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**Docket Number:** 

HHD-CV-11-6026501-S

Case Name:

COMM'R OF ENERGY AND ENVIRONMENTAL

PROTECTION v. BIC CORPORATION

Type of Transaction:

Pleading/Motion/Other document

Fee Waived:

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Waiver Reason:

No Fee - State Official

Date Filed:

Aug-22-2019

Motion/Pleading by:

LORI DOWLING DIBELLA (421262)

**Document Filed:** 

208.00 MOTION TO OPEN JUDGMENT

Date and Time of Transaction:

Thursday, August 22, 2019 10:19:28 AM

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DOCKET NO: HHD-CV 11-6026501-S

ROBERT J. KLEE, : SUPERIOR COURT

COMMISSIONER OF ENERGY &

v.

ENVIRONMENTAL PROTECTION :

: JUDICIAL DISTRICT

: OF HARTFORD

at Hartford

BIC CORPORATION : AUGUST 22, 2019

#### JOINT MOTION TO OPEN AND TO ENTER STIPULATED JUDGMENT

In anticipation of a brief proceeding before the Honorable J. Epstein, the Plaintiff, Commissioner of Energy and Environmental Protection and the Defendant BIC Corporation, hereby respectfully request that the Court open the judgment in this matter for the sole purpose of entering the Stipulated Judgment executed by the parties and filed herewith. This is done without any party making any admission of law or fact, and without the parties waiving the positons that they have taken in this litigation. Following the entry of this Stipulated Judgment by the Court, among other things, BIC Corporation, has agreed to withdraw its appeal in the Appellate Court bearing Docket No. AC 38594 to fully and finally resolve the appeal (and this underlying matter subsumed therein), and the Commissioner has agreed to revoke, as to BIC Corporation only, Modified Administrative Order SRD-153, In the Matter of BIC Corporation, which is presently pending before the Department of Energy and Environmental Protection's Office of Adjudications.

PLAINTIFF ROBERT J. KLEE, COMMISSIONER OF ENERGY AND ENVIRONMENTAL PROTECTION

#### GEORGE JEPSEN ATTORNEY GENERAL

BY: /s/ Lori D. DiBella
Lori D. DiBella
Assistant Attorney General
Juris No. 421262
55 Elm Street
P.O. Box 120
Hartford, CT 06141-0120
Tel. (860) 808-5250
lori.dibella@ct.gov

#### DEFENDANT BIC CORPORATION

BY: /s/ Kenneth R. Slater
Kenneth R. Slater, Esq.
Juris No. 404736
Halloran & Sage
One Goodwin Square
225 Asylum Street
Hartford, CT 06103
slater@halloransage.com

#### **CERTIFICATION**

I hereby certify that a copy of this document was or will immediately be mailed or delivered electronically or non-electronically on August 22, 2019 to all attorneys and self-represented parties of record and to all parties who have not appeared in this matter, and that written consent for electronic delivery was received from all attorneys and self-represented parties receiving electronic delivery.

Kenneth R. Slater, Esq. Daniel J. Krisch, Esq. Halloran & Sage One Goodwin Square Hartford, CT 06103

David B. Losee, Esq. 1029 Boulevard West Hartford, CT 06119

/s/ Lori D. DiBella
Lori D. DiBella
Assistant Attorney General
August 22, 2019
55 Elm Street
Hartford, CT 06106
lori.dibella@ct.gov



# Superior Court E-Filing



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**Docket Number:** 

HHD-CV-11-6026501-S

Case Name:

COMM'R OF ENERGY AND ENVIRONMENTAL PROTECTION v. BIC

CORPORATION

Type of Transaction:

Pleading/Motion/Other document

Date Filed:

Aug-22-2019

Motion/Pleading by:

LORI DOWLING DIBELLA (421262)

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209.00 STIPULATION

For Judgment

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ROBERT J. KLEE, : SUPERIOR COURT

COMMISSIONER OF ENERGY &

ENVIRONMENTAL PROTECTION :

JUDICIAL DISTRICT

OF HARTFORD

at Hartford

BIC CORPORATION : JULY 1, 2019

#### STIPULATED JUDGMENT

The Plaintiff, Commissioner of Energy and Environmental Protection (hereinafter "the Commissioner"), and the Defendant, BIC Corporation (hereinafter "the Defendant"), the parties to this action, stipulate and agree that judgment may be entered by the Court, at any time following the filing of a motion to open and enter judgment in accordance with this Stipulation, as follows:

WHEREAS, the Commissioner is charged with the supervision and enforcement of the statutes and regulations of the State of Connecticut respecting the environment, including Chapter 446k governing water pollution control and is generally empowered by virtue of Conn. Gen. Stat. §22a-6(a)(3) to institute all legal proceedings necessary to enforce statutes, regulations, permits or orders administered, adopted or issued by the Commissioner of Energy and Environmental Protection.

WHEREAS, the Defendant is a Connecticut corporation, with its headquarters located at One BIC Way, Shelton, Connecticut.

WHEREAS, from 1963 to approximately December, 2005, the Defendant owned and operated a manufacturing facility at property located at 500 and 565 BIC Drive in Milford, Connecticut (the "Site").

WHEREAS, on December 10, 2003, the Commissioner issued Modified Order #SRD153 to the Defendant which required the Defendant to investigate the manufacturing activities on
the Site to determine the potential impact of such activities on human health and the
environment, both on and off the Site, including the existing and potential extent and degree of
soil, ground water and surface water pollution.

WHEREAS, the Defendant requested a hearing on Modified Order SRD- 153 before the Department of Energy and Environmental Protection's Office of Adjudications.

WHEREAS, on July 6, 2004, the Commissioner and Defendant entered into Partial Consent Order SRD-153 under which the Defendant was ordered to investigate all potential release areas on the Site to determine if any pollutants had been released in such potential release areas pursuant to certain steps set forth in Partial Consent Order SRD-153.

WHEREAS, on or about December 6, 2005, the Defendant sold the property located at 500 BIC Drive to MDC Milford Associates, LLC. The Defendant is the certifying party under the Connecticut Transfer Act, Conn. Gen. Stat. Sec. 22a-134 et seq., for this transaction.

WHEREAS, the Defendant undertook an investigation of the Site and concluded in its conceptual site model that trichloroethylene ("TCE") contamination found on the Site was the result of an offsite release.

WHEREAS, a private civil action was filed against the Defendant in the matter of Liss v. Milford Power, et al, Superior Court Docket Number HHD-X07-CV-04-4025123S, by owners of nearby private property asserting that the Defendant and other parties were responsible for TCE contamination of their property, and by decision dated April 7, 2011, the Superior Court (Hon. Marshall K. Berger, Jr.) entered judgment in favor of the Defendant. The Commissioner was not a party to the action and is not bound in any way by the factual and legal findings of the court in that case.

WHEREAS, on or about October 27, 2011, the Commissioner filed a civil action in Hartford Superior Court alleging that the Defendant's investigation was not complete, and that the failure to complete the investigation constituted a failure to comply with Partial Consent Order SRD-153. This action bears Docket No. HHD-CV-11-6026501-S.

WHEREAS, the Defendant filed its answer, special defenses and two counterclaims in the civil action bearing Docket No. HHD-CV-11-6026501-S on February 24, 2014. The counterclaims alleged breach of contract and breach of the implied covenant of good faith and fair dealing.

WHEREAS, on October 21, 2014, the Commissioner revoked the Partial Consent Order SRD-153; and on October 22, 2014, the Commissioner withdrew his complaint in Docket No. HHD-CV-11-6026501-S and also filed a Motion to Dismiss the Defendant's counterclaims.

WHEREAS, after a hearing held on July 14, 2015 in Docket No. HHD-CV-11-6026501-S, the Court granted the Commissioner's Motion to Dismiss the Defendant's counterclaims on November 9, 2015 for a lack of subject matter jurisdiction based on sovereign immunity and entered a judgment of dismissal.

WHEREAS, on November 24, 2015, the Commissioner obtained and subsequently executed an administrative search warrant to sample several existing wells at the property at 500 BIC Drive, Milford, Connecticut, which comprises a portion of the Site.

WHEREAS, on November 24, 2015, the Defendant filed an appeal of the Court's decision on the Motion to Dismiss in Docket No. HHD-CV-11-6026501-S, which appeal bears Docket No. AC 38594.

WHEREAS, on June 1, 2016, the Commissioner provided the Defendant with certain environmental reports prepared by his consultants relating to work performed on behalf of the Commissioner in November and December, 2015 with respect to the Site, and outlining a different conceptual site model.

WHEREAS, the Commissioner and the Defendant have competing conceptual site models for the Site, and each disputes the other's model.

WHEREAS, based on all of the foregoing, the parties wish to resolve their litigation including: the appeal in the State of Connecticut Appellate Court bearing Docket No. AC 38594, and subsumed within that, the underlying matter on appeal bearing Docket No. HHD-CV-11-6026501-S, as well as the administrative hearing before the Department of Energy and Environmental Protection's Office of Adjudications on Modified Administrative Order No. SRD-153; without the need for further litigation.

**NOW THEREFORE**, before the taking of any testimony and without any party making any admission of law or fact, and without the parties waiving the positons that they have taken in the litigation, the parties hereby agree that in order to enable the resolution of the appeal in Docket No. AC 38594, including the underlying matter on appeal, and the administrative hearing

before the Department of Energy and Environmental Protection's Office of Adjudications on Modified Administrative Order No. SRD-153 by way of a stipulated judgment, the Commissioner, after filing a notice of intent to revoke Modified Order SRD-153 captioned In the Matter of BIC Corporation, pursuant to procedures set forth at § 22a-424 of the General Statutes and§§ 22a-3a-2(c)(2)(E) and 22a-3a-2(m) of the Regulations of Connecticut State Agencies, will then file a motion to open (but not vacate) judgment with this fully executed stipulated judgment bearing Docket No. HHD-CV-11-6026501-S appended thereto, seeking to have this stipulated judgment entered in resolution of Appeal Docket No. AC 38594 (and subsumed within that the underlying matter on appeal bearing Docket No. HHD-CV-11-6026501-S) and the administrative hearing pending before the Department of Energy and Environmental Protection's Office of Adjudications on Modified Administrative Order No. SRD-153 as follows:

#### I. Work Plans

1. Pursuant to Conn. Gen. Stat. 22a-6(a), the Defendant agrees to undertake the work in accordance with the plans approved by the Commissioner that are attached hereto as Exhibits A and B and incorporated herein.

#### II. Supplemental Environmental Project

1. The Defendant shall cause the payment of Seven Thousand Dollars (\$7,000.00) to the Statewide Supplemental Environmental Project Account to fund a Supplemental Environmental Project ("SEP") or projects, as selected by the Commissioner, that will promote environmental protection in Milford, Connecticut.

2. The funding of the SEP is in furtherance of seeking a resolution of the dispute and in support of both parties interest in the promotion of environmental protection and does not represent an admission of liability. Furthermore, nothing in this Section II. (Supplemental Environmental Project), or in any other part of this Judgment, relieves the Defendant from its continuing obligations to comply with the requirements of this Judgment. The Defendant has a continuing obligation to comply with all requirements of this Judgment regardless of payment or non-payment of the project funds required by this Section II.

#### III. Transfer Act Compliance

- 1. The parties agree that the following scopes of work and investigation reports can be used to fulfill the requirements of this Section III. of this Stipulated Judgment:
  - a. Phase I Report submitted to the Commissioner on April 27, 2004;
  - b. Phase II Report submitted to the Commissioner on December 2, 2005:
  - c. The Deep Boring Investigation Report submitted to the Commissioner on September 17, 2009;
  - d. Phase III Subsurface Investigation Report and Remedial Feasibility for Soil, January 15, 2008 (Revised, September, 2017); and
  - e. Soil Remedial Action Report for Non-CVOC (chlorinated volatile organic compound) remedy dated December 16, 2013 and submitted to DEEP on October 14, 2016.
- 2. This paragraph, and the listing of items summarized herein, is intended, in conjunction with the other paragraphs contained in this Section III. of this Judgment, to summarize what is required to achieve compliance with the Transfer Act, Conn Gen. Stat, § 22a-134 et. seg., the

Remediation Standard Regulations ("RSRs") §§ 22a-133k-1 through 22a-133k-3 of the Regulations of Connecticut State Agencies, and the statutes and regulations governing the preparation of Environmental Land Use Restrictions (ELURs) set forth at Conn. Gen. Stat. §§ 22a-133n to 22a-133s, inclusive, and § 22a-133q-1 of the Regulations of Connecticut State Agencies, and do not impose additional obligations other than those required by the Transfer Act, the RSRs and the statutes and regulations governing ELURs. An ELUR shall be recorded for 500 BIC Drive to prohibit at the locations identified in the corresponding land survey, or as otherwise indicated herein: a) residential use/activity at the entire property, b) exposure or disturbance of inaccessible soil, c) infiltration of water into environmentally isolated soil, d) the demolition of any entire building or structure which renders such soil environmentally isolated, e) the construction of buildings over contaminated groundwater including West of Building 4 where vinyl chloride exceeds the volatilization criteria, (22a-133k-3(c)(5)), and f) any activity that might alter the steady state groundwater conditions in an area West of Building 4. The map attached hereto as Exhibit C identifies the approximate location of the restrictions set forth at subparts a) through f) above. The Defendant shall ensure that the required ELUR is finalized and filed on the land records in Milford, Connecticut no later than 18 months from the date of entry of this Stipulated Judgment by the Court.

3. While the parties disagree whether additional investigatory work is required to demonstrate whether the conceptual site model contained in a report submitted to the Commissioner on January 15, 2008 is sufficiently supported by the data, or whether the Commissioner's conceptual site model is correct, the parties agree that the completion of the work contained in the work plans approved pursuant to Section I. of this Judgment and attached

and incorporated herein as Exhibits A and B; and the documents and ELUR set forth in Section III. of this Judgment will achieve compliance with the Transfer Act, Conn Gen. Stat, § 22a-134 et. seq., for the transfer of the property known as 500 BIC Drive, Milford, Connecticut, effective for releases which occurred on or before December 6, 2005.

#### IV. General and Other Provisions

- 1. All sampling which is required by this Judgment shall be performed in accordance with procedures specified or approved in writing by the Commissioner, or, if no such procedures have been specified or approved, in accordance with the most recent final version of the U. S. Environmental Protection Agency publication SW-846, entitled "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," the most recent final version of the Department's "Site Characterization Guidance Document," and relevant policies and guidelines issued by the Commissioner. All sample analyses which are required by this Judgment and all reporting of such sample analyses shall be conducted by a laboratory certified by the Connecticut Department of Public Health and approved to conduct such analyses.
- 2. In fulfilling the obligations of this Judgment, the Defendant shall use a licensed environmental professional ("LEP"). Said LEP(s) shall comply with all applicable law.
- 3. Nothing in this Stipulated Judgment shall relieve the Defendant of any other obligations under applicable federal, state and local law.
- 4. Upon at least 24-hour notice by the Commissioner to the Defendant, the Defendant shall arrange for voluntary access for the Commissioner, at any reasonable times, to enter the Site,

without liability, for the purpose of monitoring compliance with the terms of this Stipulated Judgment.

- 5. The Defendant shall not be considered in full compliance with this Judgment until all actions required by it have been completed consistent with applicable law.
- 6. Any documents required to be submitted to the Commissioner under this Stipulated for Judgment shall, unless otherwise specified in writing by the Commissioner, be directed to:

Carolyn Fusaro
Department of Environmental Protection
Bureau of Water Protection and Land Reuse
Remediation Division
79 Elm Street
Hartford, Connecticut 06106

- 7. Upon the entry of this Stipulated Judgment by the Court in Docket No. HHD-CV-11-6026501-S, the Commissioner agrees to revoke Modified Order SRD-153 captioned In the Matter of BIC Corporation, pursuant to procedures set forth at § 22a-424 of the General Statutes and § 22a-3a-2(c)(2)(E) and 22a-3a-2(m) of the Regulations of Connecticut State Agencies to fully and finally resolve any and all claims or possible enforcement actions regarding Modified Order SRD-153 or the matters covered therein; and, the Defendant agrees to withdraw its appeal in the Appellate Court bearing Docket No. AC 38594 to fully and finally resolve the appeal (and the underlying matter subsumed therein) as set forth within this Stipulated Judgment.
- 8. The agents or representatives of the Defendant hereby certify that each is fully authorized to enter into this Judgment and by executing below represent that the Defendant has all the requisite legal authority and permission to comply with the terms and conditions of this Judgment.

Dated: 8 9 209

Dated: 7 25 19

Dated: 7/25/19

PLAINTIFF KATIE DYKES COMMISSIONER OF ENERGY AND ENVIRONMENTAL PROTECTION

WILLIAM TONG ATTORNEY GENERAL

By: // DiBella

Assistant Attorney General

Juris No. 421262

55 Elm Street

P.O. Box 120

Hartford, CT 06141-0120

Tel. (860) 808-5250

lori.dibella@ct.gov

DEFENDANT BIC CORPORATION

By:

Kenneth R. Slater, Esq.

Juris No. 404736

Halloran & Sage

One Goodwin Square

225 Asylum Street

Hartford, CT 06103

slater@halloransage.com

By:

Steven A. Burkhart

Vice President

**BIC Corporation** 

One BIC Way, Suite 1

Shelton, CT 06484

## **EXHIBIT A**



79 Elm Street • Hartford, CT 06106-5127

www.ct.gov/deep

Affirmative Action/Equal Opportunity Employer

BIC Corporation One BIC Way, Suite 1 Shelton, CT 06484

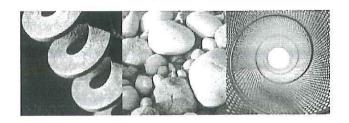
#### APPROVAL

The attached *Groundwater Monitoring Plan, Non-VOC Areas of Concern, BIC Consumer Products Manufacturing Co. Inc.*, dated September, 2017 is approved. This approval shall take effect upon the date of entry of the Stipulated Judgment by the Court in <u>Commissioner v. BIC</u>, Docket No. HHD-CV-11-6026501-S.

Betsey Wingfield, Bureau Chief

Bureau of Water Protection and Land Reuse

cc: Frederick W. Johnson, GEI Consultants







WATER PROTECTION AND LAND REUSE. REMEDIATION DIVISION

Consulting Engineers and Scientists NOV 3 0 2017

SITE NAME BIC
ADDRESS BIC
TOWN REM

Groundwater Monitoring Plan
Non-VOC Areas of Concern
BIC Consumer Products
Manufacturing Co. Inc.

500 BIC Drive, Milford, CT

#### Submitted to:

Mr. Steve Burkhart Vice President and General Counsel BIC Corporation

#### Submitted by:

GEI Consultants, Inc. 455 Winding Brook Drive, Suite 201 Glastonbury, CT 06033 860-368-5300

And

HRP Associates, Inc. 197 Scott Swamp Rd. Farmington, CT 06032 800-246-9020

September 2017

Dan Titus, VP HRP Associates

Frederick Johnson, LEP, Sr. VP

GEI Consultants, Inc.

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#### **Figure**

1 Non VOC Monitoring Plan

FJ/ah H:\WPROC\Project\BIC\GW Monitoring Plans\Non-VOC\Groundwater Monitoring Plan non-VOC Sept 2017.docx

### Introduction

This groundwater monitoring plan (Plan) has been prepared by GEI Consultants, Inc. (GEI) and HRP Associates, Inc. (HRP) on behalf of BIC Consumer Products of Milford Conn (BIC). The purpose of this Plan is to provide post remediation groundwater monitoring for non-volatile organic compound (VOC) areas of concern (AOCs) that is consistent with the Remediation Standard Regulations (RSRs) in Sections 22a-133k-1 to 22a-133k-3, inclusive, of the Regulations of Connecticut State Agencies.

The investigations and remediation at the Site were completed over the past approximately 15 years. Investigations were completed by HRP and are described in several phases of site assessment documents that were completed circa 2008. A soil remediation action plan, also by HRP and dated June 7, 2010 describes means, methods and regulatory objectives to remediate over a dozen AOCs where a release of contaminants to the environment warranted soil Remediation per the RSRs. Soil remediation at AOCs was completed in 2013 and is described in an HRP report "Soil Remedial Action Report" dated December 16, 2013. Section 8; Post Remediation Schedule of this report references that a post remediation groundwater monitoring will be conducted upon the Connecticut Department of Energy and Environmental Protection's (CT DEEP) review and approval of a groundwater monitoring plan (GWMP). Due to potential litigation with the CT DEEP evolving around the time of the completion of remediation, a GWMP was not provided to the agency for review and approval. This plan serves as the post remediation GWMP for the soil remediation described in the December 2013 soil remediation action report.

## **Groundwater Monitoring Plan Definition**

The HRP December 2010 Remedial Action Plan (RAP) and December 2013 soil remediation report describe the various AOCs, their constituents of concern (COCs), the nature of the release and the subsequent mitigation in detail. Additionally, the volumes of site assessment documents produced by HRP describe the physical and environmental setting of the Site in detail. Accordingly, and for the sake of brevity, this GWMP will not repeat these details. This GWMP relies upon and includes by reference the following documents;

- Phase I Environmental Site Assessment Report, HRP. April 27th, 2004.
- Soil Remedial Action Plan, HRP. December 16th, 2013.
- Phase II Subsurface Investigation Report, HRP. December 1st, 2005.
- Results of Deep Boring Investigation, HRP. September 18th, 2009
- Summary of 2010 Groundwater Monitoring, HRP. December 8th, 2010.
- Phase III Subsurface Investigation Report and Remedial Feasibility for Soil, HRP. January 15th, 2008, and revised September 2017.
- · Soil Remedial Action Plan, HRP. June 7th, 2010.

This GWMP describes a relatively simple plan for post-remediation groundwater monitoring consistent with the RSRs. The GWMP is modeled after a Quality Assurance Project Plan (QAPP) used for United States Environmental Protection Agency (USEPA) Brownfield and other environmental response programs.

## Media, Parameters, and Field Measurements

The media that will be analyzed under this project is groundwater.

Groundwater sample analyses will include the following parameters:

- Semi-Volatile Organic Compounds (SVOCs) (The full Reasonable Confidence Protocols (RCP) suite of SVOCs will be tested for in 20% of the samples and the remainder will be tested for the PAHs SVOC fraction)
- ETPH
- Total Metals (RSR 15 listed, i.e. Antimony, Arsenic, Beryllium, Barium, Cadmium, Chromium total, Copper, Lead, Mercury, Nickel, Selenium, Silver, Thallium, Vanadium, and Zinc).
- Limited PCB samples

The following field measurements will be recorded during the assessment:

 Water Quality Parameters – parameters including temperature, pH, conductivity, turbidity, dissolved oxygen, and oxidation reduction potential will be monitored during low flow well purging using a YSI Model 556 water quality monitor equipped with a flow through cell and a Hanna HI 98703 turbidity meter or equivalent. All low flow sampling will be conducted consistent with US EPA Region I guidance on Low Flow Sampling.

### **Regulatory Criteria Applicability**

The applicable regulatory criteria are in the RSRs in Sections 22a-133k-1 to 22a-133k-3, inclusive, of the Regulations of Connecticut State Agencies.

The RSRs evaluate potential risk posed by groundwater contamination through three sets of individual criteria: Groundwater Protection Criteria (GWPC), Surface Water Protection Criteria (SWPC), and Volatilization Criteria (VC). In a GB-classified area, such as the Site, the remediation objective is compliance with the SWPC and VC. It should be noted that during the assessment phases which included over 30 monitoring wells sampled several times, that non-VOC constituents of concern were barely detected above the applicable RSRs.

A description of the applicable groundwater criteria is provided below.

#### Surface Water Protection Criteria

The SWPC apply to groundwater that discharges to a surface water body. Compliance for the SWPC is achieved immediately upgradient of groundwater discharge to a surface water body for a steady-state plume. Compliance with the SWPC may be achieved when the analytical results from groundwater collected from within the release area are below the SWPC standards on the down gradient property boundary. Alternative self-implementing options for SWPC compliance are also available. Assurance for compliance with the SWPC are one of the primary objectives of this GWMP.

#### Volatilization Criteria

The VC have been established to evaluate potential risks associated with VOCs being released from the groundwater to indoor air. The VC apply to all groundwater within 15 feet of the ground surface. Two sets of criteria have been established for the GWVC based upon the land use; the Residential VC (RVC) and the Industrial/Commercial VC (I/C VC). Compliance with the VC is achieved when the dissolved-phase concentrations of VOCs are equal to or less than the applicable VC numeric criteria. The RVC is applicable to all sites unless an ELUR is recorded for the site, or portion of the site exceeding the VC, to ensure no buildings are impacted by vapors.

The presence of VOCs in soil at the various AOCs were negligible and VOCs were not a COC driving the soil remediation. Nonetheless, there is regional VOC contamination of groundwater that has impacted this Site. Accordingly, there are some areas of the site where concern for volatilization may be of concern. This concern has been addressed through the establishment of Environmental Land Use Restrictions (ELUR) in areas of the Site where it has been determined that VC exceedances may occur. Accordingly, monitoring for compliance to VC are not an objective of this GWMP.

It should be noted that VOCs in groundwater leaving the site will be monitored at the downgradient BIC property line and at selected wells at Caswell Cove. This VOC monitoring is described in a separate GWMP not associated with post remediation monitoring of the soil remediation.

### **Monitoring Timeline**

The RSRs require post remediation groundwater monitoring for at least four quarters over a period of less than two years. The monitoring frequency will be scheduled to represent seasonal variations in groundwater levels.

Collection of groundwater samples and groundwater elevation measurements will begin within one month of CT DEEP approval of this GWMP. At least a week's notification of monitoring events will be provided to CT DEEP via phone or e-mail.

## Sampling Design

The following sections provide the details and design objectives for the proposed groundwater monitoring tasks. They describe methodologies, and the rationale behind the sampling approaches and analyses. The below table presents the wells proposed for sampling, rational and proposed analysis.

The attached plan show these proposed wells in relation to the soil remediation areas.

Sample Plan Rationale and Proposed Analysis

Monitoring Well/ ID	Location/Rationale	Sample Analysis Selection
MWBR-2	Downgradient of RA-79 & RA-110	PAH, Metals, TPH
PRA-00-MWBR-1012*	Downgradient of RA-79 & RA-110	PAH, Metals, TPH
PRA-00-MWBR-1013	Up gradient/background well	PAH, Metals, TPH
PRA-00-MWBR-1016*	Downgradient of RA-103 & RA-84	PAH, Metals, TPH, PCBs
PRA-111-MWBR-1006	Downgradient of RA-111	PAH, Metals, TPH
PRA-111-MWOB-1007*	Downgradient of RA-111 RA-84	PAH, Metals, TPH, PCBs
PRA-77-MWOB-1000	Downgradient of RA-78	PAH, Metals, TPH
PRA-77-MWOB-1021	Downgradient of RA-78	PAH, Metals, TPH
PRA-78-MWOB-1001*	Side gradient of RA-78	PAH, Metals, TPH
PRA-78-MWOB-1025	Side gradient of RA-78	PAH, Metals, TPH
PRA-79-MWBR-1002*	Downgradient of RA-79 & RA-110	PAH, Metals, TPH
PRA-82-MWOB-1005	Downgradient of RA-82	PAH, Metals, TPH
PRA-MWBR-1008*	Exceeded DEP SWPC standards for zinc	PAH, Metals, TPH
PRA-MWBR-1011*	Exceeded DEP SWPC standards for zinc Downgradient of RA-18, RA-84 &RA-94	PAH, Metals, TPH, PCBs
PRA-MWBR-1018*	Exceeded DEP SWPC standards for Arsenic. Downgradient of RA-18 & RA - 94	PAH, Metals, TPH

The post-remediation monitoring will be conducted in two phases. The first, more comprehensive baseline monitoring phase will include the sampling and groundwater elevations of all 15 of the wells indicated in the table above. This baseline phase will provide current conditions of groundwater quality proximate to the soil remediation areas. Since non-VOC COCs have barely been detected in groundwater above the RSRs, it is expected that this baseline will confirm the same. Accordingly, the subsequent three rounds of groundwater sampling and elevation measurements will include eight wells. These eight wells will be analyzed for the

same parameters as the baseline monitoring event. The eight wells that will be monitored beyond the baseline event are marked with an \* after the well designation.

The data set will be reviewed to assess if any groundwater plume is in steady state or diminishing per 22a-133k-3(g)(2)(i)(IV). Additionally, if PCBs are detected in the wells monitored for them, then additional assessment of the degree and extent of the PCBs will be conducted.

## Sampling and Analytical Method Requirements

### **Data Quality Objectives**

The groundwater generated data will be assessed according to the appropriate state and federal criteria, specifically the RSRs. The analytical results for groundwater samples will be compared to the SWPC, RVC, and Industrial Volatization Criteria. The selected methods of analysis have detection limits that will allow for comparison of documented and/or possible compounds to the applicable standards.

## Method, Sample and Container Summary

The following table summarizes the laboratory methods that will be used to analyze field samples and the sample container type, preservation, and applicable holding times. Connecticut Testing Laboratories, Inc. of Meriden, Connecticut, a CT DPH-Certified laboratory, will be used for all chemical analyses in accordance with CT DEEP RCPs; data quality control required for all RSR compliant investigations.

Laboratory Analytical Methods, Containers, Preservation, and Holding Times

Matrix	Analysis	Method	Bottle Type	Preservative	Hold Time
Groundwater/Surface Water	SVOCs	SW846 8270C	1-L Amber Glass	None	28 days
Groundwater	ETPH	CT ETPH	1-L Amber Glass	None	7 days
Groundwater	PCBs	8082	1 Liter Amber Glass	None	7 days
Groundwater/Surface Water	Total RSR 15 Metals	SW846 6020	1, 250-ml Plastic	H <sub>2</sub> SO <sub>4</sub>	180 days

## **Quality Assurance/Quality Control Sampling**

In addition to the laboratory analysis of the investigative and remedial design samples, additional analysis will be conducted for quality control measures. These samples will include equipment rinsate blanks, trip blanks, matrix spike/matrix spike duplicates (MS/MSD), and duplicate/blind duplicate samples at a frequency of one sample per 20 field samples collected or once per field event in case there are less than 20 samples. Equipment blank, MS/MSD and duplicate samples will be analyzed for the same parameter set for which the original samples will be analyzed.

The following table provides a summary of the approximate field sampling frequencies and associated QA/QC samples to be analyzed by the laboratory.

Approximate Field Sample and OA/OC Sample Frequency

Sample Type	Parameters	Analytical Method	Estimated Field Samples	QC Samples			
				Equipment Blank <sup>2</sup>	Trip Blank <sup>1</sup>	MS/MSD <sup>3</sup>	Duplicate
Groundwater	PCB	EPA 8082	8-15	1	1	.1	1
Groundwater	PAHs	EPA 8270C	8-15	1		1	1
Groundwater	ETPH	CT ETPH	8-15	1		1	1
Groundwater	Total RSR Metals	EPA 6020	8-15	1		1	1

#### Notes:

- 1 One QA/QC sample per twenty field samples or sample shipment.
- 2 Minimum of one equipment blank per sample collection method.
   3 MS/MSD samples will be collected and analyzed for all parameters. Sample temperatures will be recorded by the laboratory upon receipt.

## **Laboratory SOPs**

This report section provides reference tables for the laboratory standard operating procedures (SOPs) to be employed by the Project Team and subcontractor SOPs to be used by the outside analytical laboratory

**Laboratory Analysis Standard Operating Procedures** 

20001017 122017 510	Standard Operating Procedures
Method Name and Number	Document Title
Volatile Organic Compounds EPA Method 8260B	Standard Operating Procedure EPA Method 8260B by Gas Chromatography/Mass Spectrometry
Volatile Organic Compounds EPA Method 5030C	Standard Operating Procedure EPA Method 5030C Purge and Trap for Aqueous Samples
Volatile Organic Compounds EPA Method 5035A	Standard Operating Procedure EPA Method 5035A Purge and Trap for Solid/Semisolid Samples
Semi-Volatile Organic Compounds EPA Method 8270C	Semi-Volatile Organic Analysis by EPA Method 8270C SIM-SCAN
ICP Metals EPA Method 200.7 / 6010B	Method 200.7/6010B ICP Analysis of Liquid and Solid Wastes
ICP Metals EPA Method 200.8 / 6020B	Method 200.8/6020B ICP-MS Analysis of Liquid
Mercury EPA Method 245.2 7470/7471	Mercury 245.2/7470/7471
PCBs EPA Method 8082	EPA Method 8081 Polychlorinated Biphenyls (PCBs) By Gas Chromatography
Connecticut Extractable Total Petroleum Hydrocarbons	CT-ETPH Standard Operating Procedures
Accelerated Solvent Extraction EPA Method 3545A	Accelerated Solvent Extraction
SPLP – Metals only EPA Method 1311	SPLP – Metals only EPA Method 1311
EPA Method 3510C Liquid – Liquid Extraction	EPA Method 3510C Liquid – Liquid Extraction
SPLP Complete Procedure EPA Method 1312	SPLP Complete Procedure EPA Method 1312
Acid Digestion EPA Method 3050B	Acid Digestion EPA Method 3050B

## Field Equipment Calibration and Corrective Action

Field personnel will be trained in the proper operation of all field instruments at the start of the field program. Instruction manuals for the equipment will be on file at the site for referencing proper operation, maintenance and calibration procedures. The equipment will be calibrated according to manufacturer specifications at the start of each day of fieldwork. If an instrument fails calibration, the project manager or QA/QC Officer will be contacted immediately to obtain a replacement instrument. A calibration log will be maintained to record the date, time and results of each calibration, any failure to calibrate, and corrective actions taken.

For purposes of the proposed field investigation, the following field equipment will be utilized and will require calibration and potential corrective action:

- Photoionization Detector (PID) 10.6 eV lamp; and
- Water Quality Monitor.
- Water table indicator

The PID will be calibrated each day using 100 parts per million (ppm) isobutylene standard gas.

### Analytical Sensitivity and Project Criteria

Laboratory reporting limits will be set at or below regulatory criteria. If the reporting limit is higher than the regulatory criteria (e.g. due to sample dilution), it will be assumed that the analyte exceeds the regulatory criteria unless an alternative method can demonstrate the absence of the analyte.

All laboratory analysis will be completed by Connecticut Testing Laboratories, Inc. of Meriden, Connecticut.

## Data Management

All analytical data will be reviewed and validated to ensure that the data are properly reduced and transcribed to the correct reporting format. Data management will include the following:

- Organization and storage of field records (e.g., field logbooks, instrument calibration records, sample collections records, chains-of-custody);
- Receipt, organization, and storage of laboratory data packages;
- Receipt of electronic data;
- Data quality review and validation;
- Preparation of data tables and figures for use in site evaluation.

The complete project file will be maintained and stored for eight years after which time it will be returned to the client or destroyed.

### **Laboratory Data Deliverables**

The laboratory will provide hardcopy data reports for each sampling event. Data packages will include the following:

- A Case Narrative summarizing any QA/QC issues and/or deviances from analytical methods;
- Results of QC measurements including calibration data, laboratory control samples, MS/MSDs, surrogate recoveries, and laboratory duplicate samples;
- Sample results and associated laboratory reporting limits;
- · Chain of Custody; and
- RCP QA/QC Certification Form.

Electronic data deliverables (EDDs) will also be provided by the laboratory for each sample set. Prior to conducting a field sampling event, the Project QA/QC Officer will coordinate with the Laboratory QA/QC Officer to identify the required reporting values for each sampling parameter, in accordance with the CT DEEP RCPs. Any contaminants suspected at high concentrations, or any non-standard analytes will be noted on a project planning worksheet to be provided to the Laboratory QA/QC Officer.

## **Project Reporting**

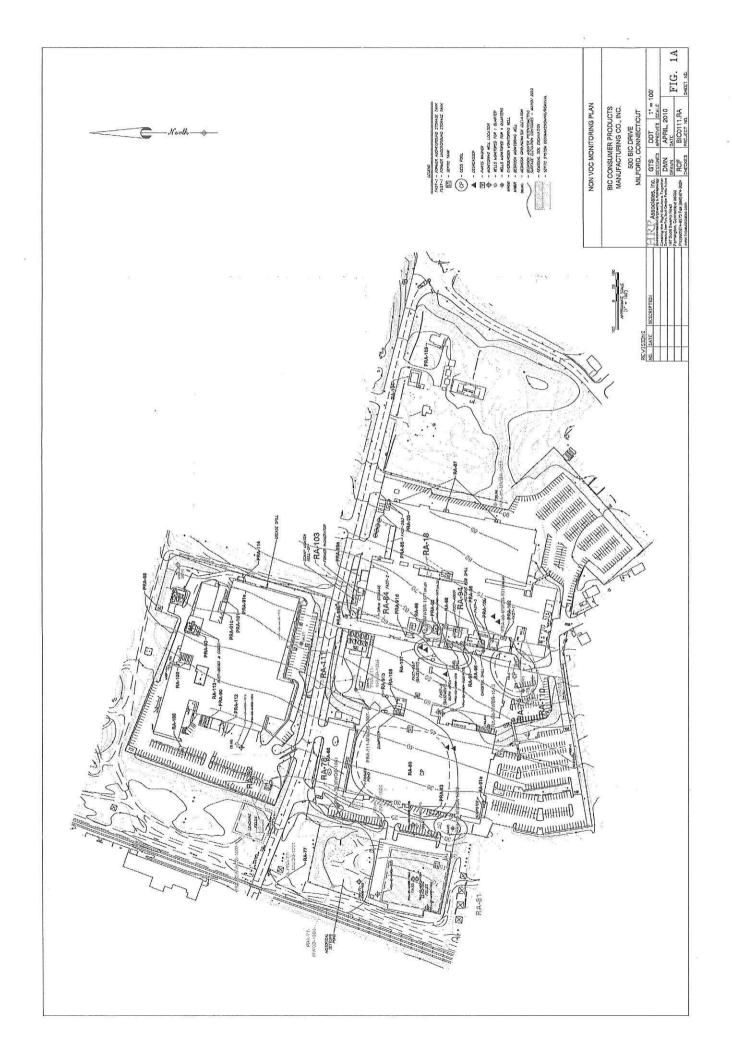
Following the completion of each sampling round, a GWM report will be completed. The report will include all collected analytical data, tabulated and compared with the applicable regulatory standards. Site figures showing sampling locations, soil remediation limits and final grades will also be prepared. The report will include an evaluation and discussion of data validity and usability.

Upon completion of four monitoring events, a summary report will be generated that will compare the post remediation monitoring to the RSRs and make conclusions regarding the effectiveness of the remediation efforts. Groundwater contour maps will be provided with each report.

Copies (either electronic or hard copy) of the draft and final reports will be provided to BIC and CT DEEP.

## **Figure**

GEI Consultants, Inc.



## **EXHIBIT B**



79 Elm Street • Hartford, CT 06106-5127

www.ct.gov/deep

Affirmative Action/Equal Opportunity Employer

BIC Corporation One BIC Way, Suite 1 Shelton, CT 06484

#### APPROVAL

The attached *Groundwater Monitoring Plan, For VOC Impacts Leaving BIC Consumer Products Manufacturing Co. Inc.*, dated September, 2017 is approved. This approval shall take effect upon the date of entry of the Stipulated Judgment by the Court in <u>Commissioner v. BIC</u>, Docket No.

HHD-CV-11-6026501-S.

Date

Betsey Wingfield, Bureau Chief

Bureau of Water Protection and Land Reuse

cc: Frederick W. Johnson, GEI Consultants





Vox



Consulting Engineers and Scientists WATER PROTECTION AND LAND REUSE REMEDIATION DIVISION

NOV 3 0 2017

SITE NAME_	BIC	
ADDRESS_	500 Bic Dr	
TOWN	HILFORD	
FILE TYPE -	REM	

Groundwater Monitoring Plan
For VOC Impacts Leaving
BIC Consumer Products
Manufacturing Co. Inc.

500 BIC Drive, Milford, CT

#### Submitted to:

Mr. Steven A. Burkhart Vice President and General Counsel BIC Corporation

#### Submitted by:

GEI Consultants, Inc. 455 Winding Brook Drive, Suite 201 Glastonbury, CT 06033 860-368-5300

#### And

HRP Associates, Inc. 197 Scott Swamp Rd. Farmington, CT 06032 800-246-9020

September 2017

Dan Titus, VP HRP Associates

Frederick Johnson, LEP, Sr. VP GEI Consultants, Inc. Groundwater Monitoring Plan For VOC Impacts Leaving BIC Consumer Products Manufacturing Co. Inc. 500 BIC Drive, Milford, CT September 2017

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### Figure

1 Proposed Property Boundary Monitoring Well Locations

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# Introduction

This Groundwater Monitoring Plan (GWMP) (Plan) has been prepared by GEI Consultants, Inc. (GEI) and HRP Associates, Inc. (HRP) on behalf of BIC Consumer Products Manufacturing Co., Inc. of Milford, Conn (BIC). The purpose of groundwater compliance monitoring is to gather data that would aid the agency in understanding the hydrogeology in the Devon Study Area (DSA) and to possibly demonstrate Remediation Standard Regulations (RSR) compliance regarding groundwater moving toward Caswell Cove and, if not, to assist DEEP in evaluating whether existing remedial systems at the Caswell Cove residences are adequate. Monitoring will be performed in the overburden and shallow bedrock aquifers along the western property line of 500 BIC Drive (the Site) and in the overburden aquifer under the southern portion of the Caswell Cove property.

There are no applicable RSRs for the shallow bedrock aquifer under the BIC Site. Nonetheless, bedrock monitoring will be conducted to provide a baseline understanding of groundwater quality as it leaves the BIC Site.

# **Groundwater Monitoring Plan Definition**

Volumes of site assessment documents produced by HRP describe the physical and environmental setting of the Site in detail. Accordingly, and for the sake of brevity, this GWMP will not repeat these details. This GWMP relies upon and includes by reference the following documents:

- Phase I Environmental Site Assessment Report, HRP. April 27, 2004.
- Soil Remedial Action Plan, HRP. December 16, 2013.
- Phase II Subsurface Investigation Report, HRP. December 1, 2005.
- Results of Deep Boring Investigation, HRP. September 18, 2009
- Summary of 2010 Groundwater Monitoring, HRP. December 8, 2010.
- Phase III Subsurface Investigation Report and Remedial Feasibility for Soil, HRP.
   January 15, 2008, and revised September 2017.
- Soil Remedial Action Plan, HRP. June 7, 2010.

This GWMP describes a plan for post-remediation groundwater monitoring that is consistent with the Connecticut RSR. This plan is specific to the monitoring of VOCs only. Although there is no defined source of VOC on the BIC property, BIC has agreed to conduct post remediation monitoring on its site as if a source of VOCs had existed. The GWMP is modeled after a Quality Assurance Project Plan (QAPP) used for United States Environmental Protection Agency (USEPA) Brownfield and other environmental response programs.

# Media, Parameters, and Field Measurements

The media that will be analyzed under this project is groundwater.

Groundwater sample analyses will include the following parameters:

- VOCs
- Groundwater elevations

The following field measurements will be recorded during the assessment:

• Water Quality Parameters – parameters including temperature, pH, conductivity, turbidity, dissolved oxygen, and oxidation reduction potential will be monitored during low flow well development using a YSI Model 556 water quality monitor equipped with a flow through cell and a Hanna HI 98703 turbidity meter or equivalent. All low flow sampling will be conducted consistent with US EPA Region I guidance on Low Flow Sampling.

Groundwater elevations- will be measured from a fixed, surveyed benchmark at the top
of the well casing. Depth to groundwater will be measured with a YSI electric tape
measure or equivalent.

# Regulatory Criteria Applicability

The applicable regulatory criteria for evaluating the data are in the RSRs in Sections 22a-133k-1 to 22a-133k-3, inclusive, of the Regulations of Connecticut State Agencies.

The RSRs evaluate potential risk posed by groundwater contamination through three sets of individual criteria: Groundwater Protection Criteria (GWPC), Surface Water Protection Criteria (SWPC), and Volatilization Criteria (VC). In a GB-classified area, such as the Site, the remediation objective is compliance with the SWPC and VC. A description of the applicable groundwater criteria is provided below.

The application of regulatory criteria assumes that an Environmental Land Use Restriction (ELUR) will be placed on the BIC Site. The ELUR will include a restriction of the Site use to industrial / commercial use only and a selected no-build restriction west of Building 4.

#### Surface Water Protection Criteria

The SWPC apply to groundwater that discharges to a surface water body. Compliance for the SWPC is achieved immediately upgradient of groundwater discharge to a surface water body for a steady-state plume. Compliance with the SWPC may be achieved when the analytical results from groundwater collected from within the release area are below the SWPC standards on the downgradient property boundary. Alternative self-implementing options for SWPC compliance are also available. Assurance for compliance with the SWPC are one of the primary objectives of this GWMP.

#### Volatilization Criteria

The VC have been established to evaluate potential risks associated with VOCs being released from the groundwater to indoor air. The VC apply to groundwater within 15 feet of the ground surface. Two sets of criteria have been established for the GWVC based upon the land use: the Residential VC (RVC) and the Industrial/Commercial VC (I/C VC). Compliance with the VC is achieved when the dissolved-phase concentrations of VOCs in the overburden aquifer are equal to or less than the applicable VC numeric criteria. The RVC is applicable to all sites unless an ELUR is recorded for the site, or portion of the site exceeding the VC, to ensure no buildings are impacted by vapors. Because an ELUR will be placed on the property, the industrial / commercial (I/C VC) volatilization criteria will apply. However, on the adjacent and downgradient Caswell Cove property, which is residential, the RVC will be used as the applicable criteria. Compliance with the VC are measured in the upper-most water bearing unit which at this Site is the shallow overburden water table on the western and downgradient side of

the property. Monitoring will be conducted on the western edge of the former BIC property and on the eastern upgradient side of Caswell Cove Buildings 1100, 1200 and 1400.

The presence of VOCs in soil at the various AOCs on the Site were negligible and VOCs were not a constituent of concern driving the soil remediation. However, there are some areas of the Site where volatilization may be of concern. This concern has been addressed through the establishment of Environmental Land Use Restrictions (ELURs) in areas of the Site where it has been determined that VC exceedances may occur. Accordingly, monitoring for compliance to VC are not an objective of this GWMP on the 500 BIC Drive Property. Off-site and at Caswell Cove monitoring for compliance with the RVC is the objective.

VOCs in groundwater leaving the Site in the overburden and shallow bedrock aquifers will be monitored per the means, methods and objectives stated in this GWMP.

### **Monitoring Timeline**

Monitoring will be performed in accordance with the following schedule and standards:

- 1. Shallow bedrock groundwater quality will be monitored at 3 wells along the western, downgradient edge of the BIC property. One of the bedrock wells is existing (MW BR-1003) and 2 of the bedrock wells are to be installed as depicted in Figure 1. There are no applicable RSRs for the shallow bedrock leaving the BIC site. Shallow bedrock monitoring will be conducted for the purpose of establishing groundwater quality conditions of the bedrock aquifer as it leaves the BIC Site. This bedrock groundwater monitoring will be conducted quarterly for 2 years and annually for next 3 years. The annually monitoring will be biased toward the season that showed the higher levels of VOC concentrations during the initial 8 quarters. These data will add to the body of understanding of VOC mass transport through the DSA.
- 2. Groundwater will be monitored for compliance with the I/C VC in three overburden wells along the western, downgradient edge of the BIC property. The overburden wells will be paired with the bedrock wells discussed above. Two of the wells are existing (MW OB 1022 and MW OB 1004) and one well will be installed. These BIC overburden wells will be monitored for compliance to the I/C VC. Existing overburden wells east and upgradient of Caswell Cove Buildings 500, 600, 700, 800, 1100, 1200 and 1400 as depicted in attached Figure 1 will be monitored for compliance with the RVC. Sampling will be conducted consecutively for eight quarters for a period of two years. The quarterly sampling will be conducted for the purpose of: 1) establishing current groundwater quality in these areas; 2) assessing trends in groundwater quality; 3) documenting compliance or noncompliance with the applicable RSRs; and 4) assessing any seasonal variability. Seasonal variability will also be assessed relative to the existing groundwater data set at the BIC property.

Multiple rounds of previously collected data demonstrate that the BIC property is generally compliant with the applicable RSR VOC criteria and that trend is expected to continue. The purpose for the monitoring is to obtain additional data to evaluate steady state conditions and RSR compliance relative to potential impacts to the Caswell Cove residences over time.

The monitoring program will use applicable RSR criteria of the I/C RSR standards for the overburden wells at the BIC Property and the RVC RSR standards at Caswell Cove. The monitoring program will be performed as follows:

- a. If samples are found to be compliant with applicable RSR criteria for any four consecutive quarters and steady state as determined with at least 8 rounds, monitoring will be discontinued.
- b. At 500 BIC Drive, if concentrations in any well are found to be steady state and/or decreasing, but remain noncompliant, that well will be sampled once annually for the next eight years. At any point during that eight-year period, at BICs discretion and based upon the data collected, it may undertake the process of demonstrating compliance by collecting four samples over four quarters in two years in accordance with the RSR requirements.
- c. It is anticipated that concentrations above the applicable RSR may remain over time due to the nature of source within the DSA. In the unlikely case that the first two years of data do not show steady state conditions (as defined later in this GWMP), then monitoring will continue on a semi-annual basis for eight years for noncompliant wells and annually for compliant wells. Once steady state is established for complaint wells monitoring will be discontinued. If steady state is established but the well remains noncompliant, then monitoring will continue annually for up to 8 years. Annual sampling will be biased toward the season that has shown the highest VOC concentrations.
- d. Data collected from wells at Caswell Cove existing wells 7, 10 12, 13, 15 and 16 (formerly well 8) will be compared to the RVC criteria and provided to the DEEP after each monitoring event for use at their discretion. If concentrations are found below the RVC, monitoring will be discontinued after the eight quarterly events assuming steady state conditions are demonstrated. If concentrations are found above the RVC standards and steady state is established, monitoring will continue annually for 8 years. If neither steady state nor compliance is demonstrated after the initial 8 quarters, monitoring will continue semi-annually for up to 8 years. Any

remediation or other mitigation action will be taken by DEEP or a third party at their own expense. Note that historical trends in data collected by others from Caswell Cove Buildings 100 through 500 suggest that it is likely that TCE will be measured at concentrations below the current RVC standard.

e. Quarterly groundwater TCE data, collected from each well at 500 BIC Drive, and Caswell Cove will be evaluated to further assess whether there are any trends in VOC concentration with time. Years of groundwater data collected at the BIC Site did not indicate apparent trends. Nonetheless, these new data will be statistically evaluated in an effort to demonstrate steady state conditions. Additionally, the BIC and Caswell Cove historic data show that TCE is the primary constituent of concern, therefore TCE will be the subject of trend analysis. In the event any other VOC constituent meets or exceeds 50% of the applicable RSR criteria, then that constituent will also be subject to statistical trend analysis as described below.

As an initial step, these data will be evaluated graphically to visually assess whether concentrations tend to increase or decrease over time. Data will then be evaluated using the Mann-Kendall test, a non-parametric statistical method which compares the relative differences in concentration data over time and the probability of there being a trend (i.e., increasing or decreasing) in concentrations at a given confidence level. The data will be evaluated using an absolute 'S' value of 4. If there are apparent seasonal trends, each set of seasonal data can be evaluated independently using the seasonal Mann-Kendall or other statistical methods (e.g., LOWESS) to determine the underlying trend(s) in the groundwater TCE data.

# MONITORING PROGRAM SUMMARY BIC, MILFORD

	Initial	Steady State	Compliant	Additional monitoring
BIC – Bedrock 3 wells	8 quarters w/ WT maps	NA	NA	Plus 3 years annually
BIC – Overburden 3 wells	8 quarters w/ WT maps	Yes	I/C - Yes	none
		Yes	I/C - No	Plus 8 years annually
		No	NA	Plus 8 years annually
		No	> 10X I/C	Plus 8 years semi-annually

	Initial	Steady State	Compliant	Additional monitoring
Caswell - Overburden 6 wells	8 quarters	Yes	Res - Yes	none
		Yes	Res - No	Plus 8 years annually
		No	Res – Yes	Plus 8 years annually
	water to the same of the same	No	Res – No	Plus 8 years semi-annually
BIC Overburden wells				May reduce by documenting compliance with 4 consecutive compliant quarterly monitoring events within a two-year period.

Collection of groundwater samples and groundwater elevation measurements will begin within one month of CT DEEP approval of this GWMP. At least a week's notification of monitoring events will be provided to CT DEEP via phone or e-mail.

# Sampling Design

The following sections provide the details and design objectives for the proposed groundwater monitoring tasks. They describe means and methods and the rationale behind the sampling approaches and analyses. The below table presents the wells proposed for sampling, rationale and proposed analysis. One new overburden well and two shallow bedrock wells will be installed at the 500 BIC Drive Site as follows:

The overburden well will be installed using traditional methods by advancing a hollow stem auger into the unconsolidated material in the shallow subsurface. No soil samples will be recovered for field screening or laboratory analysis. The well will be constructed of 2-inch diameter polyvinyl chloride (PVC) materials using a 10-foot long, 0.010 slot screen section and threaded to a solid PVC riser, which will extend to the ground surface. The well will penetrate the water table to a depth that allows at least 2 feet of screen to be located above the potentiometric surface as determined in the field. Silica filter sand will be placed around the screen and a bentonite seal will be installed above the sand pack to prevent infiltration. The well will be finished with a flush-mounted cast iron handway set in concrete. The well will be purged in order to remove sediments from the groundwater monitoring well and then allowed to sit for the purpose of equilibration with the surrounding aquifer for a period of at least 14 days before sampling. The location of the proposed well is detailed in the attached figure.

The two shallow bedrock wells will drilled as described above to the surface of the bedrock. A 4 inch diameter casing will be installed from the ground surface and grouted at least two feet into competent bedrock. The grout will be allowed to set at least 12 hours before a two inch bedrock core is drilled 10 to 15 feet into the rock. The bedrock will be logged to note rock type, fractures and any apparent water bearing features. The well will be constructed of 2-inch diameter PVC materials using a 10-foot long, 0.010 slot screen section and threaded to a solid PVC riser, which will extend to the ground surface. Silica filter sand will be placed around the screen and a bentonite seal will be installed above the sand pack to prevent infiltration. The well will be finished with a flush-mounted cast iron handway set in concrete. The well will be purged in order to remove sediments from the groundwater monitoring well and then allowed to sit for the purpose of equilibration with the surrounding aquifer for a period of at least 14 days before sampling.

The attached figure shows the location of the wells proposed for sampling at 500 BIC Drive and at Buildings 500, 600, 700, 800, 1100, 1200 and 1400 at Caswell Cove.

Sample Plan Rationale and Proposed Analysis

Monitoring Well/ ID	oring Well/ ID Location/Rationale		Well Status	
MW- OB 1022-A	Downgradient overburden to monitor compliance with applicable RSRs – I/C VC	VOCs	Existing well 500 BIC Drive	
MW-BR 1022-B	Shallow bedrock well to establish groundwater quality conditions flowing from the BIC Site	VOCs	To be installed	
MW-BR 1003	Shallow bedrock well to establish groundwater quality conditions flowing from the BIC Site	VOCs	Existing well 500 BIC Drive	
MW-OB 1004	Downgradient overburden to monitor compliance with applicable RSRs – I/C VC	VOCs	Existing well 500 BIC Drive	
MW-OB 1025-A	Downgradient overburden to monitor compliance with applicable RSRs – I/C VC	VQCs	To be installed	
MW-BR 1025-B	W-BR 1025-B  Shallow bedrock well to establish groundwater quality conditions flowing from the BIC Site		To be installed	
GP-7	Upgradient overburden to monitor compliance with applicable RSRs - RVC	VOCs	Existing well at Caswell Cove	
GP-10	Upgradient overburden to monitor compliance with applicable RSRs - RVC	VOCs	Existing well at Caswell Cove	

Monitoring Well/ID	Location/Rationale	Sample Analysis Selection	Well Status  Existing well at Caswell Cove	
GP-12	Upgradient overburden to monitor compliance with applicable RSRs - RVC	VOCs		
GP 13	Upgradient overburden to monitor compliance with applicable RSRs - RVC	VOCs	Existing well at Caswell Cove	
GP 15	Upgradient overburden well to monitor compliance with applicable RSRs- RVC	VOCs	Existing well at Caswell Cove	
GP-16	Upgradient overburden to monitor compliance with applicable RSRs - RVC	VOCs	Existing well at Caswell Cove	

# Sampling and Analytical Method Requirements

### **Data Quality Objectives**

The groundwater generated data will be assessed according to the appropriate state and federal criteria, specifically the RSRs. The analytical results for groundwater samples will be compared to the SWPC, RVC, and Industrial VC. The selected methods of analysis have detection limits that will allow for comparison of documented and/or possible compounds to the applicable standards.

# Method, Sample and Container Summary

The following Table summarizes the laboratory methods that will be used to analyze field samples and the sample container type, preservation, and applicable holding times. Connecticut Testing Laboratories, Inc. of Meriden, Connecticut, a CT DPH-Certified laboratory, will be used for all chemical analyses in accordance with CT DEEP Reasonable Confidence Protocols (RCPs); data quality control required for all RSR compliant investigations.

Laboratory Analytical Methods, Containers, Preservation, and Holding Times

Matrix	Analysis			Preservative	Hold Time
Groundwater/Surface Water	VOCs	SW846 8260B	2, 40-ml VOAs	HCI	14 days

# **Quality Assurance/Quality Control Sampling**

In addition to the laboratory analysis of the investigative and remedial design samples, additional analysis will be conducted for quality control measures. These samples will include equipment rinsate blanks, trip blanks, matrix spike/matrix spike duplicates (MS/MSD), and duplicate/blind duplicate samples at a frequency of one sample per 20 field samples collected. Equipment blank, MS/MSD and duplicate samples will be analyzed for the same parameter set for which the original samples will be analyzed. If the requested parameters include VOCs, a trip blank will be analyzed for VOCs only.

The following table provides a summary of the approximate field sampling frequencies and associated QA/QC samples to be analyzed by the laboratory.

Approximate Field Sample and QA/QC Sample Frequency

			Estimated	QC Samples			
Sample Type	Parameters	Analytical Method	Field Samples	Equipment Blank <sup>2</sup>	Trip Blank <sup>1</sup>	MS/MSD <sup>3</sup>	Duplicate
Groundwater	VOCs	EPA 8260B	up to 12	1	1	.1	1

#### Notes:

- 1 One QA/QC sample per twenty field samples or sample shipment.
- $2-\mbox{Minimum}$  of one equipment blank per sample collection method.
- 3 MS/MSD samples will be collected and analyzed for all parameters.

Sample temperatures will be recorded by the laboratory upon receipt.

# **Laboratory SOPs**

This report section provides reference tables for the laboratory standard operating procedures (SOPs) to be employed by the Project Team and subcontractor SOPs to be used by the outside analytical laboratory

Laboratory Analysis Standard Operating Procedures

Method Name and Number	Document Title		
Volatile Organic Compounds EPA Method 8260B	Standard Operating Procedure EPA Method 8260B by Gas Chromatography/Mass Spectrometry		
Volatile Organic Compounds EPA Method 5030C	Standard Operating Procedure EPA Method 5030C Purge and Trap for Aqueous Samples		
Volatile Organic Compounds EPA Method 5035A	Standard Operating Procedure EPA Method 5035A Purge and Trap for Solid/Semisolid Samples		
EPA Method 3510C Liquid – Liquid Extraction	EPA Method 3510C Liquid – Liquid Extraction		
SPLP Complete Procedure	SPLP Complete Procedure		
EPA Method 1312	EPA Method 1312		
Acid Digestion EPA Method 3050B	Acid Digestion EPA Method 3050B		

# Field Equipment Calibration and Corrective Action

Field personnel will be trained in the proper operation of all field instruments at the start of the field program. Instruction manuals for the equipment will be on file at the Site for referencing proper operation, maintenance and calibration procedures. The equipment will be calibrated according to manufacturer specifications at the start of each day of field work. If an instrument fails calibration, the project manager or QA/QC Officer will be contacted immediately to obtain a replacement instrument. A calibration log will be maintained to record the date, time and results of each calibration, any failure to calibrate, and corrective actions taken.

For purposes of the proposed field investigation, the following field equipment will be utilized and will require calibration and potential corrective action:

- Photoionization Detector (PID) 10.6 eV lamp; and
- Water Quality Parameters parameters including temperature, pH, conductivity, turbidity, dissolved oxygen, and oxidation reduction potential will be monitored during

low flow well purging using a YSI Model 556 water quality monitor equipped with a flow through cell and a Hanna HI 98703 turbidity meter or equivalent.

The PID will be calibrated each day using 100 parts per million (ppm) isobutylene standard gas.

# Analytical Sensitivity and Project Criteria

Laboratory reporting limits will be set at or below regulatory criteria. If the reporting limit is higher than the regulatory criteria (e.g., due to sample dilution), it will be assumed that the analyte exceeds the regulatory criteria unless an alternative method can demonstrate the absence of the analyte.

All laboratory analysis will be completed by Connecticut Testing Laboratories, Inc. of Meriden, Connecticut.

### **Data Management**

All analytical data will be reviewed and validated to ensure that the data are properly reduced and transcribed to the correct reporting format. Data management will include the following:

- Organization and storage of field records (e.g., field logbooks, instrument calibration records, sample collections records, chains-of-custody);
- · Receipt, organization, and storage of laboratory data packages;
- · Receipt of electronic data;
- Data quality review and validation;
- Preparation of data tables and figures for use in site evaluation.

The complete project file will be maintained and stored for eight years after which time it will be returned to the client or destroyed.

# Laboratory Data Deliverables

The laboratory will provide hardcopy data reports for each sampling event. Data packages will include the following:

- A Case Narrative summarizing any QA/QC issues and/or deviances from analytical methods;
- Results of QC measurements including calibration data, laboratory control samples, MS/MSDs, surrogate recoveries, and laboratory duplicate samples;
- Sample results and associated laboratory reporting limits;

- Chain of Custody; and
- RCP QA/QC Certification Form.

Electronic data deliverables (EDDs) will also be provided by the laboratory for each sample set. Prior to conducting a field sampling event, the Project QA/QC Officer will coordinate with the Laboratory QA/QC Officer to identify the required reporting values for each sampling parameter, in accordance with the CT DEEP RCPs. Any contaminants suspected at high concentrations, or any non-standard analytes will be noted on a project planning worksheet to be provided to the Laboratory QA/QC Officer.

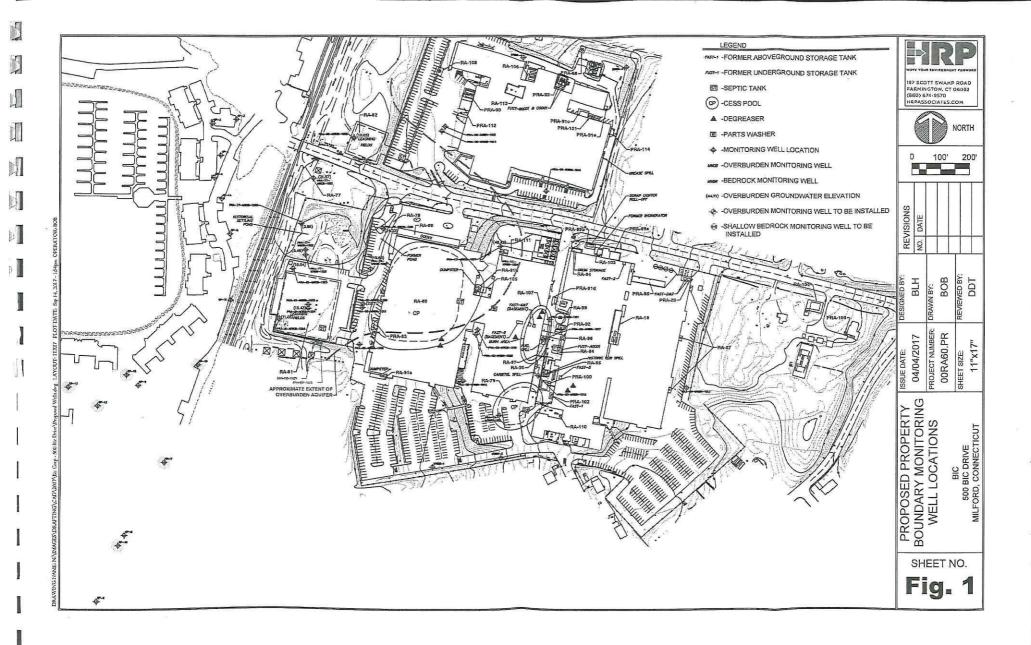
### **Project Reporting**

Following the completion of each sampling round, a GWM report will be completed. The report will include all collected analytical data, tabulated and compared with the applicable regulatory standards. Site figures showing sampling locations, soil remediation limits and final grades will also be prepared. The report will include an evaluation and discussion of data validity and usability.

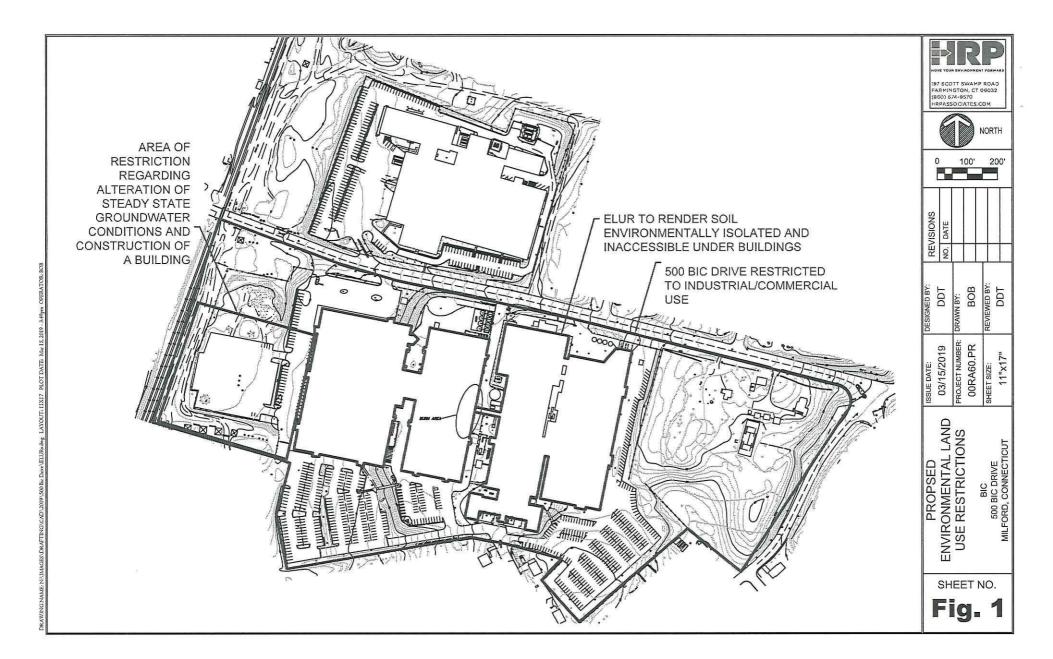
Upon completion of four monitoring events, a summary report will be generated that will compare the post remediation monitoring to the RSRs and make conclusions regarding the effectiveness of the remediation efforts.

Copies (either electronic or hard copy) of the draft and final reports will be provided to BIC and CT DEEP.

# **Figure**



# **EXHIBIT C**



#### JDNO NOTICE

#### HHD-CV-11-6026501-S COMM'R OF ENERGY AND ENVIRONMENTAL PROTECTION v. BIC CORPORATION

Notice Issued: 08/28/2019

Court Address:

CLERK, SUPERIOR COURT
JUDICIAL DISTRICT OF HARTFORD
95 WASHINGTON STREET
HARTFORD, CT 06106
Website: www.jud.ct.gov

**Notice Content:** 

Notice Issued: 08/28/2019

Docket Number: HHD-CV-11-6026501-S

Case Caption: COMM'R OF ENERGY AND ENVIRONMENTAL PROTECTION v. BIC CORPORATION

Notice Sequence #: 2

JDNO NOTICE

ORDER REGARDING:

08/22/2019 209.00 STIPULATION

The foregoing, having been considered by the Court, is hereby:

ORDER: GRANTED

Disposition: JDGSTP - JUDGMENT BY STIPULATION BEFORE TRIAL COMMENCED

As stated on the record on 08/22/2019, judgment shall enter in accordance with the stipulation #209.00 filed with the Court. Also stated on the record, the appeal case will be withdrawn.

Per order of EPSTEIN, J. 08/22/2019 SM/TAC on 08/28/2019