

PHASE I ENVIRONMENTAL SITE ASSESSMENT



AUCTION PROPERTY

2785 GRASSY HILL ROAD
ROCKY MOUNT, FRANKLIN COUNTY, VIRGINIA 24151
ECS PROJECT NO. 47:5178

FOR

CARTER BANK AND TRUST

DECEMBER 7, 2017





December 7, 2017

Tom Choiniere
Carter Bank and Trust
1300 Kings Mountain Road
Martinsville, Virginia 24112

ECS Project No. 47:5178

Reference: Phase I Environmental Site Assessment Report, Auction Property, 2785 Grassy Hill Road, Rocky Mount, Franklin County, Virginia 24151

Dear Mr. Choiniere:

ECS Mid-Atlantic, LLC (ECS) is pleased to provide you with the results of our Phase I Environmental Site Assessment (ESA) for the referenced site. ECS services were provided in general accordance with the Master Service Agreement in place between ECS and Carter Bank and Trust dated November 7, 2017 and generally meet the requirements of ASTM E1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process and EPA Standards and Practices for All Appropriate Inquiries contained in 40 CFR Part 312.

If there are questions regarding this report, or a need for further information, please contact the undersigned.

Sincerely,

ECS Mid-Atlantic, LLC

Steven Hay
Staff Project Manager
shay@ecslimited.com
540-362-2000

Garnett B. Williams, C.P.G.
Principal Geologist
gwilliams@ecslimited.com
703-471-8400

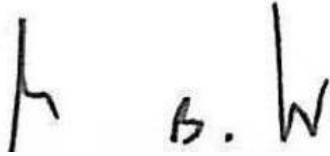
Project Summary

Auction Property
2785 Grassy Hill Road
Rocky Mount, Virginia 24151

Report Section		No Further Action	REC	CREC	HREC	BER	Comment
4.0	User Provided Information	✓					
5.1	Federal ASTM Databases	✓					
5.2	State ASTM Databases		✓				The subject property is listed in the LTANKS databases for a former petroleum release from a UST system.
5.3	Additional Environmental Record Sources	✓					
6.0	Historical Use Information		✓				The subject property appears to have been utilized for unknown industrial purposes since at least the 1960's..
7.0	Site and Area Reconnaissance	✓					
8.0	Additional Services	✓					
9.0	Interviews	✓					

ENVIRONMENTAL PROFESSIONAL STATEMENT

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in § 312.10 of 40 CFR 312. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Handwritten signature in black ink, appearing to read "G. B. Williams".

Garnett B. Williams, C.P.G.
Principal Geologist
December 7, 2017

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1.0 EXECUTIVE SUMMARY

ECS Mid-Atlantic, LLC (ECS) was contracted by Carter Bank and Trust to perform an ASTM E1527-13, Phase I Environmental Site Assessment (ESA) of the Auction Property located at 2785 Grassy Hill Road in Rocky Mount, Franklin County, Virginia (i.e. subject property). This Executive Summary is an integral part of the Phase I ESA report. ECS recommends that the report be read in its entirety.

The subject property is identified by Franklin County as parcel 0550002900 and owned by Carter Bank and Trust. The approximately 10.4-acre subject property is occupied by a large vacant industrial facility with several outbuildings. The property has been vacant since approximately 2005, with the most recent occupants of the subject property being Cooper Wood Products Inc. and CTS & Millwork Inc., both companies involved with milling, woodworking, and wood product manufacturing. The subject property is serviced by a private well and septic system.

The subject property is located in a rural commercial/industrial area of Rocky Mount. The subject property is bound on the north by the Blackwater River followed by New Plant Road and undeveloped forest land, on the east by Grassy Hill Road followed by sparsely developed residential properties, on the south by undeveloped forested land and on the west by the Blackwater River followed by a large commercial and industrial facility. We did not identify adjoining or nearby properties that are considered a Recognized Environmental Condition (REC) for the subject property.

Based on the records search, site reconnaissance and interviews, it appears that the subject property was developed with a fueling station from at least 1938 until the 1950's when the property began being developed into an industrial property. The current large manufacturing and industrial structure was reportedly built in 1950. Historical records prior to 1890 were not reasonably ascertainable for the subject property. Our review of historical information for adjoining or nearby properties identified the area as originally agricultural that has remained predominately rural with some commercial/industrial and residential development occurring in recent years.

A regulatory database search report was provided by Environmental Data Resources (EDR). The database search involves researching a series of Federal, State, Local, and other databases for facilities and properties that are located within specified minimum search distances from the subject property. The report identified the subject property on several of the databases researched, which included the FINDS, US AIRS, ICIS, ECHO, UST and LTANKS databases. The EDR report did not identify any off-site properties within the minimum ASTM search distances for any of the databases researched.

ASTM E1527-13 defines a "data gap" as: "a lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information". Data gaps which would be expected to impact our ability to render a professional opinion concerning the subject property were not identified.

We have performed a Phase I Environmental Site Assessment in general conformance with the scope and limitations of ASTM E1527-13 of the Auction Property located at 2785 Grassy Hill Road, in Rocky Mount, Franklin County, Virginia. Exceptions to, or deletions from, this practice are described in Section 2.6 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the property except for the following:



- The subject property reportedly operated as a filling station from at least 1938 until the 1950s. No documentation about this filling station or its tanks could be obtained. Furthermore, Cooper Wood Products formerly utilized USTs for diesel fuel and gasoline, which have been removed from the ground; however, low levels of petroleum compounds were detected in the soil and groundwater in the vicinity of the tanks. This historic use of the property leads to a potential for incidental spills or leaks of petroleum substances to impact the site. Consequently, this long term use is considered to be a REC.
- The subject property operated as a industrial facility since at least the 1950s. The historic use of the property for industrial purposes leads to a potential for incidental spills or leaks of petroleum, and other hazardous substances to impact the site, especially in the areas of chemical storage. Consequently, this long term use is considered to be a REC.



2.0 INTRODUCTION

2.1 Purpose and Reason for Performing Phase I ESA

The purpose of the ESA was to:

- evaluate the probability of impact to the surface water, groundwater and/or soils within the property boundaries through a review of regulatory information and a reconnaissance of the subject property and vicinity;
- evaluate historical land usage to identify previous conditions that could potentially impact the environmental condition of the subject property;
- conduct all appropriate inquiry as defined by ASTM E1527-13 and 40 CFR Part 312;
- evaluate the potential for on-site and off-site contamination; and,
- provide a professional opinion regarding the potential for environmental impact at the site and a list of Recognized Environmental Conditions (RECs).

The ESA should allow the Users the opportunity to qualify for landowner liability protection under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) provided certain stipulations are met. The landowner liability protections are: an innocent landowner, a contiguous property owner, or a bona fide prospective purchaser. The User must meet the protection stipulations detailed in CERCLA to qualify as well as meet the User Obligations contained within the ASTM E1527- 13 standard.

The reason for conducting this ESA is to perform all appropriate inquiries into the uses and prior ownership of the subject property prior to a scheduled property auction.

2.2 Scope of Services

The environmental assessment was conducted in general accordance with ASTM E1527-13 and EPA Standards and Practices for All Appropriate Inquiry (40 CFR §312.10). The environmental assessment was conducted under the supervision or responsible charge of an individual that qualifies as an environmental professional, as defined in 40 CFR §312.10.

ECS was contracted by Carter Bank and Trust to perform an ASTM E1527-13, Phase I Environmental Site Assessment (ESA) of the Auction Property located at 2785 Grassy Hill Road in Rocky Mount, Franklin County, Virginia. ECS was not contracted to address non-scope considerations.

2.3 Definitions

ASTM E1527-13 defines a "recognized environmental condition (REC)" as "the presence or likely presence of any hazardous substances or petroleum products in, on or at a property: 1) due to release to the environment, 2) under conditions indicative of a release to the environment; or 3) under conditions that pose a material threat of a future release to the environment." For the purposes of this practice, "migrate" and "migration" refer to the movement of hazardous substances or petroleum products in any form including solid and liquid at the surface or subsurface and vapor in the subsurface.



ASTM E1527-13 defines a "business environmental risk" (BER) as "a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental issues required to be investigated in this practice". ECS also uses the term "Other Environmental Considerations" to discuss BERs and environmental concerns outside of the ASTM E1527-13 requirements (radon, asbestos, lead, wetlands, etc.). Client-imposed limitations and site condition limitations, if encountered, are detailed in Section 7.1 Methodology and Limiting Conditions.

ASTM E1527-13 defines a "de minimis condition" as a condition that generally does not represent a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. De minimis conditions are not recognized environmental conditions nor controlled recognized environmental conditions.

ASTM E1527-13 defines a "controlled recognized environmental condition (CREC)" as a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example property use restrictions, activity and use limitations, institutional controls, or engineering controls). A condition identified as a controlled recognized environmental condition does not imply that the Environmental Professional has evaluated or confirmed the adequacy, implementation or continued effectiveness of the required control that has been, or is intended to be, implemented.

ASTM E1527-13 defines a "historical recognized environmental condition (HREC)" as a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted residential use criteria established by a regulatory authority, without subjecting the property to any required controls (for example property use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a historical recognized environmental condition, the Environmental Professional must determine whether the past release is a recognized environmental condition at the time the Phase I Environmental Site Assessment is conducted (for example, if there has been a change in the regulatory criteria).

2.4 Limitations

The ESA involved a reconnaissance of the subject property and contiguous properties and a review of regulatory and historical information in general accordance with the ASTM standard and EPA regulation referenced herein. No non-scope considerations or additional issues such as asbestos, radon, wetlands or mold were investigated, unless otherwise described in Section 8.0 of this report.

Note: vapor migration in the subsurface is described in Guide E2600 published by ASTM. ECS has not conducted a Vapor Encroachment Screen in accordance with the E2600 guide.

The conclusions and/or recommendations presented within this report are based upon a level of investigation consistent with the standard of care and skill exercised by members of the same

profession currently practicing in the same locality under similar conditions. The intent of this assessment is to identify the potential for recognized environmental conditions in connection with the subject property; however, no environmental site assessment can completely eliminate uncertainty regarding the potential for recognized environmental conditions in connection with the subject property. The findings of this ESA are not intended to serve as an audit for health and safety compliance issues pertaining to improvements or activities at the subject property. ECS is not liable for the discovery or elimination of hazards that may potentially cause damage, accidents or injury.

Observations, conclusions and/or recommendations pertaining to environmental conditions at the subject property are necessarily limited to conditions observed, and or materials reviewed at the time this study was undertaken. It was not the purpose of this study to determine the actual presence, degree or extent of contamination, if any, at this subject property. This could require additional exploratory work, including sampling and laboratory analysis. No warranty, expressed or implied, is made with regard to the conclusions and/or recommendations presented within this report.

This report is provided for the exclusive use of Carter Bank and Trust. This report is not intended to be used or relied upon in connection with other projects or by other unidentified third parties. The use of this report by any undesignated third party or parties will be at such party's sole risk and ECS disclaims liability for any such third party use or reliance.

2.5 Data Gaps

Data failures (historical data gaps) were identified during the historical research of the subject property. Use of the subject property was generally documented back to 1890. Historical information was missing for various periods. However, due to the apparent historical use, the present use, and the other information that was obtained about the subject property, the historical data gaps are not expected to impact our ability to render a professional opinion regarding the subject property. Additionally, ECS did not conduct occupant interviews as part of this assessment. Based on the use of the site and adjoining properties, these data gaps are not anticipated to affect our ability to render a professional opinion concerning the property's environmental quality.

2.6 Limiting Conditions/Deviations

ASTM E1527-13 requires that the Environmental Professional identify limiting conditions, deletions, and deviations from the ASTM E1527-13 standard, if any, including client-imposed constraints. The following limiting conditions and/or deviations were encountered during the performance of this Phase I ESA:

ECS was unable to access some interior portions of subject property, including three of the outbuildings due to locked doors. In addition, visibility in some portions of the manufacturing building was low due to poor lighting. Therefore, ECS cannot attest to environmental conditions within areas that were not directly observed.



3.0 SUBJECT PROPERTY DESCRIPTION

3.1 Subject Property Location and Legal Description

Site Name	Auction Property
Property Address	2785 Grassy Hill Road
Property City, State	Rocky Mount, Virginia
Property County	Franklin County
Number of Parcels	One
Property ID Number(s)	0550002900
Property Size	10.4 Acres
Property Owner of Record	Carter Bank and Trust
Property Legal Description	Not Provided

3.2 Physical Setting and Hydrogeology

USGS Topographic Map	
Quad Designation	Boones Mill, Virginia
Date	2013
Subject Property Settings	
Average Subject Property Elevation (in ft or meters)	1020 to 1040 feet above mean sea level
General Sloping Direction	Northwest
Bodies of Water	Blackwater River borders the property to the west and north.
General Directions of Surface Flow	Northwest
Presumed Direction of Groundwater Flow	Northwest
Geologic Province	Blue Ridge Anticline
Up-gradient Property Direction	Southeast



Nearby Properties' Setting	
General Sloping Direction	Varies; towards Blackwater River
Bodies of Water	Blackwater River borders the property to the west and north.
General Directions of Surface Flow	Towards Blackwater River
Presumed Direction of Groundwater Flow	Varies; towards Blackwater River

Regional influences such as changes in soil and geologic conditions and topography may have an impact on groundwater flow. The actual groundwater flow direction cannot be determined without site-specific information obtained through the gauging of groundwater monitoring wells.

3.3 Current Use and Description of the Site

The subject property consists of an approximately 10.4-acre parcel of land that is currently vacant. The property has been vacant since approximately 2005, with the most recent occupants of the subject property being Cooper Wood Products Inc. and CTS & Millwork Inc., both companies involved with milling, woodworking, and wood product manufacturing. The subject property is improved with a large industrial warehouse building with several outbuildings, located in an area that can generally be described as rural commercial and industrial.

4.0 USER PROVIDED INFORMATION

The ASTM standard includes disclosure and obligations of the User to help the Environmental Professional identify the potential for Recognized Environmental Conditions associated with the subject property. The ASTM E1527-13 User Questionnaire was submitted to and completed by Tom Choiniere, representing Carter Bank and Trust (User of the report). Section 4.0 is based on the completed User Questionnaire. A copy of the completed User Questionnaire is included in Appendix II.

4.1 Title Information

ECS was not provided with title information by the User. ECS did obtain a commitment for title insurance document from the real estate auction company (Woltz & Associates) website. This document defines the property and the property owner. No information that would indicate an environmental concern was observed in this document (attached in Appendix II). If additional information is provided following issuance of this report and information contained therein materially changes the outcome of this report, ECS will issue an addendum to this report.

4.2 Environmental Liens or Activity and Use Limitations

ECS was neither contracted to obtain information on environmental liens or activity and use limitations, nor have we been provided with information on environmental liens or activity and use limitations for our review. It should be noted by the User of this report that if the User does not obtain activity and use limitation information, the User that is seeking to qualify for an innocent landowner, a contiguous property owner, or a bona fide prospective purchaser liability defense may lose these rights to qualify under CERCLA. If the activity use information is provided following issuance of this report and information contained therein materially changes the outcome of this report, ECS will issue an addendum to this report.

4.3 Specialized Knowledge

The User indicated that he did not possess specialized knowledge of the subject property.

4.4 Commonly Known or Reasonably Ascertainable Information

The User indicated that he was not aware of commonly known environmental concerns related to the subject property.

4.5 Valuation Reduction for Environmental Issues

No information pertaining to the valuation reduction for environmental issues was provided to ECS.

4.6 Owner, Property Manager, and Occupant Information

The User indicated that the property is owned by Carter Bank and Trust.



4.7 Degree of Obviousness

The User stated that he was not aware of obvious indicators that point to the presence or likely presence of contamination at the subject property.

5.0 RECORDS REVIEW

A regulatory records search of ASTM standard and supplemental databases was conducted for the subject property and is included in Appendix III. The regulatory search report in the appendix includes additional details about the regulatory databases that were reviewed. The regulatory records search involves searching a series of databases for facilities that are located within a specified distance from the subject property. The ASTM standard specifies an approximate minimum search distance from the subject property for each database. Pursuant to ASTM, the approximate minimum search distance may be reduced for each standard environmental record except for Federal NPL site list, and Federal RCRA TSD list. According to ASTM, government information obtained from nongovernmental sources may be considered current if the source updates the information at least every 90 days or, for information that is updated less frequently than quarterly by the government agency, within 90 days of the date the government agency makes the information available to the public. The following table indicates the standard environmental record sources and the approximate minimum search distances for each record.

Standard Environmental Record Sources	Approximate Minimum Search Distance Per ASTM (miles)	Subject Property	Off-Site Properties
Federal NPL	1.0	No	0
Federal Delisted NPL	0.5	No	0
Federal CERCLIS	0.5	No	0
Federal CERCLIS NFRAP	0.5	No	0
Federal RCRA CORRACTS	1.0	No	0
Federal RCRA non-CORRACTS TSD	0.5	No	0
Federal RCRA Generators	Subject Site and Adjoining Properties	No	0
Federal IC/EC	Subject Site Only	No	0
Federal ERNS	Subject Site Only	No	0
State and Tribal Hazardous Waste Sites (NPL Equivalent)	1.0	No	0
State and Tribal Hazardous Waste Sites (CERCLIS Equivalent)	0.5	No	0
State and Tribal Landfill and/or solid waste disposal sites	0.5	No	0
State and Tribal Leaking Tanks	0.5	Yes	0

Standard Environmental Record Sources	Approximate Minimum Search Distance Per ASTM (miles)	Subject Property	Off-Site Properties
State and Tribal Registered UST and AST	Subject Site and Adjoining Properties	Yes	0
State and Tribal IC/EC	Subject Site Only	No	0
State and Tribal Voluntary Cleanup (VCP)	0.5	No	0
State and Tribal Brownfield Sites	0.5	No	0

Based on our knowledge of the subject property and the surrounding area, ECS attempts to verify and interpret this data. While this attempt at verification is made with due diligence, ECS cannot guarantee the accuracy of the record(s) search beyond that of information provided by the regulatory report(s). ECS makes no warranty regarding the accuracy of the database report information included within the regulatory report(s).

The regulatory record search was performed by EDR and is dated November 30, 2017. ECS did not reduce the minimum ASTM search distances stipulated in the standard. The regulatory databases reviewed by ECS included supplemental databases researched by EDR.

5.1 Federal ASTM Databases

Neither the subject property nor properties within the designated search radii were identified on the federal ASTM databases researched for this assessment.

5.2 State ASTM Databases

5.2.1 State Leaking Tanks (LTANKS)

The LTANKS database is a list of all reported leaking underground and above ground tanks recorded by the state. The following facility as identified by EDR:

Cooper Wood Products Inc. (PC#: 19921992) - This facility is the subject property. The pollution complaint for this facility is listed as closed. Furthermore, this facility is listed in the UST database, indicating that there were two diesel fuel USTs located on the site that were installed in 1974, and have been removed from the ground. A review of the DEQ files indicates that the two 1,000-gallon USTs were removed in 1991. Upon removal of the tanks, contamination was observed that appeared to originate from product line joints and overfilling from the hand operated dispensers. Contaminated soils were reportedly over-excavated during the initial abatement and were staged onsite for volatilization. No disposal documentation was observed in the files indicating that these soils were ever removed from the site. The report also indicates that free product was observed in the soils upon removal of the USTs; however, the quantity of free product observed was not enough to warrant free product removal, besides what was captured and removed during



over-excavation activities. The report indicates that groundwater is approximately 13.5 feet below ground surface. Soil samples collected during site characterization activities indicated concentrations of total petroleum hydrocarbons (TPH) in the range of 3-4,394 parts per million (ppm), and detection of several volatile organic compounds (VOCs) in the groundwater. It was also noted that contamination was observed in upgradient locations, which could indicate other sources of contamination from historical usage. Furthermore, the Site Characterization Report noted that the site owner at the time, Bill Cooper, indicated that the subject property was utilized as a fuel filling station back to at least 1938 prior to the Cooper Wood Products ownership. In addition he stated that there was a petroleum release that occurred on the subject property in 1985, during a flood event. Considering the contamination observed during this tank closure, the lack of disposal documentation for the contaminated soils and the reported historical use of this property, with the potential for other tanks to be present, this is considered to be a REC for the subject property.

5.2.2 Registered Underground Storage Tank (UST) List

The Registered UST List inventories underground storage tanks registered with the state. This list does not identify USTs that have not been registered or are exempt, such as home heating oil tanks and other unregulated tanks.

Cooper Wood Products (Facility ID: 2002745) - This facility is further discussed in the LTANKS section above, and is considered to be a REC for the subject property.

5.3 Additional Environmental Record Sources

5.3.1 Additional Non-ASTM Federal Databases

5.3.1.1 FINDS

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

The subject property is listed on the FINDS, US AIRS, ICIS and ECHO databases, which appear to deal closely with air permitting and regulations. As long as chemicals were handled, stored, and disposed of properly, this listing is not believed to be REC for the subject property.

5.3.2 Additional Non-ASTM State Databases

Neither the subject property nor properties within the designated search radii are identified on the additional non-ASTM state databases researched for this assessment.



5.3.3 Other Proprietary Databases

Neither the subject property nor properties within the designated search radii were identified on other proprietary databases researched for this assessment.

5.3.4 Unmapped (Orphan) Facilities and Sites

No properties were identified on the Orphan Summary List.

5.4 Regulatory Review Summary

A regulatory database search report was provided by EDR. The database search involves researching a series of Federal, State, Local, and other databases for facilities and properties that are located within specified minimum search distances from the subject property. The report identified the subject property on several databases, including the LTANKS and UST databases. Considering the contamination observed during tank closure, the lack of disposal documentation for the contaminated soils that were excavated and the reported historical use of this property as a gasoline station, with the potential for other tanks to be present, this is considered to be a REC for the subject property. The EDR report did not identify any off-site properties within the minimum ASTM search distances for any of the databases researched.



6.0 HISTORICAL USE INFORMATION

6.1 Aerial Photograph Review

ECS reviewed aerial photographs of the subject property and immediately surrounding properties for evidence of former usage which may indicate potential environmental issues. The aerial photographs were obtained from EDR. The aerial photographs reviewed are dated 1947, 1951, 1956, 1960, 1977, 1982, 1995, 2005, 2006, 2008, 2009, 2011 and 2012. Aerial photographs dated prior to 1947 were not available for review from EDR. The ECS review is dependent on the quality and scale of the photographs. The following is a description of relevant information from the aerial photographs:

Year(s)	Subject Property	Adjoining Properties	REC? (yes or no)
1947 - 1956	The northern portion of the site appears to be agricultural land, a small homestead type structure appears to be present on the central portion of the site, and the southern portion of the site appears to be densely wooded.	North - Undeveloped, wooded land. East - Wooded land with agricultural land beyond. South - Wooded land. West - Cleared, agricultural land.	No
1960	The site is developed with several structures on the eastern portion. The structures appear to be commercial or industrial.	North - Undeveloped, wooded land. East - Wooded land with agricultural land beyond. South - Wooded land. West - Cleared, agricultural land.	Yes
1977 - 2012	Continued development of the site, as commercial or industrial, has occurred over the years reviewed including several large buildings. The current configuration appears to be present since at least 1995. A small structure is also present on the southern portion of the site within the dense woods.	North - Undeveloped, wooded land. East - Several homesteads appear to be present in the area. South - Wooded land. West - Continued development of the area as industrial. The current configuration appears to be present since at least 1995.	Yes

6.2 Sanborn Fire Insurance Map Review

In an effort to identify past uses, ECS utilized EDR to search for historical Sanborn Fire Insurance Maps (Sanborns) for the subject property and surrounding area. Sanborn maps were not available for this area. The absence of such maps generally indicates that the subject property is located in an

area where Sanborn maps were not produced because the area was rural or it was not economically feasible. ECS does not expect the lack of Sanborn maps to impact our ability to render a professional opinion concerning the subject property given the amount of historical information obtained from our research which included USGS topographic maps, aerial photographs, city directories and other historical records obtained. A copy of the Unmapped Property report is included within Appendix IV.

6.3 Property Tax Files

Property tax files may include records of past ownership, appraisals, maps, sketches, photos or other information kept by the local jurisdiction for property tax assessment purposes. According to the Franklin County tax assessor on-line information, the subject property is owned by Carter Bank and Trust. The subject property is listed as a 10.4-acre parcel with an identification number of 0550002900.

6.4 Recorded Land Title Records

Recorded land title records may include leases, land contracts, and AULs recorded by the local jurisdiction. Land title records may provide only a list of the names of previous owners and may be of limited use; however, they may provide useful information about uses or occupancy of the property when employed in combination with other sources.

ECS was not provided with Land Title Records.

6.5 Historical USGS Topographic Maps

Topographic maps are produced by the United States Geological Survey (USGS) for various time periods. ECS reviewed topographic maps of the subject property and immediately surrounding properties for evidence of former usage which may indicate potential environmental issues. The topographic maps were obtained from EDR. The topographic maps reviewed are dated 1890, 1891, 1951, 1963, 1978 and 2013. Topographic maps dated prior to 1890 were not available for review. The ECS review is dependent on the quality and scale of the maps. The following is a description of relevant information from the topographic maps:

Year(s)	Subject Property	Adjoining Properties	REC? (yes or no)
1890 - 1891	The site is undeveloped . No structures are depicted on the site or surrounding area.	Neighboring property is also undeveloped.	No
1951	A small structure is depicted on the central portion of the subject property.	North - Blackwater River East - Primary highway. South - Undeveloped land. West - Blackwater River.	No

Year(s)	Subject Property	Adjoining Properties	REC? (yes or no)
1963	The site appears to be developed with several larger buildings in an industrial type configuration.	North - Blackwater River East - Secondary highway with a few scattered smaller structures. South - Wooded land. West - Blackwater River.	Yes
1978	Additional development of larger commercial or industrial structures is depicted on the site.	North - Blackwater River East - Secondary highway with a few scattered smaller structures. South - Wooded land. West - Blackwater River.	Yes
2013	No structures are depicted on the subject site.	No structures are plotted on nearby properties. The site is bound on the north and west by the Blackwater River and a primary road on the east.	No

6.6 City Directory Review

One of the ASTM standard historical sources to be reviewed for previous subject property uses is local street directories, commonly known as City Directories. The purpose of the directory review is to identify past occupants of the subject property, adjoining properties, or nearby properties. In some rural areas, street directories information is limited.

ECS reviewed city directories obtained from EDR. The directories reviewed are dated 2000, 2005, 2010 and 2014. Directories dated prior to 2000 were not available for review. The subject property address utilized for the research was 2785 Grassy Hill Road. The following is a description of relevant information from the city directories:

Year(s)	Listed Occupants	REC? (yes or no)
Subject Property		
2000	Cooper Wood Products Inc.	No
2005	CTS & Millwork Inc.	No
2010	Custom Trim and Stairways	No
2014	No Listings	No
Adjoining Properties (Grassy Hill Road)		

Year(s)	Listed Occupants	REC? (yes or no)
2000	Adjoining properties appear to be predominantly residential.	No
2005-2010	2818 - Blackwater Equine Farms Inc. Boone Valley Realty LLC The remaining nearby and adjoining properties appear to be predominantly residential.	No
2014	No listings from 2563-2914.	No

6.7 Building Department Records

The term building department records means those records of the local government indicating permissions of the local government to construct, alter or demolish improvements on the property.

ECS contacted the Franklin County Building Department to determine if they had any historical information regarding construction dates, inspections or other information regarding the site. A written request was submitted to the Building Department on December 1, 2017. No information has been received at the time of the report completion. If information is received that changes the conclusions or recommendations of this report, ECS will forward the information to the Client.

6.8 Zoning/Land Use Records

The term zoning/land use records refers to records of the local government indicating the uses permitted by the government in particular zones within its jurisdictions. ECS reviewed zoning/land use records obtained from Franklin County. The subject property is currently not zoned for a specific use.

6.9 Other Historical Sources

Other credible historical sources may be reviewed to identify past uses of the subject property. These sources may include websites, county or state road maps, historical society documents, or local library information.

The Rocky Mount Fire Department was contacted to determine if they had historical information regarding environmental issues or responses at the site. A written request was submitted to the Fire Department on December 1, 2017. No information has been received at the time of the report completion. If information is received that changes the conclusions or recommendations of this report, ECS will forward the information to the Client.

The Franklin County Health Department was contacted to determine if they had any historical information regarding environmental issues or records of wells or septic tanks for the property. A written request was submitted to the Environmental Health Department on December 1, 2017. The Health Department responded that they had no information on the subject property.



6.10 Previous Reports

We have not been provided with environmental or engineering assessment reports for the subject property completed by others, nor has ECS completed similar studies or prior assessments of the subject property. However, a Site Characterization Report located in DEQ files indicates that the site was previously utilized as a filling station since at least 1938.

6.11 Historical Use Summary

According to historical research, the subject property has been utilized for commercial and industrial purposes since at least the 1960's. The most recent tenant was Cooper Wood Products, which milled trim, stairs and similar products. Prior to the 1960's the subject property was reportedly a filling station. The neighboring community has developed slowly from primarily agricultural uses to mixed commercial and residential developments. In conclusion, the long term historical use of the property as a filling station and industrial uses is considered to be a REC.

7.0 SITE AND AREA RECONNAISSANCE

7.1 Methodology

ECS conducted the field reconnaissance on December 1, 2017. The weather at the time of the reconnaissance was 50 degrees Fahrenheit and sunny. Observations were made from a walking reconnaissance around the perimeter, around the buildings, through the buildings and along several transects across the subject property. Access or visibility limitations, if any, are discussed in Section 2.6. Subject property photographs are included in Appendix V.

7.2 On-Site Features

The subject property is developed with an industrial facility, most recently occupied by Cooper Wood Products and CTS&I, woodworking and furniture manufacturing companies. The property is currently vacant and has been vacant for approximately 13 years. The subject property is developed with a large approximately 100,000 square-foot building that was constructed in 1950. The subject property is reportedly service by private wells and a septic system. The subject property contains the manufacturing building, three separate storage and equipment outbuildings, paved and landscaped areas and a covered walkway. The property is bound to the west by the Blackwater River, which a small bridge spans, connecting it to the adjacent property to the west.

Various drums and containers of chemicals which included paints, stains, solvents, detergents, petroleum products and cleaners were observed throughout the subject buildings. There are large silos and hoppers behind the main manufacturing building that appear to be connected to the property via overhead plumbing and conveyor belt systems.

One 275-gallon AST was located near the northeastern parking lot. The tank was in a concrete containment with a roof. No staining or evidence of a release was observed in the vicinity of the AST. A concrete slab, which appeared to contain a former AST tank cradle, was located on the southwestern portion of the property. No staining or evidence of a release was observed surrounding this area.

A paint booth is located within the subject building. No permits or information was available about this paint booth. There are pole mounted transformers located along the western portion of the property. We did not observe evidence of leakage or staining in the vicinity of the transformers.

The subject property appeared to contain an extensive sprinkler system, which appeared to draw water from the adjacent Blackwater River. The two outbuildings to the north and south of the main manufacturing building appeared to be related to a water pumping control system, although that could not be confirmed. Several hydrants are located along the western portion of the property.

The table below lists pertinent features of interest that were assessed for the subject property. Relevant information regarding pertinent features is discussed further in this section.

Feature	Yes	No
Underground or aboveground storage tanks	✓	

Feature	Yes	No
Strong, pungent or noxious odors		✓
Surface waters	✓	
Standing pools of liquid likely containing petroleum or hazardous substances		✓
Drums or containers of petroleum or hazardous substances greater than five-gallons	✓	
Drums or containers of petroleum or hazardous substances less than or equal to five-gallons	✓	
Unidentified opened or damaged containers of hazardous substances or petroleum products		✓
Known or suspect PCB-containing equipment (excluding light ballasts)	✓	
Stains or corrosion to floors, walls or ceilings	✓	
Floor drains and sump pumps	✓	
Pits, ponds or lagoons		✓
Stained soil or pavement		✓
Stressed vegetation		✓
Solid waste mounds or non-natural fill materials		✓
Wastewater discharges into drains, ditches or streams	✓	
Groundwater wells including potable, monitoring, dry, irrigation, injections and/or abandoned	✓	
Septic systems or cesspools		✓
Elevators		✓
Dry cleaning		✓
Onsite emergency electrical generators		✓
Specialized industrial equipment (paint booths, bag houses, etc.) on-site	✓	
Hydraulic lifts		✓
Oil-water separators		✓
Compressors on-site		✓
Grease traps		✓

7.2.1 Underground or aboveground storage tanks

The subject property contains one 275-gallon steel AST that appeared to be empty. Secondary containment was located around the AST. Staining was not observed on or near the concrete and asphalt surface near the AST at the time of our assessment.

7.2.2 Surface waters

The Blackwater River is located bordering the western portion of the subject property. ECS did not observe petroleum sheen on the surface water at the time of our assessment.

7.2.3 Drums or containers of petroleum or hazardous substances greater than five-gallons

Several 55-gallon drums and other containers are located throughout the subject building. The observed drums were situated on concrete surfaces. Labels were weathered and the text could no longer be discerned. Staining was not observed on the drums or the ground surfaces in the vicinity of the drums.

7.2.4 Drums or containers of petroleum or hazardous substances less than or equal to five-gallons

Several containers of paints, stains and other chemicals are located throughout the subject building. The observed containers were situated on concrete surfaces. Staining was not observed on the drums or the floor slab in the vicinity of the drums.

7.2.5 Known or suspect PCB-containing equipment (excluding light ballasts)

Pole mounted transformers are located on the western portion of the subject property. No 'non-PCB' labels could be discerned on the transformers. Staining, which could be indicative of leakage, was not observed on the transformers or ground surface below the units.

7.2.6 Stains or corrosion to floors, walls or ceilings

Staining was observed on the concrete floors throughout several areas of the buildings. We were not able to determine the source and type (chemical or petroleum) of staining but it appears to be associated with former equipment which is no longer present.

7.2.7 Floor drains and sump pumps

Floor drains are located throughout the subject building. The discharge point of the drains is unknown.

7.2.8 Wastewater discharges into drains, ditches or streams

A large pipe appears to be connected to the facility which may discharge or pump water from the Blackwater River.

7.2.9 Groundwater wells including potable, monitoring, dry, irrigation, injections and/or abandoned

The subject property is reportedly serviced by a potable well. Several hydrants and parts of an extensive sprinkler system were observed along the western portion of the property. We were not able to determine if water for the sprinkler system was withdrawn from the river or from the well.

7.2.10 Specialized industrial equipment (paint booths, bag houses, etc.) on-site

A paint booth is located within the subject building. The booth appeared to have a ventilation system. No floor drains were observed in the vicinity of the paint booth.

7.3 Adjoining and Nearby Properties

Contiguous and nearby properties were observed during a walking and vehicular reconnaissance of the subject property boundary and public places. The subject property is located in a rural commercial area of Rocky Mount, Franklin County, Virginia. The following is a brief description of neighboring property:

Direction	Description	Relative Gradient	REC
North	The subject property is bound to the north by the Blackwater River followed by New Plant Road and undeveloped forested land.	Down-gradient	No
East	The subject property is bound to the east by Grassy Hill Road followed by sparsely developed residential properties.	Up-gradient	No
South	The subject property is bound to the south by undeveloped forested land.	Up-gradient	No
West	The subject property is bound to the west by the Blackwater River followed by a large commercial and industrial facility.	Cross-gradient	No

7.4 Site and Area Reconnaissance Summary

According to our site observations the subject property is currently vacant but was previously occupied by Cooper Wood products, a custom mill work and furniture company. The subject property is located in a lightly developed area of Rocky Mount. Cooper Classics, another furniture manufacturing facility, is located to the west. The remaining adjoining properties are either wooded or residential. Details pertaining to our on-site and off-site observations are referenced previously. In conclusion, we did not identify off-site RECs associated with neighboring properties and businesses during the reconnaissance. However, former industrial uses (mill work and furniture manufacturing) are characterized as a REC due to the observed chemical and petroleum storage and potential for contamination associated with spills or improper use, handling or disposal of these substances.

8.0 ADDITIONAL SERVICES

ASTM guidelines identify non-scope issues, which are beyond the scope of this practice. Non-scope issues have the potential to be business environmental risks. Some of these non-scope issues include; asbestos-containing building materials, radon, lead-based paint, lead in drinking water, wetlands and mold.

ECS was not authorized to assess non-scope issues in conjunction with this assessment.

9.0 INTERVIEWS

No interviews were conducted as part of this assessment, as ECS was unable to contact anyone with extensive previous knowledge concerning previous use of the subject property. The owner of the property completed the User questionnaire, which is discussed in Section 4 above.

10.0 FINDINGS AND CONCLUSIONS

The subject property is identified by Franklin County as parcel 0550002900 and owned by Carter Bank and Trust. The approximately 10.4-acre subject property is occupied by a large vacant industrial facility with several outbuildings. The property has been vacant since approximately 2005, with the most recent occupants of the subject property being Cooper Wood Products Inc. and CTS & Millwork Inc., both companies involved with milling, woodworking, and wood product manufacturing. The subject property is serviced by a private well and septic system.

The subject property is located in a rural commercial/industrial area of Rocky Mount. The subject property is bound on the north by the Blackwater River followed by New Plant Road and undeveloped forest land, on the east by Grassy Hill Road followed by sparsely developed residential properties, on the south by undeveloped forested land and on the west by the Blackwater River followed by a large commercial and industrial facility. We did not identify adjoining or nearby properties that are considered a Recognized Environmental Condition (REC) for the subject property.

Based on the records search, site reconnaissance and interviews, it appears that the subject property was developed with a fueling station from at least 1938 until the 1950's when the property began being developed into an industrial property. The current large manufacturing and industrial structure was reportedly built in 1950. Historical records prior to 1890 were not reasonably ascertainable for the subject property. Our review of historical information for adjoining or nearby properties identified the area as originally agricultural that has remained predominately rural with some commercial/industrial and residential development occurring in recent years.

A regulatory database search report was provided by EDR. The database search involves researching a series of Federal, State, Local, and other databases for facilities and properties that are located within specified minimum search distances from the subject property. The report identified the subject property on several of the databases researched, which included the FINDS, US AIRS, ICIS, ECHO, UST and LTANKS databases. The EDR report did not identify any off-site properties within the minimum ASTM search distances for any of the databases researched.

ASTM E1527-13 defines a "data gap" as: "a lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information". Data gaps which would be expected to impact our ability to render a professional opinion concerning the subject property were not identified.

We have performed a Phase I Environmental Site Assessment in general conformance with the scope and limitations of ASTM E1527-13 of the Auction Property located at 2785 Grassy Hill Road, in Rocky Mount, Franklin County, Virginia. Exceptions to, or deletions from, this practice are described in Section 2.6 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the property except for the following:

- The subject property reportedly operated as a filling station from at least 1938 until the 1950s. No documentation about this filling station or its tanks could be obtained. Furthermore, Cooper Wood Products formerly utilized USTs for diesel fuel and gasoline, which have been removed from the ground; however, low levels of petroleum compounds were detected in the soil and groundwater in the vicinity of the tanks. This historic use of the

property leads to a potential for incidental spills or leaks of petroleum substances to impact the site. Consequently, this long term use is considered to be a REC.

- The subject property operated as a industrial facility since at least the 1950s. The historic use of the property for industrial purposes leads to a potential for incidental spills or leaks of petroleum, and other hazardous substances to impact the site, especially in the areas of chemical storage. Consequently, this long term use is considered to be a REC.

11.0 REFERENCES

ASTM E1527-13. Standard Practice for Environmental Site Assessment, Phase I Environmental Site Assessment Process.

Environmental Data Resources, Inc., The EDR Aerial Photo Decade Package (years 1947, 1951, 1956, 1960, 1977, 1982, 1995, 2005, 2006, 2008, 2009, 2011, and 2012), dated November 30, 2017.

Environmental Data Resources, Inc., The EDR Radius Map Report, dated November 30, 2017.

Environmental Data Resources, Inc., Certified Sanborn Map Report (no coverage), dated November 30, 2017.

Franklin County County GIS website, accessed on November 30, 2017.

Virginia Department of Environmental Quality, Regulatory Files.

USGS Topographic Map, Boones Mills, Virginia Quadrangle, dated 2013.

User Questionnaire completed by Tom Choiniere with Carter Bank and Trust, dated December 5, 2017

Environmental Data Resources, Inc., EDR City Directory Image Report, dated December 6, 2017.

Environmental Data Resources, Inc., Historical Topo Map Report, dated November 30, 2017.

Appendix I: Figures



Figure 1
Site Location Map
Auction Property
2785 Grassy Hill Road
Rocky Mount, Virginia 24151

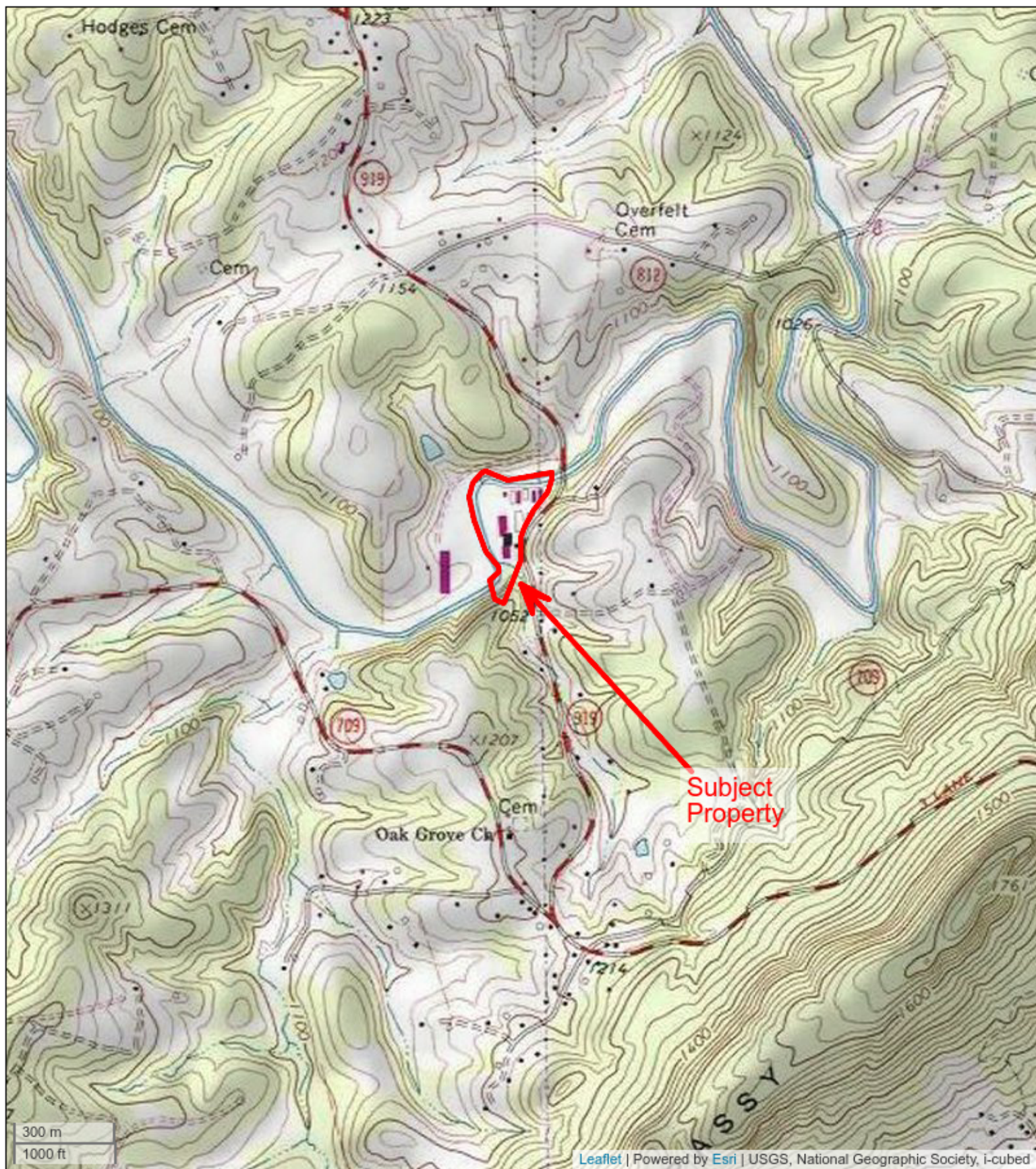


Figure 2
USGS Topographic Map
Auction Property
2785 Grassy Hill Road
Rocky Mount, Virginia 24151

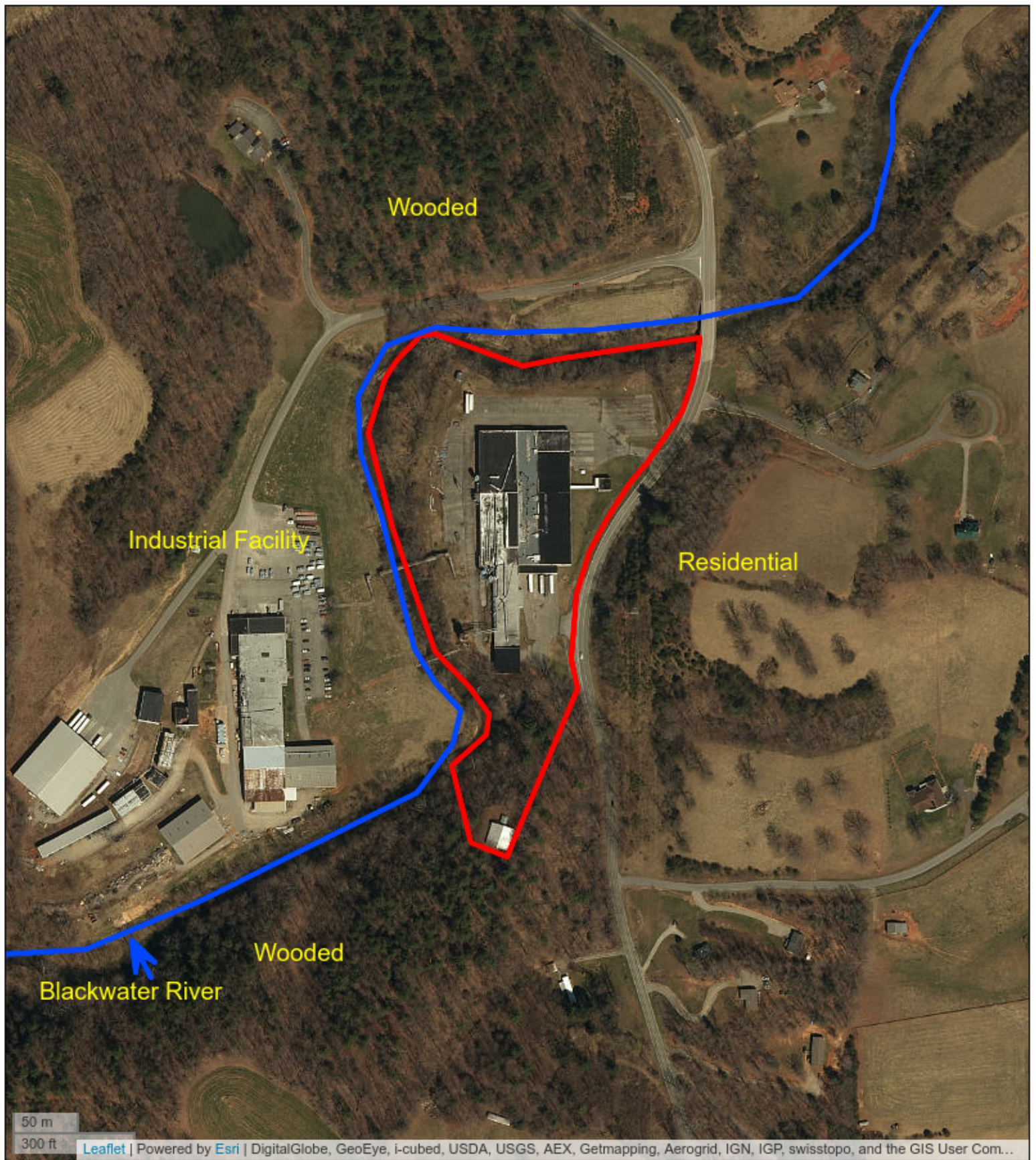


Figure 3

Aerial Photograph
Auction Property
2785 Grassy Hill Road
Rocky Mount, Virginia 24151



Appendix II: Correspondence and User Questionnaire



Environmental Questionnaire for User

Completion required for conformance with ASTM E 1527-13. Failure to provide this information may preclude CERCLA liability protections for the property purchaser. Please return answered form to ECS.

Site Name: 2785 GRASSY HILL ROAD, ROCKY MOUNT VA

Name and Title of Person Completing Questionnaire (Please Print):

TOM CHOINIERE, SENIOR VICE PRESIDENT

Signature of Person Completing Questionnaire:



Date: 12/5/17

Name of Your Company and Your Contact Number (Please Print):

CALTER BANK AND TRUST 336-854-1715

ASTM E 1527-13 indicates that, "Either the user shall make known to the environmental professional the reason why the user wants to have the Phase I Environmental Site Assessment performed or, if the user does not identify the purpose of the Phase I Environmental Site Assessment, the environmental professional shall assume the purpose is to qualify for an LLP to CERCLA liability and state this in the report." As the user of this ESA, what is the reason for conducting the Phase I ESA? If this question is unanswered, ECS will assume that the user's reason for the ESA is to qualify for landowner liability protections to CERCLA liability.

Please state reason for having ESA performed: CALTER BANK AND TRUST HAS NOT OPERATED FROM SUBJECT PARCEL; INQUIRING OF ANY ENVIRONMENTAL CONCERNS AS THE BANK IS SELLING REAL ESTATE TO HOPEFUL END USER.

Will you provide Property Title Records and a Legal Description to ECS?

Please select one: NO YES IF POSSIBLE IN FILE

Will you provide a 50-year chain of title abstract to ECS?

Please select one: NO YES

Please Send Information Promptly

(1a.) Environmental liens that are filed or recorded against the site (40 CFR 312.25). ASTM E 1527-13 states that the user should perform a review of recorded land title records and judicial records for environmental liens or activity and use limitations for the site. Please forward the results of the land title record and judicial record review. If you would prefer, ECS can obtain this information from a third party provider for an additional fee. Please let ECS know if you would like to contract ECS for this service.

Please select one: Client to Provide ECS to Provide for Additional Fee

(1b.) **Activity and land use limitations that are in place on the site or that have been filed or recorded in a registry (40 CFR 312.26).** Are you aware of any activity use limitations (AULs), such as engineering controls, land use restrictions or institutional controls that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state or local law?

Please select one: **NO** **YES**
If yes, please explain: NO KNOWLEDGE

(2.) **Specialized knowledge** - As the user of this ESA do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?

Please select one: **NO** **YES**
If yes, please explain: NO KNOWLEDGE

(3.) **Commonly known or reasonably ascertainable information about the property (40 CFR 312.30).** Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example:

(a.) Do you know the past uses of the property?

Please select one: **NO** **YES**
If yes, please state uses: NO KNOWLEDGE

(b.) Do you know of specific chemicals that are present or once were present at the property?

Please select one: **NO** **YES**
If yes, please explain: NO KNOWLEDGE

(c.) Do you know of spills or other chemical releases that have taken place at the property?

Please select one: **NO** **YES**
If yes, please explain: NO KNOWLEDGE

(d.) Do you know of any environmental cleanups that have taken place at the property?

Please select one: NO YES

If yes, please explain: NO KNOWLEDGE

(4.) Relationship of the purchase price to the fair market value of the property if it were not contaminated (40 CFR 312.29). Does the purchase price being paid for this property reasonably reflect the fair market value of the property?

Please select one: NO YES

If no, please explain: _____

If you are aware that there is a difference, is the lower purchase price because contamination is known or believed to be present at the property?

Please select one: NO YES

If yes, please explain: NO KNOWLEDGE

(5.) Parcel Property Owner(s) & Contact Number(s):

A. CARTER BANK AND TRUST 336-854-1715

B. _____

C. _____

D. _____

Property Manager and Occupant(s) & Contact Number(s)

Property Manager: TOM CHOWIENE 336-854-1715

Occupant/Tenant: _____

Occupant/Tenant: _____

(6.) The degree of obviousness of the presence or likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31). As the user of this ESA, based on your knowledge and experience related to the property, are there any obvious indicators that point to the presence or likely presence of contamination at the property?

Please select one: NO YES

If yes, please explain: NO KNOWLEDGE



December 1, 2017

Building Inspections
Office of Development Services
1255 Franklin Street, Suite 103
Rocky Mount, VA 24151

Fax: 540-483-6665

ECS Project No.: 47: 5178

Reference: Freedom of Information Act Request

Dear Ms. Cook:

ECS Mid-Atlantic, LLC (ECS) is currently conducting an environmental site assessment of the below-referenced property. As part of our assessment, we are interested in historical information regarding construction dates, inspections, or other information regarding the site as well as environmental concerns or permits for underground storage tank installations or removals, or other files which the Department has for the following location:

- 2785 Grassy Hill Road, Rocky Mount
Parcel ID: 055002900

We appreciate the Department's assistance in completing the assessment of this property. If you should have any questions concerning the requested information or need further clarification on the location of the site, please do not hesitate to contact our office at 540-362-2000.

Thank you for your assistance.

Respectfully,

ECS MID-ATLANTIC, LLC

A handwritten signature in blue ink that reads "Steven Hay".

Steven Hay
Environmental Staff Project Manager

shay@ecslimited.com

Phone: 540-362-2000

Fax: 540-362-1202



December 1, 2017

Rocky Mount Volunteer Fire Department
1250 North Main Street
Rocky Mount, VA 24151

Fax: 540-484-1995

ECS Project No. 5177

Subject: Freedom of Information Act Request

Dear Sir or Madam:

ECS Mid-Atlantic, LLC (ECS) is currently working on an environmental site assessment in Rocky Mount, and we are requesting any information that you may have regarding documented environmental issues, including but not limited to underground storage tank installation or removal and responses to spills or releases of petroleum/chemical substances or hazardous materials at the subject site or in the immediate area of the site. The site is:

- 2785 Grassy Hill Road, Rocky Mount
Parcel ID: 055002900

We appreciate any information on the subject site or in the vicinity of the subject site. If you have any questions, please call me at 540-362-2000.

Thank you for your assistance.

Respectfully,

ECS MID-ATLANTIC, LLC

A handwritten signature in blue ink that reads "Steven Hay".

Steven Hay
Environmental Staff Project Manager

shay@ecslimited.com

Phone: 540-362-2000

Fax: 540-362-1202



December 1, 2017

Franklin County Health Department
365 Pell Avenue
P. O. Box 249
Rocky Mount, VA 24151

Fax: 540-484-0314

ECS Project No.: 47: 5178

Subject: Freedom of Information Act Request

To Whom It May Concern:

ECS Mid-Atlantic, LLC (ECS) is currently working on an environmental site assessment in Rocky Mount, and we are requesting any information that you may have regarding documented environmental issues or health problems in the area in which we are studying. We are specifically interested in records pertaining to installation or repair of septic systems (including POTW facilities), potable wells (installation records, water quality testing, etc.), complaints or records regarding air quality or chemical/petroleum release to surface water. The site is:

- 2785 Grassy Hill Road, Rocky Mount
Parcel ID: 055002900

We appreciate any information on the site or in the vicinity of the site. If you have any questions, please call me at 540-362-2000.

Thank you for your assistance.

Respectfully,

ECS MID-ATLANTIC, LLC

A handwritten signature in blue ink that reads "Steven Hay".

Steven Hay
Environmental Staff Project Manager

shay@ecslimited.com

Phone: 540-362-2000

Fax: 540-362-1202

Commitment for Title Insurance

Schedule A

Issued by **Fidelity National Title Insurance Company**



Fidelity National Title Insurance Company

Woltz & Associates
23 Franklin Road
Roanoke, VA 24011
540-342-3560
540-342-3741

Order No.: 6622239
CTS & I Millwork

1. Effective Date: 10/05/2017 8:00 AM
2. Policy or Policies to be issued:

ALTA Owner's Policy (6/17/2006)

Proposed Insured: Carter Bank & Trust

Amount of Insurance: \$100,000.00

3. The estate or interest in the land described or referred to in this Commitment is Fee Simple.
4. Title to the Fee Simple estate or interest in the land is at Effective Date vested in:

Carter Bank & Trust
5. The land referred to in this Commitment is described as follows:

See attached Exhibit "A".

Countersigned:

Jarita N. Roberts

BY: _____
Authorized Officer or Agent

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Schedule B Section 1 Requirements

The following are requirements to be complied with:

1. Instrument(s) creating the estate or interest to be insured must be approved, executed and filed for record.
 - A. Warranty Deed from Carter Bank & Trust, vesting fee simple title in Carter Bank & Trust.
2. The Company requires receipt in writing of the name of anyone not referenced in this commitment who will acquire an interest in the land or who will execute a deed of trust encumbering the land herein. Additional requirements and/or exceptions may then be added.
3. Payment of full consideration to or for the account of the grantor(s) or mortgagor(s).
4. Payment of the premiums, fees and charges for the policy/policies.
5. Payment of all taxes, charges, and assessments, levied and assessed against the subject premises, which are due and payable
6. Payment of all outstanding water, sewer and public utility charges to date of settlement.
7. The Company must be provided with an approved form of executed Owner's Affidavit and Agreement relating to, among other items, mechanics' liens and parties in possession.
8. Certification from settlement agent that they have made independent verification through the PACER system that the seller and/or borrowers are not in bankruptcy.
9. Settlement agent must ascertain identity of all parties executing instruments required for this transaction in compliance with Virginia statutes (eg. Section 47.1-14).
10. Payment of all HOA/POA assessments, charges, and fees, which the subject property may be subject to, plus any penalty and interest which may be due.
11. Receipt and review of all corporate/entity/trust documents for subject parties as may be required under Virginia underwriting guidelines.
12. No recorded deed of trust or mortgage on the subject property was found in a search of the land records. Accordingly, the Company requires receipt of an Affidavit from record owner addressed to the Company, stating that there are no recorded or unrecorded deed(s) of trust, personal notes and/or obligations on the real estate intended by the mortgagee, lender or noteholder to be paid with closing proceeds.

NOTE: This Company may make other requirements and/or exceptions based upon any changes in the status of the facts as disclosed thus far.

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**Schedule B Section 2
Exceptions**

Schedule B of the policy or policies to be issued will contain exceptions to the following matters unless the same are disposed of to the satisfaction of the Company:

GENERAL EXCEPTIONS:

1. Defects, liens, encumbrances, adverse claims or other matters, if any, created or first appearing in the public records or attaching to the title subsequent to the date of this commitment.
2. Taxes or special assessments, which are not shown as existing liens by the public records.
3. Easements or claims of easements not shown by the public records.
4. Any liens, or right to a lien, for services, labor or material heretofore or hereafter furnished, imposed by law and not shown by the public records.
5. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land. The term "encroachment" includes encroachments of existing improvements located on the Land onto adjoining land, and encroachments onto the Land of existing improvements located on adjoining land.
6. Rights or claims of parties in possession not shown by the public records.

SPECIAL EXCEPTIONS:

7. This tax information is furnished for your information only. No liability of any nature whatsoever is hereby assumed for errors as to these figures. The settlement agent/attorney must verify these figures for the purposes of certifying title to the Company and preparing settlement pro rations.

Tax Assessment for 2017

BILL # N/A

MAP or PARCEL ID/GPIN # 55-27.2

DESCRIPTION IN TAX RECORD: 22.084 Acres, Route 919/Grassy Hill Road & Route 944/New Plant Road

LAND ASSESSMENT: \$98,800.00

IMPROVEMENTS ASSESSMENT: \$360,900.00

TOTAL ASSESSMENT: \$459,700.00

ANNUAL TAX: \$2,528.35

TAX PAYMENT DUE DATE(S): December 5

TAXES HAVE BEEN PAID THROUGH: 2016

TAXES A LIEN, NOT YET DUE: 2017

8. This tax information is furnished for your information only. No liability of any nature whatsoever is hereby assumed for errors as to these figures. The settlement agent/attorney must verify these figures for the purposes of certifying title to the Company and preparing settlement pro rations.

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**Schedule B Section 2
Exceptions continued**

Tax Assessment for 2017

BILL # N/A
MAP or PARCEL ID/GPIN # 55-29
DESCRIPTION IN TAX RECORD: 10.75 Acres, Route 919
LAND ASSESSMENT: \$184,100.00
IMPROVEMENTS ASSESSMENT: \$554,100.00
TOTAL ASSESSMENT: \$738,200.00
ANNUAL TAX: \$4,060.10
TAX PAYMENT DUE DATE(S): December 5
TAXES HAVE BEEN PAID THROUGH: 2016
TAXES A LIEN, NOT YET DUE: 2017

9. This tax information is furnished for your information only. No liability of any nature whatsoever is hereby assumed for errors as to these figures. The settlement agent/attorney must verify these figures for the purposes of certifying title to the Company and preparing settlement pro rations.

Tax Assessment for 2017

BILL # N/A
MAP or PARCEL ID/GPIN # 55-30
DESCRIPTION IN TAX RECORD: 1.342 Acres, Route 919
LAND ASSESSMENT: \$13,400.00
IMPROVEMENTS ASSESSMENT: \$0.00
TOTAL ASSESSMENT: \$13,400.00
ANNUAL TAX: \$73.70
TAX PAYMENT DUE DATE(S): December 5
TAXES HAVE BEEN PAID THROUGH: 2016
TAXES A LIEN, NOT YET DUE: 2017

10. Taxes and special assessments due and payable after Date of Policy.
11. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land. The term "encroachment" includes encroachments of existing improvements located on the Land onto adjoining land, and encroachments onto the Land of existing improvements located on adjoining land. (As to all parcels)
12. Easement granted from Cooper Lumber Company, Incorporated to Appalachian Power Company by instrument dated December 23, 1968 recorded in Deed Book 253, Page 348. (As to all parcels)
13. Easement granted from Cooper Wood Products to Appalachian Power Company by instrument dated May 24, 1989 recorded in Deed Book 453, Page 961. (As to all parcels)
14. Easement granted from Cooper Lumber Company, Incorporated to Lee Telephone Company by instrument dated January 19, 1971 recorded in Deed Book 269, Page 44. (As to all parcels)
15. Easement granted from Cooper Wood Products Inc., to Central Telephone Company of Virginia by instrument dated October 5, 1989 recorded in Deed Book 470, Page 1259. (As to all parcels)

Schedule B Section 2
Exceptions continued

16. Easement granted from Cooper Wood Products to Appalachian Power Company by instrument dated March 12, 1992 recorded in Deed Book 501, Page 1271. (As to all parcels)
17. Easement granted from Cooper Lumber Company and Cooper Wood Products to Commonwealth of Virginia by instrument dated October 2, 1992 recorded in Deed Book 517, Page 1595. (As to all parcels)
18. 20' PUE along Route 944 and along Route 919 as shown on survey dated October 20, 2011, made by Ronald E. Yount, recorded in Deed Book 1006, paged 394-396. (As to all parcels)
19. Easement granted from M.L. Goode to Lee Telephone Company by instrument dated December 14, 1954 recorded in Deed Book 133, Page 406. (As to Parcel I)
20. Rights of others thereto entitled in and to the continued uninterrupted flow of the branch crossing insured premises as shown on plat of survey recorded in Map Book 3, page 142. (As to Parcel II and III)
21. Overhead electric lines and telephone lines crossing insured premises as shown on plat of survey by Philip W. Nester, L.S., dated August 5, 2004, recorded in Deed Book 830, page 682. (As to Parcel I and Parcel IV)
22. Easement 100 feet in width crossing insured premises as shown on plat of survey by Philip W. Nester, L.S., dated August 5, 2004 recorded in Deed Book 830, page 682. (As to Parcels 1 and IV)
23. Title to that portion of property within the bounds of Blackwater River. (As to Parcels I, II and III)
24. Easement granted from D.E. Wigington and wife Mrs D.E. Wigington to New River Development Company by instrument dated April 25, 1925 recorded in Deed Book 75, Page 497. (As to Parcel III)
25. Easement granted from D.E. Wigington and wife Missouri J. Wigington to Appalachian Electric Power Company by instrument dated September 30, 1937 recorded in Deed Book 91, Page 89. (As to Parcel III)
26. Easement granted from Maddie Lee Hodges and Toy Hodges to Lee Telephone Company by instrument dated October 6, 1959 recorded in Deed Book 187, Page 413. (As to Parcel III)
27. Encroachment of fence onto adjoining property as shown on plat of survey by Raymond E. Robertson, C.L.S., dated July 18, 1973, revised March 5, 1975, recorded in Deed Book 830, pages 675-676. (As to Parcel III)
28. Easement granted from Robert M. Cooper and wife Belle N. Cooper to Appalachian Power Company by instrument dated August 8, 1978 recorded in Deed Book 344, Page 444. (As to Parcel IV)
29. Easement granted from Robert M. Cooper and Belle N. Cooper to Central Telephone Company of Virginia by instrument dated May 12, 1978 recorded in Deed Book 347, Page 121. (As to Parcel IV)
30. Easement granted from Cooper Family Limited Partnership to Appalachian Power Company by instrument dated March 12, 1992 recorded in Deed Book 502, Page 1074. (As to Parcel IV)

**Schedule B Section 2
Exceptions continued**

31. Reservation of 50 ft. right of way granted from CWP, Inc. to CTS & I Millwork Inc. by instrument dated June 28, 2004 recorded in Deed Book 830, page 677. (As to Parcel IV)
32. Rights of others entitled thereto in and to the use and enjoying of the pond as located on insured premises and adjoining property as shown on plat of survey recorded in Map Book 7, page 16. (As to Parcel IV)
33. No liability is assumed for maintenance and upkeep of the fifty foot right of way reserved in Deed Book 830, page 677. (As to Parcels III and IV)
34. Encroachment of fence onto adjoining property as shown on plat of survey by J. L. Zeh, C.L.S., dated July 7, 1977, recorded in Map Book 7, page 16. (As to Parcel IV)
35. Rights of others in and to the use of the appurtenant easements as set forth in the description. (As to Parcel IV)
36. Overhead electric lines located along easterly property line as shown on plat dated August 5, 2004 by Philip W. Nester, recorded in Deed Book 830, page 682. (As to Parcels I and IV)
37. Easement granted from Carter Bank & Trust to Prosperity Investment Group, LLC by instrument dated November 16, 2011 recorded in Deed Book 1006, Page 397. (As to Parcels III and IV)
38. 50 ft. right of way running along southerly portion of property as shown on surveys of record in Deed Book 805, page 2595 and Deed Book 1006, page 395. (As to Parcels III and IV)

NOTE: Access to Parcel II, known as 1.342 acres, Tax Parcel #55-30 is insured only by way of its adjoining Parcel 1, containing 10.257 acres, known as Tax Parcel #55-29.

NOTE: If policy is to be issued in support of a mortgage loan, attention is directed to the fact that the Company can assume no liability under its policy, the closing instructions, or Insured Closing Service for compliance with the requirements of any consumer credit protection or truth in lending law in connection with said mortgage loan.

Exhibit "A"

All those certain parcels of land (Tax Parcel #55-29, #55-30, #55-28 and #55-27.2), together with improvements thereon containing 55.957 acres, more or less, situated, lying and being in the Blackwater Magisterial District, Franklin County, Virginia, and being more particularly described according to the composite plat and survey prepared by Philip W. Nester, C.L.S., Cert. #1398, dated August 5, 2004, said plat being of record in the Clerk's Office of the Circuit Court of Franklin County, Virginia, in Deed Book 830, at page 682, reference to which is made for a more particular description. The real property being described as follows:

PARCEL I

Parcel I consisting of Tract 1 and Tract 2, containing 10.257 acres, more or less, according to the aforesaid Plat, (Tax Parcel #55-29), and being the same property conveyed to Cooper Lumber Company, Incorporated, from George Saul Cooper and Caroline B. Cooper, husband and wife, by Deed dated September 30, 1959, said deed being of record in the Clerk's Office of the Circuit Court of Franklin County, Virginia, in Deed Book 177, at page 402.

PARCEL II

All that certain parcel of land (Tax Parcel #55-30), containing 1.342 acres, more or less, and being more particularly described by that certain plat and survey prepared by Charles E. Kabrich, C.L.S., dated August 9, 1965, said plat being of record in the aforesaid Clerk's Office in Map Book 3, at page 142, reference to which is made for a more particular description.

PARCEL III

All that certain parcel of land (Tax Parcel #55-28), containing 20.0041 acres, more or less, and being more particularly described by that certain survey made by Raymond E. Robertson, dated July 18, 1973, to-wit:

BEGINNING at an iron pin in the lint of the A. H. Hopkins land and running thence $56^{\circ} 34' 20''$ E. 486.21 feet to an iron pin at a fence row; thence N. $30^{\circ} 27' 10''$ E. 676.80 feet to an iron pin on the east side of a branch; thence re-crossing the branch S. $65^{\circ} 43' 50''$ E. to an iron pin on the north bank of Blackwater River plus 30 feet to the center of the river; thence with the center line of the river parallel to the survey from the iron pin on the bank of said river S. $09^{\circ} 59' 50''$ W. 213.39 feet; S. $10^{\circ} 04' 10''$ E. 441.27 feet to an iron pin; S. $28^{\circ} 38' 20''$ E. 303.50 feet to an iron pin on the top of the bank in the bend of said river, thence S. $63^{\circ} 56' 20''$ W. 1096.87 feet to an iron pin; thence N. $70^{\circ} 45' 40''$ W. 184.59 feet to an iron pin in the Hopkins line 30 feet from the center of the river; thence with the Hopkins line beginning at the point in the center of the river and passing the iron pin on the top of the bank at 30 feet and running North $03^{\circ} 46' 30''$ E. with the Hopkins line 566.76 feet to an iron pin, the point of beginning, containing 20.0041 acres, more or less, as shown by said survey, being the intent for the conveyance to go to the center of said river where the land is bounded by the river.

PARCEL IV

All those certain tracts of land (Tax Parcel #55-27.2), containing 26.005 acres, more or less, according to the land books of Franklin County, Virginia, and being more particularly described as follows:

Tract (1): containing 2.047 acres, more or less, and being more particularly described as Tract I, according to the plat and survey prepared by J. L. Zeh, Surveyor, Cert. #1186, dated July 7, 1977, said plat being of record in the aforesaid Clerk's Office in Map Book 7, at page 16, reference to which is made for a more particular description.

Tract (2): containing 23.407 acres, more or less, and being more particularly described as Tract 2, according to the plat and survey prepared by J. L. Zeh, Surveyor, Cert #1186, dated July 7, 1977, said

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Exhibit "A" continued

plat being of record in the aforesaid Clerk's Office, in Map Book 7, at page 16, reference to which is made for a more particular description.

Tract (3): containing 3.0 acres, more or less, and being more particularly described according to the plat and survey prepared by Christopher N. McMurry, L.S., Cert. #2209, dated October 7, 1998, said plat being of record in the aforesaid Clerk's Office in Deed Book 643, at page 132, reference to which is made for a more particular description.

LESS, However, that certain tract containing 0.710 of an acre, conveyed to The Cooper Family Limited Partnership, and being more particularly described on the aforesaid Plat.

Reserved from this conveyance for the benefit of the 5.015 acres, more or less, parcel conveyed to Cooper Classic's, Inc., a Virginia corporation, by Deed dated May 15, 2003, said deed being of record in the aforesaid Clerk's Office in Deed Book 805, at page 2591, is a non-exclusive permanent 50 foot easement of right-of-way, as shown on the plat of said 5.015 acres, prepared by Philip W. Nester, C.L.S., Cert #1398, dated March 31, 2003, of record in the aforesaid Clerk's Office in Deed Book 805, at page 2595, and being described as the "Proposed 50 foot private right-of-way", from Virginia Secondary Route 944 (New Plant Road), to the 5.015 acres parcel conveyed to Cooper Classics, Inc., for the purposes of ingress and egress.

Together with a 30 foot easement of right-of-way for the purposes of ingress and egress, from the end of the proposed 50 foot private right-of-way, across the parking area located on the 5.015 acre parcel retained by Cooper Classics, Inc., to the maintenance building, denoted on the plat for Cooper Classics, dated March 31, 2003, of record in the Clerk's Office of the Circuit Court of Franklin County, Virginia, in Deed Book 805, at page 2595, as Block Building, reference to which is made for a more particular description.

LESS AND EXCEPT the following out-conveyances:

17.965 acres conveyed to Prosperity Investment Group, LLC by deed dated November 16, 2011 recorded in Deed Book 1006, Page 397 and designated as Tract B on Plat recorded in Deed Book 1006, Pages 394 thru 396.

0.397 acres conveyed to Grassy Hill Properties, LLC by deed dated December 1, 2014 recorded in Deed Book 1057, Page 333.

It being the same property conveyed to Carter Bank & Trust, a Virginia banking institution by Deed from John L. Gregory, III, Sole Acting Substitute Trustee and CTS & I Millwork, Inc., a Virginia Corporation dated April 23, 2009, recorded April 24, 2009 in the Clerk's Office of the Circuit Court of Franklin, Virginia, recorded in Deed Book 958, Page 1692.

COMMITMENT FOR TITLE INSURANCE

Issued by

FIDELITY NATIONAL TITLE INSURANCE COMPANY

FIDELITY NATIONAL TITLE INSURANCE COMPANY, a Florida corporation, ("Company"), for a valuable consideration, commits to issue its policy or policies of title insurance, as identified in Schedule A, in favor of the Proposed Insured named in Schedule A, as owner or mortgagee of the estate or interest in the land described or referred to in Schedule A, upon payment of the premiums and charges and compliance with the Requirements; all subject to the provisions of Schedules A and B and to the Conditions of this Commitment.

This Commitment shall be effective only when the identity of the Proposed Insured and the amount of the policy or policies committed for have been inserted in Schedule A by the Company.

All liability and obligation under this Commitment shall cease and terminate 6 months after the Effective Date or when the policy or policies committed for shall issue, whichever first occurs, provided that the failure to issue the policy or policies is not the fault of the Company.

The Company will provide a sample of the policy form upon request.

IN WITNESS WHEREOF, FIDELITY NATIONAL TITLE INSURANCE COMPANY has caused its corporate name and seal to be affixed by its duly authorized officers on the date shown in Schedule A.

FIDELITY NATIONAL TITLE INSURANCE COMPANY

Countersigned:

By: *Jorita N. Roberts*
Authorized Officer or Agent

HOI - FNTIC-Roanoke
310 First St, 12th Floor
Roanoke, VA 24011
Tel: 540-982-2121
Fax: 540-982-0918



By:

Raymond Afrik

President

Attest:

[Signature]

Secretary

CONDITIONS

1. The term mortgage, when used herein, shall include deed of trust, trust deed, or other security instrument.
2. If the proposed Insured has or acquired actual knowledge of any defect, lien, encumbrance, adverse claim or other matter affecting the estate or interest or mortgage thereon covered by this Commitment other than those shown in Schedule B hereof, and shall fail to disclose such knowledge to the Company in writing, the Company shall be relieved from liability for any loss or damage resulting from any act of reliance hereon to the extent the Company is prejudiced by failure to so disclose such knowledge. If the proposed Insured shall disclose such knowledge to the Company, or if the Company otherwise acquires actual knowledge of any such defect, lien, encumbrance, adverse claim or other matter, the Company at its option may amend Schedule B of this Commitment accordingly, but such amendment shall not relieve the Company from liability previously incurred pursuant to paragraph 3 of these Conditions.
3. Liability of the Company under this Commitment shall be only to the named proposed Insured and such parties included under the definition of Insured in the form of policy or policies committed for and only for actual loss incurred in reliance hereon in undertaking in good faith (a) to comply with the requirements hereof, or (b) to eliminate exceptions shown in Schedule B, or (c) to acquire or create the estate or interest or mortgage thereon covered by this Commitment. In no event shall such liability exceed the amount stated in Schedule A for the policy or policies committed for and such liability is subject to the insuring provisions and Conditions and the Exclusions from Coverage of the form of policy or policies committed for in favor of the proposed Insured which are hereby incorporated by reference and are made a part of this Commitment except as expressly modified herein.
4. This Commitment is a contract to issue one or more title insurance policies and is not an abstract of title or a report of the condition of title. Any action or actions or rights of action that the proposed Insured may have or may bring against the Company arising out of the status of the title to the estate or interest or the status of the mortgage thereon covered by this Commitment must be based on and are subject to the provisions of this Commitment.
5. *The policy to be issued contains an arbitration clause. All arbitrable matters when the Amount of Insurance is \$2,000,000 or less shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties. You may review a copy of the arbitration rules at <<http://www.alta.org/>>.*



Appendix III: Regulatory Records Documentation

2785 Grassy Hill Road
2785 Grassy Hill Road
Rocky Mount, VA 24151

Inquiry Number: 5123000.2s
November 30, 2017

The EDR Radius Map™ Report with GeoCheck®



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

2785 GRASSY HILL ROAD
ROCKY MOUNT, VA 24151

COORDINATES

Latitude (North): 37.0270030 - 37° 1' 37.21"
Longitude (West): 79.9204800 - 79° 55' 13.72"
Universal Transverse Mercator: Zone 17
UTM X (Meters): 596021.4
UTM Y (Meters): 4098209.5
Elevation: 1030 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 5948780 BOONES MILL, VA
Version Date: 2013

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 20141017
Source: USDA

MAPPED SITES SUMMARY

Target Property Address:
2785 GRASSY HILL ROAD
ROCKY MOUNT, VA 24151

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	COOPER WOOD PRODUCTS	2785 GRASSY HILL ROA	ICIS, US AIRS, FINDS, ECHO		TP
A2	COOPER WOOD PRODUCTS	2785 GRASSY HILL RD	UST		TP
A3	COOPER WOOD PRODUCTS	2785 GRASSY HILL RD	LTANKS		TP

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
COOPER WOOD PRODUCTS 2785 GRASSY HILL ROA ROCKY MOUNT, VA 24151	ICIS FRS ID:: 110041052641	N/A
	US AIRS Database: US AIRS MINOR, Date of Government Version: 10/12/2016 EPA plant ID:: 110041052641	
	FINDS Registry ID:: 110001887058 Registry ID:: 110041052641	
	ECHO	
COOPER WOOD PRODUCTS 2785 GRASSY HILL RD ROCKY MOUNT, VA 24151	UST Tank Status: REM FROM GRD Facility Id: 2002745 CEDS Facility ID: 200000089529	N/A
COOPER WOOD PRODUCTS 2785 GRASSY HILL RD ROCKY MOUNT, VA 24151	LTANKS Facility Status: Closed CEDS Facility Id: 200000089529 Pollution Complaint #: 19921992	N/A

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL..... National Priority List
 Proposed NPL..... Proposed National Priority List Sites
 NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

EXECUTIVE SUMMARY

Federal CERCLIS list

FEDERAL FACILITY..... Federal Facility Site Information listing
SEMS..... Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE..... Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG..... RCRA - Large Quantity Generators
RCRA-SQG..... RCRA - Small Quantity Generators
RCRA-CESQG..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS..... Land Use Control Information System
US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROL..... Sites with Institutional Controls

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent CERCLIS

SHWS..... This state does not maintain a SHWS list. See the Federal CERCLIS list and Federal NPL list.

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Solid Waste Management Facilities

State and tribal leaking storage tank lists

LUST..... Leaking Underground Storage Tank Tracking Database
INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST..... Underground Storage Tank Listing
AST..... Registered Petroleum Storage Tanks
INDIAN UST..... Underground Storage Tanks on Indian Land

State and tribal institutional control / engineering control registries

ENG CONTROLS..... Engineering Controls Sites Listing

EXECUTIVE SUMMARY

INST CONTROL..... Voluntary Remediation Program Database

State and tribal voluntary cleanup sites

INDIAN VCP..... Voluntary Cleanup Priority Listing
VCP..... Voluntary Remediation Program

State and tribal Brownfields sites

BROWNFIELDS..... Brownfields Site Specific Assessments

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands
ODI..... Open Dump Inventory
DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations
IHS OPEN DUMPS..... Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL..... Delisted National Clandestine Laboratory Register
US CDL..... National Clandestine Laboratory Register

Local Land Records

LIENS 2..... CERCLA Lien Information

Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System
SPILLS..... Prep/Spills Database Listing
SPILLS 90..... SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR..... RCRA - Non Generators / No Longer Regulated
FUDS..... Formerly Used Defense Sites
DOD..... Department of Defense Sites
SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR..... Financial Assurance Information
EPA WATCH LIST..... EPA WATCH LIST
2020 COR ACTION..... 2020 Corrective Action Program List
TSCA..... Toxic Substances Control Act
TRIS..... Toxic Chemical Release Inventory System
SSTS..... Section 7 Tracking Systems
ROD..... Records Of Decision
RMP..... Risk Management Plans
RAATS..... RCRA Administrative Action Tracking System

EXECUTIVE SUMMARY

PRP.....	Potentially Responsible Parties
PADS.....	PCB Activity Database System
FTTS.....	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS.....	Material Licensing Tracking System
COAL ASH DOE.....	Steam-Electric Plant Operation Data
COAL ASH EPA.....	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER.....	PCB Transformer Registration Database
RADINFO.....	Radiation Information Database
HIST FTTS.....	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS.....	Incident and Accident Data
CONSENT.....	Superfund (CERCLA) Consent Decrees
INDIAN RESERV.....	Indian Reservations
FUSRAP.....	Formerly Utilized Sites Remedial Action Program
UMTRA.....	Uranium Mill Tailings Sites
LEAD SMELTERS.....	Lead Smelter Sites
US MINES.....	Mines Master Index File
ABANDONED MINES.....	Abandoned Mines
UXO.....	Unexploded Ordnance Sites
DOCKET HWC.....	Hazardous Waste Compliance Docket Listing
FUELS PROGRAM.....	EPA Fuels Program Registered Listing
AIRS.....	Permitted Airs Facility List
NPDES.....	Comprehensive Environmental Data System
COAL ASH.....	Coal Ash Disposal Sites
DRYCLEANERS.....	Drycleaner List
ENF.....	Enforcement Actions Data
Financial Assurance.....	Financial Assurance Information Listing
TIER 2.....	Tier 2 Information Listing
UIC.....	Underground Injection Control Wells

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP.....	EDR Proprietary Manufactured Gas Plants
EDR Hist Auto.....	EDR Exclusive Historical Auto Stations
EDR Hist Cleaner.....	EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF.....	Recovered Government Archive Solid Waste Facilities List
RGA LUST.....	Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

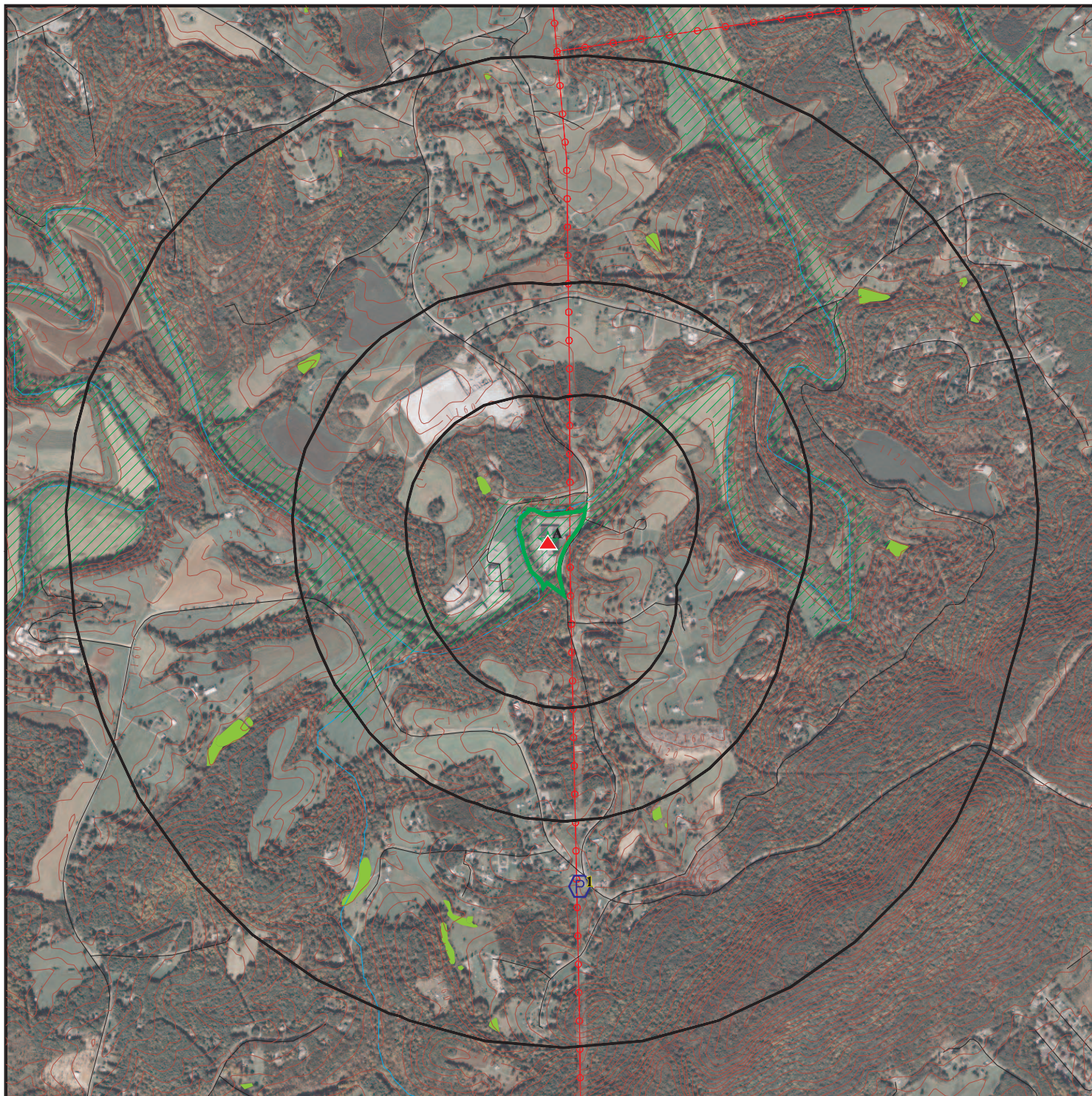
Surrounding sites were not identified.

Unmappable (orphan) sites are not considered in the foregoing analysis.


EXECUTIVE SUMMARY


There were no unmapped sites in this report.

OVERVIEW MAP - 5123000.2S



 Target Property

 Sites at elevations higher than or equal to the target property

 Sites at elevations lower than the target property

 Manufactured Gas Plants

 National Priority List Sites

 Dept. Defense Sites

 Indian Reservations BIA

 Power transmission lines

 100-year flood zone

 500-year flood zone

 National Wetland Inventory

 Upgradient Area










This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: 2785 Grassy Hill Road
 ADDRESS: 2785 Grassy Hill Road
 Rocky Mount VA 24151
 LAT/LONG: 37.027003 / 79.92048

CLIENT: ECS Mid Atlantic, LLC
 CONTACT: Alexandra Moon
 INQUIRY #: 5123000.2s
 DATE: November 30, 2017 4:21 pm

DETAIL MAP - 5123000.2S



-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  Sensitive Receptors
-  National Priority List Sites
-  Dept. Defense Sites

-  Indian Reservations BIA
-  Power transmission lines
-  100-year flood zone
-  500-year flood zone
-  National Wetland Inventory

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: 2785 Grassy Hill Road
 ADDRESS: 2785 Grassy Hill Road
 Rocky Mount VA 24151
 LAT/LONG: 37.027003 / 79.92048

CLIENT: ECS Mid Atlantic, LLC
 CONTACT: Alexandra Moon
 INQUIRY #: 5123000.2s
 DATE: November 30, 2017 4:21 pm

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
<i>Federal NPL site list</i>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL	1.000		0	0	0	0	NR	0
<i>Federal CERCLIS list</i>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
<i>Federal CERCLIS NFRAP site list</i>								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS	1.000		0	0	0	0	NR	0
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<i>Federal RCRA generators list</i>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
<i>Federal institutional controls / engineering controls registries</i>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS	TP		NR	NR	NR	NR	NR	0
<i>State- and tribal - equivalent CERCLIS</i>								
SHWS	N/A		N/A	N/A	N/A	N/A	N/A	N/A
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
SWF/LF	0.500		0	0	0	NR	NR	0
<i>State and tribal leaking storage tank lists</i>								
LUST	0.500		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0
LTANKS	0.500	1	0	0	0	NR	NR	1
<i>State and tribal registered storage tank lists</i>								
FEMA UST	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
UST	0.250	1	0	0	NR	NR	NR	1
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
ENG CONTROLS	0.500		0	0	0	NR	NR	0
INST CONTROL	0.500		0	0	0	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
SPILLS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP	1	NR	NR	NR	NR	NR	1
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP	1	NR	NR	NR	NR	NR	1
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP	1	NR	NR	NR	NR	NR	1
ECHO	TP	1	NR	NR	NR	NR	NR	1
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
COAL ASH	0.500		0	0	0	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
ENF	TP		NR	NR	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
TIER 2	TP		NR	NR	NR	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF	TP		NR	NR	NR	NR	NR	0
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MAP FINDINGS SUMMARY

<u>Database</u>	<u>Search Distance (Miles)</u>	<u>Target Property</u>	<u>< 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>> 1</u>	<u>Total Plotted</u>
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals --		6	0	0	0	0	0	6

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

N/A = This State does not maintain a SHWS list. See the Federal CERCLIS list.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A1 **COOPER WOOD PRODUCTS INC**
Target **2785 GRASSY HILL ROAD**
Property **ROCKY MOUNT, VA 24151**

ICIS **1014848179**
US AIRS **N/A**
FINDS
ECHO

Site 1 of 3 in cluster A

Actual:
1030 ft.

ICIS:
Enforcement Action ID: VA000A0000510670003700047
FRS ID: 110041052641
Action Name: CTS&I MILLWORK 510670003700047
Facility Name: CTS&I MILLWORK
Facility Address: 2785 GRASSY HILL RD
ROCKY MOUNT, VA 24151

Enforcement Action Type: Administrative Order
Facility County: FRANKLIN
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: SCAAO
Facility SIC Code: Not reported
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 37.02667
Longitude in Decimal Degrees: -79.91981
Permit Type Desc: Not reported
Program System Acronym: VA0000005106700037
Facility NAICS Code: 321918
Tribal Land Code: Not reported

Enforcement Action ID: VA000A0000510670003700046
FRS ID: 110041052641
Action Name: CTS&I MILLWORK 510670003700046
Facility Name: CTS&I MILLWORK
Facility Address: 2785 GRASSY HILL RD
ROCKY MOUNT, VA 24151

Enforcement Action Type: Notice of Violation
Facility County: FRANKLIN
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Informal
EA Type Code: NOV
Facility SIC Code: Not reported
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 37.02667
Longitude in Decimal Degrees: -79.91981
Permit Type Desc: Not reported
Program System Acronym: VA0000005106700037
Facility NAICS Code: 321918
Tribal Land Code: Not reported

Enforcement Action ID: VA000A0000510670003700045
FRS ID: 110041052641
Action Name: CTS&I MILLWORK 510670003700045
Facility Name: CTS&I MILLWORK
Facility Address: 2785 GRASSY HILL RD
ROCKY MOUNT, VA 24151

Enforcement Action Type: Notice of Violation
Facility County: FRANKLIN
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Informal
EA Type Code: NOV
Facility SIC Code: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COOPER WOOD PRODUCTS INC (Continued)

1014848179

Federal Facility ID: Not reported
Latitude in Decimal Degrees: 37.02667
Longitude in Decimal Degrees: -79.91981
Permit Type Desc: Not reported
Program System Acronym: VA0000005106700037
Facility NAICS Code: 321918
Tribal Land Code: Not reported

Enforcement Action ID: VA000A0000510670003700036
FRS ID: 110041052641
Action Name: CTS&I MILLWORK 510670003700036
Facility Name: CTS&I MILLWORK
Facility Address: 2785 GRASSY HILL RD
ROCKY MOUNT, VA 24151

Enforcement Action Type: Administrative Order
Facility County: FRANKLIN
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: SCAAO
Facility SIC Code: Not reported
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 37.02667
Longitude in Decimal Degrees: -79.91981
Permit Type Desc: Not reported
Program System Acronym: VA0000005106700037
Facility NAICS Code: 321918
Tribal Land Code: Not reported

Enforcement Action ID: VA000A0000510670003700034
FRS ID: 110041052641
Action Name: CTS&I MILLWORK 510670003700034
Facility Name: CTS&I MILLWORK
Facility Address: 2785 GRASSY HILL RD
ROCKY MOUNT, VA 24151

Enforcement Action Type: Notice of Violation
Facility County: FRANKLIN
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Informal
EA Type Code: NOV
Facility SIC Code: Not reported
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 37.02667
Longitude in Decimal Degrees: -79.91981
Permit Type Desc: Not reported
Program System Acronym: VA0000005106700037
Facility NAICS Code: 321918
Tribal Land Code: Not reported

Enforcement Action ID: VA000A0000510670003700032
FRS ID: 110041052641
Action Name: CTS&I MILLWORK 510670003700032
Facility Name: CTS&I MILLWORK
Facility Address: 2785 GRASSY HILL RD
ROCKY MOUNT, VA 24151

Enforcement Action Type: Administrative Order
Facility County: FRANKLIN
Program System Acronym: AIR

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COOPER WOOD PRODUCTS INC (Continued)

1014848179

Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: SCAAO
Facility SIC Code: Not reported
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 37.02667
Longitude in Decimal Degrees: -79.91981
Permit Type Desc: Not reported
Program System Acronym: VA0000005106700037
Facility NAICS Code: 321918
Tribal Land Code: Not reported

Enforcement Action ID: VA000A0000510670003700022
FRS ID: 110041052641
Action Name: CTS&I MILLWORK 510670003700022
Facility Name: CTS&I MILLWORK
Facility Address: 2785 GRASSY HILL RD
ROCKY MOUNT, VA 24151

Enforcement Action Type: Notice of Violation
Facility County: FRANKLIN
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Informal
EA Type Code: NOV
Facility SIC Code: Not reported
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 37.02667
Longitude in Decimal Degrees: -79.91981
Permit Type Desc: Not reported
Program System Acronym: VA0000005106700037
Facility NAICS Code: 321918
Tribal Land Code: Not reported

US AIRS MINOR:

Envid: 1014848179
Region Code: 03
Programmatic ID: AIR VA0000005106700037
Facility Registry ID: 110041052641
D and B Number: Not reported
Primary SIC Code: Not reported
NAICS Code: 321918
Default Air Classification Code: MIN
Facility Type of Ownership Code: NON
Air CMS Category Code: SMI
HPV Status: Not reported

FINDS:

Registry ID: 110001887058

Environmental Interest/Information System
CEDS (Virginia - Comprehensive Environmental Data System) is the Department of Environmental Quality's (DEQ) electronic data system for maintaining databases on sources of pollutants in all media.

Registry ID: 110041052641

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COOPER WOOD PRODUCTS INC (Continued)

1014848179

Environmental Interest/Information System

AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

AIR EMISSIONS CLASSIFICATION UNKNOWN

AIR MINOR

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1014848179
Registry ID: 110041052641
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110041052641>

**A2
Target
Property**

**COOPER WOOD PRODUCTS; INC
2785 GRASSY HILL RD
ROCKY MOUNT, VA 24151**

**UST U003674347
N/A**

Site 2 of 3 in cluster A

**Actual:
1030 ft.**

Facility:
Facility Id: 2002745
Facility Type: COMMERCIAL
CEDS Facility ID: 200000089529
Owner:
Owner Id: 37361
Owner Name: Hub Oil Company Inc
Owner Address: 40 Diamond Ave NW
Owner Address2: PO Box 877
Owner City, State, Zip: Rocky Mount, VA 24151
Owner Type: PRIVATE
Number of Active AST: 0
Number of Active UST: 0
Number of Inactive AST: 0
Number of Inactive UST: 2

UST:

Facility ID: 2002745
Federally Regulated: Yes

Tank Number: R1
Tank Capacity: 1000
Tank Contents: DIESEL
Tank Status: REM FROM GRD

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COOPER WOOD PRODUCTS; INC (Continued)

U003674347

Tank Type:	UST
Tank Material:	
Install Date:	4/15/1974
Tank Materials: Bare Steel	Yes
Tank Materials: Cath Protect Steel	No
Tank Materials: Epoxy Steel	No
Tank Materials: Fiberglass	No
Tank Materials: Concrete	No
Tank Materials: Composite	No
Tank Materials: Double Walled	No
Tank Materials: Lined Interior	No
Tank Materials: Excav Liner	No
Tank Materials: Insulated Tank Jacket	No
Tank Materials: Repaired	No
Tank Materials: Unknown	No
Tank Materials: Other	No
Tank Materials: Other Note	Not reported
Release Detection:	
Tank Release Detection: Leak Deferred	No
Tank Release Detection: Manual Gauge	No
Tank Release Detection: Auto Gauge	No
Tank Release Detection: Tank Tightness	No
Tank Release Detection: Vapor Monitor	No
Tank Release Detection: Inventory	No
Tank Release Detection: Stat Invent Recon	No
Tank Release Detection: Spill Install	No
Tank Release Detection: Overfill Install	No
Tank Release Detection: Groundwater	No
Tank Release Detection: Int Sec Containment	No
Tank Release Detection: Int Double Walled	No
Tank Release Detection: Other Method	No
Tank Release Detection: Other Note	Not reported
Pipe Release Detection: Leak Deferred	Not reported
Pipe Release Detection: Autoleak	Not reported
Pipe Release Detection: Line Tightness	No
Pipe Release Detection: Stat Invent Recon	No
Pipe Release Detection: Groundwater	No
Pipe Release Detection: Int Sec Containment	No
Pipe Release Det: Interior Double Walled	No
Pipe Release Detection: Other Method	No
Pipe Release Detection: Other Note	Not reported
Pipe Type:	NO VALVE: SUCTION
Pipe Materials: Bare Steel	No
Pipe Materials: Galvanized Steel	Yes
Pipe Materials: Copper	No
Pipe Materials: Fiberglass	No
Pipe Materials: Cath Protect	No
Pipe Materials: Double Walled	No
Pipe Materials: Sec Containment	No
Pipe Materials: Repaired	No
Pipe Materials: Unknown	No
Pipe Materials: Other	No
Pipe Materials: Other Note	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COOPER WOOD PRODUCTS; INC (Continued)

U003674347

Facility ID:	2002745
Federally Regulated:	Yes
Tank Number:	R2
Tank Capacity:	1000
Tank Contents:	DIESEL
Tank Status:	REM FROM GRD
Tank Type:	UST
Tank Material:	
Install Date:	4/15/1974
Tank Materials: Bare Steel	Yes
Tank Materials: Cath Protect Steel	No
Tank Materials: Epoxy Steel	No
Tank Materials: Fiberglass	No
Tank Materials: Concrete	No
Tank Materials: Composite	No
Tank Materials: Double Walled	No
Tank Materials: Lined Interior	No
Tank Materials: Excav Liner	No
Tank Materials: Insulated Tank Jacket	No
Tank Materials: Repaired	No
Tank Materials: Unknown	No
Tank Materials: Other	No
Tank Materials: Other Note	Not reported
Release Detection:	
Tank Release Detection: Leak Deferred	No
Tank Release Detection: Manual Gauge	No
Tank Release Detection: Auto Gauge	No
Tank Release Detection: Tank Tightness	No
Tank Release Detection: Vapor Monitor	No
Tank Release Detection: Inventory	No
Tank Release Detection: Stat Invent Recon	No
Tank Release Detection: Spill Install	No
Tank Release Detection: Overfill Install	No
Tank Release Detection: Groundwater	No
Tank Release Detection: Int Sec Containment	No
Tank Release Detection: Int Double Walled	No
Tank Release Detection: Other Method	No
Tank Release Detection: Other Note	Not reported
Pipe Release Detection: Leak Deferred	Not reported
Pipe Release Detection: Autoleak	Not reported
Pipe Release Detection: Line Tightness	No
Pipe Release Detection: Stat Invent Recon	No
Pipe Release Detection: Groundwater	No
Pipe Release Detection: Int Sec Containment	No
Pipe Release Det: Interior Double Walled	No
Pipe Release Detection: Other Method	No
Pipe Release Detection: Other Note	Not reported
Pipe Type:	NO VALVE: SUCTION
Pipe Materials: Bare Steel	No
Pipe Materials: Galvanized Steel	Yes
Pipe Materials: Copper	No
Pipe Materials: Fiberglass	No
Pipe Materials: Cath Protect	No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COOPER WOOD PRODUCTS; INC (Continued)

U003674347

Pipe Materials: Double Walled	No
Pipe Materials: Sec Containment	No
Pipe Materials: Repaired	No
Pipe Materials: Unknown	No
Pipe Materials: Other	No
Pipe Materials: Other Note	Not reported

A3
Target
Property

COOPER WOOD PRODUCTS, INC
2785 GRASSY HILL RD
ROCKY MOUNT, VA 24151

LTANKS **S103222637**
N/A

Site 3 of 3 in cluster A

Actual:
1030 ft.

LTANKS:
Region: BRRO-R
CEDS Facility Id: 200000089529
Case Status: Closed
Pollution Complaint #: 19921992
Reported: 01/29/1992

Count: 0 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
NO SITES FOUND					

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 05/30/2017	Source: EPA
Date Data Arrived at EDR: 06/08/2017	Telephone: N/A
Date Made Active in Reports: 09/15/2017	Last EDR Contact: 11/03/2017
Number of Days to Update: 99	Next Scheduled EDR Contact: 01/15/2018
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 05/30/2017	Source: EPA
Date Data Arrived at EDR: 06/09/2017	Telephone: N/A
Date Made Active in Reports: 09/15/2017	Last EDR Contact: 11/03/2017
Number of Days to Update: 98	Next Scheduled EDR Contact: 01/15/2018
	Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991	Source: EPA
Date Data Arrived at EDR: 02/02/1994	Telephone: 202-564-4267
Date Made Active in Reports: 03/30/1994	Last EDR Contact: 08/15/2011
Number of Days to Update: 56	Next Scheduled EDR Contact: 11/28/2011
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 05/30/2017	Source: EPA
Date Data Arrived at EDR: 06/09/2017	Telephone: N/A
Date Made Active in Reports: 09/15/2017	Last EDR Contact: 11/03/2017
Number of Days to Update: 98	Next Scheduled EDR Contact: 01/15/2018
	Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 11/07/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/05/2017	Telephone: 703-603-8704
Date Made Active in Reports: 04/07/2017	Last EDR Contact: 10/06/2017
Number of Days to Update: 92	Next Scheduled EDR Contact: 01/15/2018
	Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 07/11/2017	Source: EPA
Date Data Arrived at EDR: 07/21/2017	Telephone: 800-424-9346
Date Made Active in Reports: 10/06/2017	Last EDR Contact: 11/03/2017
Number of Days to Update: 77	Next Scheduled EDR Contact: 01/29/2018
	Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 07/11/2017	Source: EPA
Date Data Arrived at EDR: 07/28/2017	Telephone: 800-424-9346
Date Made Active in Reports: 10/06/2017	Last EDR Contact: 11/03/2017
Number of Days to Update: 70	Next Scheduled EDR Contact: 01/29/2018
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 09/13/2017	Source: EPA
Date Data Arrived at EDR: 09/26/2017	Telephone: 800-424-9346
Date Made Active in Reports: 10/06/2017	Last EDR Contact: 09/26/2017
Number of Days to Update: 10	Next Scheduled EDR Contact: 01/08/2018
	Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 09/13/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/26/2017	Telephone: 800-438-2474
Date Made Active in Reports: 10/06/2017	Last EDR Contact: 09/26/2017
Number of Days to Update: 10	Next Scheduled EDR Contact: 01/08/2018
	Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/13/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/26/2017	Telephone: 800-438-2474
Date Made Active in Reports: 10/06/2017	Last EDR Contact: 09/26/2017
Number of Days to Update: 10	Next Scheduled EDR Contact: 01/08/2018
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 09/13/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/26/2017	Telephone: 800-438-2474
Date Made Active in Reports: 10/06/2017	Last EDR Contact: 09/26/2017
Number of Days to Update: 10	Next Scheduled EDR Contact: 01/08/2018
	Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/13/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/26/2017	Telephone: 800-438-2474
Date Made Active in Reports: 10/06/2017	Last EDR Contact: 09/26/2017
Number of Days to Update: 10	Next Scheduled EDR Contact: 01/08/2018
	Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/22/2017	Source: Department of the Navy
Date Data Arrived at EDR: 06/13/2017	Telephone: 843-820-7326
Date Made Active in Reports: 09/15/2017	Last EDR Contact: 11/08/2017
Number of Days to Update: 94	Next Scheduled EDR Contact: 02/26/2018
	Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 08/10/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/30/2017	Telephone: 703-603-0695
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 11/27/2017
Number of Days to Update: 44	Next Scheduled EDR Contact: 03/12/2018
	Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 08/10/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/30/2017	Telephone: 703-603-0695
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 11/27/2017
Number of Days to Update: 44	Next Scheduled EDR Contact: 03/12/2018
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/18/2017

Source: National Response Center, United States Coast Guard

Date Data Arrived at EDR: 09/21/2017

Telephone: 202-267-2180

Date Made Active in Reports: 10/13/2017

Last EDR Contact: 09/21/2017

Number of Days to Update: 22

Next Scheduled EDR Contact: 01/08/2018

Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

SHWS: This state does not maintain a SHWS list. See the Federal CERCLIS list and Federal NPL list.

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: N/A

Source: Department of Environmental Quality

Date Data Arrived at EDR: N/A

Telephone: 804-698-4236

Date Made Active in Reports: N/A

Last EDR Contact: 09/18/2017

Number of Days to Update: N/A

Next Scheduled EDR Contact: 01/01/2018

Data Release Frequency: N/A

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Solid Waste Management Facilities

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 06/01/2017

Source: Department of Environmental Quality

Date Data Arrived at EDR: 06/01/2017

Telephone: 804-698-4238

Date Made Active in Reports: 10/20/2017

Last EDR Contact: 09/22/2017

Number of Days to Update: 141

Next Scheduled EDR Contact: 12/18/2017

Data Release Frequency: Semi-Annually

State and tribal leaking storage tank lists

LUST REG PD: Leaking Underground Storage Tank Sites

Leaking underground storage tank site locations. Includes: counties of Amelia, Brunswick, Charles City, Chesterfield, Dinwiddie, Essex, Gloucester, Goochland, Greensville, Hanover, Henrico, King and Queen, King William, Lancaster, Mathews, Middlesex, New Kent, Northumberland, Powhatan, Prince George, Richmond, Surry, Sussex, Westmoreland; cities of Colonial Heights, Emporia, Hopewell, Petersburg.

Date of Government Version: 12/02/2014

Source: Department of Environmental Quality Piedmont Regional Office

Date Data Arrived at EDR: 12/04/2014

Telephone: 804-527-5020

Date Made Active in Reports: 01/16/2015

Last EDR Contact: 08/29/2016

Number of Days to Update: 43

Next Scheduled EDR Contact: 12/12/2016

Data Release Frequency: Quarterly

LUST REG NO: Leaking Underground Storage Tank Tracking Database

Leaking underground storage tank site locations. Includes: counties of Arlington, Caroline, Culpeper, Fairfax, Fauquier, King George, Loudoun, Louisa, Madison, Orange, Prince William, Rappahannock, Spotsylvania, Stafford; cities of Alexandria, Fairfax, Falls Church, Fredericksburg, Manassas, Manassas Park.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/18/2004
Date Data Arrived at EDR: 05/22/2004
Date Made Active in Reports: 07/09/2004
Number of Days to Update: 48

Source: Department of Environmental Quality Northern Regional Office
Telephone: 703-583-3800
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG WC: Leaking Underground Storage Tank List

Leaking underground storage tank site locations. Includes: counties of Alleghany, Bedford, Botetourt, Craig, Floyd, Franklin, Giles, Henry, Montgomery, Patrick, Pulaski, Roanoke; cities of Bedford, Clifton Forge, Covington, Martinsville, Radford, Roanoke, Salem.

Date of Government Version: 06/04/2015
Date Data Arrived at EDR: 06/05/2015
Date Made Active in Reports: 07/07/2015
Number of Days to Update: 32

Source: Department of Environmental Quality West Central Regional Office
Telephone: 540-562-6700
Last EDR Contact: 08/29/2016
Next Scheduled EDR Contact: 12/12/2016
Data Release Frequency: No Update Planned

LUST REG VA: Leaking Underground Storage Tank List

Leaking underground storage tank site locations. Includes: counties of Albemarle, Augusta, Bath, Clarke, Fluvanna, Frederick, Greene, Highland, Nelson, Page, Rockbridge, Rockingham, Shenandoah, Warren; cities of Buena Vista, Charlottesville, Harrisonburg, Lexington, Staunton, Waynesboro, Winchester.

Date of Government Version: 12/06/2011
Date Data Arrived at EDR: 12/08/2011
Date Made Active in Reports: 01/16/2012
Number of Days to Update: 39

Source: Department of Environmental Quality Valley Regional Office
Telephone: 540-574-7800
Last EDR Contact: 08/29/2016
Next Scheduled EDR Contact: 12/12/2016
Data Release Frequency: No Update Planned

LUST REG TD: Leaking Underground Storage Tank Sites

Leaking underground storage tank site locations. Includes: counties of Accomack, Isle of Wight, James City, Northampton, Southampton, York; cities of Chesapeake, Franklin, Hampton, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, Virginia Beach, Williamsburg.

Date of Government Version: 06/30/2013
Date Data Arrived at EDR: 07/05/2013
Date Made Active in Reports: 09/16/2013
Number of Days to Update: 73

Source: Department of Environmental Quality Tidewater Regional Office
Telephone: trofoia@deq.vir
Last EDR Contact: 09/26/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Quarterly

LUST REG SW: Leaking Underground Storage Tank Database

Leaking underground storage tank site locations. Includes: counties of Bland, Buchanan, Carroll, Dickenson, Grayson, Lee, Russell, Scott, Smyth, Tazewell, Washington, Wise, Wythe; cities of Bristol, Galax, Norton.

Date of Government Version: 07/15/2013
Date Data Arrived at EDR: 07/18/2013
Date Made Active in Reports: 09/16/2013
Number of Days to Update: 60

Source: Department of Environmental Quality Southwest Regional Office
Telephone: 276-676-4800
Last EDR Contact: 10/11/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: No Update Planned

LUST REG SC: Leaking Underground Storage Tanks

Leaking underground storage tank site locations. Includes: counties of Amherst, Appomattox, Buckingham, Campbell, Charlotte, Cumberland, Halifax, Lunenburg, Mecklenburg, Nottoway, Pittsylvania, Prince Edward; cities of Danville, Lynchburg.

Date of Government Version: 09/06/2013
Date Data Arrived at EDR: 09/06/2013
Date Made Active in Reports: 09/17/2013
Number of Days to Update: 11

Source: Department of Environmental Quality, South Central Region
Telephone: 434-582-5120
Last EDR Contact: 08/29/2016
Next Scheduled EDR Contact: 12/12/2016
Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/24/2017	Source: EPA Region 6
Date Data Arrived at EDR: 07/27/2017	Telephone: 214-665-6597
Date Made Active in Reports: 10/06/2017	Last EDR Contact: 10/27/2017
Number of Days to Update: 71	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/14/2017	Source: EPA Region 7
Date Data Arrived at EDR: 07/27/2017	Telephone: 913-551-7003
Date Made Active in Reports: 10/06/2017	Last EDR Contact: 10/27/2017
Number of Days to Update: 71	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 05/01/2017	Source: EPA Region 8
Date Data Arrived at EDR: 07/27/2017	Telephone: 303-312-6271
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 10/27/2017
Number of Days to Update: 78	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 10/14/2016	Source: EPA Region 4
Date Data Arrived at EDR: 01/27/2017	Telephone: 404-562-8677
Date Made Active in Reports: 05/05/2017	Last EDR Contact: 10/27/2017
Number of Days to Update: 98	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Semi-Annually

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/13/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/27/2017	Telephone: 415-972-3372
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 10/27/2017
Number of Days to Update: 78	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/26/2017	Source: EPA, Region 5
Date Data Arrived at EDR: 07/27/2017	Telephone: 312-886-7439
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 10/27/2017
Number of Days to Update: 78	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/14/2017	Source: EPA Region 1
Date Data Arrived at EDR: 07/27/2017	Telephone: 617-918-1313
Date Made Active in Reports: 10/06/2017	Last EDR Contact: 10/27/2017
Number of Days to Update: 71	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/07/2016	Source: EPA Region 10
Date Data Arrived at EDR: 01/26/2017	Telephone: 206-553-2857
Date Made Active in Reports: 05/05/2017	Last EDR Contact: 11/07/2017
Number of Days to Update: 99	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Quarterly

LTANKS: Leaking Petroleum Storage Tanks
Includes releases of petroleum from underground storage tanks and aboveground storage tanks.

Date of Government Version: 08/02/2017	Source: Department of Environmental Quality
Date Data Arrived at EDR: 08/31/2017	Telephone: 804-698-4010
Date Made Active in Reports: 09/21/2017	Last EDR Contact: 11/29/2017
Number of Days to Update: 21	Next Scheduled EDR Contact: 03/12/2018
	Data Release Frequency: Quarterly

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017	Source: FEMA
Date Data Arrived at EDR: 05/30/2017	Telephone: 202-646-5797
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 10/13/2017
Number of Days to Update: 136	Next Scheduled EDR Contact: 01/22/2018
	Data Release Frequency: Varies

UST: Registered Petroleum Storage Tanks
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 08/10/2017	Source: Department of Environmental Quality
Date Data Arrived at EDR: 08/31/2017	Telephone: 804-698-4010
Date Made Active in Reports: 09/20/2017	Last EDR Contact: 11/29/2017
Number of Days to Update: 20	Next Scheduled EDR Contact: 03/12/2018
	Data Release Frequency: Semi-Annually

AST: Registered Petroleum Storage Tanks
Registered Aboveground Storage Tanks.

Date of Government Version: 08/10/2017	Source: Department of Environmental Quality
Date Data Arrived at EDR: 08/31/2017	Telephone: 804-698-4010
Date Made Active in Reports: 09/20/2017	Last EDR Contact: 11/29/2017
Number of Days to Update: 20	Next Scheduled EDR Contact: 03/12/2018
	Data Release Frequency: Semi-Annually

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 05/02/2017	Source: EPA Region 7
Date Data Arrived at EDR: 07/27/2017	Telephone: 913-551-7003
Date Made Active in Reports: 10/06/2017	Last EDR Contact: 10/27/2017
Number of Days to Update: 71	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 10/01/2016	Source: EPA Region 6
Date Data Arrived at EDR: 01/26/2017	Telephone: 214-665-7591
Date Made Active in Reports: 05/05/2017	Last EDR Contact: 10/27/2017
Number of Days to Update: 99	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/26/2017	Source: EPA Region 5
Date Data Arrived at EDR: 07/27/2017	Telephone: 312-886-6136
Date Made Active in Reports: 10/06/2017	Last EDR Contact: 10/27/2017
Number of Days to Update: 71	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/14/2017	Source: EPA, Region 1
Date Data Arrived at EDR: 07/27/2017	Telephone: 617-918-1313
Date Made Active in Reports: 10/06/2017	Last EDR Contact: 10/27/2017
Number of Days to Update: 71	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 05/01/2017	Source: EPA Region 8
Date Data Arrived at EDR: 07/27/2017	Telephone: 303-312-6137
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 10/27/2017
Number of Days to Update: 78	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/13/2017	Source: EPA Region 9
Date Data Arrived at EDR: 07/27/2017	Telephone: 415-972-3368
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 10/27/2017
Number of Days to Update: 78	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/25/2017	Source: EPA Region 10
Date Data Arrived at EDR: 07/27/2017	Telephone: 206-553-2857
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 10/27/2017
Number of Days to Update: 78	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 10/14/2016	Source: EPA Region 4
Date Data Arrived at EDR: 01/27/2017	Telephone: 404-562-9424
Date Made Active in Reports: 05/05/2017	Last EDR Contact: 10/27/2017
Number of Days to Update: 98	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Semi-Annually

State and tribal institutional control / engineering control registries

ENG CONTROLS: Engineering Controls Sites Listing

A listing of sites with Engineering Controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 07/24/2017	Source: Department of Environmental Quality
Date Data Arrived at EDR: 07/26/2017	Telephone: 804-698-4228
Date Made Active in Reports: 09/21/2017	Last EDR Contact: 09/25/2017
Number of Days to Update: 57	Next Scheduled EDR Contact: 01/08/2018
	Data Release Frequency: Quarterly

INST CONTROL: Voluntary Remediation Program Database

Sites included in the Voluntary Remediation Program database that have deed restrictions.

Date of Government Version: 07/24/2017	Source: Department of Environmental Quality
Date Data Arrived at EDR: 07/26/2017	Telephone: 804-698-4228
Date Made Active in Reports: 09/21/2017	Last EDR Contact: 09/25/2017
Number of Days to Update: 57	Next Scheduled EDR Contact: 01/08/2018
	Data Release Frequency: Quarterly

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008	Source: EPA, Region 7
Date Data Arrived at EDR: 04/22/2008	Telephone: 913-551-7365
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 04/20/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/20/2009
	Data Release Frequency: Varies

VRP: Voluntary Remediation Program

The Voluntary Cleanup Program encourages owners of elected contaminated sites to take the initiative and conduct voluntary cleanups that meet state environmental standards.

Date of Government Version: 07/24/2017	Source: Department of Environmental Quality
Date Data Arrived at EDR: 07/26/2017	Telephone: 804-698-4228
Date Made Active in Reports: 09/21/2017	Last EDR Contact: 09/25/2017
Number of Days to Update: 57	Next Scheduled EDR Contact: 01/08/2018
	Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015	Source: EPA, Region 1
Date Data Arrived at EDR: 09/29/2015	Telephone: 617-918-1102
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 09/25/2017
Number of Days to Update: 142	Next Scheduled EDR Contact: 01/08/2018
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

State and tribal Brownfields sites

BROWNFIELDS: Brownfields Site Specific Assessments

To qualify for Brownfields Assessment, the site must meet the Federal definition of a Brownfields and should have contaminant issues that need to be addressed and a redevelopment plan supported by the local government and community. Virginia's Department of Environmental Quality performs brownfields assessments under a cooperative agreement with the U.S. Environmental Protection Agency at no cost to communities, property owners or, prospective purchasers. The assessment is an evaluation of environmental impacts caused by previous site uses similar to a Phase II Environmental Assessment.

Date of Government Version: 07/07/2017
Date Data Arrived at EDR: 07/28/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 55

Source: Department of Environmental Quality
Telephone: 804-698-4207
Last EDR Contact: 10/24/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/19/2017
Date Data Arrived at EDR: 06/20/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 09/20/2017
Next Scheduled EDR Contact: 01/01/2018
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 10/30/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 10/20/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Services, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 11/03/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 07/13/2017
Date Data Arrived at EDR: 09/06/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 30

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/28/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 07/13/2017
Date Data Arrived at EDR: 09/06/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 30

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/28/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Quarterly

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 07/11/2017
Date Data Arrived at EDR: 07/26/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 11/03/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/21/2017
Date Data Arrived at EDR: 09/21/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 22

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 09/21/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Quarterly

SPILLS BRL: Prep/Spills Database Listing

A listing of spills locations located in the Blue Ridge Regional area, Lynchburg.

Date of Government Version: 09/18/2009
Date Data Arrived at EDR: 09/18/2009
Date Made Active in Reports: 10/06/2009
Number of Days to Update: 18

Source: DEQ, Blue Ridge Regional Office
Telephone: 434-582-6218
Last EDR Contact: 11/28/2011
Next Scheduled EDR Contact: 03/12/2012
Data Release Frequency: Varies

SPILLS PD: PREP Database

The Department of Environmental Quality's POLLUTION RESPONSE PROGRAM, known as PREP, provides for responses to air, water, and waste pollution incidents in order to protect human health and the environment.

Date of Government Version: 10/20/2009
Date Data Arrived at EDR: 10/29/2009
Date Made Active in Reports: 12/03/2009
Number of Days to Update: 35

Source: Department of Environmental Quality, Piedmont Region
Telephone: 804-527-5020
Last EDR Contact: 02/06/2012
Next Scheduled EDR Contact: 05/21/2012
Data Release Frequency: Quarterly

SPILLS: Prep/Spills Database Listing

The Department of Environmental Quality's POLLUTION RESPONSE PROGRAM, known as PREP, provides for responses to air, water, and waste pollution incidents in order to protect human health and the environment. PREP staff often work to assist local emergency responders, other state agencies, federal agencies, and responsible parties, as may be needed, to manage pollution incidents. Oil spills, fish kills, and hazardous materials spills are examples of incidents that may involve the DEQ's PREP Program.

Date of Government Version: 08/02/2017
Date Data Arrived at EDR: 08/31/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 21

Source: Department of Environmental Quality
Telephone: 804-698-4287
Last EDR Contact: 11/29/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Varies

SPILLS WC: Prep Database

The Department of Environmental Quality's POLLUTION RESPONSE PROGRAM, known as PREP, provides for responses to air, water, and waste pollution incidents in order to protect human health and the environment.

Date of Government Version: 09/21/2009
Date Data Arrived at EDR: 09/29/2009
Date Made Active in Reports: 10/30/2009
Number of Days to Update: 31

Source: Department of Environmental Quality, West Central Region
Telephone: 540-562-6700
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

SPILLS VA: PREP Database

The Department of Environmental Quality's POLLUTION RESPONSE PROGRAM, known as PREP, provides for responses to air, water, and waste pollution incidents in order to protect human health and the environment.

Date of Government Version: 08/08/2012
Date Data Arrived at EDR: 08/09/2012
Date Made Active in Reports: 10/05/2012
Number of Days to Update: 57

Source: Department of Environmental Quality, Valley Regional Office
Telephone: 540-574-7800
Last EDR Contact: 05/06/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Quarterly

SPILLS TD: PREP Database

The Department of Environmental Quality's POLLUTION RESPONSE PROGRAM, known as PREP, provides for responses to air, water, and waste pollution incidents in order to protect human health and the environment.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/17/2009
Date Data Arrived at EDR: 09/23/2009
Date Made Active in Reports: 10/06/2009
Number of Days to Update: 13

Source: Department of Environmental Quality, Tidewater Region
Telephone: trofoia@deq.vir
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: Quarterly

SPILLS SW: Reportable Spills

The Department of Environmental Quality's POLLUTION RESPONSE PROGRAM, known as PREP, provides for responses to air, water, and waste pollution incidents in order to protect human health and the environment.

Date of Government Version: 01/21/2010
Date Data Arrived at EDR: 01/22/2010
Date Made Active in Reports: 02/16/2010
Number of Days to Update: 25

Source: Department of Environmental Quality, Southwest Region
Telephone: 276-676-4839
Last EDR Contact: 07/13/2012
Next Scheduled EDR Contact: 10/29/2012
Data Release Frequency: No Update Planned

SPILLS NO: PREP Database

The Department of Environmental Quality's POLLUTION RESPONSE PROGRAM, known as PREP, provides for responses to air, water, and waste pollution incidents in order to protect human health and the environment.

Date of Government Version: 09/23/2009
Date Data Arrived at EDR: 09/29/2009
Date Made Active in Reports: 10/30/2009
Number of Days to Update: 31

Source: Department of Environmental Quality, Northern Region
Telephone: 703-583-3864
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

SPILLS PC: Pollution Complaint Database

Pollution Complaints Database. The pollution reports contained in the PC database include the initial release reporting of Leaking Underground Storage Tanks and all other releases of petroleum to the environment as well as releases to state waters. The database is current through 12/1/93. Since that time, all spill and pollution reporting information has been collected and tracked through the DEQ regional offices.

Date of Government Version: 06/01/1996
Date Data Arrived at EDR: 10/22/1996
Date Made Active in Reports: 11/21/1996
Number of Days to Update: 30

Source: Department of Environmental Quality
Telephone: 804-698-4287
Last EDR Contact: 03/08/2010
Next Scheduled EDR Contact: 06/21/2010
Data Release Frequency: No Update Planned

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 09/01/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/15/2013
Number of Days to Update: 43

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 09/13/2017
Date Data Arrived at EDR: 09/26/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 10

Source: Environmental Protection Agency
Telephone: 800-438-2474
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015	Source: U.S. Army Corps of Engineers
Date Data Arrived at EDR: 07/08/2015	Telephone: 202-528-4285
Date Made Active in Reports: 10/13/2015	Last EDR Contact: 11/22/2017
Number of Days to Update: 97	Next Scheduled EDR Contact: 03/05/2018
	Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 11/10/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 10/13/2017
Number of Days to Update: 62	Next Scheduled EDR Contact: 01/22/2018
	Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005	Source: U.S. Geological Survey
Date Data Arrived at EDR: 02/06/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 10/11/2017
Number of Days to Update: 339	Next Scheduled EDR Contact: 01/22/2018
	Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/03/2017	Telephone: 615-532-8599
Date Made Active in Reports: 04/07/2017	Last EDR Contact: 11/17/2017
Number of Days to Update: 63	Next Scheduled EDR Contact: 02/26/2018
	Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 05/10/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/17/2017	Telephone: 202-566-1917
Date Made Active in Reports: 09/15/2017	Last EDR Contact: 11/01/2017
Number of Days to Update: 121	Next Scheduled EDR Contact: 01/08/2018
	Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 11/06/2017
Next Scheduled EDR Contact: 02/19/2018
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 11/09/2017
Next Scheduled EDR Contact: 02/19/2018
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 14

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 09/22/2017
Next Scheduled EDR Contact: 01/01/2018
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 133

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 11/20/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 09/27/2017
Date Data Arrived at EDR: 10/12/2017
Date Made Active in Reports: 10/20/2017
Number of Days to Update: 8

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 11/03/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 02/01/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/09/2017	Telephone: 202-564-8600
Date Made Active in Reports: 04/07/2017	Last EDR Contact: 10/23/2017
Number of Days to Update: 57	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995	Source: EPA
Date Data Arrived at EDR: 07/03/1995	Telephone: 202-564-4104
Date Made Active in Reports: 08/07/1995	Last EDR Contact: 06/02/2008
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/01/2008
	Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 10/17/2014	Telephone: 202-564-6023
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 11/03/2017
Number of Days to Update: 3	Next Scheduled EDR Contact: 02/19/2018
	Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 06/01/2017	Source: EPA
Date Data Arrived at EDR: 06/09/2017	Telephone: 202-566-0500
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 10/13/2017
Number of Days to Update: 126	Next Scheduled EDR Contact: 01/22/2018
	Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/23/2016	Telephone: 202-564-2501
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 10/11/2017
Number of Days to Update: 79	Next Scheduled EDR Contact: 01/22/2018
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 09/08/2016	Telephone: 301-415-7169
Date Made Active in Reports: 10/21/2016	Last EDR Contact: 10/16/2017
Number of Days to Update: 43	Next Scheduled EDR Contact: 11/20/2017
	Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005	Source: Department of Energy
Date Data Arrived at EDR: 08/07/2009	Telephone: 202-586-8719
Date Made Active in Reports: 10/22/2009	Last EDR Contact: 10/03/2017
Number of Days to Update: 76	Next Scheduled EDR Contact: 12/18/2017
	Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/10/2014	Telephone: N/A
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 09/08/2017
Number of Days to Update: 40	Next Scheduled EDR Contact: 12/18/2017
	Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 10/19/2011	Telephone: 202-566-0517
Date Made Active in Reports: 01/10/2012	Last EDR Contact: 10/26/2017
Number of Days to Update: 83	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/02/2017
Date Data Arrived at EDR: 10/05/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 10/05/2017
Next Scheduled EDR Contact: 01/15/2018
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transportation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 10/31/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 06/30/2017
Date Data Arrived at EDR: 08/03/2017
Date Made Active in Reports: 10/20/2017
Number of Days to Update: 78

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 09/25/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 11/20/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Biennially

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014	Source: USGS
Date Data Arrived at EDR: 07/14/2015	Telephone: 202-208-3710
Date Made Active in Reports: 01/10/2017	Last EDR Contact: 10/11/2017
Number of Days to Update: 546	Next Scheduled EDR Contact: 01/22/2018
	Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 12/23/2016	Source: Department of Energy
Date Data Arrived at EDR: 12/27/2016	Telephone: 202-586-3559
Date Made Active in Reports: 02/17/2017	Last EDR Contact: 11/02/2017
Number of Days to Update: 52	Next Scheduled EDR Contact: 02/19/2018
	Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 06/23/2017	Source: Department of Energy
Date Data Arrived at EDR: 10/11/2017	Telephone: 505-845-0011
Date Made Active in Reports: 11/03/2017	Last EDR Contact: 11/22/2017
Number of Days to Update: 23	Next Scheduled EDR Contact: 03/05/2018
	Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 05/30/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/09/2017	Telephone: 703-603-8787
Date Made Active in Reports: 09/15/2017	Last EDR Contact: 11/03/2017
Number of Days to Update: 98	Next Scheduled EDR Contact: 01/15/2018
	Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001	Source: American Journal of Public Health
Date Data Arrived at EDR: 10/27/2010	Telephone: 703-305-6451
Date Made Active in Reports: 12/02/2010	Last EDR Contact: 12/02/2009
Number of Days to Update: 36	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 07/31/2017
Date Data Arrived at EDR: 08/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 44

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 11/28/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 09/01/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 09/01/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 09/25/2017
Date Data Arrived at EDR: 09/26/2017
Date Made Active in Reports: 10/20/2017
Number of Days to Update: 24

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 09/25/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 07/23/2017	Source: EPA
Date Data Arrived at EDR: 09/06/2017	Telephone: (215) 814-5000
Date Made Active in Reports: 09/15/2017	Last EDR Contact: 09/06/2017
Number of Days to Update: 9	Next Scheduled EDR Contact: 12/18/2017
	Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 02/13/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/15/2017	Telephone: 202-564-0527
Date Made Active in Reports: 11/03/2017	Last EDR Contact: 11/21/2017
Number of Days to Update: 261	Next Scheduled EDR Contact: 03/12/2018
	Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 09/02/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/06/2017	Telephone: 202-564-2280
Date Made Active in Reports: 10/20/2017	Last EDR Contact: 09/06/2017
Number of Days to Update: 44	Next Scheduled EDR Contact: 12/18/2017
	Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 10/25/2016	Source: Department of Defense
Date Data Arrived at EDR: 06/02/2017	Telephone: 703-704-1564
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 10/16/2017
Number of Days to Update: 133	Next Scheduled EDR Contact: 01/29/2018
	Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 08/17/2017	Source: EPA
Date Data Arrived at EDR: 08/17/2017	Telephone: 800-385-6164
Date Made Active in Reports: 09/15/2017	Last EDR Contact: 11/20/2017
Number of Days to Update: 29	Next Scheduled EDR Contact: 03/05/2018
	Data Release Frequency: Quarterly

AIRS: Permitted Airs Facility List

A listing of permitted Airs facilities.

Date of Government Version: 09/18/2017	Source: Department of Environmental Quality
Date Data Arrived at EDR: 09/19/2017	Telephone: 804-698-4000
Date Made Active in Reports: 09/21/2017	Last EDR Contact: 09/18/2017
Number of Days to Update: 2	Next Scheduled EDR Contact: 01/01/2018
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CEDS: Comprehensive Environmental Data System

Virginia Water Protection Permits, Virginia Pollution Discharge System (point discharge) permits and Virginia Pollution Abatement (no point discharge) permits.

Date of Government Version: 09/05/2017
Date Data Arrived at EDR: 09/06/2017
Date Made Active in Reports: 09/25/2017
Number of Days to Update: 19

Source: Department of Environmental Quality
Telephone: 804-698-4077
Last EDR Contact: 08/31/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Semi-Annually

COAL ASH: Coal Ash Disposal Sites

A listing of facilities with coal ash impoundments.

Date of Government Version: 07/29/2009
Date Data Arrived at EDR: 07/31/2009
Date Made Active in Reports: 08/21/2009
Number of Days to Update: 21

Source: Department of Environmental Protection
Telephone: 804-698-4285
Last EDR Contact: 08/31/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Varies

DRYCLEANERS: Drycleaner List

A listing of registered drycleaners.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 10/28/2016
Date Made Active in Reports: 01/09/2017
Number of Days to Update: 73

Source: Department of Environmental Quality
Telephone: 804-698-4407
Last EDR Contact: 10/10/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Varies

ENFORCEMENT: Enforcement Actions Data

A listing of enforcement actions.

Date of Government Version: 09/07/2017
Date Data Arrived at EDR: 09/08/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 13

Source: Department of Environmental Quality
Telephone: 804-698-4031
Last EDR Contact: 08/31/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

A listing of financial assurance information for underground storage tank facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 08/01/2017
Date Data Arrived at EDR: 08/08/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 44

Source: Department of Environmental Quality
Telephone: 804-698-4205
Last EDR Contact: 10/30/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information listing

Solid waste financial assurance information.

Date of Government Version: 08/04/2017
Date Data Arrived at EDR: 08/08/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 44

Source: Department of Environmental Quality
Telephone: 804-698-4123
Last EDR Contact: 10/30/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Varies

TIER 2: Tier 2 Information Listing

A listing of facilities which store or manufacture hazardous materials and submit a chemical inventory report.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 01/20/2017
Date Made Active in Reports: 02/14/2017
Number of Days to Update: 25

Source: Department of Environmental Quality
Telephone: 804-698-4159
Last EDR Contact: 09/22/2017
Next Scheduled EDR Contact: 01/01/2018
Data Release Frequency: Annually

UIC: Underground Injection Control Wells
A listing of underground injection controls wells.

Date of Government Version: 08/01/2017
Date Data Arrived at EDR: 08/03/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 49

Source: Department of Mines, Minerals and Energy
Telephone: 276-415-9700
Last EDR Contact: 11/01/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Virginia.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/20/2014
Number of Days to Update: 203

Source: Department of Environmental Quality
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Virginia and at the Regional VA Levels.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/15/2014
Number of Days to Update: 198

Source: Department of Environmental Quality
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/28/2017
Date Data Arrived at EDR: 08/18/2017
Date Made Active in Reports: 11/14/2017
Number of Days to Update: 88

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/14/2017
Next Scheduled EDR Contact: 02/26/2018
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 04/11/2017
Date Made Active in Reports: 07/27/2017
Number of Days to Update: 107

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 10/05/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 10/01/2017
Date Data Arrived at EDR: 11/01/2017
Date Made Active in Reports: 11/13/2017
Number of Days to Update: 12

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 11/01/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 07/25/2017
Date Made Active in Reports: 09/25/2017
Number of Days to Update: 62

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 10/16/2017
Next Scheduled EDR Contact: 01/29/2018
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/19/2015
Date Made Active in Reports: 07/15/2015
Number of Days to Update: 26

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 11/16/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 04/13/2017
Date Made Active in Reports: 07/14/2017
Number of Days to Update: 92

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 09/11/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: PennWell Corporation

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation

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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.
Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities

Source: Department of Social Services

Telephone: 804-692-1900

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK[®] - PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

2785 GRASSY HILL ROAD
2785 GRASSY HILL ROAD
ROCKY MOUNT, VA 24151

TARGET PROPERTY COORDINATES

Latitude (North):	37.027003 - 37° 1' 37.21"
Longitude (West):	79.92048 - 79° 55' 13.73"
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	596021.4
UTM Y (Meters):	4098209.5
Elevation:	1030 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5948780 BOONES MILL, VA
Version Date:	2013

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

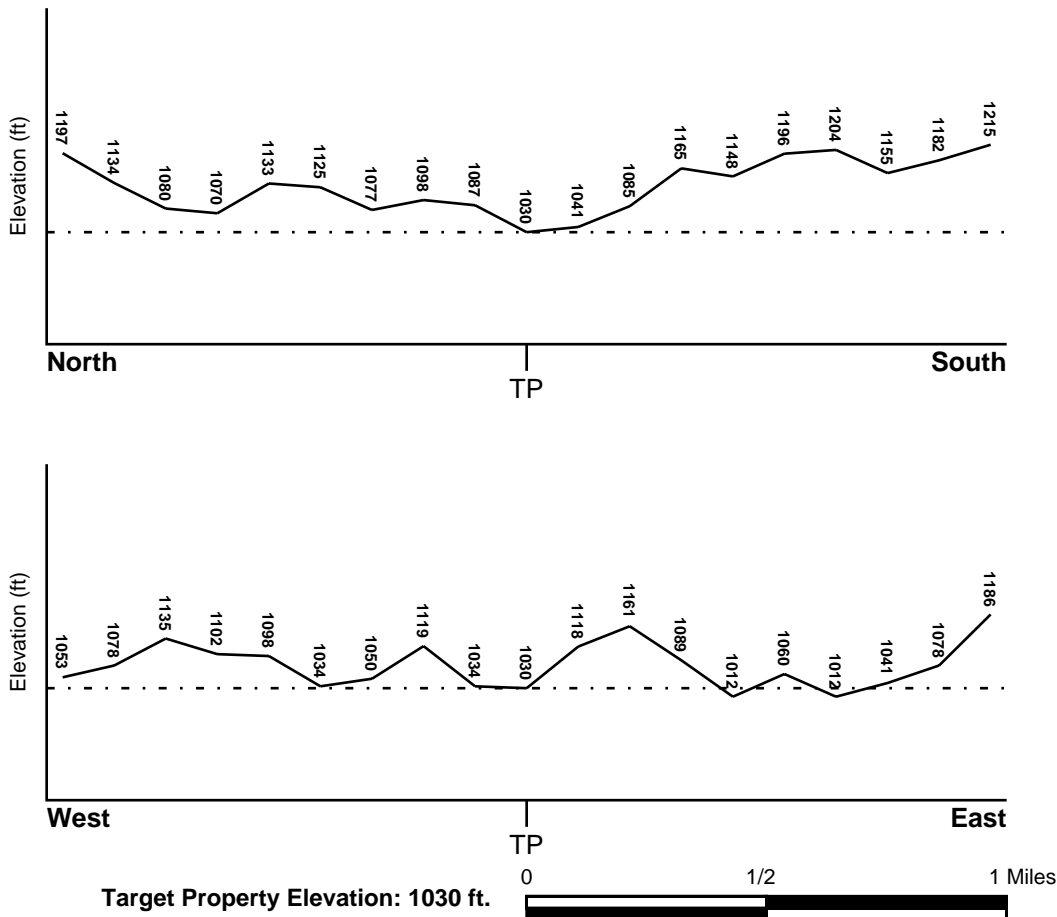
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General NNW

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

<u>Flood Plain Panel at Target Property</u>	<u>FEMA Source Type</u>
51067C0195C	FEMA FIRM Flood data
<u>Additional Panels in search area:</u>	<u>FEMA Source Type</u>
51067C0190C	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u>	<u>NWI Electronic Data Coverage</u>
BOONES MILL	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era: Precambrian
System: Precambrian
Series: Z Sedimentary rocks
Code: Z (*decoded above as Era, System & Series*)

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: TURBEVILLE

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained. Soils have intermediate water holding capacity. Depth to water table is more than 6 feet.

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: HIGH

Depth to Bedrock Min: > 60 inches

Depth to Bedrock Max: > 60 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Permeability Rate (in/hr)	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	10 inches	fine sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 6.00 Min: 2.00	Max: 5.50 Min: 4.50
2	10 inches	13 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 2.00 Min: 0.60	Max: 5.50 Min: 4.50
3	13 inches	72 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 2.00 Min: 0.60	Max: 5.50 Min: 4.50

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: silt loam
very gravelly - fine sandy loam
clay loam

Surficial Soil Types: silt loam
very gravelly - fine sandy loam
clay loam

Shallow Soil Types: sandy clay loam

Deeper Soil Types: stratified
sandy loam

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

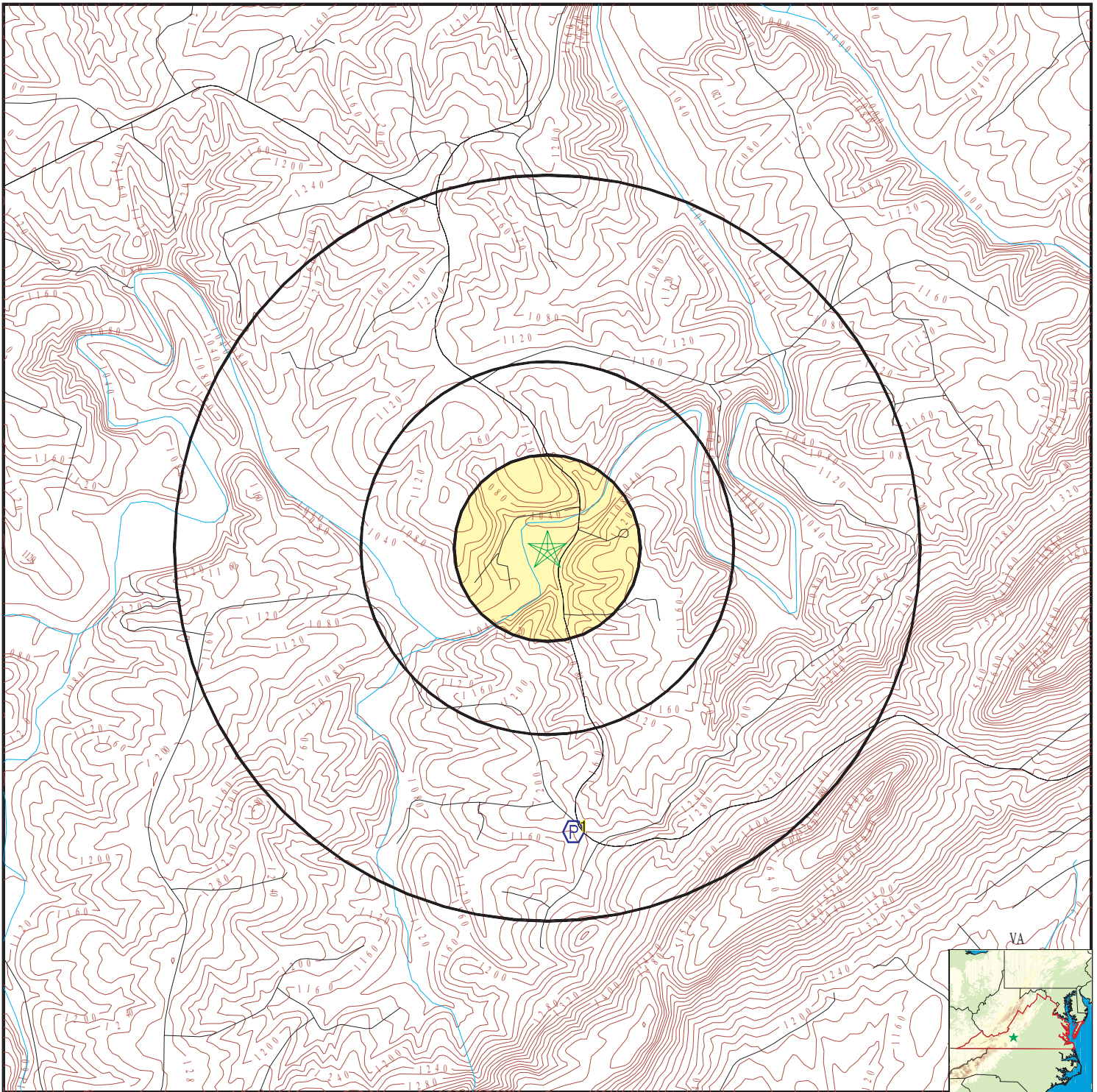
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	VA5067347	1/2 - 1 Mile South








Note: PWS System location is not always the same as well location.






STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

PHYSICAL SETTING SOURCE MAP - 5123000.2s



-  County Boundary
-  Major Roads
-  Contour Lines
-  Earthquake epicenter, Richter 5 or greater
-  Water Wells
-  Public Water Supply Wells
-  Cluster of Multiple Icons

-  Groundwater Flow Direction
-  Indeterminate Groundwater Flow at Location
-  Groundwater Flow Varies at Location
-  Closest Hydrogeological Data
-  Oil, gas or related wells



SITE NAME: 2785 Grassy Hill Road
 ADDRESS: 2785 Grassy Hill Road
 Rocky Mount VA 24151
 LAT/LONG: 37.027003 / 79.92048

CLIENT: ECS Mid Atlantic, LLC
 CONTACT: Alexandra Moon
 INQUIRY #: 5123000.2s
 DATE: November 30, 2017 4:21 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

1
South
1/2 - 1 Mile
Higher

FRDS PWS VA5067347

Epa region:	03	State:	VA
Pwsid:	VA5067347		
Pwsname:	BLACKWATER RESTAURANT AE MAXEY		
City served:	Not Reported	State served:	VA
Zip served:	Not Reported	Fips county:	51067
Status:	Closed	Pop srvd:	50
Pwsvcconn:	2	Source:	Groundwater
Pws type:	TNCWS	Owner:	Private
Contact:	MAXEY, ALTON E		
Contact or gname:	Not Reported		
Contact phone:	Not Reported	Contact address1:	ROUTE 5 BOX 555
Contact address2:	Not Reported	Contact city:	ROCKY MOUNT
Contact state:	VA	Contact zip:	24151
Activity code:	I		

Location Information:

Name:	BLACKWATER RESTAURANT AE MAXEY		
Pwstypcd:	TNCWS	Primsrccd:	GW
Popserved:	50		
Add1:	ROUTE 5 BOX 555		
Add2:	Not Reported		
City:	ROCKY MOUNT	State:	VA
Zip:	24151	Phone:	Not Reported
Cityserv:	Not Reported	Cntyserv:	Not Reported
Stateserv:	VA	Zipserv:	Not Reported

PWS ID: VA5067347
 Date Initiated: 7801 Date Deactivated: Not Reported
 PWS Name: BLACKWATER RESTAURANT AE MAXEY
 ROUTE 5 BOX 555
 ROCKY MOUNT, VA 24151

Addressee / Facility: System Owner/Responsible Party
 ALTON E MAXEY
 ROUTE 5 BOX 555
 ROCKY MOUNT, VA 24151

Facility Latitude:	37 00 57	Facility Longitude:	079 55 10
City Served:	FRANKLIN COUNTY		
Treatment Class:	Untreated	Population:	00000050

Violations information not reported.

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

EPA Region 3 Statistical Summary Readings for Zip Code: 24151

Number of sites tested: 62.

Maximum Radon Level: 24.4 pCi/L.

Minimum Radon Level: 0.7 pCi/L.

pCi/L <4	pCi/L 4-10	pCi/L 10-20	pCi/L 20-50	pCi/L 50-100	pCi/L >100
40 (64.52%)	18 (29.03%)	2 (3.23%)	2 (3.23%)	0 (0.00%)	0 (0.00%)

Federal EPA Radon Zone for FRANKLIN County: 2

- Note: Zone 1 indoor average level > 4 pCi/L.
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
 : Zone 3 indoor average level < 2 pCi/L.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Virginia Public Water Supplies

Source: Department of Health, Office of Water Programs

Telephone: 804-786-1756

OTHER STATE DATABASE INFORMATION

Virginia Oil and Gas Wells

Source: Department of Mines, Minerals and Energy

Telephone: 804-692-3200

A listing of oil and gas well locations

RADON

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

EPA Region 3 Statistical Summary Readings

Source: Region 3 EPA

Telephone: 215-814-2082

Radon readings for Delaware, D.C., Maryland, Pennsylvania, Virginia and West Virginia.

OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

PHYSICAL SETTING SOURCE RECORDS SEARCHED

STREET AND ADDRESS INFORMATION

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EARTH REACH ENVIRONMENTAL CONSULTANTS, INC.

234 Franklin Street
Rocky Mount, Virginia 24151

(703) 483-5975
FAX (703) 483-2221

INITIAL ABATEMENT MEASURES REPORT

Cooper Wood Products, Inc.

Performed for:
Hub Oil Co., Inc.
207 Diamond Ave.
Rocky Mount, VA 24151

Performed by:
Earth Reach Environmental Consultants, Inc.
Robert R. Martin, Jr.

June 9, 1992

RECEIVED
JUN 10 1992
WCRO Dim - cover
File - w/Attachs.

Not an I A Report!
Just a copy of
the release reporting
closure report of March '91

Note Asking for a
30 Day Extension
K.C.
June 11 '92

INITIAL ABATEMENT MEASURES REPORT CHECKLIST

Site: Cooper Wood Products, Inc. PC# 92-1992 Region WCRO

The following checklist must be filled out by the Responsible Party and/or his Consultant and included in the Initial Abatement Report. Indicate on the checklist the page and section number where each item is addressed in the attached report. Also indicate on the checklist the section and page number where justification is given for items omitted from the attached report. The contents of the report should reflect and be commensurate with the nature of the release, degree of contamination and complexity of the site investigation.

1. RELEASE INVESTIGATION AND CONFIRMATION STEPS

Page /Section	
<u>1, SUMMARY</u>	Evidence for suspecting a release has occurred
<u>NA /</u>	Monitoring results from release detection used
<u>NA /</u>	Results of tank/line tightness test
<u>SUMMARY</u>	Actions taken to repair, replace, upgrade UST

2. SITE CHECK

<u>1, 2, SUMMARY</u>	Measures taken to identify the source of release
<u>2 /</u>	Depth to ground water
<u>SUMMARY, 1, 2,</u>	Description and justification of sampling
<u>SUMMARY, 1, 2</u>	types (ground water, soil)
<u>SUMMARY</u>	locations (include site map)
<u>LAB RESULTS</u>	parameters, EPA methods, units, and detection limits

3. INITIAL ABATEMENT MEASURES

<u>SUMMARY</u>	Release inspection results and measures taken to prevent further migration of contaminants into soils and ground water
<u>1 /</u>	Regulated substance removed from UST system
<u>NA /</u>	Efforts to mitigate fire and safety hazards
<u>2 /</u>	Efforts to measure for the presence of free product
<u>2 /</u>	Efforts to remove free product
<u>SUMMARY</u>	Measures taken, as part of Initial Abatement, to address contaminated ground water and soils, tank water and sludges, and debris (i.e. tanks, piping, concrete) Include permits
<u>1 /</u>	Initial Abatement Measures Report submitted within 20 days of release confirmation or extension granted

FOR OFFICE USE ONLY

COMMENTS: _____

DEFICIENCIES: _____

REVIEWED BY: _____ DATE: _____

INITIAL ABATEMENT MEASURES

On March 10, 1991, Hub Oil Company contracted T.E. Harbour and Associates to remove two 1000 gallon USTs at the Cooper Wood site on state route 919. Earth Reach Environmental Consultants Inc. was to perform the closure assessment. Please find a copy of the closure report included.

SUMMARY

To summarize the closure procedure and assessment, both UST systems were removed, and the entire excavated area was checked by CGM for contamination. The area around the pumps proved to be contaminated by diesel and gasoline products. The only leakage noted was at the union joints to each pump. The primary cause of contamination was apparently spillage, although pump leakage played an obvious role. Contaminated soils were removed horizontally until desirable CGM readings were achieved, and soils were also removed vertically to shallow bed rock. Samples collected from the bed rock surface revealed TPH up to 19,300 ppm around the pumps. Results for soils around the USTs were 12 ppm and less than 10 ppm.

During excavation an old well was discovered between the tanks. The well was not directly down gradient from the release point, however, it did contain trace amounts of toluene and xylene (toluene 6 ppm, xylene 7 ppm). Grossly contaminated soils were transported to an on site location and placed on plastic for volatilization.

Please see the closure report for further information and statistics concerning the site.

EXTENSION REQUEST

A thirty day extension is requested for the preparation of the site characterization report. Additional time is necessary to conduct negotiations between Hub Oil Company and Cooper Wood. Please contact Mr. Ira Culler of Hub Oil if an extension is to be granted (703) 5146.



EARTH REACH ENVIRONMENTAL CONSULTANTS, INC.

234 Franklin Street
Rocky Mount, Virginia 24151

(703) 483-5975
FAX (703) 483-2221

UST SITE ASSESSMENT

Performed for:
Hub Oil Co., Inc.
207 Diamond Ave.
Rocky Mount, VA 24151

Performed by:
Earth Reach Environmental Consultants, Inc.
Robert R. Martin, Jr.

UNDERGROUND STORAGE TANK ABATEMENT

OWNER: Hub Oil Co.

Mr. Ira Culler

LOCATION: Cooper Wood Products, Inc.

Rocky Mount, VA

REMOVAL DATE: 3/10/91

EXCAVATION CONTRACTOR: Custom Environmental Construction

SITE CONTACT:

UST DESCRIPTION

TANK # (ON SITE MAP): #1 and #2

APPROXIMATE AGE: unknown

SERIAL #: unknown

CAPACITY: 1000 gallon

DIAMETER: 48"

LENGTH: 10'6"

CONTENTS: Diesel

SUBSTANCE LAST STORED: diesel

PROTECTION; INTERNAL: none

EXTERNAL: asphalt paint

UST CONDITION Moderate erosion

PIPING TYPE AND CONDITION 2" galvanized steel with asphaltic paint

NOTES APCO was contacted at 9:45 AM to remove guy wires which were obstructing the excavation. Two holes were drilled to about 8 feet and each hit rock. Efforts to move guy wires were abandoned and pole was removed.

SOIL CONTAMINATION ANALYSIS

FIELD READINGS (GASTECH MODEL 1314)

PIT SIDES- PROBE: 15ppm - 95ppm

PIT BOTTOM- PROBE: 27ppm between tanks, 1320ppm from bedrock near pump island.

LABORATORY ANALYSIS

SAMPLE # (ON SITE MAP) CW1 and CW2

SAMPLE DEPTH- BELOW TANK BOTTOM 1' FT.(at bedrock) and 2"
BELOW SURFACE 5'6" and 6'4" FT.

TOTAL PETROLEUM HYDROCARBONS 12ppm and <10 PPM

IDENTIFIED AS diesel and gas

ACCEPTED LIMITS- 100 PPM

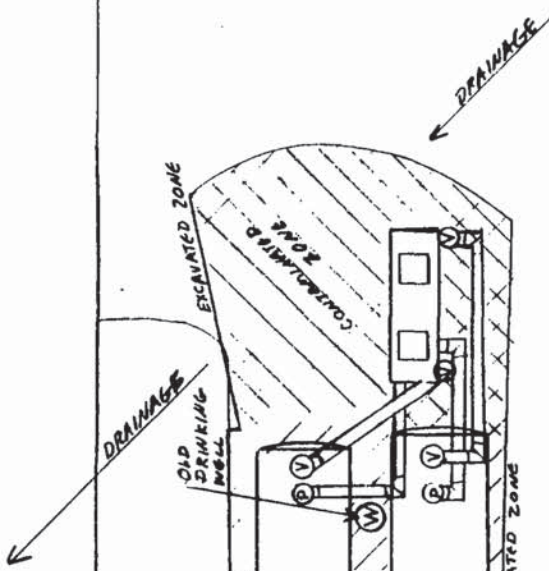
NOTES Sample #CW3 was taken from the bedrock below the pump island. Approximately three loads of contaminated soil was removed and stored on polyliner before encountering bedrock. Soil was removed to the maximum extent practicable. Soil contamination appears to have been a result of leaking diesel and gasoline products from dispenser pumps and episodic spillage proximal to the dispensing island. The surface around the pump island exhibited build up of gas and diesel due to frequent spillage.

EARTH REACH ENVIRONMENTAL CONSULTANTS, INC.
102 Randolph St., Rocky Mount, VA 24151 (703) 483-5975

HUB OIL
COOPER WOOD SITE 3-10-91
SCALE 1/4" = 1'

RIVER

ASPHALT



GRAVEL

GRASS

GI WINGS



CHAIN ANCHOR FEASIBLE

POWER
P. POLE

(919)





CENTRAL VIRGINIA
LABORATORIES & CONSULTANTS

P.O. Box 10938 Lynchburg, Virginia 24506
OFFICE: 2418 Langhorne Road • 804-847 2852

April 30, 1991

ROBERT MARTIN
EARTH REACH ENVIRONMENTAL CONSULTANTS INC
ROUTE 1 BOX 178-A
FERRUM VIRGINIA 24088

Subject: Analysis Results for Copper Wood

SAMPLE IDENTIFICATION: CLVC #3399 CUSTOMER: CW 1

Sample Collection: 04/11/91 time not given
Sample Relinquished: date and time not given
Sample Received: 04/15/91 0930 hours

<u>Analysis</u>	<u>Results (mg/kg)</u>
Total Petroleum Hydrocarbons*	12

SAMPLE IDENTIFICATION: CLVC #3400 CUSTOMER: CW 2

Sample Collection: 04/11/91 time not given
Sample Relinquished: date and time not given
Sample Received: 04/15/91 0930 hours

<u>Analysis</u>	<u>Results (mg/kg)</u>
Total Petroleum Hydrocarbons**	<10.0

SAMPLE IDENTIFICATION: CLVC #3401 CUSTOMER: CW 3

Sample Collection: 04/12/91 time not given
Sample Relinquished: date and time not given
Sample Received: 04/15/91 0930 hours

<u>Analysis</u>	<u>Results (mg/kg)</u>
Total Petroleum Hydrocarbons, as Gasoline and Diesel**	19300

*Reference Method: METHODS FOR CHEMICAL ANALYSIS OF WATER AND WASTES,
EPA-600/4-79-020 (Revised March 1983) Method 418.1
(Modified for soil)
**Reference Method: SW-846 TEST METHODS FOR EVALUATING SOLID WASTE
PHYSICAL/CHEMICAL METHODS, Method 5030 & 8020
(Modified for TPH)



CENTRAL VIRGINIA
LABORATORIES & CONSULTANTS

P.O. Box 10938 Lynchburg, Virginia 24306
OFFICE: 2418 Lehigh Road • 804-647-2852

CVLC Page 2
Earth Reach Environmental Consultants, Inc.
April 30, 1991

SAMPLE IDENTIFICATION: CLVC #3402 CUSTOMER: Well

Sample Collection: 04/12/91 time not given
Sample Relinquished: date and time not given
Sample Received: 04/15/91 0930 hours

EPA Method 602

<u>Compound</u>	<u>Detection Limit(mg/l)</u>	<u>Concentration(mg/l)</u>
Benzene	0.005	<0.005
Ethylbenzene	0.005	<0.005
Toluene	0.005	0.006
Total xylenes	0.005	0.007

Sincerely,

Janet M. Zwetofitz
Laboratory Manager

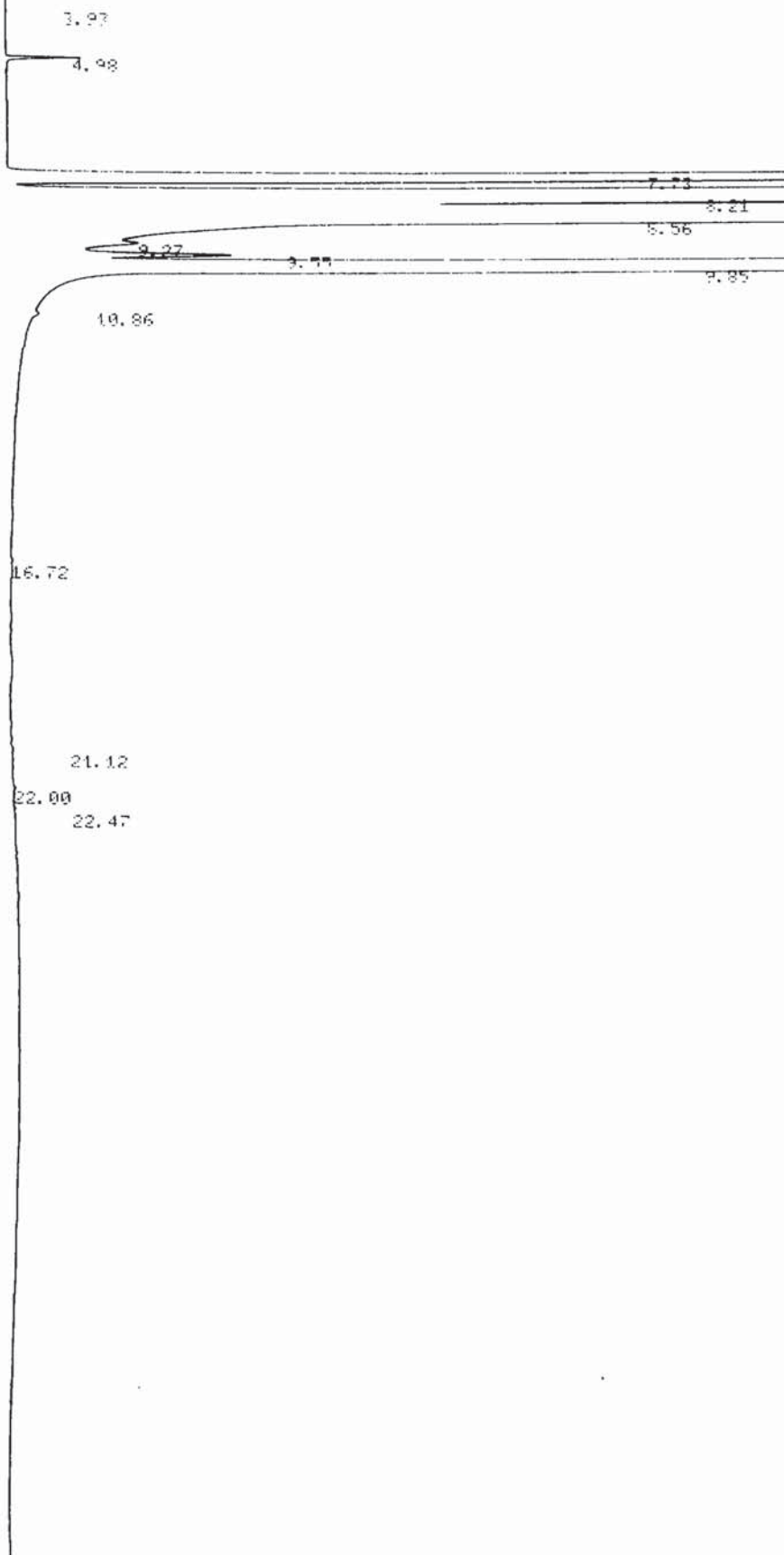
JMZ/kom

TOTAL 100.

108191082

Run #10 0.5µl # 3400 IPH (10.03µ (10.0µl Run) Duf (JDE) Auto
CHANNEL A INJECT 04/19/91 04:17:47

IP J AZ 1



00-09710-01

scientific instruments

CUBJZTA

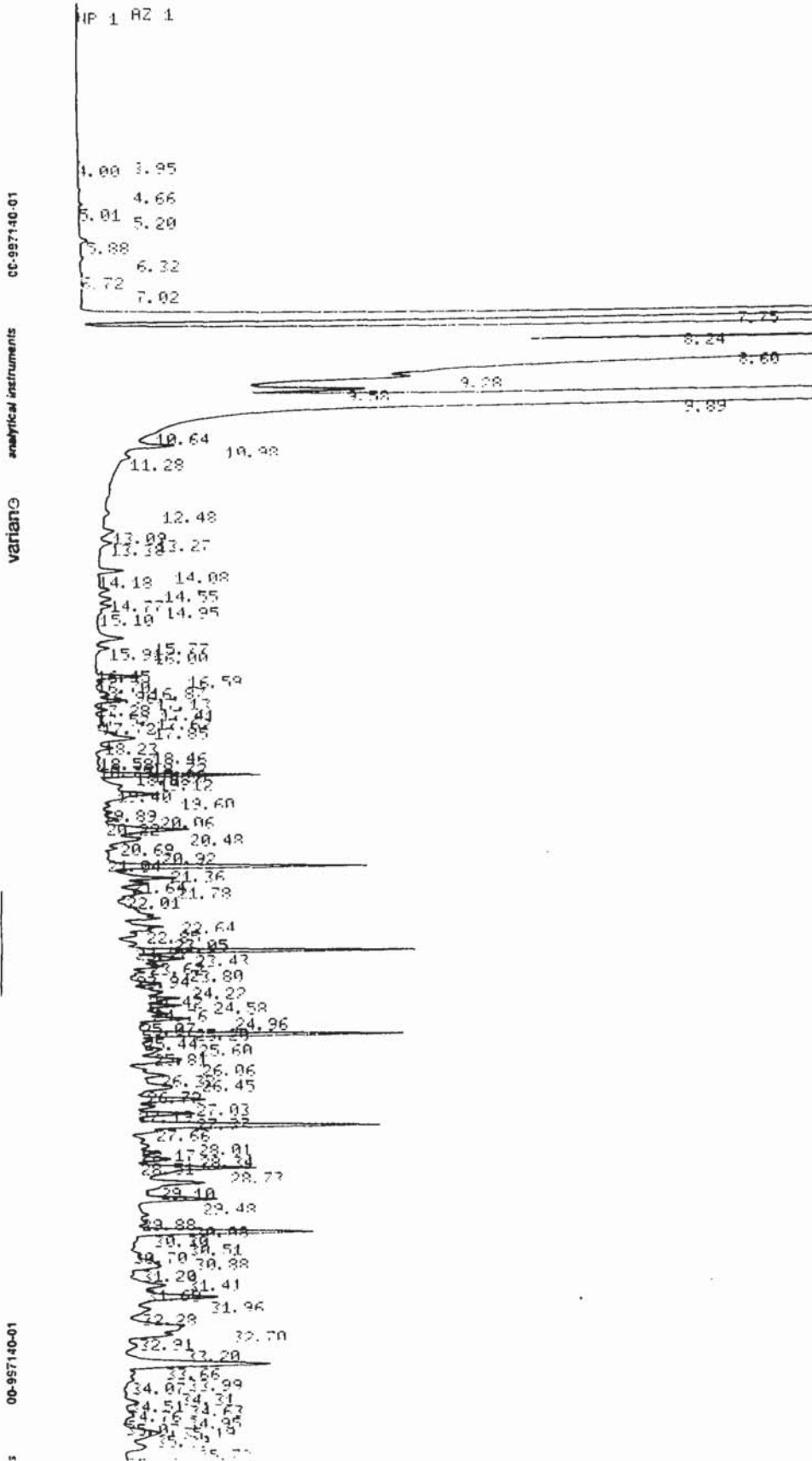
093

094

112	0.007	2.71	5
113	0.	16.88	100.02
114	0.	7.04	522.02
115	0.	7.14	15.02
116	0.003	7.69	2897.02
117	0.005	18.08	6110.02
118	0.005	28.87	5258.02
119	0.001	12.45	728.02
120	0.003	44.04	3585.01

TOTAL 100. 113139674
 Run# 18 0.5ul 1000ppm Diesel Std.
 CHANNEL A INJECT 04/22/91 01:21:05

Auto KCB



102 0.001 28.75 1520.04
107 0.001 29.5 714.01

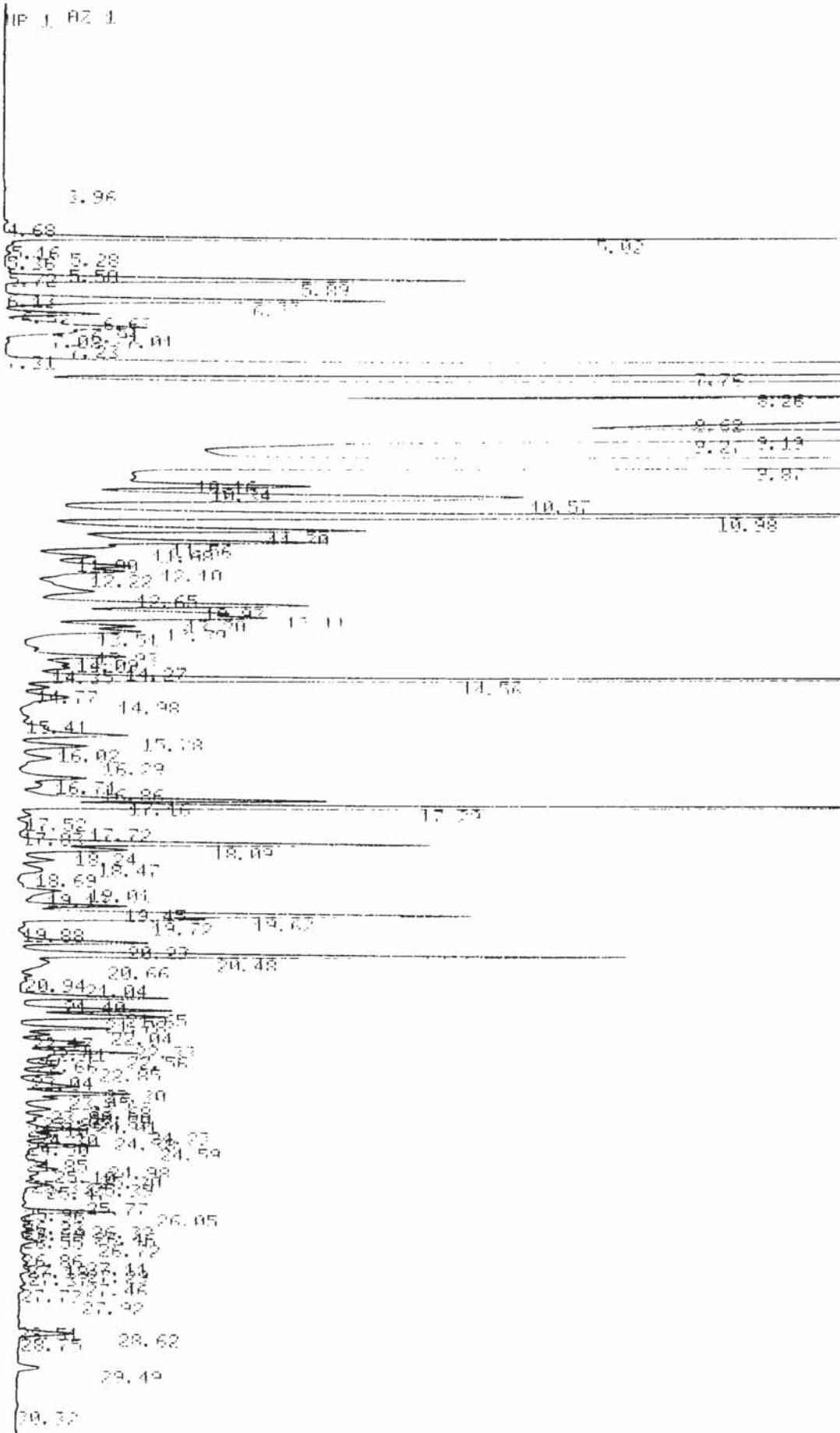
TOTAL 100. 109167903
Run #16 0.5ul 100ppm Gas Std
CHANNEL A DIRECT 04/23/91 10:30:38

Auto

00-997140-01

analytical instruments

variance



00-997140-01

instruments

101

B

CO-55

150 9.003 49.2 1000 02

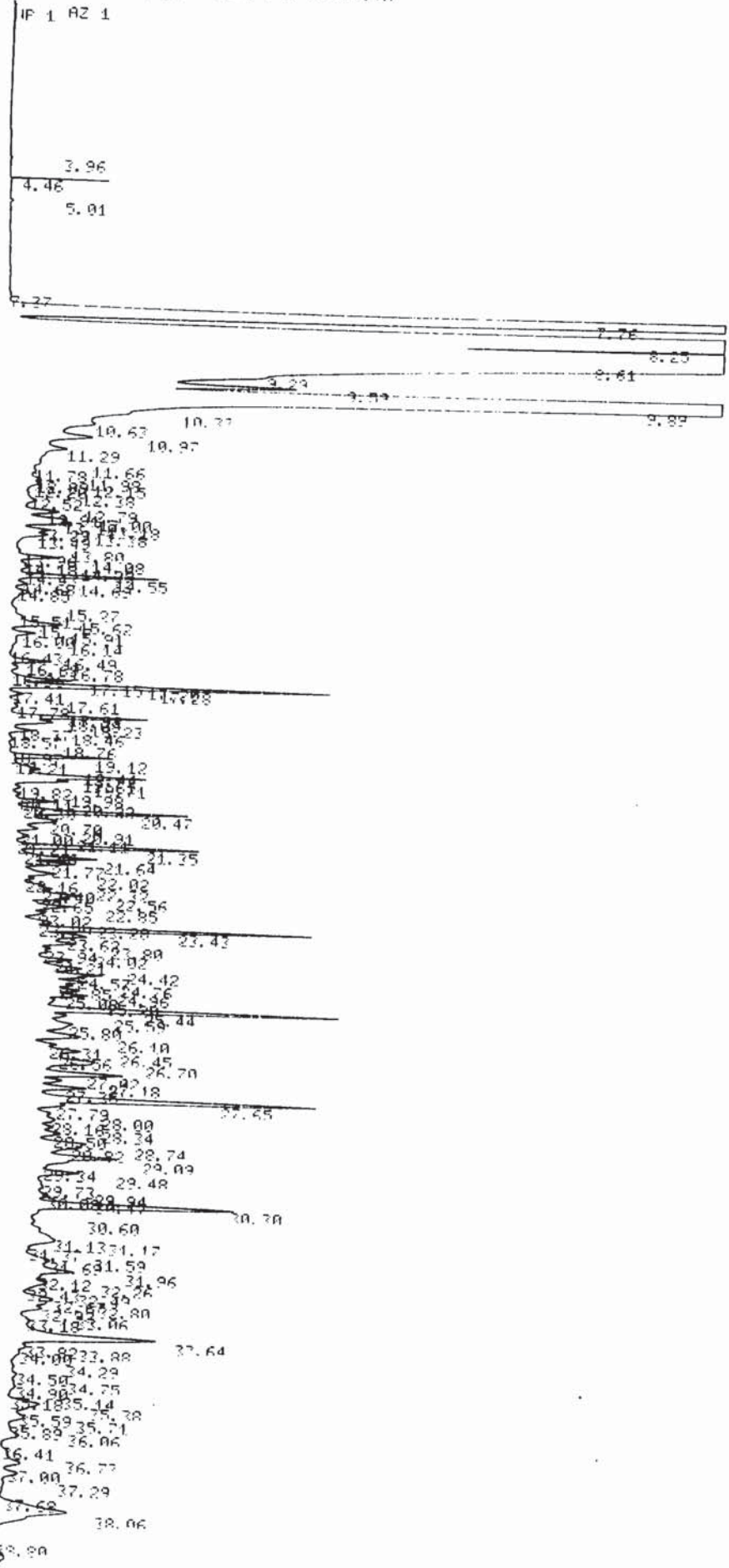
TOTAL 100. 108925127

Run # 19 0.5ul #3401 (0.5007g/10ml hex)

Auto KCB

CHANNEL A INJECT 04/27/91 00:01:18

analytical instruments
variano



CO-997140-01

analytical instruments
variano

111



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WCRO

EARTH REACH ENVIRONMENTAL CONSULTANTS, INC.

234 Franklin Street
Rocky Mount, Virginia 24151

(703) 483-5975
FAX (703) 483-2221

SITE CHARACTERIZATION

Hub - Cooper Wood Products Site
Rocky Mount, Virginia 24151

PC# 92-1992

Performed for:
Mr. Ira Culler
Hub Oil Company, Inc.
207 Diamond Avenue, NW
Rocky Mount, VA 24151

Performed by:
Earth Reach Environmental Consultants, Inc.
Robert R. Martin, Jr.
Duane A. Leith
R. Keith Snead
Consultants

September 10, 1992

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SITE CHARACTERIZATION

Hub - Cooper Wood Products Site

INTRODUCTION

On July 10, 1992, Earth Reach Environmental Consultants, Inc. (EREC) was contracted by Mr. Ira Culler to perform a site characterization at the location of Cooper Wood Products, Inc., State Road 919, Rocky Mount, Virginia.

Two underground storage tanks (UST) on the property had been previously removed by T.E. Harbour and Associates. The Initial Abatement Measures Report and UST Site Assessment Report are included in Appendix G. Both tanks were 1000 gallon capacity. Both tanks had reportedly last contained diesel fuel, however at least one of the tanks had contained gasoline in the past. The tanks and dispenser pumps were owned by Hub Oil Co., Inc. Contamination was found in association with the dispenser pumps and in the filling area. The release was reported to the Virginia Water Control Board (VWCB) by EREC in an initial abatement summary dated 3-10-91, following which the VWCB requested submission of a complete site characterization report.

EREC arrived on site on July 17, 1992 with a truck mounted auger for test borings and monitoring well installation. The pit had been backfilled before the arrival of EREC (refer to site map).

I. SITE ASSESSMENT

I.A. NATURE AND QUANTITY OF RELEASE

Two USTs on site had been used to store diesel fuel and/or gasoline for an unknown period of time. The site had previously been used as a service station, known as the Blackwater Filling Station, from prior to 1938. The quantity of the release is indeterminable due to the nature of the release. The past records of product loss and/or spillage are not adequate to provide an accurate reporting of the quantity of release. The levels of contamination at the site are not valid indicators of the quantity of release due to possible migration of contamination commingled with surface waters, possible volatilization into the atmosphere, possible contamination from other sources and possible metabolization to undetectable end products by naturally occurring soil bacteria.

The most obvious release appeared to be due to a combination of spillage during refuelling and leakage from the unions on the dispensing pumps, both over a long period of time. The investigation into the extent of contamination appears to indicate that the contamination existing at the site may be a complex pattern of releases from multiple sources, only one of which is the

tank and dispenser system owned by Hub Oil Co..

As indicated by sampling and drill logs performed by EREC, contamination appears to actually be less in the area of the removed tanks than upgradient or cross gradient to the northwest. As shown below, a possible explanation for this would be the presence of another source or sources. Increased aeration and the resulting increased biodegradation of the petroleum contaminants could have occurred due to the excavation process during tank removal. Also, the testing conducted on the tank area appeared to show less contamination at the time of excavation.

A reversal of ground water flow direction at the site does not appear likely. The only plausible explanation for the elevated contaminant results upgradient and cross gradient, at this time is from other sources. A screening for contaminants other than gasoline and diesel products is being conducted, but is unavailable at the present time. This information will be forwarded as it becomes available.

I.B. PHYSICAL AND CHEMICAL PROPERTIES OF RELEASED PRODUCT

Gasoline is a complex mixture of hydrocarbons and additives. Gasoline consists primarily of paraffins (66% to 69%), aromatic hydrocarbons (24% to 27%) and olefins (6% to 8%). Various chemicals are added to improve engine performance. Gasoline exists in four phases in the environment: a free moving liquid, adsorbed into soil, into ground water and in the aerosol or vapor phase. Gasoline components partition in environmental media according to vapor pressure, water solubility and partition coefficients. Benzene, toluene, xylene and ethyl benzene are the principal water soluble components of gasoline. Since these components possess high vapor pressures as well as water solubility, they may exist in both the vapor phase and water soluble fraction of gasoline. Some gasoline mixtures sold in the past and still sold in smaller quantities in the US contain tetra-ethyl-lead, which was added in concentrations not to exceed 3 ml per gallon in motor gasoline to prevent "knocking". All leaded gasolines are dyed with a red or blue dye for recognition. Benzene and ethanol are also added to gasoline to prevent "knocking".

Gasoline is a highly flammable mobile liquid with a characteristic odor. It possesses a rapid evaporation rate and vapor pressure. Gasoline dissolves fats and is soluble in alcohol, ether, chloroform, benzene and is partially miscible in water. Specific physical data are as follows:

Flash point: -50 degrees F. or -4 to 5 degrees C.
Lower explosive limit: 1.3 volumes in air
Upper explosive limit: 6.0 volumes in air
Specific gravity: @60/60 degrees F. 0.72 to 0.76

Diesel fuel is a complex mixture of hydrocarbons and chemical additives. Various chemicals are added to clean the injector

systems, improve cold weather characteristics and to improve engine performance. Diesel fuel exists in four phases in the environment: a free moving liquid, adsorbed into soil, dissolved in the ground water and in the aerosol or vapor phase. Diesel fuel components partition in environmental media according to vapor pressure, water solubility and partition coefficients. Benzene, toluene, xylene and ethyl benzene are the principal water soluble components of diesel fuel. Since these components possess high vapor pressures as well as water solubility, they may exist in both the vapor phase and water soluble fraction of diesel fuel.

Diesel fuel is a flammable mobile liquid with a petroleum hydrocarbon odor. It possesses a low evaporation rate and low vapor pressure. Diesel fuel dissolves fats and is soluble in alcohol, ether, chloroform, benzene and is minimally miscible in water. Specific physical data are as follows:

Flash point 100 degrees F. or 38 degrees C.
 Vapor pressure <1mm Hg @ 20°C
 Vapor density (air = 1) Greater than 5
 Specific gravity @60/60 degrees F. 0.87

I.C. FREE PRODUCT REMOVAL REPORT

Free product was observed at the time of the site assessment within the soils beneath the pump island and surrounding area. A small amount, such as that observed, does not generally evidence quantities of free product considered to be practical to be removed by the free product removal technologies available at the present time. Therefore, no attempt was made by EREC to remove the free product observed. The soil contaminated with free product was removed however, in the excavation process and disposed of with the remainder of contaminated soil removed from the excavation.

As noted in the Initial Abatement Report and the Site Assessment Report, three loads of petroleum contaminated soil were removed during the tank removal. The over-excavation of contaminated soils at the time of tank removal, for treatment and disposal, was an accepted practice at the time the tanks were removed. Cooper Wood Products, Inc. assumed responsibility for this soil and it was placed on their property for volatilization and ultimate disposal.

I.D. TANK INFORMATION

Tank #	<u>1</u>	<u>2</u>
Capacity	1000	1000
Contents	diesel	diesel
Reported condition	moderate erosion	moderate erosion

Refer to the site map for the locations of USTs #1 & #2.

I.E. GEOLOGIC / HYDROGEOLOGIC SITE INFORMATION

Rocky Mount is located in Franklin County in the Southwestern Virginia Piedmont. Two major structures exist in this area: the Smith River allochthon and the southeastern limb of the Blue Ridge anticlinorium. Bowens Creek fault, a southeastward dipping, right-lateral wrench fault, separates these two structures.

The Smith River allochthon is a thin, sheet-like structure composed of metasedimentary rocks that have been intruded by plutons of the Martinsville igneous complex. The metasedimentary rock is divided into a Lower Bassett Formation and an Upper Fork Mountain Formation. The regional metamorphism of these rocks have resulted in amphibolite rock and green schist facies. When Martinsville igneous complex plutons intruded into the area, some contact metamorphism occurred. This produced migmalites and sillimanite.

The Bassett Formation is the lowest and may be the oldest unit in the Smith River allochthon. It is comprised of biotite gneiss and amphibolite, composing the lower unit and upper unit respectively. Gneiss composition in this formation consists of about 30 percent quartz, 25 percent oligoclase, 15 percent biotite, 15 percent microcline and trace amounts of epidote, zircon, apatite and opaque minerals. The upper unit of the Bassett Formation (amphibolite unit) derived from metamorphosed basaltic lava flows. The amphibolite is dark greenish-black, foliated, medium to coarse-grained rock. Composition of the amphibolite includes about 70 percent hornblende, 15 to 30 percent plagioclase and may contain epidote, ilmenite, rutile, magnetite, sphene, chlorite, actinolite, apatite and biotite.

The Fork Mountain Formation is composed of two units including mica schist and biotite gneiss. Mica units overlie biotite gneiss. Biotite gneiss inter-layers ranging from .5 to 1 meter thick have been observed. The mica schist is a light to medium grey, porphyroblastic, fine to medium grained, high-alumina metapelite. Composition of the mica schist consists of muscovite, quartz, garnet, and high-alumina minerals with accessory plagioclase, magnetite and ilmenite. The biotite gneiss of the Fork Mountain Formation is a high-alumina, medium grey, compositionally-banded rock composed of inter-layered quartzo-feldspathic gneiss and garnetiferous muscovite-biotite gneiss. Equal amounts of quartz and plagioclase with varying amounts of biotite, muscovite, microcline, garnet, and high-alumina minerals compose the biotite gneiss.

The Martinsville igneous complex is composed of three units, including the Rich Acres Formation, Leatherwood Granite and a younger norite. This formation is found in the southern area of the southwestern Virginia Piedmont and has very little to no influence on areas involved in the site characterization.

The Blue Ridge anticlinorium underlies Rocky Mount and is composed of rock from the Lynchburg Group. The Lynchburg Group is believed to be of Late Precambrian age ranging from 350-580 m.y. Included in the Lynchburg Group are the Ashe and

Alligator Back Formations.

The Ashe Formation is a massive formation exposed in the core of the Cooper Creek anticline, composed of 30 to 45 percent quartz, 35 to 40 percent plagioclase and up to 20 percent biotite. This formation underlies the Alligator Back Formation which is composed of metamorphosed ultramafic rocks, gabbros and basalts, with inter-layered metagreywacke conglomerates, graphitic, pelitic and muscovite-sercite schists, impure marble and quartzite. Faults and folds proliferate in the area and generally run in a northeasterly and southwesterly direction.

I.E.1. Site Geology

The Cooper Wood Products, Inc. facility is located on S.R. 919, four miles northwest of Rocky Mount, VA. The site is located in the portion of the facility between S.R. 919 and the Blackwater River. Subsurface soils at the site typically consist of moist brown to yellow or orange brown colored loam to silty, sandy or clayey loam textured soils. There is a very thin surface layer of organic soil and a fairly uniform layer of quartzite rock at four to eight feet depth from the surface. Below the quartzite layer lies a fairly uniform gray or gray green micaceous silt, with colors changing to yellow brown to red brown and more sandy texture at greater depths. Bedrock is first encountered at about 20 feet depth.

The site is located on the banks of the Blackwater River, which flows into Smith Mountain Lake. Water levels in the monitoring wells indicate ground water potentiometric gradients tend toward the Blackwater River in a generally southwesterly direction as shown on the Ground Water Potentiometric Map. There is moderate topographic relief over the site. The depth from ground surface to the water table is approximately 16.52 feet at MWHC6, 12.43 feet at MWHC1 and 12.50 feet at MWHC4. The ground water elevations are referenced to an arbitrary benchmark elevation of 100' on the top of the water valve plug just south of the fire hydrant west of the UST site. Surface drainage tends to take a more northwesterly direction of flow and discharges into the Blackwater River. The facility is equipped with an earthen berm and pump to dispose of surface water during periods of high water levels on the Blackwater River.

I.E.2. Subsurface Conditions

Subsurface conditions were observed visibly in the excavated pit walls, by soil borings and by extrapolation from the exposed surface. The soil horizons diagram in appendix C and the Ground Water Potentiometric Map in appendix F depict the expected subsurface conditions.

Subsurface conduits potentially capable of permitting the enhanced movement of contaminants exist at the site. The presence of a well observed in the tank area, which was not sealed or

otherwise properly abandoned, could provide a direct route for contaminants to enter the ground water to the depth of the well. The presence of another dug well just northeast of the tank area could provide another direct route for vertical movement of contaminants. Due to the long history of commercial and industrial usage of the site, the locations of existing structures and evidence of past structures in the area, it is expected that the tank area may contain numerous horizontal subsurface contaminant migration conduits from past excavation activities, buried piping and buried cables. Shallow buried piping is known to run from the well house just north of the entrance drive to the well house near the tank area and to the old service station building. The soil gas surveys do not indicate detectable migration of contamination along this piping. The soil gas survey maps are provided in Appendix F.

I.E.3. Pumping / Injection Wells

There are no known pumping or injection wells on the site, however, the wells noted above are present.

I.E.4. Drillers / Geologic Logs for Wells and Boreholes

Five borings were conducted on the site by EREC on July 17 & 20, 1992, utilizing a 6" diameter, truck mounted, auger drill rig and crew on contract from PSI. Borings were extended to bedrock or two feet into the water table, whichever was encountered first. The borings are described below and in the boring logs provided in appendix C. The boring locations are shown on the site plan provided in appendix B.

Boring HC 1 was located in the anticipated down gradient direction from the pump island and surface spillage area.

Boring HC 2 was located in the anticipated down gradient direction from the tank area.

Boring HC 3 was located at the anticipated upgradient edge of the tank area. Access to this area was limited by the proximity to power transmission lines between the tank area and S.R. 919.

The Environmental Directions, Inc. mobile lab was used to test the soil samples collected from borings HC 1, HC 2 and HC 3. Based upon the laboratory testing results and the observations and field tests conducted during drilling, contamination appeared to extend past the borings already installed. Boring HC 4 was located farther down gradient toward the southwest, to help define the extent of contamination.

Boring HC 5 was located farther down gradient toward the northwest, to help define the extent of contamination. The higher contamination levels observed in boring HC 5 indicated that the contaminant plume was not travelling as anticipated or that other sources were involved. Boring was stopped until a soil gas survey could be conducted to help locate the path of contaminant migration or help pinpoint the other source(s) of contamination.

Two additional borings were conducted by EREC on August 20,

1992. These borings are described below and in the boring logs provided in appendix C. The boring locations are shown on the site plan provided in appendix B.

Boring HC 6 was located upgradient from the tank area in the location of higher soil gas survey probe readings.

Boring HC 7 was located at a point cross-gradient to the tank area, which the soil gas survey indicated as a potential source of other contamination.

I.E.5. Construction Details for Monitoring Wells

Monitoring wells were installed in borings HC 1, HC 3, HC 4, HC 5, HC 6, & HC 7. The construction details are shown in the monitoring well diagrams provided in Appendix D. All wells are constructed of flush joint threaded pvc well piping. The bottom ends of the screen are capped and set at the base of the bore hole. Washed, screened masonry sand is used for the filter pack. The filter pack extends a minimum of 1' above the top of the screen. A seal of bentonite pellets, a minimum of 1' thickness was placed above the filter pack. A sand mix cement backfill extends into the surface casing. The cement backfill in addition to the bentonite seal ensure that surface water and/or contamination is prevented from migrating to lower elevations and the screened interval, along the well pipe or along the borehole wall. The monitoring wells were developed by bailing until the bailed water was visually free of sediment.

Drill logs and well construction diagrams are presented in Appendices C & D.

I.E.6. Aquifer Characteristics

A shallow unconfined aquifer occurs across the site. This is evidenced by the ground water observed during soil borings and the levels recorded in the monitoring wells. This appears to be an unnamed, low yielding aquifer, no longer used locally. The thickness of the aquifer is approximately 13.5 feet in the area of boring MWHC 5.

The ground water potentiometric contours are shown on the Ground Water Potentiometric Map in Appendix F. The groundwater flow directions are also shown by arrows. The flow direction is generally southwestward toward the Blackwater River. The average hydraulic gradient across the site is approximately 1 foot in 35 feet or .0286 feet per foot.

The aquifer hydraulic conductivity was determined to be .17 ft/day, as calculated by the Horslev Method. Slug test data and results are included in appendix F. The transmissivity is calculated to be 2.3 gal. per day/foot, using an aquifer thickness of 13.5 feet. The ground water flow velocity is calculated to be 0.049 ft/day.

Aquifer Characteristics Calculations

Hydraulic Conductivity

The hydraulic conductivity was calculated utilizing the "SLUGTST" program developed by Allan Wylie and Thomas R. Wood of the Idaho National Engineering Laboratory. This program employs the method developed by Horslev to calculate hydraulic conductivity from data obtained during a slug test. The slug test data were reported and entered in units of feet and minutes and the calculated hydraulic conductivities are given in units of ft/min.

The calculated hydraulic conductivity for MWHC 4 is 1.28×10^{-4} ft/min. The calculated hydraulic conductivity for MWHC 5 was 1.36×10^{-4} ft/min for trial one and $.93 \times 10^{-4}$ ft/min for trial two. The average hydraulic conductivity is 1.19×10^{-4} ft/min. This equals .17 ft/day, 62 ft/yr or 6.0×10^{-5} cm/sec.

2. Transmissivity

The transmissivity, or rate of flow thorough a unit width of saturated thickness of the aquifer under a unit hydraulic gradient, is equal to the hydraulic conductivity multiplied by the saturated thickness of the aquifer. The thickness of the saturated zone at MWHC 5 is 13.5 ft.

$$T = Kt = .17 \frac{\text{ft}}{\text{day}} \times 13.5 \text{ ft} \times 7.48 \frac{\text{gal}}{\text{ft}^3} = 17.17 \frac{\text{gpd}}{\text{ft}}$$

The transmissivity is 17.17 gpd/ft.

3. Ground Water Flow Velocity

The flow velocity is determined from the hydraulic conductivity (K), the ground water gradient (dh/dl) and the soil porosity (n) by the following equation:

$$V = \frac{K (dh/dl)}{n}$$

The hydraulic conductivity is 0.17 ft/day. The average ground water gradient is approximately .0286 feet/foot across the site. The porosity, or percentage of soil void volume to total volume, for silty soils such as those observed at the site is estimated to be approximately 10%.

$$V = \frac{0.17 \text{ ft/day} \times 0.0286}{.10} = 0.049 \text{ ft/day}$$

The flow velocity is .049 ft/day.

I.F. WATER RESOURCES WITHIN 1000' OF SITE

Water resources within 1000' of the site would include the Blackwater River, unnamed tributaries to the Blackwater River and several private wells. Municipal water is not supplied to the area. The Blackwater River is the closest surface water source to the site. Based on the ground water gradients at the site and the proximity of the contaminated area to the river, there may be the potential for the waters of the Blackwater River to be affected by the conditions at the site. A stream assessment was not performed, pending further clarification of contamination sources, extents and migration patterns.

I.G. ADJACENT PROPERTY OWNERS AND POTENTIALLY AFFECTED GROUND AND SURFACE WATER USERS

The site is bordered on the northeast by agricultural property. The tank area portion of the site is bordered on the west and northwest by the Blackwater River. Numerous dwellings are located along S.R. 919. None of the adjacent properties are anticipated to be potentially affected by the contaminant plume, unless the Blackwater River is affected.

The Cooper Wood Products, Inc. facility is located 4 miles northwest of Rocky Mount, Va. on S.R. 919, and can be contacted at phone number (703) 483-5037. The area in question depends exclusively on private water sources. Shallow wells and springs are typical in this area.

I.H. HISTORICAL RELEASES AT SITE AND ADJACENT PROPERTIES

Mr. Bill Cooper reported that a service station was in operation at the site when the property was purchased by the Coopers. A search of the recorded deed transfers shows that the site was referred to as the Blackwater Filling Station as far back as 1939. S.R. 919, formerly S.R. 220 and known as the Big Lick Turnpike, was the main road between Rocky Mount and Roanoke, before the construction of U.S. 220.

The location of earlier petroleum storage tanks is not known, nor have any historical releases associated with the service station been confirmed. There are concrete footings visible in the area southeast of the tank area, which may have supported above ground storage tanks at some time in the past. Given the long history of use as a service station, it would be very likely that past releases had occurred at the site.

Mr. Bill Cooper reported that a petroleum release occurred during the flood of '85, when the site flooded. The extents of the flood release are not known by EREC, at this time, but Mr. Cooper reported that vapors from the spill were significant in the basement area of the service station building for some time afterward.

There is also an underground storage tank located in the area between monitoring well MWHC 5 and the service station building. The integrity and spill history of this tank is unknown at this time.

*note to be inserted
as a possible source*

I.I. CONSTRUCTION INFORMATION ON POTENTIALLY AFFECTED WELLS

Construction information has not been obtained for potentially affected wells due to the further delineation of the extent of all contamination required to determine if any potentially affected wells exist. *How about the other wells?*

I.J. CURRENT AND PROJECTED GROUNDWATER / LAND USE

In the area of the Cooper Wood Products facility, water is obtained from shallow and/or deep wells and occasionally from springs. The Cooper Wood Products facility maintains equipment to draw water from the Blackwater River, in addition to a well on their property on the west side of the river. Other nearby users of the river as a source of water have not been identified at this time.

Water is supplied to the town of Rocky Mount by the city's water treatment facility, which draws water from the Blackwater River, several miles downstream from the site. The population of Rocky Mount relies on this water source almost exclusively. Ground water is utilized to a limited extent along the fringes of the Rocky Mount city limits.

It is expected that ground water usage would increase in the area at the rate of new housing construction. Land use consists of residential, agricultural and scattered industrial locations (please refer to the demographics section).

I.K. DESCRIPTION OF EXTENTS OF CONTAMINATION

Contamination exists in three phases at the Cooper Wood Products Site, as residual petroleum hydrocarbons, in the vapor phase and as dissolved water soluble contaminants detected in the ground water. Free product was observed around the pump island when the tanks and pumps were removed. The free product was removed during the excavation process. *not all, is it?*

The information obtained regarding the extents of contamination, at this time, appear to suggest that another source or sources, other than the tanks and equipment owned by Hub Oil Co., Inc., may be contributing to the contamination observed at the facility. The soil vapor readings and soil TPH results both show higher levels of contamination upgradient and cross gradient from the area where the Hub Oil Co. tanks were located. The dissolved phase contamination, as shown by the BTEX levels, appears less conclusive, but the contamination level is shown to be higher cross gradient from the area where the tanks were located and upgradient well MWHC 3 is higher. The extent of contamination originating from the Hub Oil Co. tanks has not yet been clearly shown at this time due to the apparent influx of contamination from the other source or sources.

Residual contamination is present as shown by the laboratory testing of soil samples. The lab results are tabulated in section I.M. below and the lab reports are included in appendix E. The maximum TPH readings for each boring are plotted on the map entitled "Residual Phase Contamination" included in appendix F. The TPH levels are generally highest from 8 to 12 feet below the ground surface, coinciding with the

ground water potentiometric levels.

Within the contaminated area which was investigated, vapor phase contamination exists as indicated by soil screening analysis with the CGM and as evidenced by vapor analysis of auger cuttings. A soil gas survey was conducted after finding unanticipated contamination levels north and northeast of the tank area. The results of the soil gas survey are provided in appendix F. The diagrams designated "Probe" represent the soil vapor readings obtained from a probe placed as close to the surface of the water table as possible. The diagrams designated "Surface" represent the soil vapor readings obtained from open bore holes.

Both "Probe" and "Surface" readings appear to show sources or centers of contamination away from the tank area. The elevated readings south of the tank area appear to be centered in the area where some old footings exist. These are visible as two rows of dots on the Site Plan. There appears to be other concentrations of elevated readings north, northwest and west of MWHC 5.

A CGM was utilized to assess the presence of hydrocarbon vapors in the service station building basement. CGM readings remained below detectable levels throughout the accessible areas of the basement. There appear to be minimal hydrocarbon vapor hazards to the service station building, at this time.

I.L. PLUME MIGRATION DIRECTION AND RATE

Petroleum hydrocarbon contamination at the Cooper Wood Products Site has extended vertically downward to the surface of the water table. Laboratory analysis shows that BTEX components have entered the water table. Contamination entering the water table would be transported in a southwesterly migration route following the ground water.

Horizontal migration of contamination was not expected to extend into the near surface soils, past the excavated pit from which the tanks and lines were removed, as evidenced by the low petroleum hydrocarbon readings in the UST Site Assessment Report. The plume was not expected to extend eastward or northeastward past the excavated pit, this would require an up gradient migration or uphill movement of surface flow. The plume was not expected to extend northward past the wall of the pit, this would require cross gradient migration. The presence of high levels of contamination in these areas may indicate that other sources may be contributing to the contamination levels observed.

In silty soils typical of those observed at the site permeability or hydraulic conductivity of approximately $1 * 10^{-5}$ cm/sec to $1 * 10^{-3}$ cm/sec are anticipated. The calculated hydraulic conductivity described in section I.E.6. is $6.0 * 10^{-5}$ cm/sec, which provides a flow velocity of .049 ft/day. The contaminant plume would be expected to migrate at this rate with pockets of greater rates where conduits permit flow in channels rather than migration through the soil structure. Lesser rates would be expected in areas of compacted soils, such as under the drive.

The site lies within the floodplain. The Blackwater River reportedly overflowed its banks onto the site in the flood of 1985. Negligible effect is anticipated upon the groundwater levels and flow

direction from flooding, as such flooding is infrequent and typically of very short duration. The normal water elevation of the river is at an elevation of approximately 83.4 feet referenced to the site benchmark.

I.M. SAMPLING / MONITORING PROCEDURE

Following the sampling procedures in appendix E, soil vapor screening was conducted on auger cuttings taken from the boring locations shown on the site plan in appendix B, at the approximate depths shown on the boring logs provided in appendix C. The "field reading" shows the CGM meter readings obtained from cuttings representative of the depth at which the readings are provided. The following table is a summary of the soil vapor screening results obtained.

SOIL SCREENING

Boring	Depth	CGM Field Reading *	Boring	Depth	CGM Field Reading *
HC 1	3	16	HC 2	3	32
	4	20		4	34
	6	34		6	42
	8	rock		8	290
	10	5		10	40
	12	79		12	310
	14	62		14	124
	16	4		16	290
	18	12		18	250
					20
			22	570	
HC 3	2	--	HC 4	2	80
	4	32		4	22
	6	21		6	32
	8	4		8	260
	10	14		10	48
	12	67		12	
	14	2900		14	76
	16	1100		16	30
	18	4800		18	34
	20	720		20	8
	24	830			
	26	260			
	27	240			
HC 5	2	33	HC 6	2	20
	4	26		4	37
	6	42		6	32
	8	10000+		8	49
	10	10000+		10	100
	12	10000+		12	80
	14	10000+		14	33
	16	--		16	22
	18	2000		18	17
	20	1500		20	8
	22	180		22	8
	24	270			

SOIL SCREENING

<u>Boring</u>	<u>Depth</u>	<u>CGM Field Reading *</u>	<u>Boring</u>	<u>Depth</u>	<u>CGM Field Reading *</u>
HC 7	2	24			
	4	18			
	6	680			
	8	9100			
	10	10000+			
	12	10000+			
	14	10000+			
	16	10000+			
	18	1400			
	20	10000+			
	22	4800			
	24	8000			

*Results in parts per million

Laboratory testing of soil samples as detailed in appendix E was conducted on split spoon samples or from auger cuttings taken from the boring locations shown on the site plan in appendix B at the depths as shown on the boring logs provided in appendix C. The field ID and sample interval are provided on the boring logs for each split spoon sample obtained. The following table is a summary of the laboratory testing performed on split spoon and auger cutting samples.

LABORATORY RESULTS (SOIL)

Boring/ Sample	Depth (feet)	TPH (ppm)	Boring/ Sample	Depth (feet)	TPH (ppm)
HC 1A	5.5-6.7	134	HC 2A	5-6.5	98
HC 1B	13-14.5	80	HC 2B	8.5*	134
HC 3A	12.5*	100	HC 2C	12-13.5	124
HC 3B	15-15.5	103	HC 2D	15-15.5	120
HC 3C	20-20.4	48	HC 2E	20-21.2	68
HC 3D	24.5*	65	HC 2F	22.3*	59
HC 4A	8-9.5	29	HC 5A	8-9.5	4394
HC 4B	12-13.5	3	HC 5B	12-12.5	277
HC 6A	12*	97	HC 5C	16-17.5	23
HC 6B	22*	115	HC 7A	10*	4316
			HC 7B	12*	38
			HC 7C	18*	70
			HC 7D	19*	29
			HC 7E	28*	83

* Sampled from auger cuttings

Laboratory testing of water samples was conducted on bailer samples from the monitoring wells shown on the site plan in appendix B following the standard monitoring well sampling procedures provided in appendix E. The results are shown in the following chart as samples MWHC-1 through MWHC-7. Laboratory testing of water samples taken from the standing water in the dug well designated DWHC 1 and the drilled well designated DWHC 2 is shown in the following table. The test results for the water sampled from the well in the tank area, designated CW 4, collected when the tanks were removed, is included in this table for comparison. The results of testing conducted on these wells should not be considered to be reliably representative of the ground water due to possible volatilization and unknown well construction details, but are included to provide additional insight into the site characterization.

Water samples taken from the monitoring wells immediately after installation, for investigational purposes, are also included for comparison. The results of testing conducted on these unpurged sources should not be considered to be reliably representative of the ground water, but are included to provide additional insight into the site characterization.

LABORATORY RESULTS (WATER)

Sample ID	in PPM		in PPB				BTEX Total
	TPH	Lead	Benzene	Toluene	Ethyl benzene	Xylene	

Monitoring well test results:

MWHC-1			<1.0	<1.0	<1.0	3.8	
MWHC-3			5220	8550	1160	7670	22600
MWHC-4			476	12	<1.0	14	≈503
MWHC-5	17	.042	2807	1520	315	4553	9195
MWHC-6			<1.0	<1.0	<1.0	<1.0	
MWHC-7			1290	72	74	534	1970

Dug and drilled well test results:

DWHC 1			<1.0	<1.0	<1.0	<1.0	
DWHC 2			<1.0	<1.0	<1.0	<1.0	
CW 4			<5	6	<5	7	

Unpurged monitoring well investigational samples:

CH-MW1 (well MWHC 1)			1.0	2.0	<1.0	3	<7
CH-MW2 (well MWHC 3)			400	257	750	3790	5197
MWCH-7 (well MWHC 7)			420	134	302	1544	2400

Detection

Limit	1.0	.03	1.0	1.0	1.0	1.0	
-------	-----	-----	-----	-----	-----	-----	--

ND= none detected

Note - BTEX totals have not been provided where several of the individual parameters are below the detection limit to avoid presenting a potentially misleading or confusing total. The test results from monitoring well MWHC 7 may be lower than actual levels due to the surface of the ground water rising above the top of the screen.

II. RISK ASSESSMENT

II.A. DEMOGRAPHICS

Industrial and manufacturing operations constitute the majority of the Rocky Mount area. Residential areas include small pockets of housing and/or apartment buildings. Most of the local population can be found outside the city limits of Rocky Mount.

Water is supplied to the town of Rocky Mount by the city's water treatment facility, which draws water from the Blackwater River. The population of Rocky Mount relies on this water source almost exclusively. Ground water is utilized sparingly along the fringes of the Rocky Mount city limits. It is likely that ground water usage would increase in the area proportional to housing construction.

II.B. IMPACTED AND POTENTIALLY IMPACTED RECEPTORS

Potentially impacted receptors may include plant and animal life directly in contact with soils and water at the site. Potentially impacted receptors may also include those terrestrial plants and animals, including humans, that may come into contact with the contaminated soil, ground water or vapor, or volatile emittants from contaminated soils and water. Potentially impacted receptors of petroleum contamination at this site would include personnel involved in the removal of the USTs, involved in other excavation at, or near, the site and possibly other personnel working at the facility, who might be exposed to airborne contaminants. Drinking water for the facility is reportedly supplied from a well located on the west side of the Blackwater River. The contamination would not be expected to extend past the river.

At present, plume migration does not appear to have adversely affected plant or animal life in the area of the removed tanks.

II.C. EXPOSURE PATHWAYS FOR RECEPTORS

The most critical pathway for receptors is the inhalation of vapor phase contamination by site workers disturbing contaminated soils potentially releasing and/or accelerating the release of vapors to the atmosphere. Dermal contact of contaminated soil or groundwater by site workers is a potential exposure pathway of concern. Long term exposure of facility personnel to low levels of airborne contaminants may warrant further investigation.

Plant life growing on the affected area would be expected to be exposed to respiration/transpiration of low levels of vapor emitted from the soil surface and potentially to direct contact with potential osmotic intake of root tissue with low levels of dissolved phase contaminants within the groundwater. Large burrowing animals species were not observed within the affected area; however, smaller burrowing animals and lower life forms are

expected to frequent or reside within the affected area. These receptors are exposed to inhalation and dermal contact of contaminants and to various extents to ingestion of contaminated soils and/or soil moisture. These lower life forms typically furnish food for higher life forms and, if contaminated, could potentially pass contaminants up the food chain.

The contaminants which could possibly be attributable to the Hub Oil Co. equipment are gasoline and diesel fuel. It is not known at this time if other contaminants are present from other sources or historical releases.

Gasoline is a complex mixture of hydrocarbons and additives. The principle constituents of gasoline are paraffins, aromatics and olefins. Gasoline exists in the environment in four states: a free moving liquid, adsorbed into soil, into ground water and in the aerosol or vapor phase. Gasoline components partition in environmental media according to vapor pressure, water solubility and partition coefficients.

Gasoline is absorbed from all exposure routes, including perinatal. The dermal route appears to be slower than oral and inhalation routes. Some gasoline components will absorb more rapidly than others. Benzene, toluene and xylene have both high blood/air partition coefficients and skin penetration rates, and are absorbed more rapidly than other gasoline components. Metabolic pathways for these components are defined, but their toxic metabolics are not well understood.

Acute exposure to gasoline and its primary components of benzene, toluene and xylene (BTX) has been associated with skin and sensory irritation, central nervous system depression and effects on the respiratory system. Prolonged exposure also affects such organs as the kidneys and liver and the blood. BTX have all been shown to be neurotoxic and benzene is hemotoxic. Protracted exposure to gasoline vapors has caused pulmonary toxicity and nephrotoxicity in lab animals.

At non-carcinogenic levels, BTX effects on the fetus include increased resorptions, reduced fetal body weight, delayed skeletal development and, in cases of benzene exposure, reduced bone marrow suppression in offspring. Benzene and xylene have proven to be teratogenic in rats at maternally toxic doses. After inhalation and oral exposure, xylene causes cleft palate in mice. Gasoline exposure may cause reduced size of fetus in high doses and has caused nervous system effects in children whose mothers were exposed during pregnancy.

Benzene is a known carcinogen and had been linked to forms of blood and kidney cancer. There is sufficient basis for presuming gasoline to be a probable human carcinogen by all routes of exposure. Leukemias and lymphomas have been linked to benzene via oral and inhalation routes. Other neoplastic lesions associated with exposure to benzene include carcinomas of the mammary gland, zymbal gland, skin, oral cavity, nasal cavity, lungs and preputial gland; adenomas of the harderian gland and lungs; papillomas of the skin and oral cavity; and tumors of the forestomach liner, lungs and ovaries.

Diesel fuel is a complex mixture of hydrocarbons and additives. The principle constituents of diesel fuel are paraffins, aromatics and olefins. Diesel fuel exists in the environment in four states: a free moving liquid, adsorbed into soil, into ground water and in the aerosol or vapor phase. Diesel fuel components partition in environmental media according to vapor pressure, water solubility and partition coefficients.

Health studies have shown that many petroleum hydrocarbons pose potential human health risks which may vary from person to person. Diesel fuel is absorbed from all exposure routes, including perinatal. The dermal route appears to be slower than oral and inhalation routes. Minute amounts aspirated into the lungs may cause mild to severe pulmonary injury and possibly death. Some diesel fuel components will absorb more rapidly than others. Benzene, toluene and xylene have both high blood/air partition coefficients and skin penetration rates, and are absorbed more rapidly than other diesel fuel components. Metabolic pathways for these components are defined, but their toxic metabolics are not well understood.

Prolonged or repeated liquid contact with the skin tends to dry and defat the skin, leading to possible irritation and dermatitis. High vapor concentrations (greater than approximately 1000 ppm, attainable at temperatures well above ambient) are irritating to the eyes and the respiratory tract, and may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness, and other central nervous system effects, including death. Product contacting the eyes may cause eye irritation.

Skin painting studies produce skin tumors and/or cancer in laboratory mice. The degree of carcinogenic response was weak to moderate with a relatively long latent period. The degree of carcinogenicity of diesel fuel for humans has not been determined. Studies with very active carcinogenic oils have shown that washing the animals skin with soap and water between applications greatly reduces tumor formation. These studies demonstrate the effectiveness of cleansing the skin after contact.

Long term repeated exposure of laboratory animals to whole diesel exhaust has resulted in an increased incidence of lung cancer. Inhalation of components of exhaust from burning may cause death at high concentrations.

II.D. EXPOSURE LEVELS FOR RECEPTORS

The exposure level for vapor contaminants to casual site visitors is negligible. The exposure level for vapor contaminants to long term facility personnel has not been investigated. The exposure level of vapor contaminants to personnel at the site during disturbance of the soil in the affected area depends upon the volume and contamination levels of exposed soil and ground water, as well as air and soil temperatures, wind velocities, level of solar heating and other uncontrollable factors. Based upon soil vapor screening tests, as reported in section I.M., combustible gas levels of over 10,000 ppm are possible. The site plan in report

section I.A. and in appendix B provide additional details of the vapor phase testing and locations.

The exposure level of dermal contact by site workers, based upon the soil and water testing, reported in section I.M., could be expected to meet or exceed 4394 ppm of total petroleum hydrocarbons and 22,600 ppb of total BTEX. The report sections I.E. and I.M. and the site plan in appendix B provide additional details of soil and groundwater testing and sampling locations. Similar exposure levels are expected for burrowing organisms within the affected area and for plant roots.

The exposure levels of plant and animal life outside the disturbed areas would vary from near zero at the margins to the maximum anticipated levels of 4394 ppm of total petroleum hydrocarbons and 22,600 ppb of total BTEX.

There are two existing water wells in the vicinity of the tank removal location. The wells are not currently used. The standing water from these wells was sampled on 8-20-92. The samples were designated DWHC 1 and DWHC 2. The testing results are included in appendix E. Both wells tested below detectable levels for all BTEX parameters.

II.E. EVALUATION OF EXISTING / POTENTIAL RISK TO RECEPTORS

Primary receptors of petroleum contamination in this area would be humans involved in the removal of the USTs and related site work. Proper health and safety procedures should be followed by all site workers to avoid exposure. This includes vapor monitoring during site work, use of approved respirators as necessary and proper protective clothing. Care should be exercised in proper cleaning and disposal of contaminated equipment and clothing following exposure. The levels of benzene, ethylbenzene, toluene or xylene considered to be not acutely or chronically toxic to freshwater organisms have not been provided for Virginia's Ground Water Quality Standards listed in VR680-21-01.14. This rule does provide human health concern levels for benzene, ethylbenzene and toluene as follows:

<u>parameter</u>	<u>public water supplies</u>	<u>all other surface waters</u>
benzene	1.2 ug/L	71 ug/L
ethylbenzene	3100 ug/L	29000 ug/L
toluene	6800 ug/L	200000 ug/L

A draft memorandum on Aquatic Life Protection Number For Xylene For Use in Permitting at UST Sites from Richard Ayers of the VWCBC recommends the aquatic life protection "safe levels" be set at 0.038 mg/L for xylene in effluents from UST remediation sites for fresh water receiving streams. An EPA Draft Advisory provides an advisory Concentration of 21 ug/L for xylene. Copies of these documents are provided in appendix E. The point source limits for BTEX discharged to streams was reported by Mr. Ken Chapman of the

VWCB, by phone, to be as follows:

benzene	.053 mg/L
ethylbenzene	.32 mg/L
toluene	.175 mg/L
xylene	.038 mg/L

The following table compares the levels of BTEX contaminants reported for the site to levels which the above information would seem to indicate are levels which may pose an unacceptable risk if exceeded by the ground water entering the Blackwater River.

<u>parameter</u>	<u>maximum reported level</u>	<u>unacceptable level</u>
benzene	17,270 ppb	53 ppb
ethylbenzene	1160 ppb	320 ppb
toluene	8550 ppb	175 ppb
xylene	7670 ppb	38 ppb

All the BTEX parameters in the ground water, currently exceed the unacceptable levels shown above. The potential exists for the contaminant plume, exhibiting contaminant levels exceeding the unacceptable levels, to migrate to the vicinity of the Blackwater River. The extent of contamination in the direction of the river has not been determined at this time.

Potential risk to benthic organisms colonizing the area of the contaminant plume intersection with the Blackwater River may exist. The potential for bio-accumulation within the food chain is beyond the scope of this investigation.

The potential risk to wildlife, vegetation and aquatic organisms may increase as the main body of the contaminant plume migrates, following the ground water flow, to the Blackwater River. Eventually, the risk would be expected to decrease naturally if the source of contamination has been removed. In time, with dilution and natural degradation of the contaminants, the risk is expected to decrease until the contamination is no longer detectable. A decreased population of benthic organisms would restrict the food resources for organisms relying on this source of nutrition. Benthic organisms also provide physical mixing and aeration of soils and digestion of soil organic compounds and contaminants.

A CGM was utilized to assess the presence of hydrocarbon vapors in the service station building's basement. CGM readings remained below detectable levels for all accessible areas. There appear to be minimal hydrocarbon vapor hazards associated with the site at this time.

If ground water on the site were to be utilized, it could pose a threat for organisms ingesting the water. Future uses for ground water have been previously addressed. Alternate water supplies have not been investigated at this time.

II.F. EVALUATION OF RISK TO THE ENVIRONMENT

The risk posed by the known contaminants at the site, to the

environment, exists as the gradual release of petroleum hydrocarbons, and there is the potential risk of fire associated with site disturbance. The potential risk of fire should not exist if the site is not further disturbed and can be controlled by proper procedures during any further site work. The risk to the environment from fire is primarily the accelerated release of products of hydrocarbon combustion including carbon dioxide, oxides of nitrogen and unburned hydrocarbons. The volume of hydrocarbon vapors ignitable at any given time is not currently considered to pose a significant threat to the environment.

The gradual release of hydrocarbons is expected to occur as continued release of vapor phase contamination to the atmosphere and as continued release of dissolved components, notably BTEX to the ground water and ultimately to the surface water in the Blackwater River and downstream. As noted previously the contaminant levels and rate or volume of release to the environment are ultimately expected to decrease after the source has been removed.

There exists the possibility of other contamination at the site with other potential risks, if other sources are involved.

II.G. EVALUATION/PROVISION OF ALTERNATE WATER SUPPLY

At this time, no evaluation of the water supply for the facility has been conducted. No provision has been determined for an alternate water supply. No evaluation of the effect of the contamination on the water quality of the Blackwater River has been conducted at this time. The Blackwater River provides the sole source of drinking water to the town of Rocky Mount, at a point several miles downstream from the Cooper Wood Products facility.

III. REMEDIATION ASSESSMENT

The remediation assessment for the contamination at this site can not be determined pending the completion of the investigation of other sources of contamination, the extents of all contamination and the composition of the contamination.

SITE CHARACTERIZATION REPORT CHECKLIST

Site: Hub - Cooper Wood Products PC# 92-1992 Region WCRO

The following checklist must be filled out by the Responsible Party (RP) and/or the RP's Consultant and included in the Site Characterization Report. Indicate on the checklist the page and section number where each item is addressed in the attached report. Also indicate on the checklist the section and page number where justification is given for items omitted from the attached report. The contents of the report should reflect and be commensurate with the nature of the release, degree of contamination and complexity of the site investigation.

A copy of the Initial Abatement Measures Report must be attached to or included in the Site Characterization Report.

Items marked with an * are required as part of the CAP Permit Application.

1. SITE ASSESSMENT

Page /Section

- | | | | |
|--------------|---|------------|--|
| <u>1</u> | / | <u>IA</u> | Nature and quantity of release |
| <u>2</u> | / | <u>IB</u> | *Physical and chemical properties of released product |
| <u>3</u> | / | <u>IC</u> | Free Product Removal Report |
| <u>3</u> | / | <u>ID</u> | Tank information (capacity, location, contents) |
| <u>4</u> | / | <u>IE</u> | Geologic/hydrologic site information |
| <u>5</u> | / | <u>IE1</u> | Site geology |
| <u>5</u> | / | <u>IE2</u> | Subsurface conditions (fractures, solution cavities, lenses, depth to ground water) |
| <u>6</u> | / | <u>IE3</u> | Pumping/injection wells |
| <u>6</u> | / | <u>IE4</u> | Drillers/geologic logs and construction details for all wells and boreholes |
| <u>7</u> | / | <u>IE6</u> | Aquifer characteristics |
| <u>7</u> | / | <u>IE6</u> | Name |
| <u>7</u> | / | <u>IE6</u> | Thickness |
| <u>8</u> | / | <u>IE6</u> | Conductivity |
| <u>8</u> | / | <u>IE6</u> | Transmissivity |
| <u>8</u> | / | <u>IE6</u> | Hydraulic gradient |
| <u>8</u> | / | <u>IE6</u> | Flow velocity/direction |
| <u>APP F</u> | / | | Hydrologic cross section |
| <u>9</u> | / | <u>IF</u> | Information as to water resources within 1000 ft of site (wells, springs, surface water) |
| <u>9</u> | / | <u>IG</u> | Information as to adjacent property owners & potentially affected ground and surface water users (names, addresses, telephone numbers) |
| <u>9</u> | / | <u>IH</u> | Information on historical releases at the site as well as historical releases from UST's located on adjacent property. |
| <u>10</u> | / | <u>II</u> | Construction information on potentially affected wells |

- 10 / IJ Current and projected groundwater/land use
- 10 / IK Description of vertical and lateral extent of contamination
 - 10 / IK Free product phase
 - 10 / IK Dissolved phase
 - 10 / IK Residual phase
 - 10 / IK Vapor phase
- 11 / IL Plume migration direction and rate
- 13-16 / IL *Sampling and monitoring results

Note: All lab sheets and tables submitted in SCR must have sample media, analytical method used, detection limit method, unit of measure, sample depths, and sample locations. Sampling results from BTEX analysis must be reported individually and totaled.

Site maps/sketches (combine when appropriate and to scale when possible).

- APP B / _____ *Locus maps on 7 1/2 min. quad. or county highway map
- APP B / _____ *Base maps with property lines and physical features (buildings, roads, etc.)
- APP B / _____ *Location of source(s) of contamination at site
- APP F / _____ Sample locations (water, vapor, and/or soil)
 - APP B / _____ Excavation pits
 - APP C / _____ Surficial soils
 - APP B / _____ Surface waters
 - APP B / _____ Basements/conduits (and/or soil vapor surveys)
 - APP B / _____ Monitoring wells
 - APP B / _____ Domestic wells
 - N/A / _____ Public supply wells
 - N/A / _____ Springs
- APP B / _____ Boring locations
- APP B / _____ Observation well locations
- APP F / _____ Ground water flow direction map
- APP B / _____ Subsurface conduits (telephone, water, sewer, power, dispenser piping)
- APP B / _____ *Potentially affected wells, streams, springs
- N/A / _____ *Flood plain designation
- APP F / _____ Isoconcentration or plume delineation map for each affected aquifer and/or soil zone for all phases present (cross-sectional and map view)
 - N/A / _____ Free product
 - APP F / _____ Dissolved
 - APP F / _____ Residual
 - APP F / _____ Vapor

FOR OFFICE USE ONLY

COMMENTS: _____

DEFICIENCIES: _____

SCR check list

2. RISK ASSESSMENT

- 17 / IIA Description of demographics (population)
- 17 / IIB Impacted and potentially impacted receptors (human, wildlife, forestry, etc.)
- 17 / IIC Exposure pathways for receptors
 - 18 / IIC Ingestion
 - 19 / IIC Dermal contact
 - 17 / IIC Inhalation
 - 17 / IIC Other
 - 19 / IID Exposure levels for receptors
 - 19 / IID Exposure level determination
 - N/A / _____ Tap water sample
 - APP E / _____ Direct well sample
 - N/A / _____ Surface water sample
 - APP F / _____ OVA and location of measurement
 - N/A / _____ Extrapolation
 - _____ / _____ Other
- 20 / IIE Evaluation of existing/potential risks to receptors (based on contaminant levels, exposure levels, frequency of exposure)
- 21 / IIF Evaluation of existing/potential risk to environment (based on contaminant levels, fate and transport, etc)
- 22 / IIG Evaluation/provision of alternate water supply

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COMMENTS _____

DEFICIENCIES: _____

REVIEWED BY: _____ DATE: _____

3. REMEDIATION ASSESSMENT

- Not / completed Remediation feasibility
- ___/___ Projected remediation endpoints based on site, risk, and remediation assessments
 - ___/___ Free product
 - ___/___ Dissolved
 - ___/___ Residual
 - ___/___ Vapor
- ___/___ Description and evaluation of applicable technologies
 - ___/___ Design for each applicable technology
 - ___/___ Time frame for implementation and duration for each applicable technology to achieve projected remediation endpoints
 - ___/___ Projected costs for each applicable technology to achieve projected remediation endpoints
 - ___/___ Achievable endpoints for each applicable technology
 - ___/___ Free product
 - ___/___ Dissolved
 - ___/___ Residual
 - ___/___ Vapor
 - ___/___ Estimated time-frame for achieving endpoints for each applicable technology
 - ___/___ Free product
 - ___/___ Dissolved
 - ___/___ Residual
 - ___/___ Vapor
 - ___/___ Immediate/future beneficial results for each applicable technology
- ___/___ Recommendation of most appropriate technologies with costs
- ___/___ Site characterization Report submitted within 45 days of release confirmation or extension granted

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COMMENTS: _____

DEFICIENCIES: _____

REVIEWED BY: _____ DATE: _____

Mr. Ira Culler
Hub Oil Co., Inc
207 Diamond Ave.
Rocky Mount, VA 24151


Mr. David Miles
State Water Control Board
5312 Peterscreek Rd.
Roanoke, VA 24019

Dear Mr. Miles,

I would like to request an extension for the Hub Oil Co., Inc./Cooper Wood site characterization PC#92-1992. Due to unforeseen analytical findings, the SCR will not be completed by the September 5, 1992 deadline. It is projected that the SCR will be submitted by Friday, September 11, 1992. Please inform me if this is acceptable.

Thank you for your time and consideration.

Sincerely,



Ira Culler
President

September 11, 1992

Mr. Ken Chapman
VA Water Control Board
5312 Peterscreek Rd.
Roanoke, VA 24019

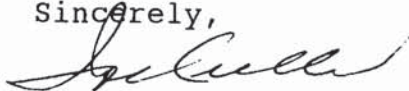
Dear Mr. Chapman,

During the site characterization study, two other areas of contamination were discovered and are thought to be originating from sources other than the UST system previously owned by Hub Oil Co., Inc. and operated by Cooper Wood Products. I would like the Water Control Board to understand that Hub Oil Co., Inc. is responsible only for leaks from the previously closed UST system and not for spills, or other contamination sources, existing at the Cooper Wood Products site.

It is our feeling that it should not be the responsibility of Hub Oil Co., Inc. to investigate the sources of contamination not related to the UST system previously owned by us and removed on March 10, 1991.

Please inform us of our further responsibilities concerning this matter as we are anxious to comply with Water Control Board requests. Your consideration in this matter is greatly appreciated.

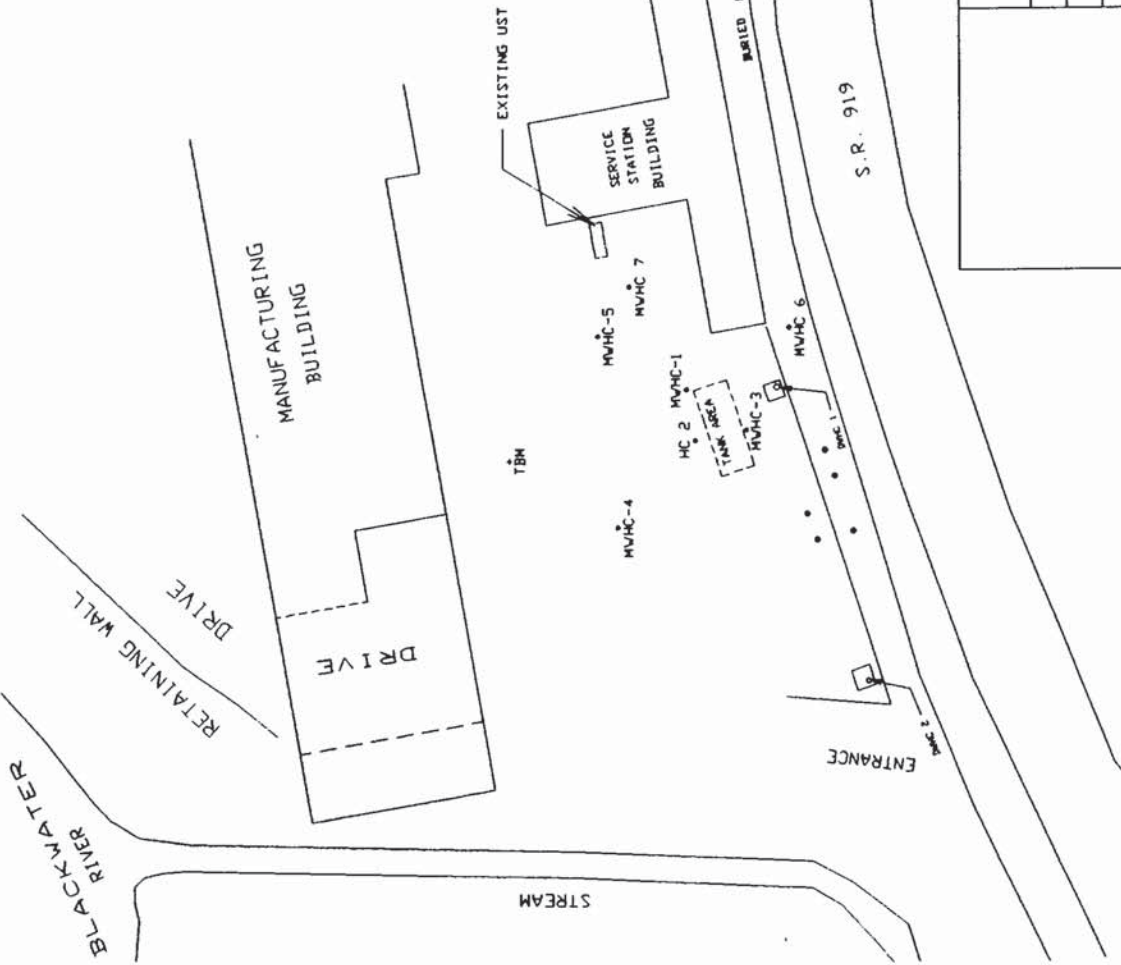
Sincerely,



Mr. Ira Culler
President



BTEX



TITLE: Site Plan

SITE: Cooper Wood Products, Inc.

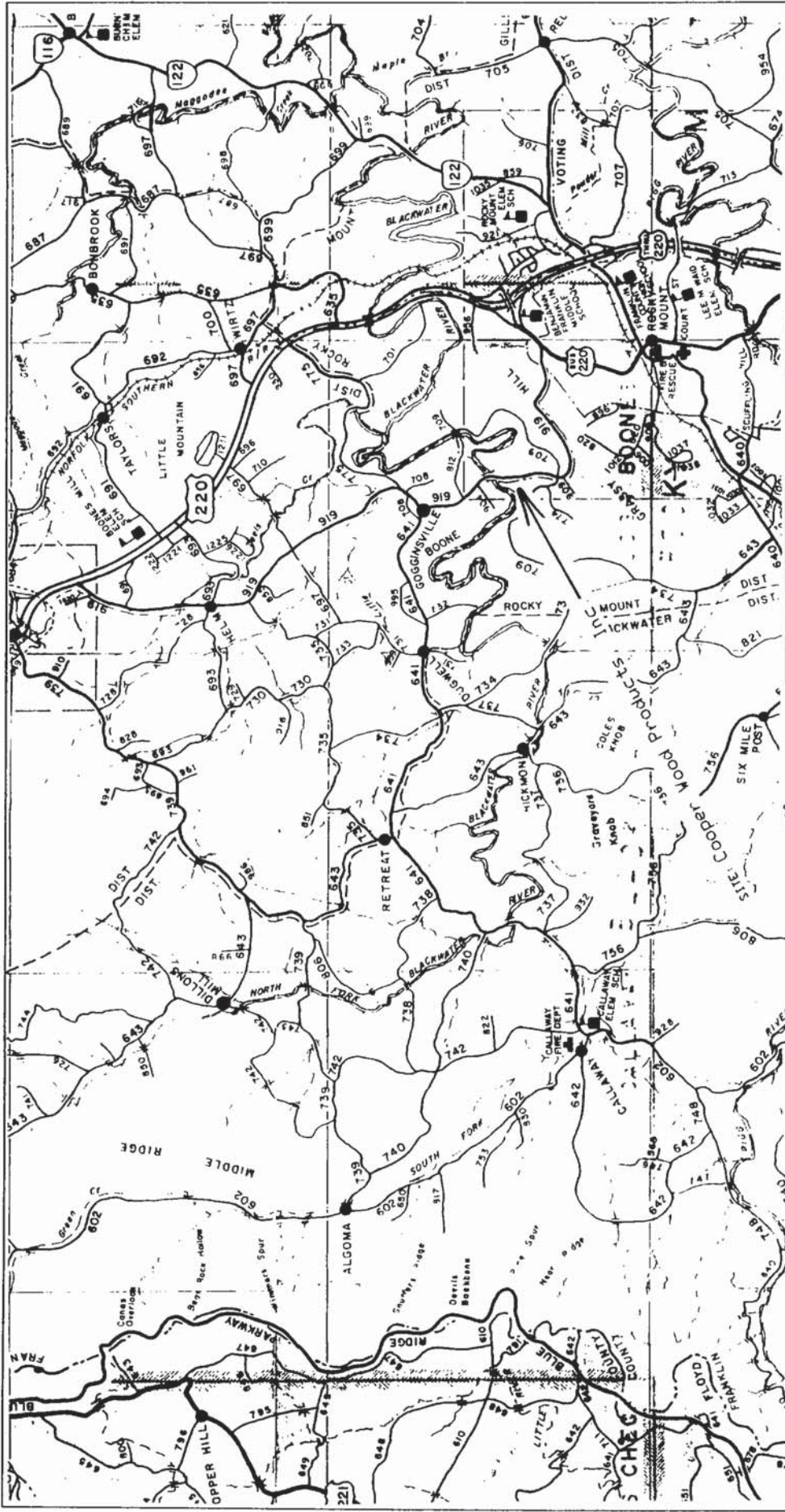
CLIENT: Hub Oil Company, Inc.

DRAWN BY: D. Leith DATE: 8-15-92

Item	Revision	Date	By	Project
				HCRM7012

Earth Reach
Environmental
Consultants, Inc.





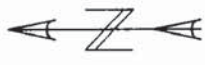
TITLE: LOCATION MAP

SITE: COOPER WOOD PRODUCTS, INC.

CLIENT: HUB OIL CO., INC.

DRAWN BY: D. Leith DATE: 9-1-92

Item	Revision	Date	By	Project
				HCRM7008



Earth Reach
Environmental
Consultants, Inc.



Boring # 1 **MW # 1**
 Site: Cooper Wood Products Client: Ira Culler
 Location: State Rt. 919 Rocky Mount, Va 24151
 Owner: Ira Culler
 Date: 7/17/92 File: BORLOGCH.TXT
 Drilling contractor: PSI
 Drill operator: Wayne Simmons
 Drill type: Auger
 Logged by: D.L. Sampled by: D.L.
 Start time: 10:45am End time: 5:05pm.

Description of Strata	Thickness (ft)	Depth (ft)	Spoon	Blows	Remarks	Field CGM		Lab TPH		Other
						loose cut (ppm)	head space (ppm)	IR (ppm)	GC (ppm)	
Asphalt, Dk grey micaceous sandy silt		1								
Dry brown clayey silty loam		2								
Moist brown silty clay		3					16			
		4					20			
		5								
Silver grey micaceous sandy silt w/ talc from weathered rock		6	xx	16	8 1/2"		34			
		7	xx	26						HC-1A 134
Mottled orange/yellow & silver grey moist micaceous sandy silt w/ talk		8		5			NA			
		9	xx	7	8"					
		10	xx	8						
		11	xx	4	18"		5			
		12	xx	4				79		
Moist orange sandy silt Coarse orange wet silty sand		13								
		14					52			HC-1B 80
		15		14						
Wet coarse silty sand orange/brown to grey with calcium & talc		16	xx	24	7 1/2"		4			
		17	xx	16						
Wet coarse silty sand orange/brown to grey with calcium & talc		18		39			12			
		19		33	8"					
Red/brown & grey micaceous sandy silt		20	xx	45						

Water noted at depth: 15'
 Total depth of boring: 20' ✓
 Backfill method: Monitoring well

Water depth at completion: 12.43'



Boring # 2 **MW # NA**
 Site: Cooper Wood Products Client: Ira Culler
 Location: State Rt. 919 Rocky Mount, Va 24151
 Owner: Ira Culler
 Date: 7/17/92 File: BORLOGCH.TXT
 Drilling contractor: PSI
 Drill operator: Wayne Simmons
 Drill type: Auger
 Logged by: D.L. Sampled by: D.L.
 Start time: 10:45pm End time: 5:05pm

Description of Strata	Thickness	Depth (ft)	Sp	Bl	Re	Field CGM		Lab TPH		Other
						loose cut (ppm)	head space (ppm)	IR (ppm)	GC (ppm)	
Moist red brown clayey silt		1								
		2								
		3				32				
		4				34				
		5								
Red brown clayey silt quartzite river rock at 6'		6				42			HC-2A 98	
Silver grey micaceous silt w/ talc		7								
		8				290			HC-2B 134	
		9								
		10				40				
		11								
Moist yellow grey sandy silt		12	xx	16	18"	310			HC-2C 124	
		13	xx	21						
		14				510				
Moist brown silty sand Grey/brown sandy silt Rock		15	xx	>	3"				HC-2D 120	
		16		40		290				
		17								
		18				250				
		19								

Water noted at depth: _____ Water depth at completion _____
 Total depth of boring: 22'3"
 Backfill method: Bentonite & soil



Boring # 3 **MW # 3**
 Site: Cooper Wood Products Client: Ira Culler
 Location: State Rt.919 Rocky Mount, Va 24151
 Owner: Ira Culler
 Date: File: BORLOGCH.TXT
Drilling contractor: PSI
Drill operator: Wayne Simmons
Drill type: Auger
 Logged by: D.L. Sampled by: D.L.
 Start time: 10:45am End time: 5:05pm

Description of Strata	T h n i e c s k s	D E P T H	S p o n	B l o w s	R e c o v	Field CGM		Lab TPH		O t h e r
						loose cut (ppm)	head space (ppm)	IR (ppm)	GC (ppm)	
Fill, mixed silty & clayey sand		1								
		2								
		3								
		4					32			
		5								
Coarse red gravelly sand		6	xx	3	6"					
		6	xx	6		21				
Wet brown silty clay Quartzite river rock & red brown sandy silt		7								
		8				4				
		9								
		10				14				
Silver grey micaceous talcy, sandy, silt		11								
		12				67			HC-3A 100	
		13								
		14				2900				
Red/brown to silver micaceous sandy silt Coarse red brown moist silty sand		15		20						
		16	xx	>	6"	1100			HC-3B 103	
		17		40						
		18				4800				
Moist brown sandy silt		19								

Water noted at depth: Water depth at completion: 14.35'
 Total depth of boring: 27.5'
 Backfill method: Monitoring well



Boring # 4 **MW # 4**
 Site: Cooper Wood Products Client: Ira Culler
 Location: State Rt.919 Rocky Mount, Va 24151
 Owner: Ira Culler
 Date: 7/20/92 File: BORLOGCH.TXT
 Drilling contractor: PSI
 Drill operator: Wayne Simmons
 Drill type: Auger
 Logged by: D.L. Sampled by: D.L.
 Start time: 11:50am End time: 4:05pm

Description of Strata	Thickness feet	Depth feet	S p o n s	B l o w s	R e c o v	Field CGM		Lab TPH		Other
						loose cut (ppm)	head space (ppm)	IR (ppm)	GC (ppm)	
Brown moist loam		1								
		2					80			
		3								
Rock Broken gravelly rock w/ loam		4					22			
		5								
		6					32			
Medium brown sandy loam		7								
		8			6		260			
Grey silver micaceous sandy silt w/ talc		9	xx		6	13"				HC-4A 29
		10	xx		8		48			
Grey micaceous sandy silt w/ talc		11								
		12			6					
		13	xx		6	6"				HC-4B 3
		14	xx		6		76			
		15								
		16					30			
		17								
		18					34			
Brown grey silt & talc		20								

Water noted at depth: 13' Water depth at completion: 12.50'
 Total depth of boring: 20'
 Backfill method: Monitoring well



Boring # 7 **MW # 7**
 Site: Cooper Wood Products Client: Ira Culler
 Location: State Rt.919 Rocky Mount, Va 24151
 Owner: Ira Culler
 Date: 8/20/92 File: BORLOGCH.TXT
 Drilling contractor: PSI
 Drill operator: Wayne Simmons
 Drill type: Auger
 Logged by: D.L. Sampled by: D.L.
 Start time: 1:10pm End time: 4:45pm.

Description of Strata	Thickness	Depth	Sp	Bl	Re	Field CGM		Lab TPH		Other
						loose cut (ppm)	head space (ppm)	IR (ppm)	GC (ppm)	
Moist orange brown loamy clay		1								
		2				24				
		3								
		4				18				
		5								
Rock Moist brown silty clay		6				680				
		7								
		8				9100				
		9								
Grey green micaceous sandy silt		10				>100%			HC-7A 4316	
		11								
		12				>100%			HC-7B 38	
		13								
		14				>100%				
		15								
		16				>100%				
		17								
Moist grey silt		18				1400			HC-7C	70
		19							HC-7D	29

Water noted at depth: 18'
 Total depth of boring: 28'
 Backfill method: Monitoring well

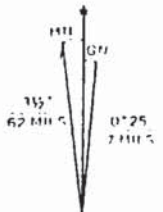
Water depth at completion: 11.28'



1000
900
800
700
600



Note Map 1

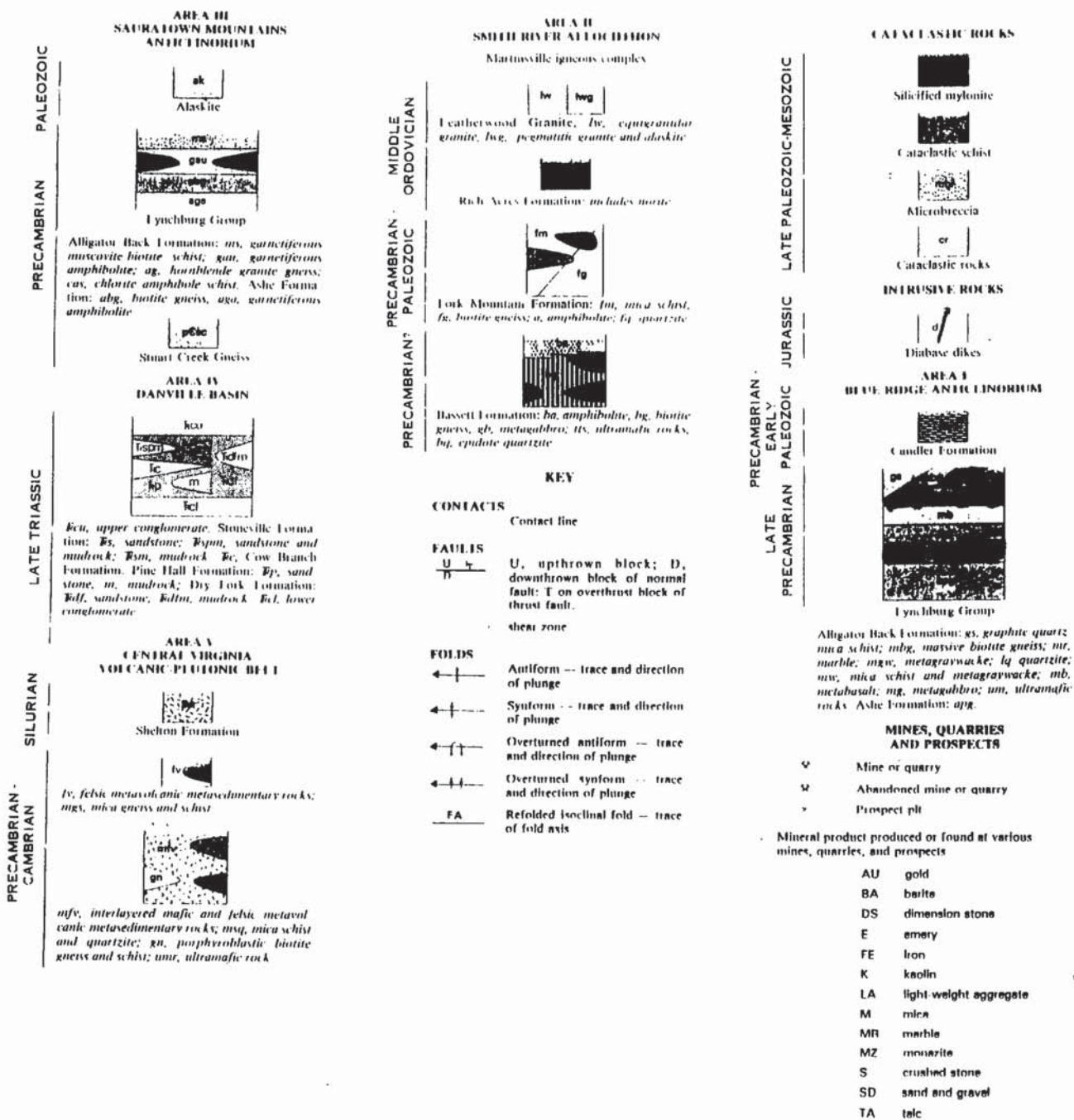


EARTH REACH ENVIRONMENTAL CONSULTANTS, INC.

Title: Regional Geology Of Southwestern
Portion Of The Piedmont In Virginia

Prepared by:
Keith Snead

KEY



EARTH REACH ENVIRONMENTAL CONSULTANTS, INC.

Title: Regional Geology Of Southwestern Portion Of The Piedmont In Virginia

Prepared by: Keith Snead

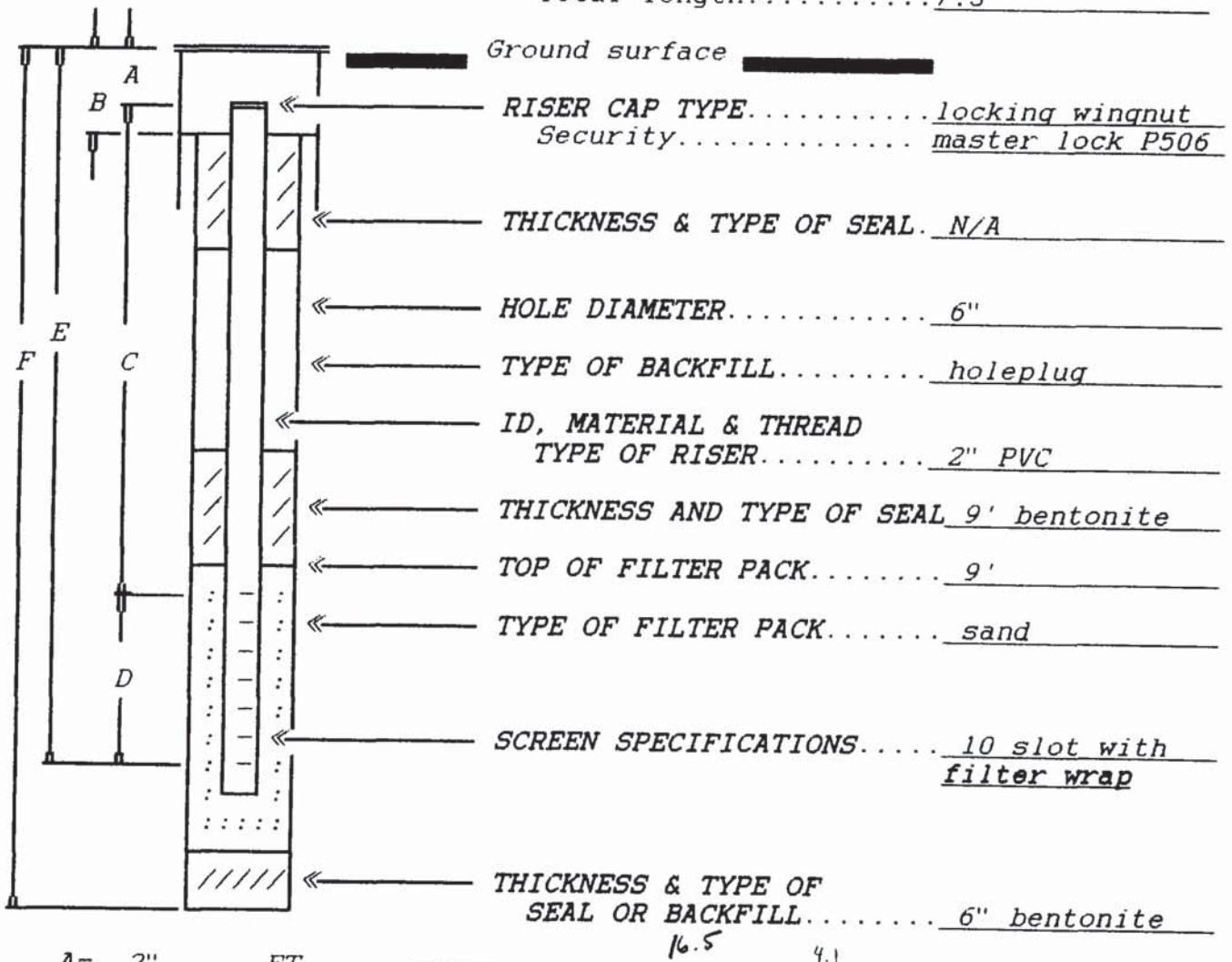


EARTH REACH ENVIRONMENTAL CONSULTANTS, INC.

SITE NAME Cooper Wood Products WELL NUMBER 1
 CLIENT Hub Oil Co., Inc. BORING NUMBER 1
 OWNER Mr. Ira Culler COMPLETION DATE 7-17-92
 INSTALLED BY Keith Snead ELEV. OF TOP OF PIPE 98.07'

SURFACE CASING

Diameter & material....8" cast iron
 Total length.....7.5"



- A= 2" FT
- B= 4" FT
- C= 9' FT
- D= 10' FT
- E= 19' FT
- F= 20' FT

WATER LEVEL MEASUREMENTS			
MEASURED FROM TOP OF PIPE			
DATE	TIME	DEPTH	ELEVATION
7-23-92	12:00pm	11.88'	86.19'
7-31-92	9:20am	12.00'	86.07'
8-25-92	10:00am	12.43'	85.64'

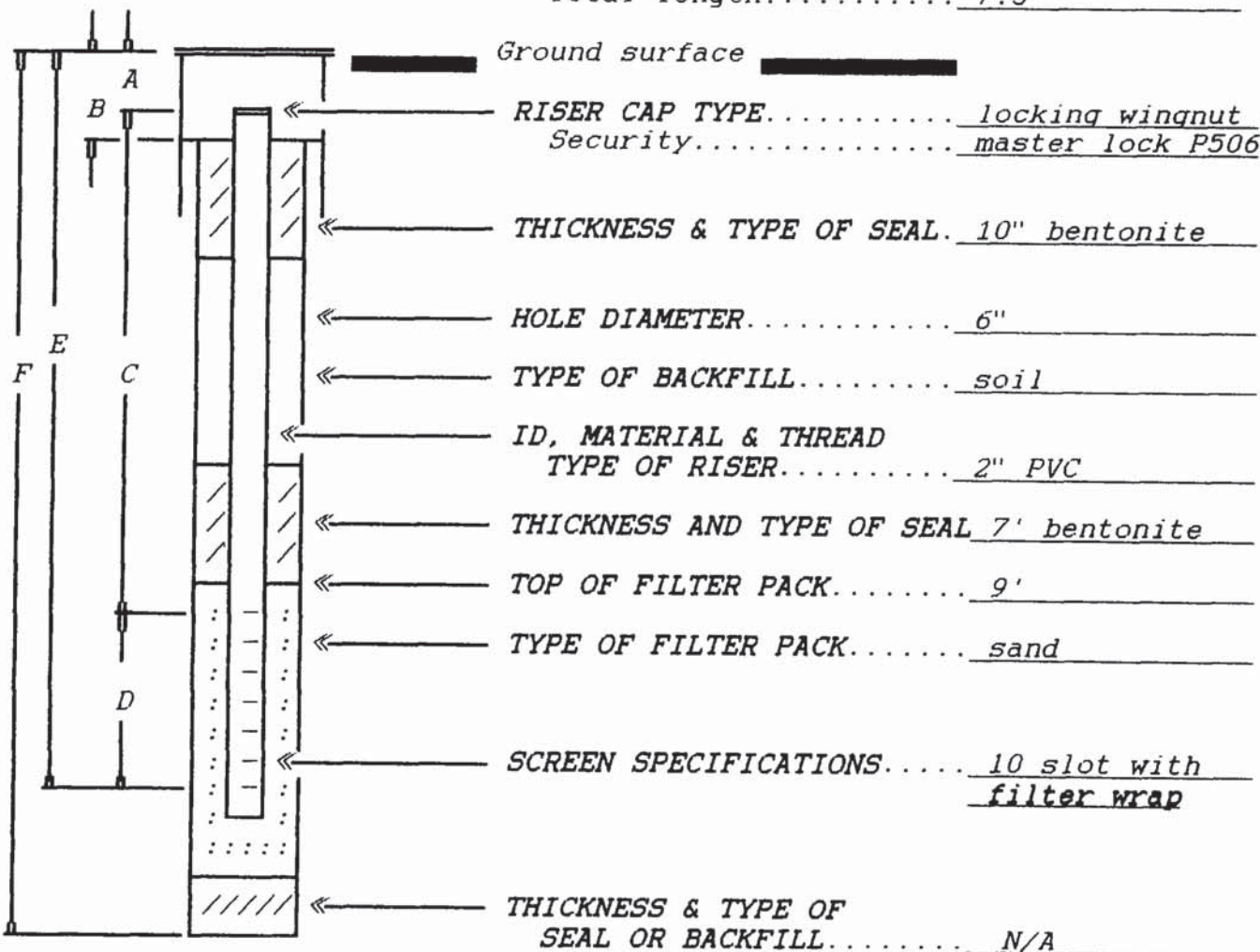


EARTH REACH ENVIRONMENTAL CONSULTANTS, INC.

SITE NAME Cooper Wood Products WELL NUMBER 3
 CLIENT Hub Oil Co., Inc. BORING NUMBER 3
 OWNER Mr. Ira Culler COMPLETION DATE 7-20-92
 INSTALLED BY Keith Snead ELEV. OF TOP OF PIPE 99.69'

SURFACE CASING

Diameter & material.... 8" cast iron
 Total length..... 7.5"



- A= 2" FT
- B= 4" FT
- C= 12.5' FT
- D= 15' FT
- E= 27.5' FT
- F= 27.5' FT

11.5 42

WATER LEVEL MEASUREMENTS			
MEASURED FROM TOP OF PIPE			
DATE	TIME	DEPTH	ELEVATION
7-23-92	12:10pm	13.81'	85.88'
7-31-92	10:00am	14.02'	85.67'
8-25-92	9:22am	14.35'	84.65'

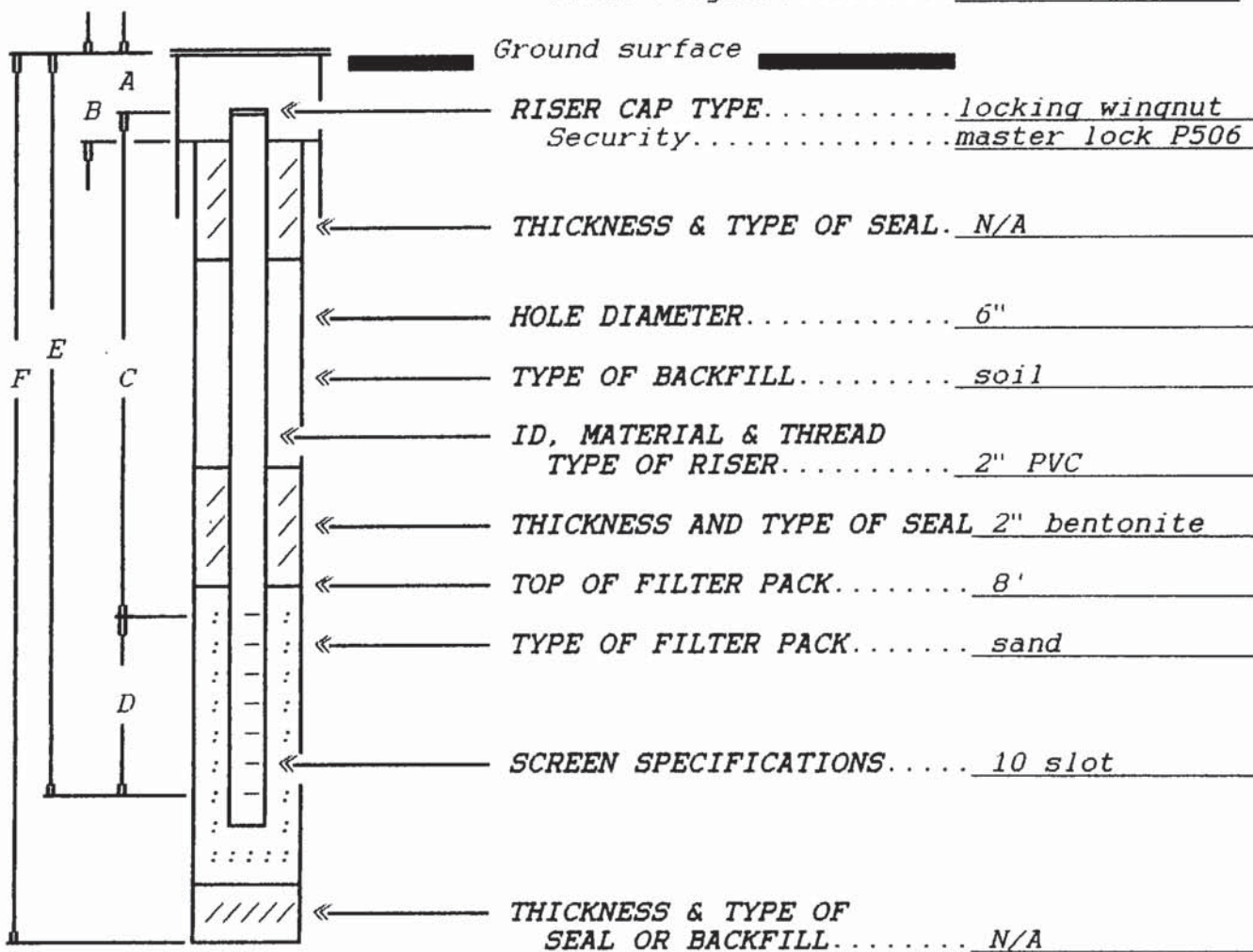


EARTH REACH ENVIRONMENTAL CONSULTANTS, INC.

SITE NAME Cooper Wood Products WELL NUMBER 4
 CLIENT Hub Oil Co., Inc. BORING NUMBER 4
 OWNER Mr. Ira Culler COMPLETION DATE 7-20-92
 INSTALLED BY Keith Snead ELEV. OF TOP OF PIPE 97.15'

SURFACE CASING

Diameter & material...8" cast iron
 Total length.....7.5"



- A= 2" FT
- B= 4" FT
- C= 9' FT
- D= 10' FT
- E= 19' FT
- F= 20' FT

13.0 5

WATER LEVEL MEASUREMENTS			
MEASURED FROM TOP OF PIPE			
DATE	TIME	DEPTH	ELEVATION
7-23-92	12:15pm	12.13'	85.02'
7-31-92	9:25am	12.06'	85.09'
8-25-92	10:22am	12.50'	84.65'

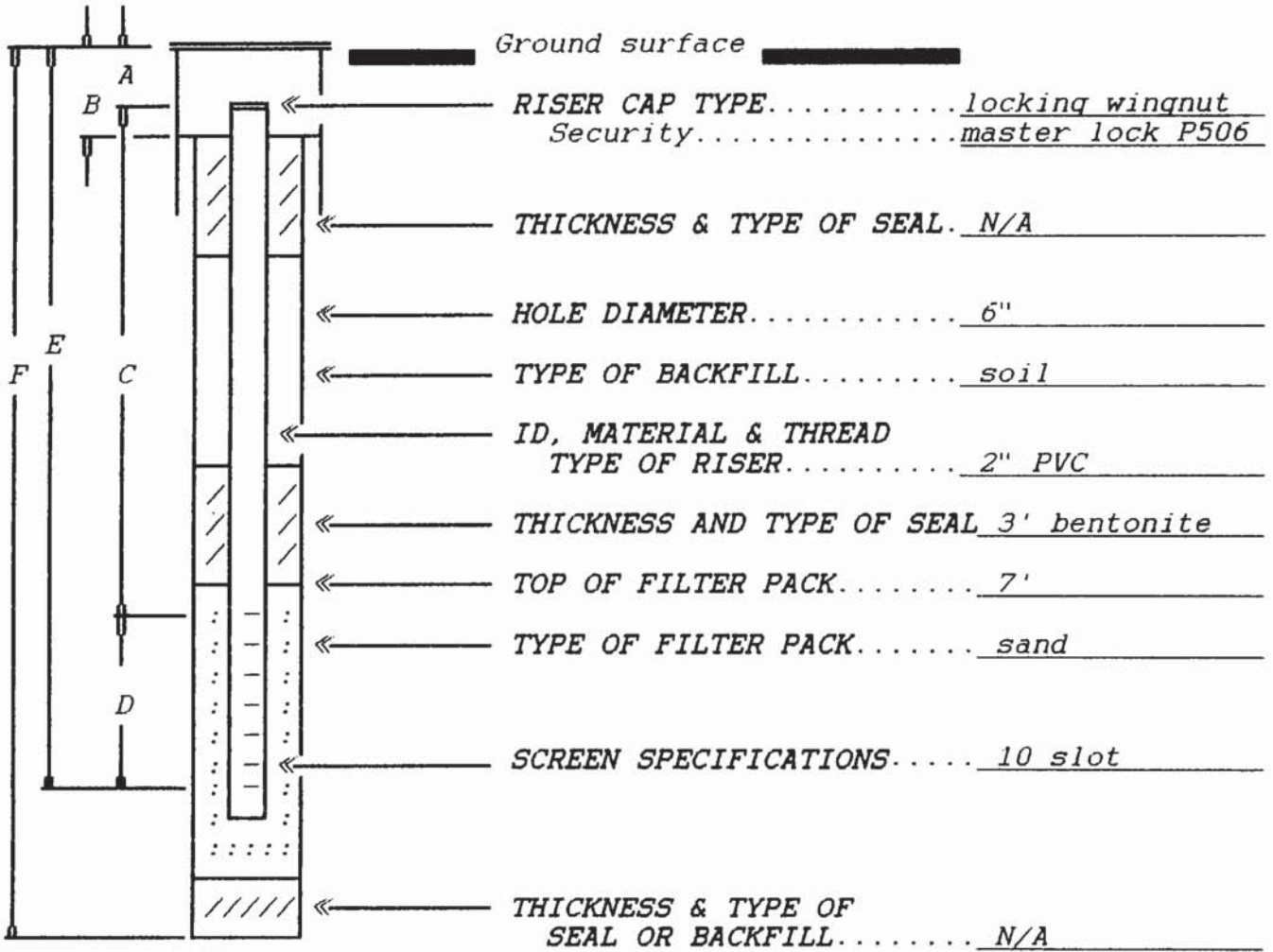


EARTH REACH ENVIRONMENTAL CONSULTANTS, INC.

SITE NAME Cooper Wood Products WELL NUMBER 5
 CLIENT Hub Oil Co., Inc. BORING NUMBER 5
 OWNER Mr. Ira Culler COMPLETION DATE 7-20-92
 INSTALLED BY Keith Snead ELEV. OF TOP OF PIPE 96.68'

SURFACE CASING

Diameter & material.... 8" cast iron
 Total length..... 7.5"



- A= 2" FT
- B= 4" FT
- C= 10' FT
- D= 15' FT
- E= 25' FT
- F= 25' FT

18.0 63

WATER LEVEL MEASUREMENTS			
MEASURED FROM TOP OF PIPE			
DATE	TIME	DEPTH	ELEVATION
7-23-92	12:20pm	11.25'	96.68'
7-31-92	9:10am	11.35'	85.33'
8-25-92	10:10am	11.71'	84.97'

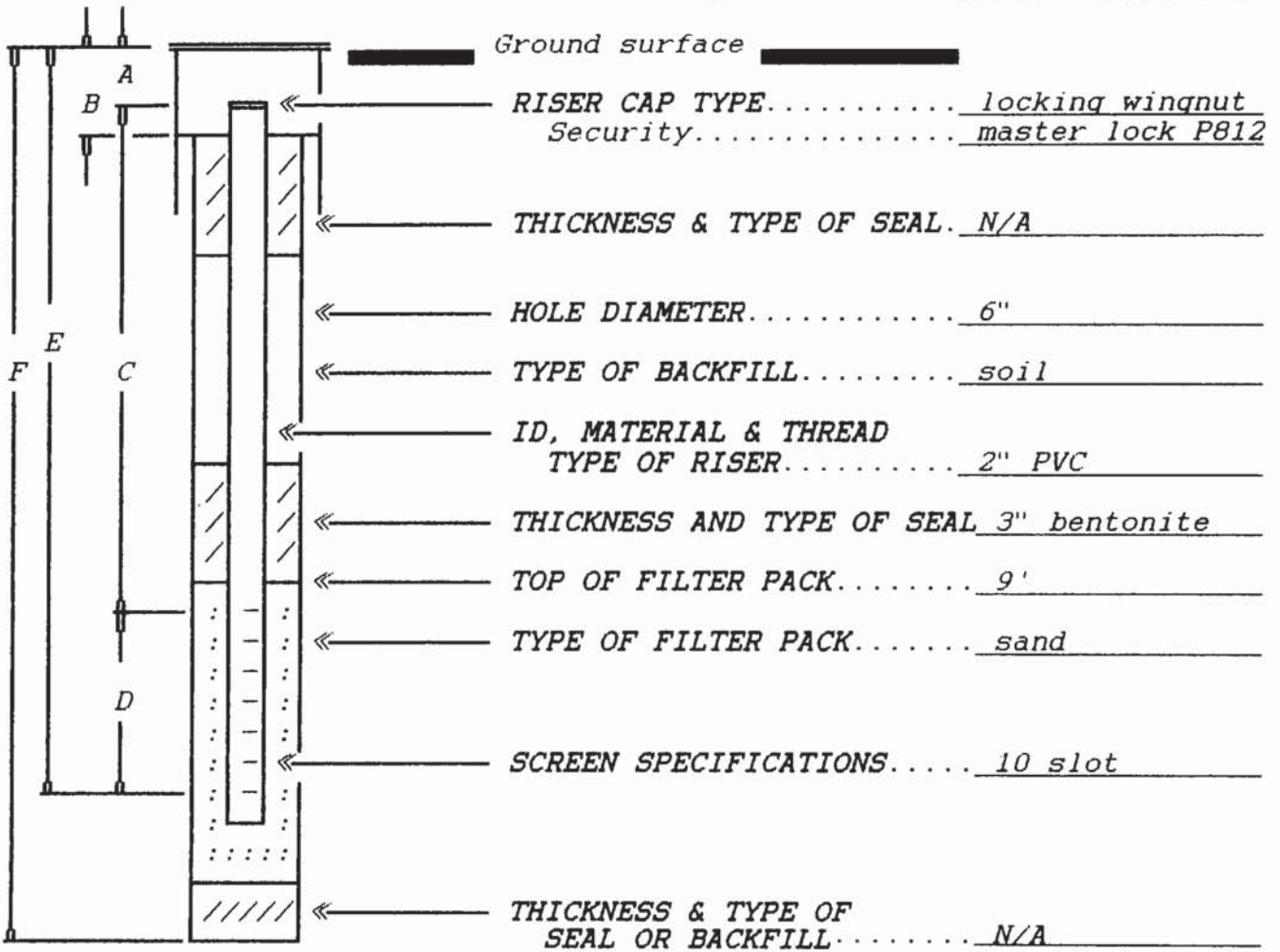


EARTH REACH ENVIRONMENTAL CONSULTANTS, INC.

SITE NAME Cooper Wood Products WELL NUMBER #6
 CLIENT Hub Oil Co., Inc. BORING NUMBER #6
 OWNER Ira Culler COMPLETION DATE 8-20-92
 INSTALLED BY Keith Snead ELEV. OF TOP OF PIPE 102.65

SURFACE CASING

Diameter & material.... 8" cast iron
 Total length..... 12"



A= 2" FT
 B= 3" FT
 C= 10' FT
 D= 10' FT
 E= 20' FT
 F= 23' FT

WATER LEVEL MEASUREMENTS			
MEASURED FROM TOP OF PIPE			
DATE	TIME	DEPTH	ELEVATION
8-25-92	9:30am	16.52'	86.13'

Can't measure top of the well

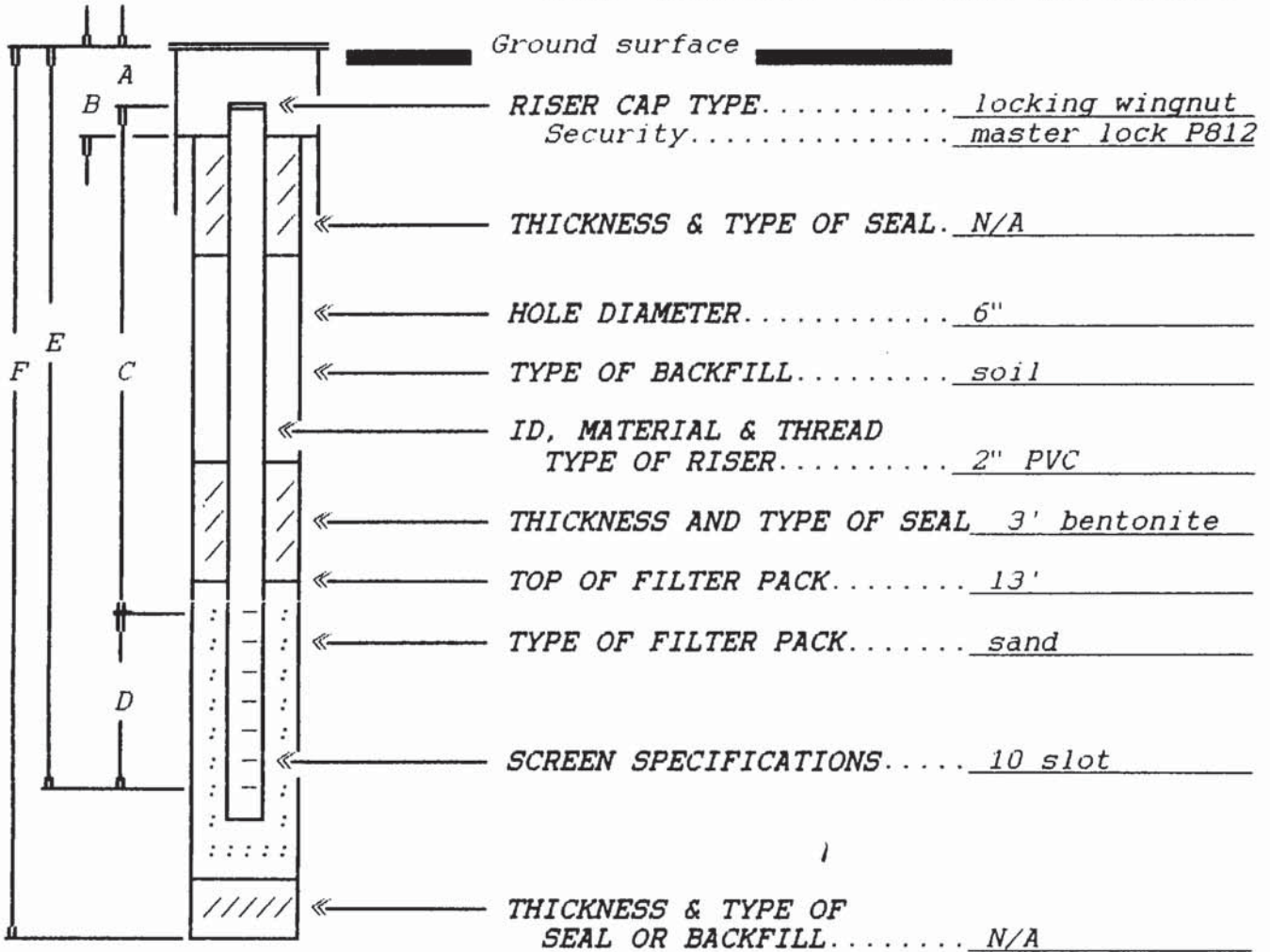


EARTH REACH ENVIRONMENTAL CONSULTANTS, INC.

SITE NAME Cooper Wood Products WELL NUMBER #7
 CLIENT Hub Oil Co., Inc. BORING NUMBER #7
 OWNER Ira Culler COMPLETION DATE 8-20-92
 INSTALLED BY Keith Snead ELEV. OF TOP OF PIPE 96.61'

SURFACE CASING

Diameter & material.... 8" cast iron
 Total length..... 12"



- A= 2" FT
- B= 3" FT
- C= 16' FT
- D= 10' FT
- E= 26' FT
- F= 28' FT

18.0 67

WATER LEVEL MEASUREMENTS			
MEASURED FROM TOP OF PIPE			
DATE	TIME	DEPTH	ELEVATION
8-25-92	9:45am	11.28'	85.33'



ENVIRONMENTAL DIRECTIONS

Mobile Laboratory Services

CLIENT: EARTH REACH ENVIRONMENTAL
ADDRESS: 234 FRANKLIN STREET
ROCKY MOUNT, VA 24151

CLIENT NO.: 2010

REFERENCE: COOPER'S WOOD

ATTENTION: ROBERT MARTIN

FAX: 703/483-2221

DATE SUBMITTED: JULY 17, 1992
DATE COMPLETED: JULY 17, 1992

<u>SAMPLE NO.</u>	<u>I.D.</u>	<u>MATRIX</u>	<u>METHOD</u>	<u>TPH</u> ppm
2010-1	CH-1A	SOIL	418.1	134
2010-2	CH-1B	SOIL	418.1	80
2010-3	CH-2A	SOIL	418.1	98
2010-4	CH-2B	SOIL	418.1	134
2010-5	CH-2C	SOIL	418.1	124
2010-6	CH-2D	SOIL	418.1	120
2010-7	CH-2E	SOIL	418.1	68
2010-8	CH-2F	SOIL	418.1	59
2010-9	CH-3A	SOIL	418.1	100
2010-10	CH-3B	SOIL	418.1	103
2010-11	CH-3C	SOIL	418.1	48
2010-12	CH-3D	SOIL	418.1	65

< = LESS THAN DETECTION LIMIT 10 ppm.

APPROVED BY: D. Deborah Kyle

Environmental Directions, Inc.

Post Office Box 7569
Roanoke, Virginia 24019
Telephone 703-366-5813 FAX 366-5823

Earth Reach Environmental Consultants, Inc. 234 Franklin St., Rocky Mount, VA 24151 (703) 483-5975
 ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD
 Client:

Field Sample ID	Date & Time	Sample Container	Sample Type	Preservative	ANALYSIS REQUESTED	LABORATORY REMARKS
CH-1A	7-17-92	8oz glass-soil	soil	none	TPH	
CH-1B	11:00					
CH-2A	2:00					
CH-2B	2:00					
CH-2C	2:00					
CH-2D	2:30					
CH-2E	2:30					
CH-2F	2:30					
CH-3A	4:00					
CH-3B	4:00					
CH-3C	5:00					
CH-3D	5:00					

Samplers: DL & KS

Remarks: Samples were tested on-site under supervision of EREC.

Relinquished By:

Not Relinquished -

Received By: *Dream Keith*

Comments:

tested on site.

Date:
Time:

Date:
Time:

Date:
Time:

Date:
Time:



ENVIRONMENTAL DIRECTIONS

Mobile Laboratory Services

CLIENT: EARTH REACH ENVIRONMENTAL
ADDRESS: 234 FRANKLIN STREET
ROCKY MOUNT, VA 24151

CLIENT NO.: 319

REFERENCE: HUB OIL CO.

ATTENTION: ROBERT MARTIN

FAX: 703/483-2221

DATE SUBMITTED: AUGUST 21, 1992

DATE COMPLETED: AUGUST 24, 1992

DATE COLLECTED: AUGUST 20, 1992

TPH 418.1

BTEX 602X

<u>SAMPLE NO.</u>	<u>I.D.</u>	<u>MATRIX</u>	<u>TPH PPM</u>	<u>BENZENE Method</u>	<u>TOLUENE 602X</u>	<u>ETHYLBEN. in</u>	<u>XYLENE PPB</u>
319-1	HC6-A	SOIL	97	NA	NA	NA	NA
319-2	HC6-B	SOIL	115	NA	NA	NA	NA
319-3	HC7-A	SOIL	4316	NA	NA	NA	NA
319-4	HC7-B	SOIL	38	NA	NA	NA	NA
319-5	HC7-C	SOIL	70	NA	NA	NA	NA
319-6	HC7-D	SOIL	29	NA	NA	NA	NA
319-7	HC7-E	SOIL	83	NA	NA	NA	NA
319-8	DWHC-1	WATER	NA	<1.0	<1.0	<1.0	<1.0
319-9	DWHC-2	WATER	NA	<1.0	<1.0	<1.0	<1.0
319-10	MWCH-7	WATER	NA	420	134	302	1544

SAMPLE 319-10 LOOKS LIKE GASOLINE.

APPROVED BY: _____

Environmental Directions, Inc.

Post Office Box 7569

Roanoke, Virginia 24019

Telephone 703-366-5813 FAX 366-5823

Earth Reach Environmental Consultants, Inc. 234 Franklin St., Rocky Mount, VA 24151 (703) 483-5975
 ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD
 Client: HUBBOLD CO.

Field Sample ID	Date & Time	Sample Container	Sample Type	Preservative	ANALYSIS REQUESTED	LABORATORY REMARKS
HC 6-A	8/20/92	glass	soil	N/A	TPH-IR	39.1
HC 6-B						.2
HC 7-A						.3
HC 7-B						.4
HC 7-C						.5
HC 7-D						.6
HC 7-E						.7
DWHC-1		var	water		BTEX	.8
DWHC-2						.9
MWCH-7					ALSO LOOK FOR GAS + DIESEL	10

Samplers: R. Martin

Remarks:

Relinquished By:

J Moore

Date: 8/21/92

Time: 10:40

Date:

Time:

Date:

Time:

Received By:

D. Clark

Date: 8/21/92

Time: 10:40

Date:

Time:

Date:

Time:

Comments:



ENVIRONMENTAL DIRECTIONS

Mobile Laboratory Services

CLIENT: EARTH REACH ENVIRONMENTAL
ADDRESS: 102 RANDOLPH STREET
ROCKY MOUNT, VA 24151

CLIENT NO.: 296A

REFERENCE: HUB

ATTENTION: ROBERT MARTIN

FAX: 703/483-2221

DATE SUBMITTED: JULY 31, 1992
DATE COMPLETED: AUGUST 07, 1992
DATE COLLECTED: JULY 31, 1992

TPH 5030/8015M
GAS RANGE

<u>SAMPLE NO.</u>	<u>I.D.</u>	<u>MATRIX</u>	<u>TPH PPM</u>	<u>BENZENE Method 602X in</u>	<u>TOLUENE in</u>	<u>ETHYLBEN. PPB</u>	<u>XYLENE</u>
296-1	MWHC-1	WATER	NA	<1.0	<1.0	<1.0	3.8
296-2	MWHC-3	WATER	NA	5220	8550	1160	7670
296-3	MWHC-4	WATER	NA	476	12	<1.0	14
296-4	MWHC-5	WATER	NA	2807	1520	315	4553
296-5	MWHC-5A	WATER	17	2325	231	<1.0	4247

296-5 MWHC-5A WATER LEAD 0.042 PPM.

APPROVED BY: S. Deborah O'Connell

Environmental Directions, Inc.

Post Office Box 7569
Roanoke, Virginia 24019
Telephone 703-366-5813 FAX 366-5823

Earth Reach Environmental Consultants, Inc. 234 Franklin St., Rocky Mount, VA 24151 (703) 483-5975
 ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD
 Client: HUB

Field Sample ID	Date & Time	Sample Container	Sample Type	Preservative	ANALYSIS REQUESTED	LABORATORY REMARKS
MW HC-1	7-31-92	Amber Voc	water	-	BTEX	296-1
MW HC-3	}	}	}	-	}	-2
MW HC-4				-		-3
MW HC-5				-		-4
MW HC-SA		100% glass		-	TPH-GC & lead (RUB BTEX FIRST, IF BTEX IS LOW IN #5 DONT bother to run TPH & lead 5030	-5

Samplers: D.L. K.S. Remarks: _____

Relinquished By: Earth Reach [Signature] Date: 7/31/92 Time: 6:30pm
 Received By: [Signature] Date: 7-31-92 Time: 6:30pm
 Comments: _____



ENVIRONMENTAL DIRECTIONS

Mobile Laboratory Services

CLIENT: EARTH REACH ENVIRONMENTAL
ADDRESS: 234 FRANKLIN STREET
ROCKY MOUNT, VA 24151

CLIENT NO.: 287

REFERENCE: COOPER'S WOOD

ATTENTION: ROBERT MARTIN

FAX: 703/483-2221

DATE SUBMITTED: JULY 20, 1992
DATE COMPLETED: JULY 22, 1992

<u>SAMPLE NO.</u>	<u>I.D.</u>	<u>MATRIX</u>	<u>METHOD</u>	<u>TPH</u> ppm
287-1	CH-4A	SOIL	418.1	29
287-2	CH-4B	SOIL	418.1	3
287-3	CH-5A	SOIL	418.1	4394
287-4	CH-5B	SOIL	418.1	277
287-5	CH-5C	SOIL	418.1	23

< = LESS THAN DETECTION LIMIT 1 ppm.

APPROVED BY: *Deborah Cyle*

Environmental Directions, Inc.

Post Office Box 7569
Roanoke, Virginia 24019
Telephone 703-366-5813 FAX 366-5823



ENVIRONMENTAL DIRECTIONS

Mobile Laboratory Services

CLIENT: EARTH REACH ENVIRONMENTAL
ADDRESS: 234 FRANKLIN STREET
ROCKY MOUNT, VA 24151

CLIENT NO.: 286

REFERENCE: COOPER'S WOOD

ATTENTION: ROBERT MARTIN

FAX: 703/483-2221

DATE SUBMITTED: JULY 20, 1992
DATE COMPLETED: JULY 20, 1992
DATE COLLECTED: JULY 20, 1992

<u>SAMPLE NO.</u>	<u>I.D.</u>	<u>MATRIX</u>	<u>BENZENE</u>	<u>TOLUENE</u>	<u>ETHYLBEN.</u>	<u>XYLENE</u>
			Method 602X in PPB			
286-1	CH-MW1	WATER	1	2	<1	3
286-2	CH-MW2	WATER	400	257	750	3790

APPROVED BY: _____

D. Deborah Dyke

Environmental Directions, Inc.

Post Office Box 7569
Roanoke, Virginia 24019
Telephone 703-366-5813 FAX 366-5823



ENVIRONMENTAL DIRECTIONS

Mobile Laboratory Services

CLIENT: EARTH REACH ENVIRONMENTAL
ADDRESS: 234 FRANKLIN STREET
ROCKY MOUNT, VA 24151

CLIENT NO.: 333

REFERENCE: HUB OIL/ COOPER WOOD SITE

ATTENTION: ROBERT MARTIN

FAX: 703/483-2221

DATE SUBMITTED: SEPTEMBER 3, 1992
DATE COMPLETED: SEPTEMBER 4, 1992
DATE COLLECTED: SEPTEMBER 3, 1992

BTEX 602X

<u>SAMPLE</u> <u>NO.</u>	<u>I.D.</u>	<u>MATRIX</u>	<u>BENZENE</u> <u>Method 602X in</u>	<u>TOLUENE</u> <u>in</u>	<u>ETHYLBEN.</u> <u>PPB</u>	<u>XYLENE</u>
333-1	CHMW-7	WATER	1290	72	74	534

APPROVED BY: *S. J. Schuch*

Environmental Directions, Inc.

Post Office Box 7569

Roanoke, Virginia 24019

Telephone 703-366-5813 FAX 366-5823



ENVIRONMENTAL DIRECTIONS

Mobile Laboratory Services

CLIENT: EARTH REACH ENVIRONMENTAL
ADDRESS: 234 FRANKLIN STREET
ROCKY MOUNT, VA 24151

CLIENT NO.: 334

REFERENCE: HUB OIL/ COOPER WOOD SITE

ATTENTION: ROBERT MARTIN

FAX: 703/483-2221

DATE SUBMITTED: SEPTEMBER 8, 1992
DATE COMPLETED: SEPTEMBER 10, 1992
DATE COLLECTED: SEPTEMBER 8, 1992

BTEX 602X

<u>SAMPLE NO.</u>	<u>I.D.</u>	<u>MATRIX</u>	<u>BENZENE</u>	<u>TOLUENE</u>	<u>ETHYLBEN.</u>	<u>XYLENE</u>
334-1	CHMW-6	WATER	<1.0	<1.0	<1.0	<1.0

APPROVED BY: D. Deborah Pyle

Environmental Directions, Inc.

Post Office Box 7569
Roanoke, Virginia 24019
Telephone 703-366-5813 FAX 366-5823

SAMPLING PROCEDURES AND CHAIN OF CUSTODY

This section describes all of the common sampling procedures practical in site characterizations. All of these procedures may not be used for each characterization however. Where an unusual, obscure or modified procedure is used, it will be explained separately.

Abbreviations used:

PID- photo ionization detector

FID- flame ionization detector

CGM- combustible gas monitor

VOC- volatile organic compound

UST- underground storage tank

GC- gas chromatograph

IR-infrared detection

A.) SOIL INVESTIGATION TECHNIQUES

1.) Screening: Semi-qualitative

Not to be confused with the method of separating soil particle sizes also known as screening, this method employs the use of a PID, CGM or FID meter to search for volatile substances in soils as they are being excavated or augured. For example, a meter is used to check auger cuttings as they rise to the surface or to check shovel loads of soil as they are extracted from a pit. Once VOCs are identified by this process, other methods may be applied to quantify the contaminants.

Individual samples may also be screened prior to laboratory analysis in order to make exclusions or to check laboratory data at a later date.

2.) Scanning: Semi-qualitative

The scanning technique is an investigative technique that employs visual and electronic means to locate contaminants and, if possible, define their boundaries. This technique is used to identify hot spots and to partially identify boundaries of contamination in a given exposed area. It is most often applied to open UST pits and product line chases. It may also be applied to the ground's surface to locate spills and surface migration routes and to check core samples in order to select a representative sample for laboratory analysis. The scanning technique is most effectively accomplished by inserting the filtered probe extension of a PID, CGM or FID meter a short distance into the soil and noting the reading. Scanning over the surface is not as effective due to the possibility of background interferences. When soils are too compacted to allow the insertion of a PID, CGM or FID probe, a tool is used to effect a shallow hole from which a sample may be drawn.

The scanning technique may be random or used with a selected

grid pattern. Results may be presented individually, or in graph, table or map form. Results may also be triangulated to construct isocons or isopeths.

3.) Headspace: Semi-quantitative

The headspace technique is accomplished with the use of a PID, FID or CGM. A soil sample is collected in a quart sized lock ring jar. One half of the jar is filled with the sample and the other half is left empty as headspace. Aluminum foil is used to cover the top of the jar and the lock ring is screwed down over the foil, effectively sealing in gases. The jar is then positioned in bright sunlight for a period of thirty minutes. If sunlight is not available or if temperatures are low, the sample is instead heated with a heat source to approximately 100 to 120 degrees Fahrenheit for thirty minutes. Once the sample has been adequately volatilized, the PID, FID or CGM probe is thrust through the foil to access those gases collected in the headspace. The reading is recorded.

This technique is also used to extract gases to be used in gas analysis by field or laboratory gas chromatography.

4.) Soil Gas Survey: Mapping and Sampling Techniques

The soil gas survey method may vary widely from one case to another depending on site specific circumstances.

The soil gas survey incorporates three foot connectable hollow shafts that are connected to a hardened slotted intake tip. A hammer attachment is used in conjunction with a Bosch 209 rotary demolition hammer to inject the slotted intake probe into the ground. Sections are added as greater depth is desired. When the desired sample depth is reached, the hammer attachment is replaced by a gas connector. A PID, FID or CGM is then used to draw a gas sample from the soil through the slotted intake tip, up through the shaft sections and gas connector to be processed by the meter. The Gastector combustible gas monitor is most often used for this purpose due to added features, pump strength and portability. The Gastector is a catalytic processor equipped for combustible gas detection and oxygen detection. Oxygen levels in percents are helpful when interpreting data and adjusting volume. The Gastector also has methane exclusion capabilities.

Bottled Gas Samples are extracted for gas chromatography by adding a vacuum gauge assembly to the gas connector. A double hypodermic needle vapor trap is then connected by Tygon tube to the export of the vacuum gauge. The export of the vapor trap is then connected to the CGM with Tygon tubing. An amber, open hole teflon septa screw cap VOC bottle is then inserted into the vapor trap. The dual hypodermic needle simultaneously punctures the septa and enters the bottle. As gases are pumped out of the system by the CGM, they must pass through the VOC bottle. When the CGM readings reach a maximum, the VOC bottle is removed quickly, trapping gases inside. The samples are preserved at ambient air temperature during transport. Once in the laboratory, these bottles are evacuated by syringe and the sample is injected directly into a GC. Since there is no way to quantify the area from which the sample is extracted, this technique is purely

qualitative and extremely useful in situations where contaminant combinations exist.

The same shaft injection technique is used with the substitution of expendable detachable slotted tips and 3/16 outside diameter tygon tubing. The tip and tubing are left in place when shafts are extracted, creating miniature vapor monitoring wells. Vapor monitoring wells are most often backfilled with soil alone and sealed at the surface with bentonite, unless they are installed in previously contaminated soils, in which case they are sealed with bentonite from just above the intake tip to the ground surface. Before backfilling, a handful of glass beads are dropped into the insert hole. The glass beads allow a place for gases to collect and help keep the slotted intake clean and free of silt.

5.) Split Spoon Sampling

Samples are collected from the split spoon samplers during the soil boring process. Split spoon sampling depths are chosen either by random increments or by screening auger cuttings. Once the desired depth is chosen the split spoon apparatus is inserted through the auger. The split spoon samples are driven to a depth of 18-24 inches or to refusal, defined as greater than 40 blows per 6 inches. Following detailed logging of the soil characteristics, a representative portion of the sample obtained is placed in a pre-cleaned glass jar, filling the jar as completely as practical. The jar is then capped with a teflon lined screw lid.

The sample is placed on ice, surrounded on all sides by ice, until placed in refrigerated storage pending shipment to the laboratory, again with ice. The spoon is decontaminated between sampling in analconox and water wash and is scrubbed free of all soil to avoid cross-contamination.

6.) Open Pit sampling

When samples are collected from a pit bottom or walls, a hand auger is used to collect the sample. The hand auger is also used when rock with a medium to soft hardness is present. A sample is retrieved by the auger and is collected from the jaw end to avoid mixing collapsed material in the pit with the sample. A tablespoon is used to transfer the soil from the auger to an eight ounce pre-cleaned glass jar which is kept in a cooler with ice packs for transport. All equipment used in this procedure is decontaminated between each sample by pressure wash.

B.) WATER SAMPLING, WELL CONSTRUCTION AND FIELD TECHNIQUES

1.) Open Borehole

When an open borehole is used as an access to ground water prior to the installation of a monitoring well, a bailer is lowered into the borehole while maintaining a distance from the sides. Open hole septa teflon screw cap amber VOC bottles are filled directly from the bailer, labelled and placed on ice for transport. The bailer is cleaned by pressure wash between samples, as are the cable and reel.

2.) Monitoring Well Sampling

Monitoring wells to be sampled are bailed using a conventional pvc bailer to obtain a representative sample of groundwater prior to sampling. The bailing process is typically conducted seven days after well installation, thus establishing well. After wells have been established, an additional seven days or more are allowed to pass, at which time wells are again purged and then sampled. A longer time may be required in slowly recovering wells. A minimum of three wells volume of water is removed or the wells are bailed "dry", whichever occurs first. Care is taken to ensure that the bailer and line do not introduce contamination into the well from touching the ground surface or other potentially contaminated surfaces.

Between wells, the bailer and line are thoroughly washed with a detergent solution and rinsed with tap water from a municipal water supply, or bottled water. When sampling the bailer is lowered gently into the water to keep disturbance to the water column at a minimum.

A sample obtained with a conventional PVC bailer is immediately placed in a glass jar with a teflon lid, or an amber glass vial with a septum lid, as required for the analysis to be conducted. A representative portion includes the surface water and water from the center of the bailer, unless separate sampling is conducted for floating and dissolved or miscible components,

All wells are securely capped and locked immediately after bailing and sampling. Any damaged wells, caps, locks or any other item requiring attention is noted on the sampling log.

3.) Miniature Monitoring Wells

Miniature wells are constructed with soil gas probe equipment. A one half inch outside diameter aluminum slotted intake point is placed at the desired depth. The ideal depth is approximately one foot below the water table. The slotted intake is joined to a 3/16 outside diameter tygon tube that runs to the surface. Since the well is injected rather than augured, very little disturbance of the vadose and saturated zones occurs. This allows for immediate sampling without sitting time. Miniature wells are purged by placing the well tube under a vacuum with a manually operated pump. The ground water is drawn through a silt trap until it runs clear. The silt trap is then cleaned and a collection jar is added. The water is then drawn out until bubbles appear. This allows the cone of depression to reach the slotted intake, thus obtaining a true water table sample.

Samples collected in this manner are less likely to become contaminated by mechanically transported soils from superior horizons.

3.) Drinking Well Sampling

a.) Surface Sample From Well

Samples that are collected from drinking wells are collected by bailer. The bailer is lowered using monofilament line and a reel. All samples are transferred to open hole teflon septa screw cap amber VOC bottles, labelled and placed on ice for transport.

b.) Depth Interval Well Samples

A weighted tube is lowered into the well to the desired depth. A sample is drawn up the tube and into a collection jar. The sample is then transferred to an open hole teflon septa screw cap amber VOC bottle and placed on ice for transport.

When more than one depth interval is required, a clean tube is lowered for each interval. The same tubing is not used for more than one well. To clean tubing, a volume of clean water is drawn through the tube, determined by the length and inner diameter of the tube. The cleaning water volume is at least five times the tube volume.

c.) Tap Water Samples

When a well water sample is difficult or impractical to obtain, a tap sample may be collected instead. When a sample is taken from the tap, the water is allowed to run for a period of five minutes before the sample is collected. If the amount of piping from the well to the tap is considerably long, water may be run for a longer time period to sufficiently purge the system. Tap samples are collected directly into an open hole septa teflon screw cap amber VOC bottle, labelled and placed on ice for transport.

C.) PRESERVATION AND CHAIN OF CUSTODY PROCEDURES

1.) Water and Liquid Samples

All liquid samples are collected in open hole septa teflon screw cap amber VOC bottle that are two ounce or larger. Liquid samples are immediately placed in a cooler with blue ice packs upon collection and transported to the Earth Reach Environmental Consultants, Inc. refrigerator. All samples are then logged and either transported in a cooler directly to the laboratory or mailed in an insulated box with blue ice packs via UPS.

2.) Soil Samples

Hydrocarbon contaminated soil samples are collected in one half pint precleaned jars, and sealed with teflon coated screw cap lids. Soil samples are immediately labelled and placed on ice after collection. All samples are refrigerated until transport to the laboratory. Samples are logged and packed for shipment in insulated boxes with ice packs. Boxes are shipped via UPS, courier or by Earth Reach personnel. Other custody information is listed with laboratory reports.

3.) Gas Samples

Gas phase samples collected for GC analysis are collected in two ounce open hole septa teflon screw cap amber VOC bottles. Gas samples are labelled and placed in a ground temperature environment for transport. These samples are not cooled as they create a vacuum and may implode or draw in air. They are also not allowed to heat up as they may explode or give off gases. Gas samples are transported directly to the laboratory for analysis within 24 hours. A syringe is used to draw the sample from the VOC bottle and inject it directly into the GC.

VR680-21-01.14 Standards for Surface Water

A. Instream water quality conditions shall not be acutely or chronically toxic. The following are definitions of acute and chronic toxicity conditions.

Acute Toxicity means an adverse effect that usually occurs shortly after the introduction of a pollutant. Lethality to an organism is the usual measure of acute toxicity. Where death is not easily detected immobilization is considered equivalent to death.

Chronic Toxicity means an adverse effect that is irreversible or progressive or occurs because the rate of injury is greater than the rate of repair during prolonged exposure to a pollutant. This includes low level, long-term effects such as reduction in growth or reproduction.

B. The following table is a list of numerical water quality standards for specific parameters.

1. For those waters with multiple designated beneficial uses, the most stringent standards in the following table shall apply.

2. When information has become available from the Environmental Protection Agency to calculate additional aquatic life or human health standards not contained in the table the Board may employ these values in establishing effluent limitations or other limitations pursuant to the General Standard in VR680-21-01.2 necessary to protect the beneficial uses until the Board has completed the regulatory standards adoption process.

DEC. 1 Q 1981

21-01.14.B continued...

Table of Parameters

SUBSTANCE	AQUATIC LIFE				HUMAN HEALTH			
	FRESHWATER		SALTWATER		PUBLIC WATER		ALL OTHER	
	ACUTE ug/L	CHRONIC ug/L	ACUTE ug/L	CHRONIC ug/L	ACUTE ug/L	CHRONIC ug/L	SURFACES ug/L	SURFACE WATERS ug/L
Aldrin c	3.0	0.3	1.3	0.13	0.00013			0.00014
Ammonia	See Table 1	See Table 2	See Tables 3 and 4			9.600		110,000
Anthracene						50		
Arsenic								
Arsenic III c	360	190	69	36				
Barium						1.2		71
Benzene c						0.0028		0.0311
Benzo(a)anthracene c						0.0028		0.0311
Benzo(b)fluoranthene c						0.0028		0.0311
Benzo(k)fluoranthene c						0.0028		0.0311
Benzo(e)pyrene c						4.4		360
Bromoform c						16		170
Cadmium	$(1.128 \ln(\ln(\text{hardness}))) - 3.828$	$(0.7852 \ln(\ln(\text{hardness}))) - 3.490$	43	9.3				
Carbon Tetrachloride c						0.25		4.5
Chlordane c	2.4	0.0043	.09	0.0040		0.00058		0.00059
Chloride	860,000	230,000				250,000**		
Chlorine	See VR680-21-01.11					690		57,000
Chlorodibromomethane								

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VA60-21-01, 12, R minimum

SUBSTANCE	FRESHWATER		AQUATIC LIFE		HUMAN HEALTH		
	ACUTE	CHRONIC	ACUTE	CHRONIC	SALT WATER	PUBLIC WATER	ALL OTHER
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Chloroform c						5.7	670
Chloromethane c						5.7	470
Chlorpyrifos	0.003	0.061	0.017	0.0056			
Chromium III	$\frac{e}{e} (0.8190 (\ln(\text{hardness}^*)) + 3.688)$	$\frac{e}{e} (0.8190 (\ln(\text{hardness}^*)) + 1.561)$				33,000	670,000
Chromium VI	16	11	1,100	50		170	3,400
Chrysene c						0.0028	0.0311
Copper	$\frac{e}{e} (0.9422 (\ln(\text{hardness}^*)) - 1.464)$	$\frac{e}{e} (0.8545 (\ln(\text{hardness}^*)) - 1.465)$	2.9	2.9		1,300	
Cyanide	22	5.2	1.0	1.0		700	215,000
DOT c	1.7	0.0010	0.13	0.0010		0.00059	0.00059
Demeton		0.7		0.1			
Dibenz(a,h)anthracene c						0.0028	0.0311
Dichloromethane c						4.7	1,600
1,2-Dichlorobenzene						2,700	17,000
1,3-Dichlorobenzene						400	2,600
1,4-Dichlorobenzene						400	2,600
Dichlorobromomethane c						0.3	22
1,2-Dichloroethane c						0.36	99
(2,4-dichlorophenoxy) acetic acid (2,4-D)						71	

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21-01.1a.8 continued...

SUBSTANCE	AQUATIC LIFE				HUMAN HEALTH		
	FRESHWATER		SALTWATER		PUBLIC WATER	SURFACE WATERS	ALL OTHER
	ACUTE ug/L	CHRONIC ug/L	ACUTE ug/L	CHRONIC ug/L	SUPPLIES ug/L		ug/L
Dieldrin c	2.5	0.0019	0.71	0.0019	0.00014		0.00014
D1-2-Ethylhexyl Phthalate c					1.8		3.9
2,4-Dinitrotoluene c					0.11		2.1
Dioxin	See VR680-21-01.15						
Dissolved Oxygen	See VR680-21-01.5						
Endosulfan	0.22	0.056	0.054	0.0087	0.93		2.0
Endrin	0.16	0.0023	0.037	0.0023	0.76		0.81
Ethylbenzene					3.100		29,000
Fluoranthene					300		370
Fluorene					1,300		14,000
Foaming agents (measured as methylene blue active substances)					500**		
Guthion		0.01		0.01			
Heptachlor c	0.52	0.0038	0.053	0.0036	0.00021		0.00021
Hexachlorocyclohexane (Lindane)	2.0	0.080	0.16	0.01	7		25
Hydrogen Sulfide		2.0		2.0			
Indeno(1,2,3-cd)pyrene c					0.0028		0.0511
Iron (soluble)					300**		
Isophorone					6,900		490,000

VR600-21-01.10.B continued...

SUBSTANCE	FRESHWATER		SALTWATER		PUBLIC WATER SUPPLIES		ALL OTHER SURFACE WATERS	
	ACUTE ² ug/L	CHRONIC ³ ug/L	ACUTE ² ug/L	CHRONIC ³ ug/L	ug/L	ug/L	ug/L	ug/L
Kezone		zero		zero				
Lead	$\frac{1}{2} (1.273[\ln(\text{hardness}^*)] - 1.660)$	$\frac{1}{2} (1.273[\ln(\text{hardness}^*)] - 4.705)$	220	8.5	15			
Malathion		0.1		0.1				
Manganese (soluble)					50**			
Mercury ⁶	2.6	0.012	2.1	0.025	0.144			0.146
Methoxychlor		0.03		0.03	40			
Nirex		zero		zero				
Monochlorobenzene					680			21,000
Nickel	$\frac{1}{2} (0.8460[\ln(\text{hardness}^*)] + 3.3612)$	$\frac{1}{2} (0.8460[\ln(\text{hardness}^*)] + 1.1645)$	75	8.3	607			6,583
Nitrate (as N)					10,000			
Parathion	0.065	0.013						
PCB-1242 c		0.014		0.030	0.000044			0.000045
PCB-1254 c		0.014		0.030	0.000044			0.000045
PCB-1221 c		0.014		0.030	0.000044			0.000045
PCB-1232 c		0.014		0.030	0.000044			0.000045
PCB-1248 c		0.014		0.030	0.000044			0.000045
PCB-1260 c		0.014		0.030	0.000044			0.000045
PCB-1016 c		0.014		0.030	0.000044			0.000045

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SUBSTANCE	FRESHWATER		SALTWATER		PUBLIC WATER SUPPLIES		ALL OTHER SURFACE WATERS	
	ACUTE	CHRONIC	ACUTE	CHRONIC	ACUTE	CHRONIC	ACUTE	CHRONIC
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,2-dichlorobenzene	(1.005(pH)-4.830)	(1.005(pH)-5.290)	13	7.9	0.28		0.2	
4	See VR680-21-01.5							
benol					21,000		4,600,000	
Phosphorus (Elemental)				0.10				
Pyrene					960		11,000	
Radioactivity	See VR680-21-01.12							
Selenium	20	5.0	300	71	172		11,200	
Silver	(1.72((n(hardness))-6.52))		2.3					
Sulfate					250,000**			
Temperature	See VR680-21-01.5							
Tetrachloroethylene					318		3,519	
Toluene					6,800		200,000	
Total dissolved solids					500,000**			
Toxaphene ⁶	0.73	0.0002	0.21	0.0002	0.00073		0.00075	
Trichloroethylene c					2.7		80.7	
2,4,6-Trichlorophenol c					2.1		6.3	
1-(2,4,5-Trichlorophenoxy) propionic acid (Silver)					50			

DEC. 10 1981

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VR680-21-01.1a, B continued...

SUBSTANCE	AQUATIC LIFE				HUMAN HEALTH		
	FRESHWATER		SALTWATER		PUBLIC WATER	ALL OTHER	
	ACUTE US/L	CHRONIC US/L	ACUTE US/L	CHRONIC US/L	SUPPLIES US/L	SURFACE WATERS US/L	
Tributylin	See VR680-21-01.13						
Vinyl Chloride c			2				525
Zinc	$(0.8473(\ln(\text{hardness}^*)) + 0.8604)$	$(0.8473(\ln(\text{hardness}^*)) + 0.7614)$	95	86	5,000**		

- 1 = Unless specifically listed above, all metals shall be measured as dissolved.
 - 2 = One hour average concentration not to be exceeded more than once every three years.
 - 3 = Four day average concentration not to be exceeded more than once every three years.
 - 4 = Unless otherwise noted, these standards have been calculated to protect human health from toxic effects through drinking water and fish consumption.
 - 5 = Unless otherwise noted, these standards have been calculated to protect human health from toxic effects through fish consumption.
 - 6 = Chronic aquatic life values have been calculated to protect wildlife from harmful effects through ingestion of contaminated tissue. However, the standard will also protect aquatic life from toxic effects.
- a = Hardness as calcium carbonate mg/L CaCO₃
- ** = To maintain acceptable taste, odor or aesthetic quality of drinking water.
- c = Known or suspected carcinogen, human health standards are for a risk level of 10⁻⁶.

...xylene concentrations ranging from 46,000 to 105,000 ug/L (Hutchinson et al. 1979, 1980; Kauss and Hutchinson 1975).

Maynard and Weber (1981) observed that juvenile coho salmon (Oncorhynchus kisutch) were able to detect and avoid xylene at levels as low as 680 ug/L. Concentrations of 2,000 ug/L affected the respiration rate of rainbow trout (Slooff 1979).

Effects on Saltwater Organisms

Acceptable data on the acute toxicity of xylene to saltwater organisms are available for four invertebrates and one species of fish (Table 1). The adjusted Species Mean Acute Values ranged from 1,815 ug/L for adult bay shrimp (Crangon franciscorum) to 154,300 ug/L for embryos of the Pacific oyster (Crassostrea gigas). The striped bass (Morone saxatilis), with a SMAV of 5,090 ug/L, was slightly more sensitive to xylene exposure than the freshwater fish species (Table 2).

No chronic data are available for saltwater animals exposed to xylene. Commercial xylene concentrations greater than 10,000 ug/L were found to inhibit algal growth (Dunstan et al. 1975) (Table 3), while the motility of barnacle nauplii was affected by 19,500 ug/L (Donahue et al. 1977; Winters et al. 1977).

Calculation of Advisory Concentration

Species and Genus Mean Acute Values are available for 13 organisms (Table 2) and range from 1,815 ug/L for the bay shrimp to 154,300 ug/L for the Pacific oyster. The lowest Genus Mean Acute Value (GMAV), 1,815 ug/L, is therefore divided by a factor of 3.4, in accordance with the advisory guidelines, resulting in an Advisory Acute Value (AAV) of 533.8 ug/L. Due to the lack of any acceptable data on the chronic toxicity of xylene to aquatic organisms, an empirical value of 25 is used as the Advisory Acute-Chronic Ratio (AACR). Division of the AAV (533.8 ug/L) by the AACR (25) results in an Advisory Concentration of 21 ug/L.

M E M O R A N D U M

Office of Environmental Research and Standards
State Water Control Board

2111 N. Hamilton Street P. O. Box 11143 Richmond, Virginia 23230

SUBJECT: Aquatic Life Protection Number For Xylene For Use in
Permitting at UST Sites

TO: Fred Holt, OWRM

FROM: Richard Ayers ^{RA}

DATE: January 4, 1989

COPIES: Alan Anthony; Tom Felvey; Jean Gregory

In an earlier memo to you, I said that we would not require a TMP in permits for groundwater remediation sites if the permit limits for benzene, toluene, ethylbenzene and xylene were low enough to protect aquatic life from acute and chronic effects. At that time we used the lowest LC50 values given in the EPA priority pollutant criteria documents for benzene, toluene and ethylbenzene times an application factor of 0.01 as a "safe level" for aquatic life. Because xylene is not considered a priority pollutant, there was no readily available data base. Attached to this memo are LC50 values for xylene toxicity to freshwater and saltwater fish and invertebrates. These data were retrieved by Shaul:

The lowest LC50 for freshwater species was 0.35 mg/l for a scud. The next lowest value was 3.8 mg/l for rainbow trout. I have some reservations about using the scud result for setting a "safe level". First, the scud used in the tests was a lake species, not a stream organism, therefore its sensitivity may be greater than the other organisms. I am concerned because the scud sensitivity was an order of magnitude lower than any of the other species tested with xylene. Second, in looking at the data bases for the other three compounds there were no tests using scuds. The tests with species common to the various data bases show a general agreement, at least on an order of magnitude scale, between compounds. The third concern I have is that if we set permit limits at 0.01 times the LC50 for scuds, or 0.0038 mg/l, we may be setting limits which are not attainable with the air stripper and/or carbon treatment technologies. For these reasons I would recommend that we use the LC50 for rainbow trout as the value to derive the freshwater "safe level" recognizing that we are not trying to protect trout in every water body but that there may be some invertebrates which are as sensitive as trout living in those waters.

The lowest LC50 for salt water species was 1.3 mg/l for bay shrimp. Tests with this species were reported in the other data bases and it showed generally the same sensitivity to the other three compounds.

Based on the above discussion and the attached data, I recommend that we set aquatic life protection "safe levels" for xylene in effluents from UST remediation sites at ~~0.050 mg/l for fresh water~~ and 0.013 mg/l for salt water receiving streams. These would be applied in the same manner that the recommended levels for benzene, toluene and ethylbenzene are; that is the most stringent of the water quality "safe levels" or the demonstrated technology levels be used as permit limits for these sites.

Please bear in mind that these levels for all four compounds are just estimates or best guesses at levels which will not cause acute or chronic toxicity. I would be reluctant to apply them to situations other than the UST sites without better data.



1" = 20'

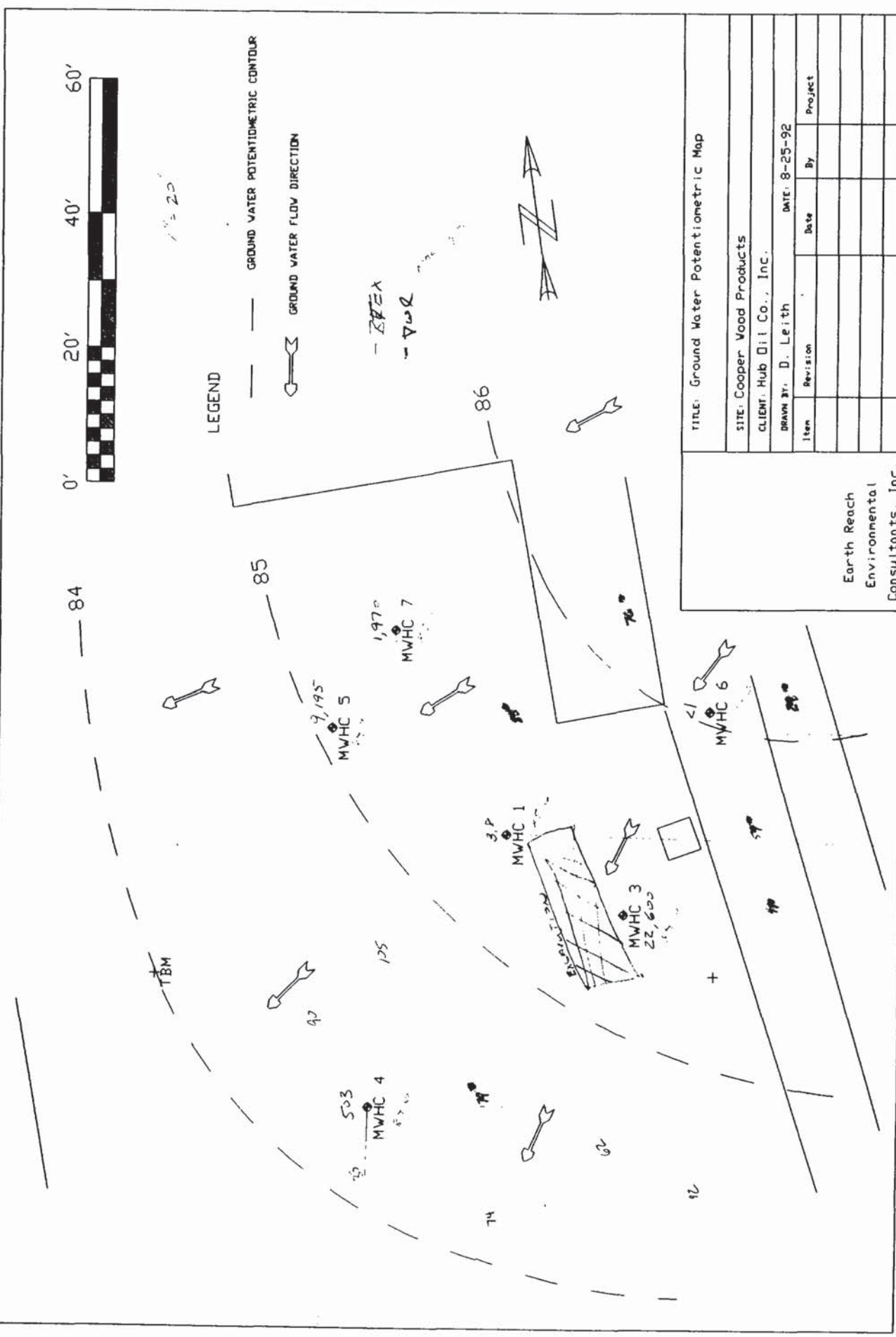
LEGEND

— GROUND WATER POTENTIOMETRIC CONTOUR

GROUND WATER FLOW DIRECTION

- BPEA

- TBM



TITLE: Ground Water Potentiometric Map

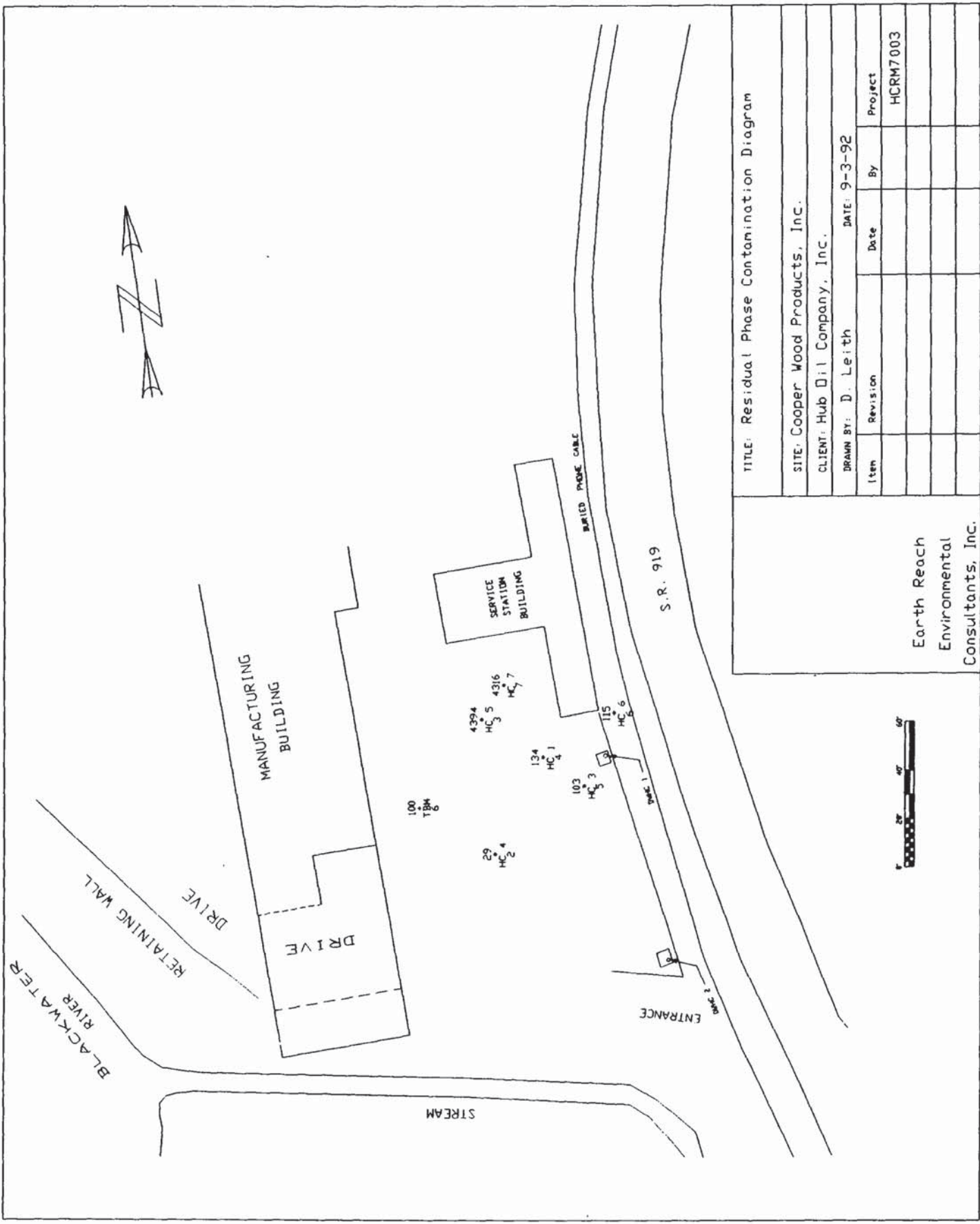
SITE: Cooper Vood Products

CLIENT: Hub Oil Co., Inc.

DRAWN BY: D. Leith DATE: 8-25-92

Item	Revision	Date	By	Project

Earth Reach
Environmental
Consultants, Inc.



TITLE: Residual Phase Contamination Diagram

SITE: Cooper Wood Products, Inc.

CLIENT: Hub Oil Company, Inc.

DRAWN BY: D. Leith DATE: 9-3-92

Item	Revision	Date	By	Project
				HCRM7003

Earth Reach
Environmental
Consultants, Inc.



BLDG

HYDRANT
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OLD SERVICE STATION BUILDING

BURIED PHONE CABLE

S.R. 919

TITLE: SOIL GAS SURVEY POINTS		DATE: 8-19-92
SITE: COOPER WOOD PRODUCTS, INC		
CLIENT: HUB OIL CO., INC.		
DRAWN BY: J. Leith	DATE: 8-19-92	
DATE	REVISION	NO. BY
		PROJECT
		HCRM
		DRAWING NO.
		HCRM7003

Earth Reach
Environmental
Consultants, Inc.



BLDG

HYDRANT
+
TBM

90 220
46 280

75 120 260 180 200
94 50 86 220 34
180 180 56 100 34
180 440 300 100

OLD SERVICE STATION BUILDING

BURIED PHONE CABLE

320 70 72 45 70 69
22 350 24 61
45 84 43 45

S.R. 919

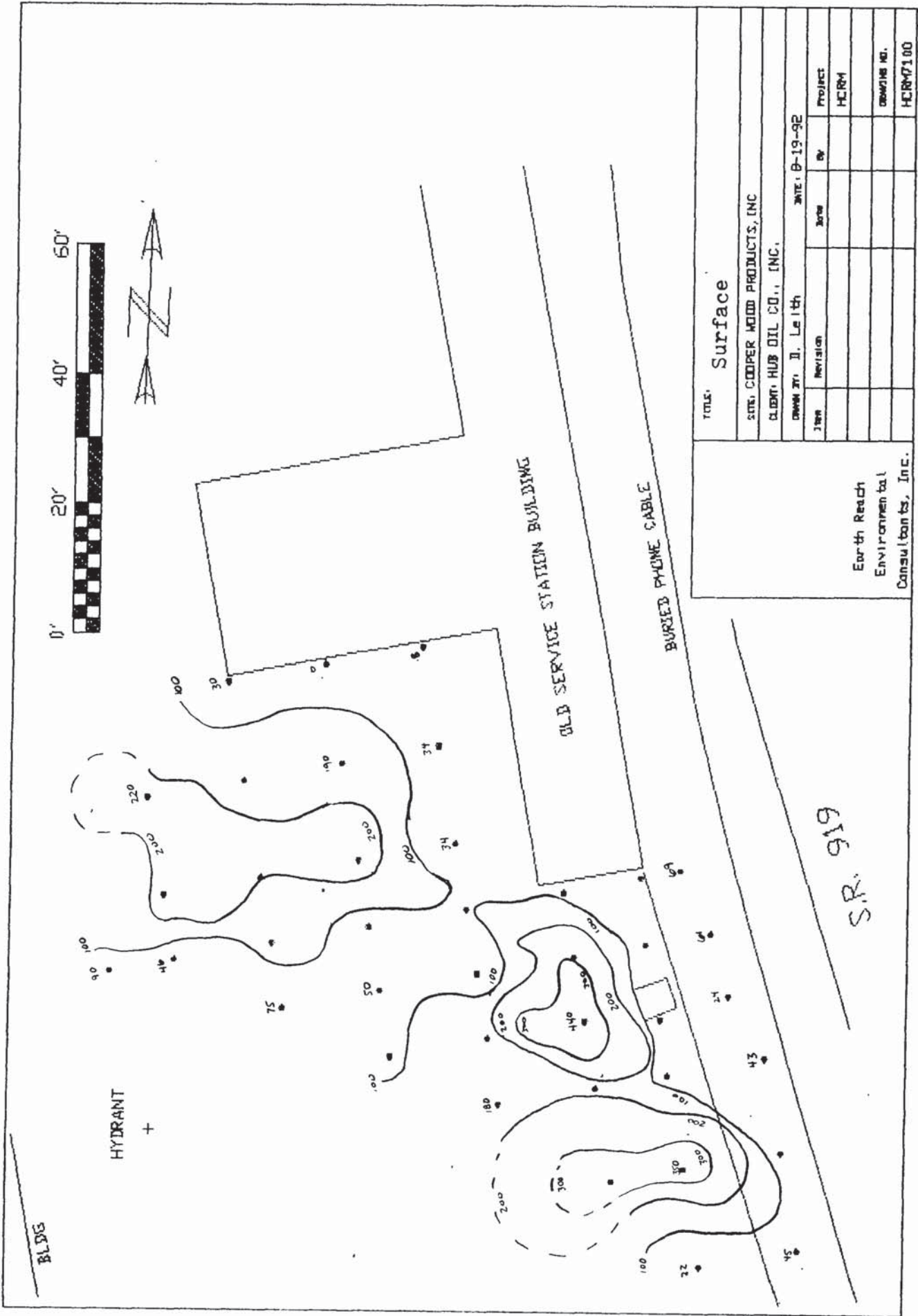
TITLE: SOIL GAS SURVEY SURFACE READINGS

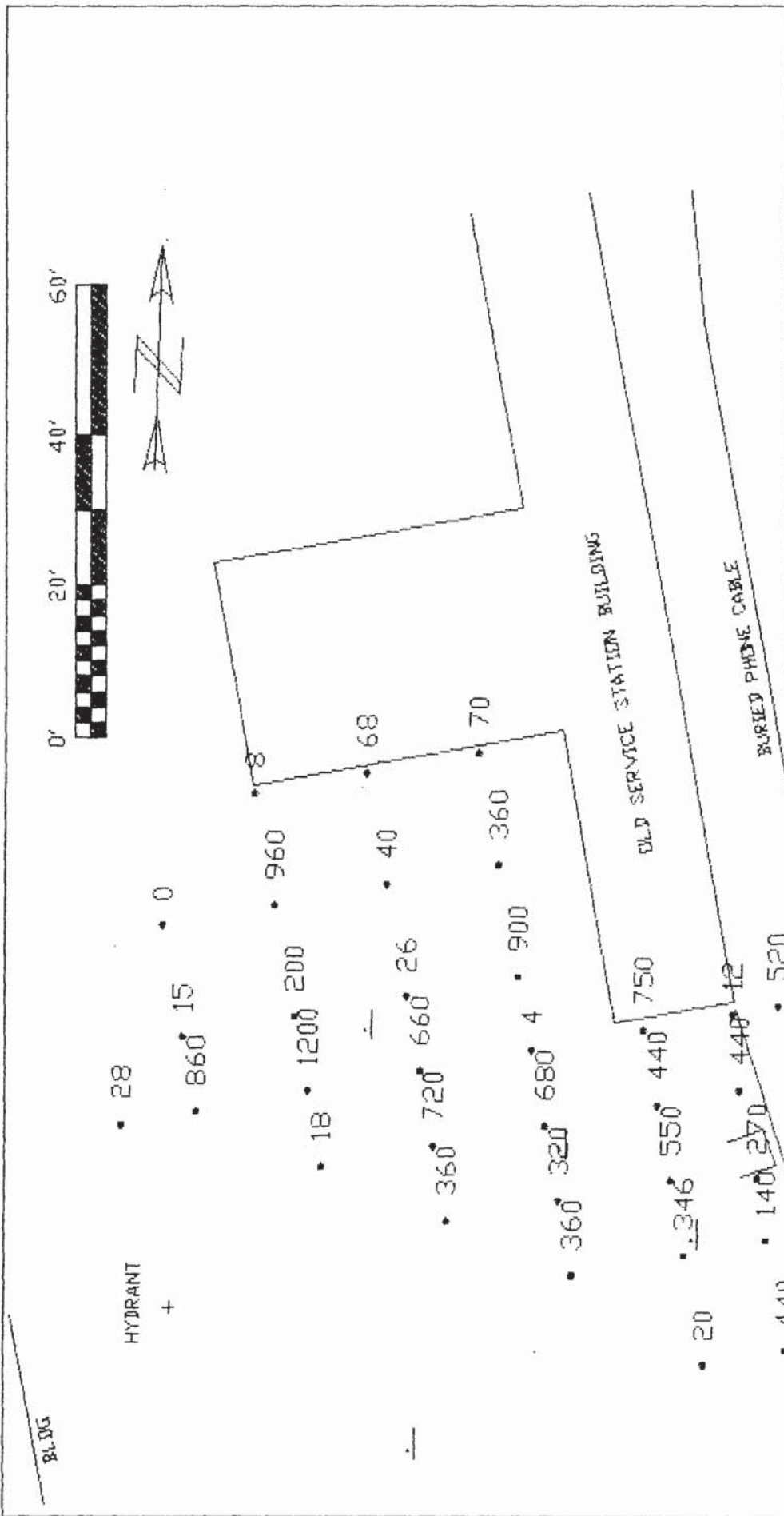
SITE: COOPER WOOD PRODUCTS, INC.
CLIENT: HUB OIL CO., INC.

DATE: 8-19-92

DATE	REVISION	DATE	BY	PROJECT
				HDRM
				DRAWING NO.
				HDRM7102

Earth Reach
Environmental
Consultants, Inc.





TITLE: SOIL GAS SURVEY PROBE READINGS

SITE: COOPER WOOD PRODUCTS, INC.

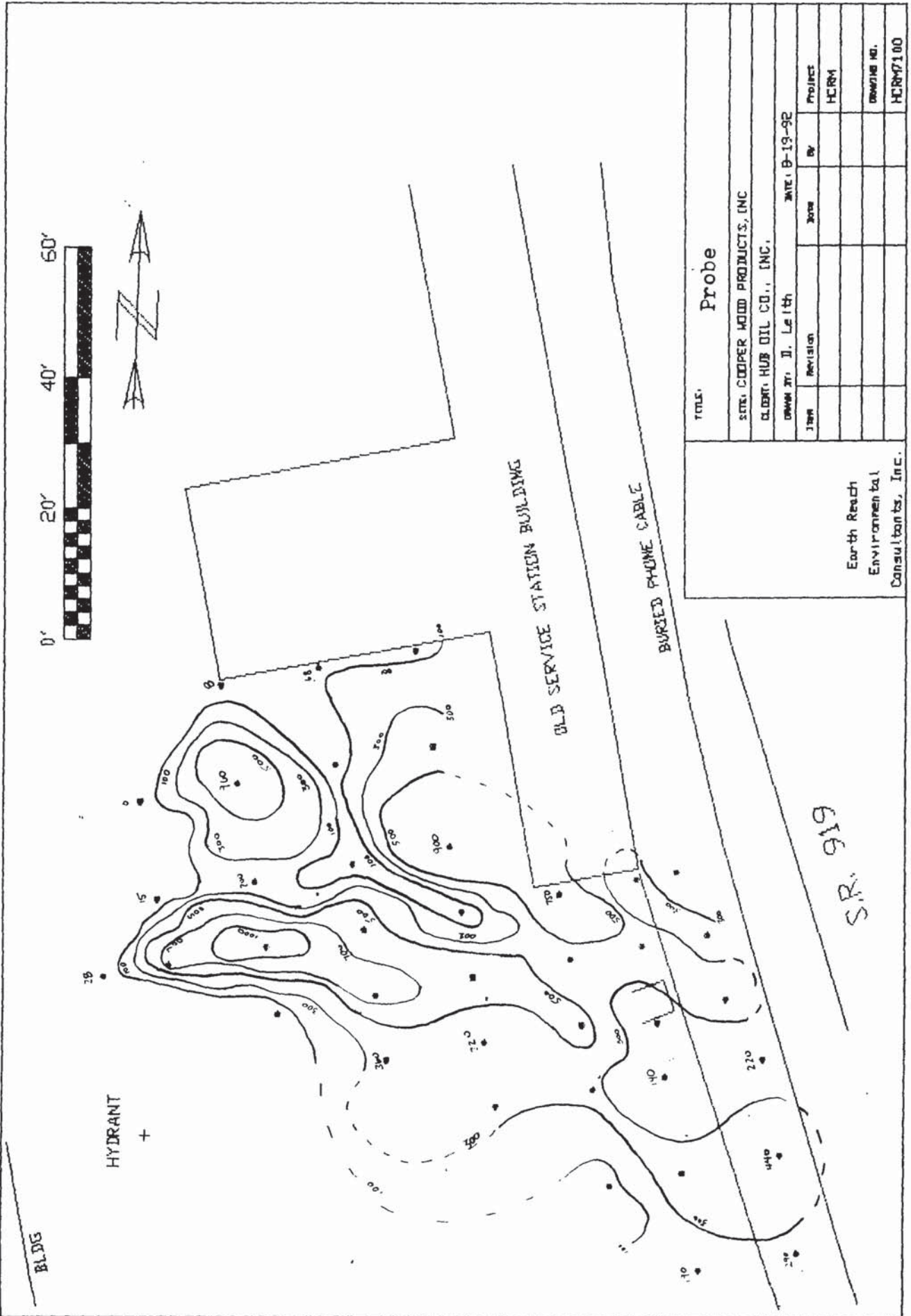
CLIENT: HUB OIL CO., INC.

DATE: 8-19-92

DATE	REVISION	DATE	BY	PROJECT
				HCRA
				DRAWING NO.
				HCRA7101

Earth Reach
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Consultants, Inc.

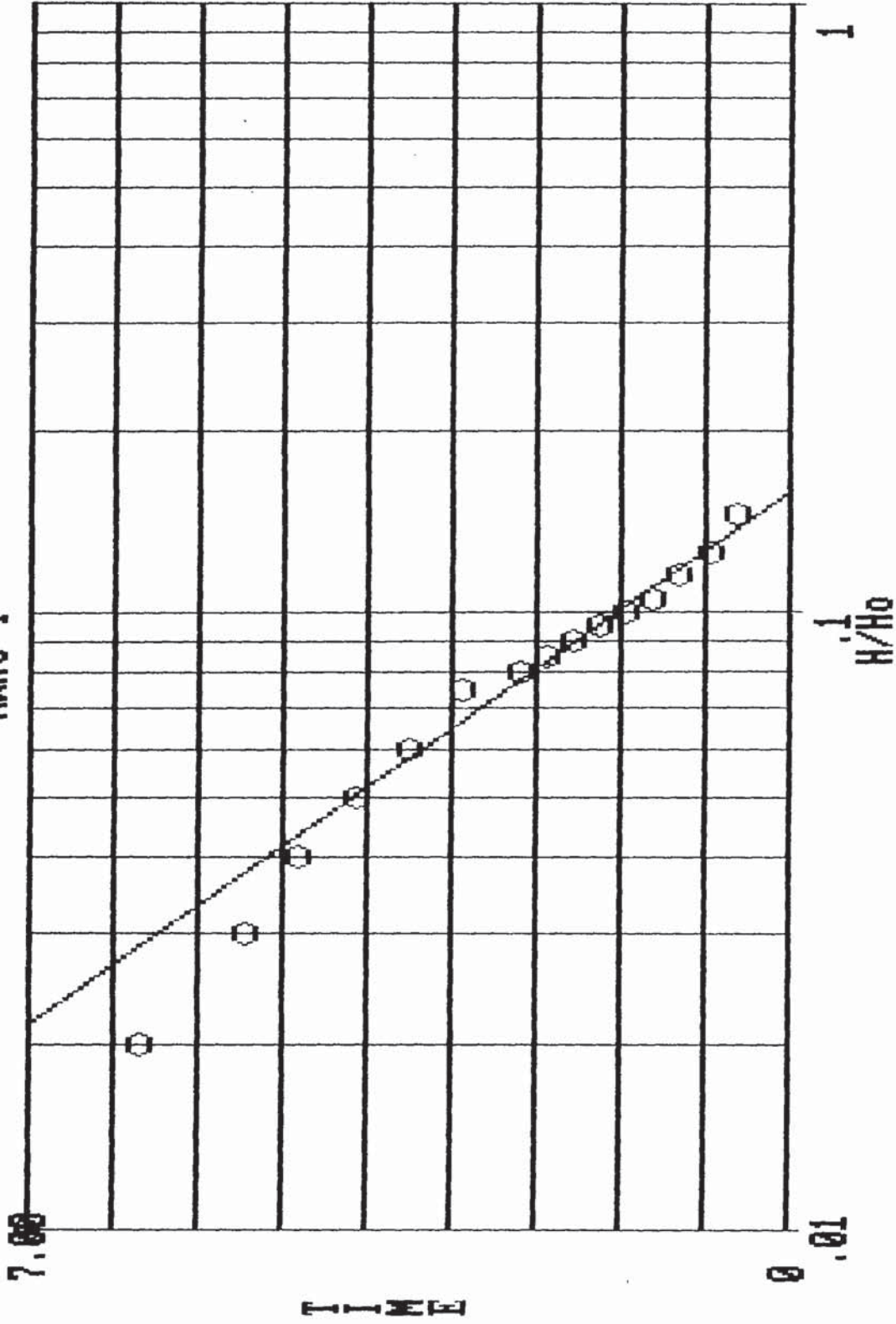
S.R. 919



TMS.		Probe	
SITE: COOPER WOOD PRODUCTS, INC.			
CLIENT: HUB OIL CO., INC.			
DRAWN BY: J. Leith		DATE: 8-19-92	
DATE	REVISION	NO.	PROJECT
			HCRM
			DRAWING NO.
			HCRM7100

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MWHC-4



The hydraulic conductivity in L/T is

1.279081334359944E-004

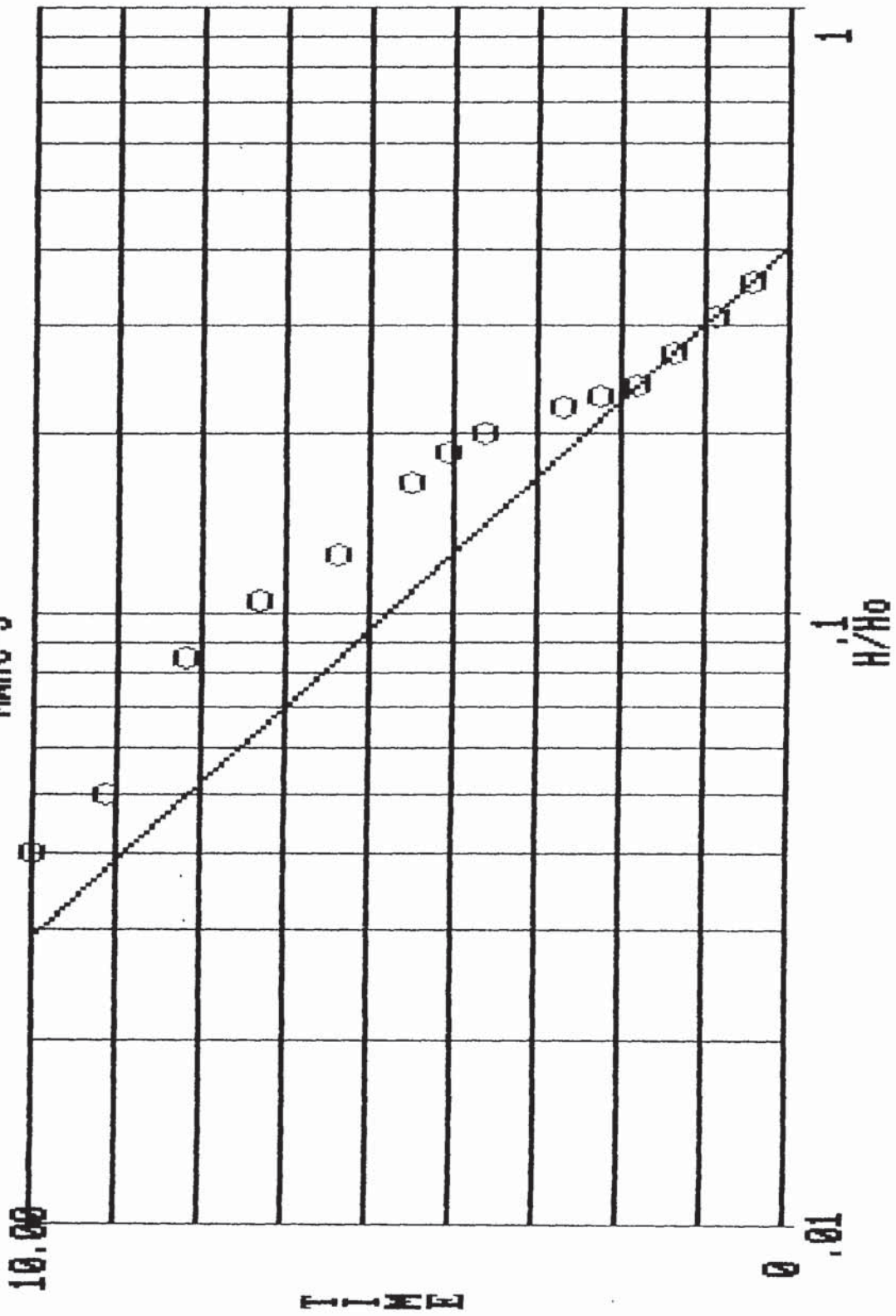
EARTH REACH ENVIRONMENTAL CONSULTANTS, INC.

TITLE: SLUG TEST RESULTS MWHC 4

SITE: HUB - COOPER WOOD PRODUCTS, INC.

BY: D. LEITH DATE: 9-1-92 DRUG # HCRM7009

MWHC-5

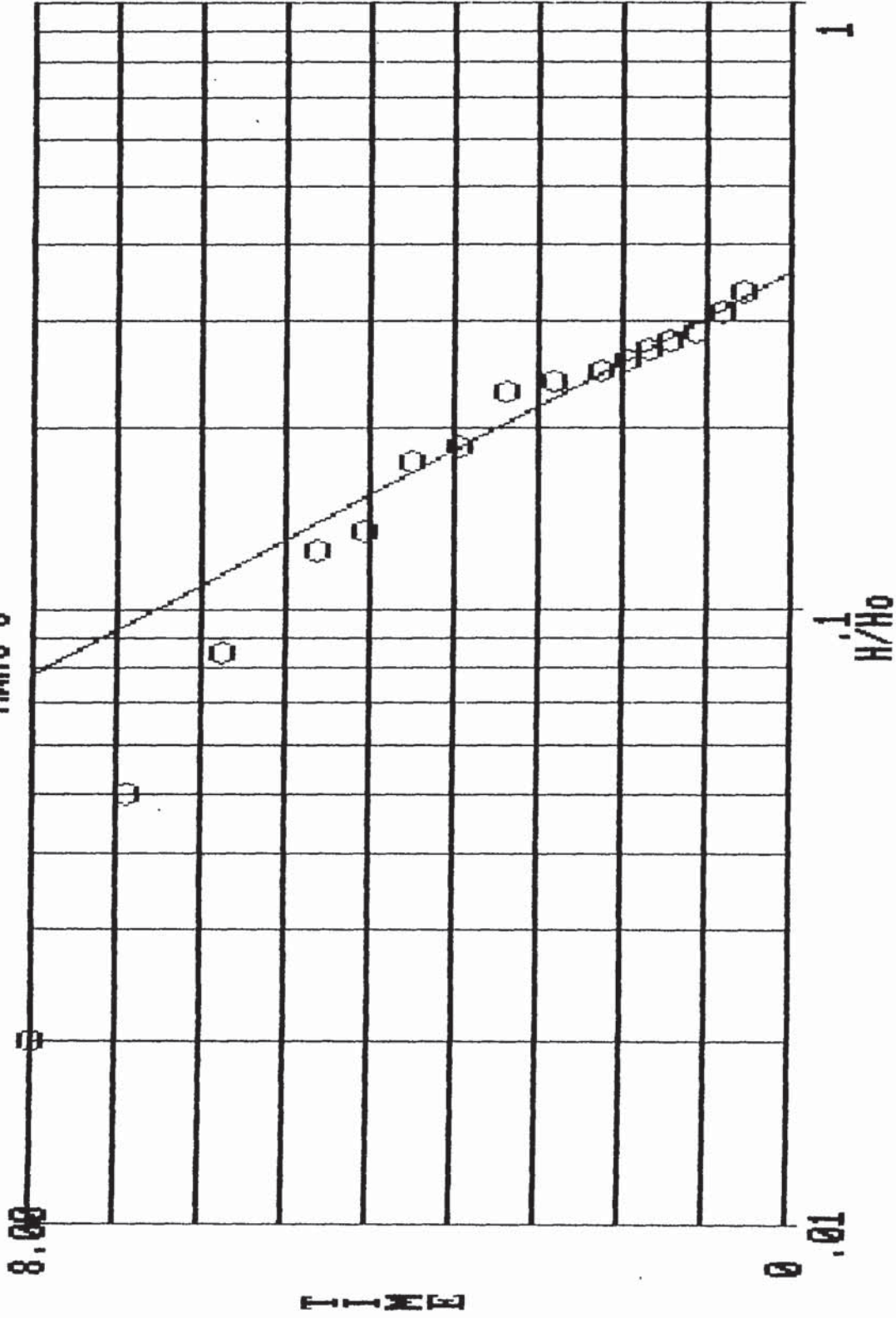


The hydraulic conductivity in L/T is

1.360982860205695E-004

EARTH REACH ENVIRONMENTAL CONSULTANTS, INC.
TITLE: SLUG TEST RESULTS MWHC 5, TRIAL 1
SITE: HUB - COOPER WOOD PRODUCTS, INC.
BY: D. LEITH DATE: 9-1-92 DRWG # HCRM7010

MMHC-5



The hydraulic conductivity in L/T is

9.299102384829894E-005

EARTH REACH ENVIRONMENTAL CONSULTANTS, INC.

TITLE: SLUG TEST RESULTS MWHC 5, TRIAL 2

SITE: HUB - COOPER WOOD PRODUCTS, INC.

BY: D. LEITH DATE: 9-1-92 DRWG # HCRM7011

Appendix G

Initial Abatement Report
Site Assessment Report



EARTH REACH ENVIRONMENTAL CONSULTANTS, INC.

234 Franklin Street
Rocky Mount, Virginia 24151

(703) 483-5975
FAX (703) 483-2221

INITIAL ABATEMENT MEASURES

On March 10, 1991, Hub Oil Company contracted T.E. Harbour and Associates to remove two 1000 gallon USTs at the Cooper Wood site on state route 919. Earth Reach Environmental Consultants Inc. was to perform the closure assessment. Please find a copy of the closure report included.

SUMMARY

To summarize the closure procedure and assessment, both UST systems were removed, and the entire excavated area was checked by CGM for contamination. The area around the pumps proved to be contaminated by diesel and gasoline products. The only leakage noted was at the union joints to each pump. The primary cause of contamination was apparently spillage, although pump leakage played an obvious role. Contaminated soils were removed horizontally until desirable CGM readings were achieved, and soils were also removed vertically to shallow bed rock. Samples collected from the bed rock surface revealed TPH up to 19,300 ppm around the pumps. Results for soils around the USTs were 12 ppm and less than 10 ppm.

During excavation an old well was discovered between the tanks. The well was not directly down gradient from the release point, however, it did contain trace amounts of toluene and xylene (toluene 6 ppm, xylene 7 ppm). Grossly contaminated soils were transported to an on site location and placed on plastic for volatilization.

Please see the closure report for further information and statistics concerning the site.

EXTENSION REQUEST

A thirty day extension is requested for the preparation of the site characterization report. Additional time is necessary to conduct negotiations between Hub Oil Company and Cooper Wood. Please contact Mr. Ira Culler of Hub Oil if an extension is to be granted (703) 5146.

INITIAL ABATEMENT MEASURES REPORT CHECKLIST

Site: Cooper Wood Products, Inc. PC# 92-1992 Region WCRO

The following checklist must be filled out by the Responsible Party and/or his Consultant and included in the Initial Abatement Report. Indicate on the checklist the page and section number where each item is addressed in the attached report. Also indicate on the checklist the section and page number where justification is given for items omitted from the attached report. The contents of the report should reflect and be commensurate with the nature of the release, degree of contamination and complexity of the site investigation.

1. RELEASE INVESTIGATION AND CONFIRMATION STEPS

Page /Section	
<u>1, SUMMARY</u>	Evidence for suspecting a release has occurred
<u>NA /</u>	Monitoring results from release detection used
<u>NA /</u>	Results of tank/line tightness test
<u>SUMMARY</u>	Actions taken to repair, replace, upgrade UST

2. SITE CHECK

<u>1, 2, SUMMARY</u>	Measures taken to identify the source of release
<u>2 /</u>	Depth to ground water
<u>SUMMARY, 1, 2,</u>	Description and justification of sampling
<u>SUMMARY, 1, 2</u>	types (ground water, soil)
<u>SEC MAP</u>	locations (include site map)
<u>LAB RESULTS</u>	parameters, EPA methods, units, and detection limits

3. INITIAL ABATEMENT MEASURES

<u>SUMMARY</u>	Release inspection results and measures taken to prevent further migration of contaminants into soils and ground water
<u>1 /</u>	Regulated substance removed from UST system
<u>NA /</u>	Efforts to mitigate fire and safety hazards
<u>2 /</u>	Efforts to measure for the presence of free product
<u>2 /</u>	Efforts to remove free product
<u>SUMMARY</u>	Measures taken, as part of Initial Abatement, to address contaminated ground water and soils, tank water and sludges, and debris (i.e. tanks, piping, concrete) Include permits
<u>/</u>	Initial Abatement Measures Report submitted within 20 days of release confirmation or extension granted

FOR OFFICE USE ONLY

COMMENTS: _____

DEFICIENCIES: _____

REVIEWED BY: _____ DATE: _____



EARTH REACH ENVIRONMENTAL CONSULTANTS, INC.

234 Franklin Street
Rocky Mount, Virginia 24151

(703) 483-5975
FAX (703) 483-2221

UST SITE ASSESSMENT

Performed for:
Hub Oil Co., Inc.
207 Diamond Ave.
Rocky Mount, VA 24151

Performed by:
Earth Reach Environmental Consultants, Inc.
Robert R. Martin, Jr.

UNDERGROUND STORAGE TANK ABATEMENT

OWNER: Hub Oil Co.
Mr. Ira Culler
LOCATION: Cooper Wood Products, Inc.
Rocky Mount, VA
REMOVAL DATE: 3/10/91
EXCAVATION CONTRACTOR: Custom Environmental Construction
SITE CONTACT:

UST DESCRIPTION

TANK # (ON SITE MAP): #1 and #2
APPROXIMATE AGE: unknown SERIAL #: unknown
CAPACITY: 1000 gallon DIAMETER: 48" LENGTH: 10'6"
CONTENTS: Diesel
SUBSTANCE LAST STORED: diesel
PROTECTION; INTERNAL: none EXTERNAL: asphalt paint

UST CONDITION Moderate erosion

PIPING TYPE AND CONDITION 2" galvanized steel with asphaltic paint

NOTES APCO was contacted at 9:45 AM to remove guy wires which were obstructing the excavation. Two holes were drilled to about 8 feet and each hit rock. Efforts to move guy wires were abandoned and pole was removed.

SOIL CONTAMINATION ANALYSIS

FIELD READINGS (GASTECH MODEL 1314)

PIT SIDES- PROBE: 15ppm - 95ppm
PIT BOTTOM- PROBE: 27ppm between tanks, 1320ppm from bedrock near pump island.

LABORATORY ANALYSIS

SAMPLE # (ON SITE MAP) CW1 and CW2
SAMPLE DEPTH- BELOW TANK BOTTOM 1' FT.(at bedrock) and 2"
BELOW SURFACE 5'6" and 6'4" FT.
TOTAL PETROLEUM HYDROCARBONS 12ppm and <10 PPM
IDENTIFIED AS diesel and gas
ACCEPTED LIMITS- 100 PPM

NOTES Sample #CW3 was taken from the bedrock below the pump island. Approximately three loads of contaminated soil was removed and stored on polyliner before encountering bedrock. Soil was removed to the maximum extent practicable. Soil contamination appears to have been a result of leaking diesel and gasoline products from dispenser pumps and episodic spillage proximal to the dispensing island. The surface around the pump island exhibited build up of gas and diesel due to frequent spillage.

EARTH REACH ENVIRONMENTAL CONSULTANTS, INC.
102 Randolph St., Rocky Mount, VA 24151 (703) 483-5975



RECEIVED

MAR 24 1993

WCRO



*Dm - comes
file - w/Attachs.*

EARTH REACH ENVIRONMENTAL CONSULTANTS, INC.

234 Franklin Street
Rocky Mount, Virginia 24151

(703) 483-5975
FAX (703) 483-2221

**SCR Addendum
Hub Oil - Cooper Wood Products Site
Rocky Mount, Virginia 24151
PC 92-1992**

Performed for:
Mr. Ira Culler
Hub Oil Company, Inc.
207 Diamond Ave. NW
Rocky Mount, Virginia 24151

Performed by:
Earth Reach Environmental Consultants, Inc.
Robert R. Martin, Jr.
Senior Consultant

March 22, 1993

A

On September 10, 1992, a Site Characterization Report (SCR) of the Hub Oil Cooper Wood site PC#92-1992 was performed by Earth Reach Environmental Consultants, Inc (EREC). Contamination encountered during the investigation was believed to have originated from a source other than systems owned by Hub Oil Company. Due to this unforeseen problem, much of the SCR effort was spent on investigating the alternate source of contamination. Much evidence supporting this theory was presented; however, the actual source was not discovered. Hub Oil was then requested to complete the SCR and submit the report as SCR Addendum.

Upon initiating the SCR Addendum, a capped pipe was discovered along with the remains of an old pump island believed to have belonged to the old service station once located on the site. (See S.C.R. report for details.) By all appearances the pipe is an abandoned pump line of 2" diameter. It is quite possible that there is a UST directly below the pump island, or in close proximity, as was often the case of very early gas station installation. There is also evidence to suggest that there is another similar pipe at the other end of the old pump island; however, it is covered by the existing building facing. The UST, or USTs, if present, could be under the existing building in precisely the location indicated by field data gathered during the SCR. It is very likely that USTs exist, as the pipe was capped to prevent environmental exchanges. By all indications, there are two (2) USTs partially or entirely beneath the existing structure, and round base pumps were at one time present on the island.

Evidence indicates that there are two separate contamination episodes, and at present there is much less evidence to connect contamination plumes to the removed Hub Oil system than to alternate sources earlier described. As stated in the SCR, there may even have been a third source, as old footings were found in areas where a less pronounced plume exists. Witnesses present during the Hub Oil UST removal testified that at one time, there were large tanks supported by the footings; however, this testimony cannot be verified.

To date all response has been made by the system owner (Hub Oil). Involvement on the part of the operator has been denied. It is the request of Hub Oil that the previous gas station be handled as a separate site. The proper characterization of the old gas station site would ensure that if further work were necessary on the Hub Oil site, efforts would be spent on the Hub Oil problem and not on alternate sources. The majority of Hub Oil's efforts have already been spent on the investigation of an alternate source that should not be the responsibility of Hub Oil.

It is the request of Hub Oil that the possibility of an alternate source be thoroughly investigated by Cooper Wood Products prior to any further investigation of the Hub Oil site.

Furthermore, the proper investigation of the probable UST system discovered beneath the Cooper Wood building would call for invasive techniques that would pose undue liability on the part of Hub Oil, especially if contracted solely by Hub Oil without the involvement of Cooper Wood Products. For instance, since the 2" pipe cap is fused in place, it cannot be removed without being cut. Cutting may cause sparks or heat that may be considered an ignition source for gasses that may be collecting in the pipe. The footing of the existing building is also above the presumed location of the USTs and extends outward toward the highway. Hand sampling techniques are fruitless due to the encountering of foundation cables and concrete. The area is also much too congested to allow close access for power augering. Invasive techniques in this area are likely to be destructive to some degree. Hub Oil cannot accept liability for such actions without the involvement of Cooper Wood Products and does not feel that the investigation of this system is the responsibility or right of Hub Oil.

Please find photo documentation of the discovered pump island and capped pipe in the photo section.




1. Building on
Cooper Wood Products.
Proposed to have been
built on a petroleum
pump island.


2. North end portion
of cement pump island.




3. South end portion
of cement pump island.



4. Apparent product line and electrical supply line between building and large planter on southern end of pump isle.



5. Note grey paint on pump island and cement porch and building constructed at a later date.



6. Northern portion of pump island, old product line appears to have been built or cemented over.



COMMONWEALTH of VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY

Peter W. Schmidt
Director

Water Regional Office
3015 Peters Creek Road
Post Office Box 7017
Roanoke, Virginia 24019
(703) 562-3666

Neil A. Obenshain
Regional Director

August 11, 1994

Mr. Ira Culler
Hub Oil Company, Inc.
207 Diamond Avenue, N.W.
Rocky Mount, VA 24151

RE: Site Characterization and Abatement Measures Close-Out, Cooper Wood Products, Rocky Mount, Virginia, LUST PC-92-1992, FAC. I.D.
No. 2-002745

Dear Mr. Culler:

The Department of Environmental Quality, Water Regional staff has completed a review of the Site Characterization Report Addendum prepared by Earthreach Environmental consultants.

Based on the information provided, it appears that acceptable site characterization and abatement measures have been achieved. Specifically:

1. The grossly contaminated soils and free product were removed during initial abatement.
2. The solute fate and transport model, using a "worst case" scenario, predicts no adverse impact to the Blackwater River or its tributary.
3. The water supply well for Cooper Wood Products is located off-site and is not at risk.

At this time, no further action with respect to this site's petroleum release characterization is required. If significant contamination associated with this facility is detected that presents environmental and/or human health/safety risk, then further investigation and corrective action may be required at that time.

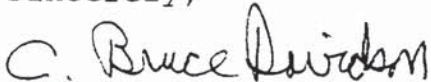
Soils excavated and stockpiled at the site as a result of initial abatement activities should be tested for petroleum concentrations and three (3) bids solicited for proper handling and disposal. On site disposal may be appropriate if petroleum concentrations are low enough not to precipitate an environmental and/or human health/safety risk.

Mr. Ira Culler
Hub Oil Company, Inc.
Page 2

Observation or monitoring wells must be properly abandoned in accordance with Virginia Department of Health Regulations, Section 3.11 within 90 days of cessation of use. Continued use of such wells may be appropriate if designated to meet other ground water monitoring needs.

Should you have questions our office will be glad to assist.

Sincerely,



C. Bruce Davidson, C.P.G.
Geologist Supervisor

LUSTCLOS-08-0109c

cc: D. M. Miles, DEQ-WRO
Jim Smith, OECA
LUST PC-92-1992 File
FAC. I.D. No. 2-002745
Sanitarian Supervisor, Franklin County Health Department

Appendix IV: Historical Research Documentation



2785 Grassy Hill Road

2785 Grassy Hill Road

Rocky Mount, VA 24151

Inquiry Number: 5123000.9

November 30, 2017

The EDR Aerial Photo Decade Package



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Site Name:

2785 Grassy Hill Road
 2785 Grassy Hill Road
 Rocky Mount, VA 24151
 EDR Inquiry # 5123000.9

Client Name:

ECS Mid Atlantic, LLC
 7670 Enon Drive Suite 101
 Roanoke, VA 24019
 Contact: Alexandra Moon



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Search Results:

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2011	1"=500'	Flight Year: 2011	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2008	1"=500'	Flight Year: 2008	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
2005	1"=500'	Flight Year: 2005	USDA/NAIP
1995	1"=500'	Acquisition Date: March 24, 1995	USGS/DOQQ
1982	1"=500'	Flight Date: April 01, 1982	USDA
1977	1"=500'	Flight Date: March 15, 1977	USGS
1960	1"=500'	Flight Date: October 13, 1960	USGS
1956	1"=500'	Flight Date: October 08, 1956	USGS
1951	1"=500'	Flight Date: October 09, 1951	USGS
1947	1"=500'	Flight Date: March 11, 1947	USGS

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INQUIRY #: 5123000.9

YEAR: 2012

— = 500'





INQUIRY #: 5123000.9

YEAR: 2011

— = 500'





INQUIRY #: 5123000.9

YEAR: 2009

— = 500'





INQUIRY #: 5123000.9

YEAR: 2008

— = 500'





INQUIRY #: 5123000.9

YEAR: 2006

— = 500'





INQUIRY #: 5123000.9

YEAR: 2005

— = 500'





INQUIRY #: 5123000.9

YEAR: 1995

— = 500'





INQUIRY #: 5123000.9

YEAR: 1982

— = 500'





INQUIRY #: 5123000.9

YEAR: 1977

 = 500'





INQUIRY #: 5123000.9

YEAR: 1960

 = 500'





INQUIRY #: 5123000.9

YEAR: 1956

— = 500'





INQUIRY #: 5123000.9

YEAR: 1951

— = 500'





INQUIRY #: 5123000.9

YEAR: 1947

 = 500'



2785 Grassy Hill Road

2785 Grassy Hill Road

Rocky Mount, VA 24151

Inquiry Number: 5123000.3

November 30, 2017

Certified Sanborn® Map Report



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

11/30/17

Site Name:

2785 Grassy Hill Road
2785 Grassy Hill Road
Rocky Mount, VA 24151
EDR Inquiry # 5123000.3

Client Name:

ECS Mid Atlantic, LLC
7670 Enon Drive Suite 101
Roanoke, VA 24019
Contact: Alexandra Moon



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PO # NA

Project 47 5178

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Sanborn® Library search results

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- University Publications of America
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2785 Grassy Hill Road

2785 Grassy Hill Road

Rocky Mount, VA 24151

Inquiry Number: 5123000.4

November 30, 2017

EDR Historical Topo Map Report

with QuadMatch™



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

11/30/17

Site Name:

2785 Grassy Hill Road
2785 Grassy Hill Road
Rocky Mount, VA 24151
EDR Inquiry # 5123000.4

Client Name:

ECS Mid Atlantic, LLC
7670 Enon Drive Suite 101
Roanoke, VA 24019
Contact: Alexandra Moon



EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by ECS Mid Atlantic, LLC were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDR's Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:**Coordinates:**

P.O.#	NA	Latitude:	37.027003 37° 1' 37" North
Project:	47 5178	Longitude:	-79.92048 -79° 55' 14" West
		UTM Zone:	Zone 17 North
		UTM X Meters:	596019.04
		UTM Y Meters:	4098412.66
		Elevation:	1030.45' above sea level

Maps Provided:

2013
1978
1963
1951
1891
1890

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2013 Source Sheets



Boones Mill
2013
7.5-minute, 24000

1978 Source Sheets



Boones Mill
1978
7.5-minute, 24000
Aerial Photo Revised 1977

1963 Source Sheets



Boones Mill
1963
7.5-minute, 24000
Aerial Photo Revised 1962

1951 Source Sheets

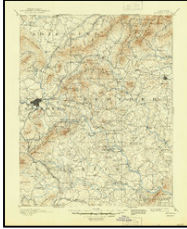


Boones Mill
1951
15-minute, 62500
Aerial Photo Revised 1949

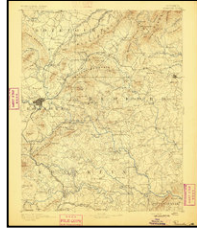
Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1891 Source Sheets



Bedford
1891
30-minute, 125000

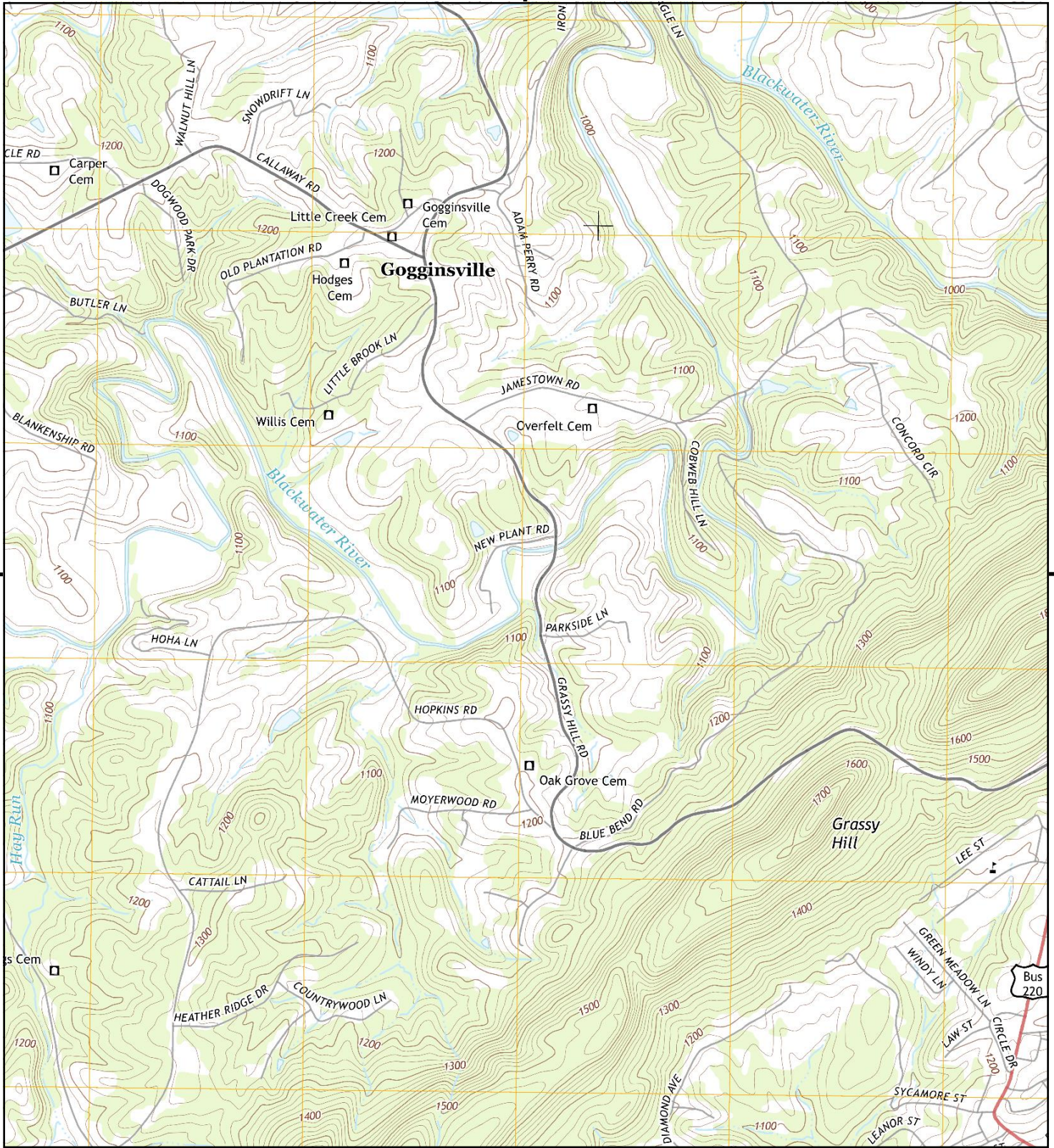


Roanoke
1891
30-minute, 125000

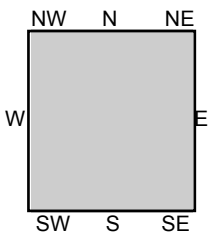
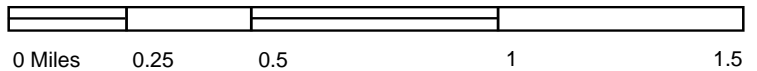
1890 Source Sheets



Roanoke
1890
30-minute, 125000



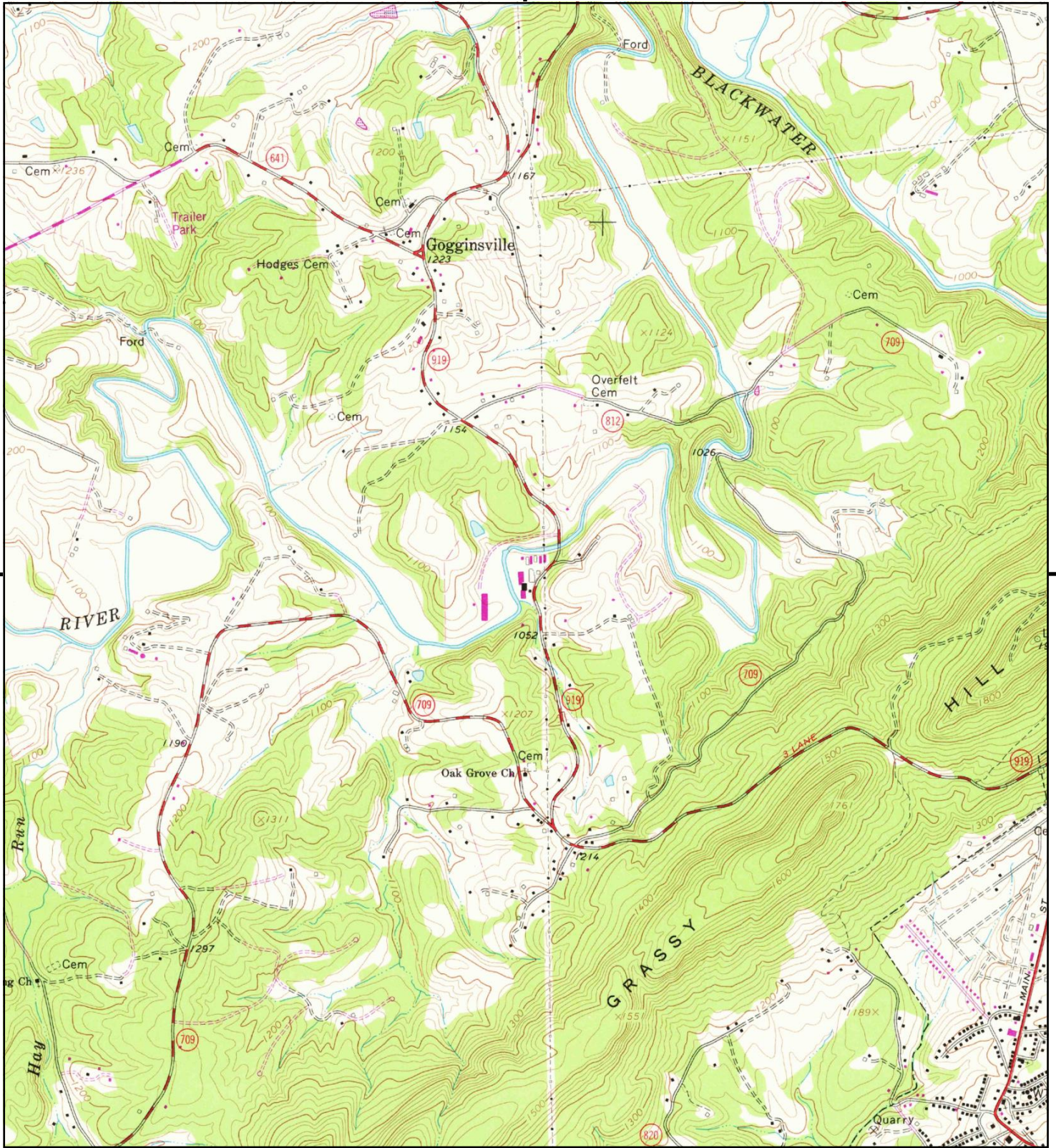
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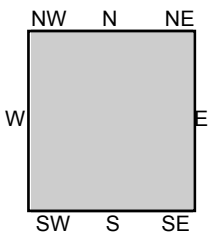
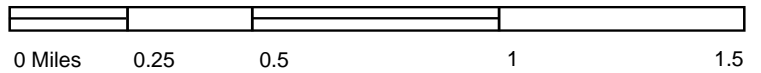
TP, Boones Mill, 2013, 7.5-minute

SITE NAME: 2785 Grassy Hill Road
ADDRESS: 2785 Grassy Hill Road
 Rocky Mount, VA 24151
CLIENT: ECS Mid Atlantic, LLC





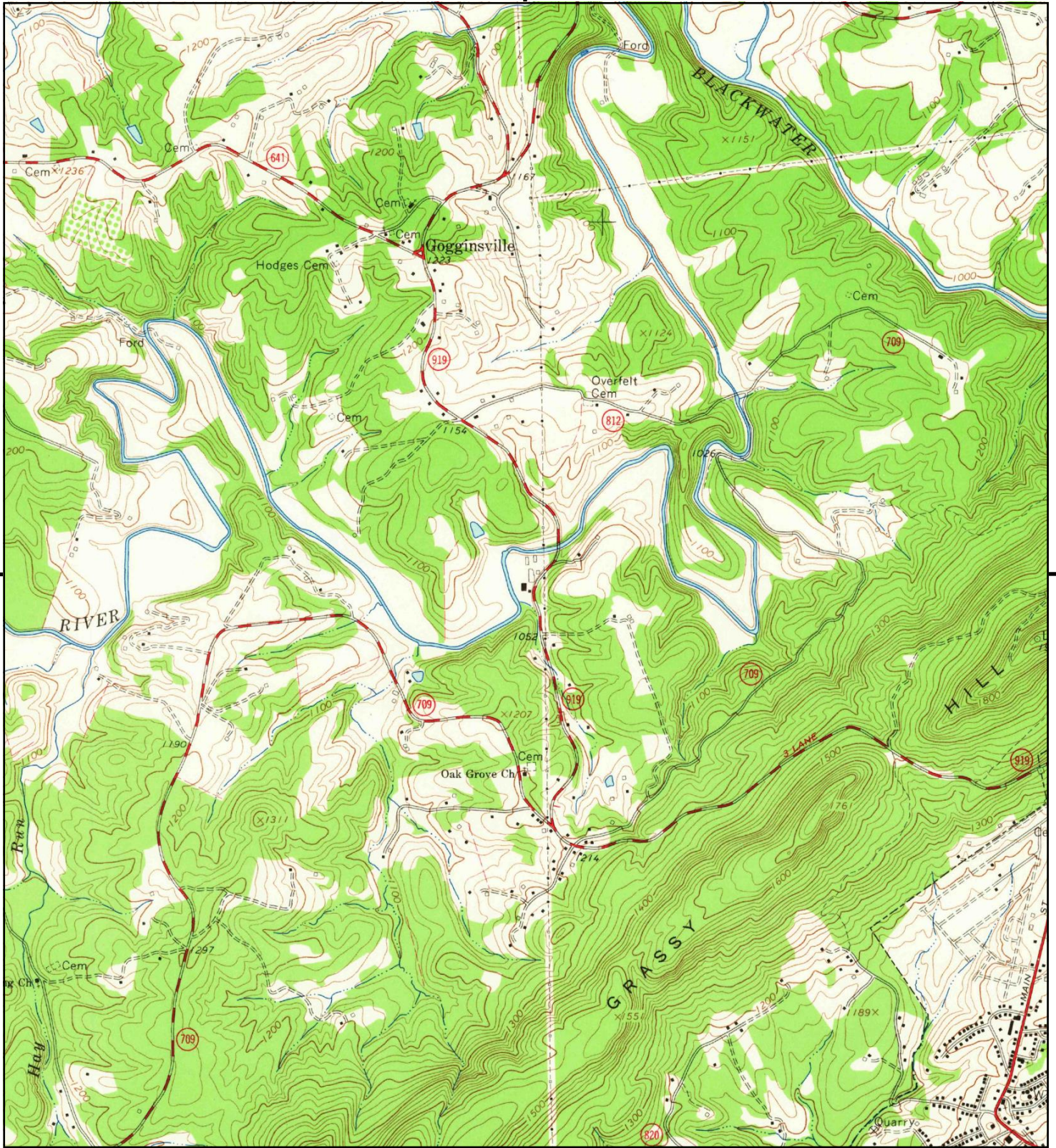
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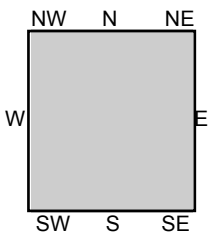
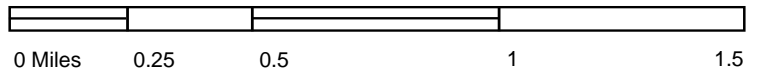
TP, Boones Mill, 1978, 7.5-minute

SITE NAME: 2785 Grassy Hill Road
ADDRESS: 2785 Grassy Hill Road
 Rocky Mount, VA 24151
CLIENT: ECS Mid Atlantic, LLC





This report includes information from the following map sheet(s).



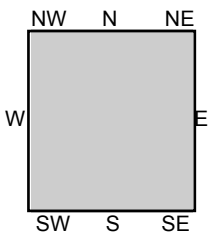
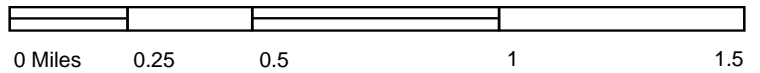
TP, Boones Mill, 1963, 7.5-minute

SITE NAME: 2785 Grassy Hill Road
ADDRESS: 2785 Grassy Hill Road
 Rocky Mount, VA 24151
CLIENT: ECS Mid Atlantic, LLC





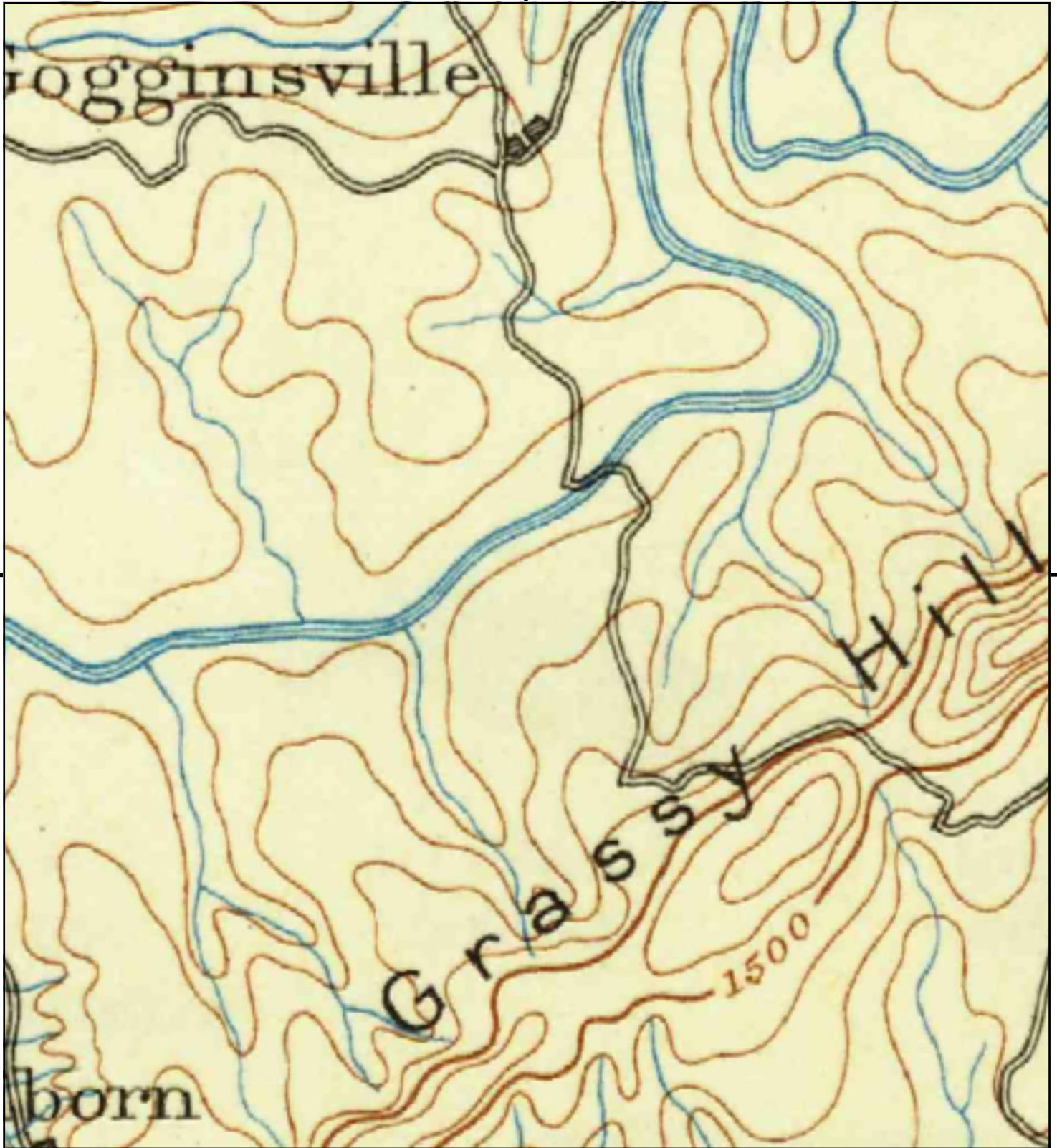
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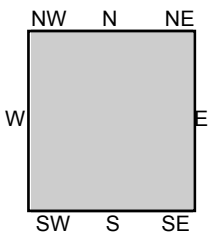
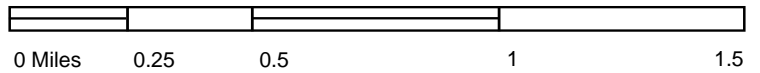
TP, Boones Mill, 1951, 15-minute

SITE NAME: 2785 Grassy Hill Road
 ADDRESS: 2785 Grassy Hill Road
 Rocky Mount, VA 24151
 CLIENT: ECS Mid Atlantic, LLC





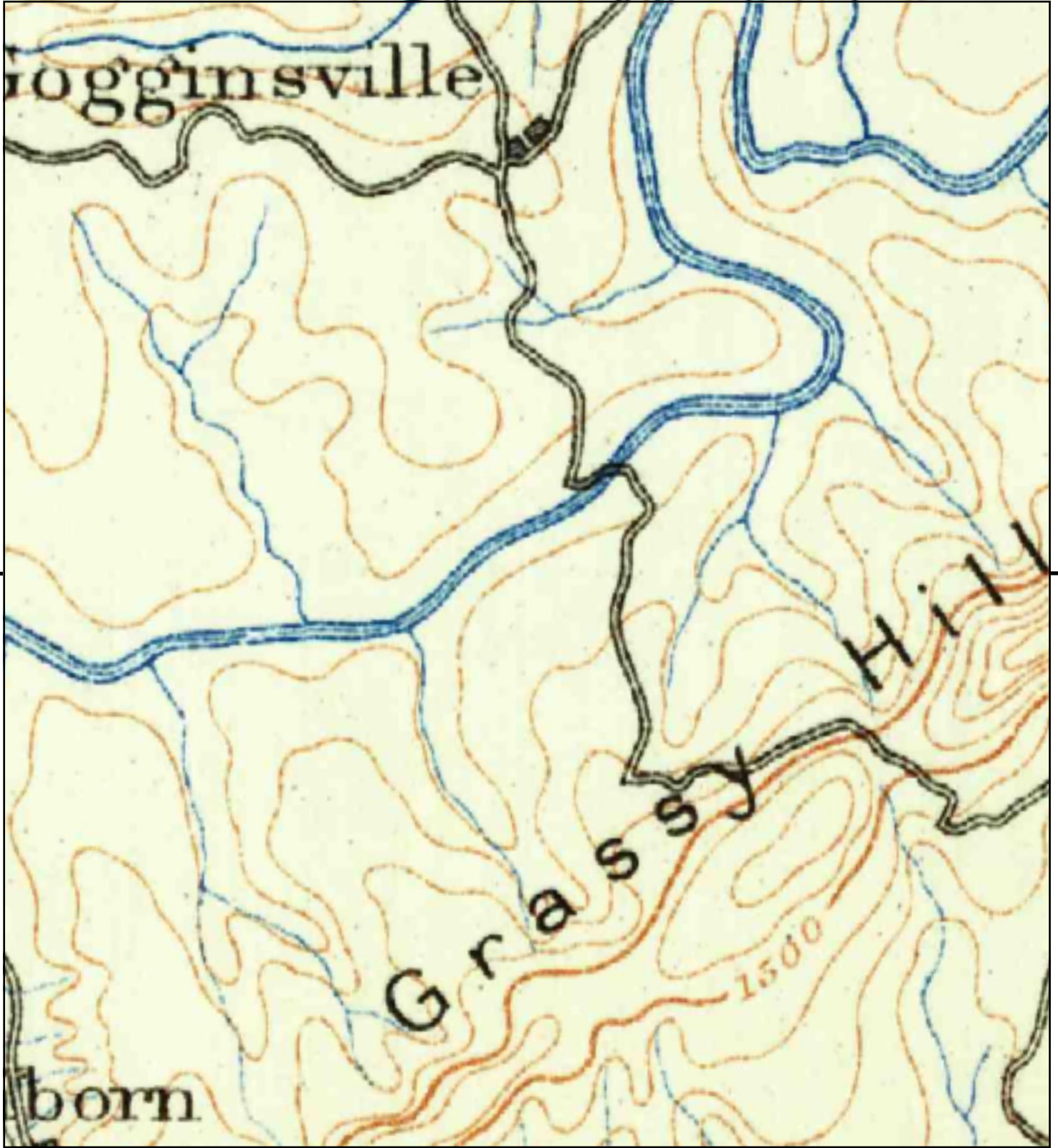
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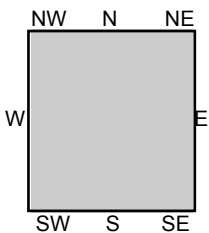
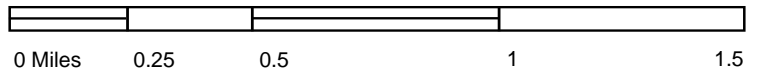
TP, Bedford, 1891, 30-minute
TP, Roanoke, 1891, 30-minute

SITE NAME: 2785 Grassy Hill Road
ADDRESS: 2785 Grassy Hill Road
Rocky Mount, VA 24151
CLIENT: ECS Mid Atlantic, LLC





This report includes information from the following map sheet(s).



TP, Roanoke, 1890, 30-minute

SITE NAME: 2785 Grassy Hill Road
ADDRESS: 2785 Grassy Hill Road
Rocky Mount, VA 24151
CLIENT: ECS Mid Atlantic, LLC



2785 Grassy Hill Road

2785 Grassy Hill Road
Rocky Mount, VA 24151

Inquiry Number: 5123000.31
December 06, 2017

The EDR-City Directory Image Report

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Please contact EDR at 1-800-352-0050
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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

<u>Year</u>	<u>Target Street</u>	<u>Cross Street</u>	<u>Source</u>
2014	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EDR Digital Archive
2010	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EDR Digital Archive
2005	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EDR Digital Archive
2000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EDR Digital Archive
1995	<input type="checkbox"/>	<input type="checkbox"/>	EDR Digital Archive
1992	<input type="checkbox"/>	<input type="checkbox"/>	EDR Digital Archive
1989	<input type="checkbox"/>	<input type="checkbox"/>	Polk's City Directory
1985	<input type="checkbox"/>	<input type="checkbox"/>	Polk's City Directory
1981	<input type="checkbox"/>	<input type="checkbox"/>	Hill's City Directory
1977	<input type="checkbox"/>	<input type="checkbox"/>	Hill's City Directory
1973	<input type="checkbox"/>	<input type="checkbox"/>	Hill's City Directory
1969	<input type="checkbox"/>	<input type="checkbox"/>	Hill's City Directory
1965	<input type="checkbox"/>	<input type="checkbox"/>	Hill's City Directory

FINDINGS

TARGET PROPERTY STREET

2785 Grassy Hill Road
Rocky Mount, VA 24151

Year

CD Image

Source

GRASSY HILL RD

2014	pg A2	EDR Digital Archive	
2010	pg A4	EDR Digital Archive	
2005	pg A6	EDR Digital Archive	
2000	pg A8	EDR Digital Archive	
1995	-	EDR Digital Archive	Street not listed in Source
1992	-	EDR Digital Archive	Street not listed in Source
1989	-	Polk's City Directory	Street not listed in Source
1985	-	Polk's City Directory	Street not listed in Source
1981	-	Hill's City Directory	Street not listed in Source
1977	-	Hill's City Directory	Street not listed in Source
1973	-	Hill's City Directory	Street not listed in Source
1969	-	Hill's City Directory	Street not listed in Source
1965	-	Hill's City Directory	Street not listed in Source

FINDINGS

CROSS STREETS

Year CD Image Source

NEW PLANT RD

2014	-	EDR Digital Archive	Street not listed in Source
2010	-	EDR Digital Archive	Street not listed in Source
2005	-	EDR Digital Archive	Street not listed in Source
2000	-	EDR Digital Archive	Street not listed in Source
1995	-	EDR Digital Archive	Street not listed in Source
1992	-	EDR Digital Archive	Street not listed in Source
1989	-	Polk's City Directory	Street not listed in Source
1985	-	Polk's City Directory	Street not listed in Source
1981	-	Hill's City Directory	Street not listed in Source
1977	-	Hill's City Directory	Street not listed in Source
1973	-	Hill's City Directory	Street not listed in Source
1969	-	Hill's City Directory	Street not listed in Source
1965	-	Hill's City Directory	Street not listed in Source

City Directory Images

GRASSY HILL RD 2014

1731 JACKSON, CAROLYN
 1758 POWELL, NANCY J
 1759 HAUPT, OPAL
 1769 BUNN, JIMMY A
 1808 MEADOR, WAYNE L
 1830 HODGES, GARY L
 1836 HODGES CAUDIS
 HODGES, CALVIN L
 2000 OCCUPANT UNKNOWN,
 2004 ALTICE, ANDREW A
 2011 BECKNER, ROGER N
 2031 OCCUPANT UNKNOWN,
 2211 OCCUPANT UNKNOWN,
 2220 RIGDON, WILLIAM A
 2319 COOPER, JOSHUA A
 2320 SPRUELL, DAVID G
 2328 SCOTT, REGENNA C
 2391 SMITH, ALLEN W
 2395 OCCUPANT UNKNOWN,
 2397 THOMASON, CAROLYN D
 2459 HALL, KATHY
 2532 OCCUPANT UNKNOWN,
 2540 THACKER, JOSEPH D
 2556 HARMAN, ALISYN
 2560 CUNDIFF, MYRTLE A
 2563 JAMES, JOYCE H
 2914 WHITAKER, SIDNEY L
 3004 SLEDD, KATHY J
 3080 ESCOBAR, STEVEN
 3325 GLOBAL DIRECT LLC
 UTTERMOST CO
 3345 OCCUPANT UNKNOWN,
 3351 BARRETT, MELISSA
 3375 COUNTRY CREOLE DELI & CATERING
 SMITH, KEVIN A
 3378 BOWLES, TERESA
 COLES, JOHN B
 RICOTTILLI, ERIC
 3529 BARBOUR, CLINTON C
 3530 OCCUPANT UNKNOWN,
 3541 COOPER, ELLA G
 3550 OCCUPANT UNKNOWN,
 3567 KELLAM, LOIS T
 3649 HALL, JOHN W
 3720 WRIGHT, JAMES D
 3726 BUSSEY, JEFFREY N
 3770 OCCUPANT UNKNOWN,
 3800 OCCUPANT UNKNOWN,
 3828 BOWSER, ALAN
 3834 HARRISON, JIMMY D

GRASSY HILL RD**2014****(Cont'd)**

3989 SIGMON, WAYNE
SOUTHERN LAMP & SHADE SHOWROOM

3990 WERTZ, BEBE T

4061 PENDLETON, MARQUE S

4080 RIVERA, ADAM L

4381 JONES, RODNEY L

4424 HODGES, CAROL

4444 FRANKLIN HEATING AND A/C
GRIGAS, ANDREW F

4449 HULTQUIST, KEITH D

4454 DUNCAN, DAVID G

4462 HULTQUIST, AARON M

4482 MITCHELL, THOMAS C
RANDS REAL ESTATE

4515 BROWN, DANNY B

4519 SINK, ROBERT L

4600 OCCUPANT UNKNOWN,

4625 TALBOTT, THOMAS A

4700 MICHIE AND MICHIE INC
MICHIE, MARK T

5531 WILCHER, MELISSA D

5535 FISHER, GALEN

5629 ROBERTS, WILLIAM C

5630 MCCLANAHAN, JAMES H

5660 MEYER, BUD

5714 JOHNSON, EARL V

5745 EDWARDS, KENNY L

5772 ANDERSON, SAMUEL J

5785 KINCER, TONY C

5799 HINER, BOYD C

5825 SINK, TOMMY R

5828 WILLIAMS, GEORGE W

5834 OCCUPANT UNKNOWN,

6720 MINNIX, BOB P

6726 MINNIX RONALD PAINTING
MINNIX, RONALD E

6884 FURROW, WANDA L

6914 GUIDO, JAMES S

6918 BEELS, MICHAEL J

6950 MOMMERENCY, ERICK J

6964 MILLIRONS, JUSTIN W

7036 CLINGENPEEL, MARY L

7156 OCCUPANT UNKNOWN,

GRASSY HILL RD 2010

1731	BYRD, LESLEY A
1758	POWELL, NANCY J
1769	BUNN, JIMMY
1808	MEADOR, WAYNE L
1836	HODGES CAUDIS HODGES, CALVIN D
2000	LANDES, DORIS J
2004	ALTICE, ALICE F
2011	BECKNER, ROGER N
2030	WILKERSON, REBECCA
2031	YOPP, JOYCE H
2211	HILL, GREGORY
2220	RIGDON, WILLIAM A
2319	REID, JOHN T
2320	BLYTHE, RICHARD
2325	CARTER, SHANNA
2328	SCOTT, REGENNA C
2391	SMITH, ALLEN W
2532	THACKER, JOHN D
2540	THACKER, JOSEPH D
2556	METZ, ANDREW D
2563	JAMES, JOYCE H
2785	CUSTOM TRIM & STAIRWAYS INC
2818	BLACKWATER EQUINE FARMS INC FLINT, DEE T
2914	SPRINGS, TEDDY
3004	SLEDD, MICHAEL L
3080	ESCOBAR, ANGEL
3325	GLOBAL DIRECT LLC NAHUM LLC UTTERMOST CO
3345	TROSTLE, THOMAS F
3375	COUNTRY CREOLE DELI & CATERING HOLLOWAY MADISON MASSEY INC
3378	NEWBILL, RODNEY E
3529	BARBOUR, CLINTON C
3530	DAVIS, BYRON J
3550	HOPPER, GERTIE P
3567	KELLAM, LOIS T
3720	WRIGHT, GRACIE M
3755	BURBRINK, MICHAEL E
3828	CHESTNUT, ANGELA
3989	SIGMON, WALLACE
3990	GUILLIAMS, PAUL F
4061	PENDLETON, MARQUE S
4080	SINK, ALAN L
4138	DOOLEY, BETTY L
4381	FEDERAL SIGNAL JONES, RODNEY L
4444	FRANKLIN HEATING AND A/C

GRASSY HILL RD**2010****(Cont'd)**

4444	GRIGAS, ANDREW F
4449	HULTQUIST, KEITH D
4454	DUNCAN, DAVID G
4462	EASTLAKE PROPERTY PRESERVATION HULTQUIST, AARON M
4482	MITCHELL, THOMAS C RANDS REAL ESTATE
4515	BROWN, DANNY B
4519	SINK, ROBERT L
4600	BROOKS, DONALD E
4625	TALBOTT, THOMAS A
4700	MICHIE AND MICHIE INC MICHIE, MARK T
5531	WILCHER, MELISSA D
5535	FISHER, CHARLES G
5629	ROBERTS, WILLIAM J
5630	MIZAK, RICKY L
5660	MEYERS, LESTER F
5714	JOHNSON, EARL V
5745	EDWARDS, KENNY L
5772	ANDERSON, SAMUEL J
5785	KINCER, TONY C
5825	SINK, TOMMY R
5828	WILLIAMS, GEORGE W
6720	MINNIX, BOB P
6726	MINNIX RONALD PAINTING MINNIX, RONALD E
6820	HUDSON, JANET M
6884	FURROW, CECIL E
6914	GUIDO, JAMES S
6918	BAKER, KRISTI
6950	MOMMERENCY, ERICK J
6964	MILLIRONS, JOHN E
7036	CLINGENPEEL, JOSEPH J
7156	HELMS, JOHN W

GRASSY HILL RD 2005

1731 ALTICE, SHARON L
 1758 POWELL, GOLDEN O
 1759 HARRISON, WILLIAM
 1769 OVERFELT, LEAVONA H
 1808 MEADOR, WAYNE L
 1830 HODGES, GARY L
 1836 HODGES CAUDIS
 HODGES, CAUDIS L
 2000 ALTICE, WOODROW W
 2004 LANDES, SAMUEL H
 2011 BECKNER, ROGER L
 2030 WILKERSON, REBECCA
 2031 MITCHELL, JOHN T
 2211 HODGES, DARREN J
 2319 TYREE, BROOKE
 2320 CRAIG, IRVIN
 2325 BOWLES, BRIAN K
 2328 SCOTT, CHRISTOPHER I
 2391 SMITH, ALLEN W
 2397 DAVIS, SHANA A
 2532 THACKER, DONALD H
 2540 THACKER, JORDAN D
 2563 JAMES, JOYCE H
 2785 CTS & MILLWORK INC
 2818 BLACKWATER EQUINE FARMS INC
 BOONE VALLEY REALTY LLC
 SCOTT, STEVE R
 2914 ALTICE, EVERLENE P
 3004 SLEDD, MICHAEL L
 3080 ESCOBAR, ANGEL
 3325 UTTERMOST CO
 3345 CALLAHAN BRIAN SOLE PROP
 CALLAHAN, BRIAN K
 3375 G N R TECHNOLOGIES
 HOLLOWAY MADISON MASSEY INC
 OLD KINGERY'S STORE
 3378 HOHL, MICHAEL B
 SINCLAIR, TIMOTHY D
 3529 BARBOUR, CLINTON C
 3530 DAVIS, BYRON J
 3541 COOPER, DONALD B
 3550 HOPPER, S L
 3567 KELLAM, WAYNE S
 3649 HALL, JOHN W
 3720 WRIGHT, GRACIE M
 3726 WRIGHT, MARY L
 3770 FERGUSON, JAMES C
 3828 AGEE, BILLY J
 3834 SINK, CURTIS E
 3989 HODGES, MITCHELL R

GRASSY HILL RD

2005

(Cont'd)

3990 GUILLIAMS, PAUL F
3996 BOWERSOX, TAMARA D
4061 PENDLETON, MARQUE S
4080 SINK, LEON
4138 DOOLEY, BETTY A
4424 WEBB, DOROTHY A
4444 FRANKLIN HEATING AND A/C
HODGES, MICHAEL R
4449 HULTQUIST, KEITH D
4454 DUNCAN, DAVID G
4462 BLANKENSHIP, SCOTT A
4482 HAMBRICK, RONALD D
RANDS REAL ESTATE
4519 SINK, ROBERT L
4600 BROOKS, DONALD E
4625 TALBOTT, THOMAS A
4700 MICHIE, MARK
5531 BARRETT, MELISSA
5535 FISHER, CHARLES G
LONGVIEW HOLSTEINS INC
5629 ROBERTS, WILLIAM C
5630 MIZAK, RICKIE L
5660 MEYER, LESTER F
5714 JOHNSON, EARL V
5772 ANDERSON, SAMUEL J
5785 KINCER, TONY C
5799 BOWER, DALE L
5825 SINK, TOMMY R
5828 WILLIAMS, GEORGE W
5834 MAXEY, BOBBIE C
6418 DAVIDS, LARRY
6720 MINNIX, BOB P
6726 MINNIX RONALD PAINTING
MINNIX, RONALD E
6820 HUDSON, JANET M
6950 MOMMERENCY, ERICK J
7036 CLINGENPEEL, JOSEPH J
7156 HELMS, JOHN W

GRASSY HILL RD 2000

1758 POWELL, GOLDEN O
 1769 OVERFELT, LEAVONA H
 1808 MEADOR, WAYNE L
 1829 CHURCH OF CHRIST
 1830 HODGES, GARY
 2000 ALTICE, WOODROW W
 2004 TURNER, V
 2030 WILKERSON, REBECCA
 2220 ALTICE, RAYMOND J
 2319 WOOD, ANNETTE
 2320 CRAIGHEAD, IRVIN
 2325 BOWLES, BRIAN
 2391 SMITH, ALLEN W
 2532 THACKER, DONALD
 2563 JAMES, TROY L
 2785 COOPER WOOD PDTS FOUNDATION
 COOPER WOOD PRODUCTS INC
 2818 HIGGINBOTHAM, JACK W
 2914 ALTICE, E
 3004 SLEDD, K
 3080 ESCOBAR, TERRI
 3155 WILLIAMS, H S
 3325 UTTERMOST CO THE
 3345 CALLAHAN, BRIAN
 3375 ACCURATE MACHINE/TOOL COMPANY
 3378 ADAIR, CARLA A
 BROWN, K A
 LAFY, KENDRIA L
 SINCLAIR, TIMOTHY
 3529 BARBOUR, CLINTON C
 3530 DAVIS, BYRON J
 3541 COOPER, DONALD B
 3550 HOPPER, S L
 3567 KELLAM, WAYNE
 3649 HALL, C K
 3720 WRIGHT, JAMES D
 3726 WRIGHT, MARY L
 3770 MILLER, EZRA
 3828 AGEE, DAVID
 3989 SIGMON, WAYNE
 3990 GUILLIAMS, PAUL F
 3996 THOMPSON, RICHARD L
 4061 PENDLETON, MARQUE
 4080 SINK, LEON
 4138 DOOLEY, BETTY
 4381 SMITH, LEWIS H
 4424 WEBB, DOROTHY A
 4444 FRANKLIN HEATING AND A/C
 HODGES, DEAN
 4454 DUNCAN, DAVID

GRASSY HILL RD**2000****(Cont'd)**

4462	BLANKENSHIP, SCOTT A
4482	RANDS REAL ESTATE
4515	BROWN, DANNY B
4519	SINK, R L
4600	BROOKS, DONALD
4625	TALBOTT, THOMAS A
5535	FISHER, C G
	LONGVIEW HOLSTEINS INC
5629	ROBERTS, WILLIAM C
5785	KINCER, TONY C
5828	WILLIAMS, GEORGE W
5834	MAXEY, BOBBIE C
6720	MINNIX, BOB P
6726	MINNIX RONALD PAINTING
	MINNIX, RONALD E
6820	HUDSON, JERRY F
6884	FURROW, CECIL E
6914	GUILLIAMS, JUDITH M
6918	DAVIDS, LARRY A
7156	HELMS, JOHN

Appendix V: Site Photographs



1 - Southern portion of the subject building ('drive-through loading area')



2 - Loading docks near the south-central portion of the subject property.



3 - Northeastern portion of the subject property.



4 - Loading docks near the northeastern portion of the subject building.



5 - Interior of the subject building.



6 - Chemical storage within the subject building.



7 - Chemical storage within the subject building.



8 - Large silo on the western portion of the subject property.



9 - Hydrant casings along the western portion of the property.



10 - Large hoppers on the western side of the subject building.



11 - Pole mounted transformers on the western portion of the subject building.



12 - Stained floor within the subject building.



13 - Apparent production/manufacturing area within the subject building.



14 - Apparent production/manufacturing area within the subject building.



15 - Paint booth.



16 - Pump house on the northwestern portion of the property.



17 - The back of the subject building.



18 - The Blackwater River, that borders the western portion of the subject building.



19 - Western portion of the subject property looking north.



20 - View of what appears to be a former AST tank cradle.



21 - Former inground equipment, likely a scale.



22 - Sprinkler pump house.

Appendix VI: Statement of Qualifications

Experience/Qualifications

FIRM OVERVIEW

Who We Are

Founded in 1988, Engineering Consulting Services (ECS) is a leader in **geotechnical, construction materials, environmental consulting, and facilities engineering**. More than 25 years ago, our goal was to raise the standards of professional consulting engineering by hiring industry professionals who understood the complexities of building and maintaining modern infrastructures. Our company's success spans multiple industry sectors. Our steady growth comes from a deep belief in developing the people, systems, and expertise required to focus on client's needs. With over 1,000 employees, ECS has grown to more than 45 offices and testing facilities spread across the Mid-Atlantic, Southern, and Midwestern states and is ranked the 98th largest engineering firm by *Engineering News-Record's* Top 500 Design Firms (ENR, April 2013).

Company Leadership

An employee-owned consulting engineering firm, our company's principals are respected, experienced professionals dedicated to providing a high level of service to each client and project.

Local and Regional Resources

ECS' Roanoke Branch office has provided engineering services in central and southwestern Virginia since 1993. Our Roanoke operations, led by Mr. Brian S. Wyatt, P.E., Vice President and Branch Manager, are overseen by licensed engineers, a Certified Industrial Hygienist, and a PhD. We have a staff of 38 local employees, including project-level engineers, geologists, environmental scientists, technicians and administrative personnel. This large staff allows us to service many project concurrently and still maintain schedules and budgets.

Environmental Consulting



The environmental services group performs several types of environmental studies and assessments. ECS's experience with due diligence requirements and knowledge of federal, state, and local regulations helps clients manage environmental conditions encountered on project sites.

- Phase I Environmental Site Assessments (ESA)
- Phase II, Soil and Groundwater Exploration and Sampling Study
- Feasibility Studies and Remedial Design
- Risk Assessments
- Remedial Action Plans
- Corrective Action Plans
- Remediation Implementation and Oversight
- Voluntary Remediation Program/Brownfields
- UST/AST Consultation and Closure
- Environmental Assessments/Environmental Impact Statements
- Environmental and Safety Training
- Wetland Delineation and Permitting:
 - Preliminary Identification
 - Jurisdictional Delineation
 - Federal/State Permitting
 - Stream Mitigation Monitoring and Design (on- and off-site)
 - Mitigation Banking
- Industrial Hygiene Services
 - Indoor Air Quality (IAQ)
 - Mold
 - Asbestos and Lead-Based Paint
 - Radon
 - Hazardous Materials Studies For Building Renovation/Demolition
- Nutrient Management
- Forest Stand Delineations
- Third-Party Review

GARNETT B. WILLIAMS, PG

ECS MID-ATLANTIC, LLC

EDUCATION

Bachelor of Science, 1983
Geology
James Madison University

REGISTRATIONS

- Professional Geologist: VA

CERTIFICATIONS

- National Certification Program for Construction Code Inspectors
- Asbestos Inspector: VA
- Professional Wetland Delineator: VA
- e-Railsafe

MEMBERSHIPS

- Association of Groundwater Scientists and Engineers
- Virginia Association of Wetland Professionals

EXPERIENCE

Mr. Williams serves as senior environmental project manager for the Mid-Atlantic region. Responsibilities include coordinating and preparing Phase I/Phase II Environmental Site Assessments, facility audits, environmental site characterization studies, remediation feasibility studies, coordinating and implementation of corrective action plans and contaminant remediation efforts, and wetlands delineation studies, and associated environmental permitting. Mr. Williams has worked on numerous VDEQ State Lead projects since 2004 involving both petroleum and hazardous substance/waste impacted properties.

PROJECT EXPERIENCE

Blue Ridge Community College, Weyers Cave, VA - This project consisted of an emergency response mold assessment and final clearance sampling and screening following a catastrophic release of water, when a thrust joint failed on a 10-inch diameter gravity water line inside the mechanical room. The amount of water released was unknown but a substantial area of the first floor was flooded by the incident. The bulk of the impact occurred to gypsum drywall and limited areas of the wood sub-floor in the theater. Dispatched a remediation subcontractor to the site to deploy drying fans and large commercial de-humidifiers, used a FLIR Systems ThermoCAM to perform nondestructive scanning, and obtained moisture readings using a Protimeter Moisture Measuring System.

Bohler-Uddeholm, New Boston, VA - This project consists of environmental services for a former hazardous waste management unit operating under a Resource Conservation and Recovery Act Post-Closure Care Permit, and a recently identified former hazardous waste management unit undergoing investigation for potential inclusion in the existing permit at the site. Conducting semi-annual and quarterly groundwater monitoring, providing statistical analysis and reporting, coordinating and submitting reports to the Virginia Department of Environmental Quality office, preparing a permit application for renewal of the existing 30-year Post-Closure Care Permit, conducting soil and groundwater sampling, installing groundwater monitoring wells, conducting an annual review, and preparing a Spill Prevention Control and Countermeasure Plan.

Former Star City Lumber, Roanoke, VA - This project consisted of environmental services for four buildings located in a commercial/industrial area identified as first being developed as part

of the Johnson Carpet Furniture Company in 1947 with buildings being added and subtracted from the property for many years. The site was also identified as part of the Singer Furniture facility from at least 1947 to at least 2000. The Singer facility is listed at a leaking underground storage tank, a registered storage tank, and Voluntary Remediation Program listed facility. Evaluated the probability of impact to the surface water, groundwater and/or soils within the property boundaries, evaluated historical land usage to identify previous conditions, evaluated the potential for on-site and off-site contamination, conducted a Phase I Environmental Site Assessment, and provided engineering controls or appropriate placement and treatment of soils during construction.

Fort Rucker, Small Arms Ranges, Washington, DC - This project consisted of environmental services to support the U.S. Army Environmental Center in a demonstration of small arms range berm improvement technologies, to eliminate or minimize metal contamination of soil and surface water, and enable recovery of lead from spent rounds. Developed a technical sampling plan, performed site characterization studies, collected data to evaluate berm stabilization and metal containment technologies, implemented and studied engineering and environmental design controls, designed and constructed a prototypical range and berm, and installed permanent Isco stormwater samplers in the re-constructed range floor and sedimentation basin outlets.

Handley High School Additions and Renovations, Winchester, VA - This project consisted of additions and renovations to the existing 80-year-old structure to update the existing facilities and to provide additional space for classrooms, offices and activities. Conducted inspections for the presence and abatement oversight of hazardous materials, provided construction material testing and inspection services, performed laboratory tests, analyzed the field and laboratory data to develop engineering recommendations, and provided testing and observation services during construction.

Korean Orthodox Presbyterian Church, Herndon, VA - This project consisted of environmental services for a building constructed in 1965, originally used as a two-story warehouse building designed for research. The Korean Orthodox Presbyterian Church purchased the property to provide church services to the Korean and English speaking community. Conducted an asbestos and lead-based paint survey of the building, and prepared an Operations and Maintenance Plan for the asbestos-containing materials identified at the site.

Oxhampton Estates, Lorton, VA - This project consisted of environmental services on a private shotgun and small arms range previously used for recreational shooting for over 30 years. A single station shotgun trap field and a two-lane rifle/pistol range with an earthen backstop were identified on the property. Collected soil and sediment samples using hand augers and analyzed for total and

leachable concentrations of metals, determined where concentrations of lead exceeding residential screening levels had accumulated based on the distribution of lead shot fall-out from the trap range, determined which areas of the site required mixing and burial or offsite disposal of lead-impacted soils.

Port Republic Road, Harrisonburg, VA - This project consisted of a road widening to four, 12-foot lanes with curbs and gutters, a 16-foot raised median, crossovers and turn lanes at all major intersections. Additional construction includes pedestrian and bicycle accommodations to include a multi-use path for bicycles and pedestrians on the east side of the road and a sidewalk on the west side of the road. Provided a subsurface investigation and conducted laboratory testing services to support engineering and design of pavements and structures.

Rockingham County Small Arms Range, Harrisonburg, VA - This project consisted of environmental services for a small arms municipal firing range adjacent to the Rockingham County Landfill to evaluate the concentration and distribution of lead in the backstop, range floor and runoff pathways. Prepared a site specific Health and Safety Plan, collected and analyzed soil, sediment, and groundwater samples for total and leachable concentrations of metals, estimated quantities of soil requiring excavation and treatment, completed an assessment of remedial technologies, performed oversight of the treatment process and final confirmation sampling, and transported treated soils to the adjacent municipal landfill and used as cap and cover materials.

Rockingham Memorial Hospital, Harrisonburg, VA - This project consisted of the construction of a proposed six-story, 575,000-square-foot hospital building. The new hospital will feature 238 beds, a rehabilitation/fitness center, a cancer center, a nature preserve, and state-of-the art medical technology. Currently, officials are working with a group from James Madison University to create a farm on the hospital's campus that would serve organic foods to the hospital and surrounding community. Performed a comprehensive geotechnical study, conducted a geophysical investigation for sinkhole assessment, conducted a Refraction Microtremor survey for seismic site classification, and performed construction testing and inspection for bulk earthwork operations, roads, utilities, and other infrastructure.

Root Property, Augusta County, VA - This project consisted of approximately 120 acres of undeveloped agricultural land for the construction of a large scale commercial development, associated parking lots, travel ways, emergency access, and utility corridors necessary for project completion. The project involved the disturbance of 0.23 acres of emergent wetlands and approximately 1,900-linear-feet of stream through grading, and building and road construction. Completed the wetland delineation, classification, and stream assessments of over one-mi of perennial and intermittent streams utilizing the Unified Stream Methodology, participated in the

design phase and project planning to minimize impacts to the maximum extent practicable, quantified the current functionality of the aquatic system, determine the impacts of the proposed project, and calculate the required compensatory mitigation requirements, and designed all aspects of stream restoration plan.

Russell Farm, Phase I Cultural Resources Survey, Loudoun County, VA - This project consisted of the development and implementation of a Phase I cultural resources survey of the 150-acre Russell Farm tract. The project involved historic architectural evaluation, the development of a field research model meeting the Virginia Department of Historical Resources guidelines, and completion of background and archival studies. Identified and recommended 11 previously unknown archaeological sites as ineligible for the NRHP, delineated the recorded archaeological sites, and evaluated and recommended the property as not eligible for the NRHP during Phase II.

Shenandoah Gas Line Extension, Middletown, VA - This project consisted of environmental services for an eight-inch, high-pressure, liquid, natural gas pipeline along the existing Washington Gas/Shenandoah Gas easement extending 4.5-miles from Middletown north to Stephens City, Virginia. The new installation impacted areas of federally regulated waters of the U.S. Army Corps of Engineers (USACE) at 17 locations identified as palustrine emergent (PEM) wetland areas, intermittent channels with fringe PEM wetlands, intermittent channels, and two perennial stream crossings. Performed wetland and stream bed delineation, historic and archeological surveys, and a threatened and endangered species assessment, and prepared the final permit application for submission to the U.S. Army Corps of Engineers and the Virginia Department of Environmental Quality.

Virginia School for the Deaf and Blind, Environmental, Staunton, VA - This project consisted of new construction and renovations to the Virginia School for the Deaf and Blind, a state agency owned by the Board of Education providing special education services. Performed a comprehensive Asbestos Hazard Emergency Response Act survey, conducted lead-based paint surveys following Housing and Urban Development guidelines, conducted a hazardous materials survey to include polychlorinated biphenyls and radon in light, electrical fixtures, and mercury switches, and prepared an Environmental Impact Report for the Department of General Services and Department of Energy review.

Virginia School for the Deaf and Blind, Environmental Impact Report, Staunton, VA - This project consisted of environmental services for 75 acres of land for the proposed construction and renovations for the Virginia School for the Deaf and Blind, a state agency owned by the Board of Education providing special education and related services to deaf and blind children. The consolidation of the two campuses will

consist of 21 buildings consisting of dorms, classrooms, maintenance and support facilities, and faculty/administrative offices. Completed an Environmental Impact Report following the "Procedures for Environmental Impact Review of Major State Facilities," and Section 708 of the "Construction and Professional Services Manual," and provided alternatives to the proposed construction, as the intended plan adversely affected the wildlife habitat and environment.

Virginia State Lead Program, Valley View Plaza, Penn Laird, VA - This project consisted of environmental services to evaluate alternate water supply scenarios to bring clean potable water to a former abandoned gasoline/service station now operating as an antique store called Valley View Plaza. Prepared an initial Corrective Action Plan, performed engineering studies to analyze a proposed waterline extension, provided recommendations to install a replacement well with sufficient distance from the plume, coordinated bid solicitation for drilling the well and final plumbing of the water line, and monitored installation of the replacement well.

Western State Hospital, Staunton, VA - This project consisted of a proposed 246-bed hospital with a gross floor area of approximately 330,000-square-feet to replace the existing hospital to the south. The building is a multi-story structure with slab-on-grade and includes a two-story central section with a large interior courtyard. Performed a wetland delineation, conducted a Phase IA archeological survey, review of threatened and endangered species, and a final habitat assessment, completed a geotechnical study, drilled and sampled soil test borings, performed rock coring, measured shallow water table elevations, and provided engineering recommendations pertaining to subsurface conditions, foundations, paved areas, construction of stormwater ponds, and general earthwork.

Winebrenner's Crossing Tract, Archaeological Survey, Martinsburg, WV - This project consisted of a Phase I Archaeological survey of 336 acres of land on the Winebrenner's Crossing tract located in the southern portion of Berkeley County. ECS conducted the survey on an expedited project schedule and concluded work within the prescribed budget. Performed shovel testing on land with medium to high probability of producing cultural resources, conducted archival research, which produced a number of maps with previously recorded archaeological sites and architectural resources near the project area, discovered six previously unrecorded archaeological sites and three previously unrecorded archaeological locations.

Steven Hay

Environmental Staff Project Manager

EDUCATION

Bachelor of Science, 2013
Environmental Resource Management
Pennsylvania State University
University Park, Pennsylvania

REGISTRATIONS & CERTIFICATIONS

- OSHA 40 Hour Hazardous Waste Operations Training Certification (HAZWOPER)
- E-Railsafe

PROFESSIONAL ACTIVITIES

- Phase I Environmental Site Assessments
- Phase II Environmental Site Assessments
- Soil & Groundwater Sample Collection
- Underground Storage Tank Investigation & Remediation
- Contaminated Soil Investigation & Remediation

EXPERIENCE

Mr. Hay serves as an Environmental Staff Project Manager in the Roanoke, Virginia office. Responsibilities include providing proposal and cost estimate preparation, performing field investigations, performing and submitting reports from field investigations, client interaction, project schedule and budgets.

SAMPLE PROJECT EXPERIENCE

- Lexington Underground Storage Tank Investigation, Lexington, Virginia
- Bonham Property Limited Phase II , Salem, Virginia
- Lane Furniture Site Investigation, Altavista, Virginia
- Water Works ACT II Site Remediation, Cogan Station, Pennsylvania
- RBM ACT II Site Remediation, Williamsport, Pennsylvania
- Sudano Phase I & Phase II Investigation, Lancaster, Pennsylvania
- Harvey Building Products ACT II Remediation, New Providence, Pennsylvania
- Suburban Fuel Remediation & Soil Gas Extraction, Elmira, New York



Appendix VII: Acronyms

List of Common Acronyms

AULs	Activity and Use Limitations
AST	Aboveground Storage Tank
ASTM	American Society for Testing and Materials
ACM	Asbestos Containing Materials
BER	Business Environmental Risk
CORRACTS	CERCLA Corrective Action List
NPL	CERCLA National Priorities List
NFRAP	CERCLA No Further Remedial Action Planned
CERCLA	Comprehensive Environmental Response Cleanup Liability Act
CESQG	Conditionally Exempt Small Quantity Generator
CREC	Controlled Recognized Environmental Condition
ERNS	Emergency Response Notification System
EC	Engineering Controls
HIST LF	Historical Landfill
HREC	Historical Recognized Environmental Condition
IC	Institutional Controls
LQG	Large Quantity Generator
LBP	Lead Based Paint
LTANKS	Leaking Tanks
LUST	Leaking Underground Storage Tank
REC	Recognized Environmental Condition
RCRA	Resource Conservation and Recovery Act
RCRIS	Resource Conservation and Recovery Information System
SQG	Small Quantity Generator
SWF/LF	Solid Waste Facility/Landfill
SHWS	State Hazardous Waste Sites
UST	Underground Storage Tank
USGS	United States Geological Survey

