

**VIRGINIA DEPARTMENT OF
ENVIRONMENTAL QUALITY**

**FINAL HAZARDOUS WASTE
MANAGEMENT PERMIT FOR SITE-
WIDE CORRECTIVE ACTION
WILSON JONES COMPANY
CROZET, VIRGINIA
EPA ID NO: VAD003124989
SEPTEMBER 2, 2020**



Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

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**Hazardous Waste Management Permit
For Site-Wide Corrective Action**

Permittee: **Wilson Jones Company**
5327 Three Notch'd Road
Crozet, Virginia, 22932

EPA ID No.: **VAD003124989**

Pursuant to Chapter 14, Article 4, Title 10.1, Code of Virginia (1950, as amended), and regulations promulgated thereunder by the Virginia Department of Environmental Quality (hereafter referred as "DEQ"), a Hazardous Waste Management Permit (hereafter referred as "Permit") is issued to Wilson Jones Company (hereinafter referred as "Permittee" or "WJC"), for the Facility located in Crozet, Virginia to conduct site-wide corrective action ("CA"), as necessary to protect human health and the environment, for all releases of hazardous waste or hazardous constituents from any solid waste management unit ("SWMU") or Area of Concern ("AOC"). The Facility being permitted is located at 5327 Three Notch'd Road in Crozet, Virginia, and has a geographic location at 38° 04' 00.2" North latitude and 78° 40' 05" West longitude.

The Permittee shall comply with all terms and conditions of this Permit including the Permit Attachments, A through C. If the Permit and Permit Attachments conflict, the wording of the Permit shall prevail. The Permittee shall also comply with all applicable regulations contained in the Virginia Hazardous Waste Management Regulations ("VHWMR") as codified in Title 9 of the Virginia Administrative Code, Agency 20, Chapter 60 (9VAC 20-60) and the Resource Conservation and Recovery Act (RCRA) regulations under in 40 CFR Parts 124, 260, 261, 262, 264, 268, and 270, as adopted by reference in the VHWMR. For convenience, wherever the RCRA regulations are adopted by reference and cited in this Permit and the Permit Attachments, the regulatory citations will be only those from 40 CFR.

The Commonwealth of Virginia has received authorization for its hazardous waste program under Section 3006(b) of the RCRA, 42 USC §6926(b), to administer and enforce the RCRA regulations under the VHWMR in lieu of the federal hazardous waste management program. Applicable regulations are those under the VHWMR (9VAC 20-60) and the RCRA regulations which are in effect on the date of final administrative action on this Permit and as

well as any self-implementing statutory provisions and related regulations which are automatically applicable to the Permittee's hazardous waste management activities, notwithstanding the conditions of this Permit.

This Permit is based on the administrative record and the assumption that the information submitted in the Part A and Part B Permit Application by the Permittee are complete and accurate. The Permittee's failure to fully disclose all relevant facts in the submittal of the permit application or during the Permit issuance process, or the Permittee's misrepresentation of any relevant facts at any time, shall be grounds for the termination or modification of this Permit pursuant to the VHWMR, under 40 CFR §§124.5, 270.41, 270.42, and 270.43, and shall also be grounds for initiation of an enforcement action. The Permittee shall inform the Department of any deviations from the permit conditions or changes in the information provided. The Permittee shall inform the Department of any proposed changes that might affect the ability of the Permittee to comply with applicable regulations and/or permit conditions, or which alter any of the conditions of the Permit in any way.

This permit is effective as of **September 2, 2020**, and shall remain in effect until **September 2, 2030**, unless revoked and reissued, or terminated in accordance with 40 CFR §§124.5, 270.41, and 270.43, or continued in accordance with 9VAC 20-60-270.B.15.

September 2, 2020

Date Signed



Leslie A. Romanchik
Hazardous Waste Program Manager
Office of Financial Responsibility and Waste Programs

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List of Attachments

The following Attachments are incorporated, in their entirety, by reference into this Permit. These incorporated attachments are enforceable conditions of this Permit. The Department has, as deemed necessary, modified specific language from the permit application. Additional modifications are prescribed in the Permit Conditions (Modules I and II), and thereby supersede the language of the Permit Attachments to the extent that there is a direct conflict between the Attachments and Modules I and II of the Permit.

ATTACHMENT A FACILITY MAPS, DEED COVENANT, AND FIGURES A-1

**ATTACHMENT B FACILITY BACKGROUND, SWMUS AND AOCS, AND
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ATTACHMENT C CORRECTIVE ACTION REMEDIAL TARGETS C-1

Definitions

All definitions contained in 40 CFR §§124.2, 260.10, 270.2, 264.141, 264.1031, 264.1051, 264.1081, and Title 9 of the Virginia Administrative Code, Agency 20, Chapter 60 (9VAC 20-60) are hereby incorporated, in their entirety, by reference into this Permit. Any of the definitions presented in (a) through (m) below shall supersede any definition of the same term given in the previously cited sections of 40 CFR and 9VAC 20-60. Where terms are not defined in the regulations or the Permit, the meaning associated with such terms shall be defined by a standard dictionary reference and/or the generally accepted scientific or industrial meaning of the term. For the purposes of this Permit, the following definitions shall apply:

- a. The term “**Area of Concern**” shall mean an area at the facility or an off-site area, which is not at this time known to be a solid waste management unit, where hazardous waste and/or **Hazardous Constituents** are present or are suspected to be present as a result of a release from the **Facility**.
- b. The term “**Days**” shall mean calendar days except as otherwise provided herein.
- c. The term "**Department**" shall mean the Virginia Department of Environmental Quality (“DEQ”).
- d. The term "**Director**" shall mean the Virginia Department of Environmental Quality or designated representative.
- e. The term “**EPA**” shall mean United States Environmental Protection Agency.
- f. The terms "**Facility**" or "**Site**" shall mean all contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste. For the purpose of implementing corrective action under 40 CFR §264.101, “**Facility**” means all contiguous property under the control of the owner or operator under a permit under Subtitle C of the Resource Conservation and Recovery Act (“RCRA”).
- g. The term “**Hazardous Constituent**” shall include constituents identified in 40 CFR Part 264 Appendix IX in addition to those in 40 CFR 261, Appendix VIII, as defined in 9VAC 20-60-264.B.6.
- h. The term "**Hazardous Waste Management Unit**" is a contiguous area of land on or in which hazardous waste is placed, or the largest area in which there is significant likelihood of mixing hazardous waste constituents in the same area. Examples of hazardous waste management units include a surface impoundment, a waste pile, a land treatment area, a landfill cell, an incinerator, a tank and its associated piping and underlying containment system and a container storage area. A container alone does not constitute a unit; the unit includes containers and the land or pad upon which they are placed.

- i. The term "**Permit**" shall mean the Permit issued by the Virginia Department of Environmental Quality, pursuant to Chapter 14, Article 4, Title 10.1, Code of Virginia (1950, as amended), and the Virginia Hazardous Waste Management Regulations ("VHWMR") as codified in 9VAC 20-60.
- j. The term "**Permittee**" shall mean the owner and/or operator of the facility to which the Permit is issued.
- k. The term "**Release**" shall mean any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment, of any **Hazardous Constituents**.
- l. The term "**Solid Waste Management Unit**" shall mean any discernable unit at the facility from which **Hazardous Constituents** might migrate, irrespective of whether the units were intended for the management of solid and/or hazardous wastes. Such units include any area at a facility which solid wastes have been routinely and systematically released.
- m. The term "**Unit**" refers to containers, container storage areas, tanks, surface impoundments, waste piles, land treatment units, landfills, incinerators, underground injection wells, and other physical, chemical, and biological units or treatment units.

MODULE I - STANDARD CONDITIONS

I.A Effect of Permit

I.A.2 Permit

This Permit, issued by the Director pursuant to 40 CFR §270.1(c)(4), authorizes only the management of hazardous waste under corrective action (“CA”) expressly described in this Permit and in accordance with the conditions of this Permit and with the applicable provisions of the Virginia Hazardous Waste Management Regulations (“VHWMR”) under 9VAC 20-60. Any management of hazardous waste by the Permittee which is not authorized by this Permit or 9VAC 20-60, and for which a permit is required under Chapter 14, Article 4, Title 10.1, Code of Virginia (1950, as amended), is prohibited (40 CFR §§270.30(g) and 270.4(b) and (c)). Compliance with this Permit generally constitutes compliance, for the purposes of enforcement, with Chapter 14, Article 4, Title 10.1-1426, Code of Virginia (1950, as amended). This Permit does not convey any property rights of any sort, or any exclusive privilege. Possession of a permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of Commonwealth of Virginia or local laws or regulations. Compliance with the terms of this Permit may not constitute a defense to any action brought under Chapter 14, Article 8, Title 10.1 Code of Virginia (1950, as amended), or any other Commonwealth law governing protection of the public health or the environment.

I.A.3 Corrective Action Obligation

The Corrective Action (“CA”) obligations contained in this Permit shall continue regardless of whether the Permittee continues to operate or ceases operation and closes the Facility. The Permittee is obligated to complete site-wide CA under the conditions of a RCRA Permit regardless of the operational status of the facility. The Permittee must submit an application for a new Permit at least 180 days before this Permit expires pursuant to 40 CFR §270.10(h), unless the Permit has been modified to terminate the CA schedule of compliance and the Permittee has been released from the requirements for financial assurance for corrective action.

I.B Permit Actions

This Permit may be modified, revoked and reissued, or terminated for cause as specified in 40 CFR §§124.5, 270.30(f), 270.41, 270.42, and 270.43. The filing of a request by the Permittee for a Permit modification, revocation and reissuance, or termination, or the notification of planned changes or anticipated noncompliance does not stay the applicability or enforceability of any Permit Condition (40 CFR §270.30(f)).

I.B.1 Permit Modifications

Permit modifications at the request of the Permittee shall be done as specified by 40 CFR §270.42.

I.B.2 Renewal

This Permit may be renewed as specified in 9VAC 20-60-270.B.6 and 40 CFR §270.10, and Permit Condition I.D.2. Review of any application for a Permit renewal shall consider improvements in the state of control and measurement technology, as well as changes in applicable regulations.

I.C Severability

I.C.1 Provisions

The provisions of this Permit are severable, and if any provision of this Permit or the application of any provision of this Permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this Permit shall not be affected thereby. Invalidation of any Commonwealth or federal statutory or regulatory provision which forms the basis for any condition of this Permit does not affect the validity of any other Commonwealth or federal statutory or regulatory basis for said condition (40 CFR §124.16(a)(2)).

I.C.2 Permit is Stayed

In the event that a condition of this Permit is stayed for any reason, the Permittee shall continue to comply with the conditions of the existing permit which correspond to the stayed conditions until final resolution of the stayed condition, unless the Director determines compliance with the related applicable and relevant interim status standards would be technologically incompatible with compliance with other conditions of this Permit which have not been stayed (40 CFR §124.16(c)(2)).

I.D Duty and Requirements

I.D.1 Duty to Comply

The Permittee shall comply with all conditions of this Permit, except to the extent and for the duration such noncompliance is authorized by an emergency permit, under 40 CFR §270.61. Any other noncompliance of this Permit constitutes a violation of Title 10.1, Code of Virginia (1950, as amended), Chapter 12, and regulations promulgated thereunder and is grounds for enforcement action, Permit termination, revocation and reissuance, modification, or denial of a Permit renewal application (40 CFR §270.30(a)).

I.D.2 Duty to Reapply

If the Permittee wishes to or is required to continue an activity regulated by this Permit after the expiration date of this Permit, the Permittee shall apply for and obtain a new Permit as specified below.

- a. The Permittee shall submit a new and complete application for a new Permit at least 180 days before the Permit expires, unless the Director has approved a later date.
- b. Pursuant to 9VAC 20-60-270.10.h, the Director shall not grant permission for an application to be submitted later than the existing Permit's expiration date (40 CFR §270.30(b)).

I.D.3 Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee in an enforcement action to argue that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit (40 CFR §270.30(c)).

I.D.4 Duty to Mitigate

In the event of noncompliance with the Permit, the Permittee shall take all reasonable steps to minimize releases to the environment, and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment (40 CFR §270.30(d)).

I.D.5 Proper Operation and Maintenance

The Permittee shall at all times properly operate and maintain all facilities and systems of the treatment and controls (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls; including appropriate quality assurance/quality control procedures. This provision requires the operation of back-up or auxiliary facility or similar systems only when necessary to maintain compliance with the conditions of the Permit (40 CFR §270.30(e)).

I.D.6 Duty to Provide Information

The Permittee shall furnish the Director within a reasonable time, any pertinent information which the Director may request to determine whether cause exists for modifying, revoking and reissuing or to determine compliance with this Permit.

The Permittee shall also furnish the Director, upon request, copies of records required to be kept by this Permit (40 CFR §270.30(h)).

I.D.7 Inspection and Entry

The Permittee shall allow the Director or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

- a. Enter at reasonable times upon the Permittee's premise where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Permit;
- b. Have access to and copy, at reasonable times, any records kept under conditions of this Permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and
- d. Sample or monitor, at reasonable times, for the purpose of assuring Permit compliance or as otherwise authorized by 9VAC 20-60, any substance or parameters at any location (40 CFR §270.30(i)).

I.D.8 Reporting Planned Changes

The Permittee shall give notice to the Director of any planned physical alterations or additions to the permitted facility. This notice shall include a description of all incidents of noncompliance reasonably expected to result from the proposed changes (40 CFR §270.30(l)(1)).

I.D.9 Anticipated Noncompliance

The Permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with the Permit requirements (40 CFR §270.30(l)(2)).

I.D.10 Twenty-four Hour Reporting

The Permittee shall report to the Director any noncompliance, which may endanger human health or the environment. Information shall be provided orally within twenty-four (24) hours from the time the Permittee becoming aware of the circumstances and shall include the following:

- a. Information concerning the release of any hazardous waste that may cause endangerment to public drinking water supplies;

- b. Any information of a release or discharge of hazardous waste, or of a fire or explosion at the facility, which could threaten the environment or human health outside the facility;
- c. The description of the occurrence and its cause shall include at least the following:
 - i. Name, address, and telephone number of the owner or operator;
 - ii. Facility name, address, and telephone number;
 - iii. Date, time, and type of incident;
 - iv. Name and quantity of material(s) involved;
 - v. The extent of injuries, if any;
 - vi. Assessment of actual or potential hazard to human health and the environment outside the Facility; and
 - vii. Estimated quantity and disposition of recovered material that resulted from the incident (40 CFR §270.30 (1)(6)).
- d. A written submission shall also be provided to the Director within five (5) days of the time the Permittee becomes aware of the circumstances. The written submission shall contain, at a minimum, the following:
 - i. A description of the noncompliance and its cause;
 - ii. The periods of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated duration of the noncompliance; and
 - iii. The steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
- e. The Director may waive the five (5) day notice requirement in favor of a written report within fifteen (15) days of the time the Permittee becomes aware of the circumstances (40 CFR §270.30(1)(6)(iii)).

I.D.11 Other Noncompliance

The Permittee shall report all other instances of noncompliance not otherwise required to be reported above, at the time monitoring reports are submitted. The

reports shall contain, at a minimum, the information listed in Permit Condition I.D.10 (40 CFR §270.30(1)(10)).

I.D.12 Other Information

Whenever the Permittee becomes aware that it failed to submit any relevant facts in the Permit application, or submitted incorrect information in a permit application or in any report to the Director, the Permittee shall promptly submit such facts or information to the Director (40 CFR §270.30(1)(11)).

I.E Monitoring and Records

I.E.1 Monitoring Reports

Monitoring shall be performed and results shall be reported at the intervals specified in the Permit.

I.E.2 Samples and Measurements

Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity (40 CFR §270.30(j)(1)). The method used to obtain a representative sample of the waste to be analyzed must be the appropriate method specified in 40 CFR §261, Appendix I, or an equivalent method approved by the EPA. Laboratory methods must be those specified in *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846* (3rd ed.; November, 1986, as updated), *Standard Methods of Wastewater Analysis* (16th ed.; 1985, as updated), or an equivalent method approved by the EPA. Additionally, the laboratory must be accredited for the analytical method, matrix and target analyte (where applicable) by the Virginia Environmental Laboratory Accreditation Program (“VELAP”).

I.E.3 Records of All Monitoring Information

The Permittee shall retain records of all monitoring information, including all calibration and maintenance records, and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this Permit, all certifications required by 40 CFR §264.73(b)(9), and records of all data used to complete the application for this Permit, for a period of at least three (3) years (or longer if specified elsewhere in this Permit) from the date of the sample collection, measurement, report, certification, or application. These retention periods may be extended by the request of the Director at any time and are automatically extended during the course of any unresolved enforcement actions regarding this facility. The Permittee shall maintain records from all groundwater monitoring wells and associated groundwater surface elevations, for

the active life of the facility, and for disposal facilities for the post-closure care period as well.

- a. Records of monitoring information shall include, at a minimum:
 - i. The date, exact place, and time of sampling or measurements;
 - ii. The individual(s) who performed the sampling or measurements;
 - iii. The date(s) analyses were performed;
 - iv. The individual(s) who performed the analyses;
 - v. The analytical techniques or test methods used; and
 - vi. The results of such analyses (40 CFR §270.30(j)).

I.F Compliance Not Constituting Defense

Compliance with the terms of this Permit does not constitute a defense to any action brought under Chapter 14, Article 8 of Title 10.1, Code of Virginia (1950, as amended), or any other Commonwealth law governing protection of the public or the environment.

I.G Transfer of Permits

This Permit is not transferable to any person except after notice to the Director (40 CFR §270.30(l)(3)). The Director may require modification or revocation and reissuance pursuant to 40 CFR §§124.5, 270.40, 270.41, 270.42, and 270.43 to change the name of the Permittee and incorporate such other requirements as may be necessary. Before transferring ownership or operation of the facility during its operating life, the Permittee shall notify the new owner or operator in writing of the requirements of 9VAC 20-60-264 and 40 CFR Parts 264 and 270 and at the same time shall send a copy of such notice to the Director (40 CFR §264.12(c)).

I.H Permit Expiration and Continuation

Pursuant to 9VAC 20-60-270 B.15, this Permit will remain in force until the effective date of a new Permit if the Permittee has submitted a timely, complete application pursuant to Permit Condition I.D.2, and through no fault of the Permittee, the Director has not issued a new Permit with an effective date on or before the expiration date of this Permit. All conditions of the continued Permit shall remain fully effective and enforceable (40 CFR §270.51).

I.I Reports, Notifications, and Submissions to the Department

I.I.1 Annual Report

The Permittee shall submit an annual groundwater and CA remedial measures report no later than September 1st of each calendar year in accordance with Permit Condition II.C.

I.I.2 Biennial Report

The Permittee shall comply with the biennial reporting requirements pursuant to 40 CFR §264.75, as applicable.

I.I.3 Duty to Submit Documents

All work plans, reports, notifications or other submissions which are required by this Permit to be sent or given to the Department shall be sent postal mailing, electronically, or be hand-delivered to:

For Corrective Action and Groundwater:

Department of Environmental Quality
Groundwater/Corrective Action Team Lead
Office of Remediation Programs
P.O. Box 1105
Richmond, VA 23218

For Permit Modifications:

Department of Environmental Quality
Hazardous Waste Program Manager
Office of Financial Responsibility and Waste Programs
PO Box 1105
Richmond, VA 23218

Street address:

1111 East Main Street, Suite 1400
Richmond, VA 23219

And one (1) copy of all such correspondence, reports, and submissions shall also be sent to:

Land Program Manager, Valley Regional Office:

Department of Environmental Quality
4411 Early Road
P.O. Box 1129
Harrisonburg, VA 22801

Virginia Program Manager:

Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103-2029
Mail code: (3LD30)

I.I.4 Signatory Requirements

All applications, work plans, reports, and other information submitted shall be signed and certified as specified by 40 CFR §270.11.

I.J Documents to be Maintained at the Facility

I.J.1 Documents

Current copies of the following documents, as amended, revised, and modified, shall be maintained at the facility. These documents shall be maintained until corrective action is completed and certified by the Permittee and by an independent, Virginia-registered professional engineer, unless a lesser time is specified in the Permit.

- a. The Permit, including all attachments, revisions and modifications;
- b. All Part A and B Permit Applications supporting the Permit;
- c. The facility operating record required by 40 CFR §264.73 to the extent applicable;
- d. Inspection schedules and logs required by 40 CFR §§264.15(b)(2) and 264.15(d), as applicable;
- e. Personnel training documents and records required by 40 CFR §264.16 and this Permit, as applicable;
- f. Closure Plans, as required by 40 CFR §264.112(a), as applicable;
- g. Post-Closure Plans, as required by 40 CFR §264.118(a), as applicable;
- h. Groundwater sampling and analysis plans for remedial effectiveness and long term groundwater monitoring required by this Permit;
- i. Operations and maintenance plan required by this Permit;

- j. Corrective Action Work Plans, Reports, and other information and submissions regarding corrective action, as applicable under this Permit; and
- k. All other documents required by Permit Condition(s) I.D.8 through I.D.12 and I.E.

I.K Trade Secret Protection

In accordance with §10.1-1458 of the Code of Virginia (1950, as amended), the Permittee may claim any information this Permit requires, or is otherwise submitted to the Director as trade secret.

- a. Information designated as trade secret submitted pursuant to this section shall be excluded from the provisions of the Virginia Freedom of Information Act as provided in subdivision 26 §2.2-3705.6 of the Code of Virginia. In doing so, the Permittee shall:
 - i. Assert any such claim at the time of submittal;
 - ii. Identify the data or materials for which protection is being sought; and
 - iii. State the reasons why protection is necessary.
- b. Further information regarding trade secret protection, the basis for submittal of such a request, the Department's decision process and handling of trade secret protected information is available on the Virginia Regulatory Town Hall website, <http://townhall.virginia.gov/L/ViewGDoc.cfm?gdid=5322>.
- c. If no claim is made at the time of submittal, the Director may make the information available to the public without further notice.
- d. The Permittee has the burden of substantiating that the claimed information is trade secret, and the Department may request further information regarding such claim, and may reasonably determine which such information to treat as trade secret. The Department may disclose trade secret information to the appropriate officials of the Environmental Protection Agency ("EPA") pursuant to the requirements of the federal Solid Waste Disposal Act, 42 USC §3251, et seq., or as otherwise required by law.

I.L Approval/Disapproval of Submissions

I.L.1 Review

The Department will review the plans, reports, schedules and other documents (hereinafter collectively referred to as "submissions") submitted which require the Department's approval. The Department will notify the Permittee in writing of the Department's approval, conditional approval, or disapproval of each submission.

I.L.2 Approval

Each submission required by this Permit, upon approval by the Department, is incorporated into this Permit. Any noncompliance with a Department-approved submission shall be deemed as noncompliance with this Permit. A conditionally approved submission, including any terms of such conditional approval set forth in Department's decision, shall constitute the Department-approved submission and shall be incorporated into this Permit.

I.L.3 Conditional Approval

In the event of the Department's conditional approval of submission, the Department shall specify in writing any deficiencies in the submission and the terms upon which approval of the submission is conditioned. If the Permittee disputes any term upon which approval of the submission was conditioned, the Permittee may initiate Dispute Resolution pursuant to Permit Condition I.L.

I.L.4 Disapproval

In the event of the Department's disapproval of a submission, the Department shall specify the deficiencies in writing. The Permittee shall modify the submission to correct/address the specified deficiencies within a reasonable time period established by the Department taking into account the tasks to be performed, and submit the revised submission to the Department for approval.

I.L.5 Revision Disproval

If the revised submission is disapproved, the Department will notify the Permittee of the deficiencies in writing and specify a schedule for the Permittee to correct the deficiencies and resubmit the submission to the Department. The Permittee shall correct the deficiencies as directed by the Department, and forward the revised submission within the time period specified by the Department. In the event the Permittee disagrees with the Department's disapproval of the revised submission, the Permittee shall notify the Department in writing and the disagreement shall be resolved in accordance with the Dispute Resolution provision in Permit Condition I.M.

I.M **Dispute Resolution**

I.M.1 Disagreement with Department's Determination

Except as otherwise provided in this Permit, in the event the Permittee disagrees, in whole or in part, with Department disapproval of any submission required by this Permit, the Permittee shall notify the Department in writing of its objections, and the basis thereof, within fourteen (14) days of receipt of the Department's disapproval. Such notice shall set forth the specific matters in dispute, the position(s) the Permittee asserts which should be adopted as consistent with the requirements of the Permit, the basis for the Permittee's position, and supporting documentation considered necessary for the Department's determination.

I.M.2 Resolution

The Department and the Permittee shall have an additional fourteen (14) days from the Department's receipt of the notification to meet or confer to resolve any disagreement /dispute. In the event agreement is reached, the Permittee shall submit the revised submission and implement the same in accordance with such agreement.

I.M.3 Agreement Not Met

In the event the Permittee and the Department are not able to reach an agreement on the dispute items within the additional fourteen (14) day period, the Department will notify the Permittee in writing of its decision on the dispute and the Permittee shall comply with the terms and conditions of the Department's decision in the dispute, subject to Permittee's appeal rights as described in Permit Condition I.L.4 and as otherwise may exist. The Permittee does not waive its right to assert any and all available defenses in a proceeding to enforce this Permit.

I.M.4 Appeal

In the event the Permittee disagrees with the Department's disapproval of a submission or revised submission and the Department's written decision regarding dispute items, the Permittee may file an appeal with the Department within 30 days of the disapproval (as provided for in Rule 2A:2 of the Supreme Court of Virginia).

MODULE II - SITE-WIDE CORRECTIVE ACTION

II.A Corrective Action for Continuing Releases; Protection of Human Health and the Environment

II.A.1 Required Corrective Action

Section 3004(u) of RCRA, 42 United States Code (“USC”) §6924(u), and regulations codified at 40 CFR §264.101, provide that all Permits issued after November 8, 1984 must require corrective action (“CA”) as necessary to protect human health and the environment for all releases of hazardous waste or hazardous constituents from any solid waste management unit (“SWMU”), regardless of when waste was placed in the unit.

II.A.2 Corrective Action Boundary

Under Section 3004(v) of RCRA, 42 USC §6924(v), and 40 CFR §264.101(c), the Department may require that corrective action at a permitted facility be taken beyond the facility boundary where necessary to protect human health and the environment, unless the owner or operator of the facility concerned demonstrates to the satisfaction of the Department that, despite the owner or operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such action.

II.A.3 Terms and Conditions

Section 3005(c)(3) of RCRA, 42 USC §6925(c)(3), and 40 CFR §270.32(b) provide that each Permit shall contain such terms and conditions as the Department determines necessary to protect human health and the environment.

II.B Corrective Measures Implementation

II.B.1 Background

Corrective actions are applicable to the Facility. Facility description, background, and environmental history are provided in Permit Attachment B.

II.B.2 Final Remedy Selection

Based on the findings reported in the RCRA Facility Investigation (“RFI”) the Department concluded that historical operations at the facility resulted in soil and groundwater contamination. Such releases were abated and there are no ongoing releases to the surface or subsurface. In addition, all operations and waste management at the facility have ceased. The WJC Facility is no longer in operation. All buildings were demolished down to their concrete slabs and

equipment associated with the former operations has been removed from the Facility. Documentation for completion of site-wide investigation reports and studies were compiled by the Department and comprises the Administrative Record. Based on the results, the final remedy for the Facility was developed and is described in the Statement of Basis, dated November 2019. The requirements of this Permit provide for the operation and maintenance of the remedy described in the Statement of Basis.

II.B.3 Remedy Controls

The goal of the remedy for site-wide corrective action is to ensure protection of human health and the environment. The final remedy for the Facility consists of active remediation, long-term groundwater monitoring, and implementing Institutional and Engineering Controls, as set forth in the Permit. Institutional Controls (“ICs”) are generally non-engineered mechanisms such as administrative and/or legal controls that minimize the potential for human exposure to contamination and/or protect the integrity of a remedy. Engineering Controls (“ECs”) are generally engineered mechanisms such as a landfill cap.

II.B.4 Final Remedy Actions

The details of the final remedy are summarized below and are described in more detail in the Statement of Basis and Administrative Record. Minor modifications in the activities, studies, techniques, procedures, and designs or schedules utilized in carrying out the requirements of this Permit and necessary for the operations and maintenance (“O&M”) and/or completion of the remedy may be made by written agreement from the Department. Under this final remedy, the Department is requiring the following actions:

- a. Maintain existing engineering controls (“ECs”) consisting of a RCRA cap at SWMU 6 (former wastewater impoundment). Continue to conduct routine inspections, documentation, and maintenance of the controls and cap;
- b. Implement and maintain institutional controls (“ICs”), including property use restrictions for groundwater and soil in accordance with Permit Condition II.B.5;
- c. Continue remedial efforts utilizing the in-situ chemical oxidation (“ISCO”) technology or other groundwater remediation technology approved by the Department; and
- d. Continue the groundwater and surface water monitoring programs to monitor the progress of the remedial measures and the attenuation of contaminants of concern (“COCs”) in groundwater until remediation

goals for groundwater have been met and maintained. Groundwater remediation goals for the Facility are shown in Permit Attachment C.

II.B.5 Final Remedy Implementation

Within ninety (90) days of the effective date of the Permit renewal with incorporating the Final Remedy, the Permittee shall submit to the Department for approval a Corrective Measures Implementation (“CMI”) Plan for operation and maintenance of the final remedy and post-closure care requirements. The CMI Plan will include the active remediation, groundwater monitoring program and monitoring well network, remedial effectiveness monitoring, sampling and analysis, reporting, and implementation and maintenance of institutional and engineering controls. All components of the remedy shall be implemented in accordance with the Department approved CMI Plan.

- a. Institutional and engineering controls include:
 - i. The following Facility parcels: parcel IDs 056A3-00-00-01200, 05600-00-00-08300, and 05600-00-00-09400; shall not be used for residential purposes or for children’s (under the age of 16) daycare facilities, schools, or playground purposes;
 - ii. Groundwater beneath the property shall not be used for any purposes except for environmental monitoring and testing, or for non-contact industrial use as approved by the Department. Any new groundwater wells installed at the facility must be approved by the Department;
 - iii. Excavation and disturbance of the RCRA capped area [SWMU 6] shall be prohibited without prior approval from the Department;
 - iv. Future modifications at the property that could be reasonably understood to adversely affect or interfere with the integrity or protectiveness of the final remedy, will be evaluated by DEQ to identify and address unacceptable potential impacts or interferences with corrective measures or Facility environmental conditions. DEQ shall approve any requested removal, disturbance, or alteration at the property, including, but not limited to groundwater monitoring wells, unless the removal, disturbance, or alteration violates a deed restriction or creates unacceptable risk to human health or the environment; and
 - v. Vapor intrusion mitigation measures shall be installed in any existing or newly constructed totally enclosed building(s) designed for occupation within 100 feet of the footprint of groundwater

having Facility-related volatile organic compounds (“VOCs”) and semi-volatile organic compounds (“SVOCs”) identified above protective levels, unless it is demonstrated to DEQ that vapor mitigation is not necessary to protect human health. The method of assessment will be based on current DEQ and/or EPA risk assessment guidance. Vapor intrusion mitigation measures may be waived with DEQ approval based upon a demonstration that mitigation measures are not necessary for protection of human health.

- b. The Permittee shall, at a minimum, provide coordinate surveys for applicable property use restrictions that meet the following requirements:
 - i. Define the boundary of each use restriction as a polygon; and
 - ii. Establish the longitude and latitude of each polygon vertex as follows:
 - 1. Decimal degrees format;
 - 2. At least seven decimal places;
 - 3. Negative sign for west longitude; and
 - 4. WGS 1984 datum.

II.C Evaluation of the Selected Remedy

The Permittee shall submit an annual progress report by September 1 of each following year covering the corrective measure(s) remedy performance and shall continue to submit annual groundwater monitoring and remedial measures reports until remedial cleanup requirements have been met. If the Department determines that the selected remedy will not comply with the media clean-up requirements, the Department may require the Permittee to perform additional studies and/or perform modifications to the existing corrective action remedy. If necessary, the Department or the Permittee may seek modification of this Permit pursuant to 40 CFR §§270.41 or 270.42 and 124.5 to implement modifications to the existing corrective measures remedy.

II.D Emergency Response and Release Reporting

II.D.1 Emergencies

If, at any time during the term of this Permit, the Permittee discovers that a release of hazardous waste or hazardous constituents at or from the Facility is presenting or may present an imminent and substantial endangerment to human health or the environment, the Permittee shall:

- a. Notify the Department as soon as practicable of the source, nature, extent, location, and the amount of such release, the endangerment posed by such release and the actions taken and/or to be taken, to the extent known, to address such release. Such notification shall also be confirmed in writing within five (5) days of discovery of such release as required in Permit Condition I.D.10; and
- b. Unless otherwise directed by the Department, immediately take such actions as are necessary and appropriate to address such release.

II.D.2 Releases

The Permittee shall notify the Department in writing of the nature, source, extent, and location of a release of hazardous waste or hazardous constituents at or from the Facility within seven (7) days of discovery of such release which:

- a. Is not being addressed by corrective measures at the time of such discovery; and
- b. Is not being addressed pursuant to Permit Condition II.D.1, Emergencies.

II.D.3 Requirements of SWMU and AOC

Based on the information submitted in Permit Condition II.D.2, Releases, the Department may require the SWMU and/or AOC to be included in a RCRA Facility Investigation (“RFI”) or may require Interim Measures (“IM”) be undertaken to address the release.

II.E Department’s Authority

Nothing in this Permit shall limit the Department’s authority to undertake or require any person to undertake response action or corrective action under any law, including but not limited to, Sections 104 or 106 of CERCLA, 42 USC §§9604 or 9606, and Section 7003 of RCRA, 42 USC §6973. Nothing in this Permit shall relieve the Permittee of any obligation it may have under any law, including, but not limited to, Section 103 of CERCLA, to report releases of hazardous waste, hazardous constituents or hazardous substances to, at or from the Facility.

II.F Guidance Documents

Any corrective action performed at the facility shall be in general accordance with relevant and applicable EPA RCRA corrective action guidance available at: <https://www.epa.gov/hwcorrectiveactionsites/corrective-action-resources-specific-epas-region-3>.

II.G Solid Waste Management Unit (“SWMU”) Assessment

II.G.1 Newly Identified SWMU

The Permittee shall notify the Department and the EPA Region III, in writing, of any newly identified SWMU at the Facility, no later than thirty (30) days after the date of discovery. The notification shall include, but not be limited to, the following known information:

- a. A description of the SWMUs type, function, dates of operation, location (including a map), design criteria, dimensions, materials of construction, capacity, ancillary systems (e.g., piping), release controls, alterations made to the unit, engineering drawings, and all closure and post-closure information available, particularly whether wastes were left in place;
- b. A description of the composition and quantities of solid wastes processed by the units with emphasis on hazardous wastes and hazardous constituents;
- c. A description of any release (or suspected release) of hazardous waste or hazardous constituents originating from the unit including:
 - i. Information on the date of release, type of hazardous waste or hazardous constituents, quantity of the release, nature and extent of release migration, and cause of release (e.g., overflow, broken pipe, tank leak, etc);
 - ii. Any available data that quantifies the nature and extent of environmental contamination, including the results of soil and/or groundwater sampling and analysis efforts; and
 - iii. Any existing monitoring information that indicates releases of hazardous waste or hazardous constituents has not occurred or is not occurring; and
- d. A discussion of the need for and feasibility of implementing interim measures immediately.

II.G.2 New SWMU Determination

Upon receipt of the notification of any newly identified SWMU, the Department will determine the need for corrective action at such SWMU. If corrective action is necessary to protect human health or the environment, the Department will determine whether a RCRA Facility Investigation (“RFI”) will be performed and the need for and scope of any Interim Measures (“IM”) for a newly identified SWMU.

II.G.3 Actions for New SWMU

Within sixty (60) days after receipt of the Director’s determination that a RFI or IMs is necessary, the Permittee shall submit a RFI Work Plan or IMs Work Plan that meets the applicable guidance. The Department’s determination shall either specify the media and/or parameters to be investigated or shall require the Permittee to propose and justify the selection of media and/or parameters.

II.G.4 Reports

Within the time specified in the approved RFI Work Plan or IM Work Plan, the Permittee shall submit the RFI Report or IM Report. The reports will provide all data necessary for the Department to determine whether a Corrective Measures Study (“CMS”) or additional IM Work Plan is required.

II.G.5 RCRA Facility Investigation and Corrective Measures

In lieu of a separate RFI, the Permittee may propose to incorporate any newly identified SWMU into the ongoing corrective measures. Any such proposal shall be submitted to the Department along with notification of the discovery of the SWMU(s).

II.H Financial Assurance

II.H.1 Initial Cost Estimate

Assurances of financial responsibility for corrective action must be provided in accordance with conditions herein. The Permittee shall submit an initial cost estimate for completion of the approved remedy(s) as a component of the CMI Work Plan.

II.H.2 Cost Estimates Updated

The cost estimate for completing the approved remedy(s) shall be updated pursuant to any changes or modifications to the final remedy approved by the Department.

- a. Within ninety (90) calendar days of receipt of the Department's written approval of modifications to the final remedy, the Permittee shall submit an updated cost estimate to the Department.

II.H.3 Financial Assurance Demonstration

Within thirty (30) calendar days of approval of any initial or revised cost estimate, the Permittee shall demonstrate to the Department financial assurance for the initial or updated cost estimates.

II.I Community Relations

The Permittee shall implement actions as necessary to meet the information needs of the community during implementation of corrective measures at the Facility.

II.I.1 Actions

Documents comprising the Administrative Record shall be made available in either electronic or hard copy format upon request.

- a. Upon request from the Department, the Permittee shall distribute fact sheets and other information to persons on the Facility mailing list maintained by the Department; and
- b. Upon request from the Department due to the identification of any new significant information, the Permittee shall conduct a public meeting as necessary to comply with regulatory requirements.

II.J Recordkeeping

Upon completion of closure of any SWMU, the Permittee shall maintain in the Facility operating record, documentation of the closure measures taken.

II.K Access for Corrective Action Oversight

The Department and its authorized representatives shall have access to the Facility at all reasonable times for the purpose of monitoring compliance with the provisions of this Permit. The Permittee shall use its best efforts to obtain access to property beyond the boundaries of the Facility at which corrective action is required by this Permit (Section 3004(v) of RCRA, 42 USC §6924(v) and 40 CFR §264.101(c)) for: (1) the Permittee and any contractor of the Permittee for the purpose of taking corrective action required by this Permit; and (2) the Department and its authorized representatives for the purposes described in this paragraph.

II.L Completion of Remedy

The Permittee shall submit a written notification and certification to the Department stating that the remedy has been completed and remedial goals have been attained in accordance with requirements of this Permit. The certification must be signed by the Permittee and by an independent, Virginia registered professional engineer. No later than 90 days after receipt of notification and certification from the Permittee, the Department shall either approve or deny the determination of remedy completion.

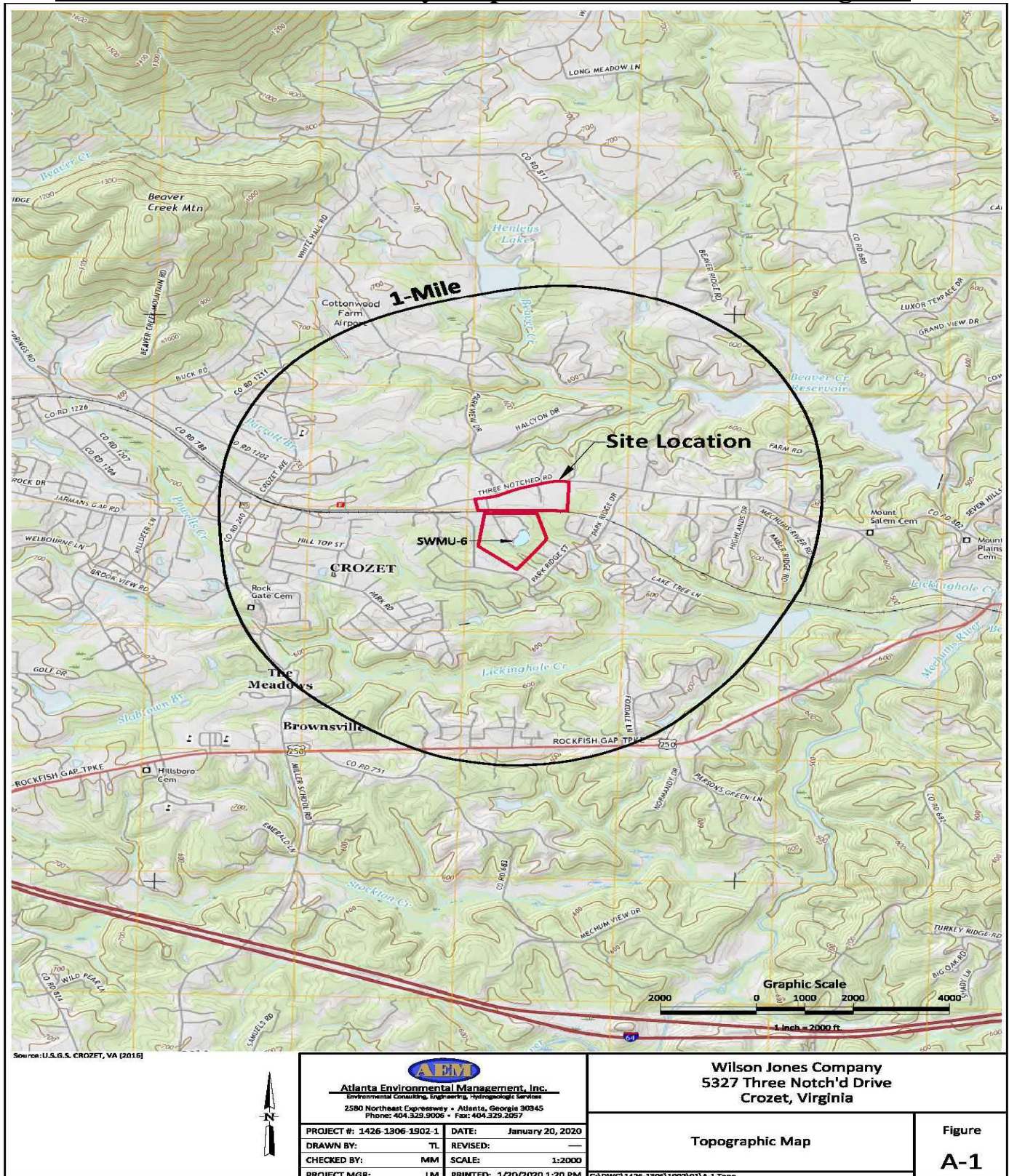
II.L.1 No Permit Conditions Remain

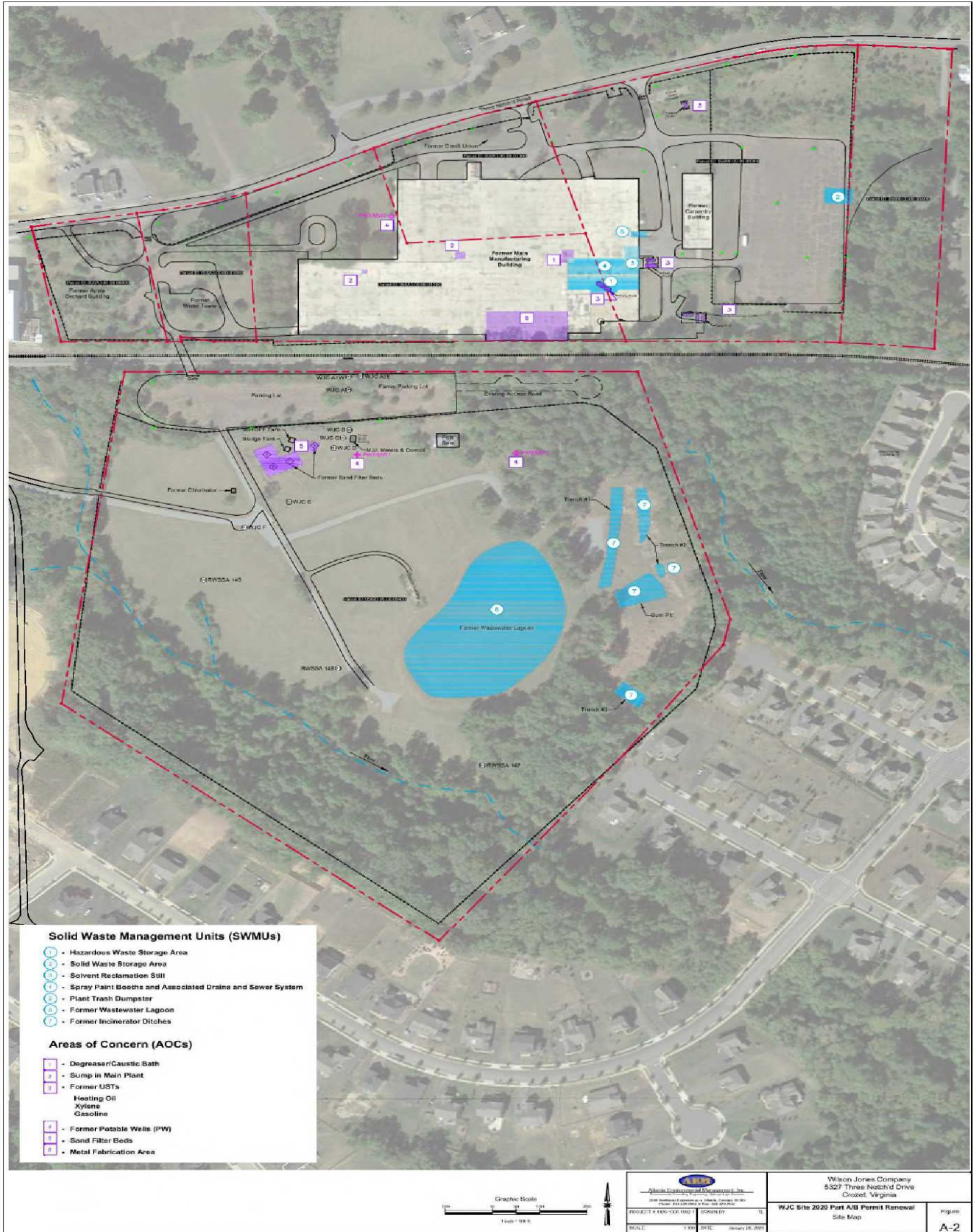
In cases where no other permit conditions remain, the Permit may be modified not only to reflect the determination that remedy controls are no longer necessary, but also to change the expiration date of the Permit to allow for earlier Permit expiration in accordance with 40 CFR §§124, 270.41, and 270.42, as applicable.

II.M Well Abandonment

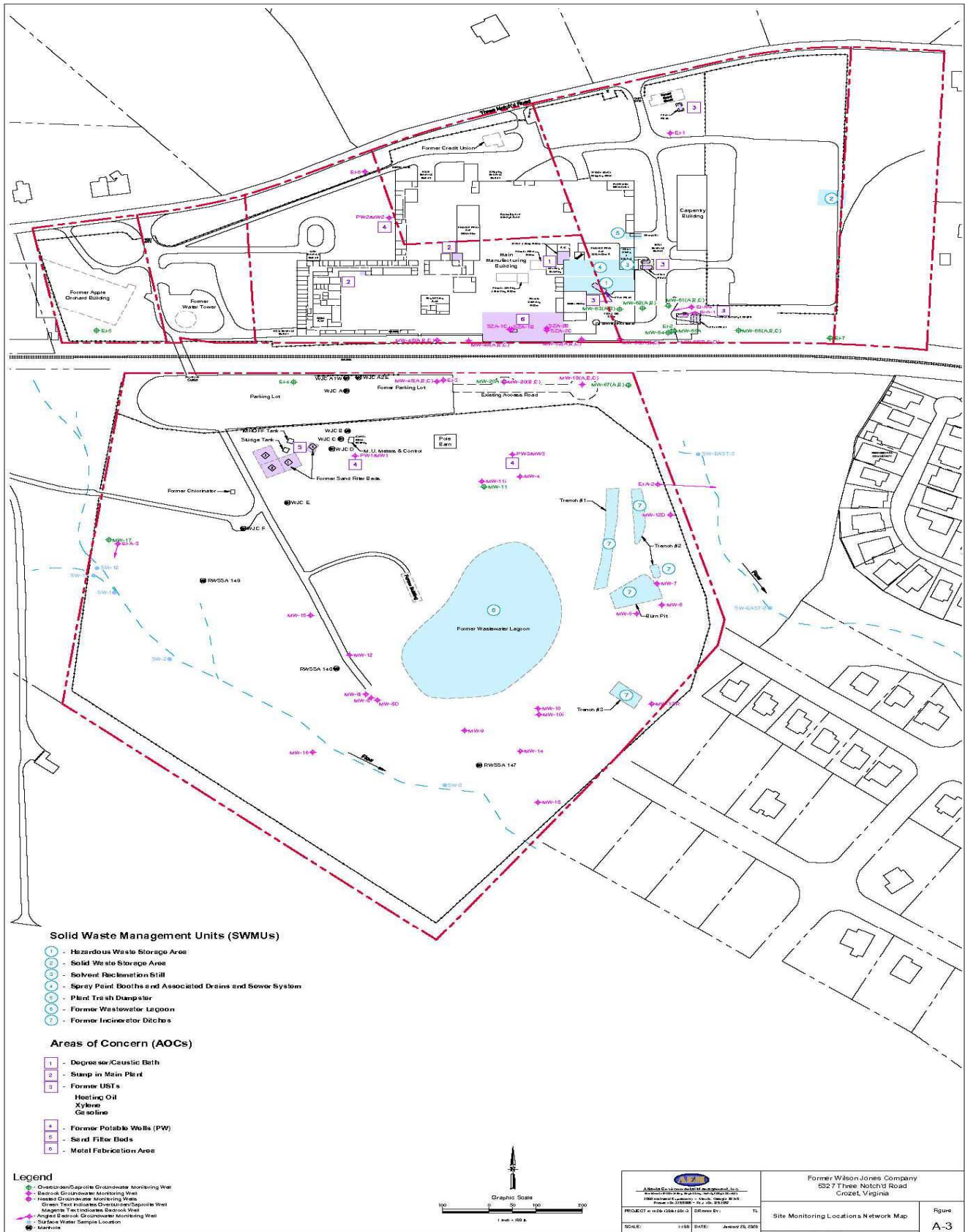
Upon completion of the remedy or as needed in the interim, the Permittee shall request approval for abandonment of all monitoring wells, observation wells, and remediation wells from the Department prior to implementing well abandonment activities. All wells that are to be abandoned shall be plugged and abandoned in general accordance with 12VAC 5-630-420 and 12VAC 5-630-450. Chlorination of each well is not required. An effort to remove the well casing and associated materials shall be made at each well prior to abandonment. A report including methods and certification shall be submitted to the Department within thirty (30) days following the completion of abandonment. The Permittee may propose alternate methods for well abandonment and must obtain approval from the Department prior to implementation.

ATTACHMENT A - Facility Maps, Deed Covenant, and Figures





Attachment A-2



Attachment A-3

BK1316PG0621

NOTICE OF ENVIRONMENTAL CLOSURE

007083

THIS NOTICE OF ENVIRONMENTAL CLOSURE (this "Notice") is made as of the 14th day of June, 1993, by WILSON JONES COMPANY, a Delaware corporation, having an office at 1700 East Putnam Avenue, Old Greenwich, Connecticut 06870 (the "Owner"), and is prepared pursuant to Section 9.6 of the Virginia Hazardous Waste Management Regulations ("VHWMR").

RECITALS:

WHEREAS, Owner is the owner in fee simple of certain real property east of the Town of Crozet, in the County of Albemarle, Virginia, more particularly described in Exhibit A, attached hereto, and specifically made a part hereof (the "Property"); and

WHEREAS, a wastewater surface impoundment (the "Surface Impoundment") was located on a portion of the Property for the treatment of wastes, including wastes deemed by the Virginia Department of Environmental Quality ("VDEQ") to be hazardous as defined by the VHWMR, which portion of the Property is more particularly described in that plat dated June 7, 1993 made by Roudabush, Gale & Assoc., Inc., attached hereto and specifically made a part hereof as Exhibit B (the "Restricted Area"); and

WHEREAS, a closure of the Surface Impoundment was completed on February 11, 1993, pursuant to plans approved by the Virginia Department of Waste Management, the predecessor to the VDEQ; and

WHEREAS, the VHWMR require the Owner of the Restricted Area to file a notice relating to prior activities at the Restricted Area.

Therefore, all grantees, mortgagees, lessees, transferees, successors, assignees, and other persons dealing with respect to all or part of the Restricted Area are hereby notified that:

1. The Restricted Area has been used to manage wastes, including wastes deemed hazardous by the VDEQ as described above.

2. The use of the Restricted Area is restricted under Section 9.6 of the VHWMR.

Page 2 of 5

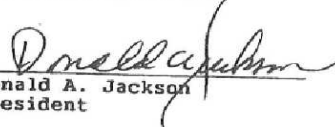
BK 1316 PG 0622

3. A survey plat and a record of the type, location, and quantity of wastes that were disposed in the Surface Impoundment prior to closure were filed with the Zoning Department of the County of Albemarle and with the Director of the Waste Division of the VDEQ.

IN WITNESS WHEREOF, Owner has executed this Notice as of the date first written above.

OWNER:

WILSON JONES COMPANY,
a Delaware corporation.

By 
Donald A. Jackson
President


This document, after recording, should be mailed to:

Jonathan R. Pawlow, Esq.
Chadbourne & Parke
1101 Vermont Avenue, N.W.
Washington, D.C. 20005
(202) 289-3000

STATE OF CONNECTICUT
COUNTY OF FAIRFIELD

ss: Old Greenwich, 6/14/93

Before me, a Notary Public, in and for said State and County, this 14th day of June, 1993, personally appeared Donald A. Jackson as President of Wilson Jones Company, known to me to be the same, who acknowledged the execution of the foregoing Notice as his free act and deed and as the free act and deed of said Company by virtue of proper authority vested in him by the Board of Directors of said Company, for the uses and purposes therein set forth.



Notary Public, State of Connecticut

My Commission Expires ~~31~~ 31 ~~1993~~ 1993

-2-

Page 3 of 5

EXHIBIT A

BK1316PG0623

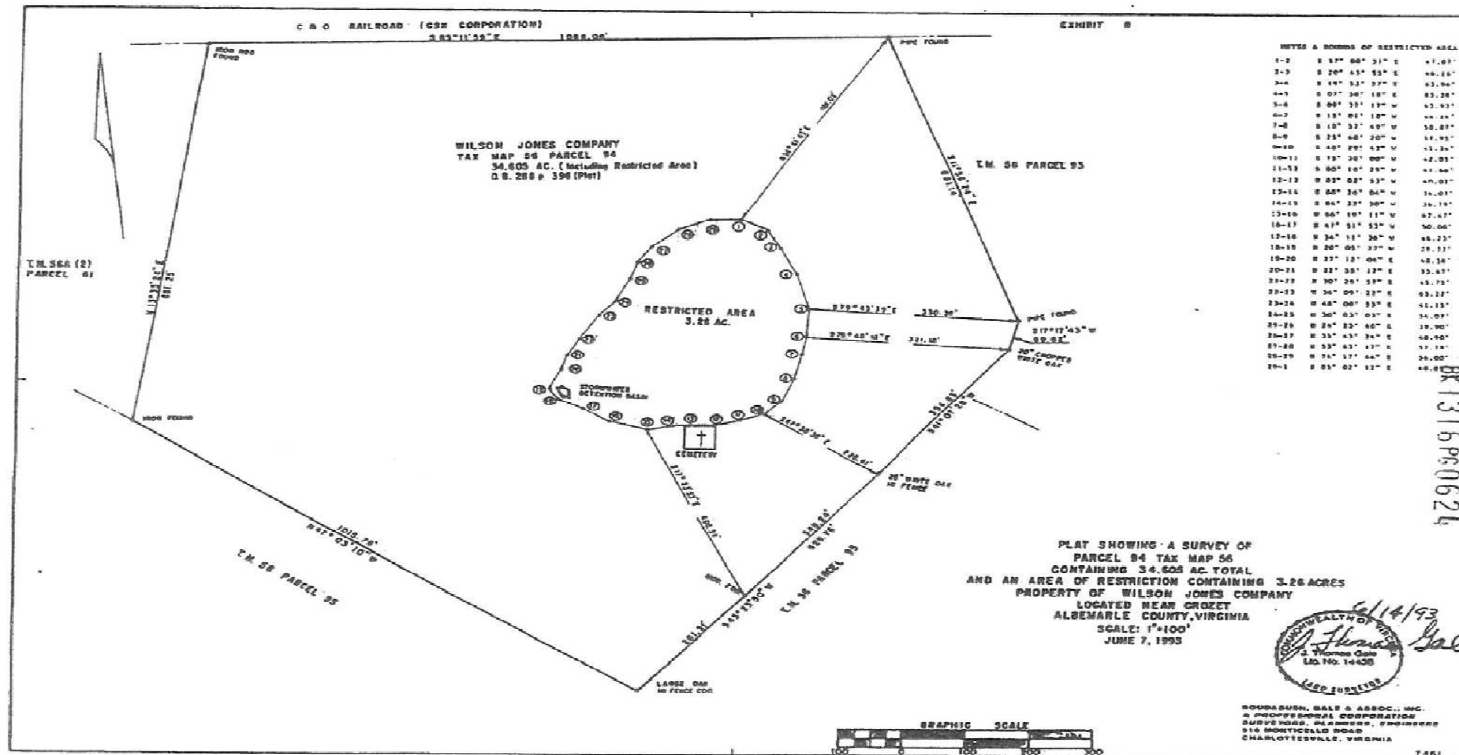
Tract No. 6, as shown on plat of O.R. Randolph, Engineer, revised May 24, 1960, containing 28.78 acres, and being in all respects the same property conveyed to Acme Visible Records, Inc. by paragraph First of the deed from Junius R. Fishburne, Special Commissioner in the Chancery Cause of Belton v. Belton, dated April 6, 1950, of record in the Clerk's Office of the Circuit Court of Albemarle County, Virginia in Deed Book 288, Page 397.

LESS AND EXCEPT so much of Tract No. 6 that was conveyed to ITT Continental Baking Company by deed dated April 29, 1970, recorded in Deed Book 473, Page 584.

Reference is hereby made to said plat and to the deeds above referenced to for a more complete description of Tract No. 6.

BEING the same property conveyed to WILSON JONES COMPANY by deed from AVR LAND CORPORATION, a Virginia corporation, dated December 18, 1992, recorded in the Clerk's Office, Circuit Court, Albemarle County, Virginia, in Deed Book 1278, Page 0596.

1572G



Book: 1316 Page: 621 FileNumber: 1993-00007083 Seg: 4

Page 4 of 5

Page 5 of 5

BK1316PG0625

VIRGINIA: IN THE CLERK'S OFFICE OF THE CIRCUIT COURT OF ALBEMARLE:

THIS DEED WAS PRESENTED, AND WITH CERTIFICATE ANNEXED, IS ADMITTED

TO RECORD ON JUNE 16, 1993, AT 9:20 O'CLOCK A M.


STATE TAX	\$		(039)
LOCAL TAX	\$		(213)
TRANSFER FEE	\$		(212)
VSLF	\$	<u>1.00</u>	(145)
CLERK'S FEE	\$	<u>12.00</u>	(301)
PLAT	\$	<u>2.00</u>	
SEC. 58.1-802:			
STATE TAX	\$		(038)
LOCAL TAX	\$		(220)
LOCAL TAX	\$		(223)
TOTAL	\$	<u>15.00</u>	

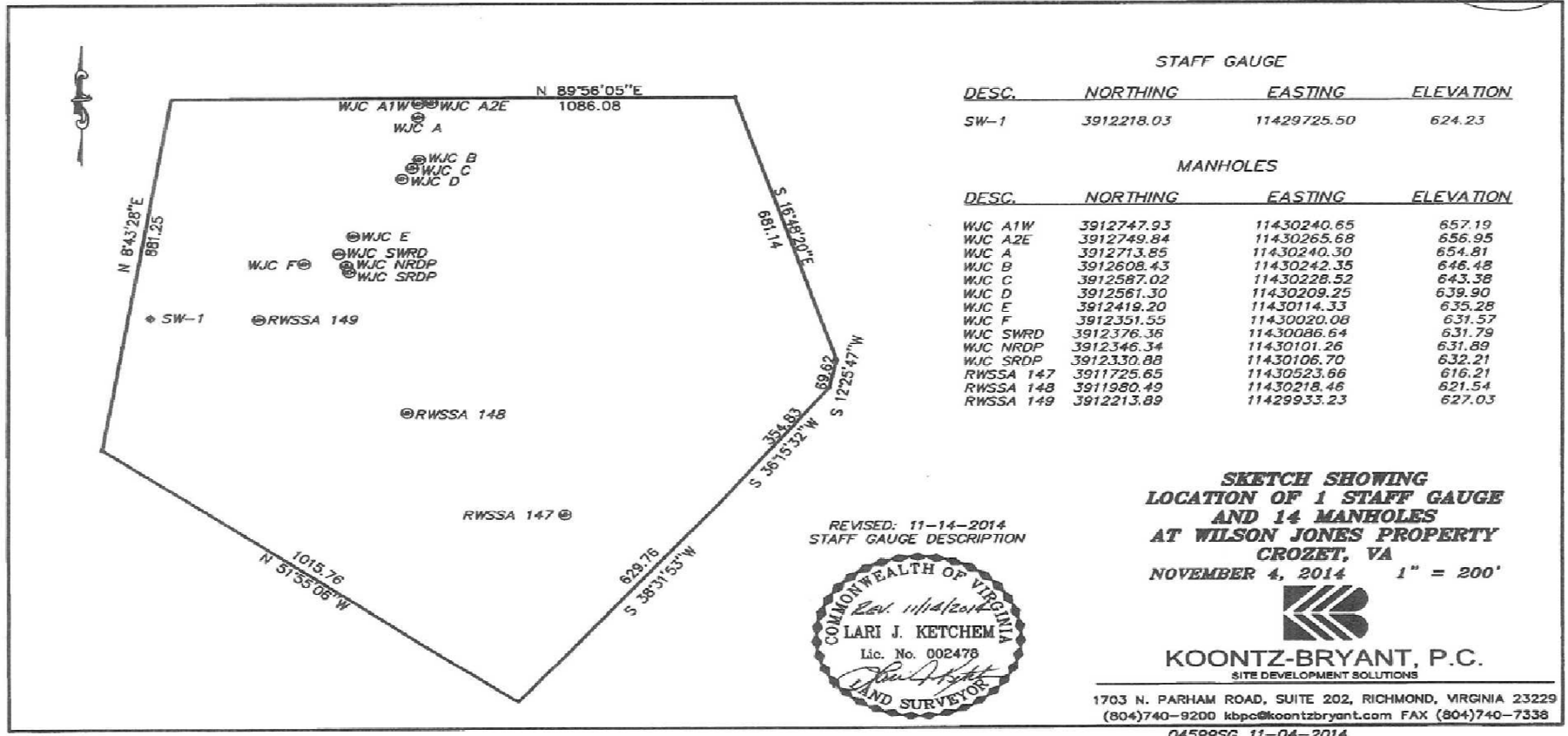
TESTE:

SHELBY J. MARSHALL, CLERK

BY: Rm Gibson

DEPUTY CLERK

USED FOR Boundary
 clarity (marking &
 easting)
 4-29-15 



REVISED: 11-14-2014
 STAFF GAUGE DESCRIPTION



**SKETCH SHOWING
 LOCATION OF 1 STAFF GAUGE
 AND 14 MANHOLES
 AT WILSON JONES PROPERTY
 CROZET, VA
 NOVEMBER 4, 2014 1" = 200'**



KOONTZ-BRYANT, P.C.
 SITE DEVELOPMENT SOLUTIONS

1703 N. PARHAM ROAD, SUITE 202, RICHMOND, VIRGINIA 23229
 (804)740-9200 kbpc@koontzbryant.com FAX (804)740-7338
 04599SG_11-04-2014

ATTACHMENT B

Facility Background, SWMUs and AOCs, and Environmental History

Attachment B - Facility Background, SWMUs and AOCs, and Environmental History

Facility Description

The Wilson Jones Company facility (hereafter referred to as “WJC” or “Facility”) is located at 5327 Three Notch’d Road on the eastern edge of Crozet, Virginia. This location to the south of Virginia State Route 240, approximately one (1) mile east of the intersection of Virginia State Routes 240 and 810 and approximately ten (10) miles west of Charlottesville, Virginia is depicted in Permit Attachment A, Figure A-1. The Facility has a total area of 62 acres that is traversed by railroad tracks owned by the Chesapeake and Ohio Railway Company. The entire property consists of seven (7) parcels each identified with a unique parcel identification number, as depicted in Permit Attachment A, Figure(s) A-2 and Figure A-3.

Prior to 1950, the property was residential/agricultural. In 1954, the plant began manufacturing office/record storage and retrieval equipment (file cabinets, bookcases, desks) as Acme Visible Records, Inc. (“AVR”). Printed folders were manufactured from 1954 to 1975, and again from early 1989 to the early 2000’s. Operations remained relatively unchanged over the history of the plant. On December 19, 1988, the business assets (including the name) of Acme were sold by WJC to AVR who operated the manufacturing plant until December 1992, when Acme Design Technology, Co. Manufacturing purchased the operations which included folder fabrication and printing, and metal fabrication, painting, assembly, and shipping and ceased in 2001.

The manufacturing operations generated hazardous waste that include: barium (D005), benzene (D018), chromium (D007), trans-1,2-dichloroethene (“1,2-DCE”) (D028), mercury (D009), trichloroethene (“TCE”) (D040) and methylene chloride (F002) detected in the industrial wastewaters routed to the lagoon. The northern portion of the Facility historically included several structures, which have been demolished incrementally over time. Most notably, demolition activities were completed for the final three buildings during years 2013 and 2014, which included the former main manufacturing building, a separate warehouse formerly utilized as an assembly and manufacturing area (i.e., most recently leased by a private carpentry business), and a former residential structure formerly used as a credit union. The concrete foundation slabs and below-ground infrastructure currently remain for both the former main manufacturing building and the former assembly and manufacturing building. Additional minor demolition activities were performed during June and July 2018 to remove several surface structures located on the south side of the WJC Facility. These structures were associated with the former small wastewater treatment facility and were removed in order to facilitate the soil Interim Measures excavation and disposal task.

Closure and Remediation Activities

Based on a review of files maintained by the Department and EPA Region III, a number of solid waste management units (“SWMUs”) and Areas of Concern (“AOCs”) were identified at the Facility. A Facility layout map is included as Permit Attachment A, Figure A-2 showing the location of each SWMU and AOC. Permit Attachment B, Table B-1 lists each SWMU and AOC. The following sections outline the closure and remedial activities performed at this Facility.

Trenches Investigation (SWMU 7)

In 1988, the Facility began an investigations of the suspected ditch area and trenches associated with the Former Incineration and Disposal Trenches (SWMU 7). The suspected area was initially investigated in 1988 by conducting a soil gas survey and magnetometer to identify the location of the ditches. A follow up sampling effort consisting of three (3) test pits was then conducted. Observations from this sampling event identified stained materials and other solids in these areas. Analysis of soil samples collected from the suspected ditch disposal area indicated the presence of volatile organic compounds (“VOCs”).

Soil and Groundwater Investigation

Between 1991 and 1992, additional soil and groundwater investigation were conducted. Twenty-eight (28) soil borings were advanced to evaluate the vertical extent and nature of buried residual material in the trenches. Twenty-six (26) test pits and six (6) monitoring wells were installed to characterize the groundwater quality in the area of the trenches. Results of the soil and groundwater sampling indicated elevated levels of VOCs and metals, which in most cases, coincided with the location of waste material.

Former Wastewater Lagoon (SWMU 6)

In 1954, when operations commenced, the industrial wastewaters were derived from the paint spray booth waterfalls, metal parts preparation bath and waters, hot and cold stripping rinse water, paint shop washer and chill water overflow, 3-stage paint washer, various sinks and floor drains wastewater, noncontact cooling water from the air conditioning system, boiler and cooling water blowdown, and storm water were routed to a 1.6-acre wastewater surface impoundment (former wastewater lagoon (SWMU 6)).

Surface Impoundment Sludge Testing and Removal

On May 28, 1987 and June 3, 1987, the sludge on the bottom of the surface impoundment was sampled to determine if the sludge contained toxic metals and if any listed hazardous waste may have been discharged into the surface

impoundment. It was determined that the sludge did not contain metals above the maximum allowable limits under the extraction procedure (“EP”) toxicity test and that the listed hazardous waste, methylene chloride (F002), generated from the paint stripping and removal operation, had been discharged into the surface impoundment (SWMU 6).

On December 3, 1987, the surface impoundment was identified as a regulated hazardous waste management unit based on the discharge to the surface impoundment exceeded the 25 ppm exclusion as specified in 40 CFR §261.3(a)(2)(iv)(B).

Between August and September 1988, the inventory reduction involved the pumping of an estimated 1.5 million gallons of free liquids into a sanitary sewer system maintained by the Rivanna Water and Sewer Authority (with their approval), and the removal and disposal of approximately 2,500 cubic yards of sludge from the surface impoundment.

Enforcement Order

December 18, 1990, the Department and the Permittee entered into an enforcement order, requiring the submission of the following: a closure plan; a contingent closure plan; a contingent post-closure plan; a groundwater monitoring plan; documentation of financial assurance for closure, contingent closure, and contingent post-closure care. The Permittee paid \$4500 to the Virginia Environmental Emergency Response Fund as voluntary settlement for the infractions discussed above.

Surface Impoundment (SWMU 6) Closure

Between February and April 1992, the required plans were submitted and approved, and quarterly groundwater sampling began. Clean closure of SWMU 6 could not be achieved using the random sampling approach as specified in the closure plan, therefore, contingent closure was implemented, completed, certified, and a Notice of Environmental Closure and the restrictions was filed on June 14, 1993 in Albemarle County documents the closure of SWMU 6 and the restrictions, as provided in Permit Attachment A. The construction of a final cover system containing a 30-millimeter polyvinyl chloride synthetic membrane liner, a polyethylene synthetic drainage net, non-woven geotextile, and two (2) feet of soil cover.

Underground Storage Tanks (AOC 3) Closure

From June 7 to June 14, 1993, the former underground storage tanks (“USTs”) identified as AOC 3 (Tanks Pits 1, 2, 3, and 4) were excavated and removed, as required for closure. The 20,000-gallon heating oil UST, which is located beneath

the concrete foundation pad for the former main manufacturing building, was abandoned in place by filling with a cement-grout slurry.

Post-Closure Care Permit (SWMU 6)

On June 3, 1999, WJC was issued Post-Closure Care Permit to address for post-closure care requirements of the surface impoundment (SWMU 6) which included security controls, maintenance of final cover, and the implementation of a groundwater sampling and analysis plan.

Permit Modifications

On August 12, 2005, a Class 3 Permit modification was approved to incorporate site-wide corrective action into the Post-Closure Care Permit. *Phase I RCRA Facility Investigation Work Plan – Revision 1* (November 2006) outlines the site-wide groundwater monitoring program.

On March 27, 2008, a Class 2 Permit modification was approved to implement Interim Measures (“IMs”) for the abatement and control of chlorinated ethenes (i.e., tetrachloroethene, trichloroethene, cis 1,2-dichloroethene) constitute the majority of the chlorinated solvent-impacted subsurface materials underlying the former metal fabrication area (AOC 6) in the main manufacturing building.

Corrective Action Permit

On August 4, 2010, the Facility’s renewal of the Hazardous Waste Management for Corrective Action Permit was issued transferring the post-closure care requirements and monitoring program to site-wide corrective action.

Interim Measures

Between February 2011 to March 2012, Interim Measures (“IMs”) were performed with the objectives to remediate/reduce chlorinated solvent (i.e., tetrachloroethene, trichloroethene, cis 1,2-dichloroethene) impacts within AOC 6 (Former Metal Fabrication Area) and the monitoring well EI-2 area as well as petroleum impacts in the EI-2 area.

AOC 6

For AOC 6, a combination of soil vapor extraction (“SVE”) and enhanced bioremediation technologies were operated to reduce the chlorinated ethene impacts within the underlying vadose zone, saturated overburden, and fractured rock. The SVE operation was extended from February 2011 to March 2012, and removed approximately 251 pounds of target constituents of concern (“COC”).

Enhanced Bioremediation activities commenced in May 2011, and included quick-release electron donor injection into the saturated overburden, via dedicated injection wells, and into underlying fractured rock via a groundwater recirculation system. In the fractured rock, reducing conditions were established in the recirculation zone, chlorinated ethene reductive dechlorination was observed, and reductive dechlorination potential extended from the treatment zone to downgradient monitoring wells in fractured rock.

EI-2 Area

In the area surrounding environmental indicator well EI-2, chemical oxidation was conducted from May to June 2011 to reduce concentrations of petroleum constituents and chlorinated ethenes in the saturated overburden, reduce the associated mass flux, and promote decreasing trends of the Facility COCs in downgradient monitoring wells. In the petroleum-affected, shallow, saturated overburden; reductions in target COCs were observed to decrease 54% to 75% by six (6) months following oxidation by ozone and hydrogen peroxide. Decreases of chlorinated ethenes were also detected in the deep saturated overburden following permanganate treatment.

SWMU 2, SWMU 7, AOC 1, AOC 2, AOC 3, and AOC 5

During April through August of 2018, Interim Measures (“IMs”) included the excavation, disposal of removed soil, and backfilled of SWMU 2, AOC 1, AOC 2, and AOC 3 (the north side), and AOC 5 and SWMU 7 (the south side). In total, 16,752.49 tons of both solid and hazardous waste material were removed. The remedial actions completed for these AOCs and SWMUs are documented in the *1st and 2nd Quarterly Interim Measures Reports* dated July 17, 2018 and October 31, 2018.

AOC 6 and SWMU 3

During October 2018 through April 2019, IMs included a soil blending process using chemical oxidation of AOC 6 and SWMU 3 resulting in a reduction of the constituents of concern (“COCs”) to industrial screening levels. The completed IM activities for these areas are documented in the *Interim Corrective Measures Soil Summary Report*, dated July 31, 2019.

Environmental Indicators

Environmental Indicators (EIs) for the site, including Current Human Exposures Under Control (Human Health EI) and Migration of Contaminated Groundwater Under Control (Groundwater EI). The EIs were originally submitted to the DEQ on March 28, 2002. The Human Health EI was designated as “Under Control;” however, the Groundwater EI was classified as “IN,” which indicated that there

was insufficient information to determine if conditions were “Under Control”. DEQ issued a letter dated August 30, 2002, stating that the following items contributed to the “IN” classification for the Groundwater EI:

- a. Provide supplemental data to document stabilized migration of contaminated groundwater;
- b. Quantify discharges to surface water and the concentrations of contaminants in the surface water; and
- c. Confirm the groundwater flow direction and quality at the southeast portion of the property, near the former Incineration Ditches Area.

In response to the “IN” classification of the *Groundwater EI*, Groundwater & Environmental Services, Inc. (“GES”) performed Phase I and Phase II EI Investigations to collect additional data to support a re-evaluation of the *Groundwater EI* as “Under Control”. The results of these investigations and a proposed justification for the “Under Control” designation of the Groundwater EI were submitted to DEQ in January 2005 and August 2005, respectively. In October 2005, DEQ provided comments to the *Phase II EI Site Investigation Summary Report* (GES, August 2005), indicated that DEQ could not support the re-classification of the Groundwater EI to “YES”.

Additional assessment activities conducted at the site from 2005 to 2009 were incorporated into a 2009 Groundwater EI Update letter, which was submitted to DEQ in September 2009. Subsequently, DEQ stated they still could not support reclassification of the Groundwater EI to “YES” at that time.

Groundwater impacts were reported in a 2010 Environmental Indicator Update and were consistent with those presented in the previous 2009 Groundwater EI Update letter. GES prepared a 2012 Environmental Indicator Update, which included data derived during the interim measures activities. Following regulatory review of the 2012 Environmental Indicator Update, a positive response of “YES” was received from DEQ, via letter correspondence dated November 6, 2012.

Existing Institutional Controls

The current deed for the WJC property includes a deed restriction, or “Notice of Environmental Closure” identifying an area of ‘restricted use’. This area of restricted use is related to the environmental closure of the former wastewater surface impoundment, SWMU 6 (**Permit Attachment A**). This portion of the property was used for the treatment of wastes, including wastes deemed hazardous by DEQ.

RCRA Facility Investigation

During the performance of the Phase I and Phase II Resource Conservation and Recovery Act (“RCRA”) Facility Investigation (“RFI”) thirteen (13) Solid Waste Management Units (“SWMUs”) and Areas of Concern (“AOCs”) were identified at the Facility. A map of the Facility that includes the location of each SWMU and AOC is depicted in Permit Attachment A, Figure A-2. Permit Attachment B, Table B-1, provides a list of each identified SWMU and AOC.

Table B-1: List of Identified SWMUs and AOCs

Identification	SWMU/AOC Name
SWMU #1	Former Hazardous Waste Storage Area
SWMU #2	Former Solid Waste Storage Area
SWMU #3	Former Solvent Reclamation Still
SWMU #4	Former Spray Paint Booths
SWMU #5	Former Plant Trash Dumpster
SWMU #6	Former Wastewater Lagoon (Surface Impoundment)
SWMU #7	Former Incineration and Disposal Trenches (1, 2A/2B, 3, Burn Pit)
AOC #1	Former Degrease and Caustic Bath
AOC #2	Former Sumps (1 and 2) in Main Plant
AOC #3	Former USTs (Tank Pits 1, 2, 3, 4)
AOC #4	Former Potable Wells (groundwater)
AOC #5	Former Sand Filter Beds
AOC #6	Former Metal Fabrication Area

Throughout the course of the related manufacturing operations, undocumented spills and/or leaks (predominantly chlorinated solvents) occurred. Concentrations of contaminants of concern (“COCs”), such as trichloroethene (“TCE”), were first detected within the three (3) bedrock production wells in 1988. TCE was detected at an average concentration of 700 micrograms per liter (µg/L). These detections resulted in ceasing the use of the production wells for potable consumption and manufacturing operations. Chlorinated solvent (i.e., tetrachloroethene (“PCE”), TCE, and/or cis-1,2-dichloroethene [cis-1,2-DCE]) impacts were focused within two (2) primary areas including former metal fabrication area (AOC 6) and the area surrounding Environmental Indicator (“EI”) monitoring well EI-2, located downgradient of Tank Pit No. 1 (AOC 3).

Soil and Groundwater Impacts

Soil and groundwater analytical data presented within the *Phase I RFI Work Plan–Revision 1* identified that AOC 6 was impacted by tetrachloroethene (“PCE”), TCE, and cis-1,2-dichloroethene (“cis-1,2-DCE”) within unsaturated soils, the saturated overburden, and fractured bedrock as deep as 110 feet below land surface (bls). Dissolved-phase impacts of PCE, TCE, and (“cis-1,2-DCE”) were also observed within downgradient nested monitoring well locations MW-19 and MW-20.

Four (4) rounds of groundwater data collected during 2007, which were detailed within the *Phase I RFI Report–Groundwater*, confirmed that the primary chlorinated solvent source areas (and resultant groundwater impacts) were derived from AOC 6 and the area around monitoring well EI-2.

Deeper monitoring wells were installed within AOC 6 in accordance with the *Interim Measures Project Management Plan (“IMPMP”) – Revision 1*. As reported in the *Interim Measures (“IM”) Implementation Report - Volume I*, groundwater analytical results indicated that the greatest concentrations of chlorinated solvents within AOC 6 were located within the saturated overburden and upper portion of competent bedrock and concentrations decreased with depth. In the monitoring well EI-2 area, TCE impacts were observed to a depth of 100 feet bls within three (3) remediation wells installed surrounding monitoring well EI-2. In addition to chlorinated solvent impacts, soil and shallow groundwater petroleum impacts were identified within the EI-2 area, which is directly downgradient of the three (3) former gasoline underground storage tanks (“USTs”) associated with AOC 3.

As reported in the *IM Implementation Report – Volume II*, additional soil borings, well installations, and investigative activities were conducted within the monitoring well EI-2 area and between the EI-2 area and AOC 6. The results from these investigations indicated that the EI-2 area and AOC 6 were separate source areas, which commingle within the overburden. Further petroleum impacts were observed in shallow soils within the EI-2 area and at nested monitoring wells MW-53. Chlorinated solvent impacts within the EI-2 area were detected in fractured bedrock but at concentrations significantly less than what was observed in the overlying saprolite.

Current Conditions

Soil and SWMU 6

There are seven (7) identified SWMUs (1 through 7) and five (5) AOCs (AOC 1, AOC 2, AOC 3, AOC 5, and AOC 6) with known contaminants of concern (“COCs”) in soil. Based on the current concentrations of the COCs, compared to

the industrial soil Regional Screening Levels (“RSLs”), it has been determined by DEQ that industrial RSLs are achieved site-wide for soil and no further investigation is necessary. The Permit or a future Uniform Environmental Covenants Act (UECA) covenant shall impose deed restrictions prohibiting residential use.

Groundwater

Semiannual groundwater and surface water sampling is being conducted in accordance with DEQ approved *Groundwater Monitoring Plan – Revision 2*. Permit Attachment A, Figure A-3, depicts the groundwater sampling locations and groundwater monitoring constituents and the drinking water standards (namely Maximum Contaminant Levels (MCLs) or Tap-Water Regional Screening Levels (RSLs) for constituents that do not have an MCL) are presented in Permit Attachment C.

Groundwater corrective actions include controlling exposure to the hazardous constituents in the groundwater by requiring compliance with and maintenance of a groundwater use restriction at the Facility as long as drinking water standards are exceeded. This restriction will be imposed by the Facility’s Permit or a future UECA covenant, reduce and/or stabilize constituent concentrations in groundwater using in-situ chemical oxidation (ISCO) technology or other groundwater remediation technology and monitor stability and/or attenuation of concentrations of the following hazardous constituents in groundwater until drinking water standards are met.

Surface Water

There are seven (7) surface water (“SW”) sampling stations (SW-1A, SW-1B, SW-1, SW-2, and SW-3, SW-East-2, and SW-East-3) depicted in Permit Attachment A, Figure A-3. Surface water sampling stations SW-1, SW-1A, and SW-1B are located in two (2) small tributaries that flow downgradient to Lickinghole Creek, to the west and south along the southern portion of the Facility. Surface water sampling stations SW-2 and SW-3 located farther downgradient and to the south of surface water sampling station SW-1. The surface water sampling stations SW-East-2 and SW East-3 are located in an intermittent stream to the east-southeast trending along the southern portion of the Facility.

Historical surface water analytical data for samples collected along the west-southwest boundary of the southern portion of the property near surface water sample station SW-1B (2004 data), indicate concentrations of tetrachloroethene (“PCE”) of approximately 80 micrograms per liter (µg/L) and TCE greater than 1,000 µg/L. .

The surface water analytical data (2017 data) reflect lower concentrations of PCE (72 µg/L) and TCE (4.3 µg/L) in the surface water sample collected near sampling station SW-1B. Surface water samples collected downgradient of sampling station SW-1 detected concentrations of PCE (18 µg/L) and TCE (1.1 µg/L).

The surface water analytical data (2017 data) for samples collected from SW-1A indicate that no contaminants of concern (“COCs”) were detected above applicable Risk Based Screening Levels (“RBSLs”) for volatile organic compounds (“VOCs”), semi-volatile organic compounds (“SVOCs”), or metals. Both surface water sampling stations SW-1 and SW-1A are located in close proximity to SW-1B and the confluence of two distinct stream tributaries for Lickinghole Creek.

Sampling station SW-2 is located approximately 250 feet downstream from sampling station SW-1. PCE was also detected in surface water samples collected from downgradient sampling station SW-2 at a concentration of 4.3 µg/L (below RBSLs). No TCE was detected in surface water samples collected from SW-2. Analytical data for surface water samples collected from farther downgradient sampling station SW-3 (located approximately 680 feet downstream) indicate that no COCs (VOCs, SVOCs, or metals) were detected above applicable RBSLs at this location. The 2017 annual (October) analytical data continue to indicate that concentrations of COCs diminish to below the applicable surface water standards between surface water sampling stations SW-2 and SW-3 prior to the stream waters leaving the southern portion of the WJC Facility’s property.

Indoor Air

Corrective Action to control exposure to volatile hazardous constituents in indoor air by requires the use of vapor mitigation in or beneath existing and any newly constructed totally enclosed structures designed for occupation within 100 feet of the foot print of groundwater having site-related VOCs and SVOCs identified above protective levels (MCLs/RSLs); unless it is demonstrated that vapor mitigation is not necessary to protect human health. This requirement shall be imposed by the Permit or future UECA covenant.

Attachment C

Corrective Action Remedial Targets

Attachment C - Corrective Action Remedial Targets

Table C-1: Constituents of Concern (COCs) and the Remedial Cleanup Levels

Constituent	Remedial Goal (ug/L)	Screening Level Source
Benzene	5	MCL
cis-1,2-Dichloroethene (cis-1,2-DCE)	70	MCL
1,1-Dichloroethene (1,1-DCE)	7	MCL
Tetrachloroethene (PCE)	5	MCL
Trichloroethene (TCE)	5	MCL
1,1,2-Trichloroethane (1,1,2-TCA)	5	MCL
Vinyl Chloride (VC)	2	MCL
1,1-Dichloroethane (1,1-DCA)	2.4	Tap Water RSL
1,2-Dichloroethene (1,2-DCE)	130	Tap Water RSL
2-Methylnaphthalene	27	Tap Water RSL
1,4-Dioxane	0.67	Tap Water RSL
Naphthalene	0.14	Tap Water RSL
beta-BHC	0.022	Tap Water RSL
Iron	11,000	Tap Water RSL
Manganese	320	Tap Water RSL

Notes:

1. The Facility may elect to establish site-specific background concentrations in accordance with established procedures, and utilize the site-specific background concentrations as the remedial goal upon approval by DEQ. Alternatively, DEQ may approve other risk-based criteria as the remediation goal. Where a specific COC does not have an MCL, the groundwater sample analytical data are compared to the corresponding Tap Water RSLs, where relevant.
2. RSL - Tap Water, Regional Screening Level
3. MCL - Maximum Contaminant Level
4. ug/L - micrograms per liter