TAB 6

PHASE II SITE INVESTIGATION REPORT
50 INDIA STREET SITE
PORTLAND, MAINE

DECEMBER 14, 2015

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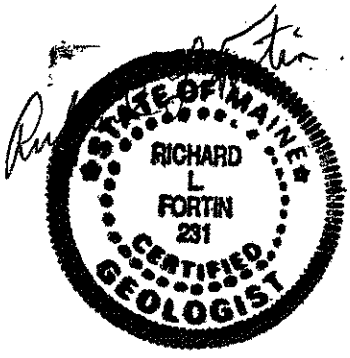

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1.0 INTRODUCTION

Drumlin Environmental, LLC (Drumlin) recently completed a Phase I Environmental Site Assessment (ESA) of the property located at 50 India Street in Portland, Maine. The report was prepared on behalf of an interested buyer of the property, India Newbury Residences LLC and was submitted in support of an application to the Maine Department of Environmental Protection (MDEP) Voluntary Response Action Program (VRAP) in October 2015. The property is identified as a 0.22-acre portion of Lot 15 on the Tax Assessor's Map 28. The property currently exists as a developed lot containing the Port City Glass building and surrounding asphalt parking area. The site and surrounding area is served by public water, public sewer and natural gas utilities.

Drumlin's Phase I ESA research found no records of a release of hazardous substances or petroleum products on the property. Any spill incidents related to the service station operations would likely have predated the time when spill records were more routinely documented by the MDEP. The building was formerly used as a service station, which appears to have operated with USTs, an auto lift, floor drain, and a structure suspected to be an oil-water separator located outside the building. Given this former, there is a potential for a past release to have occurred at the site. Drumlin's Phase I ESA considered that these former site operations represented recognized environmental conditions.

Drumlin's Phase I ESA recommended implementing a Phase II Environmental Site Investigation in order to assess the soil and soil air/vapor conditions in relation to exposure pathways and scenarios of the MDEP Remedial Action Guidelines, May 10, 2013. The Phase II Investigation report presents the findings of the explorations and sampling completed at the site and provides an evaluation of potential exposure risks with recommendations to manage these risks.

1.1 Site Description

The subject property is located on India Street near the intersection with Middle Street. A majority of the site is covered by a combination of the existing building and asphalt pavement. The area in the vicinity of the site forms the east-end urban area of Portland and includes developed properties in all directions from the site except for the undeveloped asphalt parking lot abutting the subject property on the north at 62 India Street. The surrounding land uses include residential buildings, restaurants, office buildings, food stores, coffee shop, bakery, hair salon and fishing tackle shop. The land surface at 50 India Street slopes gently to the south and southeast towards India Street and Middle Street. Surface runoff and subsurface groundwater flow is anticipated to flow generally to the south towards the Portland Harbor.

In late 2013 and early 2014, the abutting property at 62 India Street was addressed through VRAP after completion of Phase I and Phase II Environmental Site Assessments. In April 2014, the site received a No Further Action Assurance Letter from the MDEP, which provided several conditions of approval including completion of a Declaration of Environmental Covenant and Soil Management Plan.

1.2 Possible Future Use

The Phase II Site Investigation was completed to evaluate the site environmental conditions with respect to the current use and possible future use of the property. India Newbury Residences LLC is the interested buyer and anticipates developing the property along with the 62 India Street property as one project. Drumlin's understanding of the development concept is to establish multi-story building with retail shops at ground level and residential living space on the upper floors. A ground-level parking garage may also be incorporated into the building layout. The outer footprint of the building is anticipated to generally follow the property boundaries. The new building may be developed with a shallow spread-footing or pile design to support a concrete slab foundation. Given this approach, the excavation and disturbance of soil relative to exposure during construction is anticipated to be limited to shallow depths (e.g., up to 4-6 feet below ground).

2.0 CONCEPTUAL SITE MODEL

Drumlin developed a Conceptual Site Model (CSM) for the site based on our understanding of the site urban setting, historical operations, anticipated future use and results of the Phase II Site Investigation. The CSM was initially presented in the Phase II Site Investigation Work Plan submitted to VRAP on October 29, 2015.

2.1 Potential Sources

The potential sources of contamination identified at the site include:

- Former pump island and suspect USTs at two onsite locations,
- Former service station operations including the auto lift and floor drain located inside the building and oil-water separator located outside the building, and
- Urban fill deposits.

The former USTs are believed to have been removed from the site; however, a geophysical survey is proposed both inside the former service station and outside the building to assess the presence or absence of any underground tank structures. A circular metal ring is embedded in the concrete floor of the former station service bay and represents the remnant feature of a former auto lift that was reportedly removed at some time in the past according to the owner. Through the geophysical survey and visual inspection, the connectivity of the floor drain and physical features of the oil-water separator will be evaluated as potential sources. The oil-water separator has dimensions of approximately 2.7 by 3.1 feet and was recently probed to reach a hard bottom at approximately 5.6 feet deep below ground surface. The oil-water separator has approximately 2.3 feet of oil-water containing solids with 1.1 feet of liquid overlying the solid. A J-shaped pipe facing down into the water appears to be the overflow outlet for excess water that enters the oil-water separator.

2.2 Potential Contaminants of Concern

The potential Contaminants of Concern (COC) associated with the sources listed above include:

A. Petroleum constituents (e.g., primarily benzene, ethyl benzene, toluene, xylenes and lead) associated with the former service station, USTs and pump island.

B. Volatile organic constituents (i.e., solvents, cleaners, etc.) possibly associated with the former service station operations.

C. Heavy metals and hydrocarbons associated with the fill.

The chemical properties associated with these COCs are anticipated to pose a concern primarily for construction workers (short-term) in connection with future development of the site; for residents and commercial workers (i.e., shop owners/workers) as building occupants; and for maintenance and utility workers. The media of focus at the site for potential exposure routes include soil and soil air/vapor in the shallow subsurface and down to an excavation depth of approximately six feet below ground surface.

2.3 Exposure Scenarios and Exposure Pathways

Based on the MDEP guidance, Drumlin identified exposure scenarios and routes of exposure that are considered applicable at the site for posing a potential risk to receptors. The exposure scenarios of concern include the Excavation/Construction Worker, Residential and Outdoor Commercial Worker Exposure Scenarios. The routes of exposure include incidental ingestion and dermal contact with contaminated soil; inhalation of contaminants potentially associated with fugitive dust and ambient air; and, vapor intrusion into the air inside a building and subsequent breathing of contaminated indoor air. The exposure scenarios and associated pathways are presented below for the sources of concern previously identified at the depths in soil below ground surface (bgs) as described below.

Excavation/Construction Worker by:

- Incidental ingestion (eating) of contaminated soil (0-6ft, bgs),
- Incidental dermal (skin) contact with contaminated soil (0-6ft, bgs), and
- Breathing of the contaminated ambient air impacted by volatilization of contaminants from soil (0-6ft, bgs); and, by suspension of fine contaminated soil particles (i.e., fugitive dust) in air.

Outdoor (maintenance) Commercial Workers by:

- Incidental ingestion and dermal contact with shallow contaminated soil (0-2ft, bgs) and inhalation of contaminants potentially associated with fugitive dust and ambient air.

Residential Occupants and Indoor Workers (i.e., shop owners and employees) by:

- Incidental ingestion and dermal contact with shallow contaminated soil (0-2ft, bgs); inhalation of contaminants potentially associated with fugitive dust and ambient air; and, breathing of contaminated indoor air impacted by volatilization of contaminants from shallow soil (0-2ft, bgs) and subsequent vapor intrusion at building foundations.

3.0 PHASE II SITE INVESTIGATION

The Phase II Site Investigation completed at the 50 India Street site included a geophysical survey, Geoprobe borings, soil vapor probes, field screening; and, soil and soil air/vapor sampling for laboratory analysis. The locations of the investigative activities and sample points are shown in Figure 1. A summary of the Phase II investigation program and laboratory analyses is shown in Figure 2 and is described below:

1. Subcontracted with Northeast Geophysical Services of Bangor, Maine to implement a Geophysical survey using Ground Penetrating Radar (GPR) and an EM-61 Metal Detector.
2. Subcontracted with Environmental Projects, Inc. (EPI) of Auburn, Maine to advance 10 Geoprobe borings at the site. At each location, continuous soil samples were collected for field screening using a photoionization detector (PID) and MDEP SOP TS004 for oil and gasoline. EPI also installed and sealed five shallow screened PVC points in the ground to collect soil vapor samples from a depth of approximately 3-4ft, bgs.
3. Collected soil samples from the Geoprobes for subcontract laboratory analyses by Katahdin Analytical Services (Katahdin) of Scarborough, Maine. The number of soil samples submitted for lab analysis consisted of five for RCRA metals (i.e., arsenic, lead, cadmium, chromium and mercury), seven for MADEP EPH, six for MADEP VPH, two for PCBs and three for EPA Method 8260 volatile organics.
4. Collected subsurface air samples from the five soil vapor points for lab analyses consisting of Air Petroleum Hydrocarbons (APH) and volatile organic compounds (VOCs) using Method TO-15.

The details for implementation of the activities described above are presented in the following sections. Site maps showing the locations of explorations and testing and the study findings are provided along with appendixes of field data and laboratory results.

3.1 Subsurface Exploration Program

Geophysical Survey. A geophysical survey was conducted at the site by Northeast Geophysical Services using Ground Penetrating Radar (GPR) and an EM-61 Metal Detector. The purpose of the survey was to explore the subsurface conditions at the site for suspect USTs and for locating existing underground utilities. The survey was conducted outside on the east, south and west sides of the building using grid lines to record data on 5-foot spacing. Inside the building, the survey covered the area of the former service bay and suspect location of former USTs. The objective was to locate if any tank, tank grave, floor drain piping, utility piping or other infrastructure remains onsite beneath the asphalt pavement and beneath the floor of the building. The results of the Geophysical survey were used to guide and support the follow-on exploration and sampling program that was completed to assess the subsurface environmental conditions. A brief overview of the geophysical survey findings is presented below.

- No underground fuel tanks or other metal tank structures were found by the survey. No metal structure was found around the perimeter of the circular metal rim embedded in the concrete floor that represents the former auto lift location.

- The GPR signals collected in front of the building suggested the presence of a former UST excavation/backfill area.
- The GPR signals in the building traced a metal pipe leading from the floor drain to the oil-water separator located outside the front of the building. The floor drain cover was removed to confirm the pipe direction/orientation into the oil-water separator. The GPR did not show any indication of a pipe connection or other structure outside the perimeter of the oil-water separator.
- The survey identified a 3-foot wide gap within a remnant concrete slab located at the suspect former pump island. The gap is anticipated to represent the raised platform that was removed from the concrete slab of the former pump island.
- The survey identified other positive signals suggesting underground pipes/utilities extending from the building to the east towards India Street. The signals were consistent with records Drumlin obtained from the Portland Sewer Division and Portland Water District for identifying the onsite locations of the sewer and water services, and were consistent with the Dig-Safe markings for the water, sewer and natural gas lines.

A copy of the report prepared by Northeast Geophysical Services is included in Appendix A along with the local sewer and water records.

Geoprobes. Environmental Projects, Inc. was subcontracted to complete the subsurface investigation program at the site. Ten Geoprobe borings and five soil air/vapor collection points were completed at the site on October 30 and 31, 2015. The Geoprobes were identified as B-1 through B-10 (see Figure 1). Drumlin was present to provide oversight of the exploration program, conduct field screening, collect analytical samples and document the work completed. The objective of the exploration program was to characterize subsurface soil quality with respect to potential COCs located primarily within a depth of 0-6ft, bgs as follows:

- B-1 and B-2 targeted the area of the suspect former USTs located in front of the building.
- B-3 targeted the former pump island location.
- B-4 and B-5 targeted the southern property boundary to assess subsurface conditions between the onsite building and adjacent buildings.
- B-6 targeted the remnant auto lift/floor drain location inside the building.
- B-7 targeted the suspect former USTs located under the addition to the original service station building.
- B-8 targeted the oil-water separator located outside in front of the overhead bay door of the former service station.
- B-9 and B-10 were completed to collect shallow soil samples at the rear of the building.

An additional objective of the investigation was to determine the presence or absence of free product or saturated soil conditions located at the suspect source locations, which were targeted at B-1, B-2, B-3, B-6, B-7 and B-8.

The depth of the Geoprobes ranged from 16-20ft, bgs at B-1 through B-8. B-9 and B-10 were completed for the purpose of collecting 0-4ft, bgs samples at the rear of the building. Soil samples were collected continuously in the Geoprobes at 4-foot sampling intervals.

Drumlin conducted field screening in accordance with MEDEP SOP TS004. Logs showing the results of the oil (oleophilic dye testing) and photoionization detector (PID) field screening for gasoline are presented in Appendix A. Also provided in this appendix are geologic logs for the Geoprobe explorations. The findings from the field screening are discussed later in Section 3.2, Field Data Collection.

Soil Vapor Points. On October 30 and 31, 2015, shallow sampling points were installed at the site at five locations, SV-1 through SV-5, to collect soil air/vapor (see Figure 1). At each soil air/vapor collection point, EPI probed a shallow hole to a depth of approximately 4ft, bgs and installed a 0.5- or 1-foot long, slotted section of 1-inch diameter PVC. The annular space was backfilled with fine sand and a bentonite seal was placed above the sand. A depth of 3-4ft, bgs was targeted for pulling each soil air/vapor sample. A push-on cap was secured tightly over the top of the pipe at all locations. For protection at the soil air/vapor locations (SV-3, SV-4 and SV-5) located outside the building, a flush-mounted roadbox was installed.

The objectives of the SV sampling program were to characterize subsurface soil air/vapor quality with respect to potential volatile COCs located in the shallow subsurface soils at the following locations:

- SV-1 targeted the area of the former service bay at the remnant auto lift/floor drain location inside the building.
- SV-2 targeted the suspect former USTs located under the addition to the original service station building.
- SV-3 and SV-4 were completed outside the Port City Glass building to assess the present of vapors near the southern property boundary and adjacent buildings.
- SV-5 was completed to assess the presence of vapors along the sewer utility line extending from the Port City Glass building to the sewer main located along India Street.

4.0 PHASE II SITE INVESTIGATION FINDINGS

Drumlin completed the site investigation activities described previously in Section 3.0. The following sections present the investigation findings regarding the subsurface geology and environmental testing conducted at the site.

4.1 Field Data Collection

Drumlin collected various data in the field to document site conditions and to support the evaluation completed for the study. These data included field screening of soil samples for petroleum and field meter measurements collected during soil air/vapor sampling. A brief description of the field data collection activities is provided in the following paragraphs.

TS004 Field Screening. As drilling progressed at each boring location, Drumlin screened the soil in accordance with MDEP SOP TS004 to detect the potential presence or absence of gasoline and/or oil residues. The Multi RAE IR meter, calibrated to 100 ppm Isobutylene gas, was used to measure aluminum bag headspace for each sample based on a 20 gram sample size. The PID values were recorded for each soil boring on a MDEP TS004 Bag Headspace Field EDD Sheet which is included in Appendix A. TS004 Oil Shake Test (oleophilic dye containers) were also used to screen the soil samples and the results are presented on separate Field EDD sheets in Appendix A.

The field screening found a dye color change in the Oil Shake Tests for soil samples as summarized below:

- Slightly Positive (SP) detections in B-1 (4-8ft), B-2 (8-12ft), B-5(8-12ft), B-6 (4-8ft) and B-8 (4-8ft and 8-12ft).
- Positive (PO) detections in B-7 (4-8ft and 8-12ft).

These readings correspond to the locations of the oil-water separator, the auto lift/floor drain, the two suspect former UST locations and at B-5 positioned outside the building along the property boundary. All other soil samples screened by this method resulted with no detection (U).

The aluminum bag headspace testing found slightly elevated PID readings at B-1, B-2, B-5, B-7 and B-8. The detections were primarily measured in the 4-8ft, bgs and 8-12ft, bgs soil samples. A petroleum odor was observed at B-1, B-2, B-5, B-6, B-7 and B-8 at one or both of these depth sampling intervals. The PID readings were low and ranged from 0.1 to 1.1 ppm. Similar to the Oil Shake Tests, these readings correspond to the locations of the oil-water separator, the suspect former USTs and at B-5 positioned outside the building along the property boundary. All other soil samples collected during the investigation did not show elevated PID readings.

Soil Vapor Sampling. On November 2, 2015, Drumlin visited the site to collect the soil air/vapor samples. A small hole was drilled through the cap on the sampling point, a Teflon suction tubing was inserted to the depth of the slotted section and soft molded clay was used to seal around the tube penetration through the cap. A MultiRAE IR multigas meter was used to: 1) collect ambient air quality parameters prior to sample collection; and, 2) to measure the subsurface soil air/vapor prior to and subsequent to sample collection. Field measurements included O_2, CO, CO_2, lower explosive limit (LEL, as a surrogate for methane) and PID-volatiles in the soil air. Each soil air/vapor sample was collected using a 30 minute Summa canister supplied by the laboratory. The initial and final vacuums in the canister, and the start and stop times were recorded along with other field measurements. The field sampling data sheets for SV-1 through SV-5 are presented in Appendix A. The field measurements generated the following data:

- Ambient O_2 values were measured at 20.9% at all five locations.
- Ambient CO_2 values were measured in the range of 600 to 930 ppm.
- Pre-sample O_2 subsurface soil air values were measured in the range of 9.8% to 20.3%.
- Post-sample O_2 subsurface soil air values were measured in the range of 9.4% to 20.1%.

- Pre-and post-sample subsurface soil air PID values were measured at zero ppm.
- All pre-and post-sample subsurface soil air CO_2 values measured above the instrument calibration range.
- All ambient, pre-and post-sample subsurface soil air LEL values were zero.

4.2 Subsurface Geology

As stated previously, the subsurface deposits at the site are mapped as till consisting of a compact, poorly sorted, non-stratified, mixture of sand, silt, gravel and rocks. The property does not overly a mapped sand and gravel aquifer. The bedrock formation is mapped as schist and gneiss rock types.

Based on the recent explorations, fill was found at the site ranging in depths from 4-6ft, bgs in suspect former UST locations and from 2-4ft, bgs in other portions of the site. The fill varies in character from brown, gravelly sand located under the concrete slab floor of the building to a mix of sand, silt, brick and wood (i.e., urban type fill) located at varying thickness across the site. The deeper native deposits below the fill include layers of fine sand, clayey silt, and gravelly sand, silt and clay.

Bedrock was not confirmed by coring; however, refusal was encountered at 19.9ft, bgs and 18.5 ft, bgs at B-6 and B-7, respectively. The bottom portion of the Geoprobe samples obtained at refusal depth indicated a weathered rock surface.

4.3 Laboratory Analytical Data

Samples were collected from the Geoprobe borings for laboratory chemical analysis on October 30 and 31, 2015. Soil vapor samples were collected on November 2, 2015. All samples were analyzed by Katahdin Analytical Services of Scarborough, Maine. The laboratory analytical reports are presented in Appendix B. Based on our review of the Katahdin data, the following bulleted paragraphs provide a QA overview of the data.

- With respect to the air data, Katahdin reported that the LCS- WG174317-1 had a low recovery for the C9-C12 aliphatic range which was outside the method acceptance limits. However, the LCSD- WG174317-2 had a C9-C12 aliphatic range recovery was found to be within the method acceptance limits. There were no protocol deviations or observations noted by Katahdin regarding the TO-15Analyses.

- With respect to the soil samples, Katahdin reported the original (Method 8260 VOC) sample SI8722-7 and a re-analysis of the sample had high surrogate recoveries outside the laboratory's acceptable limits. Bromomethane was detected in the methanol blank (WG173895-6) above the MDL, but below the PQL. The laboratory reported no corrective action was needed.

- MA VPH samples SI8722-2, SI8722-8 and their re-analyses had high surrogate recoveries. Sample SI8722-6 and a re-analysis of the sample had low surrogate

recoveries. Katahdin reported matrix interference effects with respect to these analyses; however, no corrective action was indicated by the laboratory.

The results of analyses are tabulated in Tables 1 through 4. The tables include MDEP Remediation Guidelines (RAGs) for Sites Contaminated with Hazardous Substances (RAG Tables 1 and 2). The soil RAGs are presented for the Excavation/Construction Worker, Leaching to Groundwater, Residential and Outdoor Commercial Worker exposure scenarios. Also included in Table 1 are the available background soil concentrations for Urban Fill soil. Soil gas targets (SGTs) are presented as 10x the indoor air RAGs for purposes of evaluating vapor intrusion from contaminated soil into an occupied building. The indoor air exposure pathways include Residential and Commercial exposure scenarios. The findings developed from the sampling program are presented below.

Summary. An overview of the significant findings from the laboratory analytical data is provided as follows:

1. Drumlin collected soil samples for RCRA metals (i.e., arsenic, lead, cadmium, chromium and mercury), volatile organics, PCBs and MADEP EPH/VPH lab analyses. Soil air/vapor samples were collected for Air Petroleum Hydrocarbons (APH) and VOCs using Method TO-15.

2. In Table 1, the MADEP EPH/VPH analyses for soil samples collected at B-1 (2ft & 4 ft), B-6 (4ft) and B-7 (4ft) were reported with a few hydrocarbon detections (Table 1, highlighted in dark gray) above the MDEP Soil RAGs for the Residential and Outdoor Commercial Worker exposure scenarios. The hydrocarbons showing an exceedance included C11-C22 aromatics, benzo(a) anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene. None of these values exceeded the MDEP Soil RAGs for the Excavation/Construction Worker exposure scenario.

   For the soil samples collected at B-2 (5ft), B-3 (6ft), B-4 (1.5ft), B-5 (9.5ft) and B-8 (4ft), none of the MADEP EPH and/or VPH analyses were reported with detections above the MDEP Soil RAGs for the Excavation/Construction Worker, Residential and Outdoor Commercial Worker exposure scenarios. At B-2, B-5 and B-8, the soil detections for a few hydrocarbons exceeded the "Leaching to Groundwater" RAGs and/or exceeded available soil Urban Fill background concentrations (Table 1, highlighted in light gray).

3. In Table 2, arsenic, which ranged from 8.8 to 17.4 mg/kg, exceeded the Soil RAG for Residential (1.4 mg/kg) and Outdoor Commercial Worker (4.2 mg/kg) exposure scenarios at all sample locations collected from depths ranging from 1-4ft, bgs.

   Cadmium detected at B-3 (1ft) at 74.8 mg/kg exceeded the Soil RAG for the Excavation/Construction Worker (19 mg/kg) and Residential (11 mg/kg) exposure scenarios.

Lead, which ranged from 390 and 745 mg/kg, exceeded the Soil RAG for Residential (340 mg/kg) exposure scenarios at B-1 (2ft), B-7 (2ft) and B-9 (1.5ft).

4. In Table 3, no detections were found above the MDEP Soil RAGs for the Excavation/Construction Worker, Residential and Outdoor Commercial Worker exposure scenarios. Naphthalene was detected at 1.9 mg/kg in the soil sample collected at B-6 (4ft) above the Soil RAG of 1.7 mg/kg for the Leaching to Groundwater exposure scenario. Naphthalene also exceeded the soil Urban Fill Background value of 0.82 mg/kg.

   Analytical testing for PCBs in samples B-6 (4ft) and B-7 (2ft), located beneath the floor of the former service station, did not detect any PCB Arochlors.

5. In Table 4, none of the soil air/vapor samples exceeded the individual Air Rags x10 Soil Gas Targets for the APH and VOC compounds. Low-level concentrations of C-chain aliphatics and/or aromatics; and, low-level concentrations of benzene, toluene, ethylbenzene and xylenes were reported in all samples. Low concentrations of trichloroethene and/or tetrachloroethene were reported in samples SV-1, SV-3, SV-4 and SV-5.

The RAGs address human exposure scenarios for individual contaminants. Cumulative risk can also be considered to evaluate the significance of multiple contaminants by using the MDEP's Risk Calculator spreadsheet. Drumlin entered the site soil data and soil air/vapor data into the soil and soil vapor Risk Calculator spreadsheets to further evaluate the exposure scenarios (see Appendix C). A potential cumulative risk is calculated if the Incremental Lifetime Cancer Risk (ILCR) is greater than 1 in 100,000, or the Hazard Index is greater than 1.0 by target organ. An overview of the potential cumulative risks identified with the Risk Calculator using the soil and soil air/vapor data is summarized below:

1. The ILCR for Residential and/or Outdoor Commercial Worker exposure scenarios was exceeded for arsenic and benzo(a)pyrene in soil. Additional compounds, dibenzo(a,h)anthracene, benzo(a) anthracene, benzo(a)pyrene and benzo(b)fluoranthene were also exceeded in soil at B-6 (4ft).

2. The Hazard Quotient of 1.0 (for a single compound) for Residential and Excavation/Construction Worker exposure scenarios was exceeded for cadmium in soil.

3. The soil air/vapor samples did not exceed the individual Air Rags x10 Soil Gas Targets for the APH and VOC compounds. Based on the Risk Calculator cumulative risk analysis, SV-3 exceeded the Chronic and Subchronic Hazard Index of 1.0 for the Residential exposure scenario and SV-4 exceeded the ILCR, Chronic Residential exposure scenario.

5.0 DISCUSSION AND CONCLUSIONS

The Phase II Site Investigation was completed to evaluate the site environmental conditions with respect to the current use and possible future use of the property. The report was prepared on behalf of an interested buyer of the property, India Newbury Residences LLC. The buyer is interested in developing the property into a multi-story building consisting of retail shops and parking garage at ground level and residential living space on the upper floors. The new building may be developed with a shallow spread-footing or pile design to support the concrete slab foundation. Given this approach, the excavation and disturbance of soil during construction is anticipated to be limited to relatively shallow depths (e.g., from 0-6ft, bgs). The Phase II Site investigation was focused primarily on identifying the nature of subsurface soil and soil air/vapor contamination located within this depth profile.

The site setting, field and laboratory analyses of soil and soil air/vapor conditions were evaluated by Drumlin in comparison to the MDEP RAGs for the Excavation/Construction Worker, Residential and Outdoor Commercial Worker exposure scenarios. The Leaching to Groundwater RAGs and available Urban Fill Background concentrations are also included in the data tables for completeness. Since the site is considered unsuitable as a drinking water source and meets the MDEP's criteria for an urban groundwater non-attainment area, the Leaching to Groundwater exposure scenario is not directly applicable to the site. There is no active use of groundwater at or near the site and none is likely to occur in the future since public water is available.

The study provided the following site characterization and conclusions.

1. The 50 India Street property currently exists as a small, urban parcel of land used by the current owner as Port City Glass. The site and surrounding area are served by public water, public sewer and natural gas utilities. Historically, a service station with USTs was present on the property. An asphalt parking lot borders on the north side of the subject site at 62 India Street. Historical activities on this adjacent site included a garage/service station with USTs. In 2014, this site received a No Further Action Assurance Letter from the MDEP, which provided several conditions of approval including completion of a Declaration of Environmental Covenant and Soil Management Plan.

2. The CSM developed for the site identified several possible historical sources of contamination related to the former service station operations including the remnant auto lift, floor drain, oil-water separator and former presence of USTs and associated pump island. The COCs found at the site include constituents derived from petroleum products, auto service/ solvent cleaning products, and metal/hydrocarbon residues potentially associated with urban fill.

3. Drumlin identified exposure scenarios and routes of exposure that are considered applicable at the site regarding potential risk to receptors. The exposure scenarios of concern include the Excavation/Construction Worker, Residential and Outdoor Commercial Worker exposure scenarios. The routes of exposure include incidental

ingestion and dermal contact with contaminated soil; inhalation of contaminants potentially associated with fugitive dust and ambient air; and, vapor intrusion into the air inside a building and subsequent breathing of contaminated indoor air.

4. One or more RAGs for the Excavation/Construction Worker, Residential and Outdoor Commercial Worker exposure scenarios were exceeded in the shallow (1.5-4ft, bgs) subsurface soil samples. The primary COCs detected above the RAGs include metals (i.e., arsenic, cadmium and lead), C11-C22 aromatics; and, EPH compounds (i.e., benzo(a) anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene). Several of these compounds were also found to pose a cumulative ILCR for the Residential and/or Outdoor Commercial Worker exposure scenarios.

5. The soil air/vapor samples did not exceed the individual Air Rags x10 Soil Gas Targets for the APH and VOC compounds. However, the low concentrations detected at SV-3 and SV-4 could pose a risk to the Residential exposure scenario due to the cumulative effects of the multiple contaminants detected at these sample locations.

Based on the Phase I ESA research, the service station discontinued operations and USTs appear to have been removed from this site in the 1960s. While some EPH residues of petroleum still remain in the shallow subsurface soil environment, most of the volatile fractions of petroleum and other volatile chemical compounds appear to have dissipated over time through natural attenuation and degradation processes. Exposure to the EPH residues and heavy metals remaining in soil, and exposure to low concentration volatiles could occur through incidental ingestion, dermal contact and inhalation if contaminants are disturbed. However, the risk of such exposure can be mitigated through engineering controls and prudent soil management practices.

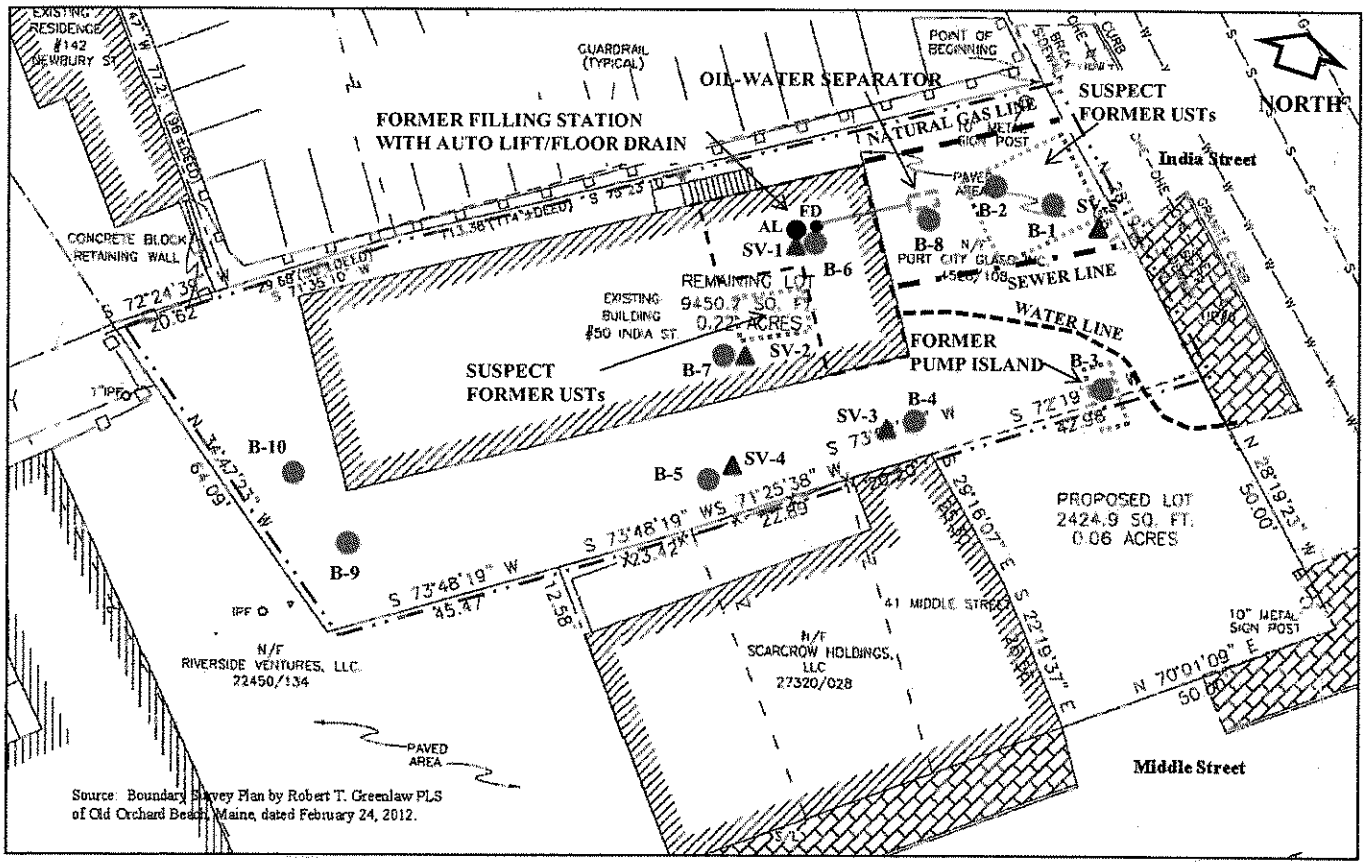
6.0 RECOMMENDATIONS

Based on the investigation findings and conclusions developed from the Phase II Site Investigation, Drumlin makes the following recommendations:

- Re-development of the site will necessitate the removal of the remnant auto lift structure that may remain in the ground and removal of the floor drain/oil-water separator infrastructure and contents along with proper management of impacted soils with oversight provided by an environmental professional.

- The construction of a new building at the site should include a sub-slab depressurization system or soil venting system associated with the foundation in order to prevent future indoor air from being impacted by the intrusion of contaminated soil vapors. The venting system will eliminate the Residential and Indoor Worker exposure scenario for future occupants in the building.

- A Soil Management Plan (SMP) should be developed to mitigate the potential for Excavation/Construction Worker, Residential and Outdoor Commercial Worker exposure scenarios. The SMP would be used to guide soil disturbance that occurs with site excavation/construction activities and with future post-development uses of the site by indoor residents, indoor workers and with outside landscaping, gardening or maintenance activities.



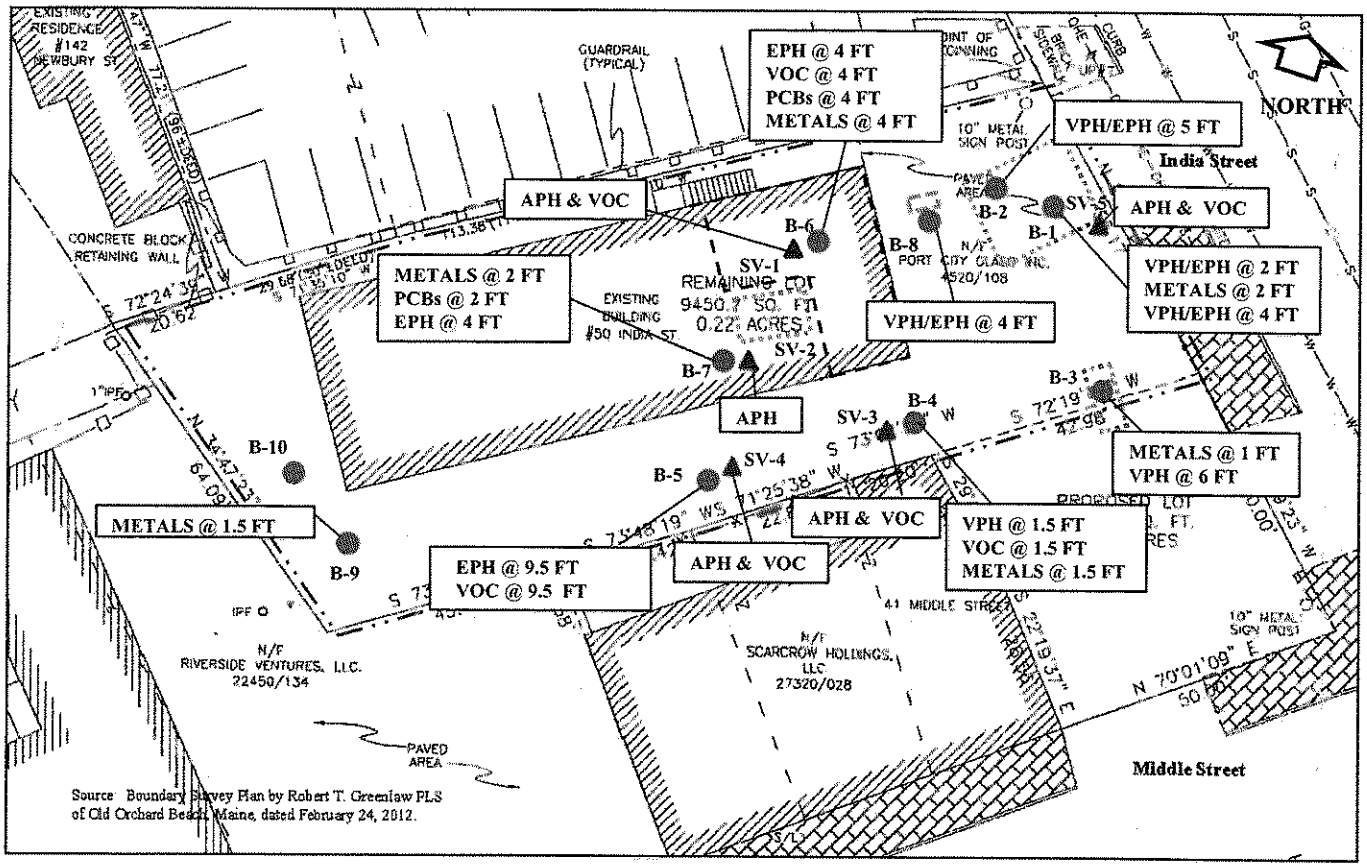
Source: Boundary Survey Plan by Robert T. Greenlaw PLS of Old Orchard Beach, Maine, dated February 24, 2012.

EXPLANATION

- B=GEOPROBE SOIL BORING AND SOIL SAMPLE LOCATIONS
- SV=SOILVAPOR SAMPLE LOCATIONS

NOTE: U/G UTILITY LINE LOCATIONS ARE APPROXIMATE

FIGURE 1
PHASE II EXPLORATIONS PLAN
50 INDIA STREET SITE
DRUMLIN ENVIRONMENTAL, LLC



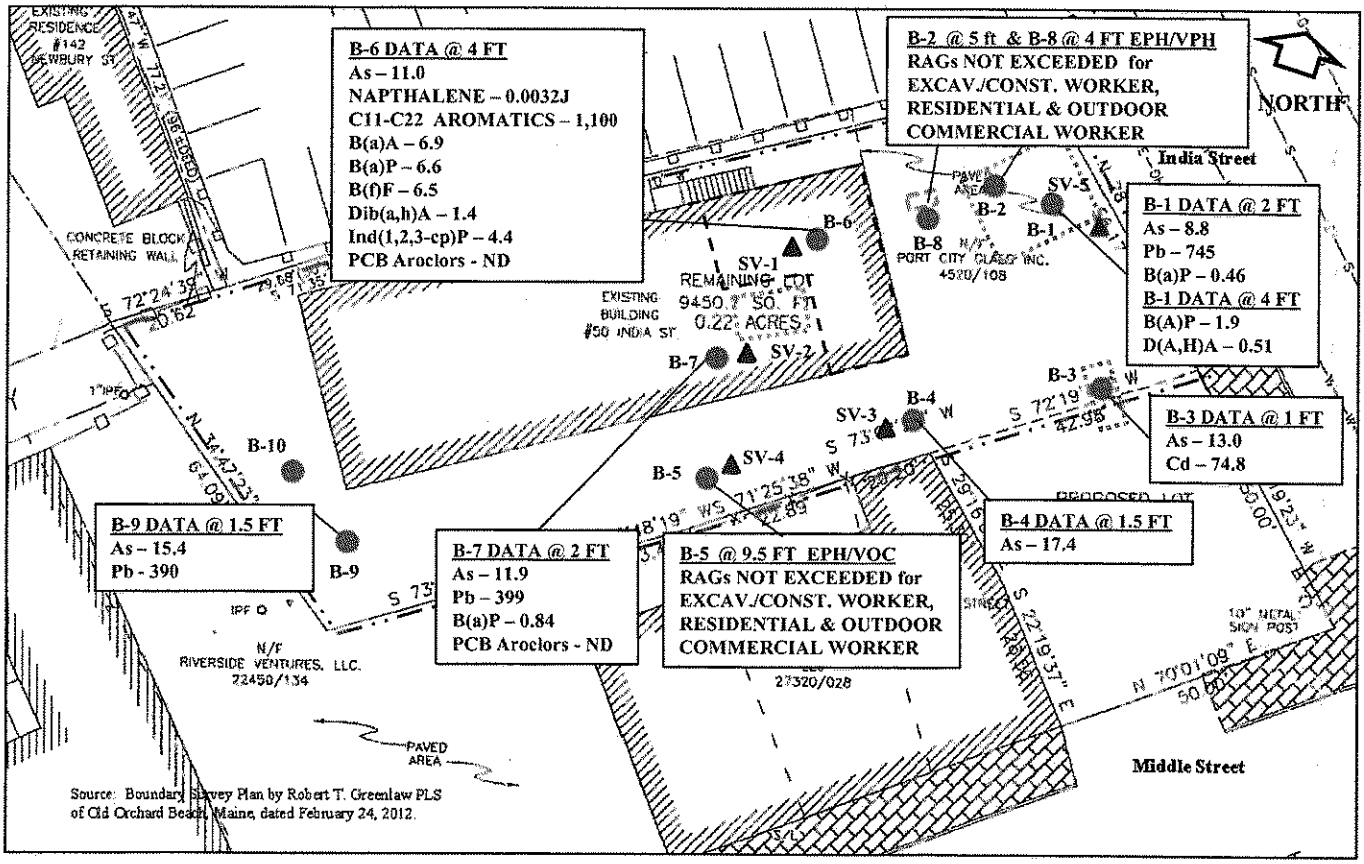
EXPLANATION

- B=GEOPROBE SOIL BORING AND SOIL SAMPLE LOCATIONS
- SV=SOILVAPOR SAMPLE LOCATIONS

0' 20' 40' 60'

Approximate Scale

FIGURE 2
PHASE II SAMPLING PROGRAM
50 INDIA STREET SITE
DRUMLIN ENVIRONMENTAL, LLC



EXPLANATION

● ANALYTICAL RESULTS (mg/kg) ABOVE SOIL RAGs for EXCAV./CONST. WORKER, RESIDENTIAL and/or OUTDOOR COMMERCIAL WORKER EXPOSURE SCENARIOS

0' 20' 40' 60'

Approximate Scale

FIGURE 3
PHASE II SOIL ANALYTICAL DATA
50 INDIA STREET SITE
DRUMLIN ENVIRONMENTAL, LLC

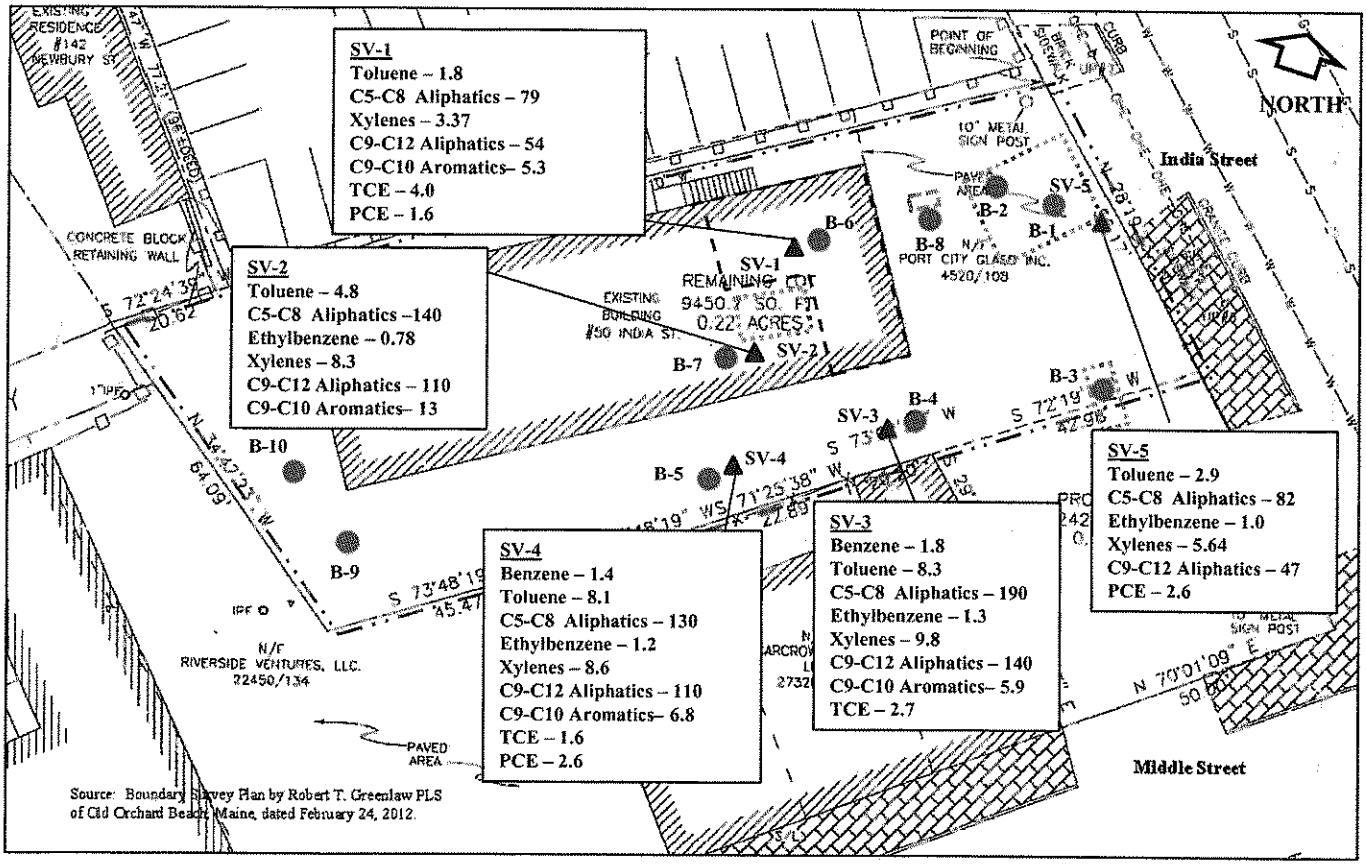


FIGURE 4
PHASE II SOIL AIR/VAPOR ANALYTICAL DATA
50 INDIA STREET SITE
DRUMLIN ENVIRONMENTAL, LLC