**PRELIMINARY ASSESSMENT REPORT**

 **FOR**

**HILLSIDE CLEANERS (REM#01886)
148 FRENCH STREET**

 **BANGOR, MAINE**

 EPA ID NO. MEN000153605

 PRELIMINARY ASSESSMENT

 Prepared for:

 U.S. Environmental Protection Agency

 Region I

 Superfund and Emergency Management Division

 Boston, MA 02109-3912

Submitted May 16th 2023 by the Maine DEP:

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Environmental Protection Agency

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|  |  |  |  |
| Christopher Redmond, Project Manager, Maine DEP |  | Date |  |

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# 1.0 INTRODUCTION

The U.S. Environmental Protection Agency (EPA) requested that the Maine Department of Environmental Protection (MEDEP) perform a Preliminary Assessment (PA) of the Hillside Cleaners property, located in Bangor, Maine. This work was performed under Contract No. EP-S1-11-03. Tasks were conducted in accordance with the PA scope of work provided by EPA. A Site Discovery (SD) report for the Hillside Cleaners was prepared by ME DEP on November 1, 2018. On the basis of the information provided in the SD report, the Hillside Cleaners PA was initiated.

Background information used in the generation of this report was obtained through file searches conducted at EPA, ME DEP, telephone interviews with town officials, conversations with persons knowledgeable of the Hillside Cleaners, and conversations with other Federal, State, and local agencies.

This report follows the guidelines developed under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended, commonly referred to as Superfund. However, these documents do not necessarily fulfill the requirements of other EPA Region I regulations such as those under the Resource Conservation and Recovery Act (RCRA) or other Federal, State, or local regulations. PAs are intended to provide a preliminary screening of sites to facilitate EPA Region I’s assignment of site priorities. They are limited efforts and are not intended to supersede more detailed investigations.

# 2.0 SITE DESCRIPTION

The subject property is an approximately 0.04-acre property and is developed with a 1,650-square foot commercial building located at 148 French Street in the City of Bangor, Maine. Information obtained from the City of Bangor Assessor's Department indicated that the tax assessment parcel number for the subject property is Tax Map 49 Lot 31.

The subject property is developed with one commercial structure. Since 2008, the Site has been developed with commercial space on the first floor (currently a photography studio) and three residential rental units on the first and second floors. The residential units are reportedly not occupied but are utilized by the photo studio. The Site does not include any area beyond the footprint of the on-site structure.

The adjacent property, at 55 and 61 State Street, is currently developed as a mix of commercial and residential usage. The bottom level and basement are occupied by a pawn shop at 55 State, and residential at 61 State. The indoor air impacts were also assessed in this area.

The area surrounding the site is primarily commercial usage.

# 3.0 OPERATIONAL AND REGULATORY HISTORY

Historical records reviewed, and information provided by the City of Bangor indicate that the Site was initially developed prior to 1884 with a commercial structure identified as a carpenter and paint shops. The Site was identified as a dry-cleaning facility from 1949 until 1998 when the Site was renovated as a dance school. The Site was operated as a dance school until 2008 when a tattoo parlor opened that was subsequently replaced by the current photography studio.

According to the files reviewed, a 5,000-gallon underground storage tank (UST) containing a “chemical” was located beneath the concrete slab of the southern portion of the on-site structure. A notification form from 1991 indicated that the UST was filled with concrete and abandoned in place. In 2009, as part of the MEDEP Dry Cleaner Initiative, MEDEP personnel collected two soil vapor samples from beneath the concrete floor of the basement of the on-site structure. Evidence of chlorinated solvents were identified in both of the soil vapor samples collected at the Site. Based on the historic operation of the Site as a dry-cleaning facility, the detections of chlorinated solvents in the soil vapor and the lack of information pertaining to the UST (prior to being abandoned in place), residual hazardous substances have been documented at the Site.

According to the files reviewed, a 1,000-gallon UST containing #2 fuel oil and a 275-gallon UST containing #2 fuel oil were located beneath the concrete slab of the southern portion of the on-site structure. A notification form from 1991 indicated that the USTs were filled with concrete and abandoned in place. Based on the lack of information pertaining to the USTs (prior to being abandoned in place), residual petroleum products may remain on the Site.

Based on the historical usage of the property as a dry cleaner, as well as information and analytical data obtained from the MEDEP in 2018 and environmental database records, there is the potential that tetrachloroethene (also referred to as perchloroethylene [PCE]) and trichloroethylene (TCE) may have been released to the environment. Released concentrations of chlorinated solvents, mainly PCE and TCE, in soil or groundwater may impose health risks in indoor air environments. If PCE or other dry cleaning volatile organic compounds (VOCs) were historically released to the environment at the dry cleaner property, vapors could volatilize and migrate from the property along utility corridors and subsequently migrate into neighboring buildings. Chemicals volatilize from impacted soil and or groundwater beneath a building and diffuse toward regions of lower chemical concentration (like the ambient atmosphere, utility conduits, or basements). Soil gas can flow into a building due to several factors, including barometric pressure changes (advection), wind load, thermal currents, temperature changes, or depressurization from building exhaust fans. Figure 3 illustrates the relationships among the elements of the Conceptual Site Model (CSM) for the Site, including the sources, release mechanisms, pathways, and receptors.

Method of Release:

The specific nature of the potential releases at this site including location, quantity, or release mechanism are unknown at this time. Generally, releases at the dry cleaners occur by spillage, leaking containers, leaking machinery, improper disposal of waste, discharge to leaky holding tanks or public sewers, or condensation from vents.

**TABLE 1**

**CONCEPTUAL SITE MODEL**

|  |
| --- |
| **CONCEPTUAL SITE MODEL SUMMARY** |
| POSSIBLE SOURCE AREAS | Site-wide Considerations |
| CONTAMINANTS OF CONCERN | Soil* Extractable Petroleum Hydrocarbons (EPH)
* Volatile Petroleum Hydrocarbons (VPH)
* Volatile Organic Compounds (VOCs)

Groundwater* Extractable Petroleum Hydrocarbons (EPH)
* Volatile Petroleum Hydrocarbons (VPH)
* Volatile Organic Compounds (VOCs)

Soil Gas* Air Petroleum Hydrocarbons (APH)
* VOCs
* TCE
* PERC
 |
| POTENTIAL MEDIA AFFECTED | Soil, Groundwater, and Soil Vapor |
| POTENTIAL EXPOSURE ROUTES | Exposure pathways for contamination in soil: * Direct contact for site workers
* Inhalation of fugitive emissions (dust) during site use

Exposure pathways for contamination in groundwater* Direct contact for site workers

Exposure pathways for contamination in soil gas* Inhalation of impacted soil gas
 |
| POTENTIAL MIGRATION PATHWAYS | Migration pathways for contaminants:* Wind transport of dust (if impacted).
* Groundwater transport (if impacted).
* Vapor transport (if impacted).
 |
| RECEPTORS | For soil, soil gas, and groundwater, potential receptors include site workers during excavation/site work.For soil, potential receptors include future site occupants if impacted surficial soil is discovered.For soil vapor, potential receptors include future site occupants, if impacted soil gas is discovered. |

Table 1 summarizes structures or areas at Hillside Cleaners that are documented or potential sources of contamination, the containment factors associated with each source, and the relative location of each source.

**Table 2**

**Source Evaluation for Hillside Cleaners**

|  |  |  |
| --- | --- | --- |
| Source Area | Contaminant Factors | Spatial Location |
| Dry Cleaning Machines | Unknown | Interior of building |
| Dry Cleaning Solvents Storage | UST | Beneath building |
| Petroleum | UST | Beneath building |

# 4.0 GROUNDWATER MIGRATION PATHWAY

Based on a review of the Surficial Geology of the Bangor Quadrangle, Maine Map (J. Michael Clinch and Woodrow B. Thompson, 1999), the property is underlain by the till. Till is comprised of loose to very compact, poorly sorted, massive to weakly stratified mixture of sand, silt, and gravel-sized rock debris deposited by glacial ice.

Based on a review of the Bedrock Geology of the Bangor Quadrangle, Maine (Stephen J. Pollock, 200), the Site is underlain by the Penobscot River Member. This formation is comprised of Silurian-aged medium gray to dark gray, medium-grained to very fine-grained feldspathic metawacke.

Based on a review of the Significant Sand and Gravel Aquifers of the Bangor Quadrangle, Maine (Lauren E. Foster and Troy T. Smith, 2008), the Site is not located on a significant sand and gravel aquifer.

Public Water Supply Map and Groundwater Use: The Maine Department of Health and Human Services water supply database was reviewed. The Site is not within a source water protection area or the wellhead protection area of a public water supply well.

**Table 3** summarizes the public groundwater supply sources within 4-radial miles of the Hillside Dry Cleaning.

**Table 3**

**Public Groundwater Supply Sources Within 4-Radial Miles of Hillside Dry Cleaning**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Distance/Direction from Site | Source Name | Location of Sourcea | Estimated Population Served | Source Typeb |
| 1-2 miles | Oak Grove Spring Water Company | Brewer | 0 | Overburden, 26 ft |
| 2-3 miles | R&K Mobile Home Park Well A | Brewer | 145 | Bedrock, 225 ft |
| 2-3 miles | R&K Mobile Home Park Well B | Brewer | 145 | Bedrock, 185 ft |
| 2-3 miles | Evergreen Mobile Home Park | Brewer | 25 | Bedrock, 65’ |
| 3-4 miles | Rocky Knoll Country Club | Orrington | 25 | Bedrock, 145 ft |
| 3-4 miles | Pine Cone Mobile Homs | Holden | 218 | Bedrock, 300 ft |
| 3-4 miles | Pine Cone Mobile Homs | Holden | 44 | Bedrock, 110 ft |
| 3-4 miles | Tradition Golf Club | Holden | 180 | Bedrock, 260 ft |
| 3-4 miles | Sun Cedar Haven LLC #3B | Holden | 395 | Bedrock, 405 ft |
| 3-4 miles | Sun Cedar Haven LLC #2 | Holden | 395 | Bedrock, 300 ft |
| 3-4 miles | Sun Cedar Haven LLC #5 | Holden | 395 | Overburden, 45 ft |
| 3-4 miles | Sun Cedar Haven LLC #6 | Holden | 395 | Bedrock, 240 ft |
| 3-4 miles | Sun Cedar Haven LLC #4 | Holden | 395 | Overburden, 85 ft |
| 3-4 miles | Sun Cedar Haven LLC #3A | Holden | 395 | Overburden, 135’ |

# 5.0 SURFACE WATER MIGRATION PATHWAY

There is no surface water on the site. The highest portion of the Site is along the eastern property boundary and Surface drainage from the Site generally flows from east to west. The closest surface water to the site is the Kenduskeag Stream which flows approximately ¼ mile where it merges with the Penobscot River which then flows to the Atlantic Ocean. There are no known sensitive environments or wetland frontage along the 15-mile downstream pathway.

**Table 4** summarizes the surface water body characteristics located along the 15-mile downstream pathway.

**Table 4**

**Surface Water Bodies Along the 15-Mile Downstream Pathway from Hillside Cleaners**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| SurfaceWater Body | Descriptora | Length of Reach | Flow Characteristics (cfs)b | Length of WetlandFrontage(miles) |
| Kenduskeag Stream | Small stream | ~ 1/4 mile | Unknown | None |
| Penobscot River | River | 15+ miles | Unknown | None |

a Small to moderate stream 10-100 cfs. Moderate to large stream >100-1,000 cfs.

b Cubic feet per second.

# 6.0 SOIL EXPOSURE PATHWAY

If PCE or other dry cleaning volatile organic compounds (VOCs) were historically released to the environment at the dry cleaner property, vapors could volatilize and migrate from the property along utility corridors and subsequently migrate into neighboring buildings. Chemicals volatilize from impacted soil and or groundwater beneath a building and diffuse toward regions of lower chemical concentration (like the ambient atmosphere, utility conduits, or basements). Soil gas can flow into a building due to several factors, including barometric pressure changes (advection), wind load, thermal currents, temperature changes, or depressurization from building exhaust fans. Table 1 illustrates the relationships among the elements of the CSM for the Site, including the sources, release mechanisms, pathways, and receptors.

## 6.1 SOIL VAPOR PATHWAY SAMPLE LOCATIONS

Soil Vapor Sampling

The soil vapor sample was collected by drilling a hole through the pavement within the utility corridor for the drinking water and natural gas then inserting a pore water sampler into the ground to a depth of 3 feet below ground surface (bgs). Beacon then connected ¼” Teflon tubing and the tooling was sealed with bentonite at the top and at the ground surface. Prior to connect the tubing, ambient samples were collected in the area of the SUMMA canister using an Eagle Four Gas Meter and a MiniRae PPB PID. Once this tubing was connected, Beacon took PID readings using a MiniRae PPB PID and oxygen, carbon dioxide, and lower explosive limit (LEL) readings with an Eagle Four-Gas Meter to evaluate whether the seal was effectively isolating ambient air from sub-slab vapor. Beacon then connected one 2.7-liter SUMMA canister with a 30-minute flow controller at the location.

Soil vapor was sampled from SV-01 and submitted them to Alpha of Mansfield, Massachusetts for analysis of VOCs by TO-15 and petroleum hydrocarbons by APH.

Sub Slab Soil Vapor Sampling

Beacon utilized a hammer drill to penetrate the concrete slab within 148 French Street and 65 State Street. Beacon then inserted ¼” Teflon tubing and the hole was sealed with modeling clay. Once this tubing was connected, Beacon took PID readings using a MiniRae PPB PID and oxygen, carbon dioxide, and lower explosive limit (LEL) readings with an Eagle Four-Gas Meter to evaluate whether the seal was effectively isolating ambient air from sub-slab vapor. For the samples within 65 State Street and the basement of 148 French Street, Beacon connected one 2.7-liter SUMMA canister with a 30-minute flow controller. For the sample within the bathroom of 148 French Street, Beacon then connected two 2.7-liter SUMMA canisters connected by a splitter to two 30-minute flow controller.

Sub slab soil vapor was sampled from the bathroom of 148 French Street and labeled SSV-01 with a duplicate labeled SSV-05, from the basement of 148 French Street and labeled SSV-02, from a bedroom closet in 65 State Street and labeled SSV-03, and from the basement of 65 State Street and labeled SSV-04 and submitted them to Alpha of Mansfield, Massachusetts for analysis of VOCs by TO-15 and petroleum hydrocarbons by APH.

**Table 5**

**Soil Vapor and Sub Slab Air Sample Summary Hillside Cleaners**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sample ID** | **Sample Location** | **Sample Depth** | **Sample Description** |
| SV-01 | N of building | 3’ | 153 ppbv, within water & natural gas utility corridors |
| SSV-01 | Sub slab in 148 French Street bathroom | 8” | 195000 ppbv |
| SSV-02 | Subslab in 148 French Street basement | 8” | 452000 ppbv  |
| SSV-03 | Sub slab in 165 State Street bedroom closet | 8” | 310000 ppbv |
| SSV-04 | Sub slab in 165 State Street basement | 8” | 315000 ppbv |
| SSV-05 | Sub slab in 148 French Street bathroom | 8” | 195000 ppbv- duplicate of SSV-101 |

## 6.2 SOIL VAPOR PATHWAY ANALYTICAL RESULTS

Sub Slab Soil Vapor

Sample results from the sub slab soil vapor locations reported concentrations for VOCs. The samples were sub slab soil vapor samples, therefore; the MEDEP Indoor Air Remedial Action Guidelines (RAGs) are not directly comparable. As such, the MEDEP has approved guidance to divide the MERAGs by 0.03 before comparing the results to the RAGs. Applying this attenuation factor to the reported results, the results from SSV-02 (basement of 148 French Street) were elevated above both the residential and commercial RAGs for tetrachloroethylene and trichloroethylene, the results from SSV-04 (basement of 65 State Street) were elevated above the residential RAGs for chloroform and trichloroethylene, the results from SSV-01, and its duplicate SSV-05, (bathroom of 148 French Street) and SSV-03 (bedroom closet within 65 State Street) were below the guidance concentrations for Residential and Commercial Scenarios. See **Table 6** for sub slab soil vapor analytical results.

Soil Vapor

Sample results from all of the soil vapor locations reported concentrations for VOCs. The samples were soil vapor samples, therefore; the MEDEP Indoor Air Remedial Action Guidelines (RAGs) are not directly comparable. As such, the MEDEP has approved guidance to divide the MERAGs by 0.03 before comparing the results to the RAGs. Applying this attenuation factor to the reported results, the results were below the guidance concentrations for Residential and Commercial Scenarios. See **Table 7** for soil vapor analytical results.

## 6.3 ATTRIBUTION AND SOIL VAPOR PATHWAY RECEPTORS

Sub slab soil vapor reported tetrachloroethylene and trichloroethylene, potentially due to past releases of dry-cleaning compounds within the building or on the property and were elevated above indoor air residential guidelines after the attenuation factor was applied.

Soil vapor samples reported tetrachloroethylene, potentially due to past releases of dry-cleaning compounds within the building or on the property but were below indoor air guidelines after the attenuation factor was applied.

## 6.4 SOIL VAPOR PATHWAY SAMPLE LOCATIONS (2023)

Sub Slab Vapor Mitigation Air Sampling

JTC sampled an exterior exhaust vent located on the north side of the building on March 27th, 2023. A ¼” Teflon tube was inserted into the vent and connected to a 1.4-liter SUMMA canister with a 15-minute flow controller. Prior to air sampling, ambient air samples were collected within the vent using a Four-Gas Meter and a MiniRae PPM PID. Sub slab air was sampled from an exterior exhaust vent which leads from below the Hair Salons basement slab at 148 French Street. The air sample was labeled as AS-5.

The sub slab air sample was shipped to Phoenix Laboratories in Manchester, CT under Chain of Custody. The air samples were analyzed for TO-15 SIM Method ONLY reporting for Tetrachloroethene (PERC) and Trichloroethene (TCE). PERC and TCE detections can be viewed in Table 11.

## 6.5 SOIL VAPOR PATHWAY ANALYTICAL RESULTS (2023)

Sub Slab Air Mitigation System

Sample results from the sub slab air mitigation system location reported elevated concentrations for Tetrachloroethene (PERC) and Trichloroethene (TCE). The sample was a sub slab soil vapor sample, therefore; the MEDEP Indoor Air Remedial Action Guidelines (RAGs) are not directly comparable. As such, the MEDEP has approved guidance to divide the MERAGs by 0.03 before comparing the results to the Remedial Action Guidelines (RAGs). Applying this attenuation factor to the reported results, the results from AS-5 (exterior exhaust vent) were not above the residential and commercial RAGs for tetrachloroethylene and trichloroethylene. See **Table 9** for sub slab air analytical results.

|  |  |  |  |
| --- | --- | --- | --- |
| **Sample ID** | **Sample Location** | **PERC Detections** | **TCE Detections** |
| AS-5 | Exterior vent, North side of building at 148 French St. | 1,360 µg/m3 | 62.8 µg/m3 |

# 7.0 AIR MIGRATION PATHWAY

Due to the nature of this site and the potential contamination, air migration pathways were considered a significant risk and therefore were investigated with indoor air sampling at the lowest levels of the subject site, and adjoining property. There are no known sensitive environments within a 4-mile radius that are suspected to be influenced by potential contamination of this site.

**Table 8** summarizes the estimated population within 4-radial miles of Hillside Dry Cleaning.

**Table 8**

**Estimated Population Within 4-Radial Miles of Hillside Cleaners**

|  |  |
| --- | --- |
| Radial Distance from Hillside Cleaners (miles) | Estimated Population |
| On Site |  | 0 |
| > 0.00 to 0.25 |  | 580 |
| > 0.25 to 0.50 |  | 1688 |
| > 0.50 to 1.00 |  | 8,650 |
| > 1.00 to 2.00 |  | 10,488 |
| > 2.00 to 3.00 |  | 28,566 |
| > 3.00 to 4.00 |  | 18,898 |
| TOTAL |  | 68,870 |

# 7.1 Indoor air pathway sAMPLE LOCATIONS (2023)

Indoor Air Sampling

Following Beacon’s soil vapor sampling event, John Turner Consulting (JTC) was contracted to collect four indoor air samples, including one duplicate sample on March 27th, 2023. These samples were collected after the installation of a vapor system in the Site building in late 2022. The four indoor air samples were collected using individually certified 24-hour regulator SUMMA cannisters. Indoor air samples were collected in the basement area of each unit (3 units total). Prior to air sampling, ambient air samples were collected in the area of the SUMMA canisters using a Four-Gas Meter and a MiniRae PPM PID. JTC then connected one 6.0-liter SUMMA canisters with a 24-hour flow controller at each location. Indoor air samples were collected at least 3-feet above the floor and remained undisturbed for a twenty-four-hour sampling period.

Indoor air samples were collected at from the middle residential dwelling basement (AS-1), O. Frati Pawn Shop & Jewelers basement (AS-2), and the photography studio basement (AS-3). The duplicate indoor air sample was set up in the Hair Salon basement (AS-4). PERC and TCE detections can be viewed in Table 11.

# 7.2 Indoor air pathway analytical results (2023)

Indoor Air

Sample results from the indoor air locations reported low levels of Tetrachloroethene (PERC) and Trichloroethene (TCE) came back as not detected. The samples were compared to the MEDEP Indoor Air RAGs. Comparing the RAGs to the reported results, all indoor air results were below the guidance concentrations for Residential and Commercial Scenarios. See **Table 10** for indoor air analytical results.

**Table 11**

**Indoor Air and Sub Slab Air Sample Summary Hillside Cleaners**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sample ID** | **Sample Location** | **PERC Detections** | **TCE Detections** |
| AS-1 | Indoor air at 61 State St., residential dwelling basement | 2.35 µg/m3 | Not Detected |
| AS-2 | Indoor air at 55 State St., pawn shop basement  | 4.35 µg/m3 | Not Detected |
| AS-3 | Indoor air at 148 French St., photo studio basement  | 9.15 µg/m3 | Not Detected |
| AS-4(Duplicate) | Indoor air at 148 French St., photo studio basement | 13.6 µg/m3 | Not Detected |

# 7.3 Indoor air Receptors

Sub slab air reported tetrachloroethylene and trichloroethylene, potentially due to past releases of dry-cleaning compounds within the building or on the property. Analytical results were below the indoor air residential guidelines after the attenuation factor was applied.

Indoor air samples reported tetrachloroethylene, potentially due to past releases of dry-cleaning compounds within the building or on the property but were well below indoor air RAGs for both Residential and Commercial Scenarios.

# 8.0 DATA QUALITY

## 8.1 DATA QUALITY ASSESSMENT

The laboratory reported the following Quality Assurance and/or Quality Control (QA/QC) issues:

Lab Report L2217370:

Volatile Organics in Air

L2217370-01D: Prior to sample analysis, the canisters were pressurized with UHP Nitrogen in order to perform a screen analysis. The pressurization resulted in a dilution of the samples. The reporting limits have been elevated accordingly.

L2217370-02D: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

L2217370: Canister L2215244-01 fails certification criteria for PCE by TO15-SIM. The BO request was for TO15-LL which passed certification criteria.

L2217370-04D: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

Petroleum Hydrocarbons in Air

L2217370-01D, -03, -04D, -05, and -06: All significant concentrations of non-petroleum VOCs detected in the TO-15 analysis were subtracted from the corresponding hydrocarbon ranges.

L2217370-01D: Prior to sample analysis, the canisters were pressurized with UHP Nitrogen in order to perform a screen analysis. The pressurization resulted in a dilution of the samples. The reporting limits have been elevated accordingly.

L2217370-02D All significant concentrations of non-petroleum VOCs detected in the TO-15 analysis were subtracted from the corresponding hydrocarbon ranges.

L2217370-02D: The sample has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

L2217370-04D: The sample has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

(2023) The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report: None.

## 8.2 DATA QUALITY OBJECTIVES

Based on our review, the data is determined to be acceptable and we believe MEDEP can rely on this data to make decisions.

# 9.0 SUMMARY & CONCLUSIONS

Indoor Air Sampling was completed while the mitigation system was in operation.

Detections for Tetrachloroethene (PERC) and Trichloroethene (TCE) were found in the sub slab soil vapor and indoor air samples.

Past sampling events detected compounds that exceeded MEDEP Indoor Air RAGs. The results from this sampling event of the sub slab soil vapor were below the MEDEP attenuation factor for Indoor Air in Residential and Commercial scenarios.

The results for the four indoor air samples were below the MEDEP Indoor Air RAG for Residential and Commercial scenarios.

**Conclusion:**

There are no exceedances above the current Residential and Commercial RAGs for tetrachloroethylene and trichloroethylene to the sub slab and indoor air at the Site Building.

As these results were reported while the soil vapor mitigation system was in operation, this system should continue to operate to mitigate the risk of soil vapor mitigation.

**HILLSIDE CLEANERS**

# FIGURES

**HILLSIDE CLEANERS**

# REFERENCES

1. Grigas, Ben. John Turner Consulting, Inc. 2023. Limited Phase II – Indoor Air Sampling, 148 French Street, Bangor, Maine. April 21, 2023.
2. Cressey, John. Beacon Environmental Consultants, LLC. 2022. Phase II Environmental Site Assessment for Hillside Cleaners, Bangor, Maine. May 26, 2022.
3. Sloat, Bradley. CES, Inc. Phase I Environmental Assessment for 148 French Street, Bangor, Maine. September 3, 2019.
4. Weston, Tracy. ME DEP. Sampling Results Letter and Analytical Data for 148 French Street, Bangor, Maine. 2009.

**ATTACHMENT A**

**HILLSIDE CLEANERS**

**PHOTOGRAPH LOG**

**ATTACHMENT B**

**HILLSIDE CLEANERS**

**2019 PHASE I ESA**

**ATTACHMENT C**

**HILLSIDE CLEANERS**

**BEACON 2022 PHASE II ESA**

**ATTACHMENT D**

**HILLSIDE CLEANERS**

**JTC 2022 PHASE II ESA**