



UNITED STATES

ENVIRONMENTAL PROTECTION AGENCY

REGION III

STATEMENT OF BASIS

**Atlantic Bulk Carrier Corporation
Maintenance Facility**

Roxbury, Virginia

USEPA ID No. VAD000799379

I. Introduction

The United States Environmental Protection Agency (EPA) has prepared this Statement of Basis (SB) to solicit public comment on its proposed remedy for the Atlantic Bulk Carrier Facility located at 1092 Roxbury Road, Roxbury, Virginia (Facility). EPA's proposed remedy consists of requiring the Facility to maintain a groundwater monitoring program and to implement and maintain groundwater use restrictions through Institutional Controls (ICs). This SB highlights key information relied upon by EPA in making its proposed remedy.

The Facility is subject to EPA's Corrective Action Program under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976, and the Hazardous and Solid Waste Amendments (HSWA) of 1984, 42 U.S.C. §§ 6901 et seq. (Corrective Action Program). The Corrective Action Program is designed to ensure that certain facilities subject to RCRA have investigated and cleaned up any releases of hazardous waste and hazardous constituents that have occurred at their property. For unpermitted facilities, EPA retains primary authority in the Commonwealth of Virginia (Virginia) for the Corrective Action Program. The Facility does not have a RCRA permit.

The Administrative Record (AR) for the Facility contains all documents, including data and quality assurance information, on which EPA's proposed remedy is based. See Section IX, Public Participation, for information on how you may review the AR.

II. Facility Background

Atlantic Bulk Carrier (ABC) is the owner and operator of the Facility. The Facility property consists of approximately 18 acres and lies about 2,000 feet south of the Chickahominy River, which is bordered by a broad, flat, floodplain. The Chickahominy River is a tributary of the James River estuary, and flows from northwest to southeast through the floodplain, which near this location stands about 25-30 feet above mean sea level. Roxbury Road, a two-lane rural highway, borders the Facility to the west. To the north a drainage ditch separates the Facility from a CSX railroad line. The eastern and southern edges are bordered by low-lying hardwood bottomlands and swamps. The area is nearly flat.

Approximately one third of the Facility is currently operated as a truck maintenance shop (shop building), fueling station, tire storage building and tractor trailer storage area that is used for parking bulk tanker trailers. A location map is attached as Figure 1.

The majority of the storage and other operational areas are covered with crushed stone. The shop building itself is a corrugated steel sheathed structure built on a substantial concrete slab. A 10,000 gallon, steel, above-ground diesel tank and dispenser are located 75 feet southeast of the shop building. A small concrete block building is located just north of the fueling station and was formerly used to store drummed waste from tank cleanings that were formerly performed at the Facility. Another block building used for storing tires is located near the southwest corner of the Facility.

III. Summary of Environmental Investigation

ABC entered into a Facility Lead Agreement (FLA) on July 13, 2009. Through ABC's Letter of Commitment dated June 22, 2009, the company agreed to address RCRA Corrective Action requirements associated with several Facility solid waste management units (SWMUs) through an EPA Region 3 FLA. Former waste units had been identified as SWMUs 1 through 10 in the June 6, 2008 report entitled "Final RCRA Site Visit Report," prepared by Tetra Tech EC, Inc. (Tetra Tech), on behalf of the EPA and the Virginia Department of Environmental Quality (VADEQ).

The June 2008 Final RCRA Corrective Action Site Visit Report found no issues related to SWMUs 2, 3, 4 and 6, which were therefore eliminated from further consideration. A November 2009 Site Characterization Report prepared by Phoenix Environmental on behalf of ABC provided the results of an investigation of SWMUs 7 and 9. The report concluded that SWMU 7 required follow-up actions. A SWMU 7 soil sample detected 2,135 milligrams per liter (mg/l) of total petroleum hydrocarbons (TPH). Ground water was found to contain concentrations of cis-1,2 dichloroethene, tetrachloroethene, and trichloroethene above the federal's Maximum Contaminant Limits (MCLs) promulgated pursuant to Section 42 U.S.C. §§ 300f et seq. of the Safe Drinking Water Act and codified at 40 C.F.R. Part 141).

Water concentrations were screened against MCLs or EPA Region III Risk-Based Concentration (RBCs) for tap water (designated as Screening Levels for tap water (SLs)) for chemicals for which there are no applicable MCLs.

At SWMU 9 (above ground diesel fuel tank) soil sampling did not detect TPH. Consequently, after discussions between EPA and ABC, follow-up investigations focused exclusively on hazardous constituents associated with SWMUs 1, 5, 7, 8 and 10.

ABC submitted a Site Characterization Work Plan (SCWP) on March 17, 2010. The SCWP and the associated work plans (Sampling and Analysis Plan, Quality Assurance Project Plan, Site Health and Safety Plan, and Community Relations Plan) augmented the results of prior investigative and corrective measures with additional data collected under quality control levels required by EPA. The work plans were approved by EPA in November of 2010. Under the approved work plans, issues regarding SWMUs 1, 5, 7, 8 and 10 were to be addressed.

During 2011, ABC undertook three successive field investigations to address concerns at SWMUs 1, 5, 7, 8 and 10 including the following:

- a soil and groundwater investigation conducted in January 2011 and reported in the "Follow-up Site Characterization Report – RCRA Facility Lead Program, Atlantic Bulk Carrier Corporation Maintenance Facility" approved with comments by EPA on June 1, 2011;
- a follow-up groundwater investigation conducted in August/September 2011 and reported in the "Interim Summary Report" approved by EPA on November 17, 2011; and
- an additional groundwater investigation conducted in December 2011 and reported in ABC's Annual Report approved by EPA on April 25, 2012.

A. January 2011 Follow-up Site Characterization

The Follow-up Site Characterization included the installation of three (3) additional test boring/wells in the water table aquifer in and around the relevant SWMUs. Soil and groundwater samples from the well borings were collected and analyzed for the Target Analyte List (TAL) including volatile organic compounds (VOCs) and heavy metals, known as RCRA 8 metals. The three (3) new (MWs - 3, -4 and -5) and two (2) existing monitoring wells (MWs 1 and 2) were also gauged and surveyed to determine groundwater flow direction beneath the Facility. Also included for sampling/testing were two (2) shallow monitoring wells installed near SWMUs 7 and 8 during the pre-FLA investigations and the on-Facility water supply well.

Soil concentrations were screened against EPA RBCs for residential soil and industrial soil (designated as soil SLs). EPA also has Soil Screening Levels to protect groundwater (SSLs), and soil concentrations were also screened against these levels. The Follow-up Site Characterization found no VOCs in soil at concentrations in excess of EPA residential or industrial SLs.

Although the metal arsenic was detected in soil above the applicable SL, its occurrence at concentrations comparable to published background levels precluded its inclusion on the list of constituents of concern (CoCs). However, solvent and petroleum-related chemicals and several metals were detected in groundwater sampled from the five (5) Facility monitoring wells, some at levels exceeding MCLs and/or SLs. VOCs detected in excess of applicable MCLs and/or SLs included the solvent-related chemicals trichloroethylene (TCE), tetrachloroethylene (PCE), 1,1-dichloroethane (1,1-DCA) and vinyl chloride (VC). The only semi-volatile organic compounds (SVOCs) detected in Facility groundwater were the phenolic compounds cresol and 2,4-dimethylphenol. However, those SVOCs occurred at levels well below their respective SLs. Metals exceeding MCLs and/or SLs in groundwater included arsenic, cadmium and chromium. Although the detected metals were reported at concentrations in excess of MCLs and/or SLs, these constituents occur at or below regional background levels.

CoCs were detected in three (3) of the five (5) Facility monitoring wells (MWs -2, -3 and -4) installed to the east and southeast of the shop building and fueling station. No CoCs were detected in the wells installed at SWMU 10 located near the eastern edge of the tractor trailer storage lot. Analytical results from the drinking water from the Facility water supply well also detected no CoCs. A groundwater flow map of the water table aquifer beneath the Facility based on wells that existed at the time of the Follow-up Site Characterization indicated flow from east to west.

B. August-September 2011 Site Investigation

A second round of groundwater sampling was undertaken in the late summer of 2011. Six (6) additional wells (MWs -6 through -11), installed as one-inch temporary wells, were screened in the water table aquifer in several locations determined to represent the up-gradient extent of the plume. Half of the wells (MWs 6 through 8) were installed southwest of the presumed source area, near SWMUs 1 and 5. These SWMUs were associated with activities

surrounding the shed east of the shop building (maintenance shed). The new wells extended coverage southwest almost to the edge of the storage lot and close to the Facility water supply well. Laboratory analysis of groundwater from these wells revealed higher levels of VOCs than in the presumed source area, including the chlorinated solvents TCE and PCE, supporting the existence of an alternative source area. A follow-up sampling of the water supply well detected none of these or other constituents.

Three additional wells (MWs-9 through -11) were installed in the water table aquifer east and southeast of the presumed source area. Sampling results from these wells also revealed VOCs including TCE and PCE confirming the existence of an alternate source area.

C. December 2011 Site Investigation

The third and final round of sampling, undertaken in December of 2011, included the installation and sampling of nine (9) additional temporary wells (MWs -12 through -20) in the water table aquifer. The wells were positioned around the perimeter of the alternate source plume as discovered in the August 2011 event and also in the area between the Facility and the nearest domestic supply wells located across Roxbury Road, over 500 feet northwest of the Facility.

Similar to the earlier investigations, the December 2011 well borings encountered a 15-foot thick sequence of sand and gravel grading upwards into fine sand, silty sand and gravel beneath the Facility. It is unclear how much of the soil which becomes progressively fine grained moving towards the surface is anthropogenic fill or natural but in all cases these near-surface (probably Holocene) deposits rest on a dense, dark gray, marly, silty clay associated with the Pliocene Yorktown Formation. Although none of the borings penetrated this horizon more than several inches, the thickness of this unit is in excess of 200 feet in the vicinity of the Facility. The gravel and sand unit lying immediately above the Yorktown clay appears to be the most permeable horizon in the aquifer, which becomes progressively less permeable at shallower depths.

Based on the December 2011 gauging data, groundwater stands at a depth of four (4) to five (5) feet below grade. The groundwater flow net based on these measurements indicates a very low gradient, with recharge generally originating from the swamp area bordering the southern Facility boundary. However, flow beneath the gravel storage lot is also bisected by a north/south oriented recharge divide roughly coincident with the area between the maintenance building and fueling station. Groundwater west of this divide flows west-northwest towards Roxbury Road and the swamp beyond, while groundwater opposite the divide generally flows eastward along a sinuous path that joins the drainage ditch parallel to the railroad corridor bordering the northern edge of the Facility. These flow paths are roughly consistent with observations of surface water drainage made in the vicinity of the Facility. Measurements taken during the January and August events indicated a flow more from the south or southeasterly direction. This shift in flow is probably attributable to changes in recharge due to fluctuating surface water levels in the adjacent swamp.

D. Nature and Distribution of Impacts

Collectively, the field investigations conducted since early 2011 have delineated the distribution of solvent-related impacts beneath the Facility. However, the impacts do not appear related to any of the SWMUs referenced in the FLA. The most significant impacts detected are in the alternate source plume centered east of the shop building near the geographic center of the trailer storage area. The origin of these solvent-related chemicals in groundwater in the alternate source area and the presumed source area to the west are unknown but are likely related to historical spills that occurred in or around a building that occupied the middle of the maintenance/storage yard.

Groundwater impacts appear to be confined to the water table aquifer beneath the Facility maintenance/storage yard. Two (2) successive tests of groundwater from the underlying drinking water aquifer detected no VOCs or other constituents. Metals detected in Facility soils are consistent with regional background.

Groundwater gradients in the water table aquifer beneath the Facility are gentle and appear to shift seasonally depending on the level of recharge supplied by the adjacent swamp. Transient recharge events induce temporarily steeper gradients from the south while periods of hydraulic stability reduce subsurface flow. The current distribution of VOCs in the water table aquifer suggests little ongoing migration or plume expansion has occurred likely due to the relatively low hydraulic conductivities of the impacted materials coupled with low and variable hydraulic gradients. Moreover, it is likely the fine-grained, adsorptive characteristics of the aquifer material further retards the migration of CoCs relative to groundwater. The occurrence of degradation daughter products, including cis-1,2-DCE and VC, indicates the natural biodegradation of solvent constituents is occurring over time.

E. Environmental Indicators (EIs)

EPA has set national goals to measure progress toward meeting the nation's major environmental goals. For Corrective Action, EPA evaluates two key environmental indicators for each Facility: (1) current human exposures under control and (2) migration of contaminated groundwater under control. EPA determined that the Facility met these indicators on September 11, 2012.

F. Corrective Measures Study (CMS)

The Corrective Measures Study (CMS) was submitted to EPA for review on October 23, 2012. The CMS was approved by EPA on February 12, 2013. Consistent with EPA guidance entitled "Corrective Action for Releases From Solid Waste Management Units at Hazardous Waste Management Facilities; Proposed Rule," 61 Fed. Reg. 19431, May 1, 1996, in the CMS, ABC evaluated various possible remedial alternatives against the three threshold criteria and seven balancing criteria.

The CMS is based on investigation results presented in the three phases of investigation conducted at the Facility throughout 2011. Based on the Facility investigation, shallow

groundwater is the only medium of concern. However, the groundwater plume (Figure 2) appears to be stable (not migrating), and concentrations of constituents of potential concern (COPCs) are either stable or declining over time.

Based on the available information, there are currently no unacceptable risks to human health and the environment via the vapor intrusion pathways from groundwater contamination for the present and anticipated industrial use of existing structures on the Facility property.

IV. Corrective Action Objectives

EPA's Corrective Action Objectives for the Facility are the following:

1. Soils

EPA Corrective Action Objective for Facility soils is to achieve EPA Region 3's Screening Levels for Residential Soils for direct contact with soils.

2. Groundwater

EPA's Corrective Action Objectives for Facility groundwater is to restore the groundwater to drinking water standards and until such time as drinking water standards are restored, to control exposure to the hazardous constituents remaining in the groundwater by requiring the continued implementation of the groundwater monitoring program, compliance with and maintenance of groundwater use restrictions at the Facility to prevent migration of contaminants while levels remain above Federal MCLs and SLs to adjacent properties.

V. Proposed Remedy

A. Soils

Based on the available information, there are currently no unacceptable risks to human health and the environment via the soil based on residential or industrial use of Facility property. Therefore, EPA's proposed remedy for Facility soils is no further action.

B. Groundwater - Long-Term Monitoring

The proposed remedy for groundwater consists of continued groundwater monitoring until drinking water standards are met and compliance with and maintenance of groundwater use restrictions at the Facility to prevent migration of contaminants while levels remain above drinking water standards. Based on the RFI, the groundwater plume appears to be stable (not migrating), and concentrations of CoCs are either stable or declining over time. Groundwater is not used on the Facility for drinking water, and no downgradient users of groundwater exist.

C. Institutional Controls

ICs are non-engineered instruments such as administrative and/or legal controls that

minimize the potential for human exposure to contamination and/or protect the integrity of the remedy by limiting land or resource use. Under this proposed remedy, some contaminants remain in the groundwater at the Facility above levels appropriate for residential uses. Because some contaminants remain in the groundwater at the Facility at levels that exceed residential use, EPA's proposed remedy requires the compliance with and maintenance of groundwater use restrictions and controls for vapor intrusion.

The ICs shall include, but not be limited to, the following use restrictions, access, and reporting requirements:

1. Groundwater at the Facility shall not be used for any purpose other than the operation, maintenance, and monitoring activities required by VADEQ and/or EPA, unless it is demonstrated to EPA, in consultation with VADEQ, that such use will not pose a threat to human health or the environment or adversely affect or interfere with the final remedy and EPA, in consultation with VADEQ, provides prior written approval for such use;
2. The Property shall not be used in a way that will adversely affect or interfere with the integrity and protectiveness of the final remedy;
3. No new wells shall be installed on Facility property unless it is demonstrated to EPA, in consultation with VADEQ, that such wells are necessary to implement the final remedy and EPA provides prior written approval to install such wells;
4. A vapor intrusion control system, the design of which shall be approved in advance by EPA, shall be installed in each new structure constructed above the contaminated groundwater plume or within 100-foot around the perimeter of the contaminated groundwater plume, unless it is demonstrated to EPA that vapor intrusion does not pose a threat to human health and EPA provides prior written approval that no vapor intrusion control system is needed;
5. Owner shall provide EPA and VADEQ with a "Certified, True and Correct Copy" of any instrument that conveys any interest in the Facility property or any portion thereof;
6. Owner shall allow the EPA, state, and/or their authorized agents and representatives, access to the Facility property to inspect and evaluate the continued effectiveness of the final remedy and if necessary, to conduct additional remediation to ensure the protection of the public health and safety and the environment based upon the final remedy to be selected by EPA in the Final Decision and Response to Comments (FDRTC);
7. Owner shall comply with the EPA-approved groundwater monitoring program.

D. Implementation

EPA proposes to implement the groundwater use restrictions necessary to prevent human exposure to contaminants at the Facility through an enforceable mechanism such as an order and/or an Environmental Covenant executed pursuant to the Virginia Uniform Environmental Covenants Act, Title 10.1, Chapter 12.2, §§10.1-1238 - 10.1-1250 of the Code of Virginia,

(UECA) and UECA's implementing regulations, 9 VAC 15-90-10 through 60. If an Environmental Covenant is to be the institutional control mechanism, it will be recorded in the chain of title for the Facility property. In addition, EPA acknowledges that the Virginia Department of Health (Health Department) issues drinking water permits for wells and Virginia regulations authorize the Health Department to prohibit the use of contaminated groundwater as a drinking water source. See 12 VACS-630-10 through 480. If EPA determines that additional institutional controls or other corrective actions are necessary to protect human health or the environment, EPA has the authority to require and enforce such additional corrective actions through an enforceable mechanism which may include an order or Environmental Covenant.

VI. Evaluation of EPA's Proposed Remedy

This section provides a description of the criteria EPA used to evaluate the proposed remedy consistent with EPA guidance, "Corrective Action for Releases From Solid Waste Management Units at Hazardous Waste Management Facilities; Proposed Rule," 61 Fed. Reg. 19431, May 1, 1996. The criteria are applied in two phases. In the first phase, EPA evaluates three decision threshold criteria as general goals. In the second phase, for those remedies that meet the threshold criteria, EPA then evaluates seven balancing criteria.

A. Threshold Criteria

1. Protect Human Health and the Environment

With respect to groundwater, while low levels of contaminants remain in the groundwater beneath the Facility, the contaminants are contained in the shallow aquifer and do not migrate beyond the Facility property. For this reason, the area of contaminated groundwater is contained. In addition, groundwater monitoring will continue until groundwater clean-up standards are met. The Health Department issues drinking water permits for wells, and has the authority to prohibit the use of contaminated groundwater as a drinking water source. With respect to future uses, the proposed remedy requires groundwater use restrictions to minimize the potential for human exposure to contamination and protect the integrity of the remedy and vapor intrusion controls for new construction, as necessary.

2. Achieve Media Cleanup Objectives

The Facility has achieved the EPA's residential SLs for soils. The groundwater plume appears to be stable (not migrating); although CoCs are above MCLs, they are either stable or declining over time. In addition, groundwater monitoring will continue until groundwater clean-up standards are met. The Facility meets EPA risk guidelines for human health and the environment. EPA's proposed remedy requires the implementation and maintenance of institutional controls to ensure that groundwater beneath Facility property is not used for any purpose except to conduct the operation, maintenance, and monitoring activities required by VADEQ and EPA and that vapor intrusion does not pose a threat to human health.

3. Remediating the Source of Releases

In all proposed remedies, EPA seeks to eliminate or reduce further releases of hazardous

wastes and hazardous constituents that may pose a threat to human health and the environment. As shown in the CMS Report, the Facility met this objective. There are no remaining large, discrete sources of waste from which constituents would be released to the environment. Shallow groundwater is not used for potable purposes at the Facility or at neighboring facilities. In addition, groundwater monitoring will continue until groundwater clean-up standards are met. The Health Department issues drinking water permits for wells and is authorized by Virginia regulations to prohibit the use of contaminated groundwater as a drinking water source. Therefore, EPA has determined that this criterion has been met.

B. Balancing/Evaluation Criteria

1. Long-Term Effectiveness

The proposed remedy will maintain protection of human health and the environment over time by controlling exposure to the hazardous constituents remaining in groundwater and the vapor intrusion pathway. EPA's proposed remedy requires the compliance with and maintenance of groundwater use restrictions and vapor intrusion controls at the Facility. EPA anticipates the groundwater use restrictions and the vapor intrusion controls will be implemented through an environmental covenant to be recorded in the chain of title for the Facility property or through an order. Such a covenant will run with the land and as such, will be enforceable by EPA and/or other stakeholders against future land owners. In addition, groundwater monitoring will continue until groundwater clean-up standards are met.

2. Reduction of Toxicity, Mobility, or Volume of the Hazardous Constituents

The reduction of toxicity, mobility and volume of hazardous constituents at the Facility has already been achieved, as demonstrated by the data of the groundwater monitoring showing that the plume appears to be stable (not migrating), and concentrations of CoCs are either stable or declining over time. In addition, groundwater monitoring will continue until groundwater clean-up standards are met.

3. Short-Term Effectiveness

EPA's proposed remedy does not involve any activities, such as construction or excavation, that would pose short-term risks to workers, residents, and/or the environment. In addition, EPA anticipates that the groundwater use restrictions will be fully implemented shortly after the issuance of the FDRTC. In addition, groundwater monitoring will continue until groundwater clean-up standards are met.

4. Implementability

EPA's proposed remedy is readily implementable. EPA proposes to implement the institutional controls through an enforceable mechanism such as an Environmental Covenant, pursuant to the Virginia Uniform Environmental Covenants Act, Title 10.1, Chapter 12.2, Sections 10.1-1238-10.1-1250 of the Code of Virginia or order. Environmental Covenants are readily implemented. In the alternative, EPA does not anticipate any regulatory constraints in issuing an order.

5. Cost-Effectiveness

EPA's proposed remedy is cost effective. The costs associated with this proposed remedy and the continuation of groundwater monitoring are minimal. The costs to record an environmental covenant in the chain of title to the Facility property are minimal. Likewise, the costs associated with issuing an order are also minimal.

6. Community Acceptance

EPA will evaluate community acceptance of the proposed remedy during the public comment period, and it will be described in the FDRTC.

7. State/Support Agency Acceptance

VADEQ has reviewed and concurred with the proposed remedy for the Facility. Furthermore, EPA has solicited VADEQ input and involvement throughout the investigation process at the Facility.

VIII. Financial Assurance

EPA has evaluated whether financial assurance for corrective action is necessary to implement EPA's proposed remedy at the Facility. The costs to obtain orders or environmental covenants are minimal. Given that EPA's proposed remedy does not require any further engineering actions to remediate soil, groundwater or indoor air contamination at this time and given that the costs of implementing institutional controls and the continuation of groundwater monitoring at the Facility will be minimal, EPA is proposing that no financial assurance be required.

IX. Public Participation

Before EPA makes a final decision on its proposed remedy for the Facility, the public may participate in the remedy selection process by reviewing this SB and documents contained in the Administrative Record (AR) for the Facility. The AR contains all information considered by EPA in reaching this proposed remedy. It is available for public review during normal business hours at:

U.S. EPA Region III
1650 Arch Street
Philadelphia, PA 19103
Contact: Leonard E. Hotham
Phone: (215) 814-5778
Fax: (215) 814-3113
Email: Hotham.Leonard@epa.gov

Interested parties are encouraged to review the AR and comment on EPA's proposed remedy. The public comment period will last thirty (30) calendar days from the date that notice

is published in a local newspaper. You may submit comments by mail, fax, or e-mail to Leonard E. Hotham. EPA will hold a public meeting to discuss this proposed remedy upon request. Requests for a public meeting should be made to Leonard E. Hotham.

EPA will respond to all relevant comments received during the comment period. If EPA determines that new information warrant a modification to the proposed remedy, EPA will modify the proposed remedy or select other alternatives based on such new information and/or public comments. EPA will announce its final remedy and explain the rationale for any changes in a document entitled the Final Decision and Response to Comments (FDRTC). All persons who comment on this proposed remedy will receive a copy of the FDRTC. Others may obtain a copy by contacting Leonard E. Hotham at the address listed above.

X. ABC Administrative Record Index

1. EPA Final RCRA Corrective Action Site Visit Report at ABC by Tetra Tech for EPA, June 6, 2008
2. ABC's Letter of Commitment, June 22, 2009
3. Facility Lead Agreement (FLA), July 13, 2009
4. Site Characterization Report prepared by Phoenix Environmental for ABC, November 2009
5. ABC EPA RCRA Facility Lead Program Work Plans, March 2010
6. Approval letter by EPA for Work Plans, November of 2010
7. Certificate of Analysis, Final Report by Air Water and Soil Analysis Labs, Feb 10, 2011
8. Analytical data validation report by Marshall Miller & Assoc on behalf of ABC, March 11, 2011
9. Follow-up Site Characterization Report for ABC, April 26, 2011
10. Letter from Marshall Miller & Assoc on behalf of ABC to EPA Re: Follow-up Site Characterization Report May 18, 2011
11. Letter from EPA to ABC Re: Site Characterization Report, June 1, 2011
12. Letter from Marshall Miller & Assoc on behalf of ABC to EPA Re: Proposal for Additional Groundwater Characterization, June 17, 2011
13. Letter from Marshall Miller & Assoc on behalf of ABC to EPA, Proposal for Additional Groundwater Characterization, August 11, 2011

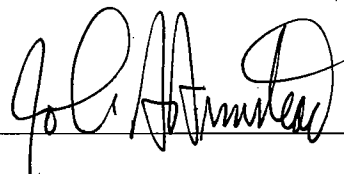
14. Letter from Marshall Miller & Assoc on behalf of ABC to EPA, Interim Summary Report - Atlantic Bulk Carrier Corporation (Former Chemical Carrier Corp. of Virginia), October 27, 2011
15. Email from EPA to ABC, Approval of Interim Summary Report, November 17, 2011
16. Letter from Marshall Miller & Assoc on behalf of ABC to EPA, Annual Report for RCRA Facility Lead Program - Atlantic Bulk Carrier Corporation (Former Chemical Carrier Corp. of Virginia), January 17, 2012
17. Letter from EPA to ABC Re: Annual Report for RCRA facility lead program, April 25, 2012
18. Ground Water Environmental Indicator, September 11, 2012
19. Human Health Environmental Indicator, September 11, 2012
20. RCRA Facility Lead Program Corrective Measures Study For ABC, October 23, 2012

Attachments

Figure 1: Location Map

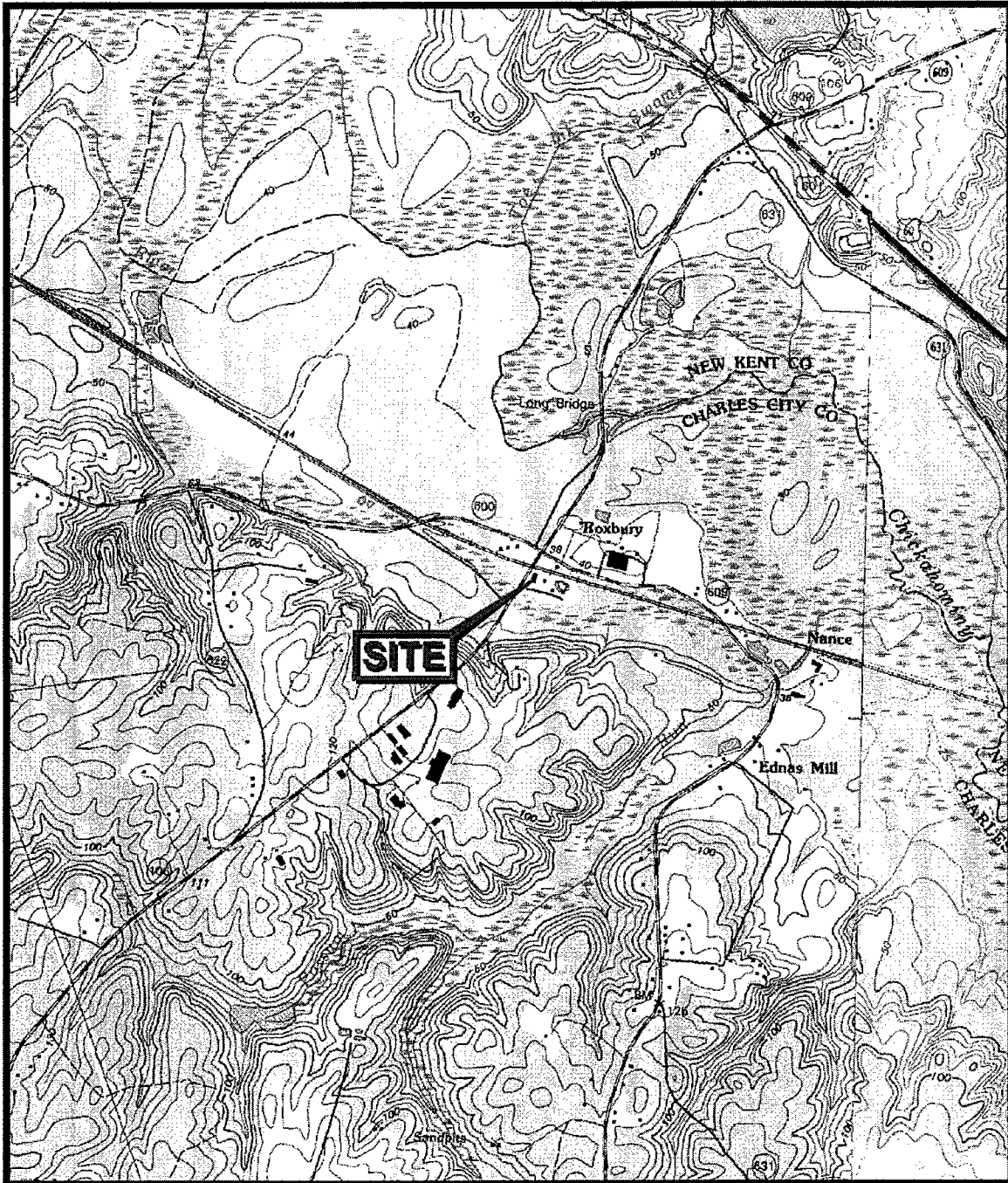
Figure 2: Plume Limits and Monitoring Well map

Date:

A handwritten signature in black ink, appearing to read "John A. Armstead", is written over a horizontal line.

John A. Armstead, Director
Land and Chemicals Division
US EPA, Region III

Figure 1: Location Map



Prepared by:



SP1180

10/22/2012

Atlantic Bulk Carrier Site
1901 Roxbury Road
Roxbury, Virginia

2,000' 0 2,000'

SCALE 1:24,000

Figure 1 - Vicinity

USGS 7.5' ROXBURY, VA QUADRANGLE - 1994
CONTOUR INTERVAL=10'

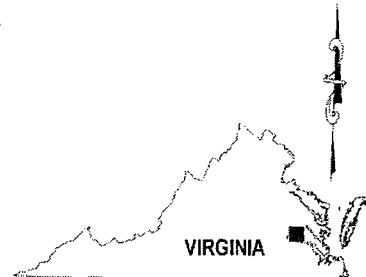


Figure 2: Plume Limits and Monitoring Well map

