mg/Kg wet	0.200		91.8	30-150			
LCS (B095400-BS1)				Prepared: 05/08/14 Analyzed: 05/09/14						
Aroclor-1016	0.20	0.10	mg/Kg wet	0.200		98.5	40-140			
Aroclor-1016 [2C]	0.21	0.10	mg/Kg wet	0.200		105	40-140			
Aroclor-1260	0.19	0.10	mg/Kg wet	0.200		95.5	40-140			
Aroclor-1260 [2C]	0.20	0.10	mg/Kg wet	0.200		98.7	40-140			
Surrogate: Decachlorobiphenyl	*0.209*		mg/Kg wet	0.200		104	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.167*		mg/Kg wet	0.200		83.4	30-150			
Surrogate: Tetrachloro-m-xylene	*0.188*		mg/Kg wet	0.200		93.8	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.195*		mg/Kg wet	0.200		97.5	30-150			
LCS Dup (B095400-BSD1)				Prepared: 05/08/14 Analyzed: 05/09/14						
Aroclor-1016	0.20	0.10	mg/Kg wet	0.200		102	40-140	3.47	30	
Aroclor-1016 [2C]	0.21	0.10	mg/Kg wet	0.200		107	40-140	2.30	30	
Aroclor-1260	0.20	0.10	mg/Kg wet	0.200		98.4	40-140	3.01	30	
Aroclor-1260 [2C]	0.20	0.10	mg/Kg wet	0.200		102	40-140	3.36	30	
Surrogate: Decachlorobiphenyl	*0.211*		mg/Kg wet	0.200		106	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.164*		mg/Kg wet	0.200		82.2	30-150			
Surrogate: Tetrachloro-m-xylene	*0.183*		mg/Kg wet	0.200		91.4	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.190*		mg/Kg wet	0.200		95.1	30-150			

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD		RPD Limit	Notes
Batch B095400 - SW-846 3546												
Matrix Spike (B095400-MS1)	**Source: 14E0281-16**			Prepared: 05/08/14 Analyzed: 05/09/14								
Aroclor-1016	0.77	0.12	mg/Kg dry	0.233	ND	**331**	*	40-140				MS-21, R-06
Aroclor-1016 [2C]	0.70	0.12	mg/Kg dry	0.233	ND	**302**	*	40-140				MS-21, R-06
Aroclor-1260	1.8	0.12	mg/Kg dry	0.233	ND	**787**	*	40-140				MS-21, R-06
Aroclor-1260 [2C]	2.2	0.12	mg/Kg dry	0.233	ND	**938**	*	40-140				MS-21, R-06
Surrogate: Decachlorobiphenyl	*0.177*		mg/Kg dry	0.233		76.0		30-150				
Surrogate: Decachlorobiphenyl [2C]	*0.168*		mg/Kg dry	0.233		72.4		30-150				
Surrogate: Tetrachloro-m-xylene	*0.165*		mg/Kg dry	0.233		71.1		30-150				
Surrogate: Tetrachloro-m-xylene [2C]	*0.179*		mg/Kg dry	0.233		77.0		30-150				
Matrix Spike Dup (B095400-MSD1)	**Source: 14E0281-16**			Prepared: 05/08/14 Analyzed: 05/09/14								
Aroclor-1016	0.46	0.12	mg/Kg dry	0.237	ND	**194**	*	40-140	**50.3**	*	30	R-06, MS-21
Aroclor-1016 [2C]	0.52	0.12	mg/Kg dry	0.237	ND	**218**	*	40-140	**30.6**	*	30	R-06, MS-21
Aroclor-1260	1.3	0.12	mg/Kg dry	0.237	ND	**551**	*	40-140	**33.4**	*	30	R-06, MS-21
Aroclor-1260 [2C]	1.6	0.12	mg/Kg dry	0.237	ND	**654**	*	40-140	**33.8**	*	30	R-06, MS-21
Surrogate: Decachlorobiphenyl	*0.156*		mg/Kg dry	0.237		65.9		30-150				
Surrogate: Decachlorobiphenyl [2C]	*0.158*		mg/Kg dry	0.237		66.6		30-150				
Surrogate: Tetrachloro-m-xylene	*0.154*		mg/Kg dry	0.237		64.9		30-150				
Surrogate: Tetrachloro-m-xylene [2C]	*0.166*		mg/Kg dry	0.237		69.8		30-150				

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B095318 - % Solids										
Duplicate (B095318-DUP2)	**Source: 14E0281-12**		Prepared: 05/07/14 Analyzed: 05/08/14							
% Solids	93.4		% Wt		94.7			1.38	20	

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
L-04	Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.
L-07	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.
L-07A	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD outside of control limits. Reduced precision anticipated for any reported result for this compound.
L-14	Compound classified by MA CAM as difficult with acceptable recoveries of 40-160%. Recovery does not meet 70-130% criteria but does meet difficult compound criteria.
MS-07	Matrix spike recovery is outside of control limits. Analysis is in control based on laboratory fortified blank recovery. Possiblity of sample matrix effects that lead to low bias for reported result or non-homogeneous sample aliquot cannot be eliminated.
MS-08	Matrix spike recovery outside of control limits. Possibility of sample matrix effects that lead to a low bias for reported result or non-homogeneous sample aliquots cannot be eliminated.
MS-12	Matrix spike recovery and matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a high bias for reported result or non-homogeneous sample aliquots cannot be eliminated.
MS-21	Matrix spike and/or spike duplicate recovery bias high due to contribution of other Aroclors present in the source sample.
MS-22	Either matrix spike or MS duplicate is outside of control limits, but the other is within limits. RPD between the two MS/MSD results is within method specified criteria.
O-03	Sample contains two incompletely resolved aroclors. Aroclor with the closest matching pattern is reported.
R-05	Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.
R-06	Matrix spike duplicate RPD is outside of control limits. Reduced precision is anticipated for reported result for this compound in this sample.
RL-05	Elevated reporting limit due to high concentration of target compounds. MA CAM reporting limit not met.
RL-06	Elevated reporting limit due to high concentration of non-target compounds. MA CAM reporting limit not met.
RL-12	Elevated reporting limit due to matrix interference.
S-07	One associated surrogate standard recovery is outside of control limits but the other(s) is/are within limits. All recoveries are > 10%.
V-05	Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.
V-06	Continuing calibration did not meet method specifications and was biased on the high side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the high side.
V-16	Response factor is less than method specified minimum acceptable value. Reduced precision and accuracy may be associated with reported result.
V-20	Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8082A in Soil	
Aroclor-1016	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1016 [2C]	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1221	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1221 [2C]	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1232	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1232 [2C]	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1242	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1242 [2C]	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1248	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1248 [2C]	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1254	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1254 [2C]	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1260	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1260 [2C]	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1262	NC
Aroclor-1262 [2C]	NC
Aroclor-1268	NC
Aroclor-1268 [2C]	NC
SW-846 8260C in Soil	
Acetone	CT,NH,NY,ME
Acetone	CT,NH,NY,ME
Benzene	CT,NH,NY,ME
Benzene	CT,NH,NY,ME
Bromobenzene	NH,NY,ME
Bromobenzene	NH,NY,ME
Bromochloromethane	NH,NY,ME
Bromochloromethane	NH,NY,ME
Bromodichloromethane	CT,NH,NY,ME
Bromodichloromethane	CT,NH,NY,ME
Bromoform	CT,NH,NY,ME
Bromoform	CT,NH,NY,ME
Bromomethane	CT,NH,NY,ME
Bromomethane	CT,NH,NY,ME
2-Butanone (MEK)	CT,NH,NY,ME
2-Butanone (MEK)	CT,NH,NY,ME
n-Butylbenzene	CT,NH,NY,ME
n-Butylbenzene	CT,NH,NY,ME
sec-Butylbenzene	CT,NH,NY,ME
sec-Butylbenzene	CT,NH,NY,ME
tert-Butylbenzene	CT,NH,NY,ME
tert-Butylbenzene	CT,NH,NY,ME
Carbon Disulfide	CT,NH,NY,ME
Carbon Disulfide	CT,NH,NY,ME
Carbon Tetrachloride	CT,NH,NY,ME
Carbon Tetrachloride	CT,NH,NY,ME
Chlorobenzene	CT,NH,NY,ME

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8260C in Soil	
Chlorobenzene	CT,NH,NY,ME
Chlorodibromomethane	CT,NH,NY,ME
Chlorodibromomethane	CT,NH,NY,ME
Chloroethane	CT,NH,NY,ME
Chloroethane	CT,NH,NY,ME
Chloroform	CT,NH,NY,ME
Chloroform	CT,NH,NY,ME
Chloromethane	CT,NH,NY,ME
Chloromethane	CT,NH,NY,ME
2-Chlorotoluene	CT,NH,NY,ME
2-Chlorotoluene	CT,NH,NY,ME
4-Chlorotoluene	CT,NH,NY,ME
4-Chlorotoluene	CT,NH,NY,ME
Dibromomethane	NH,NY,ME
Dibromomethane	NH,NY,ME
1,2-Dichlorobenzene	CT,NH,NY,ME
1,2-Dichlorobenzene	CT,NH,NY,ME
1,3-Dichlorobenzene	CT,NH,NY,ME
1,3-Dichlorobenzene	CT,NH,NY,ME
1,4-Dichlorobenzene	CT,NH,NY,ME
1,4-Dichlorobenzene	CT,NH,NY,ME
Dichlorodifluoromethane (Freon 12)	NY,ME
Dichlorodifluoromethane (Freon 12)	NY,ME
1,1-Dichloroethane	CT,NH,NY,ME
1,1-Dichloroethane	CT,NH,NY,ME
1,2-Dichloroethane	CT,NH,NY,ME
1,2-Dichloroethane	CT,NH,NY,ME
1,1-Dichloroethylene	CT,NH,NY,ME
1,1-Dichloroethylene	CT,NH,NY,ME
cis-1,2-Dichloroethylene	CT,NH,NY,ME
cis-1,2-Dichloroethylene	CT,NH,NY,ME
trans-1,2-Dichloroethylene	CT,NH,NY,ME
trans-1,2-Dichloroethylene	CT,NH,NY,ME
1,2-Dichloropropane	CT,NH,NY,ME
1,2-Dichloropropane	CT,NH,NY,ME
1,3-Dichloropropane	NH,NY,ME
1,3-Dichloropropane	NH,NY,ME
2,2-Dichloropropane	NH,NY,ME
2,2-Dichloropropane	NH,NY,ME
1,1-Dichloropropene	NH,NY,ME
1,1-Dichloropropene	NH,NY,ME
cis-1,3-Dichloropropene	CT,NH,NY,ME
cis-1,3-Dichloropropene	CT,NH,NY,ME
trans-1,3-Dichloropropene	CT,NH,NY,ME
trans-1,3-Dichloropropene	CT,NH,NY,ME
Ethylbenzene	CT,NH,NY,ME
Ethylbenzene	CT,NH,NY,ME

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8260C in Soil	
Hexachlorobutadiene	NH,NY,ME
Hexachlorobutadiene	NH,NY,ME
2-Hexanone (MBK)	CT,NH,NY,ME
2-Hexanone (MBK)	CT,NH,NY,ME
Isopropylbenzene (Cumene)	CT,NH,NY,ME
Isopropylbenzene (Cumene)	CT,NH,NY,ME
p-Isopropyltoluene (p-Cymene)	NH,NY
p-Isopropyltoluene (p-Cymene)	NH,NY
Methyl tert-Butyl Ether (MTBE)	NY
Methyl tert-Butyl Ether (MTBE)	NY
Methylene Chloride	CT,NH,NY,ME
Methylene Chloride	CT,NH,NY,ME
4-Methyl-2-pentanone (MIBK)	CT,NH,NY
4-Methyl-2-pentanone (MIBK)	CT,NH,NY
Naphthalene	NH,NY,ME
Naphthalene	NH,NY,ME
n-Propylbenzene	NH,NY
n-Propylbenzene	NH,NY
Styrene	CT,NH,NY,ME
Styrene	CT,NH,NY,ME
1,1,1,2-Tetrachloroethane	CT,NH,NY,ME
1,1,1,2-Tetrachloroethane	CT,NH,NY,ME
1,1,2,2-Tetrachloroethane	CT,NH,NY,ME
1,1,2,2-Tetrachloroethane	CT,NH,NY,ME
Tetrachloroethylene	CT,NH,NY,ME
Tetrachloroethylene	CT,NH,NY,ME
Toluene	CT,NH,NY,ME
Toluene	CT,NH,NY,ME
1,2,3-Trichlorobenzene	ME
1,2,4-Trichlorobenzene	NH,NY,ME
1,2,4-Trichlorobenzene	NH,NY,ME
1,1,1-Trichloroethane	CT,NH,NY,ME
1,1,1-Trichloroethane	CT,NH,NY,ME
1,1,2-Trichloroethane	CT,NH,NY,ME
1,1,2-Trichloroethane	CT,NH,NY,ME
Trichloroethylene	CT,NH,NY,ME
Trichloroethylene	CT,NH,NY,ME
Trichlorofluoromethane (Freon 11)	CT,NH,NY,ME
Trichlorofluoromethane (Freon 11)	CT,NH,NY,ME
1,2,3-Trichloropropane	NH,NY,ME
1,2,3-Trichloropropane	NH,NY,ME
1,2,4-Trimethylbenzene	CT,NH,NY,ME
1,2,4-Trimethylbenzene	CT,NH,NY,ME
1,3,5-Trimethylbenzene	CT,NH,NY,ME
1,3,5-Trimethylbenzene	CT,NH,NY,ME
Vinyl Chloride	CT,NH,NY,ME
Vinyl Chloride	CT,NH,NY,ME

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8260C in Soil	
m+p Xylene	CT,NH,NY,ME
m+p Xylene	CT,NH,NY,ME
o-Xylene	CT,NH,NY,ME
o-Xylene	CT,NH,NY,ME
SW-846 8270D in Soil	
Acenaphthene	CT,NY,NH,ME,NC,VA,NJ
Acenaphthylene	CT,NY,NH,ME,NC,VA,NJ
Anthracene	CT,NY,NH,ME,NC,VA,NJ
Benzo(a)anthracene	CT,NY,NH,ME,NC,VA,NJ
Benzo(a)pyrene	CT,NY,NH,ME,NC,VA,NJ
Benzo(b)fluoranthene	CT,NY,NH,ME,NC,VA,NJ
Benzo(g,h,i)perylene	CT,NY,NH,ME,NC,VA,NJ
Benzo(k)fluoranthene	CT,NY,NH,ME,NC,VA,NJ
Chrysene	CT,NY,NH,ME,NC,VA,NJ
Dibenz(a,h)anthracene	CT,NY,NH,ME,NC,VA,NJ
Fluoranthene	CT,NY,NH,ME,NC,VA,NJ
Fluorene	CT,NY,NH,ME,NC,VA,NJ
Indeno(1,2,3-cd)pyrene	CT,NY,NH,ME,NC,VA,NJ
2-Methylnaphthalene	CT,NY,NH,ME,NC,VA,NJ
Naphthalene	CT,NY,NH,ME,NC,VA,NJ
Phenanthrene	CT,NY,NH,ME,NC,VA,NJ
Pyrene	CT,NY,NH,ME,NC,VA,NJ

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2016
MA	Massachusetts DEP	M-MA100	06/30/2014
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2015
NY	New York State Department of Health	10899 NELAP	04/1/2015
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2015
RI	Rhode Island Department of Health	LAO00112	12/30/2014
NC	North Carolina Div. of Water Quality	652	12/31/2014
NJ	New Jersey DEP	MA007 NELAP	06/30/2014
FL	Florida Department of Health	E871027 NELAP	06/30/2014
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2014
WA	State of Washington Department of Ecology	C2065	02/23/2015
ME	State of Maine	2011028	06/9/2015
VA	Commonwealth of Virginia	460217	12/14/2014
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2014

con-test® ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com
39 Spruce Street
East longmeadow, MA 01028

CHAIN OF CUSTODY RECORD

14E0281

Rev 04.05.12

Company Name: EBI Consulting
Address: 21 B St. Burlington MA 01803
Attention: Meghan Kelley
Project Location: 84 & 90 Washington St, Somerville, MA Cobble Hill
Sampled By: DB

Project Proposal Provided? (for billing purposes) ○ yes ______ proposal date

Telephone: 781/418-2344
Project # 1214002
Client PO#

DATA DELIVERY (check all that apply) ○ FAX ◉ EMAIL ◉ WEBSITE
Fax #
Email: dbellucci@ebiconsulting.com
Format ○ PDF ○ EXCEL ○ GIS ○ OTHER ______
○ "Enhanced Data Package"

ANALYSIS REQUESTED

Con-Test Lab ID (laboratory use only)	Client Sample ID / Description	Collection Beginning Date/Time	Collection Ending Date/Time	Composite	Grab	*Matrix Code	Conc Code	PAHs 8270	VOCs 8260	PCBs 8082
01	EB-501 (0-2')	05/07/14	09:30		X	S	M	X	X	X
02	EB-501 (2-4')		09:35		X	S	M	X	X	X
03	EB-502 (0-2')		10:00		X	S	M	X	X	X
04	EB-502 (2-4')		10:05		X	S	M	X	X	X
05	EB-503 (0-2')		10:30		X	S	M	X	X	X
06	EB-503 (2-4')		10:35		X	S	M	X	X	X
07	EB-504 (0-2')		11:00		X	S	M	X	X	X
08	EB-504 (2-4')		11:05		X	S	*PAH	X	X	X
09	EB-505 (0-2')		11:15		X	S	M	X	X	X
10	EB-505 (2-4')		11:20		X	S	M	X	X	X

# of Containers
** Preservation
***Container Code

Dissolved Metals
○ Field Filtered
○ Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other______

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other______

Comments: ~~5 Day TAT~~ * Results 05/14 *

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:

H - High; M - Medium; L - Low; C - Clean; U - Unknown

Signature	Date	Date/Time:
Relinquished by: (signature) [signature]	05/07/14	12:40
Received by: (signature) [signature]	5/7/14	12:40 pm
Relinquished by: (signature) [signature]	5/7/14	3:25 pm
Received by: (signature) [signature] 6°	5.7.14	1525

Turnaround ††
☐ 7-Day
☐ 10-Day
☒ Other 5
RUSH †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

Detection Limit Requirements
Massachusetts: EPA
Connecticut:
Other:

Is your project MCP or RCP ?
○ MCP Form Required
○ RCP Form Required
○ MA State DW Form Required PWSID # ______

NELAC & AIHA-LAP, LLC Accredited
WBE/DBE Certified

†† TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

CHAIN OF CUSTODY RECORD

14E0281

Rev 04.05.12

con-test ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com
39 Spruce Street
East longmeadow, MA 01028

Company Name: EBI Consulting
Address:
Attention: Meghan Kelley
Project Location: 84 & 90 Washington St., Somerville, MA
Sampled By: DB Cobble Hill

Telephone:
Project # 12140021
Client PO#

DATA DELIVERY (check all that apply)
○ FAX ◉ EMAIL ◉ WEBSITE
Fax #
Email:
Format: ◉ PDF ◉ EXCEL ○ GIS
○ OTHER
○ "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

Con-Test Lab ID (laboratory use only)	Client Sample ID / Description	Collection Beginning Date/Time	Collection Ending Date/Time	Composite	Grab	*Matrix Code	Conc Code	ANALYSIS REQUESTED: PAHs 8270	VOCs 8260	PCB 8082	# of Containers	** Preservation	***Container Code
11	EB-506 (0-2')	05/07/14	11:30		X	S	M	X	X	X			
12	EB-506 (2-4')		11:35		X	S	M	X	X	X			
13	EB-507 (0-2')		11:45		X	S	M	X	X	X			
14	EB-507 (2-4')		11:50		X	S	M	X	X	X			
15	EB-508 (0-2')		12:10		X	S	M	X	X	X			
16	EB-508 (2-4')		12:15		X	S	M	X	X	X			

Dissolved Metals
○ Field Filtered
○ Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL= sludge
O = other

Comments: *1-day TAT* Results 05/14 *

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	05/07/14	Date/Time: 12:40
Received by: (signature)	5/7/14	Date/Time: 1240 pm
Relinquished by: (signature)	5/7/14	Date/Time: 3:25 pm
Received by: (signature)	6° 5.7.14	Date/Time: 1525

Turnaround ††
☐ 7-Day
☐ 10-Day
☒ Other 5
RUSH †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☒ †4-Day
† Require lab approval

Detection Limit Requirements
Massachusetts: EPH
Connecticut:
Other:

Is your project MCP or RCP ?
○ MCP Form Required
○ RCP Form Required
○ MA State DW Form Required PWSID # _____

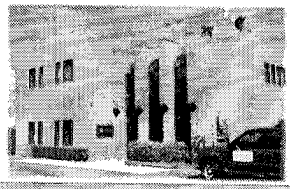
NELAC & AIHA-LAP, LLC Accredited
WBE/DBE Certified

†† TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

39 Spruce St.
East Longmeadow, MA. 01028
P: 413-525-2332
F: 413-525-6405
www.contestlabs.com

con-test® ANALYTICAL LABORATORY



Sample Receipt Checklist

CLIENT NAME: EBI Consulting **RECEIVED BY:** CC **DATE:** 5-7-14

1) **Was the chain(s) of custody relinquished and signed?** (Yes) No No CoC Included
2) **Does the chain agree with the samples?** (Yes) No
   If not, explain:
3) **Are all the samples in good condition?** (Yes) No
   If not, explain:
4) **How were the samples received:**
   On Ice [X] Direct from Sampling [ ] Ambient [ ] In Cooler(s) [X]
   Were the samples received in Temperature Compliance of (2-6°C)? (Yes) No N/A
   Temperature °C by Temp blank _____ Temperature °C by Temp gun 6°
5) **Are there Dissolved samples for the lab to filter?** Yes (No)
   Who was notified _____ Date _____ Time _____
6) **Are there any RUSH or SHORT HOLDING TIME samples?** Yes (No)
   Who was notified _____ Date _____ Time _____
7) **Location where samples are stored:** 19

Permission to subcontract samples? Yes No
(Walk-in clients only) if not already approved
Client Signature: _____

8) **Do all samples have the proper Acid pH:** Yes No (N/A) _____
9) **Do all samples have the proper Base pH:** Yes No (N/A) _____
10) **Was the PC notified of any discrepancies with the CoC vs the samples:** Yes No (N/A)

Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber		8 oz amber/clear jar	16 A
500 mL Amber		4 oz amber/clear jar	
250 mL Amber (8oz amber)		2 oz amber/clear jar	
1 Liter Plastic		Plastic Bag / Ziploc	
500 mL Plastic		SOC Kit	
250 mL plastic		Non-ConTest Container	
40 mL Vial - type listed below	48	Perchlorate Kit	
Colisure / bacteria bottle		Flashpoint bottle	
Dissolved Oxygen bottle		Other glass jar	
Encore		Other	

Laboratory Comments:

40 mL vials: # HCl _____ # Methanol 16
Bisulfate 32 # DI Water _____
Thiosulfate _____ Unpreserved _____

Time and Date Frozen:

Login Sample Receipt Checklist

(Rejection Criteria Listing - Using Sample Acceptance Policy)

Any False statement will be brought to the attention of Client

Question	Answer (True/False) T/F/NA	Comment
1) The cooler's custody seal, if present, is intact.	NA	
2) The cooler or samples do not appear to have been compromised or tampered with.	T	
3) Samples were received on ice.	T	
4) Cooler Temperature is acceptable.	T	
5) Cooler Temperature is recorded.	T	
6) COC is filled out in ink and legible.	T	
7) COC is filled out with all pertinent information.	T	
8) Field Sampler's name present on COC.	T	
9) There are no discrepancies between the sample IDs on the container and the COC.	T	
10) Samples are received within Holding Time.	T	
11) Sample containers have legible labels.	T	
12) Containers are not broken or leaking.	T	
13) Air Cassettes are not broken/open.	NA	
14) Sample collection date/times are provided.	T	
15) Appropriate sample containers are used.	T	
16) Proper collection media used.	T	
17) No headspace sample bottles are completely filled.	T	
18) There is sufficient volume for all requsted analyses, including any requested MS/MSDs.	T	
19) Trip blanks provided if applicable.	T	
20) VOA sample vials do not have head space or bubble is <6mm (1/4") in diameter.	NA	
21) Samples do not require splitting or compositing.	T	

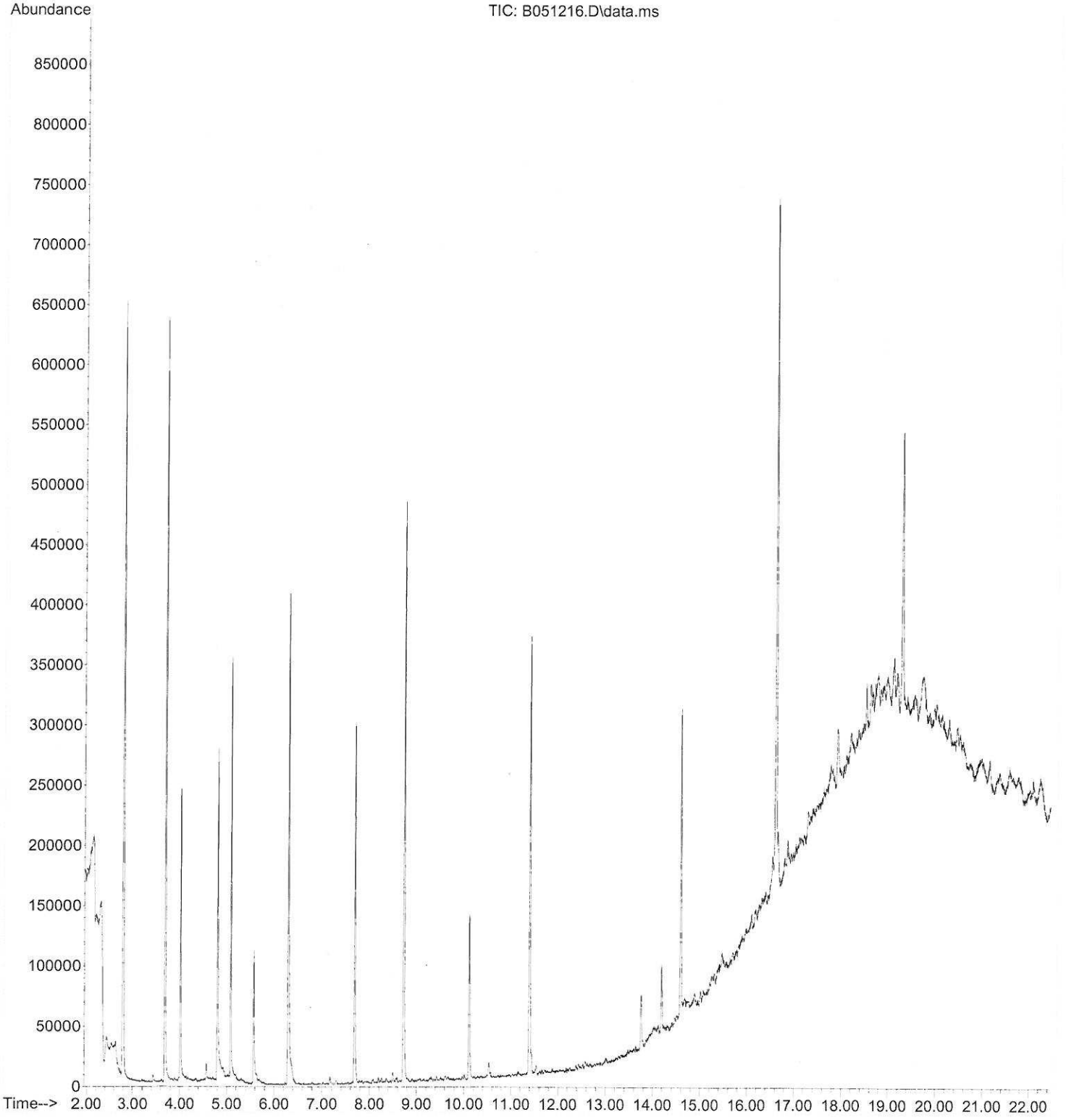
Who notified of False statements? **Date/Time:**

Doc #277 Rev. 4 August 2013 **Log-In Technician Initials:** CC **Date/Time:** 5.7.14 1525

Quantitation Report (QT Reviewed)

Data Path : Z:\DATA\051214\
Data File : B051216.D
Acq On : 12 May 2014 5:17 pm
Operator : BGL
Sample : 14E0281-05@/2x 2ml Inst : GCMSSV2
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 13 10:13:23 2014
Quant Method : Z:\METHODS\BN205074.M
Quant Title : 625/8270 SVMS2 (B)
QLast Update : Wed Mar 26 10:52:49 2014
Response via : Initial Calibration

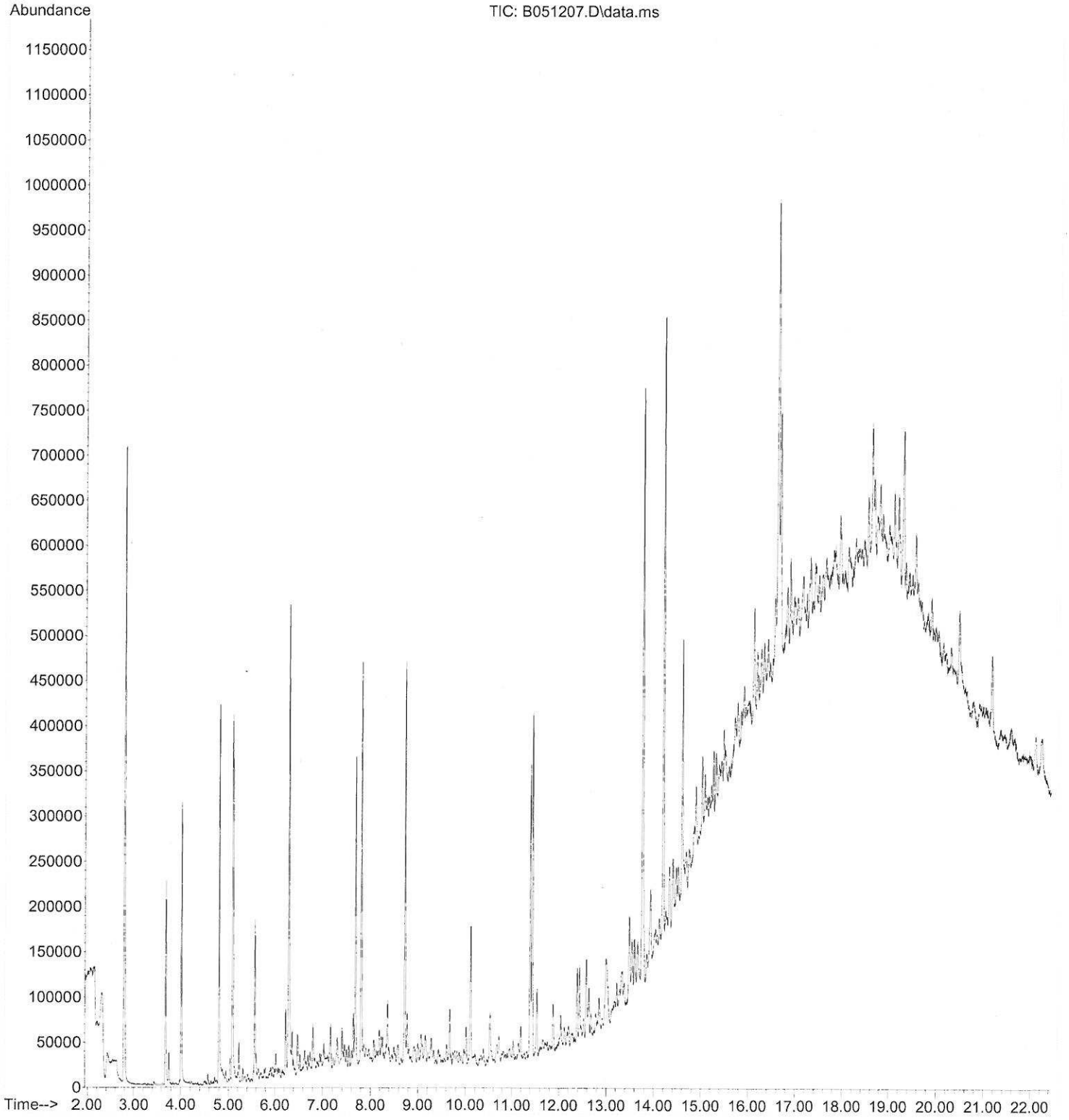


BN205074.M Tue May 13 10:13:58 2014

Quantitation Report (QT Reviewed)

Data Path : Z:\DATA\051214\
Data File : B051207.D
Acq On : 12 May 2014 12:14 pm
Operator : BGL
Sample : 14E0281-12@/ 2X 2ML Inst : GCMSSV2
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 12 15:34:53 2014
Quant Method : Z:\METHODS\BN205074.M
Quant Title : 625/8270 SVMS2 (B)
QLast Update : Wed Mar 26 10:52:49 2014
Response via : Initial Calibration

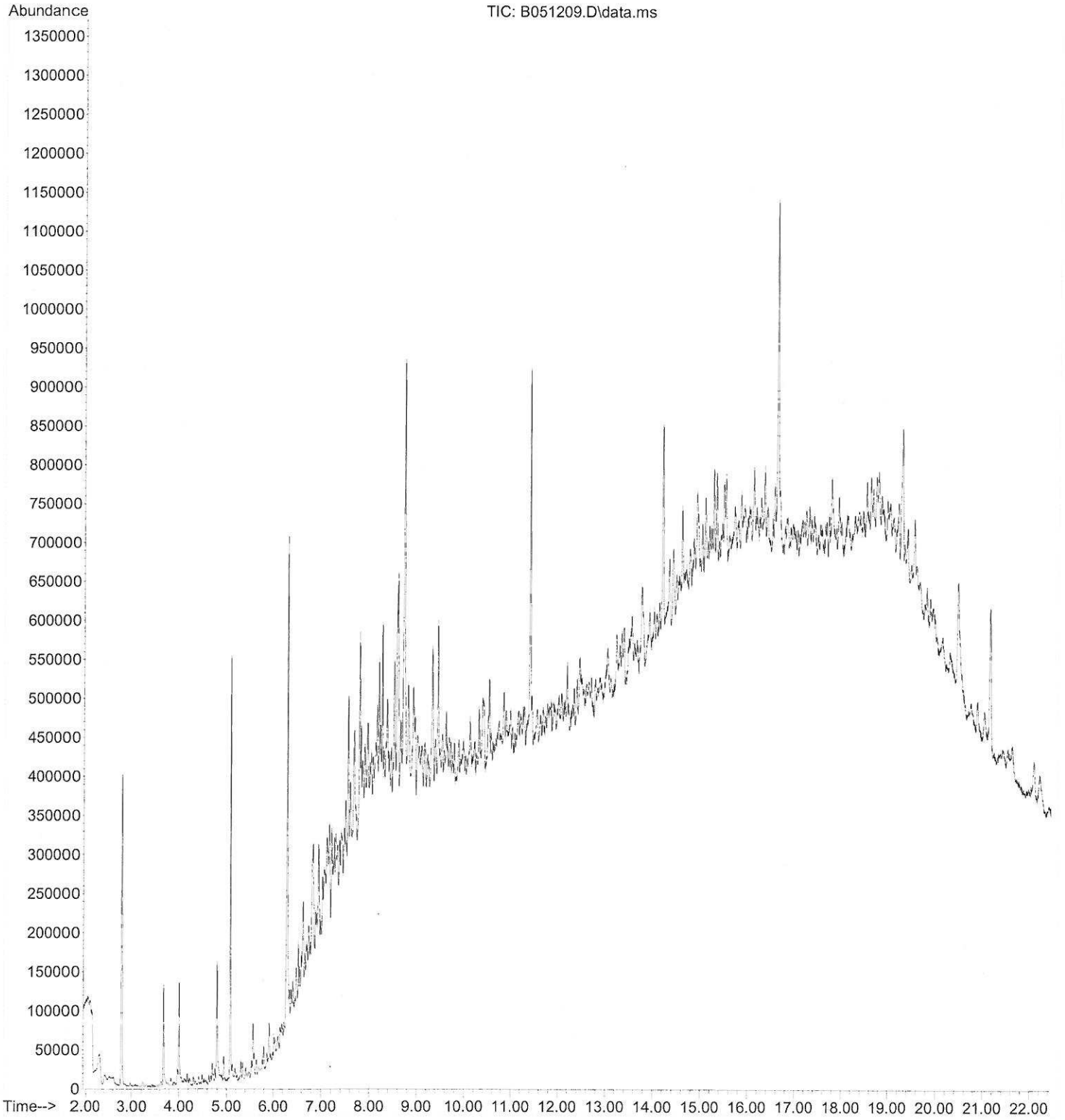


BN205074.M Mon May 12 15:35:29 2014

Quantitation Report (Not Reviewed)

Data Path : Z:\DATA\051214\
Data File : B051209.D
Acq On : 12 May 2014 1:19 pm
Operator : BGL
Sample : 14E0281-14@/4X 2 ML Inst : GCMSSV2
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 12 15:20:53 2014
Quant Method : Z:\METHODS\BN205074.M
Quant Title : 625/8270 SVMS2 (B)
QLast Update : Wed Mar 26 10:52:49 2014
Response via : Initial Calibration



APPENDIX E:

BORING LOGS

Project: 90 Washington St
Location:
City/State: Somerville, MA

Job #: 5471
Date Started: 8-22-18
Date Finished: 8-22-18

Geoprobe No.
B-603

Contractor: Crawford
Driller/Helper: Ryan
Logged By/Reviewed By: KEH
Surface Elevation (ft): 16.3

Casing Type/Depth (ft): N/A
Casing Hammer (lbs)/Drop (in): N/A
Sampler Size/Type: 5' Plastic Sleeve
Sampler Hammer (lbs)/Drop (in): N/A

Groundwater Observations

Date	Depth	Elev.	Notes

Depth (ft)	Elev. (ft)	Symbol	Depth/EL to Strata Change (ft)	Stratum	Sample TVOC (ppm)	Sample No.	Sample Pen./Rec. (in)	Sample Depth (ft)	Sample Description and Notes
0	16		0.5 / 15.8	ASPHALT					
1	15			GRANULAR FILL	7.9	S1	27/20	0.3-2.6	Brown/black, fine to medium SAND, some asphalt (Granular Fill).
2	14								
3	13				5.5	S2	30/20	2.5-5.0	Black, SILT, some sand, with asphalt (Granular Fill).
4	12								
5	11		5.0 / 11.3	COHESIVE FILL	2.0	S3	30/25	5.0-7.5	Black/dark brown, SILT, with wood/peat fibers, trace ash&cinders (Cohesive Fill).
6	10								
7	9								
8	8				0.8	S4	30/25	7.5-10.0	Black, SILT, with ash&cinders (Cohesive Fill).
9	7								
10	6		10.0 / 6.3	Bottom of borehole 10 feet below ground surface.					
11	5								
12	4								
13	3								
14	2								
15	1								
16	0								
17	-1								
18	-2								
19	-3								
20	-4								
21	-5								
22	-6								

SOIL COMPONENT

DESCRIPTIVE TERM	PROPORTION OF TOTAL
"TRACE"	0-10%
"SOME"	10-20%
"ADJECTIVE" (eg SANDY, SILTY)	20-35%
"AND"	35-50%

SOIL CONTAINING THREE COMPONENTS EACH OF WHICH COMPRISE AT LEAST 25% OF THE TOTAL ARE CLASSIFIED AS "A WELL-GRADED MIXTURE OF"

Notes:

Weather: Clear Temperature: 25

McPHAIL ASSOCIATES, LLC
2269 MASSACHUSETTS AVENUE
CAMBRIDGE, MA 02140
TEL: 617-868-1420
FAX: 617-868-1423

Project:	90 Washington St	**Job #:**	5471
Location:		**Date Started:**	8-22-18
City/State:	Somerville, MA	**Date Finished:**	8-22-18

Geoprobe No.

B-604

Contractor: Crawford
Driller/Helper: Ryan
Logged By/Reviewed By: KEH
Surface Elevation (ft): 17.3

Casing Type/Depth (ft): N/A
Casing Hammer (lbs)/Drop (in): N/A
Sampler Size/Type: 5' Plastic Sleeve
Sampler Hammer (lbs)/Drop (in): N/A

Groundwater Observations

Date	Depth	Elev.	Notes

Depth (ft)	Elev. (ft)	Symbol	Depth/EL to Strata Change (ft)	Stratum	Sample TVOC (ppm)	Sample No.	Sample Pen./Rec. (in)	Sample Depth (ft)	Sample Description and Notes
	17		0.5 / 16.8	TOPSOIL					
1	16				3.0	S1	30/25	0.5-3.0	Brown/black, SILTY SAND, with brick and ash&cinders (Granular Fill).
2	15								
3	14				10.3	S2	30/25	2.5-5.0	Black/gray, SILTY SAND, some clay, with ash&cinders (Granular Fill).
4	13								
5	12			GRANULAR FILL					
6	11				5.3	S3	30/20	5.0-7.5	Brown/black, SILTY SAND, with asphalt (Granular Fill).
7	10								
8	9				2.9	S4	30/20	7.5-10.0	Black, SILTY SAND, with asphalt, appeared to have a sheen to it (Granular Fill).
9	8								
10	7		10.0 / 7.3	Bottom of borehole 10 feet below ground surface.					
11	6								
12	5								
13	4								
14	3								
15	2								
16	1								
17	0								
18	-1								
19	-2								
20	-3								
21	-4								
22	-5								

SOIL COMPONENT

DESCRIPTIVE TERM	PROPORTION OF TOTAL
"TRACE"	0-10%
"SOME"	10-20%
"ADJECTIVE" (eg SANDY, SILTY)	20-35%
"AND"	35-50%

SOIL CONTAINING THREE COMPONENTS EACH OF WHICH COMPRISE AT LEAST 25% OF THE TOTAL ARE CLASSIFIED AS "A WELL-GRADED MIXTURE OF"

Notes:

Weather: Clear Temperature: 25

McPHAIL ASSOCIATES, LLC
2269 MASSACHUSETTS AVENUE
CAMBRIDGE, MA 02140
TEL: 617-868-1420
FAX: 617-868-1423

Project:	90 Washington St	**Job #:**	5471
Location:		**Date Started:**	8-22-18
City/State:	Somerville, MA	**Date Finished:**	8-22-18

Geoprobe No.

B-605

Contractor: Crawford
Driller/Helper: Ryan
Logged By/Reviewed By: KEH
Surface Elevation (ft): 17.9

Casing Type/Depth (ft): N/A
Casing Hammer (lbs)/Drop (in): N/A
Sampler Size/Type: 5' Plastic Sleeve
Sampler Hammer (lbs)/Drop (in): N/A

Groundwater Observations

Date	Depth	Elev.	Notes

Depth (ft)	Elev. (ft)	Symbol	Depth/EL to Strata Change (ft)	Stratum	Sample TVOC (ppm)	Sample No.	Sample Pen./Rec. (in)	Sample Depth (ft)	Sample Description and Notes
			0.3 / 17.6	ASPHALT					
1	17				1.5	S1	27/15	0.3-2.6	Brown, SILTY SAND (Granular Fill).
2	16								
3	15				123.1	S2	30/15	2.5-5.0	Brown, fine to coarse SAND, trace silt (Granular Fill).
4	14								
5	13			GRANULAR FILL					
6	12				2.5	S3	30/15	5.0-7.5	Brown, fine to coarse SAND, trace silt, with dark brown cobbles (Granular Fill).
7	11								
8	10				17.5	S4	30/15	7.5-10.0	Brown, fine to coarse SAND, trace silt, petroleum odor (Granular Fill).
9	9								
10	8		10.0 / 7.9						
11	7			Bottom of borehole 10 feet below ground surface.					
12	6								
13	5								
14	4								
15	3								
16	2								
17	1								
18	0								
19	-1								
20	-2								
21	-3								
22	-4								

SOIL COMPONENT

DESCRIPTIVE TERM	PROPORTION OF TOTAL
"TRACE"	0-10%
"SOME"	10-20%
"ADJECTIVE" (eg SANDY, SILTY)	20-35%
"AND"	35-50%

SOIL CONTAINING THREE COMPONENTS EACH OF WHICH COMPRISE AT LEAST 25% OF THE TOTAL ARE CLASSIFIED AS "A WELL-GRADED MIXTURE OF"

Notes:

Weather: Rain Temperature: 25

McPHAIL ASSOCIATES, LLC
2269 MASSACHUSETTS AVENUE
CAMBRIDGE, MA 02140
TEL: 617-868-1420
FAX: 617-868-1423

Project:	90 Washington St	**Job #:**	5471
Location:		**Date Started:**	8-22-18
City/State:	Somerville, MA	**Date Finished:**	8-22-18

Geoprobe No.

B-606

Contractor: Crawford
Driller/Helper: Ryan
Logged By/Reviewed By: KEH
Surface Elevation (ft): 22.9

Casing Type/Depth (ft): N/A
Casing Hammer (lbs)/Drop (in): N/A
Sampler Size/Type: 5' Plastic Sleeve
Sampler Hammer (lbs)/Drop (in): N/A

Groundwater Observations

Date	Depth	Elev.	Notes

Depth (ft)	Elev. (ft)	Symbol	Depth/EL to Strata Change (ft)	Stratum	Sample TVOC (ppm)	Sample No.	Sample Pen./Rec. (in)	Sample Depth (ft)	Sample Description and Notes
			0.5 / 22.4	TOPSOIL					
1	22				22.3	S1	24/20	0.5-2.5	Brown, SILTY SAND and GRAVEL, with brick (Granular Fill).
2	21								
3	20				20.2	S2	30/20	2.5-5.0	Black, SILT, trace sand, with asphalt and brick (Granular FIll).
4	19			GRANULAR FILL					
5	18								
6	17				6.8	S3	30/15	5.0-7.5	Black, SILT, trace sand, with asphalt (Granular Fill).
7	16		7.5 / 15.4						
8	15								
9	14			COHESIVE FILL	1.4	S4	30/15	7.5-10.0	Brown/black, SILT and SAND, some clay, with brick (Cohesive Fill).
10	13		10.0 / 12.9						
11	12			Bottom of borehole 10 feet below ground surface.					
12	11								
13	10								
14	9								
15	8								
16	7								
17	6								
18	5								
19	4								
20	3								
21	2								
22	1								

SOIL COMPONENT

DESCRIPTIVE TERM	PROPORTION OF TOTAL
"TRACE"	0-10%
"SOME"	10-20%
"ADJECTIVE" (eg SANDY, SILTY)	20-35%
"AND"	35-50%

SOIL CONTAINING THREE COMPONENTS EACH OF WHICH COMPRISE AT LEAST 25% OF THE TOTAL ARE CLASSIFIED AS "A WELL-GRADED MIXTURE OF"

Notes:

Weather: Cloudy Temperature: 25

McPHAIL ASSOCIATES, LLC
2269 MASSACHUSETTS AVENUE
CAMBRIDGE, MA 02140
TEL: 617-868-1420
FAX: 617-868-1423

Project: 90 Washington St
Location:
City/State: Somerville, MA

Job #: 5471
Date Started: 8-22-18
Date Finished: 8-22-18

Geoprobe No.
B-607

Contractor: Crawford
Driller/Helper: Ryan
Logged By/Reviewed By: KEH
Surface Elevation (ft): 17.3

Casing Type/Depth (ft): N/A
Casing Hammer (lbs)/Drop (in): N/A
Sampler Size/Type: 5' Plastic Sleeve
Sampler Hammer (lbs)/Drop (in): N/A

Groundwater Observations

Date	Depth	Elev.	Notes

Depth (ft)	Elev. (ft)	Symbol	Depth/EL to Strata Change (ft)	Stratum	Sample TVOC (ppm)	Sample No.	Sample Pen./Rec. (in)	Sample Depth (ft)	Sample Description and Notes
	17		0.5 / 16.8	TOPSOIL					
1	16			GRANULAR FILL	3.1	S1	24/20	0.5-2.5	Brown/black/gray, SILTY SAND, trace clay, with brick, wood, cobbles and ash (Granular FIll).
2	15								
3	14				2.6	S2	30/20	2.5-5.0	Brown/black, SILTY SAND, some clay, with ash&cinders and brick (Granular Fill).
4	13								
5	12		5.0 / 12.3	COHESIVE FILL	11.9	S3	30/25	5.0-7.5	Brown/black, SILT, some sand, with roots, petroleum odor (Cohesive Fill).
6	11								
7	10		7.5 / 9.8	MARINE CLAY	2.1	S4	30/25	7.5-10.0	Gray/blue, mottled, stratified CLAY, some silt (Marine Clay).
8	9								
9	8								
10	7		10.0 / 7.3	Bottom of borehole 10 feet below ground surface.					
11	6								
12	5								
13	4								
14	3								
15	2								
16	1								
17	0								
18	-1								
19	-2								
20	-3								
21	-4								
22	-5								

SOIL COMPONENT

DESCRIPTIVE TERM	PROPORTION OF TOTAL
"TRACE"	0-10%
"SOME"	10-20%
"ADJECTIVE" (eg SANDY, SILTY)	20-35%
"AND"	35-50%

SOIL CONTAINING THREE COMPONENTS EACH OF WHICH COMPRISE AT LEAST 25% OF THE TOTAL ARE CLASSIFIED AS "A WELL-GRADED MIXTURE OF"

Notes:

Weather: Rain Temperature: 25

McPHAIL ASSOCIATES, LLC
2269 MASSACHUSETTS AVENUE
CAMBRIDGE, MA 02140
TEL: 617-868-1420
FAX: 617-868-1423

Project: 90 Washington St
Location:
City/State: Somerville, MA

Job #: 5471
Date Started: 8-22-18
Date Finished: 8-22-18

Geoprobe No.
B-608(OW)

Contractor: Crawford
Driller/Helper: Ryan
Logged By/Reviewed By: KEH
Surface Elevation (ft): 17.1

Casing Type/Depth (ft): N/A
Casing Hammer (lbs)/Drop (in): N/A
Sampler Size/Type: 5' Plastic Sleeve
Sampler Hammer (lbs)/Drop (in): N/A

Groundwater Observations

Date	Depth	Elev.	Notes
8-22-18	7	10.1	

Depth (ft)	Elev. (ft)	Symbol	Depth/EL to Strata Change (ft)	Stratum	Sample TVOC (ppm)	Sample No.	Sample Pen./Rec. (in)	Sample Depth (ft)	Sample Description and Notes
			0.5 / 16.6	ASPHALT					
1	16			GRANULAR FILL	7.4	S1	24/20	0.5-2.5	Brown/gray, SILTY SAND, with brick (Granular Fill).
2	15								
3	14				152.4	S2	30/20	2.5-5.0	Brown/gray/black, SILTY SAND, with brick and ash&cinders, petroleum odor (Granular Fill).
4	13								
5	12				14.6	S3	30/20	5.0-7.5	Brown/gray, SILTY SAND, with brick and ash&cinders (Granular Fill).
6	11								
7	10				42.0	S4	30/20	7.5-10.0	Brown/gray, SILTY SAND, with brick and ash&cinders (Granular Fill).
8	9								
9	8				240.2	S5	30/25	10.0-12.5	Black/brown, SILTY SAND, with trace organic fibers (Granular Fill).
10	7								
11	6				620.6	S6	30/25	12.5-15.0	Brown, SAND, trace silt, petroleum odor OW installed at 15', with 10' screen.
12	5								
13	4								
14	3								
15	2		15.0 / 2.1						
16	1			Bottom of borehole 15 feet below ground surface.					
17	0								
18	-1								
19	-2								
20	-3								
21	-4								
22	-5								

SOIL COMPONENT

DESCRIPTIVE TERM	PROPORTION OF TOTAL
"TRACE"	0-10%
"SOME"	10-20%
"ADJECTIVE" (eg SANDY, SILTY)	20-35%
"AND"	35-50%

SOIL CONTAINING THREE COMPONENTS EACH OF WHICH COMPRISE AT LEAST 25% OF THE TOTAL ARE CLASSIFIED AS "A WELL-GRADED MIXTURE OF"

Notes:

Weather: Rain Temperature: 25

McPHAIL ASSOCIATES, LLC
2269 MASSACHUSETTS AVENUE
CAMBRIDGE, MA 02140
TEL: 617-868-1420
FAX: 617-868-1423

Project:	90 Washington St	**Job #:**	5471
Location:		**Date Started:**	8-22-18
City/State:	Somerville, MA	**Date Finished:**	8-22-18

Geoprobe No.

B-609

Contractor: Crawford
Driller/Helper: Ryan
Logged By/Reviewed By: KEH
Surface Elevation (ft): 16.3

Casing Type/Depth (ft): N/A
Casing Hammer (lbs)/Drop (in): N/A
Sampler Size/Type: 5' Plastic Sleeve
Sampler Hammer (lbs)/Drop (in): N/A

Groundwater Observations

Date	Depth	Elev.	Notes

Depth (ft)	Elev. (ft)	Symbol	Depth/EL to Strata Change (ft)	Stratum	Sample TVOC (ppm)	Sample No.	Sample Pen./Rec. (in)	Sample Depth (ft)	Sample Description and Notes
	16		0.5 / 15.8	TOPSOIL					
1	15			GRANULAR FILL	3.1	S1	24/20	0.5-2.5	Brown/black, SILT and SAND, with brick (Granular Fill).
2	14								
3	13				21.8	S2	30/20	2.5-5.0	Brown/black, SILT and SAND, with brick, some organics (Granular Fill).
4	12								
5	11		5.0 / 11.3	MARINE SAND	1.9	S3	30/20	5.0-7.5	Light brown, fine to coarse SAND, some silt (Marine Sand).
6	10								
7	9								
8	8				0.8	S4	30/20	7.5-10.0	Light brown, fine to coarse SAND, some silt (Marine Sand).
9	7								
10	6		10.0 / 6.3	Bottom of borehole 10.5 feet below ground surface.					
11	5								
12	4								
13	3								
14	2								
15	1								
16	0								
17	-1								
18	-2								
19	-3								
20	-4								
21	-5								
22	-6								

SOIL COMPONENT

DESCRIPTIVE TERM	PROPORTION OF TOTAL
"TRACE"	0-10%
"SOME"	10-20%
"ADJECTIVE" (eg SANDY, SILTY)	20-35%
"AND"	35-50%

SOIL CONTAINING THREE COMPONENTS EACH OF WHICH COMPRISE AT LEAST 25% OF THE TOTAL ARE CLASSIFIED AS "A WELL-GRADED MIXTURE OF"

Notes:

Weather: Clear Temperature: 25

McPHAIL ASSOCIATES, LLC
2269 MASSACHUSETTS AVENUE
CAMBRIDGE, MA 02140
TEL: 617-868-1420
FAX: 617-868-1423

Project:	90 Washington St	**Job #:**	5471
Location:		**Date Started:**	8-22-18
City/State:	Somerville, MA	**Date Finished:**	8-22-18

Geoprobe No.

B-611

Contractor: Crawford
Driller/Helper: Ryan
Logged By/Reviewed By: KEH
Surface Elevation (ft): 17.4

Casing Type/Depth (ft): N/A
Casing Hammer (lbs)/Drop (in): N/A
Sampler Size/Type: 5' Plastic Sleeve
Sampler Hammer (lbs)/Drop (in): N/A

Groundwater Observations

Date	Depth	Elev.	Notes

Depth (ft)	Elev. (ft)	Symbol	Depth/EL to Strata Change (ft)	Stratum	Sample TVOC (ppm)	Sample No.	Sample Pen./Rec. (in)	Sample Depth (ft)	Sample Description and Notes
0	17		0.5 / 16.9	TOPSOIL					
1	16			GRANULAR FILL	0.2	S1	24/20	0.5-2.5	Brown/black, SILTY SAND, some gravel, with brick (Granular Fill).
2	15								
3	14				0.3	S2	30/20	2.5-5.0	Brown, coarse to medium SAND, some silt, with organics (Granular Fill).
4	13								
5	12				0.0	S3	30/30	5.0-7.5	Brown, fine to medium SAND, some silt, with some organic silt with peat (Granular Fill).
6	11								
7	10								
8	9				30.1	S4	30/30	7.5-10.0	Brown, fine to medium SAND, some silt (Granular Fill).
9	8								
10	7		10.0 / 7.4	Bottom of borehole 10 feet below ground surface.					
11	6								
12	5								
13	4								
14	3								
15	2								
16	1								
17	0								
18	-1								
19	-2								
20	-3								
21	-4								
22	-5								

SOIL COMPONENT

DESCRIPTIVE TERM	PROPORTION OF TOTAL
"TRACE"	0-10%
"SOME"	10-20%
"ADJECTIVE" (eg SANDY, SILTY)	20-35%
"AND"	35-50%

SOIL CONTAINING THREE COMPONENTS EACH OF WHICH COMPRISE AT LEAST 25% OF THE TOTAL ARE CLASSIFIED AS "A WELL-GRADED MIXTURE OF"

Notes:

Weather: Rain Temperature: 25

McPHAIL ASSOCIATES, LLC
2269 MASSACHUSETTS AVENUE
CAMBRIDGE, MA 02140
TEL: 617-868-1420
FAX: 617-868-1423

APPENDIX F:

HISTORICAL GROUNDWATER MONITORING REPORTS

GROUNDWATER MONITORING REPORT

Well I.D.	B-2 (OW)	**Elevation of Road Box**	+17.1	**Job. No.** **Job Name** **Location**	5471 Redevelopment of Cobble Hill Center Somerville, MA	
Date	**Time**	**Elapsed Time (days)**	**Depth of Water from Road Box (ft)**	**Elevation of Water (ft)**	**Remarks**	**Read By**
10/24/2012	7:00	Initial	9.7	+7.4		SSD
10/25/2012	9:00	1	8.1	+9.0		SSD
10/29/2012	7:00	5	7.9	+9.2		SSD
10/31/2012	15:00	7	7.8	+9.3		SSD

GROUNDWATER MONITORING REPORT

Well I.D.	B-8 (OW)	**Elevation of Road Box**	+17.8	**Job. No.** **Job Name** **Location**	5471 Redevelopment of Cobble Hill Center Somerville, MA	
Date	**Time**	**Elapsed Time (days)**	**Depth of Water from Road Box (ft)**	**Elevation of Water (ft)**	**Remarks**	**Read By**
10/24/2012	7:00	Initial	9.9	+7.9		SSD
10/25/2012	9:00	1	9.9	+7.9		SSD
10/29/2012	7:00	5	10.7	+7.1		SSD
10/31/2012	15:00	7	8.7	+9.1		SSD

GROUNDWATER MONITORING REPORT

Well I.D.	B-11A (OW)	**Elevation of Road Box**	+17.4	**Job. No.** **Job Name** **Location**	5471 Redevelopment of Cobble Hill Center Somerville, MA	
Date	**Time**	**Elapsed Time (days)**	**Depth of Water from Road Box (ft)**	**Elevation of Water (ft)**	**Remarks**	**Read By**
10/29/2012	7:00	Initial	11.5	+5.9		SSD
10/31/2012	15:00	2	11.2	+6.2		SSD

APPENDIX G:

MODIFIED SHORTFORMS FOR SUBSTANTIAL HAZARD EVALUATION

Resident - Soil: Table RS-1
Exposure Point Concentration (EPC)
Based on Resident Ages 1-31 (Cancer), 1-8 (Chronic Noncancer), and 1-2 (Subchronic Noncancer)

ShortForm Version 10-12
Vlookup Versionv0315

ELCR (all chemicals) = 8.7E-06
Chronic HI (all chemicals) = 1.8E-01
Subchronic HI (all chemicals) = 7.2E-02

Do not insert or delete any rows
Click on empty cell below and select OHM using arrow.

Oil or Hazardous Material	EPC (mg/kg)	$ELCR_{ingestion}$	$ELCR_{dermal}$	Derm & Ing $ELCR_{total}$	Chronic HQ_{ing}	Chronic HQ_{derm}	Derm & Ing HQ_{total}	Subchronic HQ_{ing}	Subchronic HQ_{derm}	Derm & Ing HQ_{total}
Chlorobenzene	5.0E-02				6.1E-06	1.5E-06	7.6E-06	4.8E-06	8.4E-07	5.6E-06
DICHLOROBENZENE, 1,4- (p-DCB)	6.0E-02	3.2E-09	9.7E-10	4.2E-09	1.6E-06	4.1E-07	2.0E-06	4.4E-07	7.8E-08	5.2E-07
Naphthalene	2.3E+01				8.5E-04	2.4E-03	3.3E-03	2.3E-04	4.6E-04	6.9E-04
ACENAPHTHYLENE	1.2E+00				2.9E-05	8.2E-05	1.1E-04	8.0E-06	1.6E-05	2.4E-05
DINITROTOLUENE, 2,4-	2.7E+00	4.1E-06	4.1E-06	8.2E-06	3.3E-03	2.8E-03	6.1E-03	9.1E-03	5.3E-03	1.4E-02
METHYLNAPHTHALENE, 2-	8.2E+00				1.5E-03	4.2E-03	5.7E-03	4.1E-03	8.0E-03	1.2E-02
ALIPHATICS C9 to C18	1.2E+03				3.0E-02	5.1E-02	8.1E-02	8.3E-03	9.7E-03	1.8E-02
AROMATICS C11 to C22	8.3E+02				2.0E-02	5.7E-02	7.7E-02	5.5E-03	1.1E-02	1.6E-02
POLYCHLORINATED BIPHENYLS (PCBs)	5.0E-02	2.2E-07	2.2E-07	4.5E-07	6.1E-03	5.2E-03	1.1E-02	6.7E-03	3.9E-03	1.1E-02

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165