Response Action Plan

For

Talbot Properties, LLC VCP
9120 Talbot Avenue
Silver Spring, MD 20910

Prepared For

Maryland Department of the Environment
Voluntary Cleanup Program
1800 Washington Boulevard
Baltimore, Maryland 21230

Prepared on Behalf of:
Joseph F. Amato, III, President
Talbot Properties, LLC
9120 Talbot Avenue
Silver Spring, Maryland 20910

Prepared by

CLENDENIN CONSULTING & REMEDIATION GROUP
P. O. Drawer 6070
Leesburg, Maryland 20178-7406

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Report Prepared by:

Winthrop McCormack, Staff Geologist

Report Reviewed by:

Bruce Clendenin, CPG, President

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1.0 INTRODUCTION

Clendenin Consulting & Remediation Group (**CCRG**) is pleased to submit this Response Action Plan (**RAP**) for the Talbot Properties, LLC site located at 9120 Talbot Avenue, Silver Spring, Maryland (**Property)**. The Property is comprised of three parcels totaling 0.81 acres and has the identification numbers 01408558, 01408547 and 01408560. A Site Location Plan is shown on Figure 1. The Property is located at the end of Talbot Avenue in Silver Spring, Maryland. The RAP has been prepared in accordance with the requirements of the Maryland Department of the Environment's (**MDE**) Voluntary Cleanup Program (**VCP**) under Section 7-508 of the Environment Article, Annotated Code of Maryland.

The Property was used as a lumber yard prior to 1974 when it was then purchased and occupied by Amato Industries, Inc. (**Amato**). Amato supplies pool chemicals including liquid sodium hypochlorite, solid chlorine and acid. In the past, Amato provided supplies for the local dry cleaning industry which included hangers, plastic wrapping, cleaning solvents, and dry cleaning solvents. The dry cleaning supply side of the business was discontinued in January 2019. Amato also installed sixteen (16) underground storage tanks (**USTs**) and operated a bulk heating oil facility. Around 1985, Amato closed most of its heating oil retail business and executed contractual arrangements with Griffith Energy to use fourteen (14) of the sixteen (16) USTs to throughput heating oil. Amato operates the two additional USTs for its delivery and service vehicles.

The Maryland Department of the Environment (**MDE**) notified Amato in writing on December 14, 2017 to request voluntary exploratory work to evaluate the nature and extent of contamination on the Property. MDE had received a historic environmental report prepared by Chesapeake Environmental Management, Inc. (**CEM**) for the Maryland Transit Administration (**MTA)**. We later learned that this report was prepared in 2014, and was never provided to Amato. Only recently, we learned from MDE staff that MTA submitted the report to MDE as part of the proposed Purple Line Metro construction work near the Property.

After retaining CCRG and internal discussions and meetings with MDE staff, Amato decided to enter the MDE VCP. To complete the VCP Application, CCRG prepared a Phase 1 Environmental Site Assessment (**ESA**) for the Amato site in September 2018. Historic environmental reports by CEM and Total Environmental Concepts, Inc. (**TEC**) dated March 2004 were reviewed. The ESA revealed the following Recognized Environmental Conditions (**REC**) in connection with the Property:

REC "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. The term is not intended to include de minimis conditions, which generally do not present a risk of harm to public health or the environment and generally would not be the subject of an enforcement action." Three RECs have been identified:

- Presence of petroleum based compounds TPH-GRO and TPH-DRO in the groundwater above Maryland Department of the Environment **(MDE**) Residential cleanup standards.
- Presence of the chlorinated solvent, tetrachloroethene and many of its byproducts in the soil above MDE's non-residential cleanup standards.
- Vapor Encroachment Condition which is the presence or likely presence of vapors from chemicals of concern in the sub-surface of the Property caused by the release of vapors from contaminated soil or groundwater either on or near the Property.

The VCP Application was submitted in September 2018. Amato was accepted into the VCP on February 22, 2019. A copy of the acceptance letter is included as Appendix A. Since Amato's acceptance into the VCP, we have prepared various Work Plans to evaluate sub slab vapor, soil gas, residual soil, groundwater, and indoor and outdoor ambient air. Over the past year, we have prepared eight (8) Summary of Findings letter reports for submission to MDE. The text of each summary report is included in Section 5.0. The Figures, Tables and Appendices referenced in each of the eight (8) summary reports, are included in the corresponding eight Exhibits. All exploratory work after the last CCRG Summary report dated September 6, 2019 is discussed under Section 6.0. All Figures, Tables, Photos and Appendices that are referenced in Section 6.0 are attached to the report. Finally, the Discussion of Relevant Findings is included in Section 7.0.

The Exposure Assessment for the Property discussed in Section 8.0 is based on Restricted Industrial Tier 3B future land use. There is no proposed redevelopment. Amato will continue to operate a pool supply business and lease the USTs and bulk oil fueling facility (**Facility**). The Facility will undergo upgrades to the USTs at some point in the future. Any surface disturbance of surface concrete pavement as part of UST excavation work will be replaced with concrete pavement. Both the Oil Control Program and the VCP have cleanup standards for soil and groundwater that will apply to the Property.

The characterization work indicates that PCE was released at the Property at some point in the past. It should be noted that Tetrachloroethene, Tetrachloroethylene, Perchloroethylene (**PCE**) are all various names used to represent the same chlorinated compound. As you read through the report, we have made every attempt to reference PCE. Other chlorinated compounds related to the breakdown of PCE are: Trichlorothylene (**TCE**), Dichloroethenes (**DCE**) and Vinyl Chloride (**VC**).

Based on the horizontal distribution of soil contamination, the release is thought to have occurred as a result of leaks/drip/spills from delivery trucks. We understand that delivery trucks would fill containers with PCE at the historic Above Ground Storage Tank location on the east side of the Amato building, and drive around the southern side of the warehouse, by way of an historic access road, to exit the Property. The historic access road is currently covered by the mechanical garage expansion. We understand that the delivery trucks often would park on the west side of the Amato building. Residual soil contamination and elevated soil gas concentrations of PCE and its degradation compounds have been identified along the southern edge of the warehouse near the historic access road, and on the west side of the Amato building where the trucks used to park. Our evaluation indicates that the chlorinated compounds of concern are PCE, TCE, and VC. The residual soil and dissolved phases are both sources of soil gas. The main receptor of concern is the Amato office.

SUMMARY/STATUS OF PROPOSED RESPONSE ACTIONS

Response Action #1 work has been completed to address the recognized Indoor Air concerns from chlorinated compounds below the building slab on grade. Exhibits 1, 2, 6 and 7 all address the evaluation of sub slab vapor and Indoor Air risk. Particularly, Exhibits 6 and 7 address the Pilot Tests completed to check the positive correlation between the introduction of additional outside air into the Amato Office area and the concentration of VOCs in indoor air. The results indicated that increasing the air flow from 300 to 600 cubic feet per meter (**cfm**) further reduces the concentration of VOCs in the Amato office area. Due to this finding, Fluhart Mechanical HVAC, LLC was authorized on October 17, 2019 to convert the temporary HVAC upgrades completed for the Pilot Tests, to a permanent system. The work was completed on November 22, 2019. The air flow is set at 600 cfm. Indoor Air test results indicate acceptable concentrations of chlorinated compounds. Biannual Indoor Air sampling and testing will continue for a minimum

of two years until Response Action #4 indicates acceptable sub slab soil gas risk. Once that occurs, the additional HVAC air flow can be discontinued while confirmatory Indoor Air testing is completed in the Amato office as part of Response Action #5.

Response Action #2 work to close visible openings in the warehouse and Amato office floor was completed on November 22, 2019. The office floor is laminated vinyl and the perimeter wall line is the only area where openings were observed. The warehouse floor is concrete and a sealer was applied on January 10, 2020 after cleaning and caulking.

Response Action #3 is intended to remove the source of residual soil contamination near B-2 exceeding MDE's Cleanup Standard for Soil & Groundwater dated 2018 (**MDE Guidance**) that was identified at the Property. The migration pathway of soil gas generated from the source is not fully understood but we assume that the sanitary sewer system and UST system on the west side of the Amato building that connects by underground lines to the Amato building may provide a route. Some elevated vapor concentrations were detected at the exterior building wall where the sanitary sewer enters the building. Laboratory results and regulatory disposal contaminant limits for chlorinated compounds of concern indicate that some soil near B-2 is classified as hazardous. The remaining soils should be disposed as non-hazardous. Excavated soil will require proper handling and disposal based on final laboratory characterization.

Response Action #4 is intended to check what effect Response Action #3 has on sub slab soil gas concentrations below the Amato building. Retesting the sub slab soil gas below the Amato building for chlorinated compounds of concern should be completed biannually for a minimum of two years starting after the completion of Response Action #3. Once two events confirms acceptable risk in accordance with MDE Technical Guidelines for Vapor Intrusion Table 2-Commercial Scenario (non residential), Sept 2019 (**MDE Guidance**), Response Action #5 should commence. If after 24 months, unacceptable concentration of chlorinated compounds persist in sub slab soil gas, then (1) monitoring may continue until MDE's Guidance is satisfied or (2) a sub slab gas extraction system will be designed and submitted as a RAP Amendment.

Response Action #5 is intended to check the effect of Response Actions #3 and #4 on Indoor Air. To check the effect, the increased air flow added as Response Action #1, should be discontinued. Biannual air testing is required for at least 24 months until two sampling events, indicate acceptable cumulative risk from any detected chlorinated compounds of concern. If after 24 months, unacceptable concentration of chlorinated compounds persist, then a sub slab gas extraction system will be designed and submitted as a RAP Amendment.

Response Action #6 involves the collection of two additional rounds of groundwater samples over the next year to further evaluate groundwater chemistry. Specifically, we will analyze for VOC, and dissolved methane, ethane, and ethene. We will obtain additional measurements of critical groundwater parameters, such as ORP and DO. The groundwater chemical data will be used to predict if natural degradation of VC is occurring and will continue to occur.

In addition to implementing the Response Actions, Talbot Properties, LLC will record a Deed restriction

- "prohibiting the use of groundwater" beneath the Property for any purpose
- "limiting contact with groundwater"
- restricting land use to commercial/industrial

Taken together, the Deed restrictions provide a form of public notice that the groundwater contamination requiring special handling exists below the Property.

2.0 PROPERTY OVERVIEW

2.1 Setting

The Property is located within Montgomery County near Woodside, a large neighborhood in Silver Spring, Maryland. The Property consists of three adjacent parcels, one almost triangular-shaped, one trapezoidal-shaped, and one is a sliver of property bordering the west. The Property fronts on Talbot Avenue and is bounded by Autopart International to the south, Frank Scrap Metal to the west, and residential houses to the north, east, and south-east across a railroad. An Aerial View is shown on Figure 2.

A one-story concrete masonry building, approximately 8,800 square feet, sits in the center of the Property facing Talbot Avenue. The building separates the Property into a west and east lot on either side. The building is approximately 30% offices in the front and entrance, and a storage warehouse in the back, referred in this report as Warehouse A. An approximately 2,500 square foot garage addition in the back of the building was constructed in 2007 for truck repair and maintenance. In the eastern lot, there are two fuel loading racks, in the western lot is one loading rack for pool chemicals. The lots are mostly concrete pavement with some asphalt in between the 2 loading racks. The western lot area is generally used for materials and chemical product storage. A storm inlet exists on Talbot Avenue, and according to an engineering plan, there is at least one storm line running underneath the Property to the south boundary into a storm structure. Vehicle access to the Property is provided by 3 entrance aprons with electronic gates off of Talbot Avenue. See Figure 6 for Site Features.

According to the Montgomery County GIS database, the Property is zoned industrial. The Property and surrounding area is in Water Category W-1 service area; public service approved with access to main. The sanitary sewer category for the Property and surrounding areas is S-1 service area; public service approved with access to main. A Zoning Plan is shown on Figure 3 and a Montgomery County Water Plan Map is shown on Figure 4.

2.2 Topography, Soils and Geology

The Property is located in the south central portion of the United States Geological Survey (USGS) 7.5 Minute Series Kensington, Montgomery County Topographic Quadrangle. The latest version of the map was published in 1998 and photo revised in 1979. According to the quadrangle map and EDR report, the Property elevation is about 320 feet above mean sea level. Regional topography is generally sloping downgradient to the west toward Rock Creek.

The Property is located within the Wissahickon Formation. This formation is the major geologic unit in the area which include thick-bedded to massive, pebble and boulder-bearing, arenaceous to pilitic metamorphic rock. The rock is typically medium grained, garnet-oligoclase-mica-quartz gneiss with locally intensely foliated gneiss or schist from the late Precambrian period with an apparent thickness of 15,000 feet. Surface elevations on the Property are approximately 313 to 320 feet above mean sea level. A Geologic Map is shown on Figure 5.

The US Department of Agriculture map the soils in the area as Urban Land. This type of soil is used to describe areas which have been heavily disturbed for development and contain varying types of imported fill.

2.3 Surface Water and Groundwater

Surface water generally follows the gradual slope towards Rock Creek to the west. Surface water flow is altered somewhat by the slope of Talbot Avenue and the pavement grades on the Property.

Groundwater levels measured as part of our recent work indicate that groundwater is flowing to the southwest. Generally, the local ground water flow direction is influenced by surface topography and other factors, such as underground structures and seasonal fluctuations. A more detailed discuss of groundwater is included under Section 7.4.

2.4 History of Property

According to the ESA by TEC, Amato has occupied this building since 1974. Prior to 1970, the Property was used as a lumberyard and woodshop. Since a least 1970, the surrounding buildings have been industrial with houses to the north across the railroad tracks. Amato began using the building to store and distribute dry cleaning and pool chemicals. The building to the west, owned by Family Perkins Place, was rented for additional storage. Amato maintained delivery trucks for dry cleaning and pool products. We understand that the trucks were usually parked on the west side of the Amato building near the rented warehouse, referred in this report as Warehouse B. Amato also installed 16 USTs in 1972 and operated a bulk oil storage and retail business up until about 1985. The USTs were strapped to large concrete "hold down" slabs. Historic photographs show the very large concrete slabs, tanks and FILL material. The photos do confirm a burial depth of approximately twelve (12) feet and does not show any impact from groundwater. Delivery trucks from the oil business were also parked on the west side of the Amato building. We have included photos P-1, P-2 and P-3 showing the original UST installation work in the Photos section of this report.

Around 1985, Amato contracted with Griffith Energy to use the facility for throughput operations. Amato currently operates two trucks for retail sale of heating oil and is responsible for the USTs and the above ground fueling system.

CCRG requested historical Sanborn Fire Insurance Maps for the Property from EDR. We were informed that two maps are available for the general area. A 1959 map showed no useful information about the Property or surrounding area south of the railroad but does show the houses to the north. A 1963 map shows a building labeled as a woodworking shop and piles of lumber on the Property. In 1963, undeveloped land and the railroad splitting to the south as the Georgetown Branch are visible.

CCRG also utilized historic city directories, Haines Criss-Cross Directory, to confirm the Property and surrounding land use and occupants for the past 54 years. The available databases show Bradley Lbr Co Inc as the earliest known user of the Property in 1964. The earliest record of Amato's use of the Property is in 1976, and they remain the user up to the present. Amato is listed in the database under a few different names including Amato Industries Inc., Amato Inc., and Amchlor Corporation.

2.5 History of Surrounding Area

A review of aerial photographs was performed for the years 1937, 1951, 1957, 1960, 1963, 1970, 1972, 1981, 1984, 1988, 1998, 2000, 2002, 2005, 2007, 2011, and 2015. The review was conducted to further document the history of the general area of the Property.

The oldest available aerial photo is in 1937 and shows the area as undeveloped except for some streets and buildings to the south and west. The Property remained wooded and undeveloped up until 1960. The railroad running to the north and east, and splitting to the south for train car storage, is visible in 1960. More buildings, possibly houses were being developed in the 1951, 1957, and 1960 images. It is not possible to determine when the splitting railroad tracks and car storage area to the south was abandoned from the photos. In 1963, a portion of a building is just visible on the Property. The 1970 image is the first clear view of the Amato building, the surrounding industrial

buildings, and the houses to the north across the railroad tracks. The current and 1970 aerial photos look very similar. Several photos are of poor quality or high altitude and the Property cannot be located. The remaining images of the Property and surrounding area from 1972 to 2015 look mostly unchanged apart from some changes to the surrounding existing buildings.

The photographs revealed no other structures or signs of disturbance to the ground surface on the Property or immediately adjacent properties that might indicate dumping or other activities of environmental concern.

3.0 HISTORIC INFORMATION

CCRG reviewed the available environmental information provided by Amato. We reviewed: (1) Total Environmental Concepts (**TEC**) Environmental Testing report dated 2004 for Sandy Spring National Bank; (2) Maryland Transit Administration (**MTA**) Phase II Environmental Site Assessment report dated 2014; (3) Precision Tightness Tank Testing inspection results, (4) MDE Oil Control Program facility inspection report and Amato responses to corrective actions, (5) Non-hazardous waste disposal manifests, (6) Facility Spill Contingency Plan for containment and clean-up of product materials, (7) Notification letter by Brian Dietz of the Land Restoration Program, (8) Annual Cathodic Protection Assessments of USTs, and (9) a Standard Option Contract with Maryland Transit Administration.

TEC completed soil and groundwater sampling and laboratory testing for various chemical constituents related to petroleum products, dry cleaning products, and sodium hypochlorite (bleach). TEC's test results indicate the presence of petroleum hydrocarbons and chlorinated solvents in both the soil and groundwater. TEC concluded that the petroleum hydrocarbons and solvents are both RECs. According to TEC, the chlorinated solvents did exceed MDE's cleanup standards and should be evaluated further.

The MTA study was completed on a very small portion of the Property. MTA has proposed the purchase of the portion of land as part of the Purple Line construction project. Amato provided a copy of the Option Contract with the Maryland Transit Administration. The report identifies the USTs, AGSTs, and 55 gallon drums as RECs. Soil sampling by MTA indicated that tetrachloroethene was present in the soil samples above MDE's non-residential cleanup standard. MTA's report indicates that other compounds were analyzed and detected below MDE's standards. MTA's report also indicates that the groundwater sampling indicated TPH-GRO and TPH-GRO exceeding MDE's groundwater cleanup standard.

A review of MDEs Oil Control Program Facility inspection report on July 12, 2018 requests specific actions to be taken by Amato to comply with the Code of Maryland Regulations. All actions were related to pollution liability insurance, results of cathodic testing, inventory records, and leak tests. Amato responded to MDE in August 2018 and included the following:

- Certificate of Insurance Policy and pollution liability insurance coverage.
- Cathodic protection testing results for 2014 and 2015. The most recent 5-year cathodic protection results in July 2018.
- Inventory investigation of tanks 14, 15, and 16.
- Passing tightness test for tank #14 on August 6th.

4.0 SUBSURFACE STRATIGRAPHY

The field exploration consists of historic work completed by TEC and MTA and our recent Geoprobe holes and Standard Penetration Test (**SPT**) drilling. The logs from the TEC and MTA work are included as Appendix B. The logs for the Geoprobe holes and SPT drilling are included in Appendix C. The TEC and MTA reports are considered historic information and were completed for other clients. The Geoprobe work was completed as part of the recent characterization work and additional work completed to evaluate location B-2 and the SPT drilling was completed as part of the Geotechnical Engineering Report for the design of the proposed loading rack foundation. The various subsurface logs indicate the following subsurface stratigraphy:

FILL - Brown and gray micaceous SILT mixed with gray silty Sand and Clay layers

SILT - Brown and gray micaceous SILT

SAND – Red-brown silty fine to medium SAND

The FILL is present throughout the Property, outside the UST field area on the east and west sides of the Amato building. The different interpretations of the subsurface soil by different companies poses some concern but in general, the FILL is about five (5) feet thick to the east and thickens to over 10 feet in the west. We suspect that the Property historically sloped to the east and was filled at some point in time to create building lots for the present day industrial buildings along Talbot Avenue.

The SILT below the FILL is micaceous and in some borings an organic Clay layer was encountered below the FILL possibly indicating the original ground surface. The SILT does have layers and/or pockets of SAND and Clay.

The SAND was encountered only in a few historic borings and extended to the termination depth below 30 feet. Our SPT borings did not encounter SAND just micaceous SILT.

5.0 SUMMARY OF FINDINGS SUMMARY LETTERS – January 2, 2019 to September 6, 2019

Section 5.1 to 5.8 summarized Summary of Findings Letters submitted to MDE between the periods January 2 to September 6, 2019. Our Summary Letters are important because they are critical to understand how our technical findings, and ongoing communication with MDE, impacted the decisions regarding the progression of exploratory work.

5.1 Exhibit 1: Vapor Risk to Building

Our initial Environmental Characterization Work Plan dated October 29, 2018 was intended to address Brain Dietz's, MDE letter dated May 7, 2018 and email from Chris Hartman, MDE dated September 18, 2018. More specifically, conduct soil gas work to explore the Areas of Interest (**AOI**) referenced in the email from Mr. Dietz and evaluate possible sub slab vapor risk to the existing building. The AOI are shown on in Figure 1-Exhibit 1.

5.1.1 Exterior Soil Vapor

GSI Mid-Atlantic set three (3) 6 inch stainless steel implants on November 13, 2018 at locations B-2, B-5 and B-6 as shown on Figure 1-Exhibit 1. The implants were set at a depth of 5, 8 and 8 feet respectively. Sand was placed around the implants up to a depth of 1-2 feet and a bentonite

seal was placed in the annulus up to ground surface. Due to the unusual amount of rainfall and the rise in the groundwater table, we did raise the implants from the proposed depth of 11-13 feet. GSI Mid-Atlantic also installed three (3) one inch diameter PVC wells at approximately 20 feet on November 13, 2018 at locations B-1/MW-1, B-3/MW-2 and B-4/MW-3 shown on Figure 1-Exhibit 1. The screen interval was 10 to 15 feet and sand was placed up to a depth of 2 feet. A bentonite seal was placed to ground surface. Flush mount covers were installed at each well.

5.1.2 Interior Sub Slab Vapor

GSI Mid-Atlantic also installed four (4) sub-slab vapor sampling points (B7 through B10) inside the existing Amato building at the locations shown on Figure 1-Exhibit 1. One inch diameter holes were drilled through the concrete slab and polyvinyl tubing was set approximately 18 inches below top of slab. Clay materials was then used to seal the annulus at slab level.

5.1.3 Results of Vapor Sampling

CCRG staff collected soil gas at the six (6) exterior locations, designated B-1 to B-6, using 1-liter Summa Canisters on November 27, 2018. During the sampling of location B-5, water was observed in the polyethylene tubing. No water was observed at any of the other sampling locations. The canisters were shipped to Pace Analytical (Pace) for EPA Method TO-15 analysis using GC/MS in full scan mode. Pace confirmed that sample B-5 was impacted by water and the sample was discarded. The analytical test results for the five (5) exterior samples are included in Appendix A-Exhibit 1 along with a summary table showing the compounds detected and sample location with the highest concentration.

The four (4) sub-slab vapor sampling points inside the occupied portion of the Amato building were collected using 6-liter Summa Canisters on November 28, 2018 at locations B-7, B-8, B-9 and B-10. The canisters were fitted with 8-hour flow controller gauges. The sampling began at approximately 8:30am and ended at 2 pm. The canisters were sent to Pace for analysis using the EPA Method TO-15 using GC/MS full scan method. The analytical test results are included in Appendix B-Exhibit 1 along with a summary table showing the compounds detected and sample locations with the highest concentration.

5.1.4 Conclusions

The interior and exterior vapor samples generally indicate impacts by chlorinated solvents associated with Tetrachloroethylene. The compounds detected follow the classical degradation pathway for Tetrachloroethylene. We were surprised by the elevated vapor levels found near B-2 along the northwest property line since the historical source area is on the opposite side of the site. We have not been able to obtain meaningful groundwater level data due to the unusual amount of rainfall over the past few months and the influence of the large tank field on groundwater storage. At this point, we are unable to determine groundwater flow direction. We are aware that a storm sewer system that carries storm water from offsite properties runs through the Amato property near location B-2. At this stage, additional exterior and interior vapor testing and groundwater characterization is required to advance our knowledge of the source and impact of the existing contamination.

5.2 Exhibit 2: Additional Soil Gas and Ambient Air

Mr. Hartman's email requested additional soil gas work and ambient air samples inside the Amato Warehouse A and Office to expand upon our initial phase of sampling on the property in November 2018.

5.2.1 Exterior and Sub slab Soil Gas

GSI Mid-Atlantic set three (3) 6 inch stainless steel implants on January 17, 2019 at locations B-11, B-12 and B-13 as shown on Figure 1-Exhibit 2. Implants B-12 and B-13 were drilled in the parking areas at opposite ends of the property. Implant B-11 was drilled through the concrete slab inside Warehouse B. Warehouse B is not used for offices. Sand was placed around the implants up to a depth of 1-2 feet and a bentonite seal was placed in the annulus up to ground surface. Due to the unusual amount of rainfall over the past several months, and the rise in the groundwater table, all implants were set at a depth of 5 feet below ground surface.

CCRG staff collected soil gas at the two (2) exterior locations, designated B-12 and B-13, and one interior location B-11 on January 22, 1019 using One liter Summa Canisters. The canisters were shipped to Eurofins for EPA Method TO-15 analysis using GC/MS in full scan mode. No unusual observations were made during the collection of soil gas samples.

5.2.2 Interior Ambient Air

CCRG also placed three (3) 6-liter Summa canisters at locations A-1, A-2, and A-3 as shown on Figure 1-Exhibit 2. Two ambient air samples were collected from Warehouse A and one sample was taken from the Office area. The location of Warehouses A and B and the Office is shown on Figure 1-Exhibit 2. The canisters were activated during Amato's normal working hours. Amato staff had agreed to keep the large garage type doors for Warehouse A closed and minimize the use of all other exterior doors during the 8-hour test.

The three (3) ambient air sampling points inside the Amato building were collected using Six liter Summa Canisters on January 22, 2019 at locations A-1, A-2, and A-3. One (1) canister was placed inside the Office, designated A-1, and the other two (2) canisters were placed in Warehouse A, designated A-2 and A-3. Each canister was fitted with an 8-hour flow controller gauge. The canisters were opened at approximately 7:30 am and turned off 3:50 pm. The canisters were sent to Eurofins for analysis using the EPA Method TO-15 using GC/MS full scan mode method.

5.2.3 Results of Soil Gas Sampling

The laboratory results for the ambient air samples inside Warehouse A and the Office are included in Appendix A-Exhibit 2. The analytical detections are summarized in Appendix C-Exhibit 2. Comparing the results to VCP Ambient Air Toxicity – Commercial table dated 2012 and EPA's Regional Screening Level Composite Worker Ambient Air Table (updated November 2018), indicate that Tetrachloroethene, Trichloroethene, 1,2,4 Trimethylbenzene and 1-3 Butadiene exceed risk based concentrations. The detection of 1-3 Butadiene and 1,2,4 Trimethylbenzene is likely associated with the automotive repair activities in Warehouse A. The data suggest that air circulation in the Office and Warehouse A are mixing. The mixing of air is also indicated by the detection of gasoline related compounds such as Benzene and Toluene in the Office. Other degradation compounds of Tetrachloroethene were also detected in the samples but at concentrations below risk based concentrations. A plan showing the general layout of the mechanical heating and cooling system is included as Appendix D-Exhibit 2.

The analytical test results for soil gas samples are included in Appendix B-Exhibit 2. A summary of detections is included in Appendix C-Exhibit 2. The results indicate that Tetrachloroethene and Trichloroethene were not detected at locations B-11 and B-12 but were detected at location B-13. The B-11 and B-12 locations were selected to check the horizontal limits of the soil gas detected at location B-2 during our initial phase of work. Tetrachloroethene and Trichloroethene were previously detected respectively at 6,630,000 ug/m3 and 661,000 ug/m3 at location B-2. The B-

12 location was also selected to check on possible impacts from the buried storm and sanitary sewer lines that run from Talbot Avenue through this area of the site. Plans showing these lines are included on Figures 2 and 3-Exhibit 2. These lines convey storm water and sanitary waste from other industrial businesses along Talbot Avenue. Degradation compounds of Tetrachloroethene were detected at location B-11. The location B-13 was selected to check soil gas migration from the historic above ground Tetrachloroethene tank towards the east.

5.2.4 Conclusions

We consider the soil gas concentration of Tetrachloroethene and its degradation compounds at location B-2 an anomaly. The data suggests that Tetracholoroethene was likely released near the entrance ramp to Warehouse B at some point in the past. The very high soil gas concentrations indicate that the soils in the vadose and capillary fringe zones near the B-2 location are likely impacted. The groundwater may also be impacted. The absence of soil gas detections for Tetrachloroethene and Trichloroethene at location B-11 indicate that soil gas at location B-2 may be somewhat contained outside Warehouse B. One possible reason for this is the concrete foundations for Warehouse B, which is typically about 3 feet in the ground, may be acting as a barrier to horizontal soil gas migration.

The location B-13 was selected to explore the horizontal limits of the soil gas found at location B-4. Tetrachloroethene was detected at location B-4 at 64,900 ug/m3 in November 2018. The results indicate Tetrachloroethene at 380 ug/m3 at location B-13. The distance between locations B-4 and B-13 is approximately 75 feet. The results for location B-4 indicate that there was a release in the area of the abandoned above ground storage tanks that contained Tetrachloroethene. The reduction in soil gas towards location B-13 indicates that the soil gas is likely not moving east towards the railroad tracks.

Due to the detections of Tetrachlorothene, Trichloroethene and 1,2,4 Trimethylbenzene inside the Office and Warehouse B, we evaluated soil gas results for both current and previous locations inside and immediately adjacent to the Office and Warehouse B. We considered locations B-3 and B-7 through B-10. As expected, Tetrachloroethene and Trichloroethene exceed the VCP Commercial – Target Soil Gas (Tier 1 (100x)). The major impact appears to be near locations B-9 and B-10 in Warehouse B. The single exception is location MW-3, just along the exterior face of the Office, which indicates Trichloroethene above the VCP Commercial – Target Soil Gas concentration. 1,2,4 Trimethylbenzene was not detected in soil gas at concentrations of concern. This seems to confirm that the automotive garage area is the likely source of the gasoline related compounds detected in the indoor air.

5.3 Exhibit 3: Geoprobe Exploration B-2

The purpose of this work was to further explore the high concentrations of Tetrachloroethene soil gas in the subsurface near boring location B-2 and propose appropriate response actions.

5.3.1 Soil Testing near Location B-2

GSI Mid-Atlantic used a Geoprobe rig to complete 12 borings in the general area of B-2 as shown on Figure 1-Exhibit 3. The objective was to explore the horizontal extent of Tetrachloroethene soil contamination. We did not explore below 5 feet due to storm and sanitary sewer lines in the area. Soil samples were screened in the field using a Photoionization Detector (PID). Due to the very cold air temperatures, a separate sample was collected for PID testing in the office. Two samples were collected at each location of analytical testing. Back at the office, ten (10) discreet soil samples, as indicated on Table 1-Exhibit 3, were selected for laboratory analysis. Also, one composite sample was prepared and sent for the analysis required for offsite disposal at Clean

Earth. The discrete soil samples were sent to Pace Analytical and analyzed for Volatile Organic Compounds (VOCs) using EPA Method 5035. The composite soil sample was also sent to Pace Analytical and analyzed for the following: TPH-High Fraction DRO EPA Method 8015, TPH-Low Fraction GRO EPA Method 8015, Oil and Grease EPA Method 9071B, PCBs EPA Method 8082, Total Metals RCRA 8 EPA Method 6010, Total Volatile Organics EPA Method 8260, and Total Semi-Volatile Organics EPA Method 8270.

5.3.2 Analytical Results and Recommendations

The laboratory results are summarized in Table 1-Exhibit 3. The sample depths and PID readings recorded in the office are included on Table 1-Exhibit 3. Comparing the results to EPA's Regional Screening Levels for Composite Worker, Tetrachloroethene exceeded risk based concentrations in four (4) boring locations: G-5, G-6, G-9, and G-10. Trichloroethene was also detected above risk based concentrations at locations G-5 and G-6. The results confirm our soil gas finding that an isolated Tetrachloroethene source area exists near boring B-2.

5.4 Exhibit 4: Soil Gas Location B-5

CCRG completed sampling of soil gas location B-5 in accordance with ongoing discussions with MDE.

5.4.1 Soil Gas Sampling at Location B-5

The initial soil gas well at location B-5 installed on November 13, 2018 contacted groundwater and had to be reinstalled. A new six (6) inch stainless steel implant was installed by GSI and set to a depth of 5 feet to evaluate soil gas in the capillary fringe zone. A sample was collected on March 14, 2019 using a One Liter Summa Canister. The canister was returned to Eurofins for analysis by EPA Method TO-15 using GC/MS in full scan mode.

5.4.2 Analytical Results and Conclusions

The analytical test results for soil gas sample B-5 is included in Appendix A-Exhibit 4. Compounds detected at location B-5 were generally the same as other locations. The exceptions were; Cyclohexane, Carbon Disulfide and Hexane. We have included an updated Soil Vapor Summary table in Appendix B-Exhibit 4. Location B-5 also had elevated Tetrachloroethene and Trichloroethene detections. To summarize our soil gas work to date, we have provided soil gas contour plans for Tetrachloroethene and Trichloroethene as Figure 1 and 2-Exhibit 4. These plans show elevated Tetrachloroethene at locations B-9, B-5 and B-2.

5.5 Exhibit 5: Geoprobe Exploration B-5

CCRG completed further exploration of the high concentrations of Tetrachloroethene soil gas in the subsurface near boring location B-5. The evaluation of the sanitary sewer line serving as a possible pathway for vapor migration away from location B-2 was also evaluated.

5.5.1 Soil Testing near Location B-5

GSI Mid-Atlantic used a Geoprobe rig to complete 5 borings in the general area of B-5 as shown on Figure 1-Exhibit 5. All borings were completed on May 2, 2019. The purpose of these borings was to evaluate the residual soil chemistry in the area of boring B-5. The high Tetrachloroethene soil gas concentrations near B-5 were discussed in our Summary of Findings letter dated April 2019. It is possible that the high soil gas concentration is not caused by residual soil but rather a vapor phase plume migrating through the sand/gravel in the underground storage tank field area.

Each Geoprobe sample was screened in the field using a Photoionization Detector (**PID**). Multiple samples were collected from each boring for further evaluation at the office and five samples were sent to Pace Analytical for analysis. Three samples were composites and two were discreet samples. Pace Analytical tested these samples for Volatile Organic Compounds (**VOCs**) using GC/MS by method 8260B and for Total Solids by method 2540 G-2011.

5.5.2 Analytical Results and Recommendations

The laboratory results for the samples sent to Pace Analytical are summarized in Table 1-Exhibit 5 along with previous results from borings near location B-2. The sample depths and the PID readings recorded in the office are also included in Table 1-Exhibit 5. The concentrations of VOCs detected in the five soil samples did not exceed EPA's Regional Screening Levels for Composite Worker. The results suggest that the elevated soil gas concentrations at B-5 are likely due to vapor migration and not high residual soil concentrations. The source of the vapor is likely the area around the historic above ground Tetrachloroethene tank. The soil data indicates that remediation of the soil near location B-5 is likely not required.

5.6 Exhibit 6: HVAC Pilot Test

The objective of the Pilot Test was to reduce sub slab chlorinated vapor compounds from entering the Amato office by introducing additional outside air flow into the work space to create positive pressure. The work was completed in general accordance with our Work Plan dated February 28, 2019. Our focus was on the chlorinated compounds detected in the Amato office during Round #1 air sampling in January 2019. We are not focused on the petroleum hydrocarbon compounds detected in January 2019. The source of the petroleum hydrocarbons compounds has been determined to be the mechanical repair shop in the warehouse area. This source is confirmed by the general absence of sub-slab petroleum hydrocarbon soil gas below the Amato office and warehouse in November 2018.

5.6.1 Pilot Test Procedure & Sampling

Prior to starting the Pilot Test, we collected 2 additional indoor air samples in the Amato office. Two 6-liter Summa Canisters were placed in separate locations in the office space away from any exterior doors as shown on Figure 1-Exhibit 6. Each canister was fitted with an 8-hour flow controller gauge and left open for approximately 6-8 hours. The Round #2 samples, designated as A-8 and A-9, were collected on May 23, 2019. The laboratory test results indicate a reduction in chlorinated compound concentrations in the office since the initial test in January 2019. Only Trichloroethylene was above the EPA Target Indoor Air Concentrations as shown on Table 1-Exhibit 6.

The Pilot Test involved activating a temporary fan upgrade to the existing HVAC system which introduced 300 CFM of additional outdoor air into the Amato office. The fan was installed on June 10, 2019 and activated on June 20, 2019. The fan was allowed to run for 5 days before the indoor ambient air samples were collected. The fan was shut off after the sampling was completed to prevent humidity buildup problems. Round #3 air sampling was performed on June 25, 2019 at the same sample locations used during Round #2. The samples were designated A-10 and A-11. The canisters were sent to Eurofins for analysis using EPA Method TO-15 using GC/MS full scan mode method. The laboratory test results indicate a decrease in all chlorinated compounds as shown on Table 1-Exhibit 6.

5.6.2 Analytical Results and Recommendations

The laboratory results for all ambient air samples from the Amato office are summarized in Table

1-Exhibit 6 along with the sub-slab vapor well results performed in November 2018. All sample results are compared to the EPA's Resident Vapor Intrusion Screening Levels Table (May 2018). Detectable chlorinated compounds which exceeded screening level concentrations during Rounds #1 and #2 include Tetrachloroethylene and Trichloroethylene. The laboratory results for the Pilot Test indicate that concentrations for both Tetrachloroethylene and Trichloroethylene are below screening level concentrations. The analytical lab results for the Pilot Test are included in Appendix A-Exhibit 6.

The results of the Pilot Test indicate that the introduction of 300 CFM of additional outside air reduced the concentration of all chlorinated compounds. To confirm a positive correlation between additional outside air and reduced concentrations of chlorinated compounds, we will conduct one additional pilot test at an air flow of 600CFM. We are hopeful that indoor air quality will continue to improve and that we can proceed with the final design to upgrade the HVAC mechanical system for submission to MDE.

5.7 Exhibit 7: Additional Pilot Test at Air Flow 600 cfm

The Additional Pilot Test utilized an air flow of 600 cubic feet per minute (**cfm**). The additional test was completed to confirm a positive correlation between the introduction of additional outside air into the Amato office area and the concentration of volatile organic compounds (**VOC**) in indoor air. Based on the previous data, we expect a reduction in VOC concentrations.

5.7.1 Pilot Test Procedure & Sampling

We collected 2 additional indoor air samples in the Amato office on August 2, 2019. The samples were designated A-12 and A-13 as shown on Figure 1-Exhibit 7. Two 6-liter Summa Canisters were placed in the same locations used previously in the office area. Each canister was fitted with an 8-hour flow controller gauge and left open for approximately 6-8 hours. The HVAC fan was shut off after the sampling was completed to prevent possible humidity buildup problems in the current HVAC system. The current HVAC system is older and not designed with the necessary dehumidifiers to handle the introduction of high flow rates of outside air. The canisters were sent to Eurofins for analysis using EPA Method TO-15 using GC/MS full scan mode method.

5.7.2 Analytical Results and Recommendations

The laboratory results for all ambient air samples from the Amato office are summarized in Table 1 along with the sub-slab vapor well results performed in November 2018. All sample results are compared to the EPA's Resident Vapor Intrusion Screening Levels Table (May 2018). Detectable chlorinated organic compounds which exceeded screening level concentrations during Rounds #1 (January 2019) and #2 (May 2019) include Tetrachloroethylene and Trichloroethylene. The laboratory results for the Pilot Test conducted in June 2019 indicate that concentrations for both Tetrachloroethylene and Trichloroethylene are below screening level. When compared to EPA.s Composite Worker Air tables (November 2019), all detections were still below screening levels. The laboratory results for the Additional Pilot Test air samples A-12 and A-13 conducted in August 2019 are also summarized on Table 1-Exhibit 7. The results confirm an overall general reduction in a broad range of VOCs. As to chlorinated compounds of concern, the results surprisingly indicate an increase in Tetrachloroethene from 12 to 30 micrograms per cubic meter (ug/m3) and a slight decrease in Trichloroethene from 1.4 to 1.3 ug/m3. Most all analytical detections indicate a reduction with the air flow of 600 cfm. All VOC concentrations remain below the EPA's Resident Vapor Intrusion Screening Levels. The analytical lab report are included in Appendix A-Exhibit 7.

Considering all the analytical data generated from four rounds of indoor air testing, there appears to be a strong correlation between increased air flow and concentrations of VOC vapors in the

indoor air. The critical element involves using the increased air flow to create positive pressure within the office area to inhibit the vertical movement of sub slab organic vapors into the office. In order to immediately address the existing indoor air concern, we recommend proceeding with the upgrade to the HVAC system to allow up to 1000 cfm of outdoor air flow into the office area of the Amato Building. Until the permanent system is installed, we will recommend to the owner that the temporary system be turned on to maintain the low concentrations we saw during the pilot test. Indoor air sampling will continue biannually.

5.8 Exhibit 8: Groundwater

CCRG completed groundwater exploration sampling and testing as outlined in our Work Plan.

5.8.1 Groundwater Sampling

GSI Mid-Atlantic used a Geoprobe rig to install three (3) monitoring wells on November 13, 2018. The monitoring wells are designated MW-1, MW-2, and MW-3 as shown on Figure 1-Exhibit 8. The wells were initially drilled to collect soil gas but were constructed to allow for future groundwater sampling. On March 13, 2019, the monitoring wells were purged by removing three casing volumes of water. Disposable micro-bailers were assigned to each location during purging and the groundwater removed was contained in a steel drum that was left on the site. After purging, the monitoring wells were left to recharge overnight due to slow recoveries. Groundwater samples were collected on March 14, 2019 and preserved in a cooler with ice. The samples were sent to Pace Analytical for the following analysis; Volatile Organic Compounds (**VOCs**) EPA Method 8260B, TPH High Fraction DRO EPA Method 8015, and TPH Low Fraction GRO EPA Method 8015.

Groundwater depths were also measured before sampling and later converted to elevations using survey data provide by VIKA Incorporated. The groundwater elevations are as follows: MW-1 at 309.25, MW-2 at 311.17, and MW-3 at 311.90. Groundwater elevations suggest that groundwater is flowing to the southwest. The estimated groundwater flow direction is shown on Figure 1-Exhibit 8.

5.8.2 Analytical Results of Groundwater

The laboratory results are summarized in Appendix A-Exhibit 8. Chloroform, Tetrachloroethene and Vinyl Chloride concentrations in MW-1 and MW-3 exceed EPA's Resident Vapor Intrusion Screening Levels (**VISL**) for Target Groundwater Concentrations (TCR=1E-06 or THQ=1) dated May 2018. Trichloroethene concentrations exceeded VISL screening level for groundwater in all monitoring wells. The Pace Analytical laboratory test results are included in Appendix B-Exhibit 8. A contour of Tetrachloroethene concentrations is shown on Figure 2-Exhibit 8.

5.8.3 Preliminary Conclusions

This direction of groundwater flow seems to match the abrupt topographic change that occurs along the property line with the Abandoned Railroad Siding. It is possible that deep sanitary and storm sewer utility lines that run along the western end of the site (shown in Figure 6) are controlling the direction of groundwater flow. We understand that the depth to these utility lines is in excess of 15 feet. The location of the highest Tetrachloroethene concentration at monitoring well MW-1 is generally consistent with the direction of groundwater flow.

6.0 CHARACTERIZATION OF WORK AFTER SEPTEMBER 6, 2019

Additional characterization work was required to check the following: (1) sub slab soil gas below the Amato building; (2) the effectiveness of the HVAC upgrade to address Indoor Air in the Amato office; (3) the characterization of soils contaminated by PCE and TCE near location B-2 as hazardous and non-hazardous; and (4) the dissolved phase concentrations in the UST fields on the east and west sides of the building.

Prior to September 6, 2019, all the Summary of Findings letters had referenced EPA or MDE Risk Based Screening Tables dated May 2018. Because various EPA and MDE risk based tables were undergoing revision, we confirmed with MDE our intention to reevaluate all laboratory findings for sub slab soil gas, Indoor Air, residual phase soil contamination, and dissolved phase contamination discussed in our Summary of Findings letters along with the information obtained during the Additional Characterization Work discussed as Section 6.0 using:

- MDE's Cleanup Standards for Soil and Groundwater dated 2018 (**MDE's Guidance**)
- MDE"s Technical Guideline for Vapor Intrusion Table 2-Commercial Scenario (non-residential) Sept 2019 (**MDE's Guidance**).

All exploration locations for work conducted on the Property are shown on Figure 6.

6.1 Sub Slab Soil Gas (Interior)

CCRG staff collected four (4) sub slab soil gas samples from locations B-7, B-8, B-9 and B-10 inside the occupied portion of the Amato building on November 22, 2019. The details of the field sampling is included in Appendix D. The locations are shown on Figure 6. Eurofins Air Toxics, LCC (**Eurofins**) provided 1-Liter Summa Canisters fitted with 1-hour flow controller gauges. Previous sub slab soil gas samples were collected using 6-Liter Summa Canisters supplied by Pace Analytical. The canisters were sent to Eurofins for analysis using the EPA Method TO-15 and GC/MS full scan method. The results are summarized under Round #5 on Table 3 and the Eurofins laboratory reports are included as Appendix D.

6.2 Interior Air

On November 22, 2019 CCRG placed two (2) 6-liter Summa canisters at Indoor Air Locations 1 & 2 on Figure 6. The same two locations in the Amato office have been used repeatedly for all Indoor Air sampling. The canisters were activated during Amato's normal working hours. The canisters were opened at approximately 8:00 am and turned off at 3:35. The canisters were sent to Eurofins for analysis using the EPA Method TO-15 and GC/MS full scan mode method. The results are summarized under Round #5 on Table 3 and the Eurofins laboratory reports are included as Appendix D.

6.3 Soil Characterization Near B-2

To further evaluate the area around location B-2, GSI Mid-Atlantic completed eleven (11) additional Geoprobe holes, designated H-1 to H-11, and soil sampling on November 14, 2019. Seven holes were drilled to a depth of five (5) feet and four (4) holes were drilled to 8 feet. The soil samples were screened with a PID and both discrete and composite soil samples were collected from the impacted zone documented for each hole. Two (2) soil samples closest to the existing UST field (H6 and H7) were also analyzed for TPH-GRO and DRO. Eleven discrete soil samples were submitted to the laboratory for analysis for VOCs. The details of the Geoprobe

work, PID readings, the figure showing the locations of the holes, and Pace Analytical laboratory reports are included in Appendix E.

Samples from locations H-1, H-3, H-6 and H-10 were selected for additional TCLP analysis by EPA Method 1311. Based on PCE concentrations, soil sample H-1, H-3 and H-10 were thought to be hazardous, but sample H-6, was selected due to PCE and TCE concentrations that are likely representative of nonhazardous soil. The Pace laboratory report is included in Appendix F.

Due to questions about total Chromium detected in the composite soil sample analyzed in March 2019, we asked Pace to analyze all eleven (11) samples for Metals. Every sample had detections for Barium, Chromium and Lead. The concentrations for Barium and Lead were too low in all the samples to present a leachability concern. The sample with the highest concentration detection of Chromium, H-1 with 113 mg/kg, was selected for an additional TCLP analysis and speciation of the Chromium. The Pace Analytical laboratory reports are included in Appendix F.

6.4 Water Analysis from UST Field Leak Detection Wells

Anticipating possible handling of groundwater during the removal of the USTs as part of Response Action #3, we arranged to obtain grab samples from leak monitoring well LMW-1, LMW-3, LMW-4 and LMW-7 on November 1, 2019. The samples were submitted for VOC, and TPH-GRO and DRO analyses. The LMW-4 sample with noticeable petroleum odor was selected for additional analysis for Semi-Volatile Organic Compounds (**SVOC**), Metals, and Polychlorinated Bisphenols (**PCB**). The detections are summarized on Table 7 and the Pace Analytical laboratory report for all analyses is included as Appendix G.

6.5 Soil Conditions below the Amato Warehouse

To evaluate the source of sub slab soil gas detections below the Amato warehouse floor, GSI Mid-Atlantic completed six (6) Geoprobe holes on December 12, 2019. The Geoprobe holes are designated B-7G, B-8G, B-9G1, B-9G2, B-9G3 and B-10G as shown on Figure 6. Our specific concern was the elevated soil gas at locations B-9 and B-10 along the southern side of the warehouse. This side of the warehouse is closest to the Purple Line right-of-way. Representative soil samples from the Geoprobes were submitted to Pace Analytical for VOC and TPG-GRO and DRO analysis. The field report with PID readings and observations, Pace Analytical laboratory report, and Geoprobe location plan are contained in Appendix H.

6.6 Soil Conditions and Sub Slab Vapor below Perkins Warehouse

To evaluate the impact of the residual soil contamination near B-2 on the Perkin's warehouse we obtained permission from the owner, Family Perkins Place, LLC, to complete Geoprobes inside the warehouse and collect one sub slab vapor sample. GSI Mid-Atlantic mobilized on December 12, 2019 and completed two (2) Geoprobe holes to ten (10) feet, designated B15-G1 and B15-G2, and one sub slab vapor sample point, designated B-15, as shown on Figure 6. PID readings were not detected above 6 in the Perkins Warehouse. To check residual PCE concentrations, soil samples were selected from each Geoprobe hole and submitted to Pace for VOC analysis. The field report with PID readings and observations, Pace Analytical laboratory report, and exploration location plan is contained in Appendix H.

7.0 DISCUSSION OF RELEVANT FINDINGS

The relevant findings regarding sub slab soil gas, indoor air, residual soil, and groundwater are discussed below. All summary tables have been updated to reference MDE's Cleanup Standards

for Soil and Groundwater dated October 2018 and MDE's Technical Guidelines for Vapor Intrusion Table 2-Commercial Scenario (non residential), Sept 2019 (**MDE's Guidance**).

7.1 Exterior Soil Gas and Interior Sub Slab Soil Gas

The text and Tables reference "soil gas" and "soil vapor" interchangeably. We also reference "sub slab soil gas" and "sub slab vapor" interchangeably. Our initial characterization of exterior soil vapor, detailed in Exhibits 1, 2 and 4, identified three (3) main chlorinated compounds of concern:

- PCE
- TCE
- Vinyl Chloride (**VC**)

Cis-1, 2 Dichloroethene (**DCE**) was also detected but at lower concentrations.

Similarly, our characterization of interior sub slab gas, detailed in the same Exhibits, indicate two (2) main chlorinated compounds of concern:

- PCE
- TCE

VC was detected only once at location B-10. The concentration of VC was below MDE's Guidance, and at this time, not considered a sub slab chlorinated compound of concern.

Table 1 summarizes the detections for sampling event 11/27/18 for the exterior soil gas sampling at locations B-1 to B-6 as shown on Figure 6. Table 2 summarizes the results of interior sub slab soil gas detections for sampling events November 28, 2018 and November 22, 2019 inside the Amato building. The laboratory analytical report for the November 22, 2019 sampling event is included in Appendix D. All results were compared to MDE's Guidance which provides maximum Industrial/Commercial Indoor Air concentrations and sets target Industrial/Commercial sub slab soil gas concentrations at 500 times maximum Indoor Air concentration for commercial. Considering the 500x column on Table 1, the exterior soil gas samples from locations B-2, B-4, B-5 exceeded MDE's Guidance for PCE, TCE, cis-1,2 DCE and VC. Interior sub slab soil gas samples at locations B-9 and B-10 exceed MDE's Guidance for only PCE and TCE. VC was detected only once at location B-10 well below MDE's Guidance. Contours depicting PCE and TCE concentrations are included as Figures 7 and 8. These figures do not show a discernable migration pattern, rather, isolated highs at locations B-2, B-9 and B-5.

The origin of the highly elevated concentrations of soil gas at location B-2 is likely related to the existing residual contamination from leaks and drips from historic PCE delivery trucks. The source of the soil gas at B-5 does not appear related to residual soil contamination but more likely soil gas migration from historic spills caused by PCE handling operations near the historic AGT through permeable sand and gravel in the UST field. In both the B-2 and B-5 locations, we believe that the concrete surface slab acts as a barrier to soil gas volatilization and may explain the soil gas accumulations. The source of the soil gas at sub slab locations B-9 and B-10 is thought to be related to historic PCE handling when trucks were loaded at the AGT and used an historic roadway just to the south of the Amato building. That roadway area is currently covered by the garage addition. The sampling locations are shown on Figure 6.

7.2 Interior and Exterior Ambient Air

Our recent characterization of Indoor Air, detailed in Exhibits 2 and 6, identified PCE and TCE as

chlorinated compounds of concern. Though VC was present is dissolved phase, it was absent in all but one sub slab soil samples and all Indoor Air samples. The single detection of VC was well below MDE's Guidance. Given that the release of PCE is historic, the absence of VC in Indoor Air indicates that the migration pathway from volatilization of VC from residual and/or dissolved phase to Indoor Air is incomplete.

The detection of PCE and TCE in the sub slab soil gas helps to explain detections of those same compounds in the Indoor Air. A comparison of MDE's Guidance to Indoor Air detections is shown on Table 3. Table 3 also includes the interior sub slab detections. The detections of 1-3, Butadiene and 1,2,4 Trimethylbenzene are related to automotive garage operations, and as shown on Table 3, were not detected in sub slab soil gas below the Amato building. Table 3 also shows that PCE and TCE exceeded MDE's Guidance only during Round #1 sampling in January 2019.

Due to the concerns about Indoor Air results from January 2019, MDE required implementation of an "immediate" remediation system to lower the concentrations to acceptable levels. The upgrade to the HVAC system was completed in November 2019. The additional testing completed in November 2019 to validate its effectiveness is discussed under Section 6.2. The laboratory data indicates that the Indoor Air in the Amato office remains below MDE's Guidance.

Prior to running the Pilot Test for the HVAC system, outdoor air samples were taken on the roof of the Amato building on March 26, 2019. This was done to check that the quality of the outdoor air would be acceptable for blending into the new HVAC system. Four (4) 6-liter Summa canisters with 8-hour flow gauges were placed at each of the four corners of the Amato building rooftop and left to collect exterior ambient air for 8 hours. The canisters were sent to Eurofins for analysis using the EPA Method TO-15 using GC/MS full scan mode method. Low levels of contaminants were found in the exterior ambient air, but not at concentrations of concern. The laboratory results were sent to MDE on May 10, 2019 and approved, but were not discussed in any of the eight (8) Summaries of Findings.

7.3 Soil/Residual Phase

Field exploration and laboratory testing information indicate residual soil contamination in most areas across the central and western portion of the Property, are below MDE Guidance. Exploration was limited by the large UST field on the east side of the Amato building. Our exploration was limited to the perimeter areas around the UST field to avoid possible damage to the UST, and cathodic protection and electrical system. However, the sand/gravel likely used to backfill the UST field does not have the capacity to absorb contaminants from dissolved phase contaminants in the groundwater. The results of groundwater testing from the leak monitoring wells also does not indicate dissolved phase contaminant concentrations, that if absorbed by soil, would create a concentration exceeding MDE's Guidance.

The area near boring B-5 was evaluated due to an elevated soil gas detection, as seen in Appendix A-Exhibit 4. Geoprobe holes were drilled around the B-5 location to obtain soil samples for laboratory analysis. The location of the Geoprobe holes and the laboratory test results are included in Exhibit 5. We have also included a summary of laboratory results for soil as Table 4. Though the soil gas detection of PCE and TCE at location B-5 were elevated, the residual soil contamination from chlorinated compounds of concern and petroleum hydrocarbons are below MDE's Guidance. The locations of the Geoprobe holes is shown on Figure 6.

The exploration near B-2 was complicated by the Perkin's warehouse to the west, water and sanitary sewer lines/easements and existing underground storage tanks. The residual PCE and TCE soil concentrations appear concentrated at four locations and are above MDE's Guidance as shown on Tables 5 and 8. No petroleum hydrocarbons were detected above MDE's Guidance.

Plotting and interpolating the laboratory data for PCE from the March and November 2019 sampling events indicates three isolated zones as shown on the Figure included in Appendix E. The available analytical data does not indicate a clear connection between the soil zones but unknown subsurface pathways may actually interconnect the zones. The residual soil contamination near location B-2 is considered a source area for soil gas generation. The residual soil conditions near location B-2 were not found anywhere else on the Property.

The Pace Analytical laboratory results confirm our sample selection assumptions and indicate that PCE concentrations less than 127 mg/kg should result in nonhazardous characteristics. The soil samples with PCE above 3,500 mg/kg should be hazardous. PCE seems to be the critical compound since the results indicate that soil sample H-1 and H-10 had acceptable TCLP TCE results but unacceptable TCLP PCE results.

Anticipating possible offsite disposal from the area of B-2, arrangements were made to prepare a composite sample for laboratory analysis for VOCs, SVOCs, TPG-GRO and DRO, Metals, and PCBs. A description of the composite sample and the laboratory test results are included in Appendix J. The composite sample results indicate PCE and TCE concentrations well below the concentrations reported for the discrete sample results. The results do indicate Benzo(a)pyrene above MDE's Guidance of 2.1 mg/kg. No petroleum hydrocarbons were detected above MDE's Guidance. We do not believe that the results for the single composite soil sample is representative of the general soil in the B-2 area. Disposal facilities that we communicated with are concerned about the elevated PCE and TCE concentrations near location B-2. Additional analysis to evaluate the Chromium detection at location H-1 indicated exclusively Trivalent.

Geoprobe exploration inside the Amato warehouse was also completed to evaluate the source of the sub slab chlorinated compounds of concern detected in soil gas. The Pace Analytical results are summarized on Table 9 and show no chlorinated compounds or petroleum hydrocarbon detections above MDE's Guidance. The field report, field plan, and Pace laboratory report is included in Appendix I.

Finally, Geoprobe exploration and additional sub slab testing was completed in the Perkin's Warehouse. The Perkin's Warehouse is adjacent to location B-2 and the current owners wanted further evaluation before completing a real estate transaction. The analytical test results are summarized on Table 10 and indicate no detections above MDE's Guidance. Sub slab testing at location B15-G1 and B15-G2 immediately inside the Perkins Warehouse indicate no detections above MDE's Guidance. The field report, field plan, and Pace laboratory report is included in Appendix I.

7.4 Groundwater

As discussed previously, the Property and surrounding area is served by public water. No drinking water wells are reported to exist near the Property. The groundwater gradient is complicated by the existing UST systems on the east and west sides of the Amato building and a steep topographic change along the southern property line. The major impact to groundwater flow is on the east side where there are fourteen (14) existing USTs. The bottom of the USTs are at least 12 feet below ground surface and are supported by a concrete matt. Photo 1-3 show the USTs and concrete matt. The UST field is surrounded by six (6) leak monitoring wells. The UST field on the west side of the Amato building near location B-2 has two (2) leak monitoring wells. In addition to the USTs, the sanitary and storm sewer sewers runs through the west side as shown on Figure 4. We understand that both sewers are below 15 feet in the ground. These features all have control on groundwater flow pathways.

Monitoring wells MW-1 to MW-3 and LW-1 to LW-8 were gauged on several occasions. As shown

on Table 6, the most recent groundwater levels in all monitoring wells generally range from 10-12 feet below existing grade. The groundwater levels observed in the LW-1 to LW-6 on the east side have shown wide variability in elevation due to recharge from precipitation. The LW-7 and LW-8 on the west side have followed the predicted groundwater flow direction. In general, groundwater levels have been falling over the past year due to regional draught conditions. Regardless of the changes in groundwater levels in the monitoring wells MW-1 to MW-3, the general direction of groundwater flow has not changed. Figure 9 shows groundwater contours and flow direction to the west for the March 2019 data. We did not update the figure for the November data because the groundwater flow direction did not change.

To obtain additional information of groundwater chemistry, a Multi-parameter 340i probe was used to measure groundwater characteristics in the three monitoring wells. The parameters measured on January 2, 2020 are shown below.

Table 7.4 Monitoring Well Groundwater Parameters

Well	Depth to Water (ft)	Dissolved Oxygen (mg/L)	pH	Conductivity (µS/cm)	Salinity	ORP (mV)	Temperature (°C)
MW-1	12.55	1.91	6.25	2.51	1.1	56	17.9
MW-2	10.35	2.20	7.18	5.38	2.8	4	14.1
MW-3	9.80	1.87	5.37	2.31	1.0	106	15.5

Dissolved Phase

Groundwater samples were collected from monitoring wells MW-1 to MW-3 in March and June 2019 and the results are included in Appendix B-Exhibit 8. Table 7 summarizes the detections for both sampling events and provides a comparison to EPA Resident Vapor Screening Levels for Target Groundwater Concentrations dated May 2019 (**Target Groundwater**). The comparison indicates exceedance for PCE, TCE, VC and Chloroform. PCE and Chloroform were detected above screening levels in *only* MW-1; the furthest downgradient monitoring well. TCE and VC were detected above screening levels in each well during one or both sampling events. A contour of PCE concentrations is included as Figure 10. The general flow direction of the groundwater and PCE plume as indicated by the contours is towards the southwest.

The summary of groundwater chemistry from the leak monitoring wells indicates TCE exceeding EPA's Screening Levels at LMW-7. VC exceeded EPA Screening Levels at LMW-1. These compounds were also detected in the monitoring wells at slightly higher concentrations. PCE was not detected in any of the leak monitoring wells but was detected in monitoring well MW-1. Groundwater chemistry results are included in Table 7.

Natural Degradation

At this stage, we lack the necessary groundwater chemical data to evaluate if the degradation of DCE to VC has stalled. TCE was detected above Target Groundwater concentrations in all monitoring wells. Similarly, the data indicates that 1,1-DCE was detected in all monitoring wells but not above Target Groundwater levels. Cis-1,2-DCE and trans-1,2-DCE were detected in all monitoring wells but no Target Groundwater levels are listed by EPA. Based on dissolved oxygen (**DO**) concentrations of 1.9 to 2.0 mg/L, there appears to be adequate DO to complete the degradation of VC. Research by SERRDP titled Elucidation of the Mechanisms and Environmental Relevance of cis-DCE and VC Biodegradation (Cox, 2012) indicate that a 100 ug/L concentration

of VC requires a DO concentration of 0.1 mg/L for its complete degradation by aerobes. The VC concentrations detected in the monitoring wells range from 38 to 295 ug/L which would seem to suggest that the DO concentration in groundwater are adequate to enhance further degradation of VC to carbon dioxide. It is well understood that degradation of VC under both aerobic and anaerobic conditions is highly complex. Technical assumptions about the mechanism of degradation have often proven incorrect. We plan to collect additional groundwater samples to evaluate VOCs, and dissolved methane, carbon dioxide, ethane and ethene concentrations. This additional data with help to establish trends and provide information necessary to evaluate the natural degradation process.

8.0 EXPOSURE ASSESSMENT

8.1 Potentially Exposed Populations

The Property has been used as a pool and dry cleaning supply business and bulk heating oil facility since the 1970s. In January 2019, Amato permanently discontinued the dry cleaning supply business. According to the VCP, the current land use is considered "Industrial Tier 3B. The VCP defines this land use category as "property that allows exposure and access by workers over 18 and construction workers as well as intermittent visitors and trespassers". Industrial purposes allow access to the property at a "frequency and duration consistent with a typical business day". The proposed future use of the Property will not change from the current business activities.

The Amato Property is bordered by Talbot Avenue and the Amtrak railroad right-of ways to the north and east. The width of these right-of-ways is approximately 50 feet. The nearest residential communities are located approximately 150 feet to the northeast across the Talbot Avenue and Amtrak right-of-ways and 100 feet to the south across the Purple Line right-of-way. The groundwater flow direction is to the southwest, away from the residential properties, and towards property zoned commercial/industrial. All commercial/industrial properties utilize public water. Exposure to offsite Commercial/Industrial Workers is improbable due to distance and grade changes.

As far a soil gas migration in the vadose zone, there is a steep topographic drop towards the Purple Line right-of-way. The grade changes from monitoring well MW-1 at Elevation 319.55 to the bottom of the Purple Line right-of-way is over 9 feet. If soil gas were to migrate in the vadose zone to the southwest it would reach daylight somewhere on the slopes that drop to the Purple Line tracks. In essence, the topographic drop to the Purple Line right-of-way serves as a likely cut off to soil gas migration. Moreover, the PCE soil gas concentration at MW-1 was at 555 ug/m3 with MDE Guidance of 90,000 ug/m3. TCE was below MDE Guidance. As far as soil gas migration towards the Perkin's Warehouse, the sub slab soil tests from location B-11 conducted inside the warehouse in January 2019 indicate no detections of PCE and TCE. Follow up testing conducted at location B-15 in January 2020, indicate no detection above MDE Guidance as shown on Table 10. VC was detected at sub slab soil gas location B-11, approximately 60 feet from location B-2, in February 2019. The results from sub slab soil gas location B-15, 15 feet away from location B-2, indicated no VC. DCE and other VOCs were detected at low concentrations are considered related to other industrial type activities from tenants in the Perkin's building. The evaluation of the potential for soil gas migration towards the Perkin's Warehouse indicates very low probability. This condition is likely due to the surface nature of the actual release of PCE, and the building foundation and wall design that extended at least three (3) feet below grade and acts as a barrier to horizontal soil gas migration.

Excavation work necessary to complete Response Action #3 near exploration location B-2 is anticipated in the spring 2020. The maximum depth of excavation near location B-2 will be limited

to 5-6 feet to maintain 2-3 feet of separation from the groundwater. To eliminate Construction Worker exposure to contact with groundwater during the UST removal near location B-2, the contractor will implement a dewatering system to hold the groundwater down below 16-18 feet to allow removal of the two USTs and backfill operations to occur in dry conditions.

8.2 Exposure Pathways and Proposed Response Actions

Exposure pathways, population, and proposed Response Actions are summarized below.

Table 8.2 Summary of Exposure Pathways and Proposed Remedies

Exposure Pathway	Population	Proposed Response Action
Ingestion/Dermal Contact with Subsurface Soil	Construction Workers	**Administrative Control**: Any excavation at the Property required by the RAP, such as Response Action #3 and any future excavation for any purpose, may encounter contaminated soils. Any contractor conducting excavation work at the Property will be required to prepare a Health & Safety Plan (**H&SP**) that will mitigate worker exposures by specifying appropriate personal protective equipment and soil handling procedures and backfill testing. **Engineering Control**: Requires restoration of surface capping of all disturbed areas.
Inhalation of Fugitive Dust	Construction Workers Industrial/Commercial Worker/Intermittent Visitors and Trespassers	**Administrative Control**: The contractors H&SP will mitigate worker exposures by specifying appropriate personal protection and dust monitoring requirements. Response Action #3 requires direct soil loading into truck for offsite disposal to mitigate dust generation. **Engineering Control**: Concrete/asphalt surface cap will be maintained to mitigate risks to industrial/commercial workers.
Ingestion/Dermal Contact with Groundwater	Construction Workers Industrial/Commercial Workers/ Intermittent Visitors and Trespassers	**Engineering Control:** Depth to groundwater ranges from 7 to 10 feet. Response Action #3 required by the RAP has been engineered to limit excavation of impacted soil in the area of B-2 to a depth of 2-3 feet above the groundwater. **Engineering Control**: Any future excavation at the Property, will require dewatering to mitigate direct contact with groundwater. The contractors' H&SP will specify appropriate work and hygiene practices to mitigate exposure. In general, water will be filtered to remove sediment, if necessary, containerized, tested and discharged to the storm sewer in accordance with discharge permit and/or transported offsite. **Administrative Control**: Talbot Properties, LLC will place a Deed Restriction prohibiting groundwater use. **Administrative Control**: Talbot Properties, LLC will place a Deed Restriction requiring engineering control to prevent future excavation that contact groundwater.
Inhalation of Subsurface Gases	Construction Workers	**Administrative Control**: The contractors H&SP covering execution of Response Action #3 will specify appropriate excavation procedures and personal protective equipment to mitigate exposure to organic vapors. Specifically, impacted soils will be directly loaded onto truck for offsite disposal and workers will not be required to enter the excavation. **Administrative Control**: An H&SP will be required for any future excavation work that specifies appropriate excavation procedures and personal protective equipment to mitigate vapor exposure.

Indoor Ambient Air	Industrial/Commercial Adult Worker/ Intermittent Visitors and Trespassers	**Engineering Control**: Response Action #2 requires that visible openings in the warehouse and office floor be caulked to minimize any sub slab soil gas vertical migration. Visible openings at the contact between the exterior wall and the concrete slab will be also caulked to the maximum extent possible. **Engineering control**: Response Action #1 requires that the existing HVAC system for the Amato Office be upgraded to introduce additional outside air into the office to reduce concentrations of any individual chlorinated compound and the sum of all chlorinated compounds remain below MDE's Technical Guidelines for Vapor Intrusion Table 2: Commercial Scenario (non-residential), Sept 2019. To date, the HVAC system upgrades have been effective. **Engineering Control**: Response Action #3 should remove the "source zone" near location B-2 and reduce the generation of soil gas that is migrating and impacting the Amato office. **Engineering Control**: Response Action #4 requires follow-up sub slab gas sampling under the Amato office for 24 months. If concentrations on any one chlorinated compound or the sum of all chlorinated compounds is above MDE's Technical Guidelines for Vapor Intrusion Table 2: Commercial Scenario (non-residential), Sept 2019, a sub slab vapor extraction system must be designed and submitted to MDE as a RAP Amendment. **Engineering Control**: Response Action #5 requires follow up indoor Ambient Air sampling in the Amato office for 24 months to check that the HVAC system continues to hold the concentrations of any single chlorinated compound, and the sum of all chlorinated compound concentrations, below MDE's Technical Guidelines for Vapor Intrusion Table 2: Commercial Scenario (non-residential), Sept 2019. **Engineering Control**: Response Action #6 involves two groundwater sampling events over the next year to further evaluate VOC concentrations and other chemical constituents involved with natural attenuation of VC.

8.3 Ecological Receptors

The Property is located in downtown Silver Spring, Maryland; an intensively developed area. There are no surface water bodies within 500 feet of the Property. Ecological receptors are not considered a concern.

9.0 CLEANUP CRITERIA AND ENGINEERING TECHNOLOGIES/INSTITUTIONAL LAND USE CONTROLS

No redevelopment of the Property is planned. With the exception of elevated residual soil concentrations of PCE and TCE in the area of exploration B-2 and a detection of Benzo(a)pyrene in a composite sample from various Geoprobe holes near B-2, no soil has been identified with contaminants exceeding MDE Guidance. Response Action #3 is intended to remove the source zone of impacted soil.

Studies have demonstrated that excavation and removal of an isolated PCE is preferred to other in-situ treatment alternatives, such as vapor extraction. Therefore, due to the general accessibility to the source area, we recommend excavation and offsite disposal of soil exceeding MDE Guidance. Soil chemistry will be evaluated as the excavation occurs. The vertical and horizontal

limits of excavation will be limited by structures, depth to groundwater, and existing utilities.

9.1 Ingestion of and Dermal Contact with Subsurface Soil

The soil materials from the area of B-2 are classified as both hazardous and nonhazardous. Response Action #3 requires direct loading of soil into trucks for offsite disposal to the licensed facility. Due to the close proximity of the UST field to the excavation area, the sand/gravel materials excavated with the two USTs may also require offsite disposal. All excavation work is subject to an Administrative Control to prepare an H&SP to mitigate possible Construction Worker exposures and an Engineering Control to restore all concrete surface capping. If for any reason, we are unable to successfully remove all soils impacted by chlorinated compounds of concern, Talbot Properties, LLC is prepared to place a Deed restriction to excavation in the area where soil remain. Natural soils near B-5 were all below MDE Guidance. Future excavation work at the Property will be subject to Administrative Control to prepare an H&SP to mitigate Construction Worker exposures and Engineering Control to restore surface concrete capping.

The soil sampling under the Amato building and Perkin's warehouse did not indicate any chlorinated compounds of concern or petroleum hydrocarbons above MDE Guidelines. This finding is consistent with our understanding that PCE was not stored or handled inside the Amato building. There is also no history of USTs below the Amato Building.

9.2 Inhalation of Fugitive Dust

The only known excavation work is associated with Response Action #3. This work is subject to an Administrative Control to prepare an H&SP to mitigate Construction Worker exposure and an Engineering Control to restore surface concrete capping to mitigate Industrial/Commercial Adult Worker/ Intermittent Visitors and Trespassers.

9.3 Ingestion/Dermal Contact with Groundwater

The Administrative Control prohibiting groundwater use will mitigate Industrial/Commercial Adult Worker/ Intermittent Visitors and Trespassers exposure. The groundwater measurements that have been recorded over approximately one year indicate a depth range from 8 to 10 feet below grade. Excavation work for Response Action #3 near location B-2 is Subject to an Engineering Control to maintain a 2-3-foot separation from the groundwater to mitigate Construction Worker exposure. Possible future excavation below groundwater level is subject to an Administrative Control to require an Engineering Control to prevent groundwater contact. The Engineering Control requires a dewatering system to lower the groundwater 2-3 feet below the lowest excavation depth to prevent Construction Worker contact with groundwater. The engineered system would include direct pumping from dewatering wells to a containment tank and offsite disposal and/or onsite treatment and discharge according to a MDE General Permit.

9.4 Inhalation of Subsurface Gases

Execution of Response Action #3 is subject to the Administrative Control requiring an H&SP that required personal protective equipment and soil excavation and direct soil loading procedures to mitigate Construction Worker exposure.

Possible future excavations are also subject to the Administrative Control requiring an H&SP that specifies appropriate excavation procedures, personal protection equipment, and monitoring is necessary.

9.5 Indoor Ambient Air

Response Action #1 requires an Engineering Control to upgrade the existing HVAC system for the Amato Office to introduce additional air into the office to reduce concentrations of chlorinated compounds of concern below MDE Guidance.

Response Action #2 requires an Engineering Control to caulk visible openings in the warehouse and office floor to minimize any sub slab soil gas vertical migration. Visible openings at the contact between the exterior wall and the concrete slab in the Amato office area has also been caulked to the maximum extent possible.

Response Action #3 requires the Engineering Control to remove soil from the source zone near location B-2. This should help reduce lateral soil gas migration towards the Amato building.

Response Action #4 requires an Engineering Control to monitor sub slab soil gas below the Amato building biannually for a minimum of 24 months. If sub slab soil gas concentrations of a single chlorinated compound is greater than 500 times the Indoor air concentration listed in MDE Guidance then monitoring may continue or an Engineering Control to lower the sub slab concentration(s) can be designed. The design of such system would be included in a RAP Amendment.

Response Action #5 requires an Engineering Control to monitor Indoor Air biannually for a minimum of 24 months. If Indoor Air concentration for a single chlorinated compound or sum of all chlorinated compounds exceed MDE Guidance, then an Engineering Control to adjust the air flow through the existing HVAC system is required with retesting within one month to confirm acceptable concentrations. Final confirmatory Indoor Air testing is required after two consecutive sub slab soil gas samples confirm acceptance with MDE Guidance.

Response Action #6 involves an Engineering Control to collect two additional rounds of groundwater samples over the next year to further evaluate groundwater chemistry. We will obtain additional measurements of critical groundwater parameters, such as ORP and DO. In addition to VOCs, we will analyze for iron and magnesium (total & dissolved), sulfate, sulfide, nitrate, total organic carbon, alkalinity, chloride, dissolved methane, CO2, ethane, and ethene. The data obtained is necessary to evaluate the possible use of Sulfidated-MicroZVI, to accelerate the reduction of chlorinated hydrocarbons in the soil. Sulfidated-MicroZVI helps to bypass the traditional reduction pathway to VC to be circumvented. The groundwater chemical data will be used to understand if natural degradation of VC is occurring.

10.0 EVALUATION CRITERIA FOR THE SELECTED TECHNOLOGY

10.1 Criteria for Certificate of Completion

As the field representative for Talbot Properties, LLC, CCRG staff will coordinate and monitor all Response Actions and prepare any necessary RAP Amendments and provide documentation that provides the justification for issuance of a Certificate of Completion to Talbot Properties, LLC. Our work will involve aspects of the following:

Prepare Health & Safety Plan

- Require the contractor to prepare an H&SP prior to commencing the scheduled Response Action #3.

Soil Excavation and Disposal

- During soil excavation and offsite transport and disposal, CCRG will prepare field reports to document the location and volume of soil removed. CCRG will also photograph the excavation work. Groundwater dewatering installed for the UST removal on the west side of the Amato building will be checked to verify that Construction Workers do not enter the excavation and contact the groundwater. Soil samples will also be collected at a frequency required by the disposal facility, and submitted for laboratory testing for the parameters required by the approval documentation. The results will be included in CCRG's monthly reports. CCRG will also obtain the manifest and provide a copy to the driver of each truck that is responsible for hauling soil to the disposal facility. Demonstrate with confirmatory laboratory testing that soils with concentrations of chlorinated compounds of concern above MDE's Guidance have been removed to the maximum extent possible given the constraints of shallow groundwater, utility lines and the Perkin's warehouse. MDE's Guidance for specific target compounds is as follows:

  PCE - 39 mg/kg
  TCE - 1.9 mg/kg
  Cis-1,2-DCE - 230 mg/kg
  Vinyl Chloride - 1.7 mg/kg
  Benzo(a)pyrene - 2.1 mg/kg

Sub Slab and Indoor Ambient Air Sampling

- Conduct all air testing according to EPA Method TO-15 to demonstrate that sub slab gas concentrations are below a concentration 500 times the Indoor Air concentration listed in MDE's Guidance.

  MDE's Guidance for specific target sub slab gas compounds is calculated as follows:

  PCE - 18,000 ug/m3
  TCE - 880 ug/m3
  VC - 2790 ug/m3

  Currently, VC has only been detected in one sub slab sample at concentration well below MDE's Guidance.

- Similarly, demonstrate that Indoor Air in the Amato office area is below MDE Guidance.

  MDE's Guidance for specific target Indoor Air compounds is as follows:

  PCE - 180 ug/m3
  TCE - 8.8 ug/m3
  VC - 28 ug/m3

  Currently, VC has not been detected in any Indoor Air samples collected after January 2019. The concentrations detected in January 2019 were well below MDE's Guidance.

Institutional Control Recorded to Land Records

- Record Deed Restriction to residential use of the Property
- Record Deed Restriction prohibiting the use of groundwater beneath the Property for any purpose.

- Record Deed Restriction prohibiting contact with groundwater.
- Record Deed Restriction prohibiting excavation in areas where soil remain with contaminant concentrations above MDE's Guidance.

10.2 Criteria for Contingency Measures

If, during implementation of this RAP, any free product, previously undiscovered contamination, change to the RAP schedule, or citation from regulatory entities related to health and safety practices are identified, MDE will be verbally notified within 24 hours by Talbot Properties, LLC. In addition, written notification will also be provided to MDE within one week. Notifications will be provided to the VCP at the following address:

MDE Land Restoration Program/Voluntary Cleanup
C/o Division Chief
1800 Washington Boulevard, Suite 625
Baltimore, Maryland 21230
Phone: 410-537-3493

If any petroleum hydrocarbon related concerns are identified during excavation work, the Oil Control Program (**OCP**) will be verbally notified at (410) 537-3442 within 24 hours by the owner. OCP will also be notified prior to any UST removal.

11.0 REPORTING REQUIREMENTS

CCRG is responsible for monitoring the progress of all Response Actions. CCRG will provide field reports, which will include photographs of activities at the Property. Progress reports will be issued for the following critical milestones: (1) Completion of Soil Removal Near B-2; (2) Additional Biannual Sub Slab Gas Sampling after Completion Soil Removal near B-2; and (3) Biannual Indoor Air Sampling. CCRG will follow up each progress report with a call to MDE to discuss any questions and/or concerns. When MDE's Guidance has been met, a RAP Completion report will be submitted and issuance of a Certificate of Completion will be requested.

11.1 General Health & Safety

The General Contractor's Construction H&SP should provide provisions for safety consistent with the General Contractor's experience on similar projects. The following Standards may apply to the General Contractor's H&SP:

- OSHA Standards for Construction Industry, 29 CFR 1926, including 29 CFR 1926.65, Hazardous Waste Operations and Emergency Response,
- Occupational Safety and Health Administration (**OSHA**) Standards for General Industry, 29 CFR 1910,
- National Institute for Occupation Safety and Health (NIOSH)/OSHA/USCG/U.S. Environmental Protection Agency (**USEPA**), Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities, October 1985.

The Contractor will complete an H&SP and specify "minimum" personal protective equipment and hygiene practices before the start of any excavation.

12.0 PERMITS, NOTIFICATIONS, AND CONTINGENCIES

Talbot Properties, LLC will comply with all local, State, and federal laws and regulations by obtaining all necessary approvals and permits to conduct the activities and implement the RAP. If during implementation of this RAP any previously undiscovered contamination, change to the remediation schedule, previously undiscovered storage tank or other oil-related issue, or other citation from regulatory entities related to health and safety practices is identified, the MDE VCP will be verbally notified within 24 hours by the Participant.

Notifications will be provided to the VCP at the following address:

MDE Voluntary Cleanup Program
C/o Division Chief
1800 Washington Boulevard, Suite 625
Baltimore, Maryland 21230
Phone: 410-537-3437

The MDE VCP will be provided with all documentation and analytical reports generated as a result of newly identified conditions. This includes manifests for contaminated material transported for offsite disposal. Talbot Properties, LLC understands that previously undiscovered contamination, previously undiscovered storage tanks or other oil-related issues may require an amendment to this RAP.

If any UST or petroleum related concerns are identified, the Oil Control Program will be verbally notified at (410) 537-3442 within 24 hours by Talbot Properties, LLC.

13.0 IMPLEMENTATION SCHEDULE

CCRG expects that Response Action #3 in the area of B-2 will start on August 17, 2020. MDE has given conditional approval to complete this response before final RAP approval to address the ongoing sub slab soil gas and indoor air issues in the Amato office building. The work was supposed to start in March but has been delayed due to the pandemic and Amato's business operations.

The implementation schedule for Response Action #4, #5 and #6 are as follows.

TASK EVENT	Estimated Start Date from RAP Approval/Estimated Duration	Cumulative Days to Complete from RAP Approval	Est. Date of Completion
Response Action #4 – Biannual Sub Slab Air Monitoring	30 days	730	November 1, 2022
Results of Response Action #4 to MDE	182 days/30 days 365 days/30 days 547 days/30days 730 days/30 days	850	March 1, 2023

Response Action #5-Biannual Indoor Air	182 365 547 730	730	November 1, 2022
Results of Response Action #5 to MDE	182 days/30 days 365 days/30 days 547 days/30 days 730 days/30 days	850	March 1, 2023
Acceptable Risk–Discontinue Monitoring	850 days		March 1, 2023
Unacceptable Risk-Design and Install Sub Slab Extraction System, Testing & Startup	850 days/90 days	940	June 1, 2023
Post Installation Sub Slab and Indoor Air Monitoring Groundwater Monitoring	940 days/30 days	970	

Response Action	Completion Date (days from RAP approval)
#4-Subslab monitoring	730
#5-Indoor Air monitoring	730
#5-Discontinue all monitoring	730 (acceptable risk)
#5-Design and install sub slab extraction system	850 (if risk persists after 730 days)
#5-Post Installation monitoring	910 (monthly for 2 months)
#6-Continue groundwater monitoring	365

The schedule will be updated during RAP implementation and MDE will be notified of any changes.

14.0 ADMINISTRATIVE REQUIREMENTS

14.1 Written Agreement Regarding VCP Withdrawal Provisions

If the RAP is approved by the Maryland Department of the Environment, Talbot Properties, LLC agrees, subject to the withdrawal provisions of Section 7-512 of the Environment Article, to comply with the provisions of the RAP. Talbot Properties, LLC understands that if it fails to implement and complete the requirements of the approved plan and schedule, the MDE may reach an agreement with Talbot Properties, LLC to revise the schedule of completion in the approved RAP or, if an agreement cannot be reached, MDE may withdraw approval of the RAP.

14.2 Zoning Certification

The Participant hereby certifies that the Property meets all applicable county and municipal zoning requirements.

The Participant acknowledges that there are significant penalties for falsifying any information required by MDE under Title 7, Subtitle 5 of the Environment Article, Annotated Code of Maryland, and that this certification is required to be included in a RAP for the Voluntary Cleanup Program pursuant to Title 7, Subtitle 5 of the Environment Article, Annotated Code of Maryland.

Talbot Properties, LLC
a Maryland Limited Liability Company

by: _____

Joseph Amato,
President

8/6/2020
Date

14.3 Performance Bond or other Security

The Participant will obtain a performance bond, letter of credit, or other security measure in an amount of $98,000 as required by Section 6.6.3 of the VCP Guidance Document and Section 7-508(c)(4) of the Environment Article, Annotated Code of Maryland. The bond is intended to cover the following list of items in the event the Participant is unable to complete the work.

Response Action #4 $63,000
- 2 years of bi-annual sub-slab vapor monitoring with laboratory analysis
- Submission of bi-annual letter summary reports
- Continued sub-slab vapor monitoring, and if necessary, design and installation of sub-slab gas extraction system

Response Action #5 $20,000
- 2 years of bi-annual indoor air monitoring with laboratory analysis
- Submission of bi-annual letter summary reports

Response Action #6 $15,000
- 1 year of bi-annual groundwater monitoring with laboratory analysis
- Submission of bi-annual letter summary report

See Section 13.0 for more details on the Implementation Schedule.

14.4 Public Notification

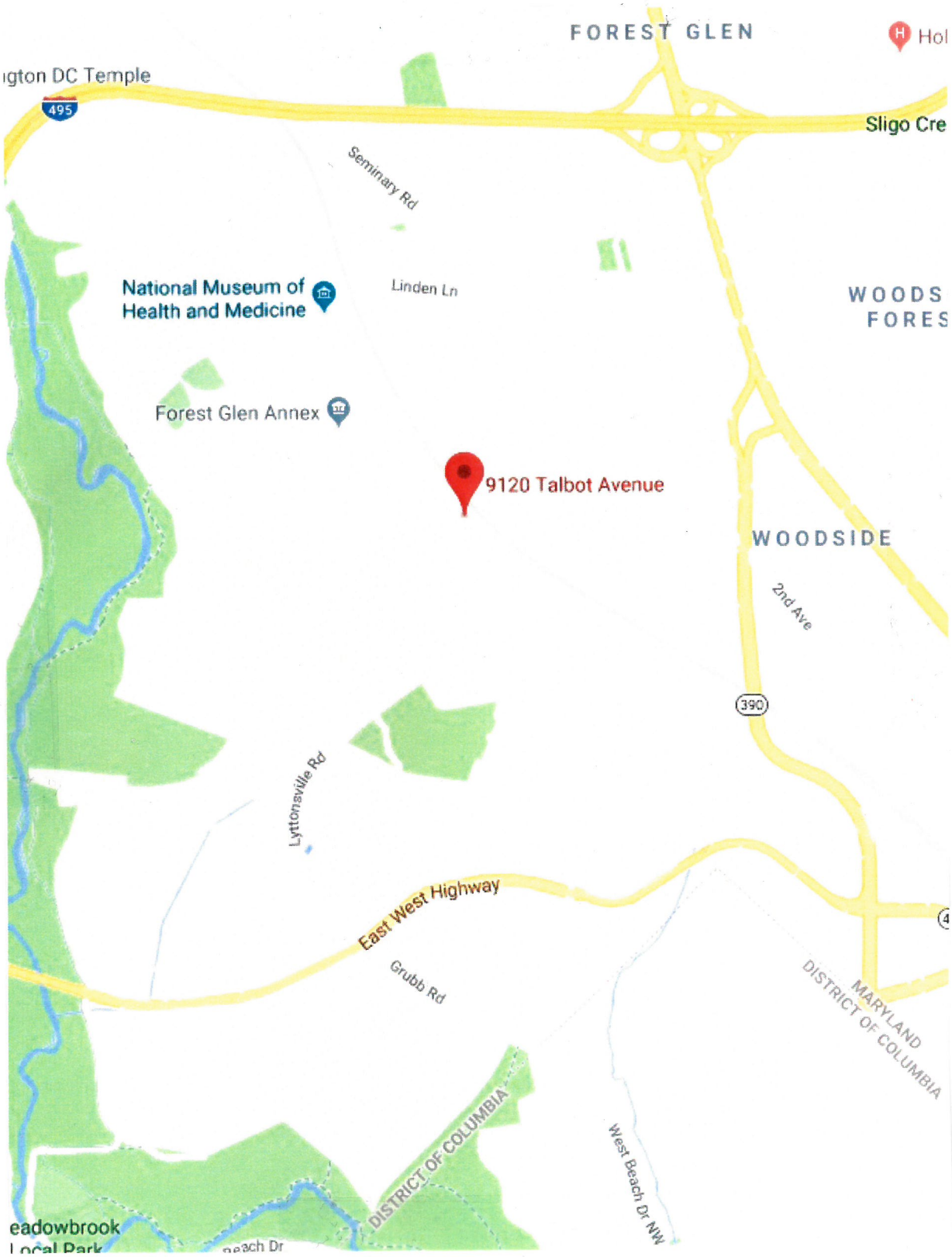
Upon issuance of this RAP to the MDE, the Participant published a public notice in *The Daily Record*, a daily newspaper of general circulation where the eligible property is located. The notice will be appear in the August 10 and August 17, 2020 editions. The public notice was approved by the MDE prior to publication and conformed to the requirements of Section 6.4 and subsections of the MDE VCP Guidance Document. The notice provides information on the virtual public informational meeting on the final RAP scheduled for September 16, 2010 ay 5:30pm. Questions, comments, responses, or documentation related to the virtual meeting will be accepted by MDE until October 2, 2020.

15. LIMITATIONS

The work on the project has been carried out in accordance with reasonable and acceptable engineering and environmental practices. No other warranty, either written or implied, is applicable to this work. The interpretations and recommendations in this report are based solely on the information available at the time this report was prepared and the observations CCRG made during the various phases of exploration.

Subsurface conditions may vary from those encountered at the exploration locations. The exploration boring logs are intended to only represent the conditions at the exploration locations when the sampling occurred. Stratigraphic boundaries shown on the logs represent interpolation of the vertical variations between each stratum and may not indicate the complete stratigraphy at the site. Classifications of the recovered soil samples are based on recognized standards.

The nature and extent of variations between exploration locations and observed conditions may not become evident until excavation begins. If variations become evident during excavation, CCRG should be contacted in order that actual conditions can be reviewed and its recommendations adjusted accordingly. The interpretations and recommendations in this report are based solely on the information available at the time this report was prepared.



Base map provided by Google Maps

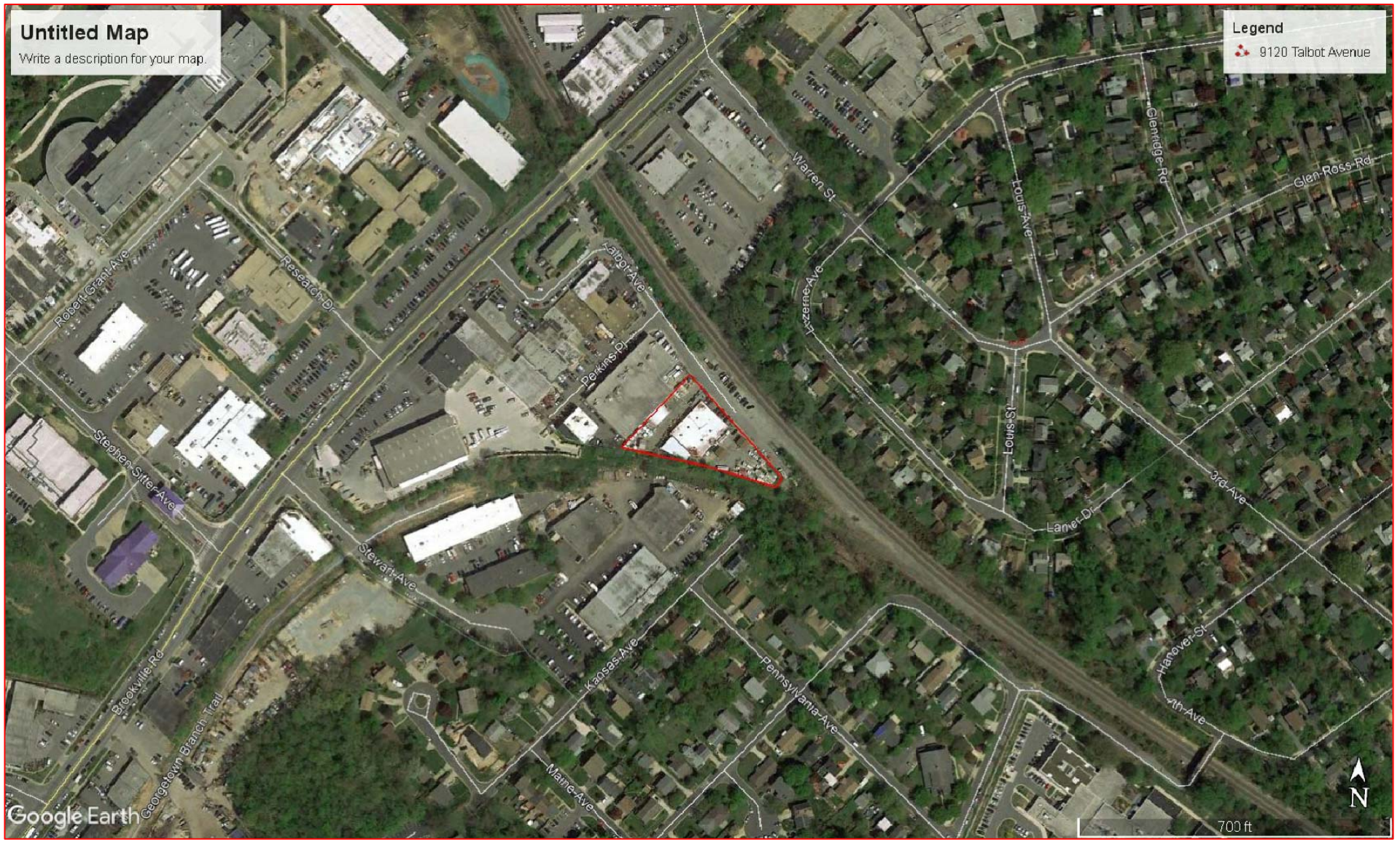
CCRG
Clendenin Consulting & Remediation Group

Talbot Properties, LLC VCP

Site Location Plan

Silver Spring, Maryland

Date: 8/10/2018	Scale: N/A
Drawn by: SJK	Approved by: BEC
Project #: 18006	Figure: 1



Aerial Photo provided by Google Earth April 30, 2018

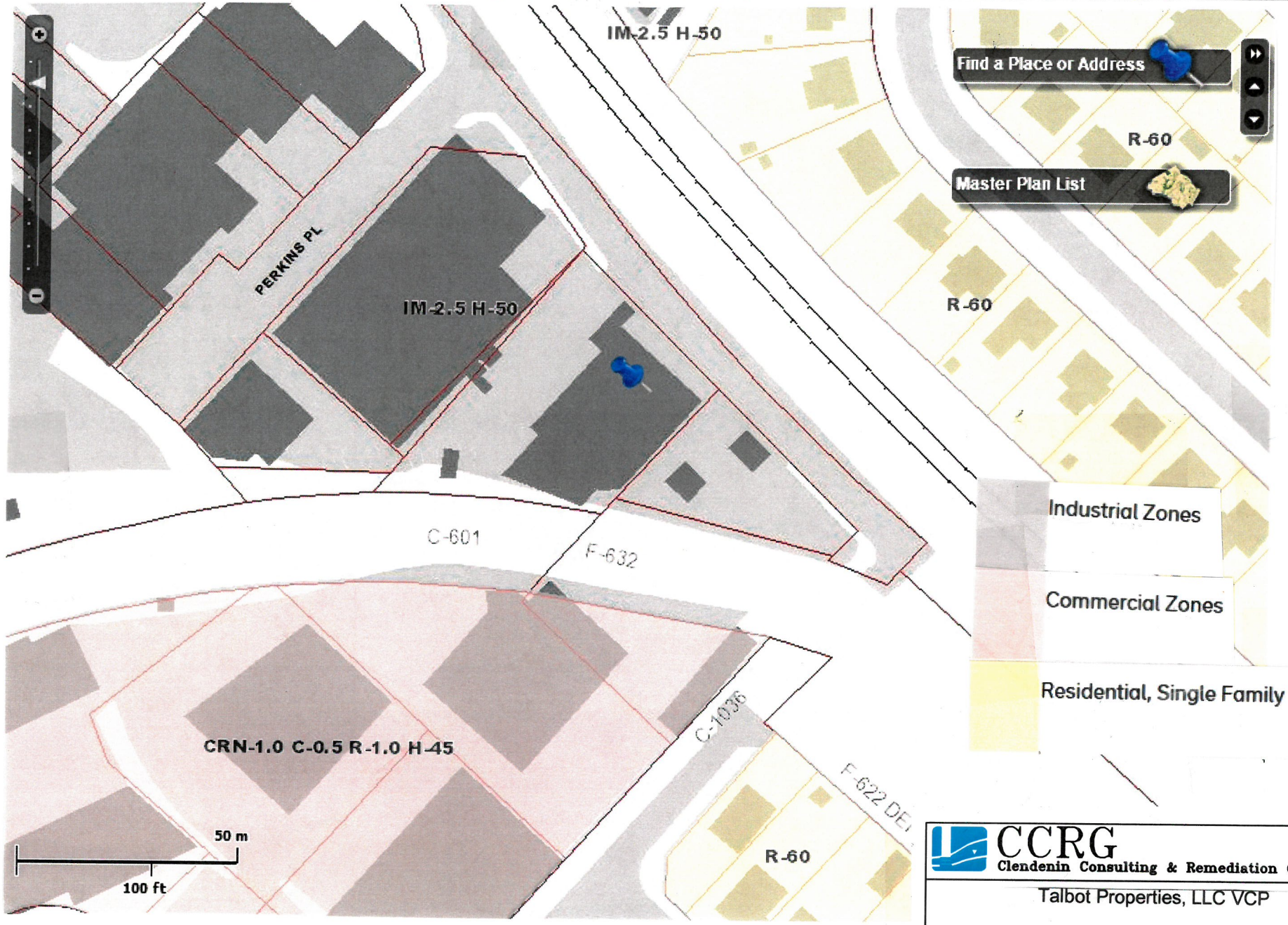
CCRG
Clendenin Consulting & Remediation Group

Amato Industries

Aerial View

Silver Spring, Maryland

Date: 3/4/2020	Scale: As Shown
Drawn by: JWM	Approved by: BEC
Project #: 18006	Figure: 2



CCRG
Clendenin Consulting & Remediation Group

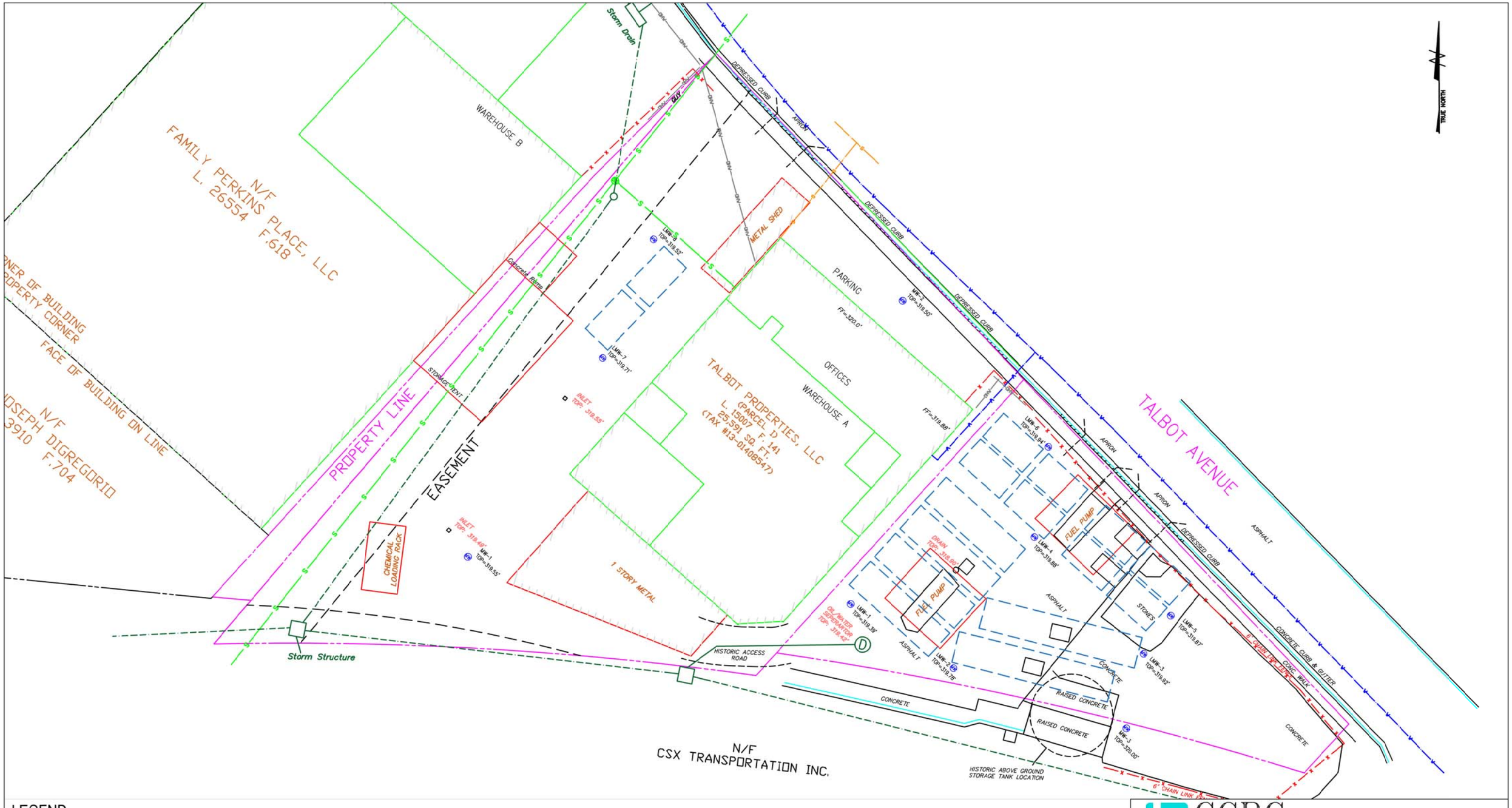
Talbot Properties, LLC VCP

Zoning Map

Silver Spring, Maryland

Date:8/16/2018	Scale: as shown
Drawn by: SJK	Approved by: BEC
Project #: 18006	Figure: 3

Base map provided by Montgomery County zoning @MontgomeryPlanning.org



LEGEND

- Storm Line
- Sanitary Line
- Water Line
- Gas Line
- Existing UST

Notes

- Base Plan provided by VIKA in March 2019
- WSSC and Washington Gas Lines provided by David Unger, Director of Surveys for VIKA, January 18, 2019
- Storm System provided by ESRI OpenStreetMap database, October 8, 2018
- UST locations are approximated, provided by Amato Industries staff

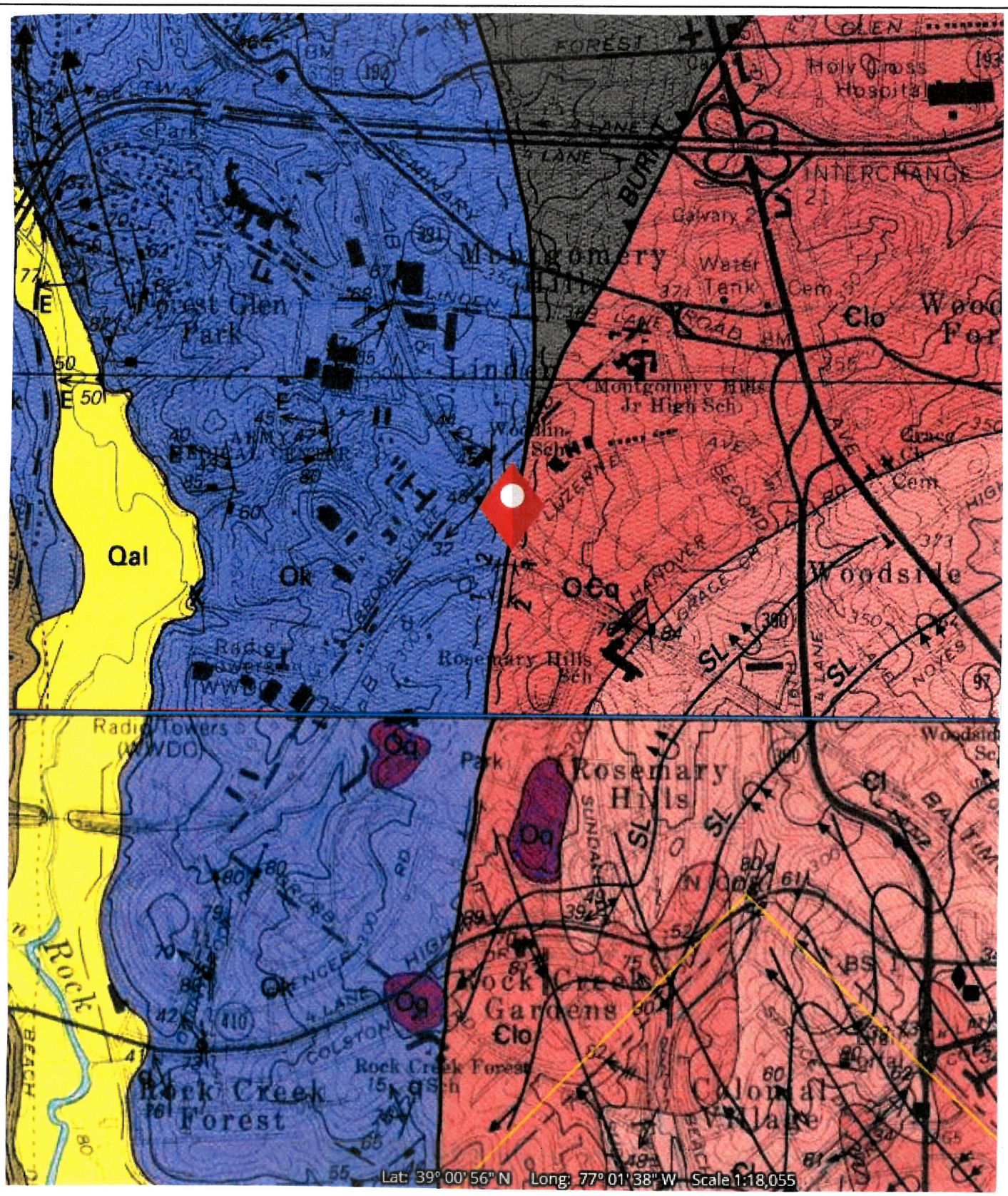
CCRG
Clendenin Consulting & Remediation Group

Talbot Properties LLC, VCP

Utilities & UST Locations

Silver Spring, Maryland

Date:2/17/2020	Scale: 1" = 30'
Drawn by: JWM	Approved by: BEC
Project #: 18006	Figure: 4



Clo	**Laurel Formation (Lower Cambrian) (Hopson, 1964)**—Light- to medium-gray, medium- to coarse-grained, moderately to well-foliated sedimentary mélange consisting of a quartzofeldspathic matrix that contains quartz "eyes" and fragments of meta-arenite (♦) and biotite schist (■). Typically spangled with very large muscovite porphyroblasts. Upper part of unit (Clo) contains more than 50 percent olistoliths of meta-arenite and biotite schist that are locally as much as 5 to 10 m (16.4 to 32.8 ft) long
Cl	

Base map provided by the National Geologic Map Database

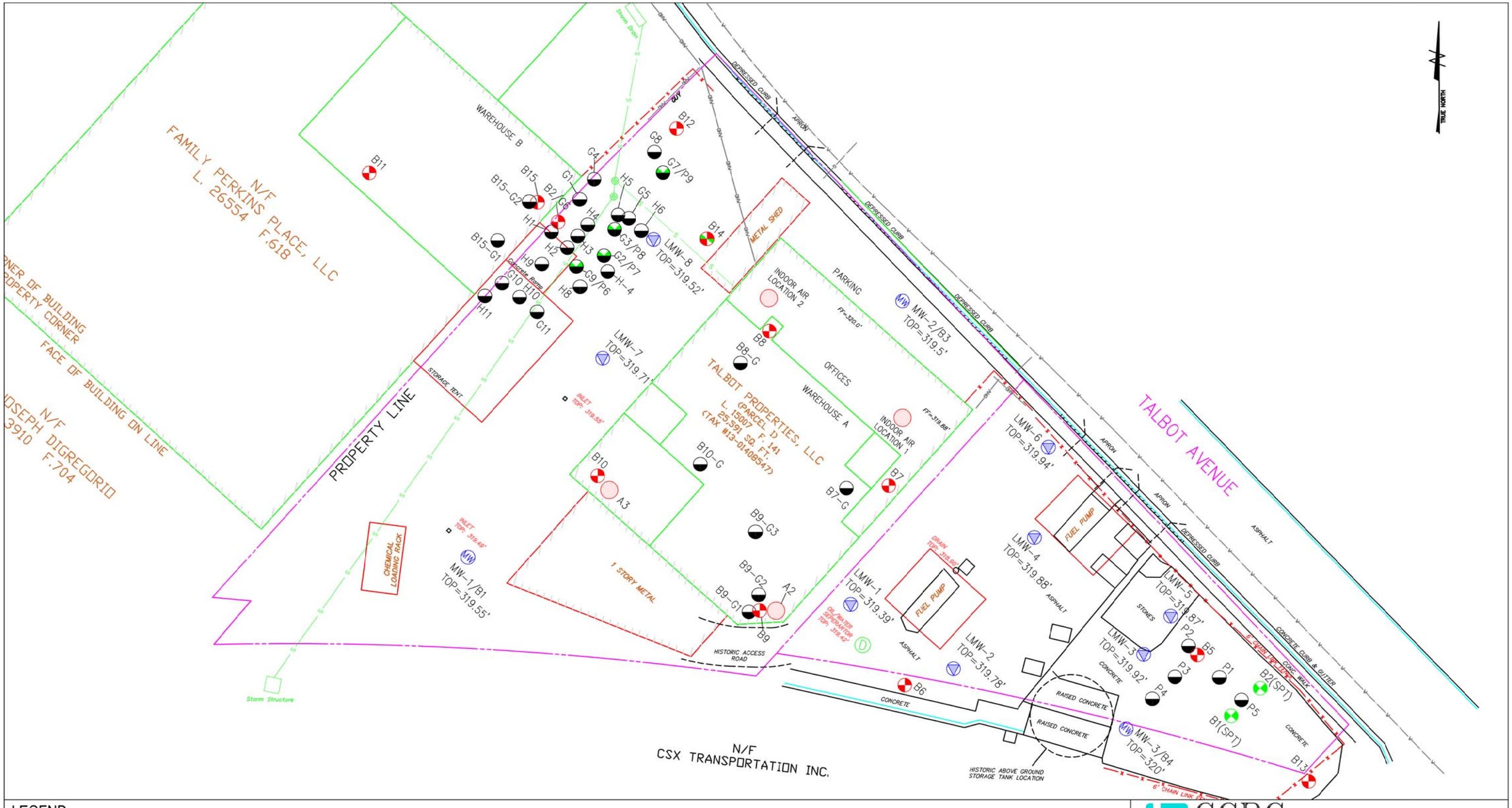
CCRG
Clendenin Consulting & Remediation Group

Talbot Properties, LLC VCP

Geological Map

Silver Spring, Maryland

Date: 8/16/2018	Scale: as shown
Drawn by: SJK	Approved by: BEC
Project #: 18006	Figure: 5



LEGEND

GW Monitoring Well / Vapor Point	MW
Leak Monitoring Well	
Soil Gas Implant/Tube	
Geoprobe Boring	
Ambient Air Sample Location	
Geotechnical Borings	

Notes

- Base Plan provided by VIKA in March 2019
- Geotechnical borings P6-P9 are off-set 1' from Geoprobe Borings
- Detailed Figures for Geotechical borings are included in Appendix C
- An enhanced view of B2 area is included in Appendix F

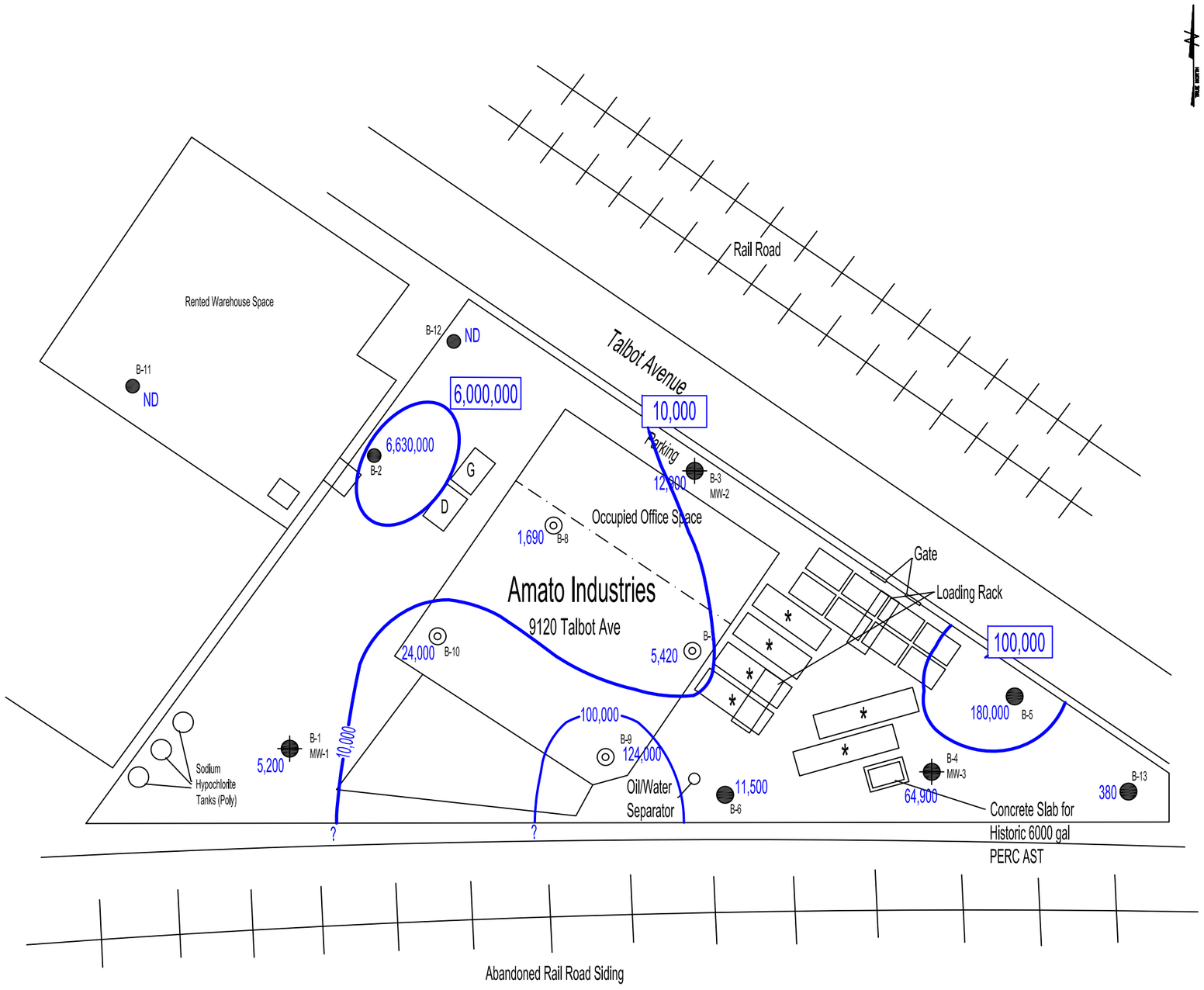
CCRG
Clendenin Consulting & Remediation Group

Talbot Properties LLC, VCP

Site Features & Exploration Location Plan

Silver Spring, Maryland

Date: 1/6/2020	Scale: 1" = 30'
Drawn by: JWM	Approved by: BEC
Project #: 18006	Figure: 6



Legend

- CCRG Sub-Slab Vapor Sampling Points - November 13, 2018
- CCRG Soil Gas and Monitoring Wells - November 13, 2018
- CCRG Soil Gas Monitoring Points - November 13, 2018, January 17, 2019
- Approximate concentration contours of Tetrachloroethene in soil gas

Notes:

- Base Drawing is based on Figure 2 of Total Environment Concept's report dated March 8, 2004
- Site boundaries along Abandoned Rail Road Siding is approximate. A survey is currently underway to check site geometry
- See Summary of Findings Letter 04 dated January 2, 2019 for laboratory data sheet for soil gas analysis

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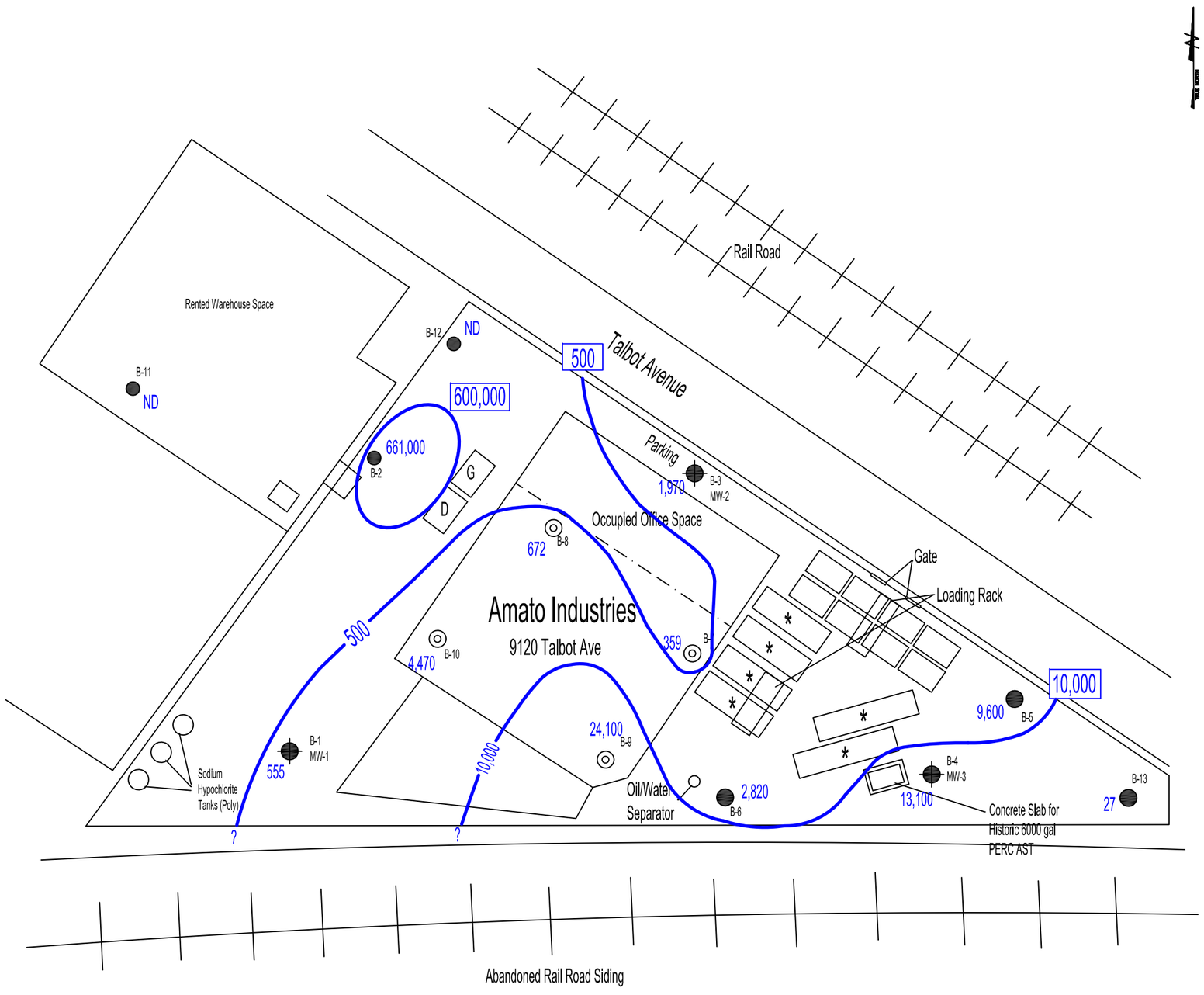
Talbot Properties, LLC VCP

Tetrachloroethene (**PCE**) Soil Gas Concentrations

Silver Spring, Maryland

Date: 4/4/2019	Scale: 1" = +or- 40' (scale approximated)
Drawn by: SJK	Approved by: BEC
Project #: 18006	Figure: 7



Legend

- CCRG Sub-Slab Vapor Sampling Points - November 13, 2018
- CCRG Soil Gas and Monitoring Wells - November 13, 2018
- CCRG Soil Gas Monitoring Points - November 13, 2018, January 17, 2019

Approximate concentration contours of Trichloroethene in soil gas

Notes:

- Base Drawing is based on Figure 2 of Total Environment Concept's report dated March 8, 2004
- Site boundary along Abandoned Rail Road Siding is approximate. A survey is currently underway to check site geometry
- See Summary of Findings Letter 04 dated January 2, 2019 for laboratory data sheet for soil gas analysis

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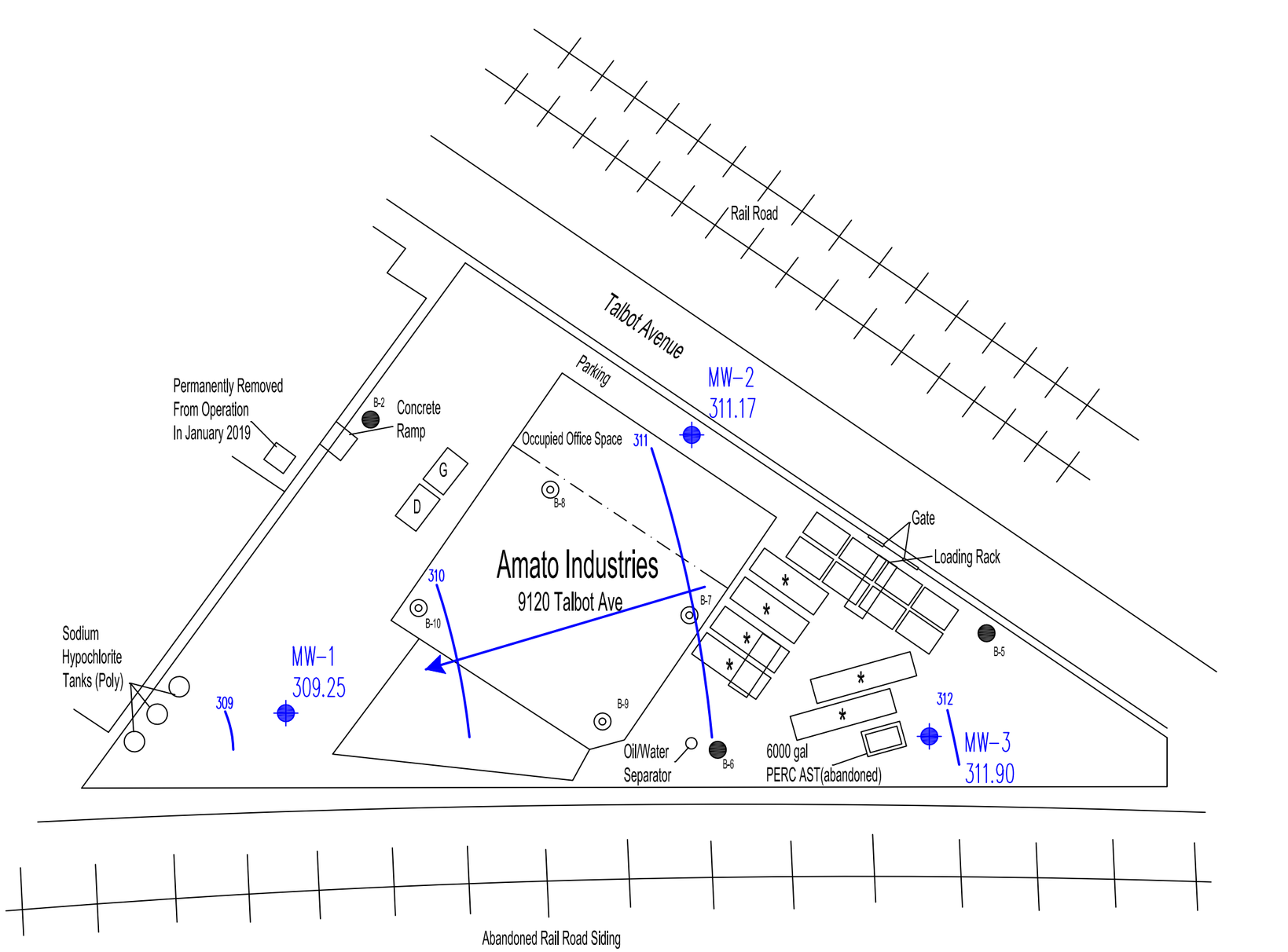
Talbot Properties, LLC VCP

Trichloroethene(**TCE**) Soil Gas Concentrations

Silver Spring, Maryland

Date: 4/4/2019	Scale: 1" = +or– 40' (scale approximated)
Drawn by: SJK	Approved by: BEC
Project #: 18006	Figure: 8



Legend

- Monitoring wells by CCRG installed November 13, 2018
- Approximate Groundwater table elevation contours
- Approximate Groundwater Flow direction
- * Existing UST

Notes

- Base drawing is based on Figure 2 of Total Environment Concept's report dated March 8, 2004
- Groundwater elevations are based on well measurements taken March 13, 2019

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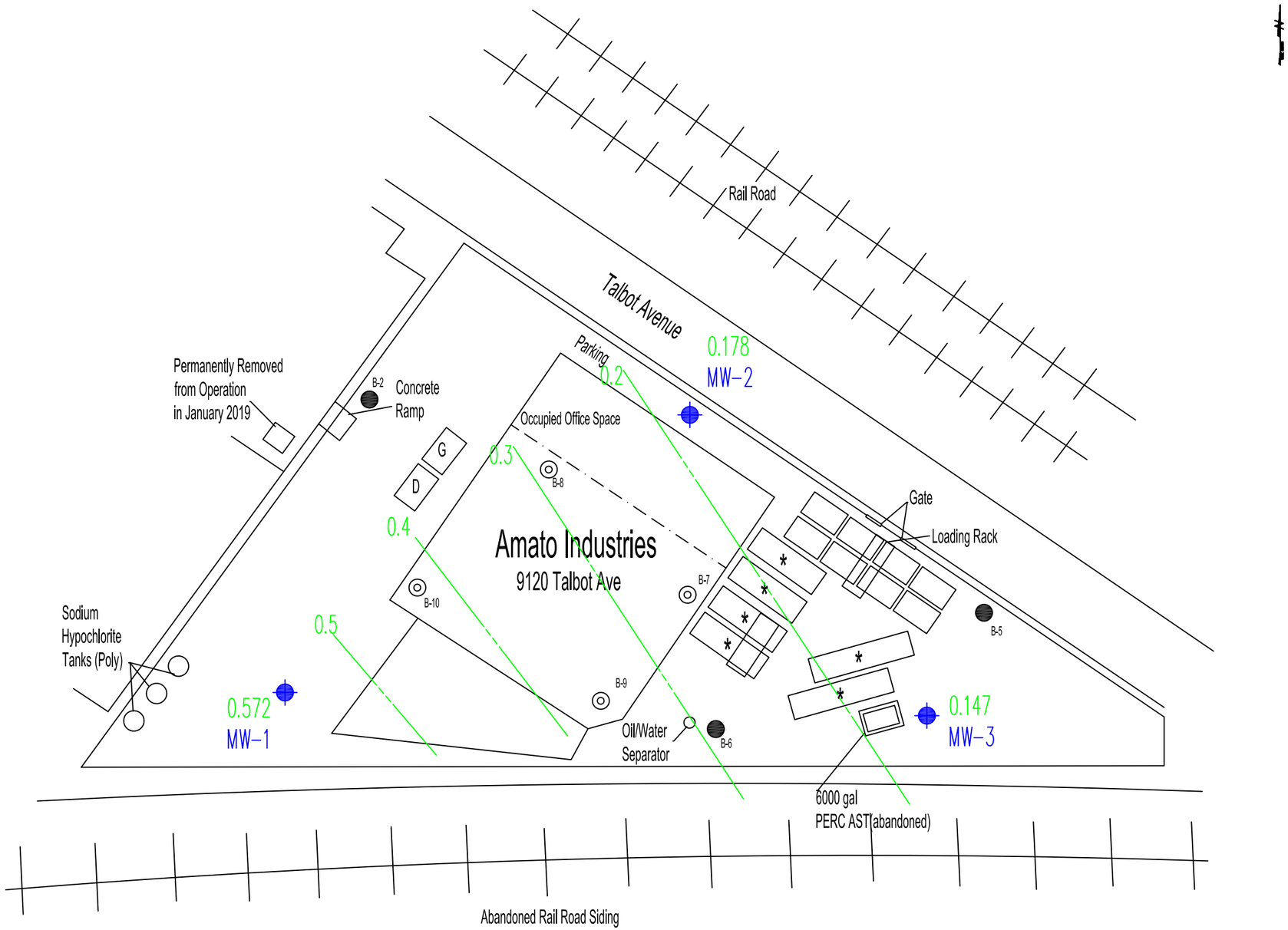
Talbot Properties, LLC VCP

Groundwater Flow

Silver Spring, Maryland

Date: 3/28/2019	Scale: as shown
Drawn by: JWM	Approved by: BEC
Project #: 18006	Figure: 9



Legend

- Monitoring wells by CCRG installed November 13, 2018
- Approximate concentration contours of Tetrachloroethene (PCE) in groundwater

Notes

- Base drawing is based on Figure 2 of Total Environment Concept's report dated March 8, 2004
- Concentrations taken from groundwater samples on June 25, 2019
- Concentrations are in milligrams per liter(mg/L)

CCRG
Clendenin Consulting & Remediation Group

Talbot Properties, LLC VCP

Dissolved Phase Tetrachloroethene (PCE)

Silver Spring, Maryland

Date: 3/29/2019	Scale: as shown
Drawn by: JWM	Approved by: BEC
Project #: 18006	Figure: 10

Table: 1
Talbot Properties, LLC VCP
18006 - 10/22/2019
Laboratory Results - Near Surface Soil Gas (Exterior)

Analyte	Resident Target Sub Slab 100x MDE Technical Guidelines	Commercial Target Sub Slab 500x MDE Technical Guidelines	B-1		B-2		B-3		B-4		B-5		B-6	
				11/27/2019		11/17/2019		11/27/2019		11/27/2019		11/27/2019		11/27/2019
Acetone	13700000	68500000		30.1		ND		37.3		ND		ND		60.2
Benzene	1600	8000		2.6		ND		4.45		21.5		ND		127
Carbon Disulfide	310000	1550000		3.1		ND		46.6		110		780		39.7
carbon Tetrachloride	2050.0	10250.0		ND		ND		ND		ND		ND		ND
Chloroethane	4.40E+06	2.20E+07		ND		ND		3.93		ND		ND		29.4
Chloroform	540.0	2700.0		126		ND		73.7		ND		ND		13.7
Chloromethane	4.00E+04	2.00E+05		0.837		ND		2.03		ND		ND		1.13
Cyclohexane	2.65E+06	1.33E+07		ND		ND		ND		65.7		480		157
1,2-Dichloroethane	4.80E+02	2.40E+03		ND		ND		ND		ND		ND		4.09
1,1 Dichloroethane	7670	38350		75.1		ND		4		121		ND		263
1,1-Dichloroethene	88000	440000		16.6		10800		11.9		584		1200		46.5
1,2-Dichloropropane	1.76E+03	8.80E+03		ND		ND		ND		ND		ND		9.06
cis-1,2-Dichloroethene	15400	77000		2410		4980000		6520		168000		35000		4970
trans-1,2-Dichloroethene	31000	155000		38.4		2390		311		2090		500		ND
Ethanol	NL	NL		59.6		2460		22.8		ND		ND		14.2
Ethylbenzene	5000	25000		ND		ND		ND		ND		ND		18.2
4-Ethyltoluene	NL	NL		ND		ND		ND		ND		ND		3.32
Trichlorofluoromethane	310000	1550000		ND		ND		ND		ND		ND		ND
Dichlorodifluoromethane	4.40E+04	2.20E+05		ND		ND		ND		ND		ND		ND
1,1,2-Trichlorotrifluoroethane	2200000	11000000		9.84		37800		59.3		ND		ND		7.78
Heptane	176000	880000		ND		2320		11.1		31.2		500		8.1
n-Hexane	308000	1540000		ND		ND		31		66.8		720		43.7
Methylene Chloride	265000	1325000		1.96		ND		2.03		ND		ND		12.8
MTBE	47200	236000		ND		ND		ND		ND		ND		549
Propene	1320000	6600000		5.14		ND		133		230		ND		226
Tetrachloroethylene	18000	90000		5200		6630000		12900		64900		180000		11500
Tetrahydrofuran	880000	4400000		2.46		ND		4.86		ND		ND		ND
Toluene	2200000	11000000		3.03		1630		4.3		ND		230		6.49
1,1,1-Trichloroethane	2200000	11000000		73.5		133000		7.89		ND		ND		23.5
Trichloroethylene	880	4400		555		661000		1970		13100		9600		2820
1,2,4-Trimethylbenzene	6300	31500		ND		ND		ND		ND		ND		6.61
1,3,5-Trimethybenzene	6300	31500		ND		ND		ND		ND		ND		4.03
2,2,4-Trimethylpentane	NL	NL		ND		10400		11.7		57.7		1700		87.4
Vinyl Chloride	2790	13950		33.8		108000		111		20900		16000		593
m&p-Xylene	44000	220000		ND		ND		ND		ND		ND		5.29
o-Xylene	44000	220000		ND		ND		ND		ND		ND		3.31

*All VOCs measured in (µg/m3)
*NL=Not listed
*All samples came from outside the warehouse
* Target Sub Slab concentrations came from the MDE Technical Guidelines for Vapor Intrusion Sept 2019

Table: 2
Talbot Properties, LLC VCP
18006 - 10/22/2019
Laboratory Results - Sub-Slab Gas (Interior)

Analyte	Resident Target Sub Slab 100x MDE Technical Guidelines	Commercial Target Sub Slab 500x MDE Technical Guidelines	B-7		B-8		B-9		B-10	
			11/28/18	11/22/2019	11/28/18	11/22/2019	11/28/18	11/22/2019	11/28/18	11/22/19
Acetone	13700000	68500000	11.8	ND	ND	ND	ND	ND	ND	ND
Benzene	1600	8000	7.3	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	310000	1550000	ND	ND	ND	ND	ND	ND	74.7	ND
carbon Tetrachloride	2050.0	10250.0	6.05	ND	ND	ND	ND	ND	ND	ND
Chloroethane	4.40E+06	2.20E+07	ND	ND	ND	ND	ND	ND	0.81	ND
Chloroform	540.0	2700.0	10.1	ND	1.16	ND	281	290	39.7	ND
1,1 Dichloroethane	7670	38350	1.01	ND	ND	ND	102	ND	52.9	48
1,1-Dichloroethene	88000	440000	ND	ND	ND	ND	34.6	ND	7.09	ND
cis-1,2-Dichloroethene	15400	77000	28.7	52	0.842	ND	6600	12000	3880	3200
trans-1,2-Dichloroethene	31000	155000	2.38	ND	0.937	ND	141	180	202	130
Ethanol	NL	NL	51.3	ND	ND	ND	ND	ND	5.04	ND
Ethylbenzene	5000	25000	5.06	ND	1.97	ND	ND	ND	4.13	ND
4-Ethyltoluene	NL	NL	11.3	ND	8.72	ND	ND	ND	9.84	ND
Freon 13	NL	NL		ND		84		ND		ND
Trichlorofluoromethane	310000	1550000	1.23	ND	1.2	ND	ND	ND	ND	ND
Dichlorodifluoromethane	44000	220000	1.71	ND	1.44	ND	ND	ND	1.33	ND
1,1,2-Trichlorotrifluoroethane	2200000	11000000	10.5	ND	93.6	ND	124	ND	16.4	ND
Heptane	176000	880000	4.28	ND		ND		ND	7.04	ND
n-Hexane	308000	1540000	11.4	ND	3.71	ND	15.9	ND	13.6	ND
Methylene Chloride	265000	1325000	4.67	ND	5.94	ND	ND	ND	4.28	ND
MTBE	47200	236000	ND	ND	ND	ND	ND	ND	3.67	ND
Propene	1320000	6600000	12.4	ND	0.81	ND	22.5	ND	53.4	ND
Tetrachloroethylene	18000	90000	5420	13000	1690	2900	124000	300000	24000	90000
Tetrahydrofuran	880000	4400000	ND	ND	ND	80	ND	ND	ND	ND
Toluene	2200000	11000000	20.4	ND	5.28	ND	16.7	ND	18.7	ND
1,1,1-Trichloroethane	2200000	11000000	23.3	58	50	44	1060	930	55.9	ND
Trichloroethylene	880	4400	357	490	672	1200	24100	45000	4470	6100
1,2,4-Trimethylbenzene	6300	31500	10.6	ND	7.98	ND	ND	ND	8.62	ND
1,3,5-Trimethybenzene	6300	31500	3.05	ND	2.04	ND	ND	ND	2.44	ND
2,2,4-Trimethylpentane	NL	NL	12.9	ND	1	ND	26	ND	17.4	ND
Vinyl Chloride	2790	13950	ND	ND	ND	ND	ND	ND	71.5	ND
m&p-Xylene	44000	220000	19.1	ND	9.79	45	ND	ND	14.6	ND
o-Xylene	44000	220000	6.73	ND	2.98	ND	ND	ND	5.05	ND

*All VOCs measured in (µg/m3)
*NL= Not listed
*All samples came from inside the warehouse
* Target Sub Slab concentrations came from the MDE Technical Guidelines for Vapor Intrusion Sept 2019

		Round #1			Round #2		Round #3		Round #4		Round #5	
Analyte	**Vapor Intrusion - Non-Residential**	**A-1**	**A-2** (warehouse)	**A-3** (warehouse)	**A-8**	**A-9**	**A-10**	**A-11**	**A-12**	**A-13**	A-14	**A-15**
Date of Sampling		**1/22/2019**	**1/22/2019**	**1/22/2019**	**5/23/2019**	**5/23/2019**	**6/25/2019**	**6/25/2019**	**8/2/2019**	**8/2/2019**	**11/22/2019**	**11/22/2019**
VOC's												
Acetone	137000	270	490E	720E	36	26	44	44	78 J0	88 J0E	160	160
Benzene	16	9.8	11	11	7.8	7.9	5.2	5.2	4.6	4.2	2.7	2.5
1,3-Butadiene	4.1	4	3.7	4.7	1.9	2.3	2.3	2.3	1	1	1.2	1.1
2-Butanone (Methyl Ethyl Ketone)	22000	ND	ND	4.8	ND	ND	5.8	5.6	ND	3.1	ND	ND
Carbon disulfide	3100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	20.5	0.5	0.6	0.64	0.88	0.81	0.55	0.53	0.49	0.5	0.48	0.5
Chloroform	5.4	1.3	1.7	1.8	2.6	2.6	0.83	0.83	1	1	0.5	0.49
Chloromethane	400	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cumene	1760	1.8	2	2.5	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	26500	6.9	7.2	7.8	5	2.6	1.9	1.9	2	1.9	1.7	1.6
1,1-Dichloroethane	77	0.46	0.62	0.7	ND	ND	ND	ND	ND	ND	0.15	ND
1,1-Dichloroethene	880	0.2	0.27	0.28	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	154	13	16	18	1.7	1.3	0.28	0.28	0.36	0.36	4.1	3.2
trans-1,2-Dichloroethene	310	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethanol	NL	810E	400E	330E	360E	240	140E	140E	110	84	100	73
Ethylbenzene	50	11	16	18	7	7	2.8	2.8	2.4	2.4	23	22
4-Ethyltoluene	NL	14	15	16	19	20	6.3	6.4	1.5	1.5	7	5.9
Freon 11	NL	ND	ND	ND	ND	ND	1.2	1.3	1.1	1.1	1.4	1.4
Freon 12	440	2.4	2.3	2.3	2.4	2.4	2.3	2.4	1.9	1.9	1.6	1.6
Trichlorofluoromethane	3100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	440	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichlorotrifluoroethane	22000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptane	1760	14	15	13	10	8.5	4.7	4.7	5.4	4.6	11	11
n-Hexane	3080	32	36	35	19	18	9	9.2	10	9.7	8.1	7.5
4-Methyl-2-pentanone	13200	17	39	59	1.6	2.6	0.75	0.72	0.8	0.87	0.82	0.84
Methylene Chloride	2650	3.2	ND	ND	3.3	2.6	ND	ND	ND	ND	1.5	1.3
MTBE	472	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Propanol	880	65 J0	34 J0	31 J0	6.2	5.1	67	68	10	6.2	7.3	6.6
Propene	13200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Propylbenzene	1760	8.4	9	10	3.2	3.2	1.3	1.3	0.94	1	1.4	1.2
Styrene	4400	ND	ND	ND	ND	1.5 J	ND	0.73	ND	ND	ND	ND
Tetrachloroethylene	180	230	260	280	82	68	12	12	29	30	68	54
Tetrahydrofuran	8800	ND	ND	ND	ND	ND	3.3	ND	ND	ND	ND	ND
Toluene	22000	31	39	40	34	34	15	16	14	13	11	11
1,1,1-Trichloroethane	22000	3.2	4.3	4.7	1.1	1.1	0.24	0.24	ND	ND	0.89	0.83
Trichloroethylene	8.8	20	25	28	6.6	6	1.4	1.4	1.1	1.3	6.5	5.8
1,2,4-Trimethylbenzene	63	38	45	50	21	20	6	6.3	4.4	4.6	8.7	6.3
1,3,5-Trimethylbenzene	63	12	14	15	5.9	6.5	2	2	1.4	1.3	2.7 J0	2.1 J0
2,2,4-Trimethylpentane	NL	38	42	42	24	24	13	14	14	14	11	9.6
Vinyl chloride	28	0.15	0.081	0.084	ND	ND	ND	ND	ND	ND	ND	ND
m&p-Xylene	440	37	54	62	27	26	9.4	9.3	8.9	8.8	81	82
o-Xylene	440	14	19	21	10	10	3.6	3.6	3.3	3.3	21	20

			B-7		B-8		B-9		B-10	
Analyte	**Resident Target Sub Slab 100x MDE Technical Guidelines**	**Commercial Target Sub Slab 500x MDE Technical Guidelines**	**11/28/2018**	**11/22/2019**	**11/28/2018**	**11/22/2019**	**11/28/2018**	**11/22/2019**	**11/28/2018**	**11/22/2019**
Acetone	13700000	68500000	11.8	ND	ND	ND	ND	ND	ND	ND
Benzene	1600	8000	7.3	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	310000	1550000	ND	ND	ND	ND	ND	ND	74.7	ND
carbon Tetrachloride	2050.0	10250.0	6.05	ND	ND	ND	ND	ND	ND	ND
Chloroethane	4.40E+06	2.20E+07	ND	ND	ND	ND	ND	ND	0.81	ND
Chloroform	540.0	2700.0	10.1	ND	1.16	ND	281	290	39.7	ND
1,1 Dichloroethane	7670	38350	1.01	ND	ND	ND	102	ND	52.9	48
1,1-Dichloroethene	88000	440000	ND	ND	ND	ND	34.6	ND	7.09	ND
cis-1,2-Dichloroethene	15400	77000	28.7	52	0.842	ND	6600	12000	3880	3200
trans-1,2-Dichloroethene	31000	155000	2.38	ND	0.937	ND	141	180	202	130
Ethanol	NL	NL	51.3	ND	ND	ND	ND	ND	5.04	ND
Ethylbenzene	5000	25000	5.06	ND	1.97	ND	ND	ND	4.13	ND
4-Ethyltoluene	NL	NL	11.3	ND	8.72	ND	ND	ND	9.84	ND
Freon 13	NL	NL	ND	ND	ND	84	ND	ND	ND	ND
Trichlorofluoromethane	310000	1550000	1.23	ND	1.2	ND	ND	ND	ND	ND
Dichlorodifluoromethane	44000	220000	1.71	ND	1.44	ND	ND	ND	1.33	ND
1,1,2-Trichlorotrifluoroethane	2200000	11000000	10.5	ND	93.6	ND	124	ND	16.4	ND
Heptane	176000	880000	4.28	ND	ND	ND	ND	ND	7.04	ND
n-Hexane	308000	1540000	11.4	ND	3.71	ND	15.9	ND	13.6	ND
Methylene Chloride	265000	1325000	4.67	ND	5.94	ND	ND	ND	4.28	ND
MTBE	47200	236000	ND	ND	ND	ND	ND	ND	3.67	ND
Propene	1320000	6600000	12.4	ND	0.81	ND	22.5	ND	53.4	ND
Tetrachloroethylene	18000	90000	5420	13000	1690	2900	124000	300000	24000	90000
Tetrahydrofuran	880000	4400000	ND	ND	ND	80	ND	ND	ND	ND
Toluene	2200000	11000000	20.4	ND	5.28	ND	167	ND	18.7	ND
1,1,1-Trichloroethane	2200000	11000000	23.3	58	50	44	1060	930	55.9	ND
Trichloroethylene	880	4400	357	490	672	1200	24100	45000	4470	6100
1,2,4-Trimethylbenzene	6300	31500	10.6	ND	7.98	ND	ND	ND	8.62	ND
1,3,5-Trimethybenzene	6300	31500	3.05	ND	2.04	ND	ND	ND	2.44	ND
2,2,4-Trimethylpentane	NL	NL	12.9	ND	1	ND	26	ND	17.4	ND
Vinyl Chloride	2790	13950	ND	ND	ND	ND	ND	ND	71.5	ND
m&p-Xylene	44000	220000	19.1	ND	9.79	45	ND	ND	14.6	ND
o-Xylene	44000	220000	6.78	ND	2.98	ND	ND	ND	5.05	ND

Table 3
Talbot Properties, LLC VCP
18006 - 11/7/2019
Comparison of MDE Technical Guidelines to Sub Slab Soil Gas And Indoor Air

Notes:
1) µg/m³
2) ND - Non Detect
3) Only analytes that have one or more detections are shown
4) MDE Technical Guidelines for Vapor Intrustion levels are highlighted if an analyte tested exceeds those levels
5) Target sub slab taken from the MDE Technical Guidelines for Vapor Intrusion Table 2-Commercial Scenario (non-residential) Sept 2019
6) Numbers shown in orange exceed the MDE Technical Guidelines for Residential levels Sept 2019
7) Target concentrations for indoor air concentrations came from the MDE Technical Guidelines for Vapor Intrusion Table 2-Commercial Scenario (non-residential) Sept 2019
8) Numbers shown in yellow exceed the MDE Technical Guidelines for Vapor Intrusion Table 2-Commercial Scenario (non-residential) Sept 2019
9) See Figure 9 for sampling locations
10) NL - Not-Listed
11) B7-10 used 6 L canisters for 11/28/2019 and 1 L canisters for 11/22/2019

Location 1 =
Location 2 =

Table 4
Talbot Properties, LLC VCP
18006 - 11/7/2019
Laboratory Results - Geoprobe Soil Exploration near B-5

	Soil Standards	P-1	P-2	P-3	P-4	P-5
Sample Depths		0-10'	3'	0-10'	9'	0-10'
PID		50.4	70.4	14.5	128.5	1.6
Acetone	6.10E+04	ND	ND	ND	0.0602	0.0252
Benzene	5.10E+00	ND	ND	ND	ND	ND
n-Butylbenzene	NL	ND	ND	ND	ND	ND
sec-Butylbenzene	NL	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.60E+01	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	2.30E+02	0.00446	0.0384	0.0389	0.175	0.00972
trans-1,2-Dichloroethene	2.30E+03	ND	ND	ND	ND	ND
Ethylbenzene	2.50E+01	ND	ND	ND	ND	ND
Isopropylbenzene	9.90E+02	ND	ND	ND	ND	ND
p-Isopropyltoluene	NL	ND	ND	ND	ND	ND
2-Butanone (MEK)	1.90E+04	ND	ND	ND	ND	ND
Methyl tert-butyl ether	2.10E+02	ND	ND	ND	ND	ND
Naphthalene	NL	ND	ND	ND	ND	ND
n-Propylbenzene	NL	ND	ND	ND	ND	ND
Tetrachloroethene	3.90E+01	ND	0.603	0.00931	0.0122	ND
Toluene	4.70E+03	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	3.60E+03	ND	ND	ND	ND	ND
Trichloroethene	1.90E+00	ND	0.107	0.00356	0.00229	ND
1,2,4-Trimethylbenzene	1.80E+02	ND	ND	ND	ND	ND
1,2,3-Trimethylbenzene	NL	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	1.50E+02	ND	ND	ND	ND	ND
Vinyl Chloride	1.70E+00	ND	ND	ND	0.00331	ND
Xylenes, Total	2.50E+02	ND	ND	ND	ND	ND

Notes:

1) mg/kg
2) ND - Non-Detect
3) Only analytes that have one or more detections are shown
4) Results recorded in red are above MDE's Cleanup Standards for Soil & Groundwater dated Oct 2018
5) Samples P-1 through P-5 were taken near B-5
6) Soil Standards are from the MDE's Cleanup Standards for Soil & Groundwater dated Oct 2018 under "non-residential clean-up standard"
7) NL - Not-Listed on MDE's Cleanup Standards for Soil & Groundwater dated Oct 2018

Table 5
Talbot Properties, LLC VCP
18006 -3/07/2019
Laboratory Results - Geoprobe Soil Exploration near B-2

	Soil Standards	G-1	G-2	G-5	G-6	G-7	G-8	G-9	G-10	G-11	G-12	CG-13
Sample Depths		2'	2.5-5'	0-1.5'	5'	5'	2.5-5'	0-2'	5'	2.5-5'	2.5-5'	n/a
PID		398	412	788	5000+	175	1009	5000+	5000+	289	209	n/a
Acetone	6.10E+04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	5.10E+00	ND	0.00317	ND	ND	0.017	0.0289	ND	ND	0.00229	0.038	0.00213
n-Butylbenzene	NL	0.115	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	NL	0.104	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.60E+01	ND	ND	ND	ND	ND	ND	ND	ND	0.0132	ND	ND
cis-1,2-Dichloroethene	2.30E+02	0.506	13.3	0.32	1.83	ND	0.0609	ND	ND	0.664	ND	0.0421
trans-1,2-Dichloroethene	2.30E+03	ND	0.254	ND	ND	ND	0.00763	ND	ND	0.0879	ND	ND
Ethylbenzene	2.50E+01	0.0215	0.00648	ND	ND	0.00359	0.0175	ND	ND	ND	0.015	ND
Isopropylbenzene	9.90E+02	ND	0.00269	ND	ND	ND	ND	ND	ND	ND	0.00647	ND
p-Isopropyltoluene	NL	0.138	ND	ND	2.14	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	1.90E+04	ND	0.0278	ND	ND	ND	ND	ND	ND	ND	0.0285	ND
Methyl tert-butyl ether	2.10E+02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	NL	0.34	ND	ND	7.58	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	NL	0.0724	ND	ND	1.19	ND	ND	ND	ND	ND	0.022	ND
Tetrachloroethene	3.90E+01	9.87	0.239	359	4270	0.058	0.424	1160	420	10.7	0.0568	0.444
Toluene	4.70E+03	ND	0.0101	ND	ND	ND	0.00533	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	3.60E+03	ND	ND	ND	4.31	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1.90E+00	0.0894	0.0256	7.37	52.2	0.00204	0.25	0.468	1.27	0.945	ND	0.0357
1,2,4-Trimethylbenzene	1.80E+02	0.601	0.0198	ND	11.2	ND	0.0125	ND	1.89	ND	0.0139	0.00951
1,2,3-Trimethylbenzene	NL	0.342	0.0159	ND	7.56	ND	0.00748	ND	1.46	ND	0.00676	0.0111
1,3,5-Trimethylbenzene	1.50E+02	0.307	0.00837	ND	4.15	ND	ND	ND	0.713	ND	0.00792	0.0053
Vinyl Chloride	1.70E+00	ND	0.27	ND	ND	ND	ND	ND	ND	0.044	ND	ND
Xylenes, Total	2.50E+02	0.0581	0.0257	ND	2.88	0.027	0.0406	ND	ND	0.00684	0.094	ND

Notes:

1) mg/kg
2) ND - Non-Detect
3) Only analytes that have one or more detections are shown
4) Results recorded in red are above MDE's Cleanup Standards for Soil & Groundwater dated Oct 2018
5) CG-13 is a composite sample analyzed for Clean Earth
6) Samples G-1 through CG-13 were taken near B-2
7) Soil Standards are from the MDE's Cleanup Standards for Soil & Groundwater dated Oct 2018 under "non-residential clean-up standard"
8) NL - Not-Listed on MDE's Cleanup Standards for Soil & Groundwater dated Oct 2018
9) Pace Analytcal results can be found in Exhibit 3

Table 6
Talbot Properties LLC VCP
18006 - 11/11/2019
Groundwater Depths and Elevations

Well No.	MW-1		MW-2		MW-3	
Well El. (ft)	319.55		319.50		320.00	
Well Depth (ft)	20.00		17.90		20.00	
Date	GW Depth	GW Elev.	GW Depth	GW Elev.	GW Depth	GW Elev.
11/20/2018	9.97	309.58	8.34	311.16	7.80	312.20
11/27/2018	10.00	309.55	8.20	311.30	7.60	312.40
12/14/2018	10.60	308.95	8.70	310.80	8.50	311.50
3/13/2019	10.30	309.25	8.33	311.17	8.10	311.90
6/25/2019	12.30	307.25	9.40	310.10	9.18	310.82
11/1/2019	12.25	307.30	10.56	308.94	9.93	310.07

Well No.	Leak Well -1		Leak Well -2		Leak Well -3		Leak Well -4	
Well El. (ft)	319.30		319.78		319.92		319.88	
Well Depth (ft)								
Date	GW Depth	GW Elev.	GW Depth	GW Elev.	GW Depth	GW Elev.	GW Depth	GW Elev.
3/13/2019	8.60	310.70	7.35	312.43	7.30	312.62	4.70	315.18
6/25/2019	9.71	309.59	8.25	311.53	8.20	311.72	5.40	314.48
11/1/2019	10.52	308.78	10.04	309.74	10.07	309.85	7.28	312.60

	Leak Well -5		Leak Well -6		Leak Well -7		Leak Well -8	
	319.87		319.94		319.71		319.52	
Date	GW Depth	GW Elev.	GW Depth	GW Elev.	GW Depth	GW Elev.	GW Depth	GW Elev.
3/13/2019	6.00	313.87	6.35	313.59	9.30	310.41	10.60	308.92
6/25/2019	N/R		7.36	312.58	10.63	309.08	10.90	308.62
11/1/2019	N/R		8.81	310.97	11.34	308.58	11.49	308.39

N/R - No Reading Taken
Well locations included on Figure 6

Table 7
Talbot Properties, LLC VCP
18006 - 11/11/2019
Laboratory Results- Groundwater Chemistry

		25-Mar-19			25-Jun-19			5-Nov-19			
	EPA's Screening Levels (mg/L)	**MW-1**	**MW-2**	**MW-3**	**MW-1**	**MW-2**	**MW-3**	**LMW-1**	**LMW-3**	**LMW-4**	**LMW-7**
VOCs											
Acetone	9.45E+04	ND	ND	ND	ND	ND	ND	0.0242	ND	ND	ND
TPH Low Fraction GRO	NL	4.01	0.196	3.6	1.95	0.296	2.43	ND	ND	ND	ND
Benzene	6.9E-02	0.00453	ND	ND	0.00279	ND	ND	0.00138	0.00075	0.00445	0.0072
Bromodichloromethane	3.8E-02	ND	ND	ND	ND	ND	0.00104	ND	ND	ND	ND
2-Butanone (MEK)	9.4E+03	ND	ND	ND	ND	ND	ND	0.0244	ND	ND	ND
Chloroform	3.6E-02	0.18	ND	0.00878	0.0388	ND	0.0157	ND	ND	ND	ND
chloromethane	1.1E+00	ND	ND	ND	ND	ND	ND	0.000666	ND	ND	ND
1,1-Dichloroethane	3.3E-01	ND	ND	0.00321	0.0783	ND	0.00256	0.0119	0.00119	ND	0.0094
1,1-Dichloroethene	8.2E-01	0.0373	ND	0.00321	0.0151	ND	0.00277	0.000915	ND	ND	ND
cis-1,2-Dichloroethene	NL	2.88	0.068	4.13	1.23	0.254	2.9	0.395	0.00368	0.00142	0.203
trans-1,2-Dichloroethene	NL	0.0304	0.00218	0.0533	0.02	0.00528	0.0455	0.00197	0.00171	0.00076	0.0112
Ethylbenzene	1.52E-01	ND	ND	ND	ND	ND	ND	0.00455	ND	0.00445	ND
Isopropylbenzene	3.73E+00	ND	ND	ND	ND	ND	ND	0.00177	0.000837	0.00215	ND
Methyl tert-butyl ether	1.5E+01	0.00527	ND	0.00838	0.00472	ND	0.0111	0.00254	0.00107	0.00139	0.0024
Naphthalene	2.0E-01	ND	ND	ND	ND	ND	ND	0.0176	ND	0.00481	ND
n-Butylbenzene	NL	ND	ND	ND	ND	ND	ND	0.00119	0.000537	0.00209	ND
n-Propylbenzene	1.0E+01	ND	ND	ND	ND	ND	ND	0.00305	0.00121	0.00273	ND
p-Isopropyltoluene	NL	ND	ND	ND	ND	ND	ND	0.00189	ND	0.00346	ND
sec-Butylbenzene	NL	ND	ND	ND	ND	ND	ND	0.00145	0.000694	0.0019	ND
tert-Butylbenzene	NL	ND	ND	ND	ND	ND	ND	ND	0.000986	0.0016	ND
1,1,2-Trichlorotrifluoroethane	1.0E+00	0.00862	ND	ND	0.0053	ND	ND	ND	ND	ND	ND
Tetrachloroethene	2.4E-01	0.322	0.039	0.17	0.572	0.178	0.147	0.00491	ND	ND	0.00125
Toluene	8.1E+01	ND	ND	ND	ND	ND	ND	0.00734	ND	ND	0.0006
Tetrahydrofuran	3.0E+03	ND	ND	ND	ND	ND	ND	0.094	0.181	0.0736	0.16
1,2,4 Trimethylbenzene	1.0E+00	ND	ND	ND	ND	ND	ND	0.0272	ND	0.0131	ND
1,3,5 Trimethylbenzene	7.3E-01	ND	ND	ND	ND	ND	ND	0.00901	ND	0.007	ND
1,1,1-Trichloroethane	3.1E+01	0.176	ND	ND	0.0508	ND	ND	ND	ND	ND	ND
Trichloroethene	2.2E-02	0.329	0.0184	0.167	0.575	0.0637	0.196	0.00387	0.00391	ND	0.0913
Vinyl Chloride	2.5E-02	0.0384	ND	0.296	0.0199	0.00221	0.257	0.157	0.002	0.0026	ND
Xylenes Total	1.6E+00	ND	ND	ND	ND	ND	ND	0.0185	ND	0.00159	ND
SVOCs											
Phenol	NL	ND	ND	ND	ND	ND	ND	ND	ND	0.0819	ND
TPH-High Fraction DRO	NL	0.919	ND	1.08	0.534	0.466	0.591	4.04	0.915	7.59	0.281

Notes:
1) mg/L
2) ND - Non-Detect
3) Only analytes that have one or more detections are shown
4) Numbers in red exceed the EPA's Resident Vapor Intrusion Screening Levels (VISL) for Target Groundwater Concentrations (TCR=1E-05 or THQ=1) dated May 2019
5) NL - Not Listed on the EPA's Resident Vapor Intrusion Screening Levels (VISL) for Target Groundwater Concentrations (TCR=1E-05 or THQ=1) dated May 2019
6) Pace Analytical data can be found in Exhibit 8 and Appendix G

Table 8
Talbot Properties, LLC VCP
18006 - 11/15/2019
Laboratory Results - Geoprobe Soil Exploration near B-2

	Soil Standards	H-1	H-2	H-3	H-4	H-5	H-6	H-7	H-8	H-9	H-10	H-11
Sample Depths		5'	3.5'	3.5'	5'	6-8'	1.5'	5-8'	3-5'	5'	2'	3-5'
PID		1090	50	368	10	12	120	5	3-6	60	780	5
Acetone	6.10E+04	ND	ND	ND	ND	ND	ND	0.0442	0.0596	ND	ND	ND
Benzene	5.10E+00	ND	ND	ND	0.00201	ND	ND	0.012	ND	ND	ND	ND
n-Butylbenzene	NL	ND	ND	ND	0.0221	ND	ND	ND	ND	0.103	ND	ND
sec-Butylbenzene	NL	ND	ND	ND	0.0216	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.60E+01	ND	ND	ND	0.00601	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	2.30E+02	ND	2.47	ND	8.4	0.2	ND	0.0778	0.259	0.354	9.15	0.0241
trans-1,2-Dichloroethene	2.30E+03	ND	ND	ND	0.0492	ND	ND	0.0188	ND	ND	ND	ND
Ethylbenzene	2.50E+01	ND	ND	ND	0.00639	ND	ND	0.0044	ND	ND	ND	ND
Isopropylbenzene	9.90E+02	ND	ND	ND	0.00833	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	NL	ND	0.26	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	1.90E+04	ND	ND	ND	0.0385	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	2.10E+02	ND	ND	ND	ND	ND	ND	0.0135	ND	ND	ND	ND
Naphthalene	NL	ND	ND	ND	0.0381	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	NL	ND	ND	ND	0.00703	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	3.90E+01	4240	30.7	5310	0.355	0.0426	127	0.0501	0.0763	7.23	3570	0.0939
Toluene	4.70E+03	ND	ND	ND	0.0271	ND	ND	0.0105	ND	ND	ND	ND
1,1,1-Trichloroethane	3.60E+03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1.90E+00	32.2	4.23	104	0.0604	0.00635	ND	0.0102	0.018	0.165	87.7	0.00683
1,2,4-Trimethylbenzene	1.80E+02	ND	0.626	ND	0.017	ND	ND	0.0105	ND	0.218	ND	ND
1,2,3-Trimethylbenzene	NL	ND	1.55	ND	0.00842	ND	ND	ND	ND	0.139	ND	ND
1,3,5-Trimethylbenzene	1.50E+02	ND	1.28	ND	0.00578	ND	ND	ND	ND	0.068	ND	ND
Vinyl Chloride	1.70E+00	ND	ND	ND	0.133	ND	ND	0.0847	ND	ND	ND	ND
Xylenes, Total	2.50E+02	ND	ND	ND	0.0479	ND	ND	0.0187	ND	ND	ND	ND

Notes:

1) mg/kg
2) ND - Non-Detect
3) Only analytes that have one or more detections are shown
4) Results recorded in red are above MDE's Cleanup Standards for Soil & Groundwater dated Oct 2018
5) Soil Standards are from the MDE's Cleanup Standards for Soil & Groundwater dated Oct 2018 under "non-residential clean-up standard"
6) NL - Not-Listed on MDE's Cleanup Standards for Soil & Groundwater dated Oct 2018

Table 9
Talbot Properties, LLC VCP
18006 - 12/12/2019
Laboratory Results - Geoprobe Soil Exploration in Amato Warehouse

	Soil Standards	B7-G	B8-G	B9-G1	B9-G2	B9-G3	B10-G	B15-G1	B15-G2
Sample Depths		5'	4-5'	3-5'	10'	7-8'	5'	10'	6-7'
PID		3	2	2	20	13	7	6	6
Acetone	6.10E+04	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	5.10E+00	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	NL	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	NL	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.60E+01	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	2.30E+02	0.00782	0.0823	0.00593	ND	ND	0.0363	ND	0.0135
trans-1,2-Dichloroethene	2.30E+03	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	2.50E+01	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	9.90E+02	ND	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	NL	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	1.90E+04	0.0433	0.0418	0.0428	0.0462	0.0562	0.0415	0.0484	0.0399
Methyl tert-butyl ether	2.10E+02	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	NL	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	NL	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	3.90E+01	2.06	0.613	0.545	0.0159	0.00857	1.58	0.0283	1.53
Toluene	4.70E+03	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	3.60E+03	ND	ND	ND	ND	ND	0.00487	ND	ND
Trichloroethene	1.90E+00	0.133	0.716	0.0345	ND	ND	0.293	ND	0.105
1,2,4-Trimethylbenzene	1.80E+02	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trimethylbenzene	NL	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	1.50E+02	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	1.70E+00	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes, Total	2.50E+02	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

1) mg/kg
2) ND - Non-Detect
3) Only analytes that have one or more detections are shown
4) Results recorded in red are above MDE's Cleanup Standards for Soil & Groundwater dated Oct 2018
5) Samples G-1 through CG-13 were taken near B-2
6) Soil Standards are from the MDE's Cleanup Standards for Soil & Groundwater dated Oct 2018 under "non-residential clean-up standard"
7) NL - Not-Listed on the MDE's Cleanup Standards for Soil & Groundwater dated Oct 2018

Table 10
Talbot Properties, LLC VCP
18006 -12/12/2019
Laboratory Results - Geoprobe Soil Exploration near B-2/ Perkin's Warehouse and sub slab vapor

	Target Soil Standards	B15-G1	B15-G2
Sample Depths		10'	6'-7'
TPH low fraction	NL	ND	0.691
Acetone	6.10E+04	ND	ND
Benzene	5.10E+00	ND	ND
n-Butylbenzene	NL	ND	ND
sec-Butylbenzene	NL	ND	ND
1,1-Dichloroethane	1.60E+01	ND	ND
cis-1,2-Dichloroethene	2.30E+02	ND	0.0135
trans-1,2-Dichloroethene	2.30E+03	ND	ND
Ethylbenzene	2.50E+01	ND	ND
Isopropylbenzene	9.90E+02	ND	ND
p-Isopropyltoluene	NL	ND	ND
2-Butanone (MEK)	1.90E+04	0.0484	0.0399
Methyl tert-butyl ether	2.10E+02	ND	ND
Naphthalene	NL	ND	ND
n-Propylbenzene	NL	ND	ND
Tetrachloroethene	3.90E+01	0.0283	1.53
Toluene	4.70E+03	ND	ND
1,1,1-Trichloroethane	3.60E+03	ND	ND
Trichloroethene	1.90E+00	ND	0.105
1,2,4-Trimethylbenzene	1.80E+02	ND	ND
1,2,3-Trimethylbenzene	NL	ND	ND
1,3,5-Trimethylbenzene	1.50E+02	ND	ND
Vinyl Chloride	1.70E+00	ND	ND
Xylenes, Total	2.50E+02	ND	ND

	Commercial Target Sub Slab 500x MDE Technical Guidelines	B-11	B-15
Date of Sampling		2/6/2019	12/12/2019
Acetone	68500000	ND	ND
Benzene	8000	ND	ND
n-Butylbenzene	NL	ND	ND
sec-Butylbenzene	NL	ND	ND
Chloroform	2700	ND	440
Cyclohexane	13250000	1300	ND
1,1-Dichloroethane	7670	ND	ND
cis-1,2-Dichloroethene	15400	5200	88
trans-1,2-Dichloroethene	31000	280	ND
Ethylbenzene	5000	ND	ND
Heptane	176000	560	ND
n-Hexane	308000	1200	ND
Isopropylbenzene	2.10E+05	ND	ND
p-Isopropyltoluene	NL	ND	ND
2-Butanone (MEK)	11000000	ND	ND
Methyl tert-butyl ether	236000	ND	ND
Naphthalene	60000	ND	ND
n-Propylbenzene	2200000	ND	ND
Tetrachloroethene	90000	ND	1500
Toluene	11000000	ND	5.1
1,1,1-Trichloroethane	11000000	ND	9.3
Trichloroethene	4400	ND	240
1,2,4-Trimethylbenzene	31500	ND	ND
1,2,3-Trimethylbenzene	132000	ND	ND
1,3,5-Trimethylbenzene	31500	ND	ND
2,2,4-Trimethylpentane	NL	14000	ND
Vinyl Chloride	14000	6300	ND
Xylenes, Total	220000	ND	4.7

Notes:
1) mg/kg
2) ND - Non-Detect
3) Only analytes that have one or more detections are shown
4) Results that are highlighted are above MDE's Cleanup Standards for Soil & Groundwater dated Oct 2018
5) Soil Standards are from the MDE's Cleanup Standards for Soil & Groundwater dated Oct 2018 under "non-residential clean-up standard"
6) NL - Not-Listed on MDE's Cleanup Standards for Soil & Groundwater dated Oct 2018
5) Target sub slab taken from the MDE Technical Guidelines for Vapor Intrusion Table 2- Commercial Scenario (non-residential) Sept 2019
8) Numbers shown in yellow exceed the MDE Technical Guidelines for Commercial levels Sept 2019

P1

Hold Down Concrete Slab Construction

P2

Hold Down Concrete Slab with Straps

P3

Tank Installation- No Groundwater Visible

P4

New Insulation Wrapping Around Duct

P5
Exterior Air Supply Vent

P6

Electric Damper to Air Supply Vent

P7

Airflow Control Switch