PERIODIC REVIEW REPORT

CORNWALL PLAZA
ORANGE COUNTY
CORNWALL, NEW YORK
NYSDEC Site Number: C336070
USEPA ID # NYD054065735

Prepared For:

Cornwall Shopping, LLC
c/o Philips International Holding Corp.
295 Madison Avenue
New York, NY 10017

Prepared By:

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Vertex Project No: 44469

May 30, 2017

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May 30, 2017

Cornwall Shopping, LLC
c/o Philips International Holding Corp.
295 Madison Avenue
New York, NY 10017
Attn: Mr. Seth Pilevsky

RE: **PERIODIC REVIEW REPORT**
Cornwall Plaza
Orange County
Cornwall, New York
NYSDEC Site Number: C336070
USEPA ID # NYD054065735
VERTEX Proj. No. 44469

Mr. Seth Pilevsky:

Vertex Engineering, PC (VERTEX) is pleased to submit this Periodic Review Report for the above referenced property (the site).

The Periodic Review Report will be submitted, in electronic format, to the NYSDEC Central Office, Regional Office in which the site is located and the NYSDOH Bureau of Environmental Exposure Investigation. The Periodic Review Report may need to be submitted in hard-copy format, if requested by the NYSDEC project manager.

Please do not hesitate to contact us at your convenience should you have any questions or comments regarding this report or our recommendations. It has been a pleasure working with you on this project.

Sincerely,

Vertex Engineering, PC

Richard J. Tobia, PE
Technical Director

Joseph J.C. Dultz
Vice President

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I. EXECUTIVE SUMMARY

A. General Summary

This Periodic Review Report (PRR) is a required element of the remedial program for the Cornwall Plaza located in Cornwall, New York (hereinafter referred to as the "site") (Figure 1). The site is currently in the New York State (NYS) Brownfield Cleanup Program administered by NYSDEC, Site No. C336070. Cornwall Shopping LLC entered into a Brownfield Cleanup Agreement on November 13, 2006 with the NYSDEC to remediate the site. Cornwall Shopping LLC entered the BCP as a volunteer as defined in ECL 27-1405(1)(B).

After completion of the remedial work, some contamination in soil, soil gas and groundwater remains at this site, which is hereafter referred to as "remaining contamination." Institutional and Engineering Controls (ICs and ECs) have been incorporated into the site remedy to control exposure to remaining contamination to ensure protection of public health and the environment.

The Remedial Work Plan (RWP) (ARCADIS, October 2012) was designed to follow a Track 4 cleanup at the site via in-situ groundwater remediation through Enhanced Reductive Dechlorination (ERD) and the installation of an active sub-slab depressurization (SSD) system. Site-specific soil cleanup objectives (SCOs), based upon SCOs set forth in Subpart 375-6, were utilized for the contaminants of concern. A long-term institutional control was implemented to address exceedances of the SCO.

The remedial strategy involved the following activities that have been performed at the site:

- Installation of an active SSD system below the current tenant DeCicco's Market and adjacent to Chan's Restaurant to mitigate vapor intrusion;
- Injection of a carbon substrate to the subsurface through temporary well points and permanent horizontal injection wells to reduce source zone contaminant concentrations to where natural attenuation can take over as the remedial action for the remaining chlorinated contaminants.

B. Effectiveness of the Remedial Program

Based upon the groundwater data collected to date, bioremediation via de-chlorination of CVOCs is occurring at the Site in areas where EVO was injected. Concentrations of CVOCs have exhibited an overall decreasing trend since the injections of EVO and the total mass of contaminants has decreased in the subsurface. Additional sampling is necessary to confirm that CVOC concentrations are continuing to be reduced.

Based upon prior indoor air sampling, the SSD system is working as designed to reduce the concentrations of vapors below the building slab and prevent indoor air concerns.

C. Compliance

The following area of non-compliance have been identified with the SMP IC/EC, monitoring plan and/or O&M plan:

- Monitoring to assess the performance and effectiveness of the remedy has not been performed at the required frequency as defined in this SMP.
- Conflicting sampling schedules were listed in the SMP. The annual groundwater sampling frequency for groundwater has been adhered to. Indoor air and sub-slab soil gas sampling was completed at the end of 2015.
- Semi-annual reporting schedule has not been adhered to.

D. Recommendations

At this time no changes to the SMP or PRR frequency are recommended. Additional groundwater results are needed to make a determination as to whether changes can be made to the SMP monitoring requirements. The requirements for discontinuing site management have not been met at this time. These recommendations will be evaluated annually with the submission of the PRR. Refer to Section V for sampling and inspection frequencies.

II. SITE OVERVIEW

A. Site Location and Description

The site is located at 19-45 Quaker Avenue in Cornwall, Orange County, New York (Figure 1). The site is an approximately 3.8-acre area and is bounded by Quaker Avenue to the north, Warren Court and residential dwellings to the south, Cornwall Fire Department and Angola Road to the east, and Cedar Lane and residential dwellings to the west (Figure 2). The site is improved with a strip mall with slab-on-grade structures with multiple commercial tenant spaces. The remainder of the site consists of paved parking lots and driveways and a small amount of landscaped and vegetated areas (Figure 3).

In 2005, tetrachloroethene (PCE), trichloroethene (TCE), and cis-1,2-dichloroethene (cis-1,2-DCE) were identified in both soil and ground water. The source of these contaminants is the result of a release(s) from the site's former dry-cleaning business (Cornwall Cleaners). Cornwall Cleaners operated at the Cornwall Plaza as a dry cleaner and Laundromat from approximately 1967 through 1994 when the leasehold was converted from a dry cleaner to a restaurant (Chan's) in 1994.

B. Remediation Chronology

Between November 2007 and May 2009, Leggette, Brashears & Graham (LBG) conducted a remedial investigation at the site. The investigation confirmed that soil, soil gas and ground water were impacted with chlorinated volatile organic compounds (CVOCs). A Remedial *Work Plan* (RWP) was prepared by ARCADIS, and dated April 3, 2012.

The selected remedy included enhanced reductive dechlorination (ERD) of the contaminated groundwater and saturated soils source and the installation of a sub-slab depressurization system to mitigate vapor intrusion. The goals of the selected remedies were to prevent vapor intrusion into the two affected leaseholds as long as there is a groundwater source at the site and to remediate the source area to levels where natural attenuation can act on the groundwater to remediate the plume. No significant changes to the selected remedy have been made since the issuance of the FER and SMP.

Engineering controls include the existing cover system to prevent direct contact and exposure to the contaminated soil and groundwater and the SSD system to prevent exposure to elevated concentrations of contaminants within the indoor air.

On April 23, 2013, VERTEX conducted a pilot test to evaluate the design parameters for the installation of a sub-slab depressurization system (SSDS) at the Site to remediate vapor intrusion into two tenant spaces. Between July 29, 2013 and November 22, 2013, VERTEX commenced the

enhanced reductive dechlorination (ERD) carbon substrate injection application in accordance with the RWP to remediate the chlorinated solvent-contaminated groundwater. The remedial activities included the injection of Emulsified Vegetable Oil (EVO) into 117 vertical injection points and three horizontally-drilled injection wells.

Between March 5, 2014 and March 14, 2014, VERTEX commenced the second carbon substrate injection application in accordance with the RWP. The remedial activities included the injection of EVO into 67 vertical injection points and additional injections into the existing horizontal injection wells. No additional carbon substrate injection has been performed since this time.

Between June 22, 2014 and June 24, 2014, a total of eight SSD system vapor points were installed through the building floor within the DeCicco leasehold. The locations were selected based upon the concentrations of CVOCs in the sub-slab soil gas, subsurface and surface obstructions, and the calculated radius of influence (ROI). The ROI from the northwestern system, System 1, was installed to influence the Chan's Peking House leasehold. The system has been operational since August 6, 2015.

VERTEX collected post-remedial groundwater samples of the groundwater on February 20, 2014, June 30 - July 1, 2014, November 24, 2014, February 19, 2015 and April 24, 2015.

In April of 2015, VERTEX reinstalled MW-2 (MW-2R) and MW-4 (MW-4R) adjacent to the prior wells that were damaged during the EVO injection activities with the same well construction specifications as the prior wells. When accessible, groundwater samples were collected from on-site monitoring wells MW-1R, MW-1B, MW-3, MW-3B, MW-5, MW-6, MW-6B, MW-7, MW-8, and MW-9.

III. REMEDY PERFORMANCE, EFFECTIVENESS AND PROTECTIVENESS

A. Remedial Action Objectives

The Remedial Action Objectives (RAOs) for Public Health Protection and Environmental Protection for the site have been effective to date for the following media in:

Groundwater

- Preventing ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Preventing contact with, or inhalation of, volatiles from contaminated groundwater.
- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Preventing the discharge of contaminants to surface water.
- Removal of the source of ground or surface water contamination.

Soil

- Preventing ingestion/direct contact with contaminated soil.
- Preventing inhalation of or exposure from contaminants volatilizing from contaminants in soil.
- Preventing migration of contaminants that would result in groundwater or surface water contamination.
- Preventing impacts to biota from ingestion/direct contact with soil causing toxicity or impacts from bioaccumulation through the terrestrial food chain.

Soil Vapor

- Mitigating impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

November 2015 Groundwater Sampling Event

On November 20, 2015, groundwater samples were collected from monitoring wells MW-1R, MW-3, MW-4R, MW-6, MW-7, and MW-8. MW-2R was scheduled to be sampled at the same time; however, it could not be sampled due to sediment that had accumulated in the well. The well was redeveloped and sampled on December 14, 2015. The monitoring wells were purged and sampled by EST Associates, Inc. (EST) of Mount Laurel, New Jersey under the supervision of VERTEX. Prior to the collection of groundwater samples, EST measured depth to water (DTW). The depth to water ranged from 3.83 feet (MW-1R) to 11.6 feet (MW-2R). Based upon the groundwater gauging data, groundwater flow was calculated to flow in a northeasterly direction, which is consistent with pre-EVO injection groundwater flow direction. A groundwater contour map for the November 2015 sampling event is provided as Figure 4.

Groundwater samples were collected from on-site monitoring wells. In accordance with the SMP, off-site monitoring wells were not sampled during this event. Samples were collected in general accordance with *USEPA Low Stress (low flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells*. Groundwater samples were collected in laboratory-supplied pre-cleaned containers, preserved on ice, and submitted in coolers under a chain of custody for laboratory analysis. Groundwater samples were analyzed for volatile organic compounds (VOCs) via USEPA Method 8260 with a 10 compound library search by Alpha Analytical (Alpha) of Mansfield, Massachusetts (New York State Department of Health [NYDOH] Certification No. 11148). In addition to VOCs, samples of groundwater collected from each monitoring well were analyzed for bioremediation parameters which includeed: dissolved iron, sulfate, alkalinity, and dissolved gases (ethene, ethane, methane).

Review of the VOC groundwater analytical results for the November 2015 sampling event identified the following:

Methylene chloride was detected in three samples, MW-1R (650 micrograms per liter [ug/L]), MW-7 (290 ug/L), and MW-8 (310 ug/L) at concentrations exceeding the Ambient Water Quality Standards (AWQS) and the Technical and Operations Guidance Series – Class GA (TOGS-GA) of 5 ug/L. Methylene chloride was previously not detected in these monitoring wells. It is likely that these detections are due to laboratory contamination. COCs, Tetrachloroethylene (PCE), vinyl chloride (VC), trichloroethylene (TCE), and cis 1,2-dichloroethylene (cis 1,2-DCE), were detected in MW-2R, MW-3, MW-4R at concentrations exceeding the AWQS and TOGS-GA of 5 ug/L, 2 ug/L, 5 ug/L, and 5 ug/L, respectively. PCE concentrations exceeding the AWQS and TOGS-GA ranged from 5.5 ug/L in MW-8 to 210 ug/L in MW-4R. TCE concentrations exceeding the AWQS and TOGS-GA ranged from 12 ug/L in MW-2R to 110 ug/L in MW-4R. VC concentrations exceeding the AWQS and TOGS-GA

ranged from 4.1 ug/L in MW-3 to 70 ug/L in MW-2R and cis 1,2-DCE concentrations exceeding the AWQS and TOGS-GA ranged from 160 ug/L in MW-2R to 320 ug/L in MW-4R.

Review of the dissolved gas analyses identified methane concentrations ranging from 243 ug/L (MW-7) to 11,300 ug/L (MW-2R); ethene concentrations ranged from non-detect (MW-1R, MW-6, MW-7, and MW-8) to 27.3 ug/L (MW-2R); and ethane concentrations ranged from non-detect (MW-7) to 111 ug/L (MW-2R). Concentrations of dissolved iron ranged from 20 ug/L (MW-2R) to 6,010 ug/L (MW-1R). Concentrations of dissolved manganese ranged from 1,800 ug/L (MW-7) to 10,120 ug/L ug/L (MW-4). The general chemistry analysis identified alkalinity ranging from 66.4 milligrams per liter (mg/L) (carbonate alkalinity ($CaCO_3$) (MW-6) to 438 mg/L $CaCO_3$ (MW-2R). The sulfate concentrations ranged from non-detect (MW-6) to 36,000 ug/L (MW-38). The dissolved organic carbon concentrations ranged from 2,700 ug/L (MW-7) to 23,000 ug/L (MW-1R). Concentrations of chloride ranged from 24,000 ug/L in MW-6 to 870,000 ug/L in MW-8.

A groundwater PCE isopleth for the November 2015 sampling event is provided as Figure 5.

April 2016 Groundwater Sampling Event - Annual

On April 28, 2016, VERTEX conducted the first annual round of post-remedial groundwater sampling activities at the Site. Prior to the collection of groundwater samples, VERTEX measured DTW. The DTW ranged from 3.69 feet (MW-1R) to 11.50 feet (MW-2R). Based upon the groundwater gauging data, groundwater was calculated to flow in a northeasterly direction, which is consistent with prior groundwater flow direction. A groundwater contour for the April 2016 sampling event is provided as Figure 6.

Groundwater samples were collected from on-site monitoring wells MW-1R, MW-2R, MW-3, MW-4R, MW-6, MW-7, and MW-8. Samples were collected in general accordance the methods previously discussed in the November 2015 Groundwater Sampling Event section.

Review of the VOC groundwater analytical results for the April 2016 sampling event identified the following:

PCE was detected in monitoring wells MW-2R (21 ug/L), MW-3 (110 ug/L), MW-4R (240 ug/L), MW-6 (55 ug/L), and MW-7 (5.5 ug/L) at concentrations exceeding the AWQS and TOGS-GA of 5 ug/L. TCE was detected in monitoring wells MW-3, MW-4R, and MW-6 at concentrations of 36 ug/L, 100 ug/L, and 6.6 ug/L, respectively. These concentrations exceed the AWQS and TOGS-GA of 5 ug/L. Vinyl chloride was detected in monitoring well MW-4R at a concentration of 11 ug/L, which exceeds the AWQS and TOGS-GA of 2 ug/L.

Methylene chloride was not detected in any of the wells thus confirming that concentrations of this compound detected in November were due to laboratory contamination.

Review of the dissolved gas analyses identified methane concentrations ranged from non-detect ug/L (MW-7) to 10,800 ug/L (MW-6); ethene concentrations ranged from non-detect (MW-3, MW-7, and MW-8) to 6.8 ug/L (MW-2R); and ethane concentrations ranged from non-detect (MW-8) to 23.7 ug/L (MW-2R). Concentrations of dissolved iron ranged from 20 ug/L (MW-3 and MW-7) to 44,400 ug/L (MW-6). Dissolved manganese concentrations ranged from 1,023 ug/L in MW-6 to 10,600 ug/L in MW-4. The general chemistry analysis identified alkalinity ranged from 216 mg/L $CaCO_3$ (MW-1R) to 662 mg/L $CaCO_3$ (MW-2R). The sulfate concentrations ranged from non-detect (MW-6) to 54,000 ug/L (MW-3). The dissolved organic carbon concentrations ranged from 1,300 ug/L (MW-7) to 19,000 ug/L (MW-1R). Chloride concentrations ranged from 290,000 ug/L in MW-4R to 1,300,000 ug/L in MW-1R.

A groundwater PCE isopleth for the April 2016 sampling event is provided as Figure 7. The results of the November 2015 and April 2016 sampling events are summarized as Table 1.

Conclusions

Overall, PCE concentrations have decreased significantly in most monitoring wells since 2011 (Table 2). Based on groundwater concentrations and their distribution, the estimated total mass of PCE has decreased from an estimated 700 grams in July 2015 to an estimated 267 grams (~62% decrease) in November 2015. Concentrations of PCE daughter products (TCE, cis 1,2-DCE, and VC) have generally increased in most monitoring wells which indicates dechlorination is ongoing. A comparison of the mole/mass fractions of PCE, TCE, cis 1,2-DCE, and VC in MW-3, MW-4R, MW-6, and MW-7 also indicates that dechlorination is occurring (Figure 8). Dechlorination appears to be occurring at a faster rate in the central portion of the site (MW-4R and MW-6). According to the biological and field parameters collected during the last sampling event, bioremediation is still actively occurring in many of the monitoring wells (MW-1R, MW-2R, MW-4R, and MW-6). Bioremediation is slowing in monitoring wells MW-3, MW-7, and MW-8. Methane, which is an indicator of a highly anaerobic environment, concentrations are greater than 1.0 mg/L in monitoring wells MW-1R, MW-2R, MW-4R, and MW-6. Sulfate concentrations in these wells have been less than 20 mg/L which is desirable for anaerobic dechlorination. Based on the reduction of PCE mass, the remaining concentrations of contaminants of concern, and biological and field parameters, continued monitoring is proposed to further confirm attenuation of contamination at the site. No further active remediation is proposed at this time.

IV. IC/EC PLAN COMPLIANCE

Since contamination exists at the site, Institutional Controls (ICs) and Engineering Controls (ECs) were required to protect human health and the environment. The following describe the requirements of the IC/EC Plan.

Generally, remedial processes are considered completed when monitoring indicates that the remedy has achieved the remedial action objectives identified by the decision document. The framework for determining when remedial processes are complete is provided in Section 6.6 of NYSDEC DER-10. The composite cover system is a permanent control and will remain in perpetuity. The active SSD system will not be discontinued unless prior written approval is granted by the NYSDEC and the NYSDOH. In the event that monitoring data indicates that the SSD system may no longer be required, a proposal to discontinue the SSD system will be submitted by the remedial party to the NYSDEC and NYSDOH. Groundwater monitoring activities to assess natural attenuation will continue, as determined by the NYSDEC with consultation with NYSDOH, until residual groundwater concentrations are found to be consistently below ambient water quality standards, the site SCGs, or have become asymptotic at an acceptable level over an extended period. In the event that monitoring data indicates that monitoring for natural attenuation may no longer be required, a proposal to discontinue the monitoring will be submitted by the remedial party. Monitoring will continue until permission to discontinue is granted in writing by the NYSDEC.

A. Institutional Controls

A series of ICs is required by the Decision Document to: (1) implement, maintain and monitor Engineering Control systems; (2) prevent future exposure to remaining contamination; and, (3) limit the use and development of the site to commercial uses only. Adherence to these ICs on the site is required by the Environmental Easement and were implemented under the approved SMP. ICs identified in the Environmental Easement are:

- The remedial party or site owner is required to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- The use and development of the controlled property for commercial and industrial uses as defined by Part 375-1.S(g) is allowed, although land use is subject to local zoning laws;
- Groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or OCDOH; to render it safe for use as drinking water or for industrial purposes is restricted, and the user must first notify and obtain written approval to do so from the Department;

- Agriculture or vegetable gardens are prohibited on the controlled property;
- Compliance with the Department approved Site Management Plan is required;
- All ECs must be operated and maintained as specified in this SMP;
- All ECs must be inspected at a frequency and in a manner defined in the SMP.
- Groundwater and other environmental or public health monitoring must be performed as defined in this SMP;
- Data and information pertinent to site management must be reported at the frequency and in a manner as defined in this SMP;
- All future activities that will disturb remaining contaminated material must be conducted in accordance with this SMP;
- Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in this SMP;
- Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in this SMP;
- Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easement.
- The potential for vapor intrusion must be evaluated for any buildings developed in the area within the IC boundaries noted on the figure included as Appendix 1, and any potential impacts that are identified must be monitored or mitigated.

The Environmental Easement remains in place and remains effective in maintaining Public Health Protection and Environmental Protection.

B. Engineering Controls

Cover (or Cap)

Exposure to contamination remaining at the site is prevented by a cover system placed over the site. This cover system is comprised of a minimum of 12 inches of clean soil, asphalt pavement, concrete-covered sidewalks, and concrete building slabs.

Any site redevelopment will maintain a site cover, which may consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper one foot of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs).

This cover remains in place and remains effective in maintaining Public Health Protection and Environmental Protection.

Sub-slab Depressurization System

An active SSD system which prevents the migration of vapors into the buildings has been installed in the eastern-most site building, within the DeCicco's leasehold. The radius of influence of the system extends to include the Chan's Peking Restaurant leasehold. The system became operational upon the final electrical connection on August 6, 2015.

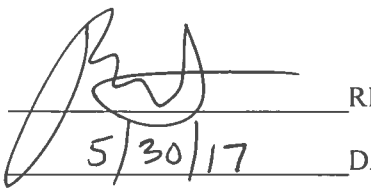
Figure 3 depicts the location of the ECs for the site.

C. IC/EC Certification

"For each institutional or engineering control identified for the site, I certify that all of the following statements are true:

- The inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction;
- The institutional control and/or engineering control employed at this site is unchanged from the date the control was put in place, or last approved by the Department;
- Nothing has occurred that would impair the ability of the control to protect the public health and environment;
- Nothing has occurred that would constitute a violation or failure to comply with any site management plan for this control;
- Access to the site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;
- If a financial assurance mechanism is required under the oversight document for the site, the mechanism remains valid and sufficient for the intended purpose under the document;
- Use of the site is compliant with the environmental easement;
- The engineering control systems are performing as designed and are effective;
- To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program and generally accepted engineering practices; and
- The information presented in this report is accurate and complete.

I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, Richard J. Tobia, of Vertex Engineering, PC, am certifying as Owner's/Remedial Party's Designated Site Representative for the site."



RICHARD J. TOBIA

5/30/17 DATE

V. MONITORING PLAN COMPLIANCE

A. Components

The following are components of monitoring plan by media and technology:

Inspections:	Frequency
1. Cover Inspection	Annually
2. SSD System	Semi-annually
3. Monitoring Wells	Annually
Monitoring:	
1. SSD System - Soil Gas - Indoor Air	Completed November 2015
2. Groundwater Monitoring Wells MW-1R, MW-2R, MW-3, MW-4R, MW-6, MW-7, MW-8	Annually through 2018
Maintenance:	
1. Monitoring Well Maintenance	As Needed
2. SSD maintenance	As Needed
3. Cover	Annually
Reporting:	
1. Groundwater Data	Annually through 2018
2. Periodic Review Report	Annually starting April 23, 2017

B. Summary of Monitoring Completed

The following is a summary of monitoring completed since the time the SMP was finalized in December 2015:

Inspections:	Frequency
1. Cover Inspection	April 2016, April 2017
2. SSD System	April 2016
3. Monitoring Wells	April 2016, April 2017
Monitoring:	
1. SSD System - Soil Gas - Indoor Air	Not Applicable Completed November 2015
2. Groundwater Monitoring Wells MW-1R, MW-2R, MW-3, MW-4R, MW-6, MW-7, MW-8	November 2015 April 2016
Maintenance:	
1. Monitoring Well Maintenance	Redeveloped MW-2R December 2015
2. SSD maintenance	See Section VI.B
3. Cover	Unknown
Reporting:	
1. Groundwater Data	Missed
2. Periodic Review Report	April 23, 2017

C. Comparison with Remedial Objectives

Table 2 presents COCs exceedances as of the latest round of groundwater sampling performed in April 2016. As shown, exceedances are limited to PCE, TCE, Cis 1,2-DCE, VC in monitoring wells MW-2R, MW-3, MW-4R, MW-6 and MW-7.

D. Monitoring Deficiencies

The following are deficiencies are noted that did not fully comply with the monitoring plan:

- A complete semi-annual inspection of the SSD system was missed in the second half of 2016.

E. Conclusions and Recommendations for Changes

The following conclusions and recommendations for changes are noted:

- No recommendations for changes are being requested at this time.

VI. OPERATION AND MAINTENANCE PLAN

A. Components of O&M Plan

The Operation and Maintenance of the SSD system is performed on an as needed basis. The system is fitted with a visual beacon alarm that lights within the supermarket loading dock area when the system is not functioning properly. Notifications of non-operational status are made by DeCiccio's.

B. Summary of O&M Completed During Reporting Period

The vapor mitigation system continues to operate as installed. Blowers have intermittently shut down possibly due to an over or under-voltage or high temperature. Typically, the blower electrical feed (circuit breaker) was turned off and back on to reset the blowers and the system was restored to working condition.

During periods of extremely cold weather, condensation within the vacuum tubing connecting the blower to the differential pressure gauge had frozen intermittently. This situation caused a false reading at the gauge and false low vacuum system alarms.

December 2015	Blower #3 stopped working
December 2015	Blower #4 off/restarted
January 6, 2016	Blower #3 replaced
February 2016	Blower #1 stopped working
March 3, 2016	Blower #1 replaced
April 29, 2016	Blower #1 & #3 off/restarted
August 19 to August 23, 2016	Blower #4 off/restarted
September 16, 2016	Blower #1 off/restarted
April 20, 2017	Blower #1 is non-operational

C. Evaluation of Remedial Systems

SSDS communication checks were performed during the groundwater sampling events. The following table summarizes the communication checks.

Location	Bathroom	Cheese Island	Warehouse Storage	Dairy/ Water
11/20/15	-0.27	-0.35	-0.38	-0.001
04/28/16	-0.034	-0.050	NA	NA

Location	Beer	Register	Chan's Front	Chan's Back
11/20/15	-0.009	-0.033	-0.005	-0.003
04/28/16	-0.008	-0.042	-0.001	-0.005

NA – Sampling point inaccessible at time of sampling
Units – Inches of Water

Flow rate readings were collected during the groundwater sampling events. The following table summarizes the readings collected during the November 2015 and April 2016 groundwater sampling events.

Blower	1		2		3		4	
Date/Units	Ft/min	CFM	Ft/min	CFM	Ft/min	CFM	Ft/min	CFM
11/20/15	2231	105	614	29	110	5.1	2043	104
04/28/16	2320	113	430	21	690	34	2209	108

Based on the vacuum and flow data, the system continues to operate as designed/expected.

D. O&M Deficiencies

Although blowers had failed during the reporting period, typically the majority of the system, 3 of 4 blowers, remained operational. As groundwater concentrations have decrease over time and the continuous extraction of sub-slab vapors is occurring, a temporary loss of one portion of the system should not have a negative impact on the indoor air.

E. Conclusions and Recommendations for Improvements

The system continues to operate as designed/expected. The most recent inspection (April 2017) shows that Blower #1 is currently non-operational. This blower will be troubleshot and repaired/replaced. The installation of a remote monitoring system will be investigated.

VII. OVERALL PRR CONCLUSIONS & RECOMENDATIONS

A. Compliance with SMP

The following area of non-compliance have been identified with the SMP IC/EC, monitoring plan and/or O&M plan:

- Monitoring to assess the performance and effectiveness of the remedy has not been performed at the required frequency as defined in this SMP.
- Conflicting sampling schedules were listed in the SMP. The annual groundwater sampling frequency for groundwater has been adhered to. Indoor air and sub-slab soil gas sampling was completed at the end of 2015.
- Semi-annual reporting schedule has not been adhered to for groundwater sampling events.

Although the monitoring and reporting schedule was not adhered to during the reporting period, this appears to have not impacted the effectiveness of the system.

B. Performance and Effectiveness of the Remedy

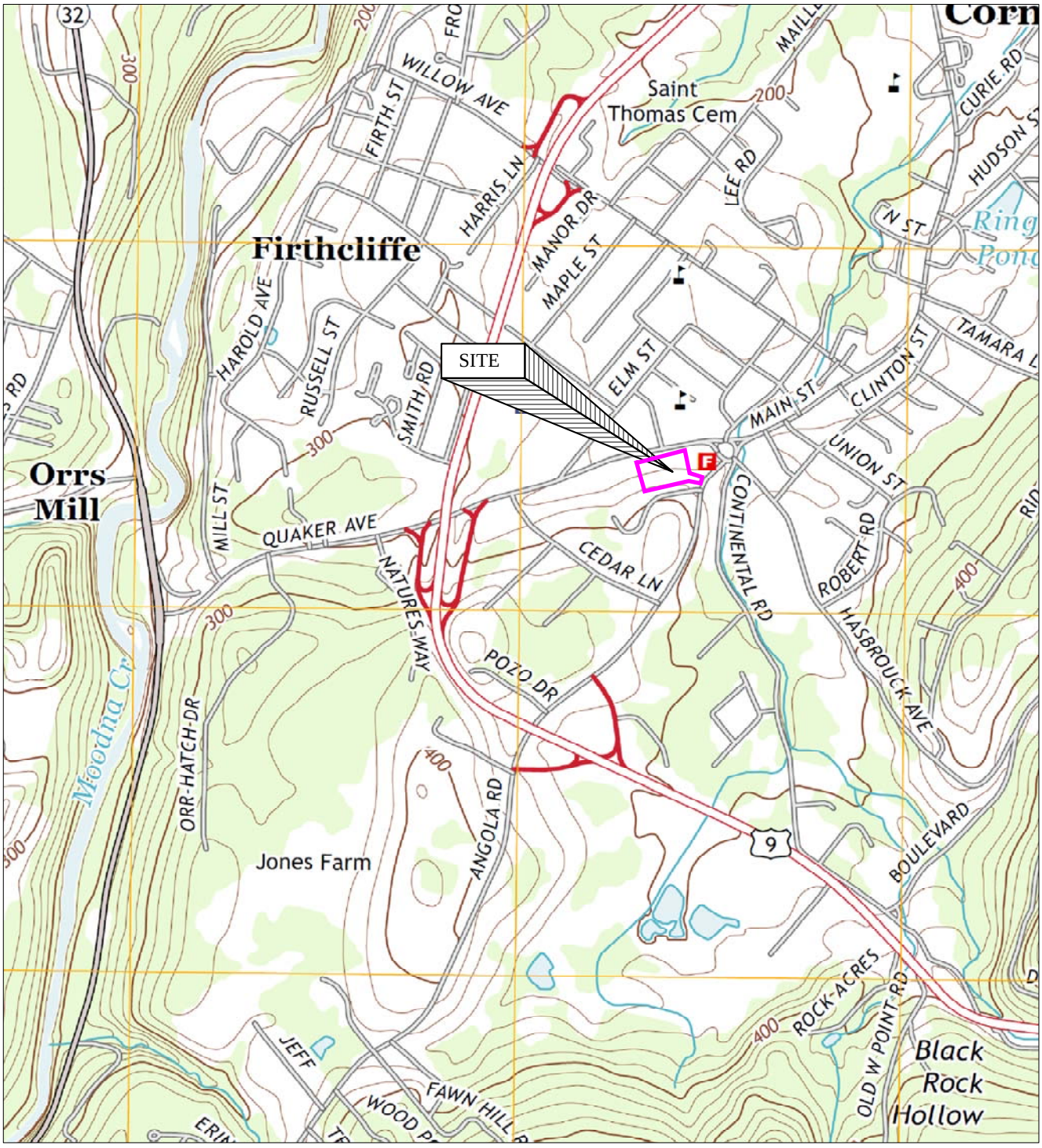
The groundwater remediation has been effective in reducing the source concentrations and the total mass of contaminants at the site. Bioremediation of the COCs is occurring in site wells. Future groundwater sampling events will confirm this conclusion.

The SSD system is operational and should still be achieving the remedial objective of limiting vapor intrusion into the targeted leaseholds.

C. Future PRR Submittals

The requirements for site closure have not been achieved. PRR submittals will remain annual at this time.

FIGURES



USGS Topographic Map, 2013
Cornwall-On-Hudson, NY Quadrangle
Contour Interval: 20 Feet

SITE LOCATION MAP

Cornwall Plaza
19-45 Quaker Avenue
Cornwall, New York

SCALE: 1:24,000

April 2017

VERTEX Proj. No. 44469

VERTEX Engineering, PC
FIGURE NO. 1

SYMBOL LEGEND

- EXISTING OVERBURDEN MONITORING WELL
- EXISTING BEDROCK MONITORING WELL
- CATCHBASIN
- MANHOLE
- ROOF MOUNTED VENT FANS
- SOIL CHARACTERIZATION BORING LOCATION (AUGUST 2010)
- LFR BORING LOCATION (AUGUST/OCTOBER 2005)
- ORIGINAL WALL LOCATION
- ABANDONED, DESTROYED, OR FOULED WELL
- SSDS LOCATIONS
- SSDS PIPING (ON ROOF)
- SUB-SLAB VAPOR MONITORING POINTS

N

0' 60' 120' 180'

SCALE: 1" = 60'-0"
(WHEN PRINTED AT 11x17)

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File No.:	44469
Date:	FEB 2014
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Checked:	JMF
Job No.:	44469

Figure 2

OVERALL SITE PLAN
CORNWALL PLAZA
19-45 QUAKER AVENUE
CORNWALL, NY

SYMBOL LEGEND

- EXISTING OVERBURDEN MONITORING WELL
- EXISTING BEDROCK MONITORING WELL
- CATCHBASIN
- MANHOLE
- ROOF MOUNTED VENT FANS
- SOIL CHARACTERIZATION BORING LOCATION (AUGUST 2010)
- LFR BORING LOCATION (AUGUST/OCTOBER 2005)
- ORIGINAL WALL LOCATION
- ABANDONED, DESTROYED, OR FOULED WELL
- LANDSCAPED AREA
- CONCRETE AREA
- VEGETATED AREA
- ASPHALT PAVED AREA

N

0' 60' 120' 180'

SCALE: 1" = 60'-0"
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INSTITUTIONAL AND ENGINEERING CONTROLS MAP

CORNWALL PLAZA
19-45 QUAKER AVENUE
CORNWALL, NY

File No.:	44469
Date:	FEB 2015
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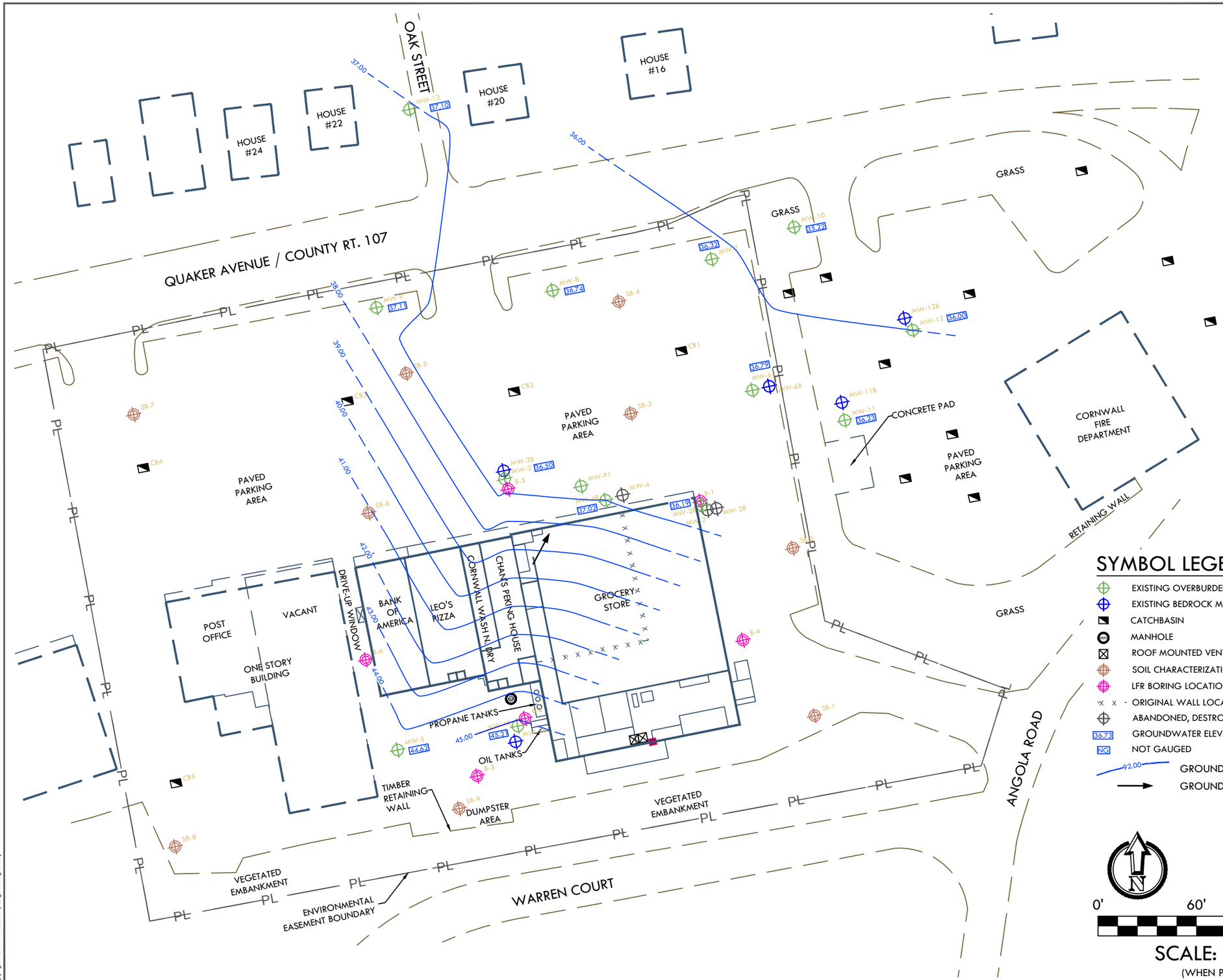
Checked:	JD
Job No.:	44469

Figure 3



SYMBOL LEGEND

- EXISTING OVERBURDEN MONITORING WELL
- EXISTING BEDROCK MONITORING WELL
- CATCHBASIN
- MANHOLE
- ROOF MOUNTED VENT FANS
- SOIL CHARACTERIZATION BORING LOCATION (AUGUST 2010)
- LFR BORING LOCATION (AUGUST/OCTOBER 2005)
- ORIGINAL WALL LOCATION
- ABANDONED, DESTROYED, OR FOULED WELL
- GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- NOT GAUGED
- GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION

0' 60' 120' 180'

SCALE: 1" = 60'-0"
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GROUNDWATER CONTOUR MAP - NOVEMBER 2015

CORNWALL PLAZA
19-45 QUAKER AVENUE
CORNWALL, NY

File No.:	44469	Figure	4
Date:	FEB 2015		
Drawn:	SS		
Checked:	JD		
Job No.:	44469		

NOTE:

1. MW-1R, MW-2R, AND MW-4R WERE NOT INCLUDED IN THE CONSTRUCTION OF THE CONTOUR.
2. MW-1R, MW-2R, AND MW-4R WERE SAMPLED IN APRIL AND A CONTOUR IS NOT AVAILABLE.
3. BOLDED TEXT INDICATES AN EXCEEEDANCE OF EITHER NY-AWQS OR NY-TOGS-GA.

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REVISIONS

SYMBOL LEGEND

- EXISTING OVERBURDEN MONITORING WELL
- EXISTING BEDROCK MONITORING WELL
- CATCHBASIN
- MANHOLE
- ROOF MOUNTED VENT FANS
- SOIL CHARACTERIZATION BORING LOCATION (AUGUST 2010)
- LFR BORING LOCATION (AUGUST/OCTOBER 2005)
- ORIGINAL WALL LOCATION
- ABANDONED, DESTROYED, OR FOULED WELL
- PCE CONCENTRATION (ug/L)
- NOT SAMPLED
- GROUNDWATER FLOW DIRECTION

0' 60' 120' 180'

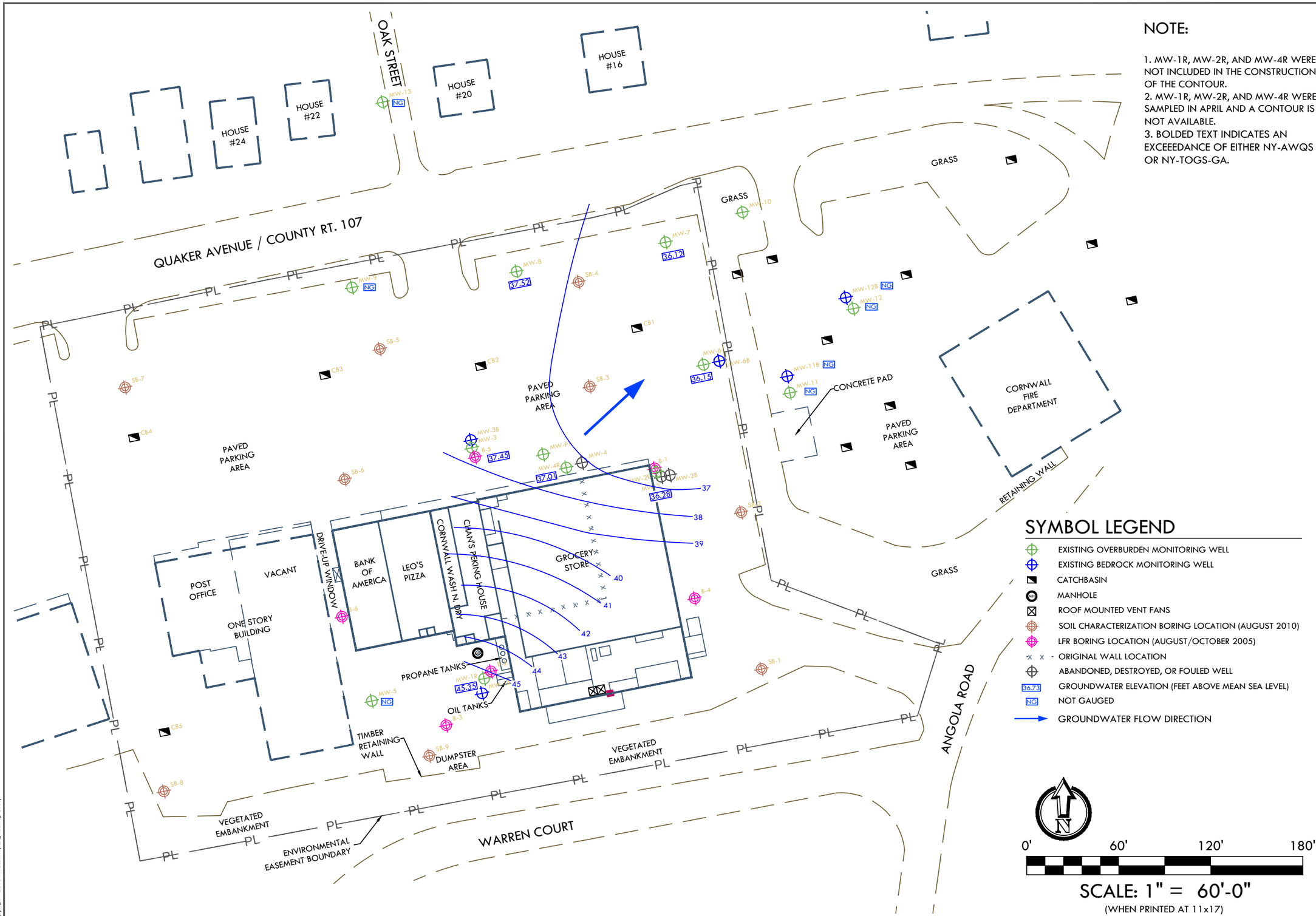
SCALE: 1" = 60'-0"
(WHEN PRINTED AT 11x17)

GROUNDWATER ISOPLETH (PCE) - NOVEMBER 2015

CORNWALL PLAZA
19-45 QUAKER AVENUE
CORNWALL, NY

File No.:	44469
Date:	FEB 2015
Drawn:	SS
Checked:	JD
Job No.:	44469

Figure 5



NOTE:

1. MW-1R, MW-2R, AND MW-4R WERE NOT INCLUDED IN THE CONSTRUCTION OF THE CONTOUR.
2. MW-1R, MW-2R, AND MW-4R WERE SAMPLED IN APRIL AND A CONTOUR IS NOT AVAILABLE.
3. BOLDED TEXT INDICATES AN EXCEEEDANCE OF EITHER NY-AWQS OR NY-TOGS-GA.

SYMBOL LEGEND

- EXISTING OVERBURDEN MONITORING WELL
- EXISTING BEDROCK MONITORING WELL
- CATCHBASIN
- MANHOLE
- ROOF MOUNTED VENT FANS
- SOIL CHARACTERIZATION BORING LOCATION (AUGUST 2010)
- LFR BORING LOCATION (AUGUST/OCTOBER 2005)
- ORIGINAL WALL LOCATION
- ABANDONED, DESTROYED, OR FOULED WELL
- 36.73 GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- NG NOT GAUGED
- GROUNDWATER FLOW DIRECTION

N

0' 60' 120' 180'

SCALE: 1" = 60'-0"
(WHEN PRINTED AT 11x17)

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REVISIONS

GROUNDWATER CONTOUR MAP- APRIL 2016

CORNWALL PLAZA
19-45 QUAKER AVENUE
CORNWALL, NY

		Figure	6
File No.:	44469		
Date:	FEB 2015		
Drawn:	SS		
Checked:	JD		
Job No.:	44469		

NOTE:

1. MW-1R, MW-2R, AND MW-4R WERE NOT INCLUDED IN THE CONSTRUCTION OF THE CONTOUR.
2. MW-1R, MW-2R, AND MW-4R WERE SAMPLED IN APRIL AND A CONTOUR IS NOT AVAILABLE.
3. BOLDED TEXT INDICATES AN EXCEEEDANCE OF EITHER NY-AWQS OR NY-TOGS-GA.

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REVISIONS

SYMBOL LEGEND

- EXISTING OVERBURDEN MONITORING WELL
- EXISTING BEDROCK MONITORING WELL
- CATCHBASIN
- MANHOLE
- ROOF MOUNTED VENT FANS
- SOIL CHARACTERIZATION BORING LOCATION (AUGUST 2010)
- LFR BORING LOCATION (AUGUST/OCTOBER 2005)
- x x - ORIGINAL WALL LOCATION
- ABANDONED, DESTROYED, OR FOULED WELL
- 340 PCE CONCENTRATION (ug/L)
- NS NOT SAMPLED
- GROUNDWATER FLOW DIRECTION

0' 60' 120' 180'

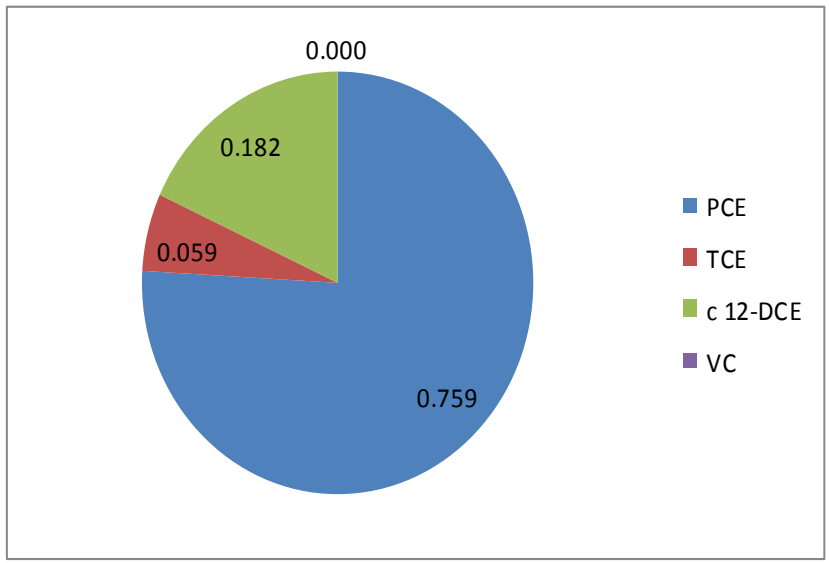
SCALE: 1" = 60'-0"
(WHEN PRINTED AT 11x17)

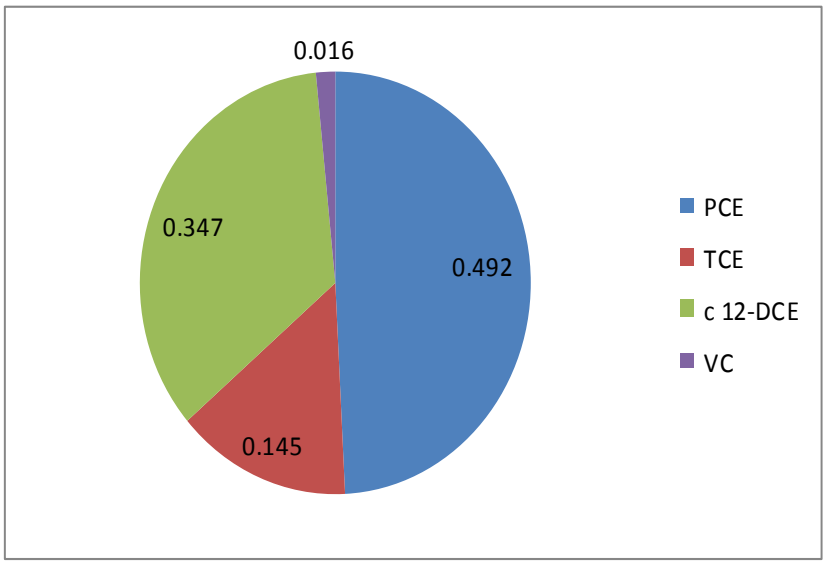
GROUNDWATER ISOPLETH (PCE) - APRIL 2016

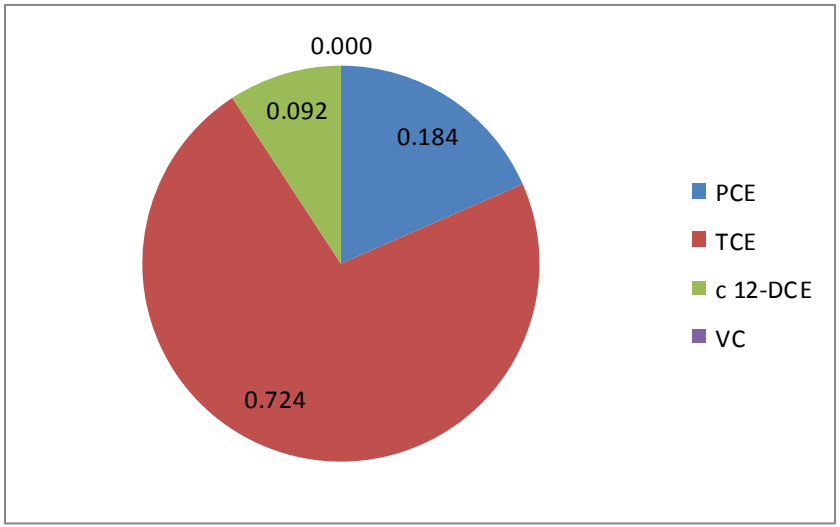
CORNWALL PLAZA
19-45 QUAKER AVENUE
CORNWALL, NY

File No.:	44469
Date:	FEB 2015
Drawn:	SS
Checked:	JD
Job No.:	44469

Figure 7







Notes:

PCE—Tetrachloroethylene

TCE—Trichloroethylene

C 12-DCE—Cis 1,2-Dichloroethylene

VC—Vinyl Chloride

COCS IN GROUNDWATER MASS RATIO CHARTS

CORNWALL SHOPPING LLC

19-45 Quaker Avenue, Cornwall, New York

VERTEX Proj. No. 44469

VERTEX®

VERTEX ENGINEERING, PC

FIGURE NO. 8

TABLES

Table 1
Groundwater Data Summary - Reporting Period
Cornwall Plaza
Quaker Avenue, Cornwall, New York

Well ID	CasNum	GROUNDWATER STANDARDS		Units	MW-1R		MW-2R		MW-3		MW-4R		MW-6		MW-7		MW-8	
Sampling Date					11/20/2015	4/28/2016	12/14/2015	4/28/2016	11/20/2015	4/28/2016	11/20/2015	4/28/2016	11/20/2015	4/28/2016	11/20/2015	4/28/2016	11/20/2015	4/28/2016
Lab Sample ID		AWQS	NY-TOGS-GA		L1530630-03	L1612974-01	L1532964-01	L1612974-02	L1530630-04	L1612974-03	L1530630-05	L1612974-04	L1530630-06	L1612974-05	L1530630-02	L1612974-06	L1530630-01	L1612974-07
Screened Interval																		
Well Status																		
Volatile Organics by GC/MS																		
1,2-Dichloroethene, Total	540-59-0	NA	NA	ug/l	ND	ND	160	21	200	110	320	240	1.4	55	3.4	5.5	3.9	ND
Chlorobenzene	108-90-7	5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	75-69-4	5	-	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	107-06-2	0.6	0.6	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	71-55-6	5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	75-27-4	50	50	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	10061-02-6	0.4	0.4	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	10061-01-5	0.4	0.4	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropene, Total	542-75-6	NA	NA	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	563-58-6	5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	75-25-2	50	50	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	79-34-5	5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	71-43-2	1	1	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p/m-Xylene	179601-23-1	5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	95-47-6	5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	1330-20-7	NA	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	156-59-2	5	5	ug/l	ND	ND	**160**	**21**	**200**	**110**	**320**	**240**	1.4	**55**	3.4	**5.5**	3.9	ND
1,2-Dichlorobenzene	95-50-1	3	3	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	541-73-1	3	3	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	106-46-7	3	3	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert butyl ether	1634-04-4	10	10	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	75-09-2	5	5	ug/l	**650**	ND	ND	ND	ND	ND	ND	ND	0.79	ND	**290**	ND	**310**	ND
1,1-Dichloroethane	75-34-3	5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	67-66-3	7	7	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	56-23-5	5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	78-87-5	1	1	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	124-48-1	50	50	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	79-00-5	1	1	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	127-18-4	5	5	ug/l	ND	ND	**9.4**	ND	**93**	**460**	**210**	**340**	ND	**14**	**32**	**25**	**5.5**	0.43
Chloroethane	75-00-3	5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	75-35-4	5	5	ug/l	ND	ND	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	156-60-5	5	5	ug/l	ND	ND	1.8	ND	ND	ND	4.1	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	79-01-6	5	5	ug/l	ND	ND	**12**	0.55	**13**	**36**	**110**	**100**	ND	**6.6**	1.2	1	2.8	0.33
Toluene	108-88-3	5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	100-41-4	5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	74-87-3	-	-	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	74-83-9	5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	75-01-4	2	2	ug/l	ND	ND	**70**	ND	**4.1**	ND	**15**	**11**	0.51	ND	ND	ND	1.1	ND
Dibromomethane	74-95-3	5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	96-18-4	0.04	0.04	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	107-13-1	5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	100-42-5	5	930	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	75-71-8	5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	67-64-1	50	50	ug/l	8.5	4.4	ND	ND	**200**	ND	28	11	8.3	4.5	ND	3.1	42	4
Carbon disulfide	75-15-0	60	60	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	78-93-3	50	50	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	108-05-4	-	-	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	108-10-1	-	-	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	591-78-6	50	50	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	74-97-5	5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.8	ND	1.4	ND
2,2-Dichloropropane	594-20-7	5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	106-93-4	0.0006	0.0006	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	142-28-9	5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	630-20-6	5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	108-86-1	5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	104-51-8	5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	135-98-8	5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	98-06-6	5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Chlorotoluene	95-49-8	5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Chlorotoluene	106-43-4	5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	96-12-8	0.04	0.04	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	87-68-3	0.5	0.5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	98-82-8	5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	99-87-6	5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	91-20-3	10	10	ug/l	ND	1.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	103-65-1	5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	87-61-6	5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	120-82-1	5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	108-67-8	5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	95-63-6	5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	123-91-1	-	-	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Diethylbenzene	105-05-5	-	-	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Ethyltoluene	622-96-8	-	-	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4,5-Tetramethylbenzene	95-93-2	-	-	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl ether	60-29-7	-	-	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	110-57-6	5	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total VOCs	None	-	-	ug/l	658.5	-	413.5	-	710.1	-	1007.1	-	12.4	-	331.8	-	370.6	-
VOC TICs	None	-	-	ug/l	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Gases by GC																		
Methane	74-82-8	-	-	ug/l	7690	10400	11300	8580	489	36.8	5010	4740	10800	10800	243	ND	254	158
Ethene	74-85-1	-	-	ug/l	ND	1.17	27.3	6.8	1.12	ND	2.77	2.1	ND	3.67	ND	ND	ND	ND
Ethane	74-84-0	-	-	ug/l	16	22.6	111	23.7	4.83	1.63	11.6	7.79	3.35	14.2	ND	-	1.13	ND
Dissolved Metals																		
Iron, Dissolved	7439-89-6	300	-	ug/l	**6010**	**13800**	20	**9610**	**4510**	20	**4070**	**6450**	-	**44400**	25.6	20	**702**	**3780**
Manganese, Dissolved	7439-96-5	300	600	ug/l	**1950**	**3392**	**5949**	**6375**	**10900**	**1705**	**10120**	**10600**	-	**1023**	**1800**	**2112**	**6675**	**9298**
General Chemistry																		
Alkalinity, Total	471-34-1	-	-	mg/L CaCO3	230	216	438	662	233	350	428	499	66.4	336	333	338	400	298
Chloride	16887-00-6	250000	500000	ug/l	**62000**	**1300000**	**380000**	**460000**	**320000**	**510000**	220000	**290000**	24000	**920000**	**560000**	**590000**	**870000**	**360000**
Nitrogen, Nitrate	14797-55-8	10000	20000	ug/l	130	362	24	ND	330	661	25	ND	29	21	2010	1610	921	50
Sulfate	14808-79-8	250000	-	ug/l	31000	36000	17000	5300	34000	54000	8200	4500	ND	ND	34000	36000	36000	32000
Dissolved Organic Carbon	None	-	-	ug/l	23000	19000	2900	16000	6500	4300	4400	4200	-	12000	2700	1300	9000	4700
Volatile Fatty Acids																		
Total VFA	None	-	-	mg/l	1.25	-	<5	-	<5	-	<5	-	5.2	-	<5	-	<5	-

Notes:
- - No Standard Established
ND - Not Detected
Detected concentration exceeds one or more of the Groundwater Quality Standards

Table 2
Groundwater Data Exceedances of Goals
Cornwall Plaza
Quaker Avenue, Cornwall, New York

Well ID	CasNum	GROUNDWATER STANDARDS		Units	MW-2R	MW-3	MW-4R	MW-6	MW-7
Sampling Date					4/28/2016	4/28/2016	4/28/2016	4/28/2016	4/28/2016
Lab Sample ID		AWQS	NY-TOGS-GA		L1612974-02	L1612974-03	L1612974-04	L1612974-05	L1612974-06
Screened Interval									
Well Status									
Volatile Organics by GC/MS									
cis-1,2-Dichloroethene	156-59-2	5	5	ug/l	**21**	**110**	**240**	**55**	**5.5**
Tetrachloroethene	127-18-4	5	5	ug/l	ND	**460**	**340**	**14**	**25**
Trichloroethene	79-01-6	5	5	ug/l	0.55	**36**	**100**	**6.6**	1
Vinyl chloride	75-01-4	2	2	ug/l	ND	ND	**11**	ND	ND

Notes:
ND - Not Detected
Detected concentration exceeds one or more of the Groundwater Quality Standards

Enclosure 2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. C336070

Site Name Cornwall Plaza

Site Address: 19-45 Quaker Avenue Zip Code: 12518-2111
City/Town: Cornwall
County: Orange
Site Acreage: 3.8

RECEIVED
JUL 03 2017
Remedial Bureau C
Div of Environmental Remediation

Reporting Period: December 23, 2015 to March 24, 2017

	YES	NO
1. Is the information above correct?	X	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	X
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	X
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	X
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	X

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	X	☐
7. Are all ICs/ECs in place and functioning as designed?	X	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

Box 2A

	YES	NO
8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	☐	☒

If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.

9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	☒	☐

If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.

SITE NO. C336070

Box 3

Description of Institutional Controls

Parcel	Owner	Institutional Control
23-3-4	Cornwall Shopping LLC	Ground Water Use Restriction Landuse Restriction Monitoring Plan Site Management Plan O&M Plan IC/EC Plan

Institutional controls required at the site by the environmental easement include groundwater restrictions, land use restrictions (commercial) and the requirement that the site adheres to the approved SMP. Future buildings erected at the site must evaluate the potential for soil vapor intrusion.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
23-3-4	Vapor Mitigation Cover System

Engineering controls required at the site by the environmental easement include periodic inspections of the site's asphalt cover system and vapor mitigation system.

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
X	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
X	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. C336070

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Raymond Sohmer (print name) at Philips International Holding Corp. 295 Madison Avenue, NY, NY 10017 (print business address),

am certifying as Property Director/Managing Agent for Owner (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Philips International Holding Corp.
As agent for Cornwall Shopping LLC

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

6-30-17
Date

IC/EC CERTIFICATIONS

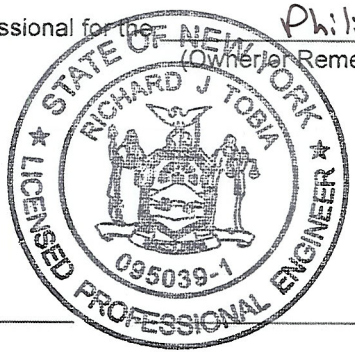
Box 7

Qualified Environmental Professional Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Richard J. Tobia (print name) at Vertex Engineering, PC 3322 Rt. 22 West Branchburg NJ 08876 (print business address)

am certifying as a Qualified Environmental Professional for the Philips International Holding Corp. (Owner or Remedial Party)



Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

6/30/17
Date