

Draft Environmental Assessment

For
West Virginia State University Campus Development Plan
Institute, West Virginia

Prepared for:

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National Institute of Food and Agriculture

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1.0 Introduction

1.1 Background and Overview

West Virginia State University (WVSU) recently acquired land in 2013 that was associated with the West Virginia Division of Rehabilitation Services (WV DRS) as part of their campus expansion. Accordingly, the expansion area includes a number of existing buildings, parking areas, roads, recreation areas, and utilities, as part of their plan to accommodate academic growth. The property was formerly the site of the West Virginia Vocational Rehabilitation Center beginning in the late 1950s through 2011. WVSU plans to renovate the F. Ray Power Building, constructed in 1975, for academic use and to augment the site with new vehicular circulation patterns, parking areas, sidewalks, maintenance buildings, agricultural buildings, and storage areas.

WVSU is proposing to renovate the F. Ray Power Building to accommodate academic growth within the university. TERRADON Corporation (TERRADON) will prepare the National Environmental Policy Act of 1969 (NEPA), as amended, Environmental Assessment (EA), which is a comprehensive study that identifies environmental impacts of a land development action and analyzes a broad set of parameters including biodiversity, environmental justice, wetlands, air and water pollution, traffic, geotechnical risks, public safety issues, and hazardous substance issues. The purpose of the EA is to analyze the potential impacts of the proposed project to the environment and to determine whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).

The Subject Property is currently owned by West Virginia State University Board of Governors. The proposed project site activities consist of approximately 30 acres situated west of Barron Drive on the southwestern end of WVSU located at 5000 Fairlawn Avenue, Institute, West Virginia. The coordinates for the center of the subject property are 38° 22' 45.70" N latitude, 81° 46' 14.12" W longitude as noted in **Figure 1 (Site Location Map)** projected in NAD 27, which is provided in **Appendix A**. A street map depicting the subject property is represented by **Figure 2, Appendix A**. A property boundary map on a USGS topographic map is represented in **Figure 3, Appendix A**.

WVSU was awarded funding under the National Institute of Food and Agriculture (NIFA), of the U.S. Department of Agriculture (USDA), to carry out approved activities under the 1890 Facilities Program to renovate the F. Ray Power Building and other site activities upon approval. The F. Ray Power Building associated with the former Rehabilitation Center will be remodeled for academic purposes and consists of four floors at approximately 27,750 ft² as depicted in Building Plan in **Figure 4 of Appendix A**. The drawings and renovation plans attached are still in developmental phases. The proposed future development of structures on the subject property will be constructed with brick façade and metal roof structures. The total imprint of new

additional structures associated with the maintenance and agricultural use will be according to the University's Master Plan and subject to change upon regulatory review. However, the current Proposed Layout is indicated as **Figure 5** in **Appendix A**. The F. Ray Power Building is being renovated to include office space, class rooms, and laboratory areas for academic use. Adjacent property to the North includes Fairlawn Avenue and Go Mart Inc. while adjacent property to the south includes train rails for locomotive transportation. Adjacent property to the east includes WVSU campus and residential property while the eastern extent of the subject property is adjacent to an unnamed perennial tributary, across from which, is Bayer Crop Science Institute Industrial Park.

1.2 Purpose and Need

There is an immediate need to renovate the F. Ray Power Building and conduct the proposed site activities. The reason being is that student enrollment for WVSU is increasing each year at an equitable rate. WVSU is only one of three Higher Education schools in the state of West Virginia to see an increase in enrollment since 2010. According to WVSU, the projected enrollment is to nearly double by the year 2020. Therefore, the university needs to expand to house learning facilities, class rooms, offices, etc. The majority of WVSU students are commuter students; in 2014, 88% of students were commuters. One of the main focuses of the proposed project is to control vehicular circulation around the campus with safe, efficient, clear paths with convenient parking. The proposed site activities will enhance vehicular circulation and allow for a dramatic increase in parking for the campus. Accordingly, the agriculture department at WVSU is currently expanding their program. Therefore, the recently acquired land of the project site allows for ample room for the department to grow. The project site development will result in a more cohesive entrance to WVSU and a visitor will know that they have arrived on campus. The renovation and development of the subject property will greatly influence the surrounding areas, as it will enhance a vacant, dilapidated property increasing the aesthetics for both WVSU and the surrounding community.

2.0 Alternatives Considered

2.1 Alternatives Evaluated

Alternative 1: Renovation of F. Ray Power Building and Development of Surrounding Area

Relocation of the proposed renovation and site development was considered, but the cost of obtaining a new location was determined to be greater than renovating and developing on the parcel currently owned. It was also thought that the location of proposed project renovation and development would provide a greater benefit for the community and the needs of WVSU. The basis for the latter is that it will be located adjacent to current WVSU facilities and improve a vacant, decrepit property. Accordingly, the proposed project will directly benefit the agriculture department of WVSU and allows for ease of accessibility and parking for WVSU. The No Action Alternative was dismissed on the basis that WVSU needs more facilities to facilitate

the growing community of WVSU and that WVSU has already received funding for renovation and developmental projects under NIFA of the USDA to carry out approved activities. Accordingly, Alternative 1 is proposed to be the most reasonable, beneficial alternative to the community due to its location, space, academic development, and financial condition. Respectfully, Alternative 1 has the least environmental, sociological, and cultural impacts.

Alternative 2: No Action Alternative

Under the No Action Alternative, the renovation of the F. Ray Power Building and surrounding project development would not be conducted. The No Action Alternative would delay the development of accessible parking, ease of vehicular traffic, and delay/ directly impact the ability to facilitate the growth of the Agriculture Department of WVSU. The current site location would remain vacant, decrepit, and undeveloped acting as a negative aesthetic impact to the surrounding community. The No Action Alternative is not a viable alternative but will be carried through the evaluation for comparison purposes.

2.2 Alternatives Analyzed and Dismissed

Alternative 3: Relocation of WVSU Agricultural Facilities and Development

Relocation of the proposed renovation and site development was considered, but the cost of obtaining a new location was determined to be greater than building and renovating on the parcel currently owned and obtained in 2013. It was also thought that the location of the F. Ray Power Building and surrounding area would provide a greater benefit for WVSU and the community on the basis that it is adjacently located to WVSU current campus and will reestablish a currently decrepit, vacant site. Therefore, this alternative will not be carried through the evaluation and analysis processes in this report.

3.0 Affected Environments and Potential Impacts of the Alternatives Considered

3.1 Geology, Seismicity, and Soils

Soil and Geologic Conditions

The Natural Resources Conservation Service (NRCS) Web Soil Survey (**Appendix B**) of the subject property was consulted for soil information. The general soil association for the subject property is Udorthents Smoothed Urban Land Complex (UC), Urban Land (Ue), Urban Land Fluvaquents (Uf), Urban Land-Kanawha Complex (Uk), Urban Land- Tyler Complex (Ut), Vandalia Silt Loam 3 to 8 percent slopes (VaB), and Vandalia Silt Loam 8 to 15 percent slopes (Vac).

The subject property primarily consists of variations of Urban Land. Urban land is characterized as land that is mostly covered by streets, parking lots, buildings, and other structures associated with urban areas.

Urban Land Tyler Complex (Ut) is observed in the center and eastern portion of the property. Ut

is 65 percent Urban Land, 20 percent Tyler Complex, and 15 percent minor components. Tyler Complex soils are typically fine silty alluvium derived from sedimentary rocks deposited in linear trends along the toeslope of terraces. The Tyler Complex is somewhat poorly drained, occasionally ponded, minimally saturated soils primarily consisting of silt loam and clay loams. Permeability is moderately low to moderately high and the available water capacity is low.

Udorthent Smoothed Urban Land Complex (UC) is observed on the western portion of the property transecting to the east on the southern portion of the property. Udorthent soils are typically are deposits derived from sedimentary rocks located on flood plains, ridges, stream terraces, and hillslopes along a linear trend.

Urban Land Fluvaquents (Uf) is observed in the center of the subject property. Fluvaquent soils are typically fine-loamy alluvium derived from sedimentary rocks deposited in flood plains and stream terraces in a linear trend. Fluvaquents are poorly drained, occasionally flooded, highly saturated soils primarily consisting of silt loam and gravelly sand loams. Permeability is moderately low to high and available water capacity is high.

Urban Land-Kanawha Complex (Uk) is observed on the southwestern portion of the property. Kanawha Complex soils are classified as fine sandy loams associated with alluvial deposits derived from sedimentary rocks. Kanawha Complex soils are deposits on the toeslope of terraces in a linear trend. Uk soils typically are rarely flooded, highly saturated, well drained soils with a moderately high to high permeability.

Vandalia Silt Loam 3 to 8 percent slopes (VaB) is observed on the northwestern extent of the property. VaB soils are clayey colluvium derived from sandstone and shale deposited along the toeslope of hillsides and alluvial fans in a convex or linear trend. Vandalia Silt Loams are well drained, moderately low to high permeability soils with no flooding.

Vandalia Silt Loam 8 to 15 percent slopes (VaC) is observed on the northeastern extent of the property. VaC soils are clayey colluvium derived from sandstone and siltstone deposited along the toeslope of hillsides in a convex or linear trend. Vandalia Silt Loams are well drained, moderately low to high permeability soils with no flooding.

The site is located entirely within the Appalachian Plateau Province which includes the western 2/3 of West Virginia. Geologically, the site is regionally located in the Conemaugh group of the Pennsylvanian System. These rocks generally consist of cyclic sequences of red and gray shale, siltstone, sandstone, and with few thin limestones and coals. The geology at the immediate site is Quaternary Alluvial deposits within the local floodplain of the Kanawha River comprised of clay, silt, sand, and gravel (EDR Radius Report attached in **Appendix C**).

Based on topographic information, the elevation of the site is approximately 590 feet above mean sea level (m.s.l.). The coordinates for the center of the subject property are 38° 22' 43.69" N latitude, -81° 46' 03.82" W longitude. The base map for **Figure 2** in **Appendix A** is the U.S. Geological Survey (U.S.G.S.) WV, 7.5-minute topographic Alum Creek quadrangle. Local

topography indicates that drainage in this area is accomplished by infiltration and surface runoff to the Kanawha River located South of the subject property in the absence of manmade structures.

Seismic Conditions

Executive Order 12699 directs Federal agencies to incorporate cost-effective seismic safety measures in all new buildings that are constructed, leased, assisted, or regulated by Federal Government. Seismic activity in the Central Plateau region of West Virginia is negligible on the basis that the area is not located in a tectonically active region. Therefore, seismic concerns are relatively low for the proposed project.

Impacts to Soils

Alternative 1: Renovation of F. Ray Power Building and Development of Surrounding Area

Area soils would likely be disturbed during construction activities but will not be heavily affected during renovation of F. Ray Power. Soil loss would occur directly from disturbance or indirectly via wind or water. Implementation of appropriate Best Management Practices would be required at the construction location. Best Management Practices will be developed and implemented, such as erosion and sedimentation control plan utilizing silt fences, re-vegetation of disturbed soils, and maintaining site soil stockpiles during construction in order to prevent soils from eroding and dispersing off-site.

Alternative 2: No Action Alternative

Normal occurrences of soils erosion associated with natural weathering processes would be expected to occur if the site is not developed. The proposed site is not located within a 100 year floodplain; however, it is located with a 500 year (0.2 %) flood plain per FEMA DFIRM Flood data panel 54039C0220E Panel 220.

3.2 Land Use and Zoning

The proposed project location is listed within Institute, West Virginia. Institute is an unincorporated area and does not have any zoning ordinances. The subject property is currently vacant land with various structures and is proposed to be used for higher education.

Alternative 1: Renovation of F. Ray Power Building and Development of Surrounding Area

No impact anticipated.

Alternative 2: No Action Alternative

No impact anticipated.

3.3 Floodplain Encroachment

Executive Order 11988 Floodplain Management requires that a Federal agency avoid direct or indirect support of development within a 100 year floodplain whenever there is a feasible

alternative. The proposed site is not located within a 100 year floodplain; however, it is located within a 500 year (0.2 %) flood plain per FEMA DFIRM Flood data panel 54039C0220E Panel 220 of 780 dated February 6, 2008 (**Figure 5, Appendix A**).

Impacts to Floodplains

Alternative 1: Renovation of F. Ray Power Building and Development of Surrounding Area

No impact anticipated.

Alternative 2: No Action Alternative

No impact.

3.4 Traffic

The West Virginia Division of Highways (WVDOH) via West Virginia Department of Transportation (WVDOT) is responsible for planning, engineering, right of acquisition, construction, reconstruction, traffic regulation and maintenance of state roads, highways, and a portion of federal roads within West Virginia's boundaries. Arterials, connectors, rural roads, local roads, and county roads are constructed and maintained by county or city governments. The proposed project site is bounded to the east by Avenue A on the northeastern extent and Barron Drive to the southeastern extent. Fairlawn Avenue (County Route 25) bounds the subject property to the north. The proposed layout (**Figure 6, Appendix A**) illustrates no change from current entry to the subject property and presents vehicle access to the project site from Fairlawn Avenue and Barron Drive. Parking areas will have affected ingress and egress to accommodate traffic flow. According to WVSU President Anthony L. Jenkins, the total enrollment for the fall 2016 semester was at 3,514 students. Therefore, normal vehicular traffic at the proposed renovation and development should not be in a volume to cause traffic concerns.

Impacts to Traffic Patterns

Alternative 1: Renovation of F. Ray Power Building and Development of Surrounding Area

Positively impact the traffic patterns by allowing additional parking areas and additional egress and ingress of the WVSU campus.

Alternative 2: No Action Alternative

No impact.

3.5 Public Health and Safety (Hazardous Waste)

The purpose of a Public Health and Safety Environmental Site Assessment (ESA) is to assess the subject property located at 5000 Fairlawn Avenue, Institute, West Virginia (Coordinates: 38° 22' 43.69" N, -81° 46' 03.82" W), for evidence of recognized environmental conditions that may adversely affect the property. This assessment includes records review, review of previous

environmental assessment and reconnaissance to evaluate whether such conditions exist in connection with the subject property.

This portion of the ESA is designed as an approach to identify recognized environmental conditions. The term “recognized environmental conditions” means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release or a material threat of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property.

CERCLA

CERCLA is the Comprehensive Environmental Response, Compensation, and Liability Act commonly referred to as Superfund. It requires community relations components during the assessment of hazardous substances at inactive waste sites. Key communication pieces include a community relations plan, an information repository, public access to the complete administrative record, and advertisement of public involvement opportunities. Emergency removal actions may be required. Also, health and ecological impact may require worker and public notification amongst determination.

RCRA

The Resource Conservation and Recovery Act (RCRA) establishes regulatory standards for the transportation, generation, storage, treatment, and disposal of hazardous wastes. The regulatory definition of RCRA hazardous waste is a waste that appears on one of the four hazardous waste lists (F-list, K-list, P-list, or U-list) or exhibits one of the following characteristics: ignitability, corrosivity, reactivity, or toxicity. Hazardous material is defined as any material that, because of its concentration, quantity, or physical and chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment. Hazardous Wastes are regulated under Subtitle C of the Resource Conservation Recovery Act (RCRA)

An environmental database review, historic aerial photograph review, telephone interview with Municipal officials, and a site reconnaissance were conducted by TERRADON Corporation.

3.5.1 Environmental Record Sources

TERRADON utilized Environmental Data Resources (EDR) to research federal and state environmental records by radius maps at appropriate regulatory distances. EDR covered the following federal databases: NPL, Proposed NPL, NPL LIENS, Delisted NPL, CERCLIS, FEDERAL FACILITY, CERC-NFRAP, CORRACTS RCRA-TSDF, RCRA-LQG, RCRA-SQG, RCRA-CESQG, US ENG CONTROLS, US INST CONTROL, ERNS, SHWS, SWF/LF, LCP, LUST, INDIAN LUST, UST, INDIAN UST, FEMA UST, INST CONTROL, VCP, INDIAN VCP, BROWNFIELDS, US BROWNFIELDS, ODI, DEBRIS REGION 9, INDIAN ODI, US CDL, CDL, US HIST CDL TP, LIENS 2, LUCIS, HMIRS, SPILLS, RCRA-NonGen, DOT OPS, DOD, FUDS, CONSENT, ROD, UMTRA, MINES, TRIS, TSCA, FTTS, HIST

FTTS, SSTS, ICIS, PADS, MLTS, RADINFO, FINDS, RAATS, UIC, DRYCLEANERS, NPDES, AIRS, INDIAN RESERV, SCRDRYCLEANERS, COAL ASH DOE, COAL ASH EPA, PCB TRANSFORMER, and Manufactured Gas Plants. There were six sites identified within the applicable search radii for the databases searched. The EDR report can be found in **Appendix C**. The results of the sites identified are described in **Table 1** below.

Table 1: Radius Results

Name/Owner	Address	Database(s)	Conditions
West Virginia Vocational Rehab	Institute, WV 25112	UST	The site is 601' Above Sea Level and 0.205 miles from the subject property. It is up gradient of the subject property. The site formerly contained two 3,000 gallon gasoline tanks that are permanently out of service and were removed from the ground. The tanks were closed 10/09/1990.
All Crane & Equipment	6540 Maccorkle Ave	UST	The site is 604' Above Sea Level and 0.234 miles from the subject property. It is up gradient of the subject property. The site formerly contained two underground storage tanks containing 10,000 gallons of diesel and 4,000 of gasoline. The tanks were closed 02/17/1999, permanently out of service, and have been removed from the ground. The tanks did not have overfill or cathodic protection installed.
		LUST	The site had a confirmed Leaking Underground Storage tank on 02/17/1999 that contaminated soil only with a cleanup complete date of 09/26/2001.
		RCRA NonGen/ NLR, Finds, ECHO	The site is classified as a non-generator and is no longer remediated. The site had violations associated with used oil on 07/07/2003 and gained compliance on 07/31/2003.
Titan Rentals Inc.	6580 Maccorkle Ave	RCRA NonGen/NLR	The site is 612' Above sea level, 0.236 miles from the subject property, and is up gradient of the subject property. The site was listed as a non-generator and had minor violations associated with generators on 01/25/2008 and gained compliance the same day.
Environmental Service	6404 Maccorkle Ave	UST	The site is 597' Above sea level, 0.414 miles from the subject property, and is down gradient of the subject property. The site formerly contained a 8,000 gallon used oil tank that was closed 10/04/1995, is permanently out of service, and has been removed from the ground.
		LUST	The tank had a confirmed release of used oil on 09/22/1995 that contaminated soil only. The LUST had a cleanup complete date of 09/09/2004.
Oliver Distributing	6819 Maccorkle	UST	The site is 600' Above sea level, 0.474 miles from the subject property, and is up gradient of the subject

	Ave		<p>property. The site formerly contained thirty-one (31) USTs with various capacities and contained various hydro carbon (Diesel, Gasoline, Kerosene, and Used Oil) substances that are permanently out of service. Some USTs are listed as “empty. Eleven (11) tanks were removed from the ground in 1989, two (2) were closed in place, and eighteen (18) did not have a closure date reported. There are currently five USTs on site that are in use. The following describes the tank’s substance and capacity:</p> <ul style="list-style-type: none"> • 20,000 Gallon Diesel • 20,000 Gallon Gasoline • 10,000 Gallon Diesel • 10,000 Gallon Gasoline • 10,000 Gallon Kerosene
		LUST	The site had a confirmed LUST dated 02/16/1990 that was soil contamination only. The cleanup was completed 08/13/2010.
		Financial Assurance	Appropriate documentation is observed.
Rhone Poulenc (Dioxin Assessment) AKA Aventis Crop Science	Route 25 Institute, WV 25112	SEMS	The site is 620’ Above sea level, 0.484 miles from the subject property, and is up gradient of the subject property. The site is listed under the Superfund Enterprise Management System which tracts hazardous waste sites, potentially hazardous waste sites, and remedial activities performed by EPA’s Superfund Program. The site is not listed on the National Priority List; however, it is funded by the EPA. For more detailed information please see the EDR report found in Appendix C .

3.5.2 Topographic Map Review

United States Geological Survey (USGS) 7.5" Series maps of Pocatalico and Charleston WV were reviewed for evidence of past uses of the subject property. Historical maps (**Appendix C**) dated 1899, 1909, 1931, 1933, 1935, 1958, 1971, 1976, and 2014 were reviewed. The subject property has never contained any structures according to the Historical Topographic Maps.

- 1899- The subject property appears to be primarily undeveloped with one residential structure located on the northeastern extent of the property.
- 1909- The subject property is undeveloped.
- 1931- The subject property is developed with three structures and one road transecting

the center of the property in east to west trend.

- 1933, 1935 – No change from 1931 mapping.
- 1958- The subject property is developed in the same configuration as 1931 mapping with the addition of one structure. The western adjacent property appears to be developed as a chemical plant/facility.
- 1971- The subject property is further developed by adding additions to previous structures and two more new structures.

3.5.3 Sanborn Map Review

Sanborn Fire Insurance Maps, depicting the area of the subject property were identified by EDR for the subject property for the years 1933 and 1950. The Sanborn mapping is summarized below.

- 1933- The subject property appears to be developed with three structures north of Campus Drive. Two of the structures to the north were used for the Trade and School Buildings while the remaining structure to the south along campus drive was used for the West Virginia State Schools for Deaf & Blind.
- 1950- No changes from 1933 mapping.

3.5.4 Historical Aerial Photo Review

Historical aerial photographs covering the subject property from 1955 to 2011 were provided by EDR. Photographs were identified for the years 1955, 1957, 1971, 1976, 1984, 1986, 1990, 1996, 2007, 2009, and 2011. The scale and quality of the aerials precluded any fine detail evaluation of RECs. Based on the aerials; the subject property appears to be developed from 1955 to 2011. 1955 imagery illustrates the center of the subject property as potentially being a former fly ash storage area. However, the quality of the imagery precludes any fine evaluation. The latter can be seen in 1971 imagery but not in 1976 imagery as the property appears to be developed. The adjoining property to the western extent of the subject property appears to be developed for industrial use from 1955 to 2011.

3.5.5 City Directory

The city directory research from EDR did identify listings for the target property for the years 1967, 1972, 1977, 1982, 1987, 1992, 1995, 1999, 2003, 2008, and 2013.

Year	5000 Fairlawn Avenue	Year	5000 Fairlawn Avenue
2013	AVI FOODSYSTEM INC	1987	NO LISTING

2008	A ROTHWELL	1982	NO LISTING
2003	NO LISTING	1977	NO LISTING
1999	NO LISTING	1972	NO LISTING
1995	NO LISTING	1967	NO LISTING
1992	NO LISTING		

3.5.6 Environmental Liens

EDR was contracted to research the subject property for environmental liens. EDR did not identify any Environmental Liens or other Activity Use Limitations (AULs) on the subject property. The Environmental Lien Search Report and deed information for the subject property can be found in the EDR report included as **Appendix C**.

3.5.7 Owner/Operator Interview

TERRADON interviewed Mr. Marvin Smith, WVSU Director of Physical Facilities, concerning his knowledge of the site history and its environmental condition. Mr. Smith had knowledge of previous site history but knew of no environmental concerns at the property. He indicated that there are natural gas wells located on site.

TERRADON interviewed Dr. Jose Toledo on May 1, 2017, WVSU Vice President for Administration, concerning his knowledge of the site history and its environmental condition. Dr. Toledo informed TERRADON of previous investigations made public on April 27th, 2017. Please see **Section 3.5.8 Previous Studies** for further information regarding the previous investigations.

3.5.8 Previous Studies

It is important to realize that the purpose of a NEPA EA is to determine if a potential project will adversely impact the environment. This NEPA EA document shows that the renovations to the F. Ray Power Building and future campus expansion in accordance with the campus master plan will not adversely impact the environment.

WVSU released a public statement on April 27, 2017, and shared technical environmental documents that were made public regarding groundwater contamination by The Dow Chemical Company on WVSU property. Three chemicals have been identified as migrating off site in the groundwater from The Dow Chemical Company to the Rehabilitation Property owned by WVSU: 1-4 Dioxane, 1-1 Dichloroethane, and Chloroform. The site investigations were primarily conducted by CH2M from spring of 2013 to fall of 2016. However, EnviroProbe conducted sampling in September 2016 to confirm sampling results obtained by CH2M.

The initial investigation of the subject property began March 2013 and extended to January 2016. Laboratory analytical results from Phases I through V of the investigation identified groundwater contamination by one or more of the three Contaminants of Concern (COCs). According to West Virginia State University Summary of Testing Reports, the investigations were initially driven by the premise that the three COCs were migrating from the Dow property to the former West Virginia Rehabilitation Center Property and the University's campus. A total of 73 groundwater samples were collected and analyzed by Dow/CH2M and EnviroProbe collected an additional nine groundwater samples to confirm sampling results. All reporting indicated migration of the COCs off site onto WVSU's Rehabilitation Property. In August 2016, EnviroProbe collected seven soil samples on the subject property. Accordingly, detectable concentrations of the COCs were not identified in any of the soil samples.

Indoor Air Testing was conducted by CH2M during Phase IV and V of their investigation. 1,4 Dioxane and Chloroform were detected above Method Detection Limits in various samples in the athletic facility, convocation center, and vacant faculty residence. However, detections were generally below the commercial Vapor Intrusion Screening Levels (VISL). CH2M concluded that there was not a significant vapor intrusion source on the subject property related to COCs in groundwater, which originated from the Dow property. WV DEP and Mahfood Group reviewed the investigations by CH2M and agreed that the available evidence does not indicate a human health risk and that the COCs in groundwater did not correlate with concentrations found in soil gas and/or indoor air.

The Phase V ESA conducted by CH2M Hill investigated Soil Gas Vapor on the campus by installing temporary soil gas monitoring points at six locations with shallow and deep monitoring. Four locations were selected near the faculty residences and one location was selected near both the convocation center and the baseball/softball fields. August 2016, EnviroProbe installed thirteen additional soil gas monitoring points across the main area of the University Campus. CH2M Hill concluded that there was not a significant vapor intrusion source on the University property related to the COCs present in the groundwater. The WVDEP OER and the Mahfood Group reviewed the reports/data and confirmed the conclusion proposed by CH2M regarding soil vapor intrusion.

Based on the previous investigations, groundwater contamination of the COCs extends on to the subject property. According to the USEPA, WVDEP, and the Mahfood Group, the available data does not indicate risk to human to health at the site.

As a precaution, WVSU is directing its construction contractors at the F. Ray Powers Building to design a vapor barrier and/or an air circulation/ventilation system that would be integrated into the development of the building.

Environmental Documentation made public regarding WVSU data from The DOW Chemical Company can be reviewed in greater detail the URL below:

<http://www.baileyglasser.com/wvsu/>

3.5.9 Impacts from Hazardous Materials

Alternative 1: Renovation of F. Ray Power Building and Development of Surrounding Area

On April 27, 2017, WVSU made a public announcement and released information about groundwater contamination under the campus that has been caused by The DOW Chemical Company. Based on the previous investigations, groundwater contamination of the COCs extends on to the subject property. According to data reviewed by the USEPA, WVDEP, and the Mahfood Group, the available data does not indicate any risk to human health.

However, as a precautionary measure it is recommended that appropriate engineering controls, such as a vapor barrier and/or an air circulation/venting system be installed in renovated existing buildings or new construction within the groundwater contamination footprint. WVSU is coordinating with its contractors to include these engineering controls into the renovations at the F. Ray Power Building.

Environmental Documentation made public regarding WVSU data from The DOW Chemical Company can be reviewed in greater detail the URL below:

<http://www.baileyglasser.com/wvsu/>

Alternative 2: No Action Alternative

An environmental database review, historic aerial photograph review, telephone interview with Municipal officials, and a site reconnaissance were conducted by TERRADON Corporation. The site visit, records review, and interviews conducted revealed evidence of potential Recognized Environmental Conditions on the subject property. According to Historical Aerial Imagery, the subject property was possibly used for Fly Ash disposal. The EDR report is included as **Appendix C** of this report.

Previous investigations of the subject property indicated that the subject property has contaminated groundwater due to migration off site from The DOW Chemical Company located adjacent to the western extent of the subject property. Based on the previous investigations, groundwater contamination of the COCs extends on to the subject property. According to data reviewed by the USEPA, WVDEP, and the Mahfood Group, the available data does not indicate any risk to human health at the site. EnviroProbe collected seven soil samples on the subject property. Accordingly, detectable concentrations of the COCs were not identified in any of the soil samples. Soil Vapor Intrusion and Indoor studies were conducted by CH2M revealing that there was not a significant vapor intrusion source on the University property related to the COCs present in the groundwater and that current data does not indicate a threat to human health. The findings of the NEPA EA for the subject property renovations do not pose an adverse environmental impact. However, due to the recent publicly available information pertaining to the groundwater contamination from The DOW Chemical Company, it is recommended that appropriate engineering controls, such as a vapor barrier and/or an air

circulation/venting system be installed in renovated existing buildings or new construction within the groundwater contamination footprint.

Environmental Documentation made public regarding WVSU data from The DOW Chemical Company can be reviewed in greater detail the URL below:

<http://www.baileyglasser.com/wvsu/>

3.6 Socioeconomic Issues

Executive Order (EO) 12898: Environmental Justice in Minority Populations and Low Income Populations

Under EO 12898, Federal agencies, departments, and their contractors are required to consider any potentially disproportionate human health or environmental risks that their activities policies, or program(s) may pose to minority or low-income populations. The order is designed to promote nondiscrimination in federal programs substantially affecting human health and the environment, and to provide minority communities and low-income communities' access to public information on, and an opportunity for public participation in, matters relation to human health or the environment.

Executive Order (EO) 13045: Protection of Children from Environmental Health Risks and Safety Risks

Under EO 13045, federal agencies are required to identify and assess health risks and safety risks that may disproportionately affect children. Environmental health risks or safety risks refer to risks to health or to safety that are attributable to products or substances that the child is likely to come in contact with or ingest (such as the air we breathe, the food we eat, the water we drink or use for recreation, the soil we live on, and the products we use or are exposed to). Under this order, federal agencies determine impacts to children as part NEPA compliance process. Agencies must ensure that its policies, programs, standards, and activities address disproportionate risks to children that results from environmental health risks or safety risks.

Institute is categorized as an unincorporated community on the Kanawha River, in Kanawha County, West Virginia. Therefore, U.S Census Bureau information is not available for the community of Institute. However, Dunbar-West Virginia displays similar demographics and is adjacently located east of Institute. As a result, Dunbar Census Data was used as a representative City for delineating socio-economic issues of the surrounding area.

Based on American Community Survey 5-year estimates via United States Census Bureau, the median household income for the area is \$41,287 and 13.8 % of all families are below the Federal Poverty Level. The percent populations for Dunbar, WV are provided in **Table 2** below.

Table 2- Summary of Percent Populations for Dunbar, West Virginia

Race	% of Total Population
White Alone	88.2%

Hispanic	1.6%
Black Alone	7.7%
American Native	0.3%
Asian Alone	1.2%
Two or More Races	1.8%

Based on American Community Survey 5-year estimates, children under the age of 5 years old represent 4.3 percent of the population, ages 5 to 9 represent 4.8 percent, and ages 10 to 14 represent 4.5 percent.

3.6.1 Socio-Economic Impact

Alternative 1: Renovation of F. Ray Power Building and Development of Surrounding Area

WVSU is a pivotal representative within the community of Institute. Therefore, the proposed action will benefit the community by renovating and developing an area that is currently vacant and promote academic growth of WVSU, which will provide additional employment opportunities for members of the surrounding community.

Alternative 2: No Action Alternative

Although there is no requirement for compliance with Executive Orders 12898 and 1304 when there are no federal actions, low-income and minority families and children would be adversely affected minimally if the renovations and development are not conducted. WVSU is an essential gateway to education in the community promoting positive income opportunities. Therefore, the potential for academic growth and adequate facilities for the Agriculture Department of WVSU seen by proposed renovation and development activities would benefit the community in a positive manner.

3.7 Air Quality

Under the Clean Air Act, the United States Environmental Protection Agency (EPA) establishes primary and secondary air quality standards. Primary air quality standards protect the public health, including the health of sensitive populations. Sensitive Populations may include people with asthma, older adults, and children. Secondary air quality standards protect public welfare by implementing and promoting healthy ecosystems, preventing poor air visibility, and damage to crops and buildings. The EPA has set national ambient air quality standards (NAAQS) for six of the following criteria pollutants; Ozone (O3), Nitrogen Dioxide (NO2), Carbon Monoxide (CO), Sulfur Dioxide (SO2), Inhalable Particulate Matter (PM 2.5 and 10), and Lead (Pb). The West Virginia Department of Environmental Protection (WVDEP) Division of Air Quality enforces and monitors air quality standards in the state of West Virginia. The WVDEP monitors the pollutants mentioned above, meteorology, and Air Toxic Pollutants such as metals, carbonyls, and Volatile Organic Carbons (VOCs). According to USEPA and WVDEP, Kanawha County, West Virginia is

classified as an attainment area. Attainment areas are areas that meet and do not exceed the National Ambient Air Quality Standards.

3.7.1 Impacts to Air Quality

Alternative 1: Renovation of F. Ray Power Building and Development of Surrounding Area

Increase in vehicle emissions and dust is anticipated during renovation and developmental activities. However, Federal and state air attainment levels would not be exceeded by the construction process. Best management practices would be developed and implemented to minimize dust particles by covering and/or saturating soils during construction.

Alternative 2: No Action Alternative

No Impact.

3.8 Noise

Noise Current Conditions

Sound energy travels in waves and is measured in frequency and amplitude. Amplitude measures how forceful the wave is. Sound is most commonly measured in decibels or dBA of sound pressure. Sounds that are 85 dBA or above can permanently damage ears. The more sound pressure a sound has, the less time it takes to cause damage. The Day-Night Average Sound Level (DNL) is an average measure of sound. The DNL description is accepted by federal agencies as a standard for estimating sound impacts and establishing guidelines for land uses.

Noise is defined as a sound, especially one that is loud or unpleasant or that causes disturbance. Noise is federally regulated by the Noise Control Act of 1972 (NCA). The EPA retains authority to investigate and study noise and its effect, disseminate information to the public regarding noise pollution and its adverse health effects, respond to inquiries on matters related to noise, and evaluate the effectiveness of existing regulations for protecting the public health and welfare. Although the NCA gives the EPA authority to investigate and study noise and its effect, it only charges federal agencies that operate noise producing facilities or equipment standards to implement. EPA guidelines state that outdoor sound levels in excess of 55dBA DNL are “normally unacceptable” for noise sensitive land uses such as hospitals, schools, and residences.

The proposed project site is primarily located in an area of single family residences, higher education facilities with little surrounding commercial properties. A noise ordinance does not exist for the community of Institute, West Virginia.

3.8.1 Impacts to Noise Conditions

Alternative 1: Renovation of F. Ray Power Building and Development of Surrounding Area

Construction and renovation noise impacts would be short-term and limited to the duration of construction activities. The slight increase in vehicles at the project site may increase vehicular

noise during operating hours; however, the increase should be negligible to the surrounding community.

Alternative 2: No Action Alternative

No Impact.

3.9 Public Services and Utilities

The proposed project location and surrounding area is established with public services and utilities. Water supply services are provided by West Virginia American Water and West Virginia State University Water Services. Waste water and sewage services are provided by Kanawha County Public Service District. Heating is provided by natural gas on the subject property. WVSU has three Natural Gas wells on the property that supplies services to its facilities. However, some of the facilities use Mountaineer Gas Services. The electric power service is provided by American Electric Power. Emergency Fire Services are provided by Institute Volunteer Fire Department. Medical Services are provided by Kanawha County Emergency Ambulance Authority and/or Life Ambulance Services Incorporated. The nearest hospital is Thomas Memorial Hospital located approximately 3.6 miles away in South Charleston, West Virginia. Police Services are provided by Kanawha County, West Virginia State Police, and/or Dunbar Police.

3.9.1 Impact Public Services and Utilities

Alternative 1: Renovation of F. Ray Power Building and Development of Surrounding Area

Any impact would be short term during active site preparation and construction activities. Appropriate best management practices and construction permits will be commenced to minimize and/or eliminate any disruption to public utility services in the area.

Alternative 2: No Action Alternative

No Impact.

3.10 Water Resources/Water Quality

3.10.1 Groundwater Existing Conditions

The project site is located in a traditional hydrogeological system meaning that surface topography presumably is indicative of the direction of groundwater flow in the absence of manmade systems. Major Karst Systems, which would not confine hydrology to regional topographic parameters, are not located in this area of West Virginia.

Local topography indicates that drainage in this area is accomplished by infiltration and surface run-off to a drainage located adjacently west of the subject property migrating south to the Kanawha River. However, previous studies noted in **Section 3.5.8** indicate that groundwater flow on the subject property migrates in a southeast trend based on groundwater monitoring wells.

According to well data obtained from EDR and USGS West Virginia Water Science Center, groundwater of nearby wells to the subject property is approximately fifteen to thirty feet below the surface at 585-600 feet above sea level.

3.10.1.1 Impacts to Groundwater

Alternative 1: Renovation of F. Ray Power Building and Development of Surrounding Area

The water supply for the proposed renovated F. Ray Power Building and development will be from public utilities; therefore, it will not impact existing groundwater conditions.

Alternative 2: No Action Alternative

No Impact.

3.10.2 Surface Water Existing Conditions

The Clean Water Act, amended in 1977, established the basic framework for regulation discharge of pollutants into the water of the United States. Surface water for the project site currently is drained by infiltration and surface run-off to a drainage located west of the subject property migrating south to the Kanawha River. The proposed renovation plan does not have any alterations to drainage patterns currently located on the subject property. The drainage to the west does not have established WVDEP total maximum daily load (TMDL) to minimize pollutants into surface waters. Using best management practices during construction activities would be recommended.

3.10.2.1 Impacts to Surface Waters

Alternative 1: Renovation of F. Ray Power Building and Development of Surrounding Area

There are no anticipated impacts to nearby surface water. A storm water drainage system will consist of both sheet and sub-surface drainage components leaving the subject property to the southwest. Since the total site disturbance will be more than 2 acres during later Phases of the development, a Construction Storm water Permit would be required by WVDEP. Also, it is anticipated that a Notice of Intent would be filed with WVDEP prior to construction/developmental activities less than 2 acres of impact. Accordingly, appropriate county and state construction notifications should be conducted prior to site activities.

Alternative 2: No Action Alternative

No impact

3.11 Biological Resources

3.11.1 Wetlands

Wetlands Existing Conditions

According to United States Fish and Wildlife (USFW) National Wetland Inventory Information, there are no wetlands mapped within the project site area. However, one unconsolidated bottom, permanently flooded, perennial riverine (R5UBH) was listed adjacently west to subject

property. The Kanawha River is listed as a R5UBH Riverine located approximately 0.02 miles south of the subject property. Three freshwater ponds are located east of the subject property at Shawnee Regional Park at approximately 0.31 miles away. The absence of NWI-identified wetlands in the project area, however, does not preclude the possible existence of other wetlands in the area. NWI maps utilize high altitude, stereoscopic, aerial photography. Determination of the presence of wetlands is based on vegetation, hydrology, and topography and is partially dependent on the condition at the time of the photograph; in many cases, small wetlands may not be identified. A copy of the report generated by the NWI Wetland mapper is included in **Appendix A as Figure 7**.

TERRADON Corporation (TERRADON) was contracted to complete a jurisdictional delineation of water of the United State determination for the subject property located in Institute, Kanawha County, West Virginia. The wetland delineation was performed for the 30 acre project site on July 6, 2016. The wetland delineation was performed in accordance with appropriate US Army Corps of Engineers (COE) Section 404 wetland delineation procedures. TERRADON utilized the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region* (Corps, 2012) to perform the assessment for this project.

TERRADON's professional opinion and subject to regulatory review, the assessment identified one potential Jurisdictional Water of the US. Unnamed Tributary to the Kanawha River assumed to be a Perennial Water of the US. The stream generally flows north to south parallel with the western boundary of the property. No construction activities will take place within the ordinary high water mark of the stream and will not be affected. Therefore, no impacts will occur to Waters of the US.

3.11.2 Impacts to Wetlands or Waters of the US

Alternative 1: Renovation of F. Ray Power Building and Development of Surrounding Area

No wetlands were identified in the wetland delineation. No impacts will occur to Waters of the US.

Alternative 2: No Action Alternative

There were no wetlands identified in the wetland delineation. No Impact.

3.11.3 Threatened or Endangered Species

The U.S. Fish and Wildlife Service Official Species List provided by West Virginia Ecological Services Field Office indicates eight possible federally protected species for the project site

located in Kanawha County, West Virginia (U.S. Fish and Wildlife Service Official Species List attached in **Appendix D**). There are no critical habitats within the proposed project area. **Table 3** below summarizes the species recognized.

Table 3 - The U.S. Fish and Wildlife Service List Summation

Clams	
Fanshell <i>Cyprogenia stegaria</i>	Endangered
Pink Mucket <i>Lampsyllis abrupta</i>	Endangered
Sheepnose Mussel <i>plethobsus cyphus</i>	Endangered
Snuffbox Mussel <i>Epioblasma triquetra</i>	Endangered
Spectaclecase (mussel) <i>Cumberlandia monodonta</i>	Endangered
Mammals	
Indiana Bat <i>Myotis sodalis</i>	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i>	Threatened
Virginia Big-eared Bat <i>Corynorhinus (=Plecotus) townsendii virginianus</i>	Endangered

A Threatened and Endangered Species survey was conducted by TERRADON Corporation for the proposed project location on July 6, 2016. None of the listed species for this area were recorded during the survey. The United States Department of the Interior Fish and Wildlife Service West Virginia Field office made a determination that the WVSU Project will have no effect and is not likely to adversely affect federally listed endangered or threatened species. The Fish and Wildlife Service Determination Letter is provided in **Appendix D** of this report.

Impacts to Threatened or Endangered Species

Alternative 1: Renovation of F. Ray Power Building and Development of Surrounding Area

No threatened and endangered species were observed during the survey conducted by TERRADON Corporation for WVSU on the proposed project site. The Fish and Wildlife service concurred that there were no threatened and endangered species present on the proposed project site. No impacts are anticipated.

Alternative 2: No Action Alternative

No impact

3.12 Cultural Resources, Historical Properties, and Archaeological resources ***Cultural Resources, Historic Properties, and Archaeological Resources Current Conditions***

TERRADON Corporation, on behalf of WVSU, submitted a cultural resource project review for the renovation of the F. Ray Power Building and site activities to West Virginia Division of Culture and History (WVDCH) on August 24, 2016 under Section 106 of the National Historic Preservation Act of 1996 required by the requirements of the National Environmental Policy Act for federally funded projects. TERRADON received an official response from WVDCH State Historic Preservation Office (SHPO) on September 20, 2016. The project review requested that a Phase I Archaeological Survey be completed prior to the development of the proposed project area on the basis that records indicated that there are several sites within the general vicinity of the proposed project site. Accordingly, the review requested that Historic Property Inventory (HPI) forms be completed for two resources older than 50 years of age located within the proposed project area, the building formerly associated with the West Virginia State School for the Deaf & Blind and the watch tower formerly associated with the West Virginia Airways Incorporated Airport.

TERRADON Conducted the recommendations given by WVDCH-SHPO and submitted requested documentation on April 5th, 2017. TERRADON Conducted a Phase I Archeological Survey and Architectural Determine of Effect Report. A copy of TERRADON's Architectural Determination of Effect Report and Phase I Cultural Resource Assessment Survey for the project area can be found in **Appendix E**. The associated reports are summarized below:

F. Ray Power Building Determination Effects Report (February 27, 2017) by Aurora Research Associates LLC (ARA)

"Aurora Research Associates LLC (ARA) visited the site on February 21, 2017. ARA documented the site using photography and performed an historic survey of the structures within the vicinity of the F. Ray Power Building. The Area of Potential Effect (APE) included standing structures within the immediate vicinity of the F. Ray Power Building. Three structures 50 years of age or older were documented within the APE, as follows:

- KA-7356: West Virginia School for the Colored Deaf and Blind/West Virginia Rehabilitation Center Building C
- KA-7357: West Virginia School for the Colored Deaf and Blind Gymnasium/West Virginia Rehabilitation Center Building A
- KA-7358: West Virginia School for the Colored Deaf and Blind Auto Garage/West Virginia Rehabilitation Center Building E

The project area has gone through significant alterations including multiple additions, constructions and demolitions. However, the original West Virginia School for the Colored Deaf and Blind is still extant and readily recognizable. The building is significant under Criterion A on a state level for its role in education of black and disabled children, and as a representation of the history of segregation in the state. It retains sufficient integrity of design, location, setting, feeling and association to convey its significance. Although it does possess significance under Criterion C as an example of institutional Neoclassical design, alterations including window replacements and infill additions have compromised its integrity of materials and workmanship, and thus is it not eligible under Criterion C.

The gymnasium building/Rehab Center Building A and the auto garage/Rehab Center Building E have both undergone multiple large scale additions that obscure the buildings' original purpose, design and role in the history of the school. Neither are buildings of significant in their later roles as part of the West Virginia Vocational Rehabilitation Center. Although the center helped many disabled people with rehabilitation and vocational training, it is not historically significant in the context of education and social services in the state. Furthermore, most of the buildings associated with the Rehab Center have been demolished and/or did not meet the age requirement for the National Register. The F. Ray Power Building was constructed in 1975 and does not meet the age requirement for the National Register of Historic Places.

The proposed project is confined to the footprint and immediate surrounding area of the F. Ray Power Building, which is not listed in or eligible for the National Register of Historic Places. The proposed activities will not affect the physical fabric of West Virginia School for the Colored Deaf and Blind, nor will they adversely affect the setting. Therefore, it is concluded that the project will have no adverse effect to any properties listed in or eligible for the National Register of Historic Places. ”

Phase I Cultural Resource Assessment Survey of the Campus Expansion Area, West Virginia State University, Institute, Kanawha County West Virginia, FR#16-967-KA (March 2017) by TERRADON (Andrew Weidman, MA, RPA)

The following is TERRADON's Summary and Recommendations of the Phase I Cultural Resource Assessment:

“TERRADON Corporation (TERRADON), on behalf of West Virginia State University (WVSU), has completed a Phase I Cultural Resource Assessment of the newly acquired campus expansion area in Institute, Kanawha County, West Virginia. WVSU is proposing addition of new vehicular circulation patterns, parking areas, pedestrian

circulation sidewalks, maintenance buildings, agricultural buildings, and storage areas. The Area of Potential Effect (APE) investigated as part of this project includes four parcels (A, B, C, and D) where new construction will involve ground-disturbing activities. These parcels combined encompass an approximately 8.95 acre (3.62 hectares) area.

The purpose of this Phase I cultural resource assessment was to identify and document any cultural resources within the Area of Potential Effect that may be eligible for inclusion in the National Register of Historic Places (NRHP) and to assess whether these resources will be adversely impacted by the proposed project. Fieldwork for the project was conducted from Jan. 31 to Feb. 2, 2017.

The Phase I archaeological survey consisted of systematic shovel testing, pedestrian survey, and deep auger testing of all areas where ground disturbance is planned and the evaluation of the Cabell Cemetery (46KA691) located immediately east of the APE. The Phase I archaeological investigations identified one previously unrecorded archaeological site, 46KA692, a small prehistoric lithic scatter consisting of five pieces of lithic manufacturing debris. All prehistoric artifacts were recovered from a heavily disturbed context that contained modern materials from the construction and demolition of the modern structures formerly associated with the West Virginia Division of Rehabilitation Services. Due to the limited spatial extent, limited artifact assemblage, and heavy disturbance at the site, TERRADON recommends that 46KA692 is not eligible for inclusion in the NRHP.

The Cabell Cemetery (46KA691) on the eastern boundary of the APE evaluated as part of this assessment contains 27 interments dating from the late 19th century through the early 21st century. This cemetery contains the graves of several individuals significant to the town of Institute, West Virginia and satisfies NRHP eligibility Criterion B. However, the cemetery has not retained the degree of integrity necessary to be recommended as eligible for the NRHP. Furthermore, the individual graves of the significant persons are not eligible for the NRHP due to the same reasons of diminished integrity. Although the Cabell Cemetery lacks the integrity required to merit individual distinction in the NRHP, it has characteristics that may contribute to the historic recognition of the larger Institute / WVSU area as an historic district. The cemetery will be avoided in its entirety by the proposed project.

Based on the results of these investigations, no prehistoric or historic resources eligible for listing in the NRHP will be affected by the proposed undertaking. It is recommended that no additional archaeological investigations are necessary within the APE. However, should intact archaeological deposits or human remains be identified during construction, all work in the area of discovery should cease and the West Virginia Division of Culture and History and the lead federal agency representative be immediately notified.”

TERRADON received a final official response from WVDCH regarding the subject property dated May 2, 2017. WVDCH responses are summarized below:

- The WVDCH agreed with TERRADON's **Archaeological Phase I** and stated that no historic properties are present and that **no further consultation** is necessary regarding archaeological resources.
- WVDCH agreed with TERRADON's Architectural resource assessment that the West Virginia Colored School for the Deaf and Blind **Building C** (KA-7356) **is eligible** for the National Register of Historic Places under Criterion A for its association with education and black history in West Virginia. WVDCH also agrees that the proposed project will have no adverse effect on the resource because the proposed project will have no direct effect and only minor indirect effects from the renovations to the F. Ray Powers Building.
- WVDCH indicated that the West Virginia Colored School for Deaf and Blind **Building A** and **E** are **not eligible** for the National Register and indicated that no further consultation is necessary regarding architectural resources; however, they did indicate that they should be notified if the project scope were to change.
- WVDCH agreed with TERRADON regarding the **Cabell Cemetery** (46KA691) that it meets Criterion B to be eligible for the National register of Historic Places because the individuals buried with the cemetery are significant to the community of Institute. However, WVDCH stated that the cemetery meets Criterion Consideration C because the cemetery, particularly the grave of Samuel I. Cabell, entombs "a historical figure of outstanding importance" and "there is no appropriate site or building associated with his productive life." Therefore, the **Cabell Cemetery is eligible** for the National Register of Historic Places, but because the setting surrounding the cemetery has already been substantially altered, the proposed renovation for the F. Ray Power Building will neither directly nor indirectly impact the cemetery. WVDCH agreed that the proposed project will have **no adverse effect** to the **Cabell Cemetery**; however, they requested to be informed if any changes to the project are made.

WVDCH official responses may be found in **Appendix E**. Photographs of the site are attached as **Appendix F** of this report.

Impacts to Cultural Resources, Historic Properties, and Archaeologic Resources

Alternative 1: Renovation of F. Ray Power Building and Development of Surrounding Area

No adverse impacts.

Alternative 2: No Action Alternative

No impact.

3.13 Coordination and Permits

All necessary permits and coordination with governing agencies will be the responsibility of the architect and/or the contractor selected for site construction. All construction and required regulatory permits will be maintained and posted at the construction site.

WV State

- The WV Department of Environmental Protection now requires all NPDES permits and Notices of Intent to be filed digitally. In order to digitally file the updated drawings for the NPDES Permit, you will first need an account set up for WVDEP's online submission system.

Electronic Submission System page:

<https://apps.dep.wv.gov/eplogin.cfm>

- Additionally, there is a fee of \$300 for a Notice of Intent with WVDEP' NPDES permit department.

In accordance with applicable local, state, and federal regulations, the applicant will be responsible for acquiring any necessary permits prior to commencing construction at the proposed project site.

4.0 Public Involvement

West Virginia State University is advertising the Draft Environmental Assessment for renovating the former F. Ray Power Building and surrounding development as per National Environmental Policy Act (NEPA) requirements. The proposed project site activities consist of approximately 30 acres situated west of Barron Drive on the southwestern end of WVSU's campus located at 5000 Fairlawn Avenue, Institute, West Virginia. The coordinates for the center of the subject property are 38° 22' 45.70" N latitude, 81° 46' 14.12" W longitude. The 15 day comment period will begin from the date of the advertisement in the Charleston Gazette newspaper and the WV Secretary of State web site. The Draft Environmental Assessment Document is available for public review at the WVSU Drain-Jordan Library located at 304 Dubois Street, Dunbar, WV 25064 during normal business hours. Written comments may be submitted to TERRADON Corporation, ATTENTION: WVSU Comments; 409 Jacobson Drive Poca, WV 25159 or by email at WVSUcomment@terraddon.com. A public meeting will be held on Monday, May 8, 2017 on the WVSU Campus from 6:00 - 7:30 PM in the Erickson Alumni Center located at 200 Erickson Alumni Center, Institute, WV 25112. If no substantive comments are received, the Draft EA will become final and this initial Public Notice will also serve as the final Public Notice. Substantive comments will be addressed as appropriate in the final document.

A Response to Comments Document will be generated and included into the updated report as necessary. The Response to Comments Document will be incorporated as Appendix H, if necessary. The public meeting sign in sheet and validation of public advertisement is attached in **Appendix G**.

5.0 References

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U.S. Department of Agriculture, Web Soil Survey. 1996. Soil Survey of Kanawha County, West Virginia. <http://websoilsurvey.nrcs.usda.gov/app/>.

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U.S. EPA, April 10, 2008. Federal Register, Volume 73, Number 70, Rules and Regulations, Washington, D.C.

U.S. Fish and Wildlife Service (USFWS). 2015.

U.S. Fish & Wildlife Service, Wetlands Mapper. National Wetlands Inventory. <http://www.fws.gov/wetlands/Data/Mapper.html>.

U.S. Geological Survey (USGS). 2006. Ground Water Atlas of the United States, Delaware, Maryland, New Jersey, North Carolina, Pennsylvania, Virginia, West Virginia HA 730-L. http://pubs.usgs.gov/ha/ha730/ch_1/index.html

USGS 7.5-Minute Topographic Quadrangle Map for "Institute, WV"

West Virginia Department of Environmental Protection-Division of air Quality

West Virginia Department of Natural Resources

West Virginia Wildlife Diversity Program

West Virginia National Heritage Program

West Virginia Department of Wildlife

West Virginia Division of Highways

West Virginia Division of Transportation

Pertinent and available local, state, and federal government listing of recognized environmental conditions were reviewed for evidence of activities, which may have an adverse impact on the subject property. Some of those agencies/listings and the databases searched by Environmental Data Resources, Incorporated (EDR) include the following:

- US Environmental Protection Agency (USEPA);
- West Virginia Department of Environmental Protection (WVDEP);
- Division of Water Resources (DWR);
- National Priorities List (NPL);
- Proposed National Priority List sites;
- National Priority List Deletions (Delisted NPL);
- Federal Superfund Liens (NPL Liens);
- active Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS);
- CERCLIS No Further Remedial Action Planned sites (CERC-NFRAP);
- Corrective Action Report sites (CORRACTS);
- Resource Conservation and Recovery Information System (RCRIS) databases including the Treatment, Storage and Disposal Facility (TSD) list and large and small quantity generator list (LQG/SQG) sites;
- Emergency Response Notification System (ERNS);
- Hazardous Materials Information Reporting System (HMIRS);
- Engineering Controls Sites List (US ENG CONTROLS);
- sites with Institutional Controls (US INST CONTROLS);
- Department of Defense Sites (DOD);
- formerly used defense sites (FUDS);
- US Brownsfield;
- Superfund Consent Decrees (CONSENT);
- Records of Decision (ROD);
- Uranium Mill Tailings Sites (UMTRA);
- Open Dump Inventory (ODI);

- Toxic Chemical Release Inventory System (TRIS);
- Toxic Substances Control Act (TSCA);
- FIFRA/TSCA Tracking System (FTTS);
- Section 7 Tracking Systems (SSTS);
- Land Use Control Information System (LUCIS);
- Incident and Accident Data (DOT OPS);
- Integrated Compliance information System (ICIS);
- FIFRA/TSCA Tracking System Administrative Case Listing (HIST FTTS);
- Drug Lab Site Locations (CDL);
- Radiation Information Database (RADINFO);
- CERCLA Lien Information (LIENS 2);
- PCB Activity Database System (PADS);
- Material Licensing Tracking System (MLTS);
- Mines Master Index File (MINES);
- Facility Index System/Facility Identification Initiative Program Summary Report (FINDS);
- RCRA Administrative Action Tracking System (RAATS);
- Indian Reservations (INDIAN RESERV);
- Indian LUST (INDIAN LUST);
- Indian UST (INDIAN UST);
- Manufactured gas plants;
- State hazardous waste sites (SHWS);
- Municipal Solid Waste Landfills/Transfer Stations (State Landfill);
- Leaking Underground Storage Tank (LUST) list;
- registered underground storage tank (UST);
- Spills listing (SPILLS);
- Sites with Institutional Controls (INST CONTROLS);
- Voluntary Remediation Sites (VCP);
- List of Drycleaner Locations (DRYCLEANERS);
- Wastewater Discharge Permits Listing (NPDES); and,
- Permitted Facility and Emissions Listing (AIRS).

6.0 List of Preparers

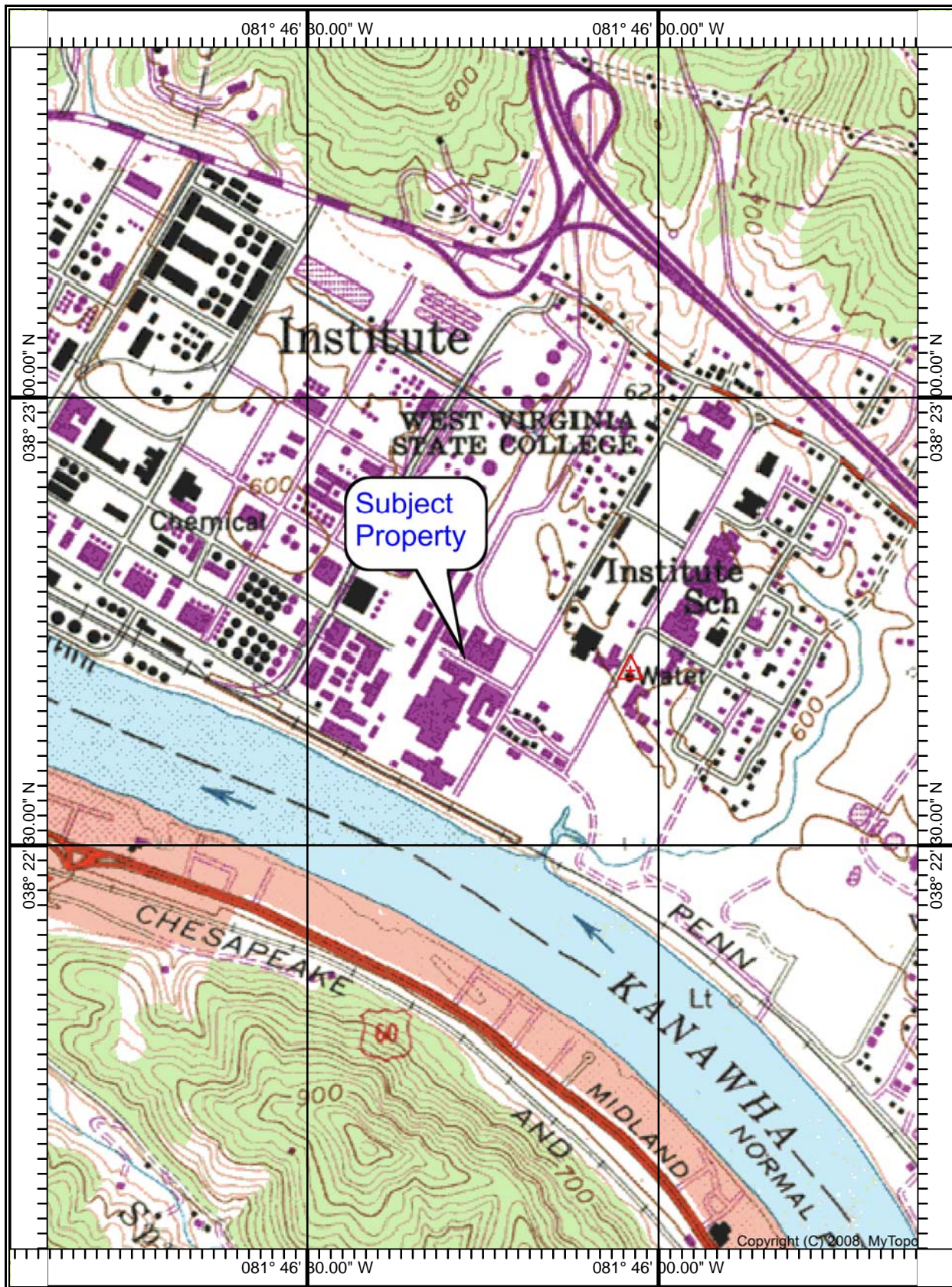
Samuel P. Wilkes, MS, PWS, LRS; Vice President-Geo-Environmental Department: Mr. Wilkes has earned a Master of Science degree in Environmental Science and Policy from Johns Hopkins University and a Bachelor of Science degree in Earth and Environmental Science from Wilkes University. He is also certified as a Professional Wetland Scientist with over 20 years of consulting experience as a project manager and senior environmental scientist. He provides technical support to watershed management, restoration, natural resource conservation, and hazardous materials programs. He is experienced at providing oversight and managing field

teams and contractors collecting wetland, stream quality, environmental media data, and general site condition data for site characterization and documentation.

C. Clayton Gue; Staff Geologist: Mr. Gue has earned his Bachelor of Science Degree in Geology and is currently finishing up his Masters of Science in Physical and Applied Science from Marshall University. As a Geo-Environmental team member, Gue applies environmental and geology skills to engineering uses; assesses slope stability; interprets various borehole data (e.g., bulk groundwater monitoring, density, gamma ray, etc.). He has experience with water sampling/monitoring, and collects various field data (stratigraphic section measurement, brunton use, data presentation on topographic maps, etc.) He is proficient in various software programs related to scientific study including: ArcGIS, PETRA, IDRISI SELVA (Remote Sensing), Surfur, and Rockware. Gue's relevant project experience involves environmental monitoring/sampling/ and audits, statistical analysis of soil and groundwater data, Phase I and II Environmental Site Assessments, field analysis of Geotechnical Investigations, Section 401/404 Permitting, Compensatory Mitigation Concepts and Alternative Analysis, NEPA Environmental Assessments, Voluntary Remediation Program, Spill Prevention/ Best Management Practices, and Wetland Assessments/Delineations.

Appendix A

Figures



7.5' USGS Topographic Base Map - ALUM CREEK Quadrangle

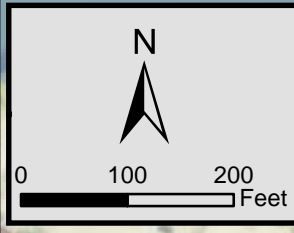
Scale = 1' : 1000'

Date Published: 1958

Date Revised: 1971



5000 Fairlawn Ave.
Institute



Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, © OpenStreetMap contributors, and the GIS User Community. Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Project Site Street Map

Base Maps: ESRI Street Map and ESRI Imagery
Projection: NAD 83 West Virginia State Plane South

 Project Site



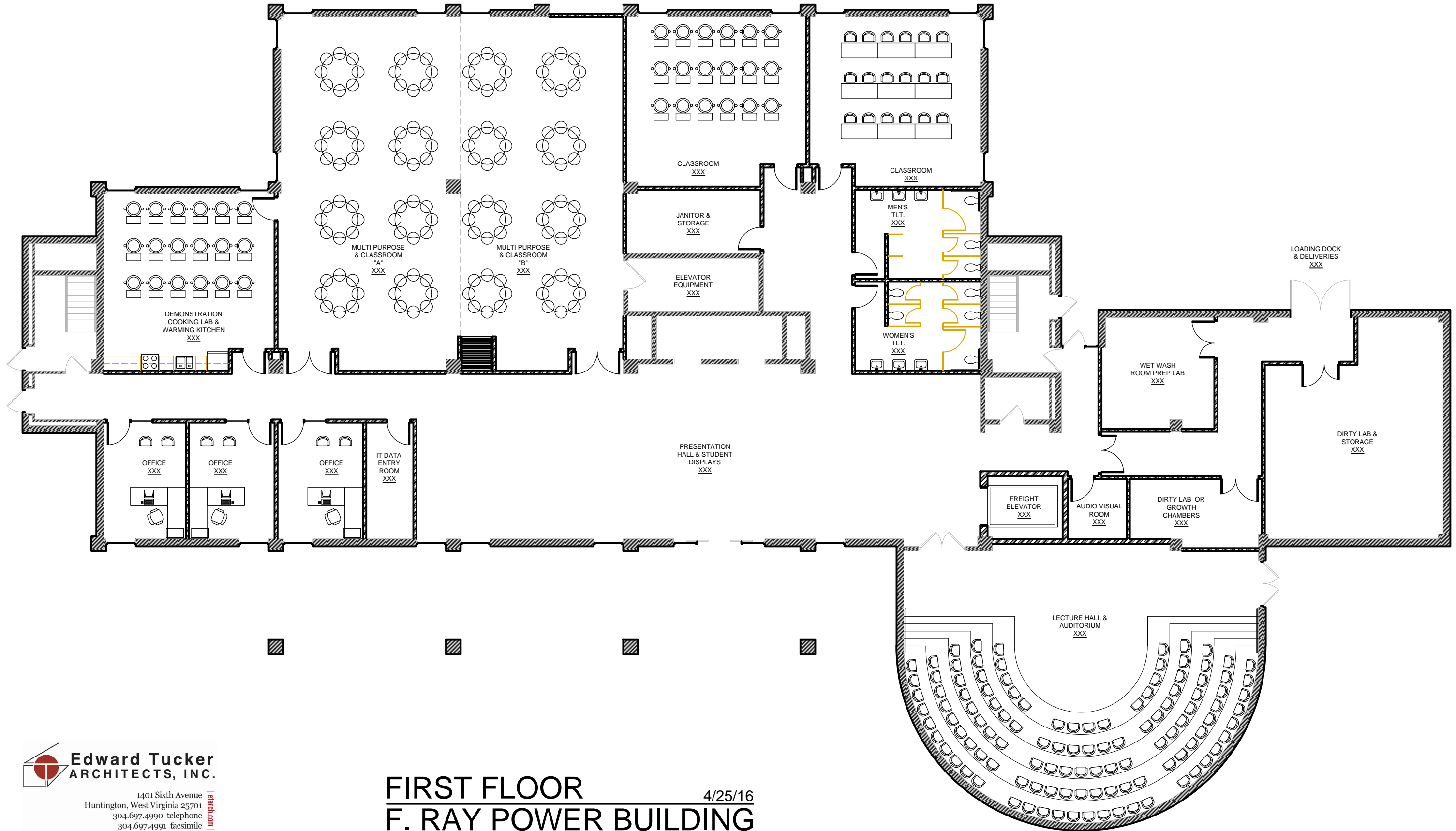


7.5' USGS Topographic Base Map- ALUM Creek Quadrangle NAD27
Scale= 1':500'

Date Published: 1958
Date Revised: 1971

 Project Site



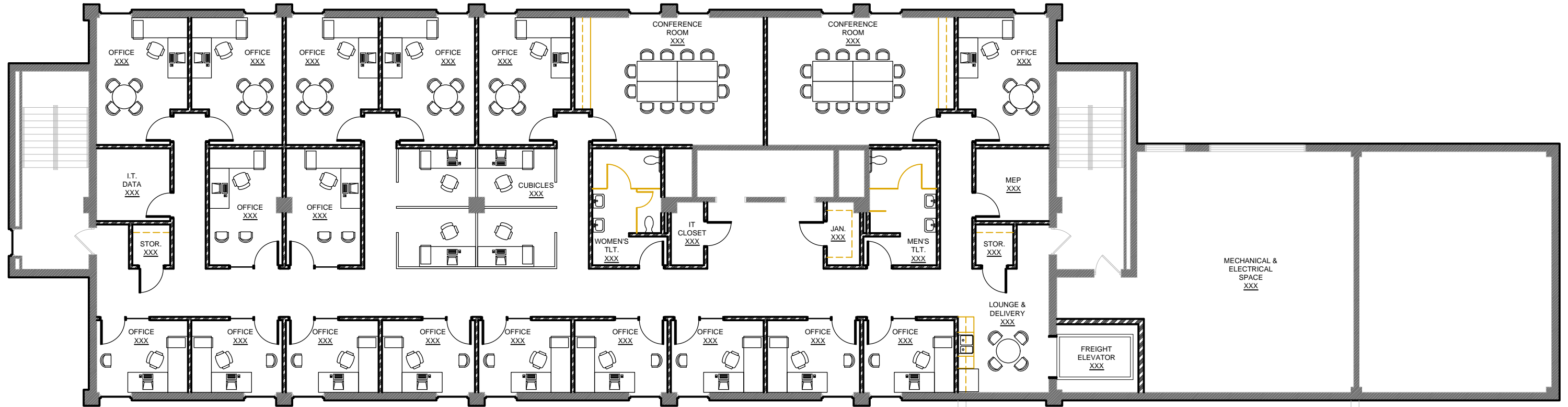


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FIRST FLOOR 4/25/16
F. RAY POWER BUILDING

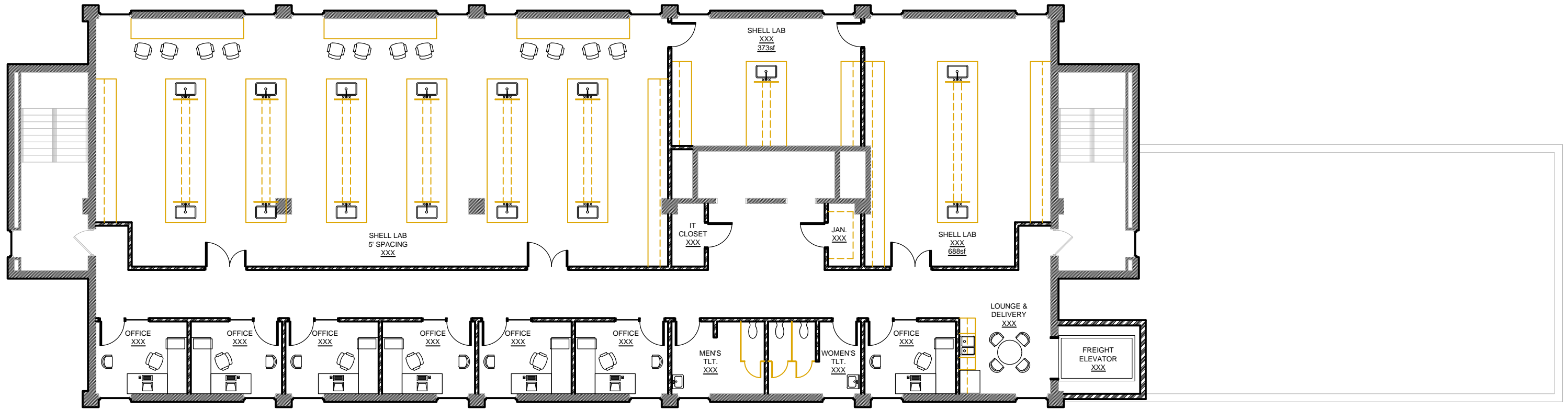


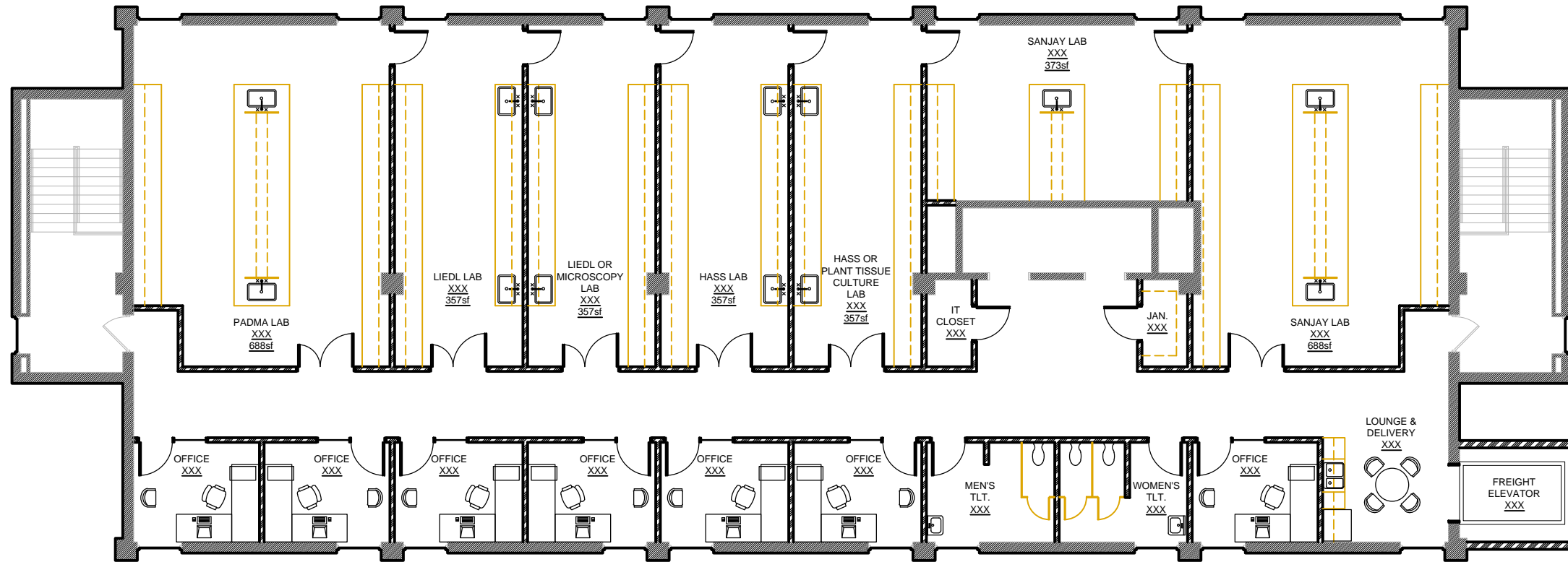
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SECOND FLOOR 4/25/16
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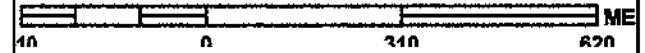
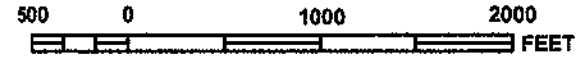
etarch.com

FOURTH FLOOR 4/25/16
F. RAY POWER BUILDING

ZONE X

Kanawha County Unincorporated Areas 540070

MAP SCALE 1" = 1000'



PANEL 0220E

FIRM FLOOD INSURANCE RATE MAP KANAWHA COUNTY, WEST VIRGINIA AND INCORPORATED AREAS

PANEL 220 OF 780
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
KANAWHA COUNTY	540070	0220	E

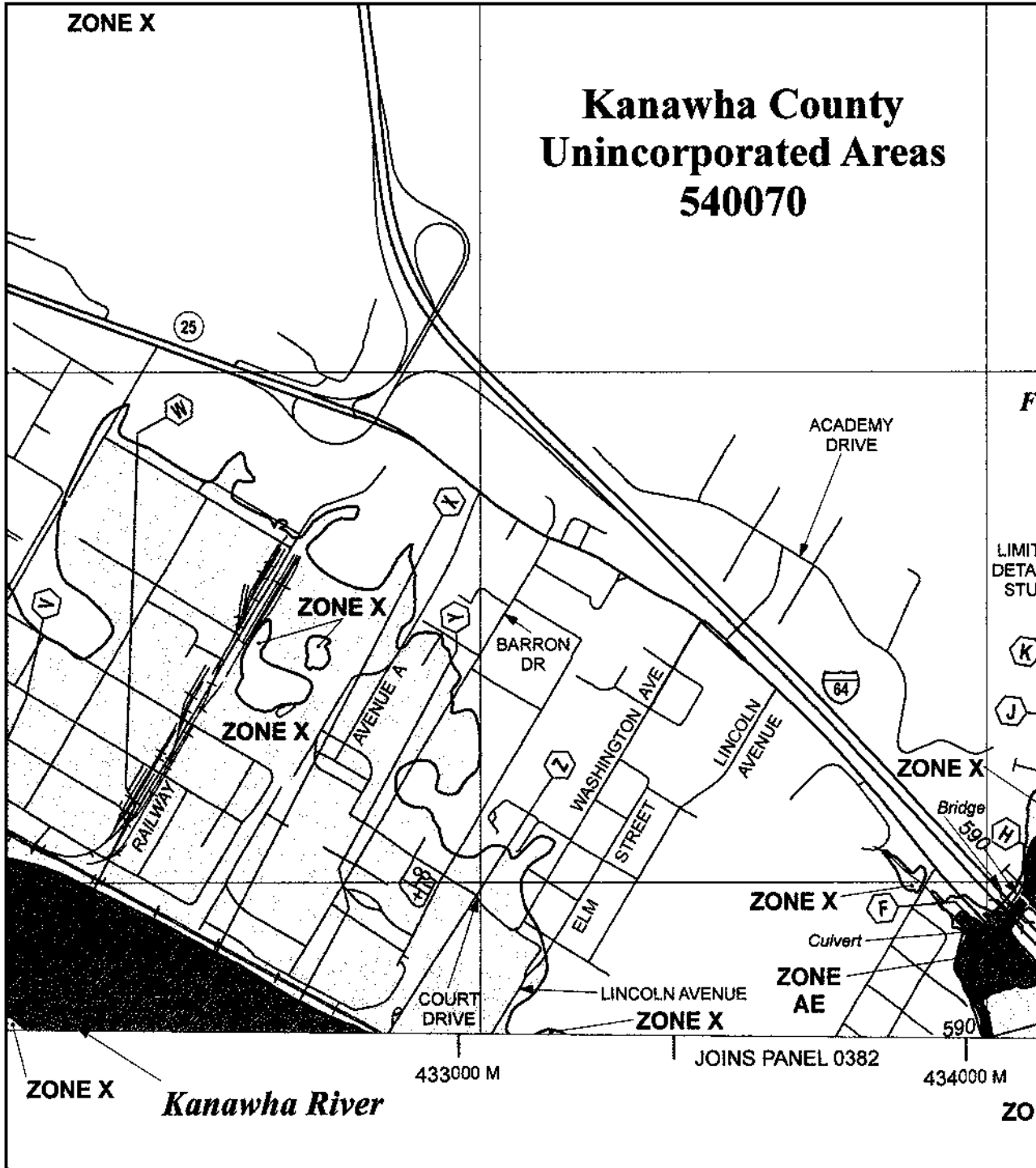
Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



MAP NUMBER
54039C0220E

EFFECTIVE DATE
FEBRUARY 6, 2008

Federal Emergency Management Agency



ZONE X
Kanawha River

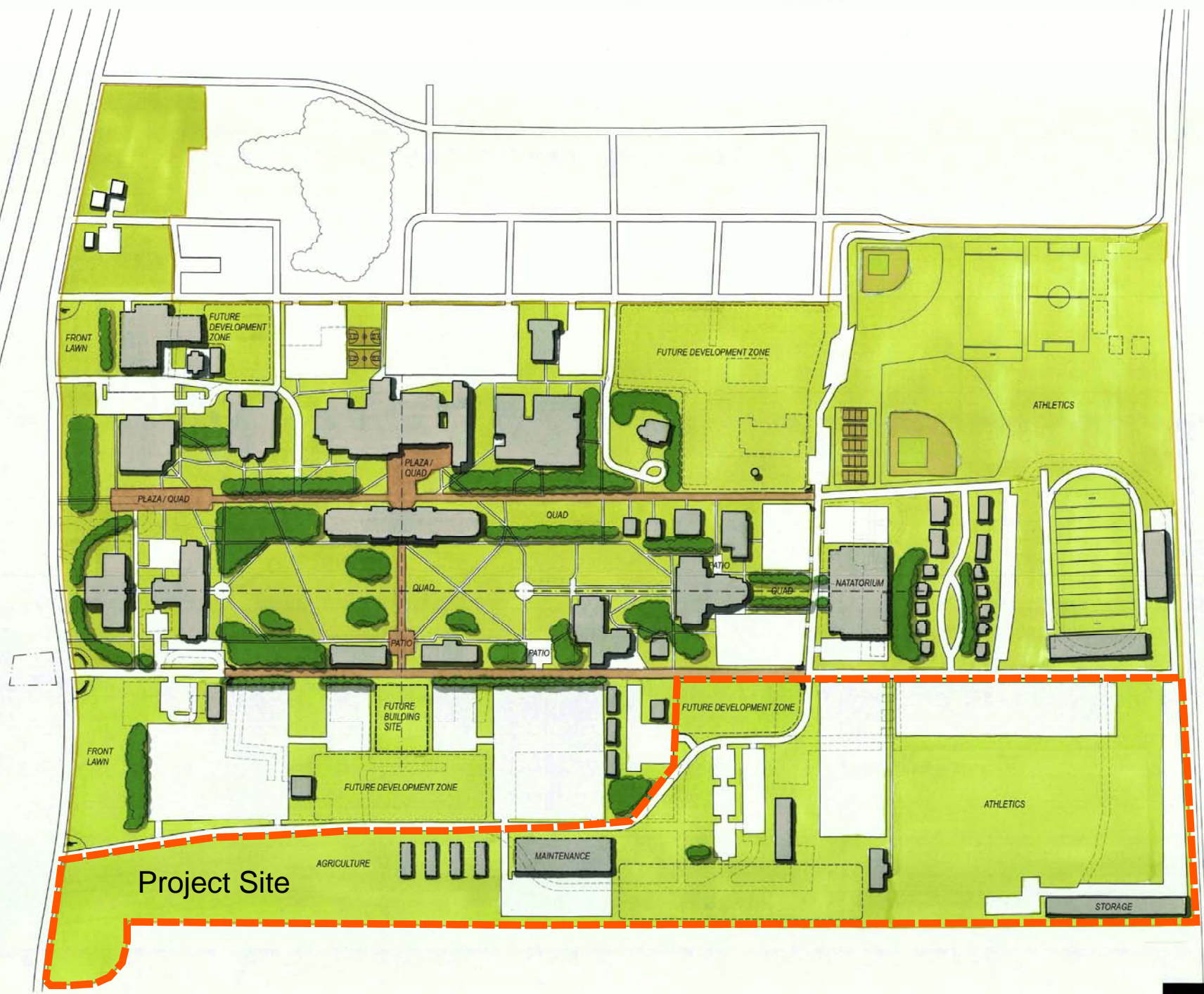
433000 M

JOINS PANEL 0382

434000 M

ZONE









This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov





Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and

June 16, 2016

- | | | |
|--|---|--|
|  Estuarine and Marine Deepwater |  Freshwater Forested/Shrub Wetland |  Other |
|  Estuarine and Marine Wetland |  Freshwater Pond |  Riverine |
|  Freshwater Emergent Wetland |  Lake | |

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Appendix B



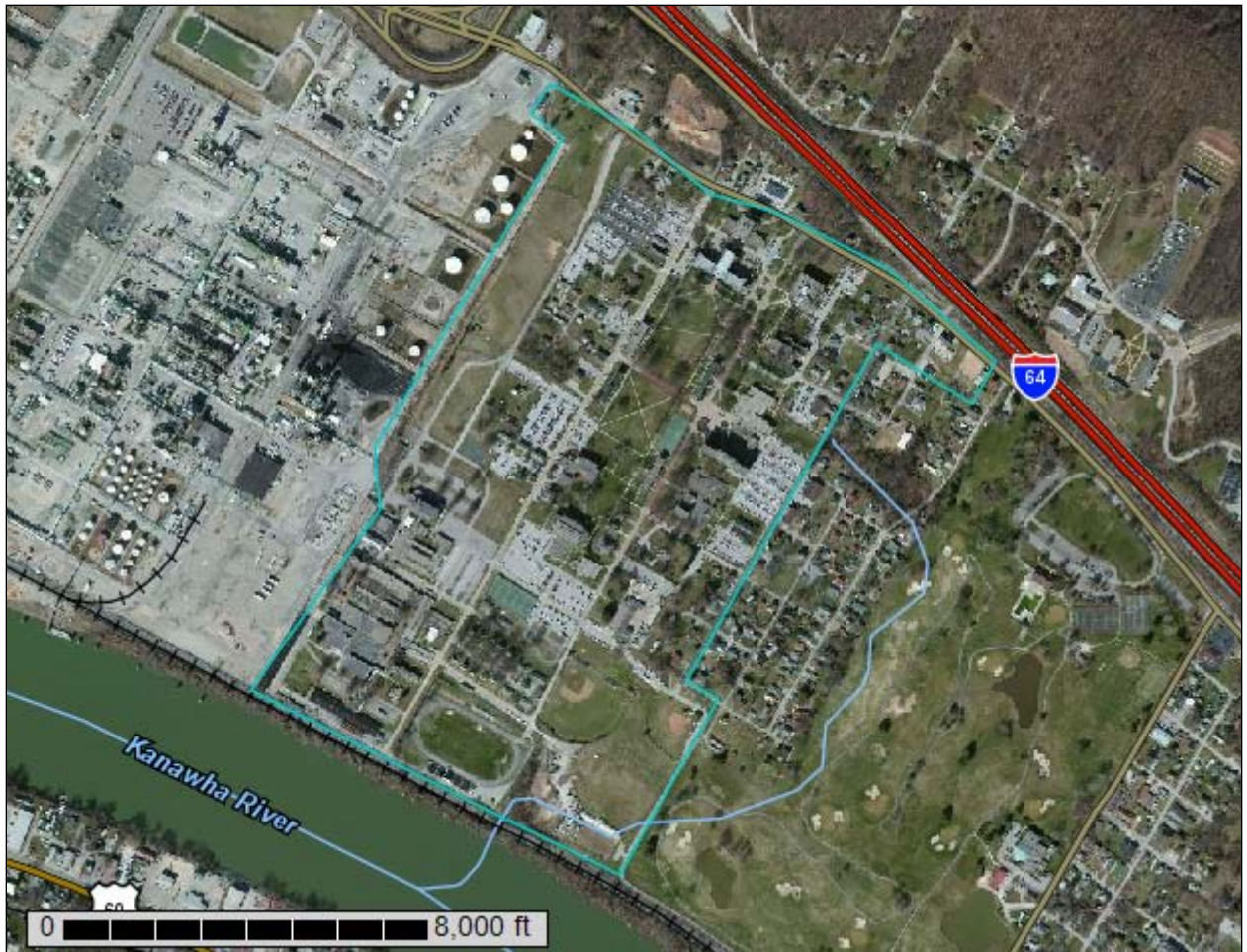
United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Kanawha County, West Virginia**



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<http://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the

Custom Soil Resource Report

individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

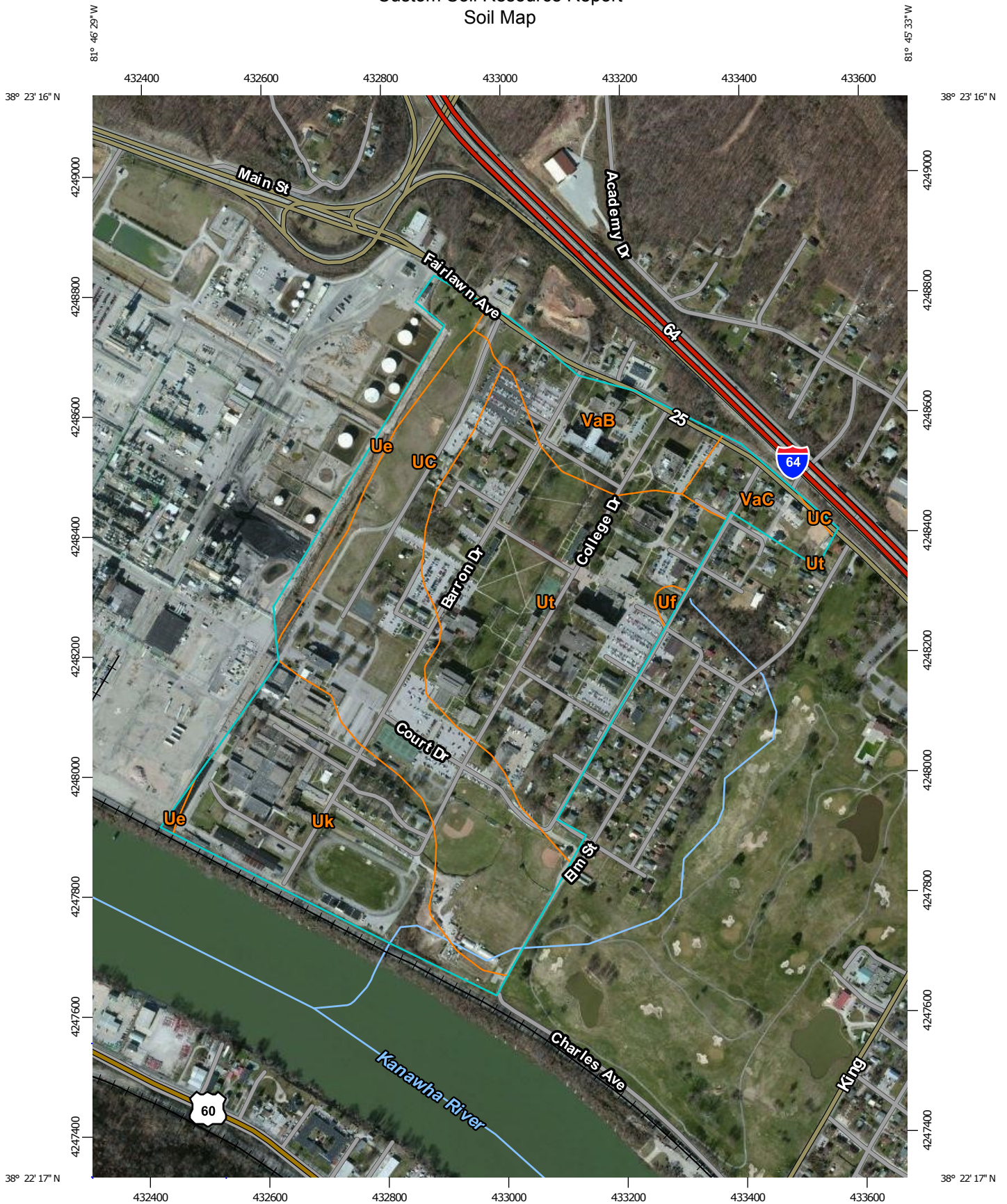
Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

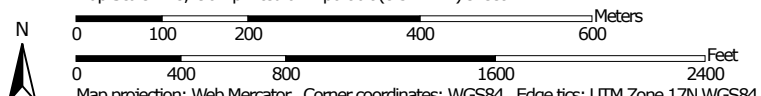
Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map




Map Scale: 1:8,790 if printed on A portrait (8.5" x 11") sheet.




Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84


MAP LEGEND


Area of Interest (AOI)

 Area of Interest (AOI)




















Soils






 Soil Map Unit Polygons

 Soil Map Unit Lines


 Soil Map Unit Points

Special Point Features






-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features


Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Kanawha County, West Virginia
 Survey Area Data: Version 9, Sep 24, 2015

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Data not available.

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Kanawha County, West Virginia (WV039)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
UC	Udorthents, smoothed-Urban land complex	43.3	28.6%
Ue	Urban land	6.5	4.3%
Uf	Urban land-Fluvaquents complex	0.5	0.3%
Uk	Urban land-Kanawha complex	30.8	20.4%
Ut	Urban land-Tyler complex	50.6	33.5%
VaB	Vandalia silt loam, 3 to 8 percent slopes	13.5	8.9%
VaC	Vandalia silt loam, 8 to 15 percent slopes	5.9	3.9%
Totals for Area of Interest		151.1	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially

Custom Soil Resource Report

where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Kanawha County, West Virginia

UC—Udorthents, smoothed-Urban land complex

Map Unit Setting

National map unit symbol: k6p1
Mean annual precipitation: 35 to 47 inches
Mean annual air temperature: 44 to 66 degrees F
Frost-free period: 165 to 192 days
Farmland classification: Not prime farmland

Map Unit Composition

Udorthents, smoothed and similar soils: 50 percent
Urban land: 30 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Udorthents, Smoothed

Setting

Landform: Flood plains, ridges, stream terraces, hillslopes
Landform position (two-dimensional): Summit, backslope
Landform position (three-dimensional): Crest, side slope, tread
Down-slope shape: Linear, convex
Across-slope shape: Linear

Properties and qualities

Slope: 0 to 40 percent
Depth to restrictive feature: More than 80 inches
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None

Interpretive groups

Land capability classification (irrigated): None specified
Other vegetative classification: Not Suited (NS)

Minor Components

Other soils

Percent of map unit: 20 percent

Ue—Urban land

Map Unit Setting

National map unit symbol: k6p3
Mean annual precipitation: 35 to 47 inches
Mean annual air temperature: 44 to 66 degrees F
Frost-free period: 165 to 192 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Interpretive groups

Land capability classification (irrigated): None specified

Other vegetative classification: Not Suited (NS)

Uf—Urban land-Fluvaquents complex

Map Unit Setting

National map unit symbol: k6p4

Elevation: 210 to 330 feet

Mean annual precipitation: 35 to 47 inches

Mean annual air temperature: 41 to 66 degrees F

Frost-free period: 130 to 192 days

Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 50 percent

Fluvaquents and similar soils: 30 percent

Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Interpretive groups

Land capability classification (irrigated): None specified

Other vegetative classification: Not Suited (NS)

Description of Fluvaquents

Setting

Landform: Flood plains, stream terraces

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Tread

Down-slope shape: Concave

Across-slope shape: Linear

Parent material: Fine-loamy alluvium derived from sedimentary rock

Typical profile

A - 0 to 8 inches: silt loam

Bw+BC - 8 to 46 inches: silt loam

C - 46 to 60 inches: extremely gravelly sandy loam

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Poorly drained

Custom Soil Resource Report

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high
(0.06 to 1.98 in/hr)

Depth to water table: About 0 to 12 inches

Frequency of flooding: Occasional

Frequency of ponding: None

Available water storage in profile: High (about 9.3 inches)

Minor Components

Other soils

Percent of map unit: 15 percent

Melvin

Percent of map unit: 5 percent

Landform: Flood plains

Down-slope shape: Concave

Across-slope shape: Concave

Uk—Urban land-Kanawha complex

Map Unit Setting

National map unit symbol: k6p5

Elevation: 210 to 330 feet

Mean annual precipitation: 35 to 47 inches

Mean annual air temperature: 41 to 66 degrees F

Frost-free period: 130 to 192 days

Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 65 percent

Kanawha and similar soils: 25 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Interpretive groups

Land capability classification (irrigated): None specified

Other vegetative classification: Not Suited (NS)

Description of Kanawha

Setting

Landform: Terraces

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Fine-loamy alluvium derived from sedimentary rock

Custom Soil Resource Report

Typical profile

Ap - 0 to 9 inches: fine sandy loam
B1 - 9 to 16 inches: fine sandy loam
Bt+B3 - 16 to 52 inches: loam
C - 52 to 60 inches: fine sandy loam

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Rare
Frequency of ponding: None
Available water storage in profile: High (about 9.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 1
Hydrologic Soil Group: B

Minor Components

Other soils

Percent of map unit: 5 percent

Melvin

Percent of map unit: 5 percent
Landform: Flood plains
Down-slope shape: Concave
Across-slope shape: Concave

Ut—Urban land-Tyler complex

Map Unit Setting

National map unit symbol: k6p6
Mean annual precipitation: 35 to 47 inches
Mean annual air temperature: 44 to 66 degrees F
Frost-free period: 165 to 192 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 65 percent
Tyler and similar soils: 20 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Interpretive groups

Land capability classification (irrigated): None specified
Other vegetative classification: Not Suited (NS)

Description of Tyler

Setting

Landform: Terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Fine-silty alluvium derived from sedimentary rock

Typical profile

Ap+Bt1 - 0 to 14 inches: silt loam
Bt2 - 14 to 20 inches: silt loam
Bx - 20 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 18 to 24 inches to fragipan
Natural drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 6 to 16 inches
Frequency of flooding: None
Frequency of ponding: Occasional
Available water storage in profile: Low (about 3.9 inches)

Minor Components

Other soils

Percent of map unit: 10 percent

Robertsville, ponded

Percent of map unit: 5 percent
Landform: Flats, stream terraces
Landform position (three-dimensional): Interfluve, tread
Down-slope shape: Concave
Across-slope shape: Concave, linear

VaB—Vandalia silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: k6p7
Elevation: 180 to 430 feet
Mean annual precipitation: 35 to 47 inches

Custom Soil Resource Report

Mean annual air temperature: 44 to 66 degrees F

Frost-free period: 165 to 192 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Vandalia and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Vandalia

Setting

Landform: Alluvial fans, hillsides

Landform position (two-dimensional): Toeslope, footslope

Landform position (three-dimensional): Base slope

Down-slope shape: Convex

Across-slope shape: Convex, linear

Parent material: Clayey colluvium derived from sandstone and shale

Typical profile

Ap - 0 to 4 inches: silt loam

Bt - 4 to 41 inches: channery silty clay

C - 41 to 72 inches: channery silty clay loam

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Moderate (about 7.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: C

Other vegetative classification: Fertile Loams (FL3)

Minor Components

Other soils

Percent of map unit: 15 percent

VaC—Vandalia silt loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2t31d

Elevation: 540 to 1,630 feet

Custom Soil Resource Report

Mean annual precipitation: 40 to 52 inches
Mean annual air temperature: 50 to 55 degrees F
Frost-free period: 164 to 211 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Vandalia and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Vandalia

Setting

Landform: Hillslopes
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear, convex
Across-slope shape: Linear, convex
Parent material: Colluvium derived from sandstone and siltstone

Typical profile

Ap - 0 to 6 inches: silt loam
BA - 6 to 13 inches: silt loam
Bt1 - 13 to 31 inches: silty clay loam
Bt2 - 31 to 46 inches: parachannery silty clay
Bt3 - 46 to 54 inches: parachannery silty clay
C - 54 to 65 inches: very parachannery silty clay loam

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 9.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Other vegetative classification: Fertile Loams (FL3)

Minor Components

Upshur

Percent of map unit: 8 percent
Landform: Hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Crest, nose slope, side slope
Down-slope shape: Convex
Across-slope shape: Convex

Sensabaugh

Percent of map unit: 7 percent

Custom Soil Resource Report

Landform: Flood plains

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Other vegetative classification: Moist Loams (ML3)

Gilpin

Percent of map unit: 5 percent

Landform: Hillslopes

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Convex

Across-slope shape: Convex, linear

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Custom Soil Resource Report

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Appendix C



WVSU EA

5000 Fairlawn Avenue

Dunbar, WV 25064

Inquiry Number: 4649665.12

June 17, 2016

The EDR Aerial Photo Decade Package



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

EDR Aerial Photo Decade Package

06/17/16

Site Name:

WVSU EA
5000 Fairlawn Avenue
Dunbar, WV 25064
EDR Inquiry # 4649665.12

Client Name:

Terradon Corp.
P.O. Box 519
Nitro, WV 25143
Contact: Michael Pickens



Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
2011	1"=500'	Flight Year: 2011	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2007	1"=500'	Flight Year: 2007	USDA/NAIP
1996	1"=500'	Flight Date: April, 11 1996	USGS
1990	1"=500'	Acquisition Date: October, 05 1990	USGS/DOQQ
1986	1"=1000'	Flight Date: March, 23 1986	USGS
1984	1"=1000'	Flight Date: April, 11 1984	USGS
1976	1"=1000'	Flight Date: April, 24 1976	USGS
1971	1"=500'	Flight Date: April, 15 1971	USGS
1957	1"=750'	Flight Date: April, 01 1957	USGS
1955	1"=750'	Flight Date: April, 09 1955	USGS

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INQUIRY #: 4649665.12

YEAR: 2011

— = 500'





INQUIRY #: 4649665.12

YEAR: 2009

— = 500'





INQUIRY #: 4649665.12

YEAR: 2007

— = 500'





INQUIRY #: 4649665.12

YEAR: 1996

— = 500'

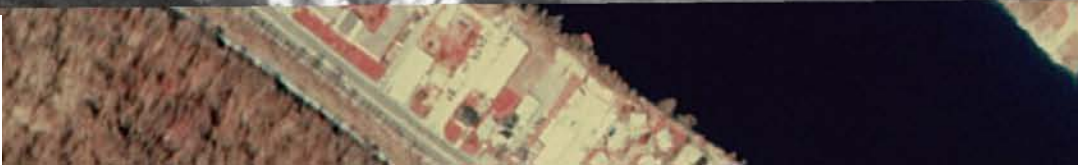




INQUIRY #: 4649665.12

YEAR: 1990

— = 500'





INQUIRY #: 4649665.12

YEAR: 1986

— = 1000'





INQUIRY #: 4649665.12

YEAR: 1984

— = 1000'





INQUIRY #: 4649665.12

YEAR: 1976

— = 1000'





INQUIRY #: 4649665.12

YEAR: 1971

 = 500'





INQUIRY #: 4649665.12

YEAR: 1957

— = 750'





INQUIRY #: 4649665.12

YEAR: 1955

— = 750'



WVSU EA

5000 Fairlawn Avenue
Dunbar, WV 25064

Inquiry Number: 4649665.8
June 16, 2016

EDR Building Permit Report

Target Property and Adjoining Properties

EDR Building Permit Report: Search Documentation

6/16/16

Site Name:

WVSU EA
5000 Fairlawn
Dunbar, WV 25064

Client Name:

Terradon Corp.
P.O. Box 519
Nitro, WV 25143

EDR Inquiry # 4649665.8

Contact: Michael Pickens

Search Documentation

DATA GAP

The complete collection of Building Permit data available to EDR has been searched, and as of 6/16/16, EDR does not have access to building permits in the city where your target property is located (Dunbar, WV).

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EDR BUILDING PERMIT REPORT

About This Report

The EDR Building Permit Report provides a practical and efficient method to search building department records for indications of environmental conditions. Generated via a search of municipal building permit records gathered from more than 1,600 cities nationwide, this report will assist you in meeting 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.

Building permit data can be used to identify current and/or former operations and structures/features of environmental concern. The data can provide information on a target property and adjoining properties such as the presence of underground storage tanks, pump islands, sumps, drywells, etc., as well as information regarding water, sewer, natural gas, electrical connection dates, and current/former septic tanks.

ASTM and EPA Requirements

ASTM E 1527-13 lists building department records as a "standard historical source," as detailed in § 8.3.4.7: "Building Department Records - The term building department records means those records of the local government in which the property is located indicating permission of the local government to construct, alter, or demolish improvements on the property." ASTM also states that "Uses in the area surrounding the property shall be identified in the report, but this task is required only to the extent that this information is revealed in the course of researching the property itself."

EPA's Standards and Practices for All Appropriate Inquiries (AAI) states: "§312.24: Reviews of historical sources of information. (a) Historical documents and records must be reviewed for the purposes of achieving the objectives and performance factors of §312.20(e) and (f). Historical documents and records may include, but are not limited to, aerial photographs, fire insurance maps, building department records, chain of title documents, and land use records."

Methodology

EDR has developed the EDR Building Permit Report through our partnership with BuildFax, the nation's largest repository of building department records. BuildFax collects, updates, and manages building department records from local municipal governments. The database now includes 30 million permits, on more than 10 million properties across 1,600 cities in the United States.

The EDR Building Permit Report comprises local municipal building permit records, gathered directly from local jurisdictions, including both target property and adjoining properties. Years of coverage vary by municipality. Data reported includes (where available): date of permit, permit type, permit number, status, valuation, contractor company, contractor name, and description.

Incoming permit data is checked at seven stages in a regimented quality control process, from initial data source interview, to data preparation, through final auditing. To ensure the building department is accurate, each of the seven quality control stages contains, on average, 15 additional quality checks, resulting in a process of approximately 105 quality control "touch points."

For more information about the EDR Building Permit Report, please contact your EDR Account Executive at (800) 352-0050.



WVSU EA

5000 Fairlawn Avenue
Dunbar, WV 25064

Inquiry Number: 4649665.5
June 21, 2016

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.

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>
2013	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cole Information Services
2008	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cole Information Services
2003	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cole Information Services
1999	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cole Information Services
1995	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cole Information Services
1992	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cole Information Services
1987	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Polk's City Directory
1982	<input type="checkbox"/>	<input type="checkbox"/>	Polk's City Directory
1977	<input type="checkbox"/>	<input type="checkbox"/>	Polk's City Directory
1972	<input type="checkbox"/>	<input type="checkbox"/>	Polk's City Directory
1967	<input type="checkbox"/>	<input type="checkbox"/>	Polk's City Directory

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FINDINGS

TARGET PROPERTY STREET

5000 Fairlawn Avenue
Dunbar, WV 25064

Year CD Image Source

FAIRLAWN AVE

2013	pg A1	Cole Information Services	
2008	pg A2	Cole Information Services	
2003	pg A3	Cole Information Services	
1999	pg A4	Cole Information Services	
1995	pg A5	Cole Information Services	
1992	pg A6	Cole Information Services	
1987	pg A7	Polk's City Directory	
1982	-	Polk's City Directory	Target and Adjoining not listed in Source
1977	-	Polk's City Directory	Target and Adjoining not listed in Source
1972	-	Polk's City Directory	Target and Adjoining not listed in Source
1967	-	Polk's City Directory	Target and Adjoining not listed in Source

FINDINGS

CROSS STREETS

No Cross Streets Identified

City Directory Images

FAIRLAWN AVE 2013

4005	D C M INC
4021	OCCUPANT UNKNOWN PASADEANNA AUKUSITINO
5000	AVI FOODSYSTEM INC
5002	ALPHONSO NABORS
5007	FRANCINE PETERS
5010	FAIR SHAKE NETWORK RIDGEVIEW BBQ WV STATEWIDE IND LIVING
5018	SUE ROYAL
5022	JODI HARRIS PAUL PHILLIPS SHAWN KEATON V JOHNSON
6005	KEVIN SWANK



-

FAIRLAWN AVE 2008

4023 EUNICE GREEN
5000 A ROTHWELL
5018 SUE ROYAL
5022 JODI HARRIS
6005 LYNN MACKEY



-

FAIRLAWN AVE 2003

4015 KANAWHA HOME HEALTH INC
4023 STEPHEN HARRIS
5022 EPHRAIM SIGGERS
FRED BADGER
6005 LYNN MACKEY



-

FAIRLAWN AVE 1999

4015 KANAWHA HOME HEALTH INCORPORATED



-

FAIRLAWN AVE 1995

2855 RICH OIL
6032 GO MART INC



-

FAIRLAWN AVE 1992

2915 WASCHER, HAROLD
27013 MCINTYRE, HAROLD

FAIRLAWN AVE 1987

610

**FAIRLAWN AV (DUNBAR)-FROM 600
12TH ST NORTHWEST**

ZIP CODE 25064

16TH ST INTERSECTS

1901 Boylen Homer D ☉ 768-6251

22D ST INTERSECTS

2000 Smith Dale E ☉ 768-2077

2107 Jarrett Ruth ☉

2109★Kolwick John A ☉ 768-6601

2201 Short Stop Market 768-4521

2203 Wingett Clifford O ☉ 768-2910

2203½ Wingett Jerry N 768-2910

2207 Hewlett Jimmie L ☉ 768-1142

2313 State Farm Insurance Co 768-9756

★Woody Bruce A 768-9756

2317 Gino's Pizza 768-0991

2319 Vacant

2403 State Farm Insurance Co (claims ofc)
768-3951State Farm Insurance Co (Serv Cntr)
768-3951

2407 Vacant

25TH ST INTERSECTS

2505 Terrell Wm E ☉ 768-5632

26TH ST INTERSECTS

2601 Dunbar Recreation Center 766-0223

2701 Thomas John R ☉ 768-3078

614

FAIRLAWN AV (INSTITUTE)-FROM

WVSU EA

5000 Fairlawn Avenue
Dunbar, West Virginia 25064

Inquiry Number: 4649665.7
June 23, 2016

The EDR Environmental LienSearch™



6 Armstrong Road,
Fourth Floor
Shelton, CT 06484
800.352.0050
www.edrnet.com

EDR Environmental LienSearch™ Report

The EDR Environmental LienSearch Report provides results from a search of available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls.

A network of professional, trained researchers, following established procedures, uses client supplied address information to:

- search for parcel information and/or legal description;
- search for ownership information;
- research official land title documents recorded at jurisdictional agencies such as recorders' offices, registries of deeds, county clerks' offices, etc.;
- access a copy of the deed;
- search for environmental encumbering instrument(s) associated with the deed;
- provide a copy of any environmental encumbrance(s) based upon a review of key words in the instrument(s) (title, parties involved, and description); and
- provide a copy of the deed or cite documents reviewed.

Thank you for your business.
Please contact EDR at 1-800-352-0050
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EDR Environmental LienSearch™ Report

TARGET PROPERTY INFORMATION

ADDRESS

WVSU EA
5000 FAIRLAWN AVENUE
DUNBAR, WEST VIRGINIA 25064

RESEARCH SOURCE

Source 1: Kanawha Assessor
Kanawha County, West Virginia

Source 2: Kanawha Recorder
Kanawha County, West Virginia

PROPERTY INFORMATION

Deed 1:

Type of Deed: Corrective Deed
Title is vested in: Andy Truo Ng Nguyen
Title received from: Joseph A. Bragg and June E. Bragg
Deed Dated: November 2, 2000
Deed Recorded: September 5, 2001
Book: 2534
Page: 30

Legal Description: See legal

Legal Current Owner: Andy Truo Ng Nguyen

Property Identifiers: 09-67-09

EDR Environmental LienSearch™ Report

ENVIRONMENTAL LIEN

Environmental Lien: Found Not Found

OTHER ACTIVITY AND USE LIMITATIONS (AULs)

Other AUL's: Found Not Found

EDR Environmental LienSearch™ Report

DEED EXHIBIT A

4/4

The foregoing CORRECTIVE DEED, filed this 5th day of September 2001, is for the complete and sole purpose of reflecting the legal name change of AN T. NGUYEN, party of the second part, as an amendment to the deed previously filed in Deed Book 2513, Page 257 on the 2nd day of November, 2000 in Kanawha County, West Virginia.

WITNESSETH:

WHEREAS on the 2nd day of November, 2000 **JOSEPH A. BRAGG** and **JUNE E. BRAGG**, husband and wife, as parties of the first part and **AN T. NGUYEN**, party of the second part, **MADE** the aforementioned and previously recorded **DEED**, and on the 2nd day of April, 2001, **AN T. NGUYEN**, party of the second part, legally changed his name to **ANDY TRUONG NGUYEN**, the following document represents a **CORRECTIVE DEED**, for the sole purpose of recording and acknowledging the legal name change of the party of the second part, from **AN T. NGUYEN** to **ANDY TRUONG NGUYEN**, with said changes being amended in the Deed Book and the Grantor-Grantee Index of the Kanawha County Clerk's Office, 409 Virginia Street, East, Charleston, West Virginia.

Said Corrective Deed reflects the same parcel of property as previously conveyed to the parties of the first part, Joseph A. Bragg and June E. Bragg by deed dated October 21, 1986 and of record in the said Clerk's office in Deed Book 2139 at Page 432, and being more particularly described as follows:

A certain lot fronting fifty-five (55) on Libbey Street and extending back between parallel lines one hundred (100) feet, and being the same lot designated as Lot No. 1 upon the map or plan of Re-Subdivision of Lots Nos. 52, 53, 54, and 55 of the Re-Subdivision of the Rose Lawn Addition to Kanawha City, made the 30th day of June, 1927 by M. W. Venable and Company, Engineers, and which map is recorded in Map Book 6 at Page 1, in the Office of the Clerk of the County Commission of Kanawha County, West Virginia, and which lot consists of all of Lot No. 52 and the next adjoining fifteen (15) feet of Lot No. 53 of the Re-Subdivision of the said Rose Lawn Addition to Kanawha City as shown upon the map or plan as

Andy Nguyen
443 58th St.
Char WV 25304

DEED 2534 30
Recorded In Above Book and Page
09/05/2001 01:38:44 PM
Alma Y. King
County Clerk
Kanawha County, WV
Deed Tax 0.00
Recording Fee 11.00
TOTAL 11.00

recorded in said County Clerk's Office in Map Book 4, Page 114.

Said Corrective Deed reflects the same general warranty that the property is free and clear of all liens and encumbrances, and is subject to the same reservation of oil and gas as contained in prior deeds in the chain of title, as verified by the attached original DEED made by the parties on the 2nd day of November 2000.

WITNESS THE FOLLOWING SIGNATURES AND SEALS:

Andy Nguyen
ANDY TRUONG NGUYEN
Party of the Second Party
Formerly An T. Nguyen

This Corrective Deed Prepared by:

Shelli Freeland Eddie
SHELLI FREELAND EDDIE, ESQ.
The Freeland Eddie Law Firm, PLLC.

STATE OF WEST VIRGINIA,

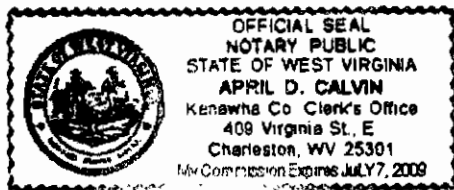
COUNTY OF KANAWHA, to wit:

I, April D. Calvin, a notary public in and for the aforesaid County and State do hereby certify that Andy Truong Nguyen, party of the second part, whose name is signed to the above writing, bearing date the ___ day of September, 2001, has this day acknowledged the same before me in my said County.

Given under my hand and seal this 5th day of September, 2001.

My commission expires: 7-7-2009.

April D. Calvin
NOTARY PUBLIC



THIS DEED, Made this 2nd day of November 2000, by and between JOSEPH A. BRAGG and JUNE E. BRAGG, husband and wife, parties of the first part and AN T. NGUYEN, party of the second part;

DEED 2513 257
Recorded In Above Book and Page
11/02/2000 04:29:47 PM
Alma Y. King
County Clerk
Kanawha County, WV

WITNESSETH:

That for and in consideration of the sum of Ten Dollars (\$10.00), cash in hand paid, and other good and valuable considerations, the receipt and sufficiency of all of which are hereby acknowledged, the said parties of the first part do hereby GRANT and CONVEY unto the said party of the second part, all that certain lot or parcel of land, together with the improvements thereon and the appurtenances thereunto belonging, situate, lying and being in Loudon District (now Charleston South Annex), Kanawha County, West Virginia, and being more particularly described as follows:

A certain lot fronting fifty-five (55) feet on Libbey Street and extending back between parallel lines one hundred (100) feet, and being the same lot designated as Lot No. 1 upon the map or plan of Re-Subdivision of Lots Nos. 52, 53, 54 and 55 of the Re-Subdivision of the Rose Lawn Addition to Kanawha City, made the 30th day of June, 1927, by M. W. Venable and Company, Engineers, and which map is recorded in Map Book 6 at page 1, in the Office of the Clerk of the County Commission of Kanawha County, West Virginia, and which lot consists of all of Lot No. 52 and the next adjoining fifteen (15) feet of Lot No. 53 of the Re-Subdivision of the said Rose Lawn Addition to Kanawha City as shown upon the map or plan as recorded in said County Clerk's office in Map Book 4, page 114,

Charmed book

and being the same property conveyed to the Joseph A. Bragg and June E. Bragg by deed dated October 21, 1986 and of record in the said Clerk's office in Deed Book 2139 at page 432, reference to said deed and maps is hereby made for a more complete description of the property hereby conveyed

This conveyance is made subject to the reservation of oil and gas as contained in prior deeds in the chain of title.

Subject to the above, the parties of the first part covenant to and with the party of the second part that they will WARRANT GENERALLY the property hereby conveyed and that the same is free and clear of all liens and encumbrances.

Under the penalties of fine and imprisonment as provided by law the grantors do hereby declare that the total consideration for the property herein transferred by this document is \$13,500.00.

Witness the following signatures and seals:

Joseph A. Bragg
JOSEPH A. BRAGG

June E. Bragg
JUNE E. BRAGG

This Deed prepared by:

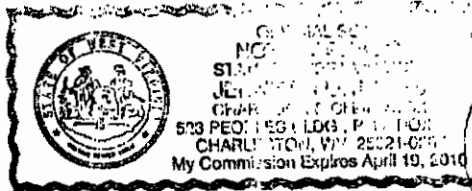
ANNE B. CHARNOCK

STATE OF WEST VIRGINIA,
COUNTY OF KANAWHA to-wit:

I, Jennifer D. Jones, a Notary Public in and for the aforesaid County and State do hereby certify that JOSEPH A. BRAGG and JUNE E. BRAGG, husband and wife, whose names are signed to the above writing, bearing date the 2nd day of November, 2000, have this day acknowledged the same before me in my said County.

Given under my hand and seal this 2nd day of November, 2000.

My commission expires: April 19, 2010



Jennifer D. Jones
Notary Public

This instrument was presented to the Clerk of the County Commission of Kanawha County, West Virginia, on and the same is admitted to record.

NOV 02 2000
Teste: *Alma P. King* Clerk
Kanawha County Commission

This instrument was presented to the Clerk of the County Commission of Kanawha County, West Virginia, on and the same is admitted to record.

SEP 05 2001
Teste: *Alma P. King* Clerk
Kanawha County Commission



WVSU EA

5000 Fairlawn Avenue

Dunbar, WV 25064

Inquiry Number: 4649665.4

June 16, 2016

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

06/16/16

Site Name:

WVSU EA
5000 Fairlawn Avenue
Dunbar, WV 25064
EDR Inquiry # 4649665.4

Client Name:

Terradon Corp.
P.O. Box 519
Nitro, WV 25143
Contact: Michael Pickens



EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Terradon Corp. 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:	38.378178 38° 22' 41" North
Project:	WVSU EA	Longitude:	-81.771239 -81° 46' 16" West
		UTM Zone:	Zone 17 North
		UTM X Meters:	432636.01
		UTM Y Meters:	4248057.50
		Elevation:	600.00' above sea level

Maps Provided:

2014
1976
1971
1958
1933, 1935
1931
1909
1899

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2014 Source Sheets



Charleston West
2014
7.5-minute, 24000



Saint Albans
2014
7.5-minute, 24000



Alum Creek
2014
7.5-minute, 24000



Pocatamico
2014
7.5-minute, 24000

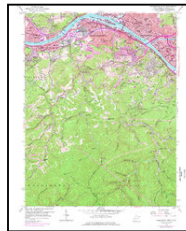
1976 Source Sheets



Pocatamico
1976
7.5-minute, 24000
Photo Revised 1976
Aerial Photo Revised 1976



Saint Albans
1976
7.5-minute, 24000
Photo Revised 1976
Aerial Photo Revised 1976

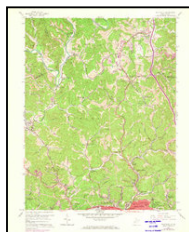


Charleston West
1976
7.5-minute, 24000
Photo Revised 1976
Aerial Photo Revised 1976

1971 Source Sheets



Saint Albans
1971
7.5-minute, 24000
Photo Revised 1971
Aerial Photo Revised 1971



Pocatamico
1971
7.5-minute, 24000
Photo Revised 1971
Aerial Photo Revised 1971



Alum Creek
1971
7.5-minute, 24000
Photo Revised 1971
Aerial Photo Revised 1971



Charleston West
1971
7.5-minute, 24000
Photo Revised 1971
Aerial Photo Revised 1971

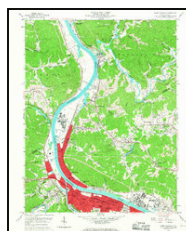
1958 Source Sheets



Pocatamico
1958
7.5-minute, 24000
Aerial Photo Revised 1955



Alum Creek
1958
7.5-minute, 24000
Aerial Photo Revised 1956



Saint Albans
1958
7.5-minute, 24000
Aerial Photo Revised 1957

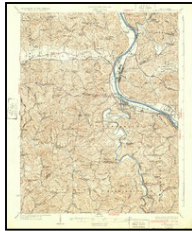


Charleston West
1958
7.5-minute, 24000
Aerial Photo Revised 1958

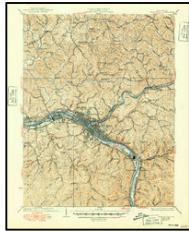
Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1933, 1935 Source Sheets

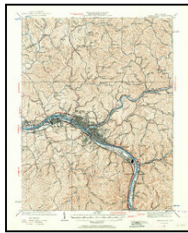


Saint Albans
1933
15-minute, 62500

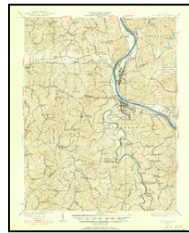


Charleston
1935
15-minute, 62500

1931 Source Sheets

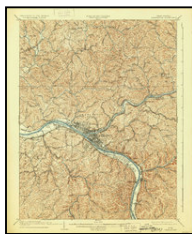


Charleston
1931
15-minute, 62500

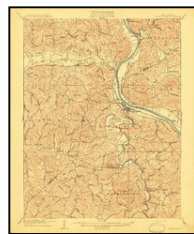


Saint Albans
1931
15-minute, 62500

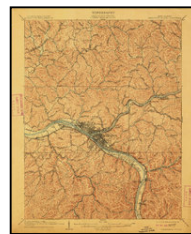
1909 Source Sheets



Charleston
1909
15-minute, 62500

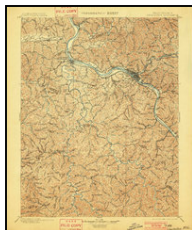


Saint Albans
1909
15-minute, 62500

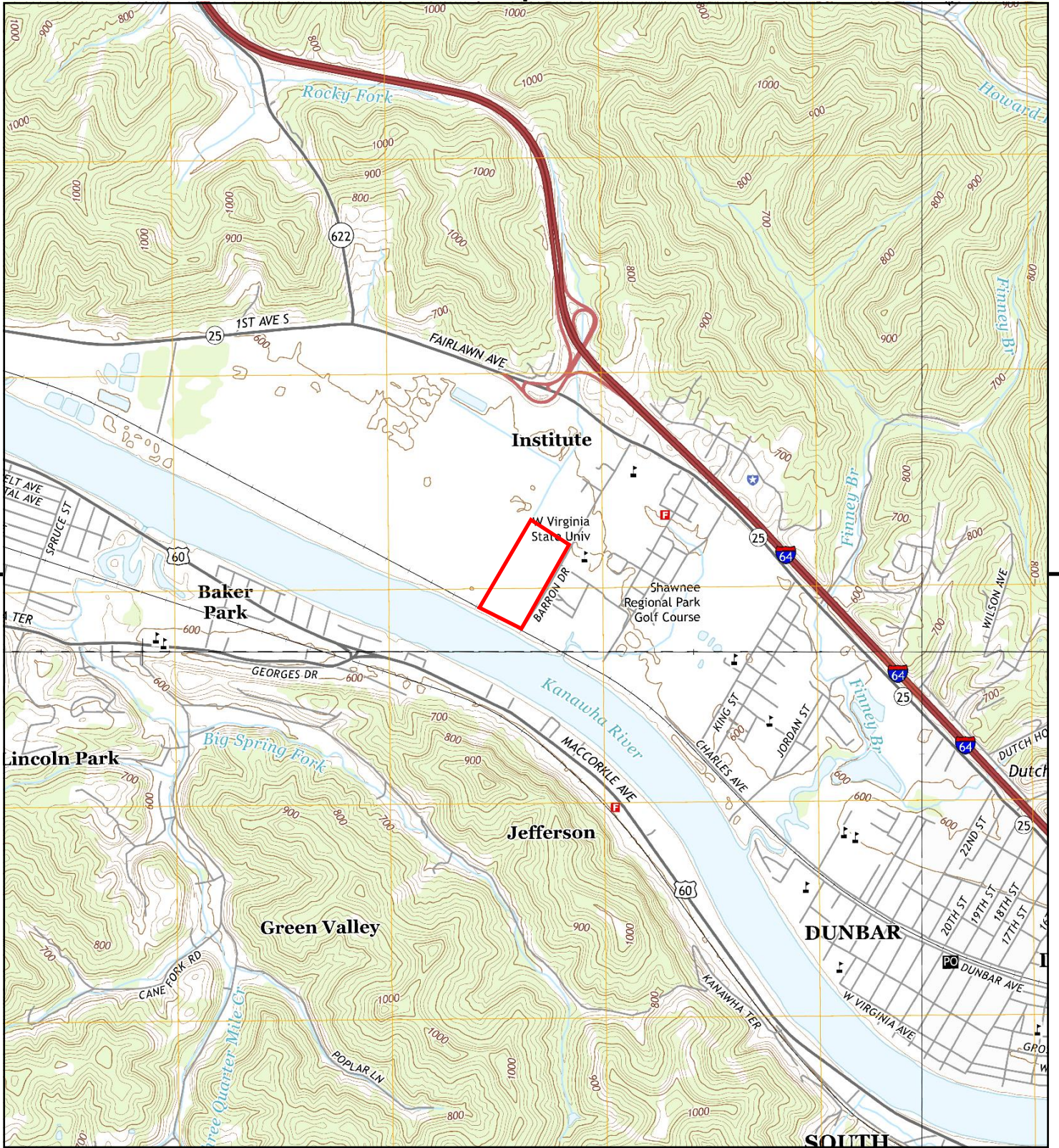


Charleston Special
1909
15-minute, 62500

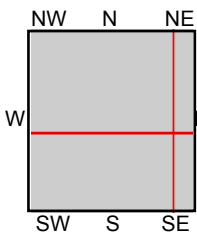
1899 Source Sheets



Charleston
1899
30-minute, 125000



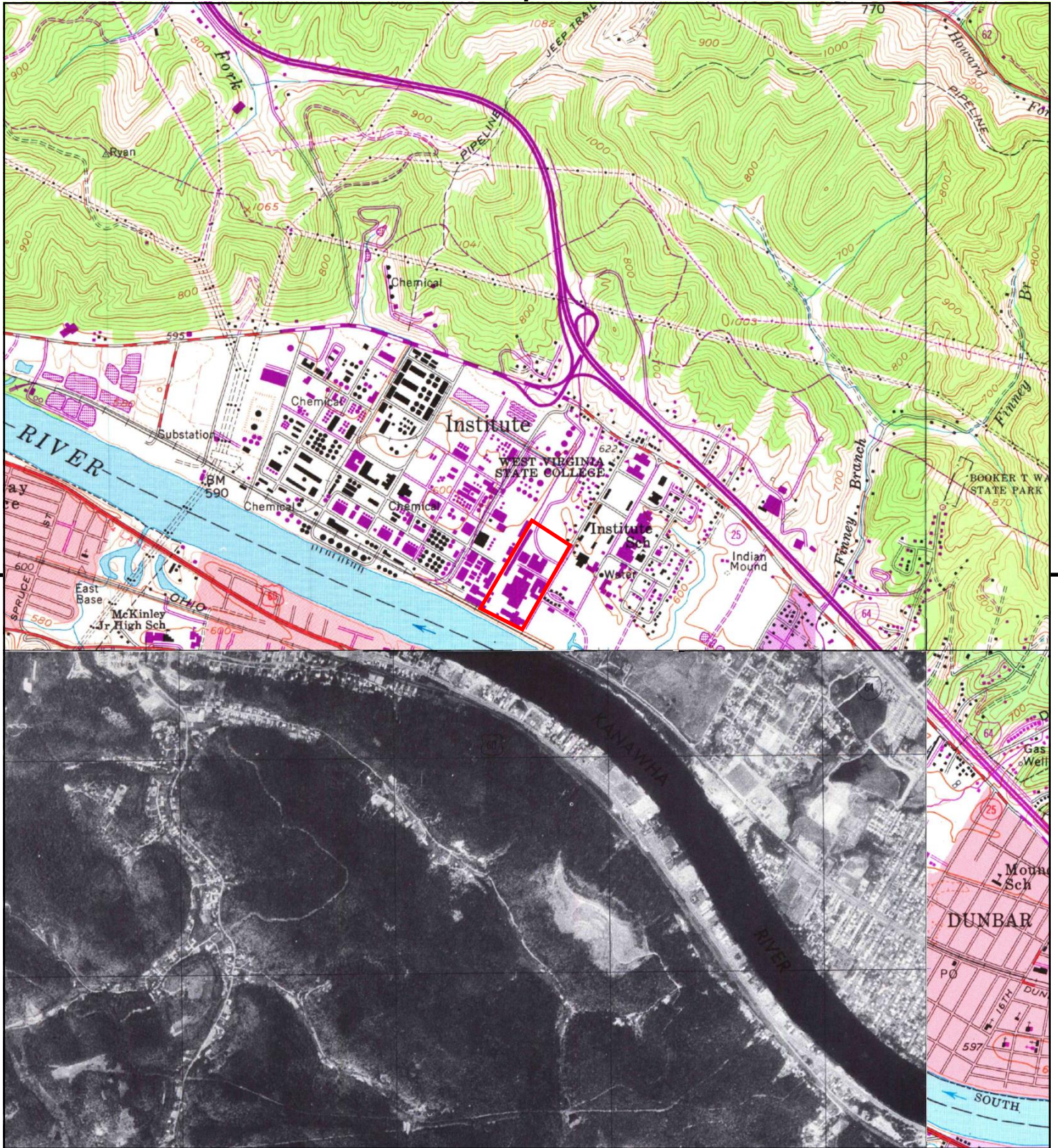
This report includes information from the following map sheet(s).



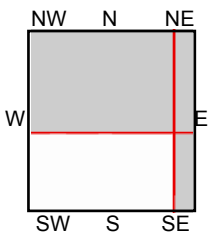
TP, Saint Albans, 2014, 7.5-minute
NE, Pocatalico, 2014, 7.5-minute
SE, Charleston West, 2014, 7.5-minute
SW, Alum Creek, 2014, 7.5-minute

SITE NAME: WVSU EA
ADDRESS: 5000 Fairlawn Avenue
Dunbar, WV 25064
CLIENT: Terradon Corp.





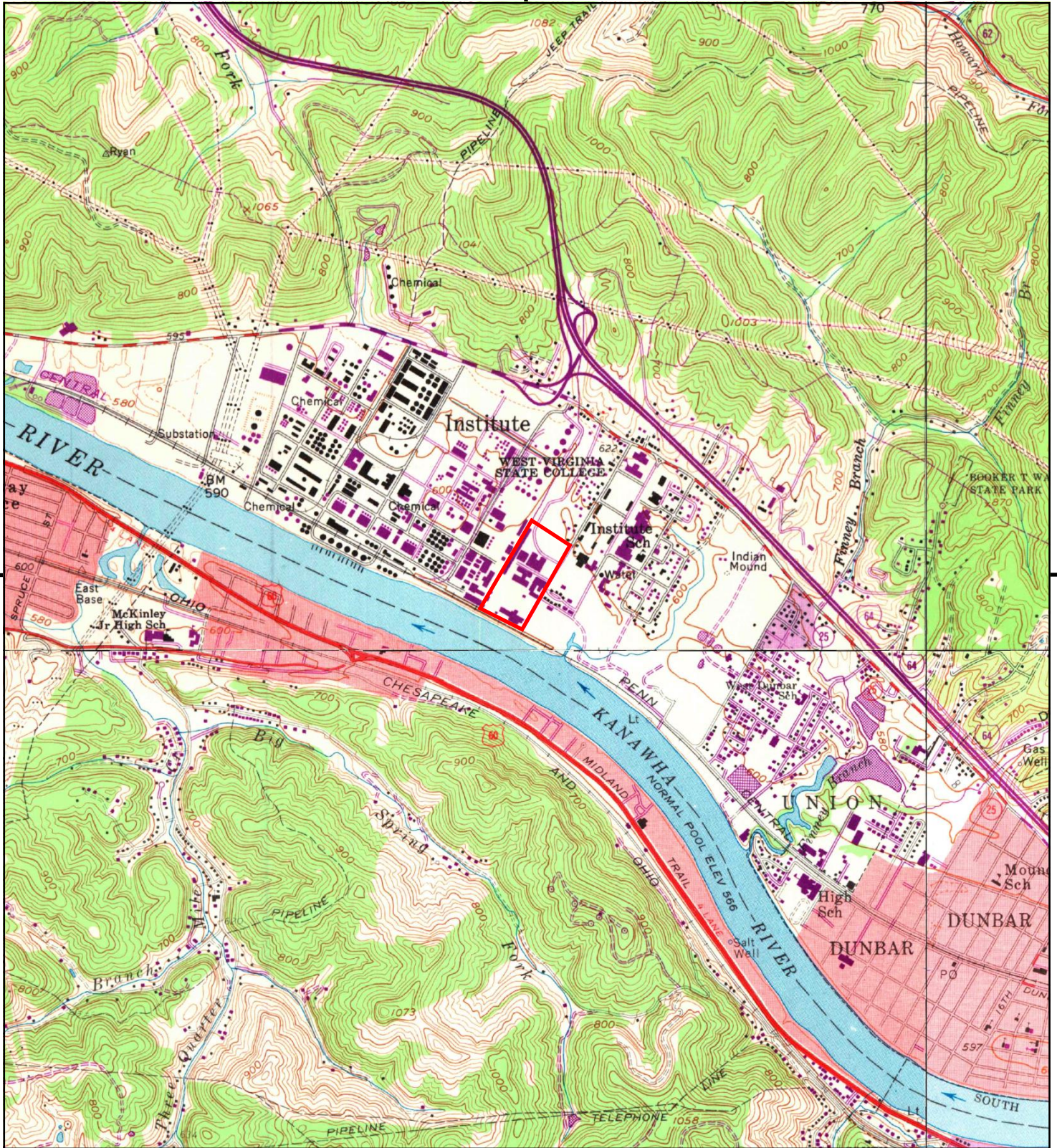
This report includes information from the following map sheet(s).



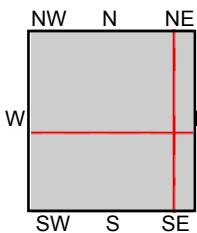
TP, Saint Albans, 1976, 7.5-minute
 NE, Pocatalico, 1976, 7.5-minute
 SE, Charleston West, 1976, 7.5-minute

SITE NAME: WVSU EA
ADDRESS: 5000 Fairlawn Avenue
 Dunbar, WV 25064
CLIENT: Terradon Corp.





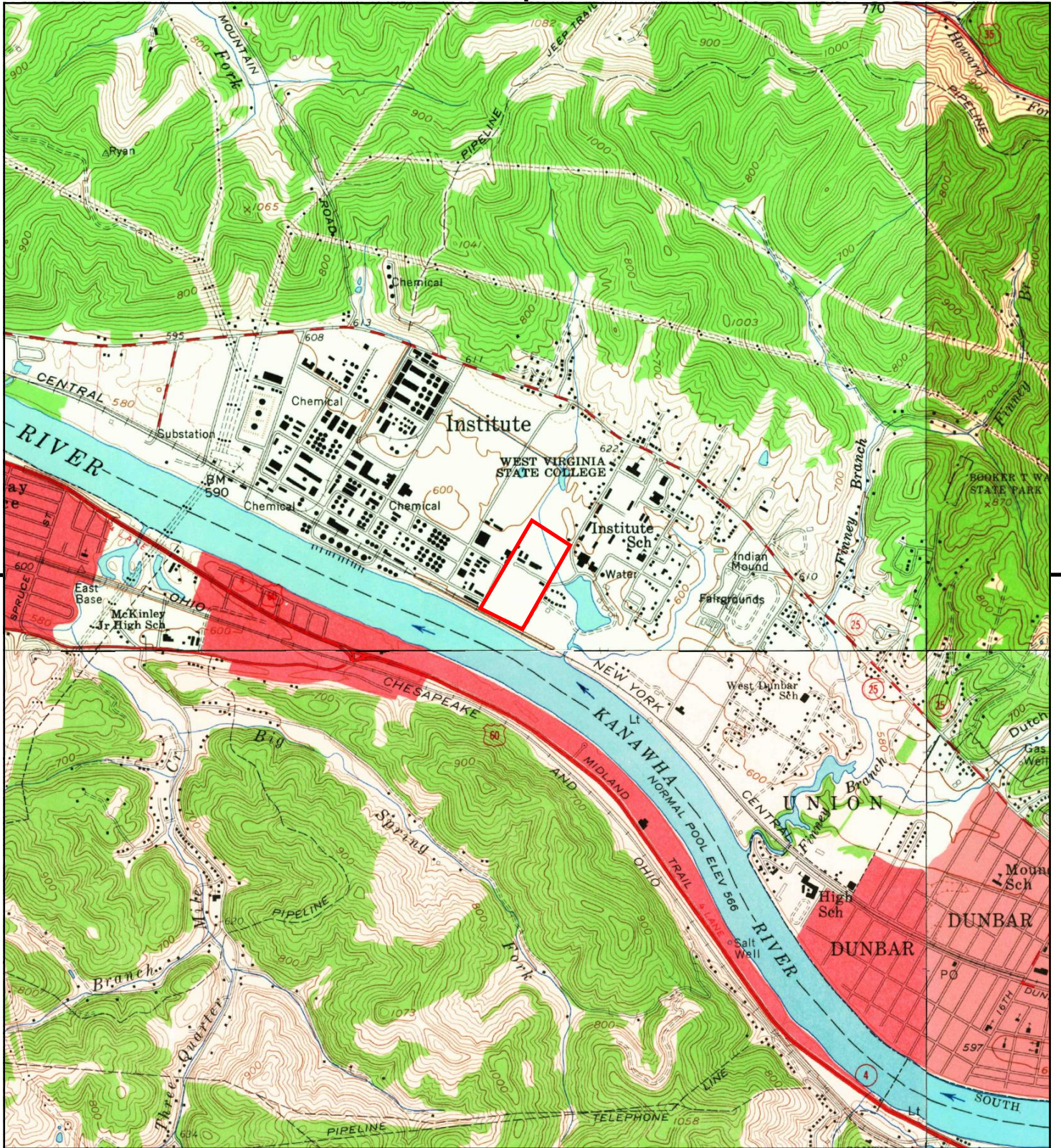
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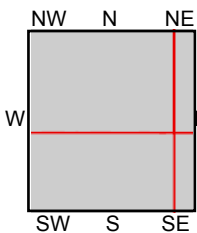
TP, Saint Albans, 1971, 7.5-minute
 NE, Pocatalico, 1971, 7.5-minute
 SE, Charleston West, 1971, 7.5-minute
 SW, Alum Creek, 1971, 7.5-minute

SITE NAME: WVSU EA
ADDRESS: 5000 Fairlawn Avenue
 Dunbar, WV 25064
CLIENT: Terradon Corp.





This report includes information from the following map sheet(s).



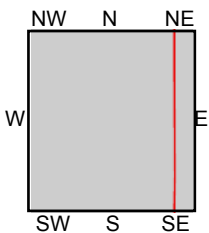
TP, Saint Albans, 1958, 7.5-minute
 NE, Pocatalico, 1958, 7.5-minute
 SE, Charleston West, 1958, 7.5-minute
 SW, Alum Creek, 1958, 7.5-minute

SITE NAME: WVSU EA
ADDRESS: 5000 Fairlawn Avenue
 Dunbar, WV 25064
CLIENT: Terradon Corp.





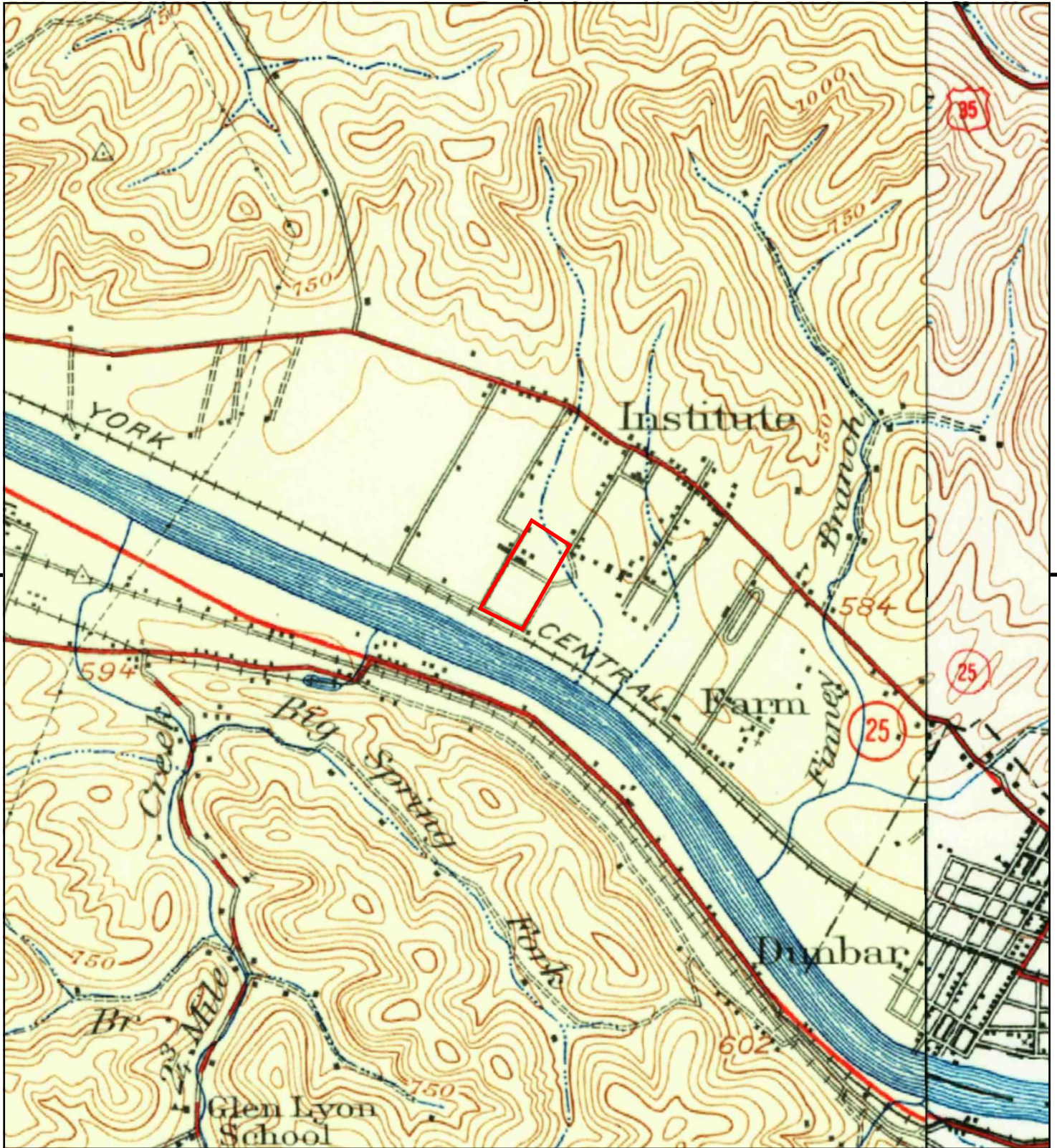
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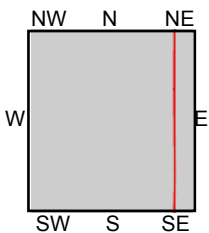
TP, Saint Albans, 1933, 15-minute
E, Charleston, 1935, 15-minute

SITE NAME: WVSU EA
ADDRESS: 5000 Fairlawn Avenue
Dunbar, WV 25064
CLIENT: Terradon Corp.





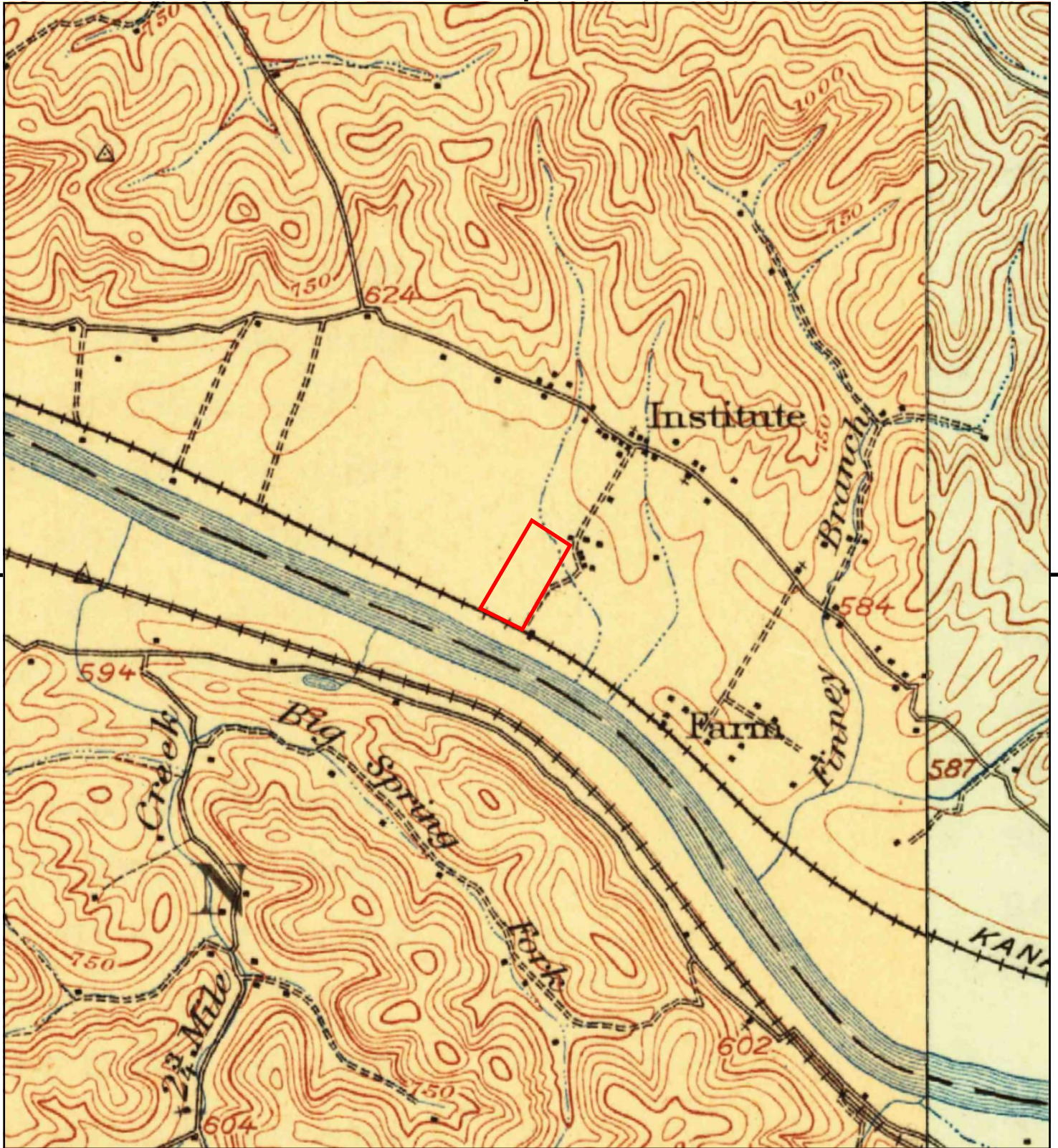
This report includes information from the following map sheet(s).



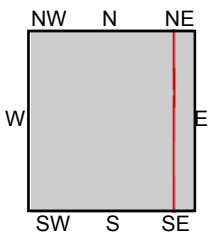
TP, Saint Albans, 1931, 15-minute
E, Charleston, 1931, 15-minute

SITE NAME: WVSU EA
ADDRESS: 5000 Fairlawn Avenue
Dunbar, WV 25064
CLIENT: Terradon Corp.





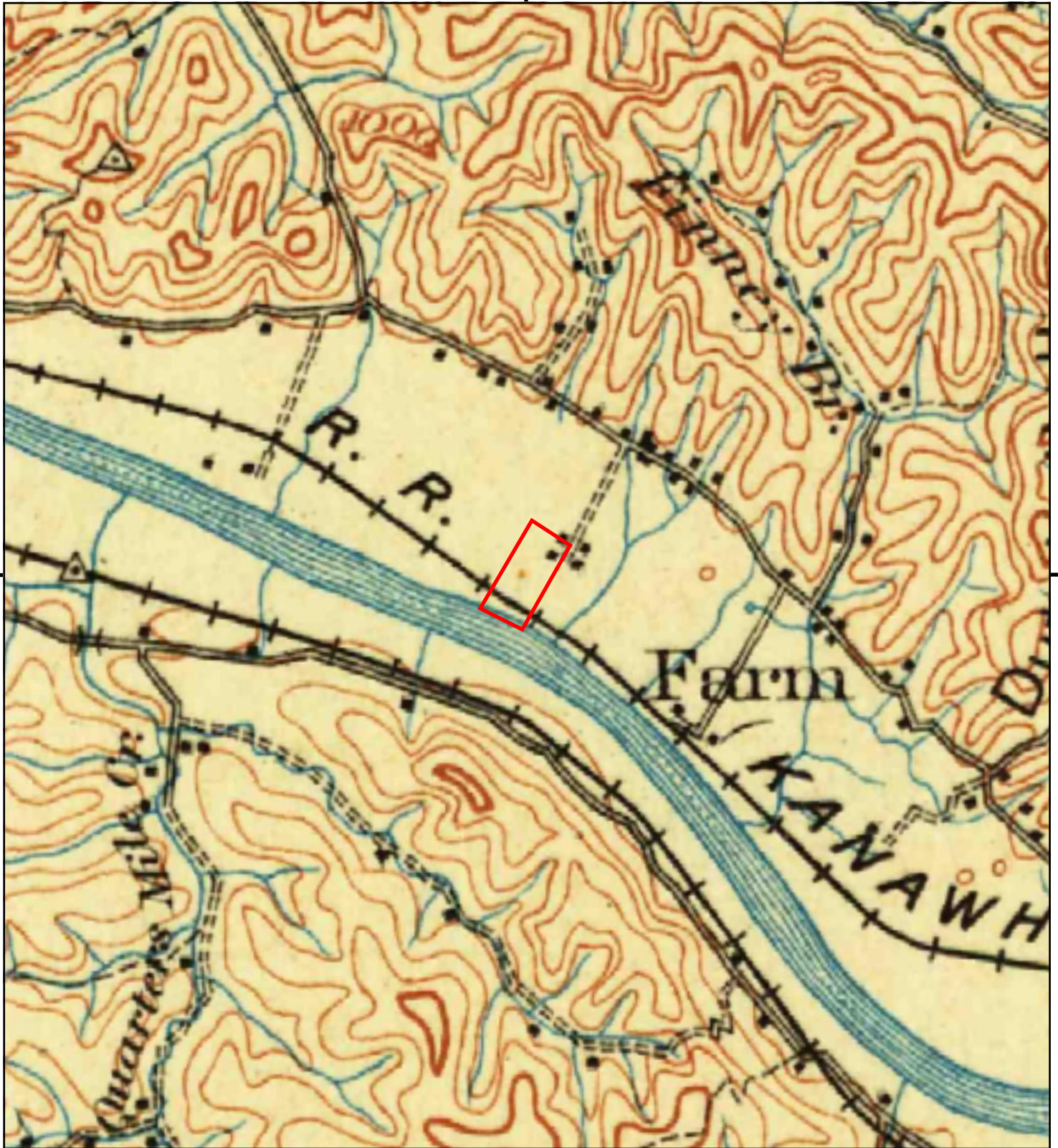
This report includes information from the following map sheet(s).



TP, Saint Albans, 1909, 15-minute
E, Charleston, 1909, 15-minute
E, Charleston Special, 1909, 15-minute

SITE NAME: WVSU EA
ADDRESS: 5000 Fairlawn Avenue
Dunbar, WV 25064
CLIENT: Terradon Corp.





This report includes information from the following map sheet(s).



TP, Charleston, 1899, 30-minute

SITE NAME: WVSU EA
 ADDRESS: 5000 Fairlawn Avenue
 Dunbar, WV 25064
 CLIENT: Terradon Corp.





WVSU EA

5000 Fairlawn Avenue
Dunbar, WV 25064

Inquiry Number: 4649665.14s
June 16, 2016

EDR NEPACheck®



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

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Wetlands.....	19
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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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EDR NEPACheck® DESCRIPTION

The National Environmental Policy Act of 1969 (NEPA) requires that Federal agencies include in their decision-making processes appropriate and careful consideration of all environmental effects and actions, analyze potential environmental effects of proposed actions and their alternatives for public understanding and scrutiny, avoid or minimize adverse effects of proposed actions, and restore and enhance environmental quality as much as possible.

The EDR NEPACheck provides information which may be used, in conjunction with additional research, to determine whether a proposed site or action will have significant environmental effect.

The report provides maps and data for the following items (where available). Search results are provided in the Map Findings Summary on page 2 of this report.

Section

Natural Areas Map

- Federal Lands Data:

- Officially designated wilderness areas
- Officially designated wildlife preserves, sanctuaries and refuges
- Wild and scenic rivers
- Fish and Wildlife

- Threatened or Endangered Species, Fish and Wildlife, Critical Habitat Data (where available)

Regulation

47 CFR 1.1307(1)

47 CFR 1.1307(2)

40 CFR 6.302(e)

40 CFR 6.302

47 CFR 1.1307(3); 40 CFR 6.302

Historic Sites Map

- National Register of Historic Places
- State Historic Places (where available)
- Indian Reservations

47 CFR 1.1307(4); 40 CFR 6.302

Flood Plain Map

- National Flood Plain Data (where available)

47 CFR 1.1307(6); 40 CFR 6.302

Wetlands Map

- National Wetlands Inventory Data (where available)

47 CFR 1.1307(7); 40 CFR 6.302

FCC & FAA Map

- FCC antenna/tower sites, FAA Markings and Obstructions, Airports, Topographic gradient

47 CFR 1.1307(8)

Key Contacts and Government Records Searched

MAP FINDINGS SUMMARY

The databases searched in this report are listed below. Database descriptions and other agency contact information is contained in the Key Contacts and Government Records Searched section on page 46 of this report.

TARGET PROPERTY ADDRESS

WVSU EA
5000 FAIRLAWN AVENUE
DUNBAR, WV 25064

Inquiry #: 4649665.14s
Date: 6/16/16












TARGET PROPERTY COORDINATES

Latitude (North): 38.378178 - 38° 22' 41.4"
Longitude (West): 81.771240 - 81° 46' 16.5"
Universal Tranverse Mercator: Zone 17
UTM X (Meters): 432634.3
UTM Y (Meters): 4247851.0

Applicable Regulation from 47 CFR/FCC Checklist	Database	Search Distance (Miles)	Within Search	Within 1/8 Mile
<u>NATURAL AREAS MAP</u>				
1.1307a (1) Officially Designated Wilderness Area	US Federal Lands	1.00	NO	NO
1.1307a (2) Officially Designated Wildlife Preserve	US Federal Lands	1.00	NO	NO
1.1307a (2) Officially Designated Wildlife Preserve	Wildlife Management Areas	1.00	NO	NO
1.1307a (2) Officially Designated Wildlife Preserve	State Parks Boundary	1.00	NO	NO
1.1307a (2) Officially Designated Wildlife Preserve	State Forest Boundary	1.00	NO	NO
1.1307a (2) Officially Designated Wildlife Preserve	National Park Boundaries	1.00	NO	NO
1.1307a (2) Officially Designated Wildlife Preserve	National Forest Complete Bound	1.00	NO	NO
1.1307a (2) Officially Designated Wildlife Preserve	Wildlife Management Areas Trai	1.00	NO	NO
1.1307a (2) Officially Designated Wildlife Preserve	Canaan Valley National Wildlif	1.00	NO	NO
1.1307a (3) Threatened or Endangered Species or Critical Habitat	Federal Endangered Species	County	YES	N/A
1.1307a (3) Threatened or Endangered Species or Critical Habitat	WV Endangered Species	County	YES	N/A
<u>HISTORIC SITES MAP</u>				
1.1307a (4) Listed or eligible for National Register	WV Historic Sites	1.00	YES	NO
	Indian Reservation	1.00	NO	NO
1.1307a (4) Listed or eligible for National Register	National Register of Hist. Pla	1.00	YES	NO
	APPAL_TRAIL	1.00	NO	NO
<u>FLOODPLAIN MAP</u>				
1.1307 (6) Located in a Flood Plain	FLOODPLAIN	1.00	YES	YES
<u>WETLANDS MAP</u>				
1.1307 (7) Change in surface features (wetland fill)	NWI	1.00	YES	NO
<u>FCC & FAA SITES MAP</u>				
	Cellular	1.00	NO	NO
	4G Cellular	1.00	NO	NO
	Antenna Structure Registration	1.00	YES	NO
	Towers	1.00	YES	NO
	AM Antenna	1.00	YES	NO
	FM Antenna	1.00	YES	NO
	FAA DOF	1.00	YES	NO
	Airports	1.00	YES	---
	Power Lines	1.00	YES	---

Natural Areas Map



- | | |
|---|---|
|  Target Property |  Locations |
|  Roads |  Federal Areas |
|  County Boundary |  Federal Linear Features |
|  Waterways |  State Areas |
|  Water |  State Linear Features |
|  Airports | |



SITE NAME: WVSU EA
 ADDRESS: 5000 Fairlawn Avenue
 Dunbar WV 25064
 LAT/LONG: 38.378178 / 81.771239

CLIENT: Terradon Corp.
 CONTACT: Michael Pickens
 INQUIRY #: 4649665.14s
 DATE: June 16, 2016

NATURAL AREAS MAP FINDINGS

Federal Endangered Species from the U.S. Fish and Wildlife for KANAWHA County

Group:Birds

Common Name: Red knot
Status: Threatened

Scientific Name: *Calidris canutus rufa*

Group:Clams

Common Name: Clubshell
Status: Endangered

Scientific Name: *Pleurobema clava*

Common Name: Fanshell
Status: Endangered

Scientific Name: *Cyprogenia stegaria*

Common Name: Northern riffleshell
Status: Endangered

Scientific Name: *Epioblasma torulosa rangiana*

Common Name: Pink mucket (pearlymussel)
Status: Endangered

Scientific Name: *Lampsilis abrupta*

Group:Mammals

Common Name: Northern Long-Eared Bat
Status: Threatened

Scientific Name: *Myotis septentrionalis*

Common Name: Indiana bat
Status: Endangered

Scientific Name: *Myotis sodalis*

Federal Endangered Species from the U.S. Fish and Wildlife for WV State

Group:Amphibians

Common Name: Eastern Hellbender
Status: Species of Concern

Scientific Name: *Cryptobranchus alleganiensis alleganiensis*

Common Name: Hellbender
Status: Under Review

Scientific Name: *Cryptobranchus alleganiensis*

Common Name: Streamside salamander
Status: Under Review

Scientific Name: *Ambystoma barbouri*

Common Name: West Virginia spring salamander
Status: Under Review

Scientific Name: *Gyrinophilus subterraneus*

Group:Arachnids

Common Name: Royal syarinid pseudoscorpion
Status: Species of Concern

Scientific Name: *Chitrella regina*

Common Name: Dry Fork Valley cave pseudoscorpion
Status: Species of Concern

Scientific Name: *Apochthonius paucispinosus*

Common Name: Orpheus cave pseudoscorpion
Status: Species of Concern

Scientific Name: *Kleptochthonius orpheus*

Common Name: Greenbrier Valley cave pseudoscorpion
Status: Species of Concern

Scientific Name: *Kleptochthonius henroti*

Common Name: Cavern sheet-web spider
Status: Species of Concern

Scientific Name: *Islandiana speophila*

NATURAL AREAS MAP FINDINGS

Federal Endangered Species from the U.S. Fish and Wildlife for WV State (Continued...)

Common Name: Proserpina cave pseudoscorpion Scientific Name: Kleptochthonius proserpinae
Status: Species of Concern

Common Name: Organ Cave pseudoscorpion Scientific Name: Kleptochthonius hetricki
Status: Species of Concern

Group:Birds

Common Name: Migrant loggerhead shrike Scientific Name: Lanius ludovicianus migrans
Status: Species of Concern

Common Name: Golden-winged warbler Scientific Name: Vermivora chrysoptera
Status: Under Review

Common Name: Black Rail Scientific Name: Laterallus jamaicensis
Status: Under Review

Group:Clams

Common Name: Longsolid Scientific Name: Fusconaia subrotunda
Status: Under Review

Common Name: Round hickorynut Scientific Name: Obovaria subrotunda
Status: Under Review

Common Name: [Unnamed] elktoe Scientific Name: Alasmidonta marginata
Status: Species of Concern

Common Name: Salamander mussel Scientific Name: Simpsonaias ambigua
Status: Under Review

Group:Crustaceans

Common Name: [Unnamed] isopod Scientific Name: Caecidotea simonini
Status: Species of Concern

Common Name: Culver's cave amphipod Scientific Name: Stygobromus culveri
Status: Species of Concern

Common Name: Spring Cave amphipod Scientific Name: Stygobromus spinatus
Status: Species of Concern

Common Name: Minute cave amphipod Scientific Name: Stygobromus parvus
Status: Under Review

Common Name: Redacted cave amphipod Scientific Name: Stygobromus redactus
Status: Species of Concern

Common Name: Elk River crayfish Scientific Name: Cambarus elkensis
Status: Under Review

Common Name: Greenbrier Cave crayfish Scientific Name: Cambarus nerterius
Status: Under Review

Common Name: No common name Scientific Name: Caecidotea cannula

NATURAL AREAS MAP FINDINGS

Federal Endangered Species from the U.S. Fish and Wildlife for WV State (Continued...)

Status: Under Review

Common Name: New River riffle crayfish
Status: Status Undefined

Scientific Name: *Cambarus chasmodactylus*

Common Name: Cooper's cave amphipod
Status: Under Review

Scientific Name: *Stygobromus cooperi*

Common Name: [Unnamed] isopod
Status: Species of Concern

Scientific Name: *Caecidotea sinuncus*

Common Name: [Unnamed] isopod
Status: Species of Concern

Scientific Name: *Caecidotea cannulus*

Common Name: Pocahontas cave amphipod
Status: Species of Concern

Scientific Name: *Stygobromus nanus*

Group:Fishes

Common Name: Popeye shiner
Status: Under Review

Scientific Name: *Notropis ariommus*

Common Name: Tippecanoe darter
Status: Under Review

Scientific Name: *Etheostoma tippecanoe*

Common Name: Candy darter
Status: Under Review

Scientific Name: *Etheostoma osburni*

Common Name: Kanawha minnow
Status: Species of Concern

Scientific Name: *Phenacobius teretulus*

Common Name: Cheat minnow
Status: Species of Concern

Scientific Name: *Pararhinichthys bowersi*

Common Name: Lake sturgeon
Status: Species of Concern

Scientific Name: *Acipenser fulvescens*

Common Name: Longhead darter
Status: Under Review

Scientific Name: *Percina macrocephala*

Common Name: Eastern sand darter
Status: Species of Concern

Scientific Name: *Ammocrypta pellucida*

Common Name: diamond Darter
Status: Endangered

Scientific Name: *Crystallaria cincotta*

Group:Flatworms and Roundworms

Common Name: Culver's planarian
Status: Species of Concern

Scientific Name: *Sphalloplana culveri*

Group:Flowering Plants

Common Name: Silvery nailwort
Status: Species of Concern

Scientific Name: *Paronychia virginica* var. *virginica*

NATURAL AREAS MAP FINDINGS

Federal Endangered Species from the U.S. Fish and Wildlife for WV State (Continued...)

Common Name: [Unnamed] liverwort Status: Species of Concern	Scientific Name: <i>Plagiochila sullivantii</i>
Common Name: [Unnamed] catchfly Status: Species of Concern	Scientific Name: <i>Silene virginica robusta</i>
Common Name: Auriculate false-foxglove Status: Species of Concern	Scientific Name: <i>Agalinis auriculata</i>
Common Name: Alleghany plum Status: Species of Concern	Scientific Name: <i>Prunus alleghaniensis</i>
Common Name: No common name Status: Species of Concern	Scientific Name: <i>Trillium pusillum monticulum</i>
Common Name: Gray's saxifrage Status: Species of Concern	Scientific Name: <i>Saxifraga caroliniana</i>
Common Name: Ammon's tortula Status: Species of Concern	Scientific Name: <i>Tortula ammoniana</i>
Common Name: [Unnamed] horse-mint Status: Species of Concern	Scientific Name: <i>Monarda fistulosa brevis</i>
Common Name: Heart-leaved, skullcap Status: Species of Concern	Scientific Name: <i>Scutellaria ovata pseudoarguta</i>
Common Name: Variable sedge Status: Species of Concern	Scientific Name: <i>Carex polymorpha</i>

Group: Insects

Common Name: West Virginia burrowing mayfly Status: Species of Concern	Scientific Name: <i>Ephemera triplex</i>
Common Name: Cobblestone tiger beetle Status: Under Review	Scientific Name: <i>Cicindela marginipennis</i>
Common Name: Rich Mountain cave beetle Status: Species of Concern	Scientific Name: <i>Pseudanophthalmus krekeleeri</i>
Common Name: Grizzled skipper Status: Species of Concern	Scientific Name: <i>Pyrgus centaureae</i>
Common Name: Mystic cave beetle Status: Species of Concern	Scientific Name: <i>Pseudanophthalmus hadenoecus</i>
Common Name: Elusive clubtail Status: Species of Concern	Scientific Name: <i>Stylurus notatus</i>
Common Name: Diana fritillary Status: Species of Concern	Scientific Name: <i>Speyeria diana</i>
Common Name: Regal fritillary Status: Under Review	Scientific Name: <i>Speyeria idalia</i>

NATURAL AREAS MAP FINDINGS

Federal Endangered Species from the U.S. Fish and Wildlife for WV State (Continued...)

Common Name: Gandy Creek cave springtail Status: Species of Concern	Scientific Name: Pseudosinella certa
Common Name: Sixbanded long-horned beetle Status: Species of Concern	Scientific Name: Dryobius sexnotatus
Common Name: [Unnamed] cave beetle Status: Species of Concern	Scientific Name: Pseudanophthalmus sylvaticus
Common Name: South Branch Valley cave beetle Status: Under Review	Scientific Name: Pseudanophthalmus potomaca potomaca
Common Name: Seneca cave beetle Status: Species of Concern	Scientific Name: Pseudanophthalmus potomaca senecae
Common Name: [Unnamed] looper moth Status: Species of Concern	Scientific Name: Euchlaena milnei
Common Name: Shelled cave springtail Status: Species of Concern	Scientific Name: Pseudosinella testa
Common Name: Lallemand's cave beetle Status: Species of Concern	Scientific Name: Pseudanophthalmus lallemandi
Common Name: Greenbrier Valley cave beetle Status: Species of Concern	Scientific Name: Pseudanophthalmus fuscus fuscus
Common Name: Tawny crescent Status: Species of Concern	Scientific Name: Phyciodes batesii
Common Name: Arbuckle Cave ground beetle Status: Species of Concern	Scientific Name: Horologion speokites
Common Name: Dry Fork Valley cave beetle Status: Under Review	Scientific Name: Pseudanophthalmus montanus
Common Name: Black lordithon rove beetle Status: Species of Concern	Scientific Name: Lordithon niger
Common Name: Monarch butterfly Status: Under Review	Scientific Name: Danaus plexippus plexippus
Common Name: Appalachian snaketail Status: Under Review	Scientific Name: Ophiogomphus incurvatus
Common Name: Alleghany snaketail Status: Under Review	Scientific Name: Ophiogomphus incurvatus alleghaniensis

Group:Mammals

Common Name: Southern water shrew Status: Species of Concern	Scientific Name: Sorex palustris punctulatus
Common Name: Southern rock vole Status: Species of Concern	Scientific Name: Microtus chrotorrhinus carolinensis

NATURAL AREAS MAP FINDINGS

Federal Endangered Species from the U.S. Fish and Wildlife for WV State (Continued...)

Group:Reptiles

Common Name: Northern pine snake
Status: Species of Concern

Scientific Name: *Pituophis melanoleucus melanoleucus*

Common Name: Wood turtle
Status: Under Review

Scientific Name: *Glyptemys insculpta*

Group:Snails

Common Name: Greenbrier cavesnail
Status: Species of Concern

Scientific Name: *Fontigens turritella*

Common Name: Tapered cavesnail
Status: Species of Concern

Scientific Name: *Fontigens holsingeri*

Common Name: Sidelong supercoil
Status: Species of Concern

Scientific Name: *Paravitrea ceres*

WV Endangered species for KANAWHA County

Common Name: Clubshell
Global Rank: G2

Scientific Name: *Pleurobema clava*
State Rank: S1

Common Name: Crystal darter
Global Rank: G1

Scientific Name: *Crystallaria cincotta*
State Rank: S1

Common Name: Fanshell
Global Rank: G1Q

Scientific Name: *Cyprogenia stegaria*
State Rank: S1

Common Name: Indiana bat
Global Rank: G2

Scientific Name: *Myotis sodalis*
State Rank: S1

Common Name: Northern riffleshell
Global Rank: G2T2

Scientific Name: *Epioblasma torulosa rangiana*
State Rank: S1

Common Name: Pink mucket
Global Rank: G2

Scientific Name: *Lampsilis abrupta*
State Rank: S1

Common Name: Rayed bean
Global Rank: G2

Scientific Name: *Villosa fabalis*
State Rank: S1

Common Name: Snuffbox
Global Rank: G3

Scientific Name: *Epioblasma triquetra*
State Rank: S2

Common Name: Spectaclecase
Global Rank: G3

Scientific Name: *Cumberlandia monodonta*
State Rank: S1

NATURAL AREAS MAP FINDINGS

Map ID
Direction
Distance
Distance (ft.)

EDR ID
Database

No mapped sites were found in EDR's search of available government records within the search radius around the target property.

Endangered Species Codes

Global Imperilment Rank Codes - GRANK: Priority rank (1-5) based on number of occurrences through element's range.

G1 - Critically imperiled globally because of extreme rarity (5 or fewer occurrences or very few remaining individuals or acres) or because of some factor(s) making it especially vulnerable to extinction.

G2 - Imperiled globally because of rarity (6-20 occurrences or few remaining individuals or acres) or because of some factor(s) making it especially vulnerable to extinction.

G3 - Vulnerable. Either very rare and local throughout its range or found locally (even abundantly at some of its locations) in a restricted range. (e.g., a single western state, a physiographic region in the East) or because of other factors making it vulnerable to extinction throughout its range; in terms of occurrences, in the range of 21 - 100.

G4 - Apparently secure globally, though it may be quite rare in parts of its range, especially at the periphery.

G5 - Demonstrably secure globally, though it may be quite rare in parts of its range, especially at the periphery.

GH - Possibly extinct or eliminated. Of historical occurrence throughout its range, i.e., formerly part of the established biota, with the expectation that it may be rediscovered (e.g., Bachman's Warbler). For historic and ecological communities, no likelihood for rediscovery, but possibility of restoration (e.g., American Chestnut Forest).

GNA - Not applicable to the element at a global level. Includes Hybrids, Invasive species, species of Domestic Origin, Cultural communities, and communities that have been managed.

GNR - Rank not assigned.

GU - Unrankable. Possibly in peril range-wide but status uncertain; more information is needed.

GX - Believed to be extinct throughout range (e.g., Passenger Pigeon) with virtually no likelihood that it will be rediscovered. For an ecological community, no restoration potential.

G#G# - Rank with a range. Used to show the range of uncertainty, will not skip more than 1 rank.

T-RANKS - T subranks are given to global ranks when a subspecies, variety, or race is considered at the state level. The subrank is made up of a "T" plus a number or letter (1, 2, 3, 4, 5, H, U, X) with the same ranking rules as a full species.

State Rank Codes - SRANK: Priority rank (1-5) based on number of occurrences through element's range.

S1 - Critically imperiled, Extremely rare. Typically 5 or fewer estimated occurrences in the state, or only a few remaining individuals, may be especially vulnerable to extirpation.

S2 - Imperiled, very rare. Typically between 5 and 20 estimated occurrences or with many individuals in fewer occurrences, often susceptible to becoming extirpated.

S3 - Vulnerable, rare to uncommon. Typically between 21 and 100 estimated occurrences, may have fewer occurrences but with large number of individuals in some populations, may be susceptible to large-scale disturbances.

S4 - Common, apparently secure under present conditions. Typically 100 or more estimated occurrences, but may be fewer with many large populations, may be restricted to only a portion of the state, usually not susceptible to immediate threats.

S5 - Demonstrably widespread, common, and secure in the state and essentially ineradicable under present conditions.

SA - Accidental.

SH - Historically known from the state, but not verified for an extended period, usually 15 years.

SU - Unrankable, not assessed. Possibly in peril in the state, but status uncertain, more information is needed. When possible, the most likely rank is assigned and a question mark is added to show uncertainty.

SX - Apparently extirpated from state.

SNR - Unranked. The state rank not yet assessed.

SRF - Reported falsely in the state.

SE - Exotic for local area.

SZ - Birds that migrate through the state but have no identifiable location.

S#S# - State level of G#G#.

Endangered Species Codes, (Continued...)

General Ranking Notes

Q - A "Q" in the global rank indicates the element's taxonomic classification as a species is a matter of conjecture among scientists.

A - Accidental - far outside usual range

C - Captive or Cultivated only

HYB - Element represents an interspecific hybrid, not a species

R - Reported but not confirmed

Z - Zero Occurrences

Breeding Status Qualifiers (animals only)

B - Breeding population of the element

N - Nonbreeding population of the element

M - Migrant population

Historic Sites Map



- ★ Target Property
- ◆ Historic Sites
- Streets
- County Boundary
- Waterways
- Water
- Airports
- Federal Historic Areas
- State Historic Areas
- US Indian Reservations
- Scenic Trail



SITE NAME: WVSU EA
 ADDRESS: 5000 Fairlawn Avenue
 Dunbar WV 25064
 LAT/LONG: 38.378178 / 81.771239

CLIENT: Terradon Corp.
 CONTACT: Michael Pickens
 INQUIRY #: 4649665.14s
 DATE: June 16, 2016

HISTORIC SITES MAP FINDINGS

Map ID Direction Distance Distance (ft.)		EDR ID Database
A1 ENE 1/8-1/4 mi 946	Fname: East Hall, West Quadrangle Address: WV State College Campus Fcity: Institute Fcnty: KANAWHA COUNTY Flisted: (9/26/88) Remark: [1] Edr id: WV2008000000554	WV2008000000554 WV Historic Sites
A2 ENE 1/8-1/4 mi 1178	Fname: Canty House ("The Magnolia") Address: WV State College Campus Fcity: Institute Fcnty: KANAWHA COUNTY Flisted: (9/23/88) Remark: [1] Edr id: WV2008000000553	WV2008000000553 WV Historic Sites
B3 ENE 1/4-1/2 mi 1844	Ref num: 88001587 Res name: Canty House Address: WV 25 State: WEST VIRGINIA County: KANAWHA City: INSTITUTE Vicinity: Not Reported Restricted: Not Reported Certification: LISTED IN THE NATIONAL REGISTER Cert date: 19880923 Retype: Building Numcbldg: 1 Numcsite: 0 Num contrib struct: 0 Num contrib obj: 0 Multname: Not Reported	USHBX0000032638 National Register of Hist. Places
B4 ENE 1/4-1/2 mi 1844		USHBX0000032639 National Register of Hist. Places

HISTORIC SITES MAP FINDINGS

Map ID
Direction
Distance
Distance (ft.)

EDR ID
Database

Ref num:	88001585
Res name:	East Hall
Address:	West Quadrangle, West Virginia State College
State:	WEST VIRGINIA
County:	KANAWHA
City:	INSTITUTE
Vicinity:	Not Reported
Restricted:	Not Reported
Certification:	LISTED IN THE NATIONAL REGISTER
Cert date:	19880926
Retype:	Building
Numcbldg:	1
Numcsite:	0
Num contrib struct:	0
Num contrib obj:	0
Multname:	Not Reported

UNMAPPABLE HISTORIC SITES

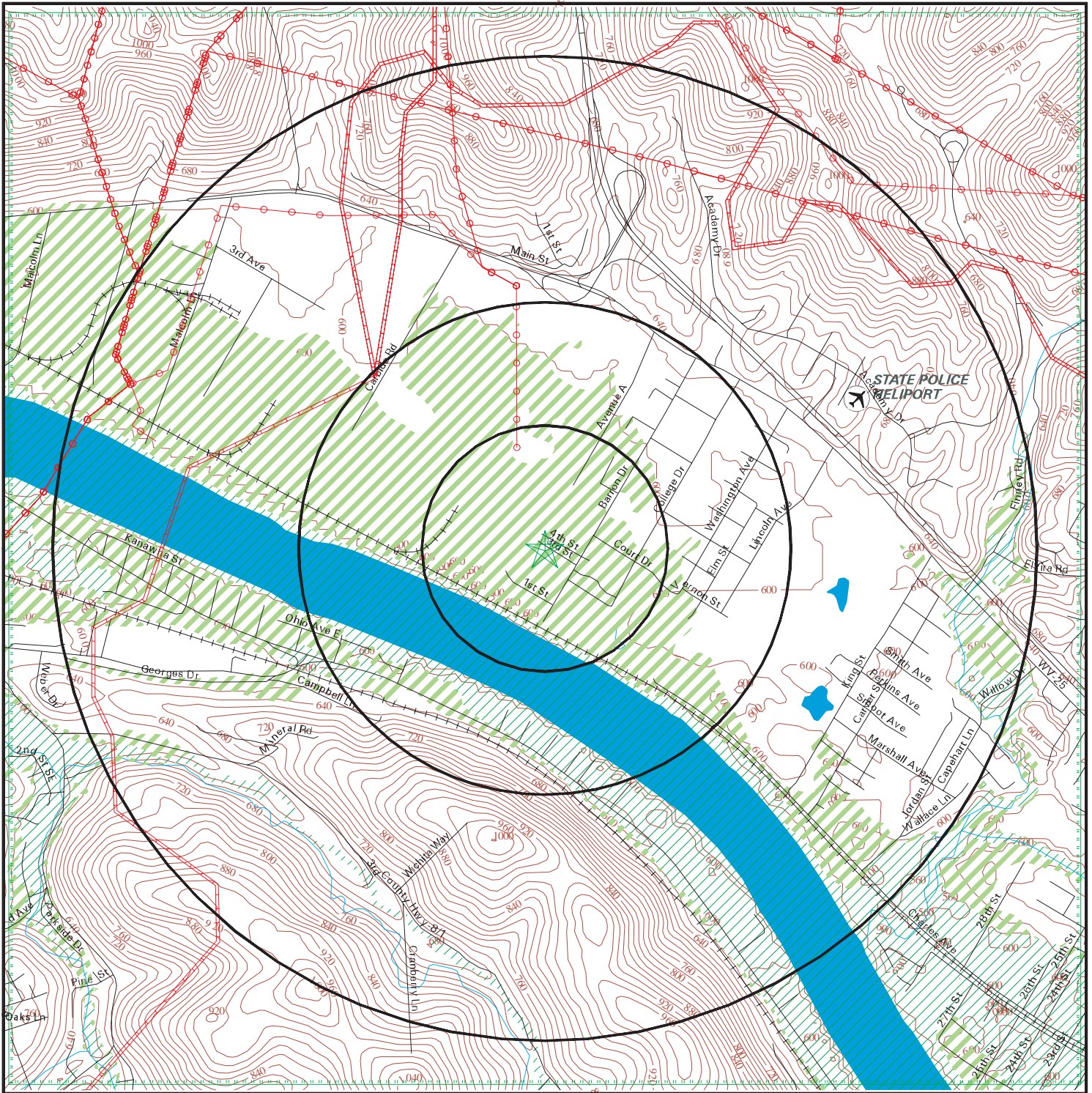
Due to poor or inadequate address information, the following sites were not mapped:

Status
EDR ID
Database

Fname: St. Albans Site
Faddress: Not Reported
Fcity: St. Albans Vicinity
Fcnty: KANAWHA COUNTY
Flisted: (5/3/74)
Remark: [1]
Edr id: WV2008000000574

Unmappable
WV2008000000574
WV Historic Sites

Flood Plain Map



- | | | | | | |
|--|-----------------|--|--------------------------------|--|------------------------------------|
| | Major Roads | | Power Lines | | Water |
| | Contour Lines | | Pipe Lines | | 100-year flood zone |
| | Waterways | | Fault Lines | | 500-year flood zone |
| | County Boundary | | Electronic FEMA data available | | Electronic FEMA data not available |
| | Airports | | | | |

SITE NAME: WVSU EA
 ADDRESS: 5000 Fairlawn Avenue
 Dunbar WV 25064
 LAT/LONG: 38.378178 / 81.771239

CLIENT: Terradon Corp.
 CONTACT: Michael Pickens
 INQUIRY #: 4649665.14s
 DATE: June 16, 2016

FLOOD PLAIN MAP FINDINGS

Source: FEMA DFIRM Flood Data, FEMA Q3 Flood Data

County

FEMA flood data electronic coverage

KANAWHA, WV

YES

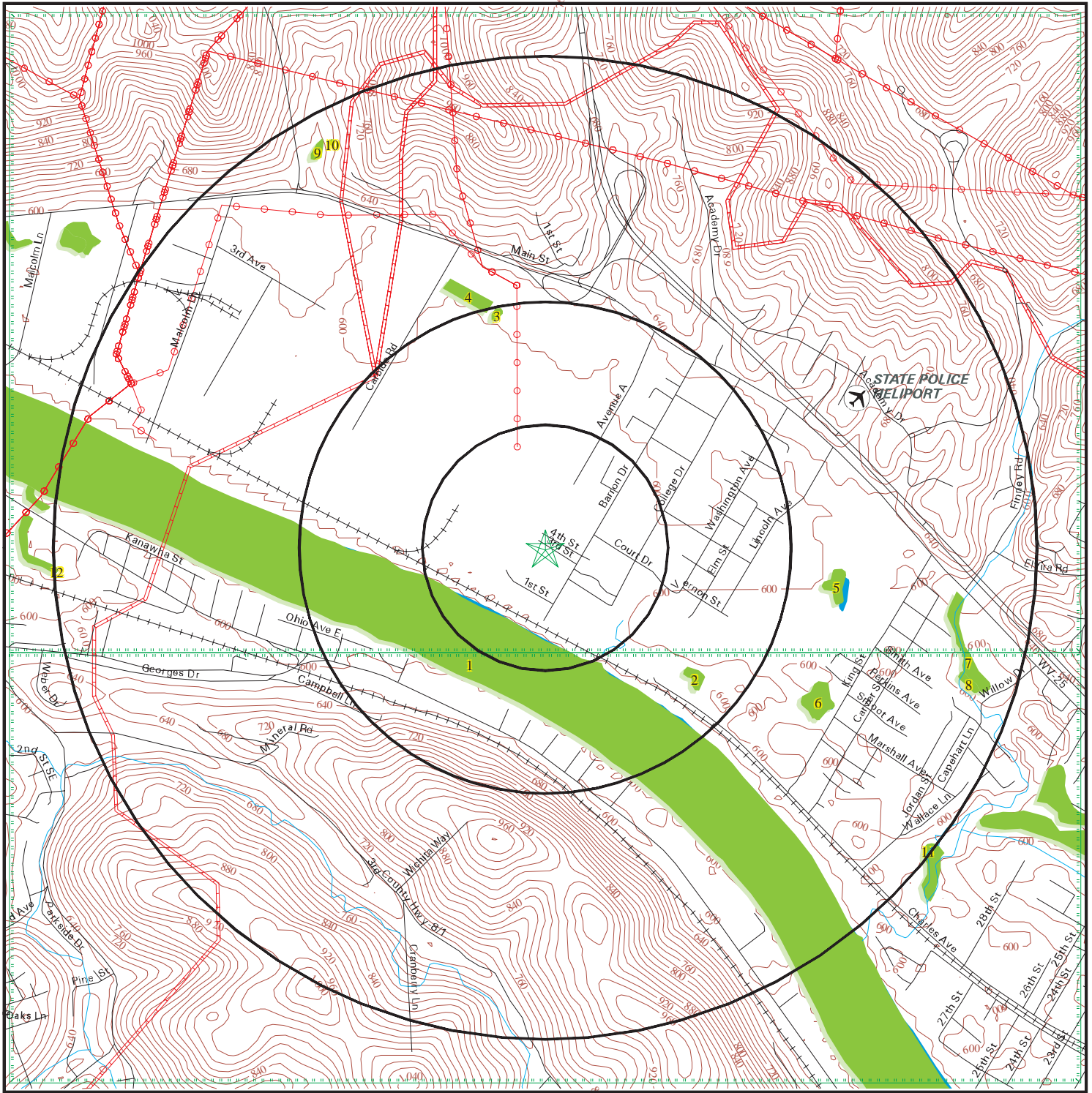
Flood Plain panel at target property:

54039C (FEMA DFIRM Flood data)

Additional Flood Plain panel(s) in search area:

None Reported

National Wetlands Inventory Map



- | | | | | | |
|--|-----------------|--|-------------|--|-----------------------------------|
| | Major Roads | | Power Lines | | Water |
| | Contour Lines | | Pipe Lines | | National Wetlands Inventory |
| | Waterways | | Fault Lines | | State Wetlands |
| | County Boundary | | | | Electronic NWI data available |
| | Airports | | | | Electronic NWI data not available |



SITE NAME: WVSU EA
 ADDRESS: 5000 Fairlawn Avenue
 Dunbar WV 25064
 LAT/LONG: 38.378178 / 81.771239

CLIENT: Terradon Corp.
 CONTACT: Michael Pickens
 INQUIRY #: 4649665.14s
 DATE: June 16, 2016

WETLANDS MAP FINDINGS

Source: Fish and Wildlife Service NWI data

NWI hardcopy map at target property: Saint Albans

Additional NWI hardcopy map(s) in search area:
Alum Creek

Map ID

Direction

Distance

Distance (ft.)

Code and Description*

Database

Map ID	Direction	Distance	Distance (ft.)	Code and Description*	Database
1	SSW	1/8-1/4 mi	862	R5UBH [R] Riverine [5] Unknown Perennial [UB] Unconsolidated Bottom [H] Permanently Flooded Lat/Lon: 38.376072 / -81.772614	NWI
2	SE	1/4-1/2 mi	1986	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 38.374565 / -81.766045	NWI
3	NNW	1/4-1/2 mi	2491	PEM1E [P] Palustrine [EM] Emergent [1] Persistent [E] Seasonally Flooded/Saturated Lat/Lon: 38.384853 / -81.773148	NWI
4	NNW	1/4-1/2 mi	2599	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 38.385101 / -81.773438	NWI
5	East	1/2-1 mi	2997	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 38.377098 / -81.760864	NWI
6	ESE	1/2-1 mi	3183	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 38.373779 / -81.761635	NWI
7	East	1/2-1 mi	4373	PFO1A [P] Palustrine [FO] Forested [1] Broad-Leaved Deciduous [A] Temporarily Flooded Lat/Lon: 38.376236 / -81.756180	NWI
8	ESE	1/2-1 mi	4644	PEM1C [P] Palustrine [EM] Emergent [1] Persistent [C] Seasonally Flooded Lat/Lon: 38.374386 / -81.755768	NWI

*See Wetland Classification System for additional information.

WETLANDS MAP FINDINGS

Map ID Direction Distance Distance (ft.)	Code and Description*	Database
9 NNW 1/2-1 mi 4826	PUBHh [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [h] Diked/Impounded Lat/Lon: 38.389652 / -81.779663	NWI
10 NNW 1/2-1 mi 4881	PUBHh [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [h] Diked/Impounded Lat/Lon: 38.390038 / -81.779182	NWI
11 SE 1/2-1 mi 5187	PEM1E [P] Palustrine [EM] Emergent [1] Persistent [E] Seasonally Flooded/Saturated Lat/Lon: 38.369354 / -81.757027	NWI
12 West 1/2-1 mi 5230	PUBH [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded Lat/Lon: 38.377502 / -81.789467	NWI

*See Wetland Classification System for additional information.

WETLANDS CLASSIFICATION SYSTEM

National Wetland Inventory Maps are produced by the U.S. Fish and Wildlife Service, a sub-department of the U.S. Department of the Interior. In 1974, the U.S. Fish and Wildlife Service developed a criteria for wetland classification with four long range objectives:

- to describe ecological units that have certain homogeneous natural attributes,
- to arrange these units in a system that will aid decisions about resource management,
- to furnish units for inventory and mapping, and
- to provide uniformity in concepts and terminology throughout the U.S.

High altitude infrared photographs, soil maps, topographic maps and site visits are the methods used to gather data for the productions of these maps. In the infrared photos, wetlands appear as different colors and these wetlands are then classified by type. Using a hierarchical classification, the maps identify wetland and deepwater habitats according to:

- system
- subsystem
- class
- subclass
- modifiers

(as defined by Cowardin, et al. U.S. Fish and Wildlife Service FWS/OBS 79/31. 1979.)

The classification system consists of five systems:

1. marine
2. estuarine
3. riverine
4. lacustrine
5. palustrine

The marine system consists of deep water tidal habitats and adjacent tidal wetlands. The riverine system consists of all wetlands contained within a channel. The lacustrine systems includes all nontidal wetlands related to swamps, bogs & marshes. The estuarine system consists of deepwater tidal habitats and where ocean water is diluted by fresh water. The palustrine system includes nontidal wetlands dominated by trees and shrubs and where salinity is below .5% in tidal areas. All of these systems are divided in subsystems and then further divided into class.

National Wetland Inventory Maps are produced by transferring gathered data on a standard 7.5 minute U.S.G.S. topographic map. Approximately 52 square miles are covered on a National Wetland Inventory map at a scale of 1:24,000. Electronic data is compiled by digitizing these National Wetland Inventory Maps.

SYSTEM

MARINE

SUBSYSTEM

1 - SUBTIDAL

2 - INTERTIDAL

CLASS	RB-ROCK BOTTOM	UB-UNCONSOLIDATED BOTTOM	AB-AQUATIC BED	RF-REEF	OW-OPEN WATER / Unknown Bottom	AB-AQUATIC BED	RF-REEF	RS-ROCKY SHORE	US-UNCONSOLIDATED SHORE
Subclass	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Algal 3 Rooted Vascular 5 Unknown Submergent	1 Coral 3 Worm		1 Algal 3 Rooted Vascular 5 Unknown Submergent	1 Coral 3 Worm	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic

SYSTEM

E - ESTUARINE

SUBSYSTEM

1 - SUBTIDAL

CLASS	RB-ROCK BOTTOM	UB-UNCONSOLIDATED BOTTOM	AB-AQUATIC BED	RF-REEF	OW-OPEN WATER / Unknown Bottom
Subclass	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Algal 3 Rooted Vascular 4 Floating Vascular 5 Unknown Submergent 6 Unknown Surface	2 Mollusk 3 Worm	

SUBSYSTEM

2 - INTERTIDAL

CLASS	AB-AQUATIC BED	RF-REEF	SB - STREAMBED	RS-ROCKY SHORE	US-UNCONSOLIDATED SHORE	EM-EMERGENT	SS-SCRUB SHRUB	FO-FORESTED
Subclass	1 Algal 3 Rooted Vascular 4 Floating Vascular 5 Unknown Submergent 6 Unknown Surface	2 Mollusk 3 Worm	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Persistent 2 Nonpersistent	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen 5 Dead 6 Deciduous 7 Evergreen	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen 5 Dead 6 Deciduous 7 Evergreen

SYSTEM

R - RIVERINE

SUBSYSTEM

1 - TIDAL 2 - LOWER PERENNIAL 3 - UPPER PERENNIAL 4 - INTERMITTENT 5 - UNKNOWN PERENNIAL

CLASS	RB-ROCK BOTTOM	UB-UNCONSOLIDATED BOTTOM	*SB-STREAMBED	AB-AQUATIC BED	RS-ROCKY SHORE	US-UNCONSOLIDATED SHORE	**EM-EMERGENT	OW-OPEN WATER/ Unknown Bottom
Subclass	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Bedrock 2 Rubble 3 Cobble-Gravel 4 Sand 5 Mud 6 Organic 7 Vegetated	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 Unknown Submergent 6 Unknown Surface	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic 5 Vegetated	2 Nonpersistent	

* STREAMBED is limited to TIDAL and INTERMITTENT SUBSYSTEMS, and comprises the only CLASS in the INTERMITTENT SUBSYSTEM.
 **EMERGENT is limited to TIDAL and LOWER PERENNIAL SUBSYSTEMS.

SYSTEM

L - LACUSTRINE

SUBSYSTEM

1 - LIMNETIC

CLASS	RB-ROCK BOTTOM	UB-UNCONSOLIDATED BOTTOM	AB-AQUATIC BED	OW-OPEN WATER/ Unknown Bottom
Subclass	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 Unknown Submergent 6 Unknown Surface	

SUBSYSTEM

2 - LITTORAL

CLASS	RB-ROCK BOTTOM	UB-UNCONSOLIDATED BOTTOM	AB-AQUATIC BED	RS-ROCKY SHORE	US-UNCONSOLIDATED SHORE	EM-EMERGENT	OW-OPEN WATER/ Unknown Bottom
Subclass	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 Unknown Submergent 6 Unknown Surface	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic 5 Vegetated	2 Nonpersistent	

SUBSYSTEM

P - PALUSTRINE

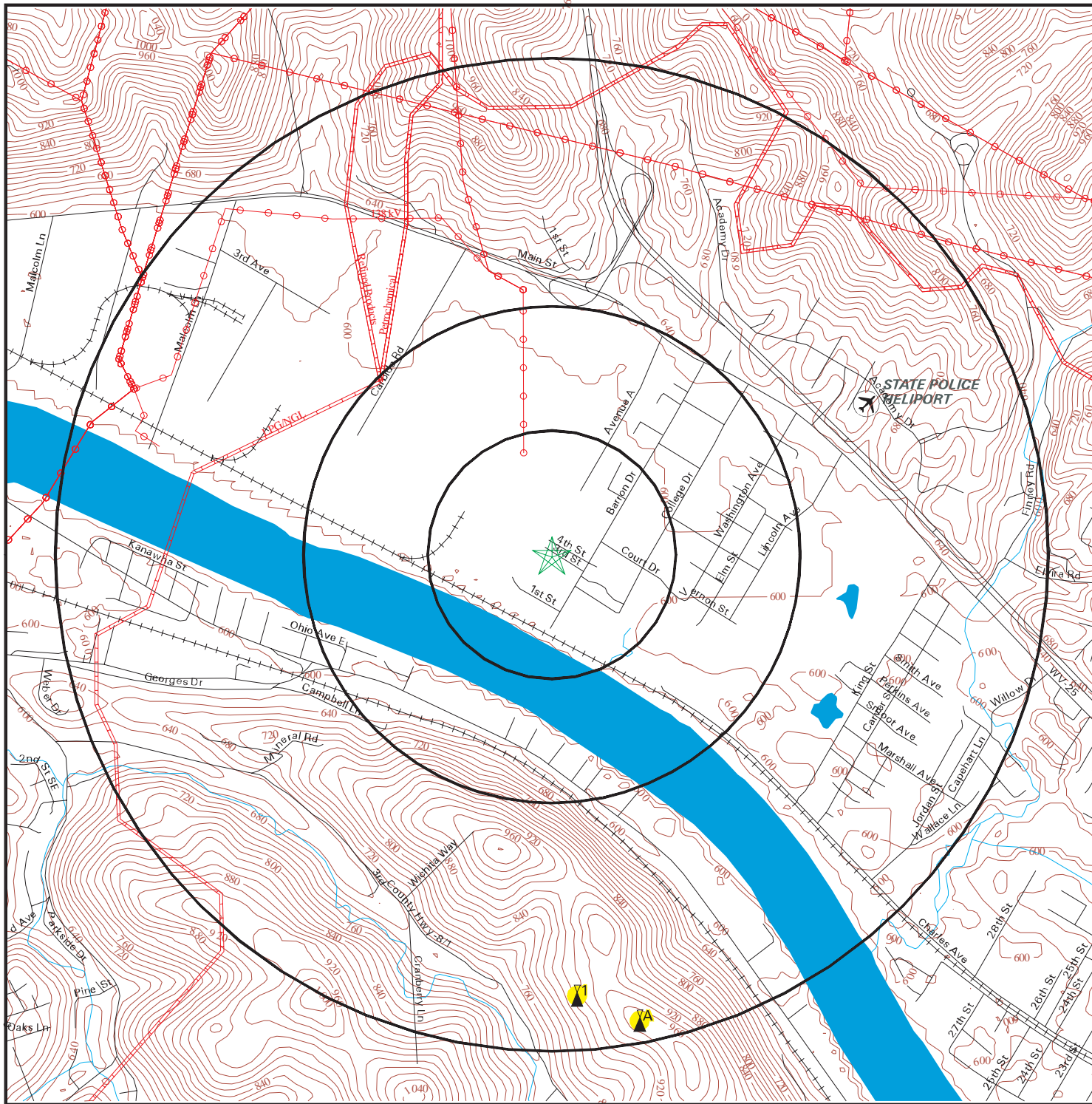
CLASS	RB--ROCK BOTTOM	UB--UNCONSOLIDATED BOTTOM	AB-AQUATIC BED	US--UNCONSOLIDATED SHORE	ML--MOSS- LICHEN	EM--EMERGENT	SS--SCRUB-SHRUB	FO--FORESTED	OW-OPEN WATER/ Unknown
Subclass	1 Bedrock 2 Rubble 3 Mud 4 Organic	1 Cobble-Gravel 2 Sand	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 Unknown 6 Unknown Surface	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic 5 Vegetated	1 Moss 2 Lichen	1 Persistent 2 Nonpersistent	1 Broad-Leaved 2 Needle-Leaved 3 Broad-Leaved 4 Needle-Leaved 5 Dead 6 Deciduous 7 Evergreen	1 Broad-Leaved 2 Needle-Leaved 3 Broad-Leaved 4 Needle-Leaved 5 Dead 6 Deciduous 7 Evergreen	

MODIFIERS

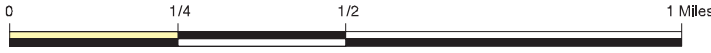
In order to more adequately describe wetland and deepwater habitats one or more of the water regime, water chemistry, soil, or special modifiers may be applied at the class or lower level in the hierarchy. The farmed modifier may also be applied to the ecological system.

WATER REGIME				WATER CHEMISTRY			SOIL	SPECIAL MODIFIERS
Non-Tidal	Tidal	Coastal	Inland	Salinity	pH	Modifiers		
A Temporarily Flooded	H Permanently Flooded	K Artificially Flooded	*S Temporary-Tidal	1 Hyperhaline	7 Hypersaline	all Fresh Water	g Organic	b Beaver
B Saturated	J Intermittently Flooded	L Subtidal	*R Seasonal-Tidal	2 Euhaline	8 Eusaline	a Acid	n Mineral	d Partially Drained/Ditched
C Seasonally Flooded	K Artificially Flooded	M Irregularly Exposed	*T Semipermanent -Tidal	3 Mixohaline (Brackish)	9 Mixosaline	t Circumneutral		f Farmed
D Seasonally Flooded/ Well Drained	W Intermittently Flooded/Temporary	N Regularly Flooded	V Permanent -Tidal	4 Polyhaline	0 Fresh	i Alkaline		h Diked/Impounded
E Seasonally Flooded/ Saturated	Y Saturated/Semipermanent/ Seasonal	P Irregularly Flooded	U Unknown	5 Mesohaline				r Artificial Substrate
F Semipermanently Flooded	Z Intermittently Exposed/Permanent	*These water regimes are only used in tidally influenced, freshwater systems.			6 Oligohaline			s Spoil
G Intermittently Exposed	U Unknown			0 Fresh				x Excavated

FCC & FAA Sites Map



-  Streets
-  Contour Lines
-  County Boundary
-  Waterways
-  Power Lines
-  Water
-  Airports
-  Sites



SITE NAME: WVSU EA
 ADDRESS: 5000 Fairlawn Avenue
 Dunbar WV 25064
 LAT/LONG: 38.378178 / 81.771239

CLIENT: Terradon Corp.
 CONTACT: Michael Pickens
 INQUIRY #: 4649665.14s
 DATE: June 16, 2016

FCC & FAA SITES MAP FINDINGS TOWERS

Map ID
Direction
Distance
Distance (ft.)

EDR ID
Database

1
South
1/2-1 mi
4695

ANT130000042359
ANTREG

Regnum: 1054161
 Filenum: A0063681
 Issuedate: 8/4/1998
 Entity: WEST VIRGINIA RADIO CORPORATION DBA = WCHS AM
 Strucht: 128.9
 Strucadd: TWR 4 - HAMPSHIRE DR 9.33 MI W OF YEAGER AIRPORT
 Struccity: CHARLESTON
 Strucstate: WV
 Faastudy: Not Reported
 Faacirc: Not Reported
 Licid: Not Reported
 Contname: Not Reported
 Contadd: 1111 VIRGINIA ST E
 Contpo: Not Reported
 Contcity: CHARLESTON
 Contstate: WV
 Contzip: 25301
 Edr id: ANT130000042359

This record is for a license, and it may or may not indicate a site which has been built.

A2
South
1/2-1 mi
4838

FMT130000015397
FM_ANTENNA

Callsign: WKWS
 Frequency: 96.1 MHz
 Service: FM
 Class: B
 Status: LIC
 City: CHARLESTON
 State: WV
 Country: US
 Filenum: BLH -19930405KB
 Facid: 71661
 Licensee: WEST VIRGINIA RADIO CORPORATION OF CHARLESTON
 Edr id: FMT130000015397

This record is for a license, and it may or may not indicate a site which has been built.

FCC & FAA SITES MAP FINDINGS TOWERS

Map ID
Direction
Distance
Distance (ft.)

EDR ID
Database

A3
South
1/2-1 mi
4880

ANT130000042358
ANTREG

Regnum: 1054160
 Filenum: A0063680
 Issuedate: 8/4/1998
 Entity: WEST VIRGINIA RADIO CORPORATION DBA = WCHS AM
 Strucht: 128.9
 Strucadd: TWR 3 - HAMPSHIRE DR 9.33 MI W OF YEAGER AIRPORT
 Struccity: CHARLESTON
 Strucstate: WV
 Faastudy: Not Reported
 Faacirc: Not Reported
 Licid: Not Reported
 Contname: Not Reported
 Contadd: 1111 VIRGINIA ST E
 Contpo: Not Reported
 Contcity: CHARLESTON
 Contstate: WV
 Contzip: 25301
 Edr id: ANT130000042358

This record is for a license, and it may or may not indicate a site which has been built.

A4
South
1/2-1 mi
5134

ATM130000002446
AM_ANTENNA

Callsign: WCHS
 Frequency: 580 kHz
 Service: AM
 Class: B
 Status: LIC
 City: CHARLESTON
 State: WV
 Country: US
 Filenum: BL --
 Facid: 71660
 Licensee: WEST VIRGINIA RADIO CORPORATION OF CHARLESTON
 Edr id: ATM130000002446

This record is for a license, and it may or may not indicate a site which has been built.

FCC & FAA SITES MAP FINDINGS

TOWERS

Map ID
Direction
Distance
Distance (ft.)

EDR ID
Database

A5
 South
 1/2-1 mi
 5154

TOW100000049258
 TOWER

Tower id: 32331
 City: CHARLESTON
 Date active: Mar 9 1992
 Date const: 99/99/1999
 Date faa: Apr 15 1966
 Date fcc: Nov 10 1965
 Hgt antenna: 0.0000
 Hgt antenna (M): 0.0000
 Hgt beacon: 0.0000
 Hgt beacon (M): 0.0000
 Elevation: 1428.0000
 Elev FAA: 1428.0000
 Elev FAA (M): 435.3000
 Elev (M): 435.3000
 Hgt structure: 428.0000
 Hgt struc faa: 428.0000
 Hgt stru faa (M): 130.5000
 Hgt struc (M): 130.5000
 Supporting Struc Hgt: 0.0000
 Supp. Struct Hgt (M): 0.0000
 Tower Hgt: 428.0000
 Tower (M): 130.5000
 Id asb acc: A
 Faa id: DCA-OE-65-60
 File num: BP-17011
 Name owner: WEST VIRGINIA TV AND RADIO INC.
 State: WV
 Address: 7.5 MI WEST OF
 Action: MOD
 Type stru: 4TA
 Type tower: E
 Key site: 41058
 Id exam: ASB4
 Xmit lat: 382151
 Xmit long: 0814605
 Lat deg: 38
 Lat min: 21
 Lat sec: 51
 Lat second: 138111
 Long deg: 81
 Long min: 46
 Long sec: 5
 Long secon: 294365
 Key rem: Not Reported
 The date: Not Reported
 Type pl: 1 12 21 22 3
 Spec cond1: Not Reported

FCC & FAA SITES MAP FINDINGS TOWERS

Map ID
Direction
Distance
Distance (ft.)

EDR ID
Database

Spec cond2: Not Reported
Remarks: Not Reported
Edr id: TOW100000049258

This record is for a license, and it may or may not indicate a site which has been built.

A6
South
1/2-1 mi
5195

DOF130000132458
NOAA_DOF

Dof 1310: 132458
Dof 1310 id: 132458
Ors num: 54-000172
Verificati: O
Country: US
State: WV
City name: CHARLESTON
Latitude: 38.364167
Longitude: -81.767778
Obs type: TOWER
Quantity: 4
Agl ht: 428
Amsl ht: 1428
Lighting: R
H acc: 4
V acc: D
Mark: M
Faa study: Not Reported
Action: C
Jdate: 1981083
Edr id: DOF130000132458

FCC & FAA SITES MAP FINDINGS

AIRPORTS

EDR ID
Database

AIR19528
AIRPORTS

Rec type: APT
Site number: 26575.23*H
Airport type: HELIPORT
State: WEST VIRGINIA
County: KANAWHA
City: CHARLESTON
Facility: STATE POLICE
Owner type: PU
Use: PR
Owner: WV DEPT OF PUBLIC SAFETY
Owner address: PO BOX 307
City/State: INSTITUTE, WV 25112
Phone: 304-344-9420
Mgmt name: LT. WAYNE CHILDRESS
Mgmt address: 300 EAGLE MT. RD
Mgmt city: CHARLESTON, WV 25311
Mgmt phone: 304-344-9420
Latitude: 38-22-57.339N
Longitude: 081-45-34.458W
Latlong method: E
Elev ft: 650
Elev method: E
Aero chart: CINCINNATI
Dist from Biz: 05
Direc from Biz: W
Date Active: Not Reported
Date Certified: Not Reported
Fed agreements: Not Reported
Intl airport?: Not Reported
Customs airport?: Not Reported
Inspection Method: 2
Inspected by: N
Last inspected: Not Reported
Attendance: IREG
Lighting: RDO-CTL
Atc tower?: N
Beacon color: CGY
Land fee: N
Single engine: Not Reported
Multi engine: Not Reported
Jet engines: Not Reported
Helicopters: 002
Gliders: Not Reported
Military: Not Reported
Ulight air: Not Reported
Commercial: Not Reported
Air taxi: Not Reported
Local ops: Not Reported
Edr id: AIR19528
Rec type: RWY

FCC & FAA SITES MAP FINDINGS

AIRPORTS

EDR ID
Database

Lf site nu:	26575.23*H
Runway id:	H1
Runway length:	80
Runway width:	50
Surface:	CONC
Lights intensity:	Not Reported
Base end id:	H1
Markings:	Not Reported
Latitude:	Not Reported
Longitude:	Not Reported
Elevation:	Not Reported
Approach lights:	Not Reported
End lights:	Not Reported
Centerline lights:	Not Reported
Touchdown lights:	Not Reported
Recip end id:	Not Reported
Recip markings:	Not Reported
Recip lat:	Not Reported
Recip long:	Not Reported
Recip elev:	Not Reported
Reci app lights:	Not Reported
Recip end lights:	Not Reported
Reci center lights:	Not Reported
Recip td lights:	Not Reported

FCC & FAA SITES MAP FINDINGS POWERLINES

EDR ID
Database

95506
POWERLINES

Voltage: 0
Range: Not Reported
Hi voltage: 0
Volt cat: 0-69 kV
Type: Alternating current
Status: Active
Corridor: Multiple lines
Owner: Not Reported
Owner id: Not Reported
Num owners: Single Owner
Operator: Not Reported
Operator id: Not Reported
Last owner: Not Reported
Last own id: Not Reported
Last oper: Not Reported
Last oper id: Not Reported
Mileage: 23.197355349999999

95507
POWERLINES

Voltage: 138
Range: Not Reported
Hi voltage: 0
Volt cat: 70-138 kV
Type: Alternating current
Status: Active
Corridor: Multiple lines
Owner: American Electric Power
Owner id: AMELECCO
Num owners: Single Owner
Operator: Appalachian Power Co.
Operator id: APPPOW
Last owner: Not Reported
Last own id: Not Reported
Last oper: Not Reported
Last oper id: Not Reported
Mileage: 6.950485099999999

71803
POWERLINES

Voltage: 0
Range: Not Reported
Hi voltage: 0
Volt cat: 0-69 kV
Type: Alternating current
Status: Active
Corridor: Multiple lines
Owner: Not Reported

FCC & FAA SITES MAP FINDINGS

POWERLINES

EDR ID
Database

Owner id: Not Reported
Num owners: Single Owner
Operator: Not Reported
Operator id: Not Reported
Last owner: Not Reported
Last own id: Not Reported
Last oper: Not Reported
Last oper id: Not Reported
Mileage: 2.1931849200000002

94965
POWERLINES

Voltage: 0
Range: Not Reported
Hi voltage: 0
Volt cat: 0-69 kV
Type: Alternating current
Status: Active
Corridor: Multiple lines
Owner: Not Reported
Owner id: Not Reported
Num owners: Single Owner
Operator: Not Reported
Operator id: Not Reported
Last owner: Not Reported
Last own id: Not Reported
Last oper: Not Reported
Last oper id: Not Reported
Mileage: 23.197355349999999

42553
POWERLINES

Voltage: 138
Range: Not Reported
Hi voltage: 0
Volt cat: 70-138 kV
Type: Alternating current
Status: Active
Corridor: Multiple lines
Owner: American Electric Power
Owner id: AMELECCO
Num owners: Single Owner
Operator: Appalachian Power Co.
Operator id: APPPOW
Last owner: Not Reported
Last own id: Not Reported
Last oper: Not Reported
Last oper id: Not Reported
Mileage: 10.467908489999999

FCC & FAA SITES MAP FINDINGS POWERLINES

EDR ID
Database

95568
POWERLINES

Voltage: 138
Range: Not Reported
Hi voltage: 0
Volt cat: 70-138 kV
Type: Alternating current
Status: Active
Corridor: Multiple lines
Owner: American Electric Power
Owner id: AMELECCO
Num owners: Single Owner
Operator: Appalachian Power Co.
Operator id: APPPOW
Last owner: Not Reported
Last own id: Not Reported
Last oper: Not Reported
Last oper id: Not Reported
Mileage: 2.1931849200000002

150378
POWERLINES

Voltage: 0
Range: Not Reported
Hi voltage: 0
Volt cat: 0-69 kV
Type: MAPSearch connection line
Status: Active
Corridor: Single line
Owner: Bayer CropScience
Owner id: BAYERCS
Num owners: Single Owner
Operator: Bayer CropScience
Operator id: BAYERCS
Last owner: Not Reported
Last own id: Not Reported
Last oper: Not Reported
Last oper id: Not Reported
Mileage: .34856725

10910
POWERLINES

Voltage: 0
Range: Not Reported
Hi voltage: 0
Volt cat: 0-69 kV
Type: Alternating current
Status: Active
Corridor: Single line
Owner: Not Reported

FCC & FAA SITES MAP FINDINGS

POWERLINES

EDR ID
Database

Owner id: Not Reported
Num owners: Single Owner
Operator: Not Reported
Operator id: Not Reported
Last owner: Not Reported
Last own id: Not Reported
Last oper: Not Reported
Last oper id: Not Reported
Mileage: .15388953999999999

94986
POWERLINES

Voltage: 0
Range: Not Reported
Hi voltage: 0
Volt cat: 0-69 kV
Type: Alternating current
Status: Active
Corridor: Multiple lines
Owner: Not Reported
Owner id: Not Reported
Num owners: Single Owner
Operator: Not Reported
Operator id: Not Reported
Last owner: Not Reported
Last own id: Not Reported
Last oper: Not Reported
Last oper id: Not Reported
Mileage: 5.0277313599999998

95691
POWERLINES

Voltage: 69
Range: Not Reported
Hi voltage: 0
Volt cat: 0-69 kV
Type: Alternating current
Status: Active
Corridor: Multiple lines
Owner: American Electric Power
Owner id: AMELECCO
Num owners: Single Owner
Operator: Appalachian Power Co.
Operator id: APPPOW
Last owner: Not Reported
Last own id: Not Reported
Last oper: Not Reported
Last oper id: Not Reported
Mileage: 1.95144805

FCC & FAA SITES MAP FINDINGS

POWERLINES

EDR ID
Database

133175
POWERLINES

Voltage: 46
Range: Not Reported
Hi voltage: 0
Volt cat: 0-69 kV
Type: Alternating current
Status: Active
Corridor: Multiple lines
Owner: American Electric Power
Owner id: AMELECCO
Num owners: Single Owner
Operator: Appalachian Power Co.
Operator id: APPPOW
Last owner: Not Reported
Last own id: Not Reported
Last oper: Not Reported
Last oper id: Not Reported
Mileage: 1.95144805

95504
POWERLINES

Voltage: 0
Range: Not Reported
Hi voltage: 0
Volt cat: 0-69 kV
Type: Alternating current
Status: Active
Corridor: Multiple lines
Owner: Not Reported
Owner id: Not Reported
Num owners: Single Owner
Operator: Not Reported
Operator id: Not Reported
Last owner: Not Reported
Last own id: Not Reported
Last oper: Not Reported
Last oper id: Not Reported
Mileage: 1.2881523399999999

95249
POWERLINES

Voltage: 138
Range: Not Reported
Hi voltage: 0
Volt cat: 70-138 kV
Type: Alternating current
Status: Active
Corridor: Multiple lines
Owner: American Electric Power

FCC & FAA SITES MAP FINDINGS

POWERLINES

EDR ID
Database

Owner id: AMELECCO
Num owners: Single Owner
Operator: Appalachian Power Co.
Operator id: APPPOW
Last owner: Not Reported
Last own id: Not Reported
Last oper: Not Reported
Last oper id: Not Reported
Mileage: 1.2881523399999999

71619
POWERLINES

Voltage: 0
Range: Not Reported
Hi voltage: 0
Volt cat: 0-69 kV
Type: Alternating current
Status: Active
Corridor: Multiple lines
Owner: Not Reported
Owner id: Not Reported
Num owners: Single Owner
Operator: Not Reported
Operator id: Not Reported
Last owner: Not Reported
Last own id: Not Reported
Last oper: Not Reported
Last oper id: Not Reported
Mileage: .8686073699999999

71618
POWERLINES

Voltage: 138
Range: Not Reported
Hi voltage: 0
Volt cat: 70-138 kV
Type: Alternating current
Status: Active
Corridor: Multiple lines
Owner: American Electric Power
Owner id: AMELECCO
Num owners: Single Owner
Operator: Appalachian Power Co.
Operator id: APPPOW
Last owner: Not Reported
Last own id: Not Reported
Last oper: Not Reported
Last oper id: Not Reported
Mileage: .8686073699999999

FCC & FAA SITES MAP FINDINGS

POWERLINES

EDR ID
Database

94970
POWERLINES

Voltage: 0
Range: Not Reported
Hi voltage: 0
Volt cat: 0-69 kV
Type: Alternating current
Status: Active
Corridor: Multiple lines
Owner: Not Reported
Owner id: Not Reported
Num owners: Single Owner
Operator: Not Reported
Operator id: Not Reported
Last owner: Not Reported
Last own id: Not Reported
Last oper: Not Reported
Last oper id: Not Reported
Mileage: 4.3445026499999999

94964
POWERLINES

Voltage: 138
Range: Not Reported
Hi voltage: 0
Volt cat: 70-138 kV
Type: Alternating current
Status: Active
Corridor: Multiple lines
Owner: American Electric Power
Owner id: AMELECCO
Num owners: Single Owner
Operator: Appalachian Power Co.
Operator id: APPPOW
Last owner: Not Reported
Last own id: Not Reported
Last oper: Not Reported
Last oper id: Not Reported
Mileage: 4.3445026499999999

47945
POWERLINES

Voltage: 138
Range: Not Reported
Hi voltage: 0
Volt cat: 70-138 kV
Type: Alternating current
Status: Active
Corridor: Multiple lines
Owner: American Electric Power

FCC & FAA SITES MAP FINDINGS

POWERLINES

EDR ID
Database

Owner id: AMELECCO
Num owners: Single Owner
Operator: Appalachian Power Co.
Operator id: APPPOW
Last owner: Not Reported
Last own id: Not Reported
Last oper: Not Reported
Last oper id: Not Reported
Mileage: 5.027731359999998

48018
POWERLINES

Voltage: 138
Range: Not Reported
Hi voltage: 0
Volt cat: 70-138 kV
Type: Alternating current
Status: Active
Corridor: Single line
Owner: American Electric Power
Owner id: AMELECCO
Num owners: Single Owner
Operator: Appalachian Power Co.
Operator id: APPPOW
Last owner: Not Reported
Last own id: Not Reported
Last oper: Not Reported
Last oper id: Not Reported
Mileage: 1.0798698200000001

94966
POWERLINES

Voltage: 0
Range: Not Reported
Hi voltage: 0
Volt cat: 0-69 kV
Type: Alternating current
Status: Active
Corridor: Multiple lines
Owner: Not Reported
Owner id: Not Reported
Num owners: Single Owner
Operator: Not Reported
Operator id: Not Reported
Last owner: Not Reported
Last own id: Not Reported
Last oper: Not Reported
Last oper id: Not Reported
Mileage: .74526524000000005

FCC & FAA SITES MAP FINDINGS POWERLINES

EDR ID
Database

71707
POWERLINES

Voltage: 46
Range: Not Reported
Hi voltage: 0
Volt cat: 0-69 kV
Type: Alternating current
Status: Active
Corridor: Multiple lines
Owner: American Electric Power
Owner id: AMELECCO
Num owners: Single Owner
Operator: Appalachian Power Co.
Operator id: APPPOW
Last owner: Not Reported
Last own id: Not Reported
Last oper: Not Reported
Last oper id: Not Reported
Mileage: .74526524000000005

71705
POWERLINES

Voltage: 138
Range: Not Reported
Hi voltage: 0
Volt cat: 70-138 kV
Type: Alternating current
Status: Active
Corridor: Multiple lines
Owner: American Electric Power
Owner id: AMELECCO
Num owners: Single Owner
Operator: Appalachian Power Co.
Operator id: APPPOW
Last owner: Not Reported
Last own id: Not Reported
Last oper: Not Reported
Last oper id: Not Reported
Mileage: 3.8523129599999999

71706
POWERLINES

Voltage: 0
Range: Not Reported
Hi voltage: 0
Volt cat: 0-69 kV
Type: Alternating current
Status: Active
Corridor: Multiple lines
Owner: Not Reported

FCC & FAA SITES MAP FINDINGS

POWERLINES

EDR ID
Database

Owner id: Not Reported
Num owners: Single Owner
Operator: Not Reported
Operator id: Not Reported
Last owner: Not Reported
Last own id: Not Reported
Last oper: Not Reported
Last oper id: Not Reported
Mileage: 3.8523129599999999

47935
POWERLINES

Voltage: 46
Range: Not Reported
Hi voltage: 0
Volt cat: 0-69 kV
Type: Alternating current
Status: Active
Corridor: Multiple lines
Owner: American Electric Power
Owner id: AMELECCO
Num owners: Single Owner
Operator: Appalachian Power Co.
Operator id: APPPOW
Last owner: Not Reported
Last own id: Not Reported
Last oper: Not Reported
Last oper id: Not Reported
Mileage: 3.30881121

95793
POWERLINES

Voltage: 46
Range: Not Reported
Hi voltage: 0
Volt cat: 0-69 kV
Type: Alternating current
Status: Active
Corridor: Single line
Owner: American Electric Power
Owner id: AMELECCO
Num owners: Single Owner
Operator: Appalachian Power Co.
Operator id: APPPOW
Last owner: Not Reported
Last own id: Not Reported
Last oper: Not Reported
Last oper id: Not Reported
Mileage: 1.44001398

FCC & FAA SITES MAP FINDINGS POWERLINES

EDR ID
Database

48166
POWERLINES

Voltage: 0
Range: Not Reported
Hi voltage: 0
Volt cat: 0-69 kV
Type: Alternating current
Status: Active
Corridor: Multiple lines
Owner: Not Reported
Owner id: Not Reported
Num owners: Single Owner
Operator: Not Reported
Operator id: Not Reported
Last owner: Not Reported
Last own id: Not Reported
Last oper: Not Reported
Last oper id: Not Reported
Mileage: 3.7717074199999998

95632
POWERLINES

Voltage: 0
Range: Not Reported
Hi voltage: 0
Volt cat: 0-69 kV
Type: Alternating current
Status: Active
Corridor: Multiple lines
Owner: Not Reported
Owner id: Not Reported
Num owners: Single Owner
Operator: Not Reported
Operator id: Not Reported
Last owner: Not Reported
Last own id: Not Reported
Last oper: Not Reported
Last oper id: Not Reported
Mileage: 3.7717074199999998

48170
POWERLINES

Voltage: 138
Range: Not Reported
Hi voltage: 0
Volt cat: 70-138 kV
Type: Alternating current
Status: Active
Corridor: Multiple lines
Owner: American Electric Power

FCC & FAA SITES MAP FINDINGS

POWERLINES

EDR ID
Database

Owner id: AMELECCO
Num owners: Single Owner
Operator: Appalachian Power Co.
Operator id: APPPOW
Last owner: Not Reported
Last own id: Not Reported
Last oper: Not Reported
Last oper id: Not Reported
Mileage: 1.39033469

70816
POWERLINES

Voltage: 0
Range: Not Reported
Hi voltage: 0
Volt cat: 0-69 kV
Type: Alternating current
Status: Active
Corridor: Multiple lines
Owner: Not Reported
Owner id: Not Reported
Num owners: Single Owner
Operator: Not Reported
Operator id: Not Reported
Last owner: Not Reported
Last own id: Not Reported
Last oper: Not Reported
Last oper id: Not Reported
Mileage: 1.39033469

95250
POWERLINES

Voltage: 138
Range: Not Reported
Hi voltage: 0
Volt cat: 70-138 kV
Type: Alternating current
Status: Active
Corridor: Multiple lines
Owner: American Electric Power
Owner id: AMELECCO
Num owners: Single Owner
Operator: Appalachian Power Co.
Operator id: APPPOW
Last owner: Not Reported
Last own id: Not Reported
Last oper: Not Reported
Last oper id: Not Reported
Mileage: 2.5606293500000001

FCC & FAA SITES MAP FINDINGS POWERLINES

EDR ID
Database

94969
POWERLINES

Voltage:	0
Range:	Not Reported
Hi voltage:	0
Volt cat:	0-69 kV
Type:	Alternating current
Status:	Active
Corridor:	Multiple lines
Owner:	Not Reported
Owner id:	Not Reported
Num owners:	Single Owner
Operator:	Not Reported
Operator id:	Not Reported
Last owner:	Not Reported
Last own id:	Not Reported
Last oper:	Not Reported
Last oper id:	Not Reported
Mileage:	2.5606293500000001

KEY CONTACTS & GOVERNMENT RECORDS SEARCHED

Various Federal laws and executive orders address specific environmental concerns. NEPA requires the responsible offices to integrate to the greatest practical extent the applicable procedures required by these laws and executive orders. EDR provides key contacts at agencies charged with implementing these laws and executive orders to supplement the information contained in this report.

NATURAL AREAS

Officially designated wilderness areas

Government Records Searched in This Report

FED_LAND: Federal Lands

Source: USGS

Telephone: 703-648-5094

Federal data from Bureau of Land Management, National Park Service, Forest Service, and Fish and Wildlife Service.

- National Parks
- Forests
- Monuments
- Wildlife Sanctuaries, Preserves, Refuges
- Federal Wilderness Areas.

Date of Government Version: 12/31/2005

Federal Contacts for Additional Information

National Park Service, Northeast Region

200 custom Street, Fifth Floor

Philadelphia, PA 19106

215-597-7013

USDA Forest Service, Eastern

310 West Wisconsin Avenue

Milwaukee, WI 53203

414-297-3693

BLM - Eastern States Office

7450 Boston Blvd.

Springfield, VA 22153

703-440-1713

Fish & Wildlife Service, Fish & Wildlife Region 5

Div. Of Personnel Mgmt. 300 Westgate Center Drive

Hadley, MA 01035-9589

413-253-8313

Officially designated wildlife preserves, sanctuaries and refuges

Government Records Searched in This Report

FED_LAND: Federal Lands

Source: USGS

Telephone: 703-648-5094

Federal data from Bureau of Land Management, National Park Service, Forest Service, and Fish and Wildlife Service.

- National Parks
- Forests
- Monuments
- Wildlife Sanctuaries, Preserves, Refuges
- Federal Wilderness Areas.

Date of Government Version: 12/31/2005

KEY CONTACTS & GOVERNMENT RECORDS SEARCHED

National Forest Complete Boundaries: National Forest Complete Boundaries
Land ownership and management information for the state of West Virginia, collected as part of the National Gap Analysis program.
Source: Department of Geology and Geography.
Telephone: 304-293-0557

National Park Boundaries: National Park Boundaries
National park boundaries
Source: WV GIS Technical Center.
Telephone: 304-293-0557

Canan Valley National Wildlife Refuge: National Wildlife Refuge Areas (Canaan, Ohio River, Roadless)
National wildlife refuges
Source: WV GIS Technical Center.
Telephone: 304-293-0557

Wildlife Management Areas Trails: Wildlife Management Areas Trails
Wildlife management areas trails
Source: WV GIS Technical Center.
Telephone: 304-293-0557

State Parks Boundary: State Parks Boundary
State parks
Source: WV GIS Technical Center.
Telephone: 304-293-0557

Wildlife Management Areas: Wildlife Management Areas
Wildlife management areas.
Source: Department of Geology and Geography.
Telephone: 304-293-0557

State Forest Boundary: State Forest Boundary
State forests
Source: WV GIS Technical Center.
Telephone: 304-293-0557

Federal Contacts for Additional Information
Fish & Wildlife Service, Fish & Wildlife Region 5
Div. Of Personnel Mgmt. 300 Westgate Center Drive
Hadley, MA 01035-9589
413-253-8313

State Contacts for Additional Information
Dept. of Natural Resources 304-348-2771

Wild and scenic rivers

Government Records Searched in This Report

FED_LAND: Federal Lands

Source: USGS

Telephone: 703-648-5094

Federal data from Bureau of Land Management, National Park Service, Forest Service, and Fish and Wildlife Service.

- National Parks
- Forests
- Monuments
- Wildlife Sanctuaries, Preserves, Refuges
- Federal Wilderness Areas.

Date of Government Version: 12/31/2005

KEY CONTACTS & GOVERNMENT RECORDS SEARCHED

Federal Contacts for Additional Information

Fish & Wildlife Service, Fish & Wildlife Region 5
Div. Of Personnel Mgmt. 300 Westgate Center Drive
Hadley, MA 01035-9589
413-253-8313

Endangered Species

Government Records Searched in This Report

Federal Endangered Species by County: Threatened and Endangered Species Listing
Endangered, Threatened, Emergency Listing (Endangered), Emergency Listing (Threatened), Experimental Population (Essential),
Experimental Population (Non-Essential), Similarity of Appearance (Endangered), Similarity of Appearance (Threatened).
Source: US Fish and Wildlife Services.
Telephone: 800-344-9453

WV Endangered Species by County: Rare, Threatened And Endangered Species Listing
Rare, threatened, and endangered plants and animals
Source: Department of Natural Resources.
Telephone: 304-558-2754

Federal Contacts for Additional Information

Fish & Wildlife Service, Fish & Wildlife Region 5
Div. Of Personnel Mgmt. 300 Westgate Center Drive
Hadley, MA 01035-9589
413-253-8313

State Contacts for Additional Information

Natural Heritage Program, Div. Of Natural Resources 304-637-0245

LANDMARKS, HISTORICAL, AND ARCHEOLOGICAL SITES

Historic Places

Government Records Searched in This Report

National Register of Historic Places:

The National Register of Historic Places is the official federal list of districts, sites, buildings, structures, and objects significant in American history, architecture, archeology, engineering, and culture. These contribute to an understanding of the historical and cultural foundations of the nation.

The National Register includes:

- All prehistoric and historic units of the National Park System;
- National Historic Landmarks, which are properties recognized by the Secretary of the Interior as possessing national significance; and
- Properties significant in American, state, or local prehistory and history that have been nominated by State Historic Preservation Officers, federal agencies, and others, and have been approved for listing by the National Park Service.

Date of Government Version: 07/19/2015

WV Historic Sites: National Register List for West Virginia

Listing of historic sites included on the National Register of Historic Places for West Virginia.

Source: State Historic Preservation Office.

Telephone: 304-558-0220

KEY CONTACTS & GOVERNMENT RECORDS SEARCHED

Federal Contacts for Additional Information

Park Service; Advisory Council on Historic Preservation
1849 C Street NW
Washington, DC 20240
Phone: (202) 208-6843

State Contacts for Additional Information

West Virginia Div. Of culture & History 304-558-0220

Indian Religious Sites

Government Records Searched in This Report

Indian Reservations:

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

Source: USGS

Phone: 888-275-8747

Date of Government Version: 12/31/2005

Federal Contacts for Additional Information

Department of the Interior- Bureau of Indian Affairs
Office of Public Affairs
1849 C Street, NW
Washington, DC 20240-0001
Office: 202-208-3711
Fax: 202-501-1516

National Association of Tribal Historic Preservation Officers

1411 K Street NW, Suite 700
Washington, DC 20005
Phone: 202-628-8476
Fax: 202-628-2241

State Contacts for Additional Information

A listing of local Tribal Leaders and Bureau of Indian Affairs Representatives can be found at:
<http://www.doi.gov/bia/areas/agency.html>

Scenic Trails

Government Records Searched in This Report

APPAL_TRAIL: Appalachian National Scenic Trail

Source: Appalachian Trail Conservancy and National Park Service Appalachian Trail Park Office

Telephone: (304) 535-6278

Appalachian Trail centerline.

State Contacts for Additional Information

Appalachian Trail Conference

799 Washington Street P.O. Box 807
Harpers Ferry, WV 25425-0807
(304) 535-6331

KEY CONTACTS & GOVERNMENT RECORDS SEARCHED

FLOOD PLAIN, WETLANDS AND COASTAL ZONE

Flood Plain Management

Government Records Searched in This Report

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

Federal Contacts for Additional Information

Federal Emergency Management Agency 877-3362-627

State Contacts for Additional Information

Emergency Response Commission 304-558-5380

Wetlands Protection

Government Records Searched in This Report

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010, and 2015 from the U.S. Fish and Wildlife Service.

Source: U.S. Fish and Wildlife Service.

Phone: 608-238-9333

Date of Government Version: 05/28/2015

State Wetlands Data: Wetland Inventory

Source: US Fish & Wildlife Service

Telephone: 703-358-2171

Federal Contacts for Additional Information

Fish & Wildlife Service 813-570-5412

State Contacts for Additional Information

Dept. of Natural Resources 304-348-2771

Coastal Zone Management

Government Records Searched in This Report

CAMA Management Areas

Dept. of Env., Health & Natural Resources

919-733-2293

Federal Contacts for Additional Information

Office of Ocean and Coastal Resource Management

N/ORM, SSMC4

1305 East-West Highway

Silver Spring, Maryland 20910

301-713-3102

State Contacts for Additional Information

KEY CONTACTS & GOVERNMENT RECORDS SEARCHED

FCC & FAA SITES MAP

For NEPA actions that come under the authority of the FCC, the FCC requires evaluation of Antenna towers and/or supporting structures that are to be equipped with high intensity white lights which are to be located in residential neighborhoods, as defined by the applicable zoning law.

Government Records Searched in This Report

Cellular

Federal Communications Commission
445 12th Street, SW
Washington, DC 20554
888-225-5322

4G Cellular

Federal Communications Commission
445 12th Street, SW
Washington, DC 20554
888-225-5322

Antenna Structure Registration

Federal Communications Commission
445 12th Street, SW
Washington, DC 20554
888-225-5322

Towers

Federal Communications Commission
445 12th Street, SW
Washington, DC 20554
888-225-5322

AM Antenna

Federal Communications Commission
445 12th Street, SW
Washington, DC 20554
888-225-5322

FM Antenna

Federal Communications Commission
445 12th Street, SW
Washington, DC 20554
888-225-5322

FAA Digital Obstacle File

Federal Aviation Administration (FAA)
1305 East-West Highway, Station 5631
Silver Spring, MD 20910-3281
Telephone: 301-713-2817

Describes known obstacles of interest to aviation users in the US. Used by the Federal Aviation Administration (FAA) and the National Oceanic and Atmospheric Administration to manage the National Airspace System.

Airport Landing Facilities

Federal Aviation Administration
Telephone (800) 457-6656
Private and public use landing facilities.

KEY CONTACTS & GOVERNMENT RECORDS SEARCHED

Electric Power Transmission Line Data

PennWell Corporation

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Excessive Radio Frequency Emission

For NEPA actions that come under the authority of the FCC, Commission actions granting construction permits, licenses to transmit or renewals thereof, equipment authorizations or modifications in existing facilities, require the determination of whether the particular facility, operation or transmitter would cause human exposure to levels of radio frequency in excess of certain limits.

Federal Contacts for Additional Information

Office of Engineering and Technology
Federal Communications Commission
445 12th Street SW
Washington, DC 20554
Phone: 202-418-2470

OTHER CONTACT SOURCES

NEPA Single Point of Contact

State Contacts for Additional Information
Community Development Division
West Virginia Development Office
Building #6
Room 553
Charleston, WV 25305
304-558-4010

STREET AND ADDRESS INFORMATION

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WVSU EA

5000 Fairlawn Avenue
Dunbar, WV 25064

Inquiry Number: 4649665.6
June 16, 2016

The EDR Property Tax Map Report

EDR Property Tax Map Report

Environmental Data Resources, Inc.'s EDR Property Tax Map Report is designed to assist environmental professionals in evaluating potential environmental conditions on a target property by understanding property boundaries and other characteristics. The report includes a search of available property tax maps, which include information on boundaries for the target property and neighboring properties, addresses, parcel identification numbers, as well as other data typically used in property location and identification.

NO COVERAGE

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

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WVSU EA

5000 Fairlawn Avenue
Dunbar, WV 25064

Inquiry Number: 4649665.2s
June 16, 2016

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.
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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

5000 FAIRLAWN AVENUE
DUNBAR, WV 25064

COORDINATES

Latitude (North): 38.3781780 - 38° 22' 41.44"
Longitude (West): 81.7712390 - 81° 46' 16.46"
Universal Transverse Mercator: Zone 17
UTM X (Meters): 432634.3
UTM Y (Meters): 4247851.0
Elevation: 600 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	6010682 SAINT ALBANS, WV
Version Date:	2014
Northeast Map:	6010666 POCATALICO, WV
Version Date:	2014
Southeast Map:	6014363 CHARLESTON WEST, WV
Version Date:	2014
Southwest Map:	6014357 ALUM CREEK, WV
Version Date:	2014

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20141026
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
5000 FAIRLAWN AVENUE
DUNBAR, WV 25064

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1	WEST VIRGINIA VOCATI	UNKNOWN	UST	Higher	1080, 0.205, ENE
A2		6540 MACCORKLE SW	LUST, UST, RCRA NonGen / NLR, FINDS, ECHO	Higher	1238, 0.234, SSW
A3		6580 MAC CORKLE AVE	RCRA NonGen / NLR	Higher	1246, 0.236, SSW
4	ENVIRONMENTAL SERVIC	6404 MACCORKLE AVE	LUST, UST	Lower	2187, 0.414, SSE
5	OLIVER DISTRIBUTING	6819 MACCORKLE AVE	LUST, UST, Financial Assurance	Higher	2505, 0.474, WSW
6	RHONE POULENC (DIOXI	RTE 25	SEMS	Higher	2556, 0.484, NNW

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

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

Federal CERCLIS list

FEDERAL FACILITY..... Federal Facility Site Information listing

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

EXECUTIVE SUMMARY

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..... List of M.S.W. Landfills/Transfer Station Listing

LCP..... Landfill Closure Program

State and tribal leaking storage tank lists

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST..... Underground Storage Tank Listing

AST..... Aboveground Storage Tanks

INDIAN UST..... Underground Storage Tanks on Indian Land

State and tribal institutional control / engineering control registries

INST CONTROL..... Sites with Institutional Controls

State and tribal voluntary cleanup sites

INDIAN VCP..... Voluntary Cleanup Priority Listing

VCP..... Voluntary Remediation Sites

State and tribal Brownfields sites

BROWNFIELDS..... Brownfields Sites Listing

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

Local Lists of Hazardous waste / Contaminated Sites

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

CDL..... Drug Lab Site Locations

EXECUTIVE SUMMARY

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..... Spills Listing

Other Ascertainable Records

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

PRP..... Potentially Responsible Parties

PADS..... PCB Activity Database System

ICIS..... Integrated Compliance Information 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 AIRS..... Aerometric Information Retrieval System Facility Subsystem

US MINES..... Mines Master Index File

FINDS..... Facility Index System/Facility Registry System

UXO..... Unexploded Ordnance Sites

DOCKET HWC..... Hazardous Waste Compliance Docket Listing

AIRS..... Permitted Facility and Emissions Listing

COAL ASH..... Coal Ash Landfills

DRYCLEANERS..... Listing of Drycleaner Locations

Financial Assurance..... Financial Assurance Information Listing

NPDES..... Wastewater Discharge Permits Listing

UIC..... Underground Injection Wells

FUELS PROGRAM..... EPA Fuels Program Registered Listing

ECHO..... Enforcement & Compliance History Information

EXECUTIVE SUMMARY

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP..... EDR Proprietary Manufactured Gas Plants
EDR Hist Auto..... EDR Exclusive Historic Gas Stations
EDR Hist Cleaner..... EDR Exclusive Historic Dry 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 identified in the following databases.

Elevations have been determined from the USGS 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. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

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

STANDARD ENVIRONMENTAL RECORDS

Federal CERCLIS list

SEMS: 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.

A review of the SEMS list, as provided by EDR, and dated 03/07/2016 has revealed that there is 1 SEMS site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
RHONE POULENC (DIOXI	RTE 25	NNW 1/4 - 1/2 (0.484 mi.)	6	31

EXECUTIVE SUMMARY

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Commerce, Labor & Environmental Resources' Leaking Underground Storage Tanks database.

A review of the LUST list, as provided by EDR, and dated 12/28/2015 has revealed that there are 3 LUST sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>Not reported</i> Facility ID: 2002290 Leak Number: 99-031	6540 MACCORKLE SW	SSW 1/8 - 1/4 (0.234 mi.)	A2	8
OLIVER DISTRIBUTING Facility ID: 2002462 Leak Number: 90-016	6819 MACCORKLE AVE	WSW 1/4 - 1/2 (0.474 mi.)	5	14
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
ENVIRONMENTAL SERVIC Facility ID: 2009529 Leak Number: 96-015	6404 MACCORKLE AVE	SSE 1/4 - 1/2 (0.414 mi.)	4	13

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Commerce, Labor & Environmental Resources.

A review of the UST list, as provided by EDR, and dated 03/02/2016 has revealed that there are 2 UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
WEST VIRGINIA VOCATI Tank ID: D1 Tank ID: D2 Facility ID: 2002497 Tank Status: P Date Closed: 10/09/1990 Closure Status: Tank removed from ground	UNKNOWN	ENE 1/8 - 1/4 (0.205 mi.)	1	8
<i>Not reported</i> Tank ID: D1 Tank ID: D2 Facility ID: 2002290 Tank Status: P Date Closed: 02/17/1999 Closure Status: Tank removed from ground	6540 MACCORKLE SW	SSW 1/8 - 1/4 (0.234 mi.)	A2	8

EXECUTIVE SUMMARY

ADDITIONAL ENVIRONMENTAL RECORDS

Other Ascertainable Records

RCRA NonGen / NLR: 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.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 12/09/2015 has revealed that there are 2 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

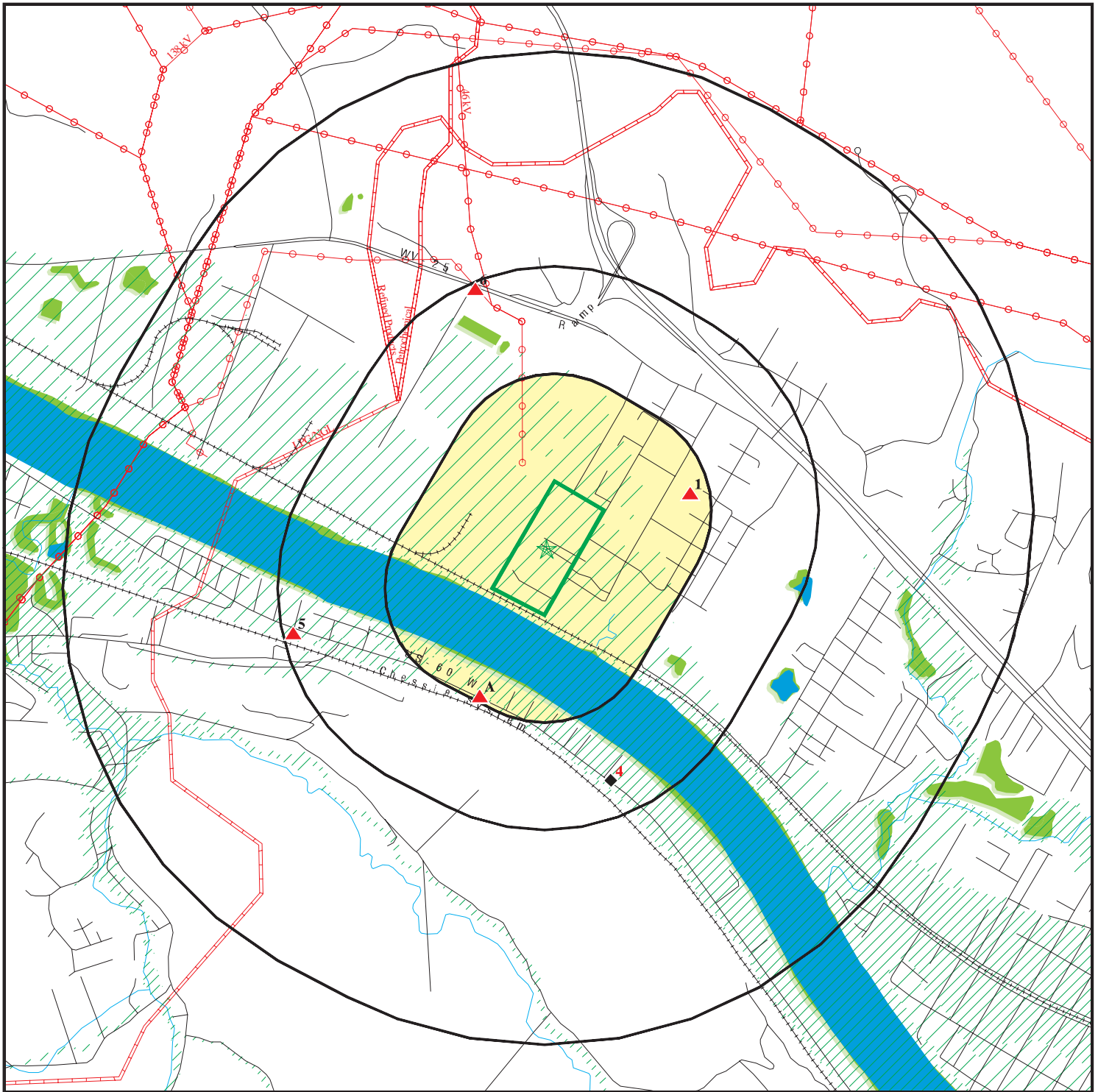
<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>Not reported</i>	<i>6540 MACCORKLE SW</i>	<i>SSW 1/8 - 1/4 (0.234 mi.)</i>	<i>A2</i>	<i>8</i>
Not reported	6580 MAC CORKLE AVE	SSW 1/8 - 1/4 (0.236 mi.)	A3	12

EXECUTIVE SUMMARY


Due to poor or inadequate address information, the following sites were not mapped. Count: 14 records.


<u>Site Name</u>	<u>Database(s)</u>
MONSANTO-OLD LANDFILL	SEMS-ARCHIVE, PRP
I-64 SECT 2 MAINT HQ 01711	LUST, UST, Financial Assurance
URBAN CLEANERS	DRYCLEANERS
WVHDF - MAIER	VCP
MARATHON TERMINAL - CHARLESTON	VCP
OVERNIGHT TRANSPORTATION SITE	SEMS-ARCHIVE
SCARY CSX TRAIN DERAILMENT - ER	SEMS-ARCHIVE
	CDL
WVSP 2013 METH WASTE DELIVERY #11	CDL
WVSP 2013 METH WASTE DELIVERY #11	CDL
SWEAZY PROPERTY (CURA/BURGER KING)	LUST, UST
S/S LOC #28964	LUST, UST
FORMER CHANDLER CAR WASH	LUST, UST
RACER'S - LEAK SITE/NO FORMS	LUST, UST

OVERVIEW MAP - 4649665.2S



 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

 Pipelines

 100-year flood zone

 500-year flood zone

 National Wetland Inventory

 State Wetlands















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: WVSU EA
 ADDRESS: 5000 Fairlawn Avenue
 Dunbar WV 25064
 LAT/LONG: 38.378178 / 81.771239

CLIENT: Terradon Corp.
 CONTACT: Michael Pickens
 INQUIRY #: 4649665.2s
 DATE: June 16, 2016 4:17 pm

DETAIL MAP - 4649665.2S



-  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
-  Pipelines
-  100-year flood zone
-  500-year flood zone
-  National Wetland Inventory
-  State Wetlands



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: WVSU EA
 ADDRESS: 5000 Fairlawn Avenue
 Dunbar WV 25064
 LAT/LONG: 38.378178 / 81.771239

CLIENT: Terradon Corp.
 CONTACT: Michael Pickens
 INQUIRY #: 4649665.2s
 DATE: June 16, 2016 4:18 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	1	NR	NR	1
<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
LCP	0.500		0	0	0	NR	NR	0
<i>State and tribal leaking storage tank lists</i>								
LUST	0.500		0	1	2	NR	NR	3
INDIAN LUST	0.500		0	0	0	NR	NR	0
<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		0	2	NR	NR	NR	2
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								
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
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
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
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	2	NR	NR	NR	2
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
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0

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>
-----------------	--	----------------------------	-----------------	------------------	------------------	----------------	---------------	--------------------------

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 FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

1
ENE
1/8-1/4
0.205 mi.
1080 ft.

WEST VIRGINIA VOCATIONAL REHAB
UNKNOWN
INSTITUTE, WV 25112

UST **U003436559**
N/A

Relative:
Higher

UST:

Facility ID: 2002497
Owner: PENNZOIL PRODUCTS CO
Owner Address: STONEWOOD COMMONS III 105 BRADFORD RD
Owner Address 2: Not reported
Owner City,St,Zip: WEXFORD, PA 15090
Owner Telephone: (412) 933-5007

Actual:
601 ft.

Tank ID: D1
Tank Status: Permanently Out of Service
Tank Substance: Gasoline
Tank Capacity: 3000
Date Last Used: 09/09/1990
Date Closed: 10/09/1990
Closure Status: Tank removed from ground
Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unprotected Steel
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N
Latitude: Not reported
Longitude: Not reported

Tank ID: D2
Tank Status: Permanently Out of Service
Tank Substance: Gasoline
Tank Capacity: 3000
Date Last Used: 09/09/1990
Date Closed: 10/09/1990
Closure Status: Tank removed from ground
Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unprotected Steel
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N
Latitude: Not reported
Longitude: Not reported

A2
SSW
1/8-1/4
0.234 mi.
1238 ft.

6540 MACCORKLE SW
ST ALBANS, WV 25177
Site 1 of 2 in cluster A

LUST **1000460399**
UST **WVD988777025**
RCRA NonGen / NLR
FINDS
ECHO

Relative:
Higher

LUST:

Facility ID: 2002290
Leak Number: 99-031
Priority: Soil contamination only
Project Manager: Long, Dave
Confirmed Release Date: 02/17/1999
Cleanup Initiated Date: 02/17/1999

Actual:
604 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

1000460399

Cleanup Complete Date: 09/26/2001
EDR Link ID: 2-002290
Decode For Priority Code: Soil Contamination

UST:

Facility ID: 2002290
Owner: ALL CRANE & EQUIP RENTAL CORP
Owner Address: 6540 MACCORKLE AVE SW
Owner Address 2: Not reported
Owner City,St,Zip: ST ALBANS, WV 25177
Owner Telephone: (304) 766-0300

Tank ID: D1
Tank Status: Permanently Out of Service
Tank Substance: Diesel
Tank Capacity: 10000
Date Last Used: 02/17/1999
Date Closed: 02/17/1999
Closure Status: Tank removed from ground
Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unknown
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N
Latitude: Not reported
Longitude: Not reported

Tank ID: D2
Tank Status: Permanently Out of Service
Tank Substance: Gasoline
Tank Capacity: 4000
Date Last Used: 02/17/1999
Date Closed: 02/17/1999
Closure Status: Tank removed from ground
Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unknown
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N
Latitude: Not reported
Longitude: Not reported

RCRA NonGen / NLR:

Date form received by agency: 01/10/2013
Facility name: Not reported
Facility address: 6540 MACCORKLE SW
ST ALBANS, WV 25177
EPA ID: WVD988777025
Mailing address: 620 5TH AVE
ST ALBANS, WV 25177
Contact: GARY WORKMAN
Contact address: 620 5TH AVE
ST ALBANS, WV 25177

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

1000460399

Contact country: US
Contact telephone: 304-722-5510
Contact email: Not reported
EPA Region: Not reported
Land type: Private
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: LIPCAK MICHAEL
Owner/operator address: 16891 BROOK PK YARD
CLEVELAND, OH 44122
Owner/operator country: Not reported
Owner/operator telephone: (216) 267-2646
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: OPERNAME
Owner/operator address: OPERSTREET
OPERCITY, AK 99999
Owner/operator country: Not reported
Owner/operator telephone: (215) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 01/25/2008
Site name: ALL CRANE EQUIPMENT CO
Classification: Not a generator, verified

Date form received by agency: 10/01/2007
Site name: ALL CRANE EQUIPMENT CO
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 09/18/2006

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

1000460399

Site name: ALL CRANE EQUIPMENT CO
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 07/07/2003
Site name: ALL CRANE EQUIPMENT CO
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 02/26/1991
Site name: ALL CRANE EQUIPMENT CO
Classification: Small Quantity Generator

Facility Has Received Notices of Violations:

Regulation violated: FR - 40 CFR 279.22(c)(1)
Area of violation: Used Oil - Processors and Re-refiners
Date violation determined: 07/07/2003
Date achieved compliance: 07/31/2003
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/07/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:

Evaluation date: 01/10/2013
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 01/25/2008
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/07/2003
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Used Oil - Processors and Re-refiners
Date achieved compliance: 07/31/2003
Evaluation lead agency: State

FINDS:

Registry ID: 110005559010

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

EDR ID Number
 EPA ID Number

(Continued)

1000460399

ECHO:

Envid: 1000460399
 Registry ID: 110005559010
 DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110005559010

A3
SSW
1/8-1/4
0.236 mi.
1246 ft.

6580 MAC CORKLE AVE SW
ST ALBANS, WV 25177

Site 2 of 2 in cluster A

RCRA NonGen / NLR **1004803590**
WVR000003061

Relative:
Higher

RCRA NonGen / NLR:

Date form received by agency: 02/01/2008
 Facility name: Not reported
 Facility address: 6580 MAC CORKLE AVE SW
 ST ALBANS, WV 25177
 EPA ID: WVR000003061
 Contact: FRED TRUMAN
 Contact address: 6580 MAC CORKLE AVE SW
 ST ALBANS, WV 25177
 Contact country: US
 Contact telephone: (304) 766-6224
 Contact email: Not reported
 EPA Region: Not reported
 Land type: Private
 Classification: Non-Generator
 Description: Handler: Non-Generators do not presently generate hazardous waste

Actual:
612 ft.

Handler Activities Summary:

U.S. importer of hazardous waste: No
 Mixed waste (haz. and radioactive): No
 Recycler of hazardous waste: No
 Transporter of hazardous waste: No
 Treater, storer or disposer of HW: No
 Underground injection activity: No
 On-site burner exemption: No
 Furnace exemption: No
 Used oil fuel burner: No
 Used oil processor: No
 User oil refiner: No
 Used oil fuel marketer to burner: No
 Used oil Specification marketer: No
 Used oil transfer facility: No
 Used oil transporter: No

Universal Waste Summary:

Waste type: Batteries
 Accumulated waste on-site: Yes
 Generated waste on-site: Not reported

Waste type: Lamps
 Accumulated waste on-site: Yes
 Generated waste on-site: Not reported

Waste type: Pesticides
 Accumulated waste on-site: Yes

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

1004803590

Generated waste on-site: Not reported
Waste type: Thermostats
Accumulated waste on-site: Yes
Generated waste on-site: Not reported

Historical Generators:

Date form received by agency: 03/24/2004
Site name: TITAN RENTALS INC
Classification: Not a generator, verified
Date form received by agency: 09/20/1995
Site name: TITAN RENTALS INC
Classification: Conditionally Exempt Small Quantity Generator

Facility Has Received Notices of Violations:

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 01/25/2008
Date achieved compliance: 01/25/2008
Violation lead agency: State
Enforcement action: VERBAL INFORMAL
Enforcement action date: 01/25/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:

Evaluation date: 01/25/2008
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 01/25/2008
Evaluation lead agency: State

4
SSE
1/4-1/2
0.414 mi.
2187 ft.

ENVIRONMENTAL SERVICES
6404 MACCORKLE AVE
SAINT ALBANS, WV 25177

LUST U003436789
UST N/A

Relative:
Lower

LUST:

Facility ID: 2009529
Leak Number: 96-015
Priority: Soil contamination only
Project Manager: Long, Dave
Confirmed Release Date: 09/09/1995
Cleanup Initiated Date: 09/22/1995
Cleanup Complete Date: 09/09/2004
EDR Link ID: 2-009529
Decode For Priority Code: Soil Contamination

Actual:
597 ft.

UST:

Facility ID: 2009529
Owner: K D PAULEY - RAYLU ENTERPRISES

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ENVIRONMENTAL SERVICES (Continued)

U003436789

Owner Address: 2188 SW BRADFORD PLACE
Owner Address 2: Not reported
Owner City,St,Zip: PALM CITY, FL 34990
Owner Telephone: (407) 263-7799

Tank ID: D1
Tank Status: Permanently Out of Service
Tank Substance: Used Oil
Tank Capacity: 8000
Date Last Used: 03/25/1983
Date Closed: 10/04/1995
Closure Status: Tank removed from ground
Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unprotected Steel
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N
Latitude: Not reported
Longitude: Not reported

5
WSW
1/4-1/2
0.474 mi.
2505 ft.

OLIVER DISTRIBUTING CO
6819 MACCORKLE AVE
SAINT ALBANS, WV 25177

LUST U003760817
UST N/A
Financial Assurance

Relative:
Higher

Actual:
600 ft.

LUST:
Facility ID: 2002462
Leak Number: 90-016
Priority: Soil contamination only
Project Manager: Long, Dave
Confirmed Release Date: 02/16/1990
Cleanup Initiated Date: 12/14/1989
Cleanup Complete Date: 08/13/2010
EDR Link ID: 2-002462
Decode For Priority Code: Soil Contamination

UST:
Facility ID: 2002462
Owner: OLIVER FUELS & OILS INC
Owner Address: 6819 MACCORKLE AVE
Owner Address 2: Not reported
Owner City,St,Zip: ST ALBANS, WV 25177 2296
Owner Telephone: (304) 727-5549

Tank ID: 1
Tank Status: Currently in Use
Tank Substance: Diesel
Tank Capacity: 20000
Date Last Used: Not reported
Date Closed: Not reported
Closure Status: Not listed
Tank Material: CP-Galvanic
Piping Material: Not reported
Overfill Installed: Yes
Installed Spill Protection: Yes

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OLIVER DISTRIBUTING CO (Continued)

U003760817

Cathodic Protection Method: No
Compartment: Y
Latitude: 38.375
Longitude: 81.782222

Tank ID: 1
Tank Status: Currently in Use
Tank Substance: Gasoline
Tank Capacity: 20000
Date Last Used: Not reported
Date Closed: Not reported
Closure Status: Not listed
Tank Material: CP-Galvanic
Piping Material: Not reported
Overfill Installed: Yes
Installed Spill Protection: Yes
Cathodic Protection Method: No
Compartment: Y
Latitude: 38.375
Longitude: 81.782222

Tank ID: 1
Tank Status: Permanently Out of Service
Tank Substance: Gasoline
Tank Capacity: 1000
Date Last Used: 12/15/1987
Date Closed: Not reported
Closure Status: Tank removed from ground
Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unprotected Steel
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N
Latitude: Not reported
Longitude: Not reported

Tank ID: 10
Tank Status: Permanently Out of Service
Tank Substance: Gasoline
Tank Capacity: 1000
Date Last Used: 12/15/1988
Date Closed: Not reported
Closure Status: Tank removed from ground
Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unprotected Steel
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N
Latitude: Not reported
Longitude: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OLIVER DISTRIBUTING CO (Continued)

U003760817

Tank ID: 11
Tank Status: Permanently Out of Service
Tank Substance: Empty
Tank Capacity: 2000
Date Last Used: 07/15/1970
Date Closed: Not reported
Closure Status: Not listed
Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unprotected Steel
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N
Latitude: Not reported
Longitude: Not reported

Tank ID: 12
Tank Status: Permanently Out of Service
Tank Substance: Gasoline
Tank Capacity: 550
Date Last Used: 07/15/1987
Date Closed: Not reported
Closure Status: Tank removed from ground
Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unprotected Steel
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N
Latitude: Not reported
Longitude: Not reported

Tank ID: 13
Tank Status: Permanently Out of Service
Tank Substance: Empty
Tank Capacity: 2000
Date Last Used: 07/15/1970
Date Closed: Not reported
Closure Status: Not listed
Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unprotected Steel
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N
Latitude: Not reported
Longitude: Not reported

Tank ID: 14
Tank Status: Permanently Out of Service
Tank Substance: Empty
Tank Capacity: 2000
Date Last Used: 07/15/1965
Date Closed: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OLIVER DISTRIBUTING CO (Continued)

U003760817

Closure Status: Not listed
Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unprotected Steel
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N
Latitude: Not reported
Longitude: Not reported

Tank ID: 15
Tank Status: Permanently Out of Service
Tank Substance: Empty
Tank Capacity: 1000
Date Last Used: 07/15/1970
Date Closed: Not reported
Closure Status: Not listed
Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unprotected Steel
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N
Latitude: Not reported
Longitude: Not reported

Tank ID: 16
Tank Status: Permanently Out of Service
Tank Substance: Empty
Tank Capacity: 2000
Date Last Used: 07/15/1970
Date Closed: Not reported
Closure Status: Not listed
Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unprotected Steel
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N
Latitude: Not reported
Longitude: Not reported

Tank ID: 17
Tank Status: Permanently Out of Service
Tank Substance: Gasoline
Tank Capacity: 2000
Date Last Used: Not reported
Date Closed: Not reported
Closure Status: Tank removed from ground
Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unprotected Steel
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OLIVER DISTRIBUTING CO (Continued)

U003760817

Compartment: N
Latitude: Not reported
Longitude: Not reported

Tank ID: 18
Tank Status: Permanently Out of Service
Tank Substance: Gasoline
Tank Capacity: 2000
Date Last Used: Not reported
Date Closed: Not reported
Closure Status: Tank removed from ground
Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unprotected Steel
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N
Latitude: Not reported
Longitude: Not reported

Tank ID: 19
Tank Status: Permanently Out of Service
Tank Substance: Empty
Tank Capacity: 1000
Date Last Used: 07/15/1962
Date Closed: Not reported
Closure Status: Not listed
Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unprotected Steel
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N
Latitude: Not reported
Longitude: Not reported

Tank ID: 2
Tank Status: Currently in Use
Tank Substance: Diesel
Tank Capacity: 10000
Date Last Used: Not reported
Date Closed: Not reported
Closure Status: Not listed
Tank Material: CP-Galvanic
Piping Material: Not reported
Overfill Installed: Yes
Installed Spill Protection: Yes
Cathodic Protection Method: Yes
Compartment: Y
Latitude: 38.375
Longitude: 81.782222

Tank ID: 2

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OLIVER DISTRIBUTING CO (Continued)

U003760817

Tank Status: Permanently Out of Service
Tank Substance: Empty
Tank Capacity: 1000
Date Last Used: 07/15/1968
Date Closed: Not reported
Closure Status: Not listed
Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unprotected Steel
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N
Latitude: Not reported
Longitude: Not reported

Tank ID: 2
Tank Status: Currently in Use
Tank Substance: Gasoline
Tank Capacity: 10000
Date Last Used: Not reported
Date Closed: Not reported
Closure Status: Not listed
Tank Material: CP-Galvanic
Piping Material: Not reported
Overfill Installed: Yes
Installed Spill Protection: Yes
Cathodic Protection Method: Yes
Compartment: Y
Latitude: 38.375
Longitude: 81.782222

Tank ID: 2
Tank Status: Currently in Use
Tank Substance: Kerosene
Tank Capacity: 10000
Date Last Used: Not reported
Date Closed: Not reported
Closure Status: Not listed
Tank Material: CP-Galvanic
Piping Material: Not reported
Overfill Installed: Yes
Installed Spill Protection: Yes
Cathodic Protection Method: Yes
Compartment: Y
Latitude: 38.375
Longitude: 81.782222

Tank ID: 20
Tank Status: Permanently Out of Service
Tank Substance: Empty
Tank Capacity: 1000
Date Last Used: 07/15/1962
Date Closed: Not reported
Closure Status: Not listed

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OLIVER DISTRIBUTING CO (Continued)

U003760817

Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unprotected Steel
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N
Latitude: Not reported
Longitude: Not reported

Tank ID: 21
Tank Status: Permanently Out of Service
Tank Substance: Empty
Tank Capacity: 1000
Date Last Used: 07/15/1973
Date Closed: Not reported
Closure Status: Not listed
Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unprotected Steel
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N
Latitude: Not reported
Longitude: Not reported

Tank ID: 22
Tank Status: Permanently Out of Service
Tank Substance: Empty
Tank Capacity: 1000
Date Last Used: 07/15/1962
Date Closed: Not reported
Closure Status: Not listed
Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unprotected Steel
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N
Latitude: Not reported
Longitude: Not reported

Tank ID: 23
Tank Status: Permanently Out of Service
Tank Substance: Empty
Tank Capacity: 1000
Date Last Used: 07/15/1968
Date Closed: Not reported
Closure Status: Not listed
Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unprotected Steel
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OLIVER DISTRIBUTING CO (Continued)

U003760817

Latitude: Not reported
Longitude: Not reported

Tank ID: 3
Tank Status: Permanently Out of Service
Tank Substance: Empty
Tank Capacity: 1000
Date Last Used: 07/15/1968
Date Closed: Not reported
Closure Status: Not listed
Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unprotected Steel
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N
Latitude: Not reported
Longitude: Not reported

Tank ID: 4
Tank Status: Permanently Out of Service
Tank Substance: Empty
Tank Capacity: 1000
Date Last Used: 07/15/1968
Date Closed: Not reported
Closure Status: Not listed
Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unprotected Steel
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N
Latitude: Not reported
Longitude: Not reported

Tank ID: 5
Tank Status: Permanently Out of Service
Tank Substance: Empty
Tank Capacity: 1000
Date Last Used: 07/15/1960
Date Closed: Not reported
Closure Status: Not listed
Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unprotected Steel
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N
Latitude: Not reported
Longitude: Not reported

Tank ID: 6
Tank Status: Permanently Out of Service

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OLIVER DISTRIBUTING CO (Continued)

U003760817

Tank Substance: Empty
Tank Capacity: 1000
Date Last Used: 07/15/1960
Date Closed: Not reported
Closure Status: Not listed
Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unprotected Steel
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N
Latitude: Not reported
Longitude: Not reported

Tank ID: 7
Tank Status: Permanently Out of Service
Tank Substance: Empty
Tank Capacity: 4000
Date Last Used: 07/15/1970
Date Closed: Not reported
Closure Status: Not listed
Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unprotected Steel
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N
Latitude: Not reported
Longitude: Not reported

Tank ID: 8
Tank Status: Permanently Out of Service
Tank Substance: Empty
Tank Capacity: 4000
Date Last Used: 07/15/1958
Date Closed: Not reported
Closure Status: Not listed
Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unprotected Steel
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N
Latitude: Not reported
Longitude: Not reported

Tank ID: 9
Tank Status: Permanently Out of Service
Tank Substance: Empty
Tank Capacity: 4000
Date Last Used: 07/15/1958
Date Closed: Not reported
Closure Status: Not listed
Tank Material: Asphalt Coated or Bare Steel

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OLIVER DISTRIBUTING CO (Continued)

U003760817

Piping Material: Unprotected Steel
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N
Latitude: Not reported
Longitude: Not reported

Tank ID: D10
Tank Status: Permanently Out of Service
Tank Substance: Diesel
Tank Capacity: 10000
Date Last Used: 12/15/1989
Date Closed: 12/15/1989
Closure Status: Tank removed from ground
Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unprotected Steel
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N
Latitude: 38.375
Longitude: 81.782222

Tank ID: D3
Tank Status: Permanently Out of Service
Tank Substance: Kerosene
Tank Capacity: 1000
Date Last Used: 12/15/1989
Date Closed: 12/15/1989
Closure Status: Tank closed in place
Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unprotected Steel
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N
Latitude: 38.375
Longitude: 81.782222

Tank ID: D4
Tank Status: Permanently Out of Service
Tank Substance: Kerosene
Tank Capacity: 4000
Date Last Used: 12/15/1989
Date Closed: 12/15/1989
Closure Status: Tank closed in place
Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unprotected Steel
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N
Latitude: 38.375

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OLIVER DISTRIBUTING CO (Continued)

U003760817

Longitude: 81.782222

Tank ID: D5
Tank Status: Permanently Out of Service
Tank Substance: Diesel
Tank Capacity: 4000
Date Last Used: 12/15/1989
Date Closed: 12/15/1989
Closure Status: Tank removed from ground
Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unprotected Steel
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N
Latitude: 38.375
Longitude: 81.782222

Tank ID: D6
Tank Status: Permanently Out of Service
Tank Substance: Hazardous Substance
Tank Capacity: 3000
Date Last Used: 07/15/1985
Date Closed: 11/15/1989
Closure Status: Tank removed from ground
Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unprotected Steel
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N
Latitude: 38.375
Longitude: 81.782222

Tank ID: D7
Tank Status: Permanently Out of Service
Tank Substance: Other
Tank Capacity: 3000
Date Last Used: 07/15/1985
Date Closed: 11/15/1989
Closure Status: Tank removed from ground
Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unprotected Steel
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N
Latitude: 38.375
Longitude: 81.782222

Tank ID: D8
Tank Status: Permanently Out of Service
Tank Substance: Gasoline

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OLIVER DISTRIBUTING CO (Continued)

U003760817

Tank Capacity: 10000
Date Last Used: 12/15/1989
Date Closed: 12/15/1989
Closure Status: Tank removed from ground
Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unprotected Steel
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N
Latitude: 38.375
Longitude: 81.782222

Tank ID: D9
Tank Status: Permanently Out of Service
Tank Substance: Gasoline
Tank Capacity: 10000
Date Last Used: 12/15/1989
Date Closed: 12/15/1989
Closure Status: Tank removed from ground
Tank Material: Asphalt Coated or Bare Steel
Piping Material: Unprotected Steel
Overfill Installed: No
Installed Spill Protection: No
Cathodic Protection Method: No
Compartment: N
Latitude: 38.375
Longitude: 81.782222

WV Financial Assurance:

Policy: 000013180
Id #: 2-002462
Owner Name: OLIVER FUELS & OILS INC
Owner Address: 6819 MACCORKLE AVE
Owner Address: Not reported
Owner City: SAINT ALBANS
Owner State: WV
Owner Zip: 25177
Owner Phone: (304) 727-5549
Tank Id #: 1
Tank Capacity: 16000
Begin Date: 10/01/2009
End Date: 10/01/2010
Cancel Date: Not reported
Policy Name: COMMERCE & INDUSTRY INSURANCE
Tank Material: CP-Galvanic
Tank Option: None
Pipe Material: Fiberglass Reinforced Plastic
Pipe Option: None

Policy: 000013180
Id #: 2-002462
Owner Name: OLIVER FUELS & OILS INC
Owner Address: 6819 MACCORKLE AVE
Owner Address: Not reported
Owner City: SAINT ALBANS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OLIVER DISTRIBUTING CO (Continued)

U003760817

Owner State: WV
Owner Zip: 25177
Owner Phone: (304) 727-5549
Tank Id #: 2
Tank Capacity: 12000
Begin Date: 10/01/2011
End Date: 10/01/2012
Cancel Date: Not reported
Policy Name: COMMERCE & INDUSTRY INSURANCE
Tank Material: CP-Galvanic
Tank Option: None
Pipe Material: Fiberglass Reinforced Plastic
Pipe Option: None

Policy: 13180
Id #: 2-002462
Owner Name: OLIVER FUELS & OILS INC
Owner Address: 6819 MACCORKLE AVE
Owner Address: Not reported
Owner City: SAINT ALBANS
Owner State: WV
Owner Zip: 25177
Owner Phone: (304) 727-5549
Tank Id #: 1
Tank Capacity: 16000
Begin Date: 10/01/2012
End Date: 10/01/2013
Cancel Date: Not reported
Policy Name: COMMERCE & INDUSTRY INSURANCE
Tank Material: CP-Galvanic
Tank Option: None
Pipe Material: Fiberglass Reinforced Plastic
Pipe Option: None

Policy: 13180
Id #: 2-002462
Owner Name: OLIVER FUELS & OILS INC
Owner Address: 6819 MACCORKLE AVE
Owner Address: Not reported
Owner City: SAINT ALBANS
Owner State: WV
Owner Zip: 25177
Owner Phone: (304) 727-5549
Tank Id #: 2
Tank Capacity: 12000
Begin Date: 10/01/2012
End Date: 10/01/2013
Cancel Date: Not reported
Policy Name: COMMERCE & INDUSTRY INSURANCE
Tank Material: CP-Galvanic
Tank Option: None
Pipe Material: Fiberglass Reinforced Plastic
Pipe Option: None

Policy: 000013180
Id #: 2-002462
Owner Name: OLIVER FUELS & OILS INC

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OLIVER DISTRIBUTING CO (Continued)

U003760817

Owner Address: 6819 MACCORKLE AVE
Owner Address: Not reported
Owner City: SAINT ALBANS
Owner State: WV
Owner Zip: 25177
Owner Phone: (304) 727-5549
Tank Id #: 1
Tank Capacity: 16000
Begin Date: 10/01/2006
End Date: 10/01/2007
Cancel Date: Not reported
Policy Name: COMMERCE & INDUSTRY INSURANCE
Tank Material: CP-Galvanic
Tank Option: None
Pipe Material: Fiberglass Reinforced Plastic
Pipe Option: None

Policy: 000013180
Id #: 2-002462
Owner Name: OLIVER FUELS & OILS INC
Owner Address: 6819 MACCORKLE AVE
Owner Address: Not reported
Owner City: SAINT ALBANS
Owner State: WV
Owner Zip: 25177
Owner Phone: (304) 727-5549
Tank Id #: 2
Tank Capacity: 12000
Begin Date: 10/01/2006
End Date: 10/01/2007
Cancel Date: Not reported
Policy Name: COMMERCE & INDUSTRY INSURANCE
Tank Material: CP-Galvanic
Tank Option: None
Pipe Material: Fiberglass Reinforced Plastic
Pipe Option: None

Policy: 7514297
Id #: 2-002462
Owner Name: OLIVER FUELS & OILS INC
Owner Address: 6819 MACCORKLE AVE
Owner Address: Not reported
Owner City: SAINT ALBANS
Owner State: WV
Owner Zip: 25177
Owner Phone: (304) 727-5549
Tank Id #: 1
Tank Capacity: 16000
Begin Date: 09/30/2002
End Date: 09/30/2003
Cancel Date: Not reported
Policy Name: COMMERCE & INDUSTRY INSURANCE
Tank Material: CP-Galvanic
Tank Option: None
Pipe Material: Fiberglass Reinforced Plastic
Pipe Option: None

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OLIVER DISTRIBUTING CO (Continued)

U003760817

Policy: 7514297
Id #: 2-002462
Owner Name: OLIVER FUELS & OILS INC
Owner Address: 6819 MACCORKLE AVE
Owner Address: Not reported
Owner City: SAINT ALBANS
Owner State: WV
Owner Zip: 25177
Owner Phone: (304) 727-5549
Tank Id #: 2
Tank Capacity: 12000
Begin Date: 09/30/2002
End Date: 09/30/2003
Cancel Date: Not reported
Policy Name: COMMERCE & INDUSTRY INSURANCE
Tank Material: CP-Galvanic
Tank Option: None
Pipe Material: Fiberglass Reinforced Plastic
Pipe Option: None

Policy: 12345
Id #: 2-002462
Owner Name: OLIVER FUELS & OILS INC
Owner Address: 6819 MACCORKLE AVE
Owner Address: Not reported
Owner City: SAINT ALBANS
Owner State: WV
Owner Zip: 25177
Owner Phone: (304) 727-5549
Tank Id #: 1
Tank Capacity: 16000
Begin Date: 11/26/1990
End Date: 10/01/2000
Cancel Date: Not reported
Policy Name: STATE INSURANCE FUND
Tank Material: CP-Galvanic
Tank Option: None
Pipe Material: Fiberglass Reinforced Plastic
Pipe Option: None

Policy: 12345
Id #: 2-002462
Owner Name: OLIVER FUELS & OILS INC
Owner Address: 6819 MACCORKLE AVE
Owner Address: Not reported
Owner City: SAINT ALBANS
Owner State: WV
Owner Zip: 25177
Owner Phone: (304) 727-5549
Tank Id #: 2
Tank Capacity: 12000
Begin Date: 11/26/1990
End Date: 10/01/2000
Cancel Date: Not reported
Policy Name: STATE INSURANCE FUND
Tank Material: CP-Galvanic
Tank Option: None

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OLIVER DISTRIBUTING CO (Continued)

U003760817

Pipe Material: Fiberglass Reinforced Plastic
Pipe Option: None

Policy: 7514297
Id #: 2-002462
Owner Name: OLIVER FUELS & OILS INC
Owner Address: 6819 MACCORKLE AVE
Owner Address: Not reported
Owner City: SAINT ALBANS
Owner State: WV
Owner Zip: 25177
Owner Phone: (304) 727-5549
Tank Id #: 1
Tank Capacity: 16000
Begin Date: 09/30/2000
End Date: 09/30/2001
Cancel Date: Not reported
Policy Name: COMMERCE & INDUSTRY INSURANCE
Tank Material: CP-Galvanic
Tank Option: None
Pipe Material: Fiberglass Reinforced Plastic
Pipe Option: None

Policy: 7514297
Id #: 2-002462
Owner Name: OLIVER FUELS & OILS INC
Owner Address: 6819 MACCORKLE AVE
Owner Address: Not reported
Owner City: SAINT ALBANS
Owner State: WV
Owner Zip: 25177
Owner Phone: (304) 727-5549
Tank Id #: 2
Tank Capacity: 12000
Begin Date: 09/30/2000
End Date: 09/30/2001
Cancel Date: Not reported
Policy Name: COMMERCE & INDUSTRY INSURANCE
Tank Material: CP-Galvanic
Tank Option: None
Pipe Material: Fiberglass Reinforced Plastic
Pipe Option: None

Policy: 000013180
Id #: 2-002462
Owner Name: OLIVER FUELS & OILS INC
Owner Address: 6819 MACCORKLE AVE
Owner Address: Not reported
Owner City: SAINT ALBANS
Owner State: WV
Owner Zip: 25177
Owner Phone: (304) 727-5549
Tank Id #: 1
Tank Capacity: 16000
Begin Date: 10/01/2010
End Date: 10/01/2011
Cancel Date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OLIVER DISTRIBUTING CO (Continued)

U003760817

Policy Name: COMMERCE & INDUSTRY INSURANCE
Tank Material: CP-Galvanic
Tank Option: None
Pipe Material: Fiberglass Reinforced Plastic
Pipe Option: None

Policy: 000013180
Id #: 2-002462
Owner Name: OLIVER FUELS & OILS INC
Owner Address: 6819 MACCORKLE AVE
Owner Address: Not reported
Owner City: SAINT ALBANS
Owner State: WV
Owner Zip: 25177
Owner Phone: (304) 727-5549
Tank Id #: 2
Tank Capacity: 12000
Begin Date: 10/01/2010
End Date: 10/01/2011
Cancel Date: Not reported
Policy Name: COMMERCE & INDUSTRY INSURANCE
Tank Material: CP-Galvanic
Tank Option: None
Pipe Material: Fiberglass Reinforced Plastic
Pipe Option: None

Policy: 000013180
Id #: 2-002462
Owner Name: OLIVER FUELS & OILS INC
Owner Address: 6819 MACCORKLE AVE
Owner Address: Not reported
Owner City: SAINT ALBANS
Owner State: WV
Owner Zip: 25177
Owner Phone: (304) 727-5549
Tank Id #: 1
Tank Capacity: 16000
Begin Date: 10/01/2011
End Date: 10/01/2012
Cancel Date: Not reported
Policy Name: COMMERCE & INDUSTRY INSURANCE
Tank Material: CP-Galvanic
Tank Option: None
Pipe Material: Fiberglass Reinforced Plastic
Pipe Option: None

Policy: 000013180
Id #: 2-002462
Owner Name: OLIVER FUELS & OILS INC
Owner Address: 6819 MACCORKLE AVE
Owner Address: Not reported
Owner City: SAINT ALBANS
Owner State: WV
Owner Zip: 25177
Owner Phone: (304) 727-5549
Tank Id #: 2
Tank Capacity: 12000

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OLIVER DISTRIBUTING CO (Continued)

U003760817

Begin Date: 10/01/2009
End Date: 10/01/2010
Cancel Date: Not reported
Policy Name: COMMERCE & INDUSTRY INSURANCE
Tank Material: CP-Galvanic
Tank Option: None
Pipe Material: Fiberglass Reinforced Plastic
Pipe Option: None

**6
NNW
1/4-1/2
0.484 mi.
2556 ft.**

**RHONE POULENC (DIOXIN ASSESSMENT) AKA AVENTIS CROP SCIENCE
RTE 25
INSTITUTE, WV 25112**

**SEMS 1001491708
WVSFN0305498**

**Relative:
Higher**

SEMS:
Site ID: 305498
EPA ID: WVSFN0305498
Federal Facility: N
NPL: Not on the NPL
Non NPL Status: SI Start Needed

**Actual:
620 ft.**

Following information was gathered from the prior CERCLIS update completed in 10/2013:

Site ID: 0305498
EPA ID: WVSFN0305498
Facility County: KANAWHA
Short Name: RHONE POULENC (DIOXIN ASS
Congressional District: 02
IFMS ID: D317
SMSA Number: Not reported
USGC Hydro Unit: Not reported
Federal Facility: Not a Federal Facility
DMNSN Number: 0.00000
Site Orphan Flag: Not reported
RCRA ID: Not reported
USGS Quadrangle: Not reported
Site Init By Prog: S
NFRAP Flag: Not reported
Parent ID: Not reported
RST Code: Not reported
EPA Region: 03
Classification: Not reported
Site Settings Code: Not reported
NPL Status: Not on the NPL
DMNSN Unit Code: Not reported
RBRAC Code: Not reported
RResp Fed Agency Code: Not reported
Non NPL Status: SI Start Needed
Non NPL Status Date: 05/15/01
Site Fips Code: 54039
CC Concurrence Date: / /
CC Concurrence FY: Not reported
Alias EPA ID: Not reported
Site FUDS Flag: Not reported

CERCLIS Site Contact Name(s):

Contact ID: 3275871.00000

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RHONE POULENC (DIOXIN ASSESSMENT) AKA AVENTIS CROP SCIENCE (Continued)

1001491708

Contact Name: DENNIS MATLOCK
Contact Tel: (304) 234-0284
Contact Title: On-Scene Coordinator (OSC)
Contact Email: Not reported

Contact ID: 3000107.00000
Contact Name: JAMES HARGETT
Contact Tel: (215) 814-3005
Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

CERCLIS Site Alias Name(s):

Alias ID: 101
Alias Name: RHONE POULENC (DIOXIN ASSESSMENT)
Alias Address: RTE 25
INSTITUTE, WV 25112

Alias ID: 102
Alias Name: AVENTIS CROP SCIENCE SULFURIC ACID SPILL
Alias Address: ROUTE 25
INSTITUTE, WV 25112

Alias Comments: Not reported
Site Description: Not reported

CERCLIS Assessment History:

Action Code: 001
Action: DISCOVERY
Date Started: / /
Date Completed: 11/09/98
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: REMOVAL ASSESSMENT
Date Started: 11/09/98
Date Completed: 11/19/99
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002
Action: REMOVAL ASSESSMENT
Date Started: 03/02/01
Date Completed: 03/16/01
Priority Level: Not reported
Operable Unit: SITEWIDE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RHONE POULENC (DIOXIN ASSESSMENT) AKA AVENTIS CROP SCIENCE (Continued)

1001491708

Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: POTENTIALLY RESPONSIBLE PARTY EMERGENCY REMOVAL
Date Started: 03/02/01
Date Completed: 03/16/01
Priority Level: Cleaned up
Operable Unit: SITEWIDE
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Emergency
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: PRELIMINARY ASSESSMENT
Date Started: 07/05/00
Date Completed: 05/08/01
Priority Level: Low priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: State, Fund Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

[Click this hyperlink](#) while viewing on your computer to access
39 additional US CERCLIS Financial: record(s) in the EDR Site Report.

Count: 14 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
CHARLESTON	U003933203	SWEAZY PROPERTY (CURA/BURGER KING)	1315 - 1329 WASHINGTON ST		LUST, UST
CHARLESTON	U003436460	S/S LOC #28964	4TH AVE & 'D' ST		LUST, UST
CHARLESTON	S109365727	WVHDF - MAIER	57TH ST. & MACCORKLE AVE.		VCP
CHARLESTON	U004125437	FORMER CHANDLER CAR WASH	CORNER W WASHINGTON & LEE ST		LUST, UST
CHARLESTON	S109024316	MARATHON TERMINAL - CHARLESTON	STANDARD AND MACCORKLE AVE.		VCP
DUNBAR	S117906636	URBAN CLEANERS	#1 DUNBAR AVE	25064	DRYCLEANERS
NITRO	1009462973	MONSANTO-OLD LANDFILL	M.P. 41.9 KANAWHA RIVER	25143	SEMS-ARCHIVE, PRP
NITRO	1001230487	OVERNIGHT TRANSPORTATION SITE	I-64 NITRO EXIT IN PARKING LOT	25143	SEMS-ARCHIVE
SAINT ALBANS	U004182706	I-64 SECT 2 MAINT HQ 01711	I-64 & US RT 35		LUST, UST, Financial Assurance
SAINT ALBANS	S118196159		1ST STREET		CDL
SAINT ALBANS	S117850740	WVSP 2013 METH WASTE DELIVERY #11	203 1ST AVE SW		CDL
SAINT ALBANS	S117850741	WVSP 2013 METH WASTE DELIVERY #11	203 1ST AVE SW		CDL
SAINT ALBANS	U003760771	RACER'S - LEAK SITE/NO FORMS	MAIN ST		LUST, UST
SCARY (ST. ALBANS)	1003867364	SCARY CSX TRAIN DERAILMENT - ER	STATE RT. 35 OFF OF I-64	25177	SEMS-ARCHIVE

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: 03/07/2016	Source: EPA
Date Data Arrived at EDR: 04/05/2016	Telephone: N/A
Date Made Active in Reports: 04/15/2016	Last EDR Contact: 04/05/2016
Number of Days to Update: 10	Next Scheduled EDR Contact: 04/18/2016
	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: 03/07/2016	Source: EPA
Date Data Arrived at EDR: 04/05/2016	Telephone: N/A
Date Made Active in Reports: 04/15/2016	Last EDR Contact: 04/05/2016
Number of Days to Update: 10	Next Scheduled EDR Contact: 04/18/2016
	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: 03/07/2016	Source: EPA
Date Data Arrived at EDR: 04/05/2016	Telephone: N/A
Date Made Active in Reports: 04/15/2016	Last EDR Contact: 04/05/2016
Number of Days to Update: 10	Next Scheduled EDR Contact: 04/18/2016
	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: 11/13/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/06/2016	Telephone: 703-603-8704
Date Made Active in Reports: 05/20/2016	Last EDR Contact: 04/08/2016
Number of Days to Update: 135	Next Scheduled EDR Contact: 07/18/2016
	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: 03/07/2016	Source: EPA
Date Data Arrived at EDR: 04/05/2016	Telephone: 800-424-9346
Date Made Active in Reports: 04/15/2016	Last EDR Contact: 04/05/2016
Number of Days to Update: 10	Next Scheduled EDR Contact: 08/01/2016
	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: 03/07/2016	Source: EPA
Date Data Arrived at EDR: 04/05/2016	Telephone: 800-424-9346
Date Made Active in Reports: 04/15/2016	Last EDR Contact: 04/05/2016
Number of Days to Update: 10	Next Scheduled EDR Contact: 08/01/2016
	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: 12/09/2015	Source: EPA
Date Data Arrived at EDR: 03/02/2016	Telephone: 800-424-9346
Date Made Active in Reports: 04/05/2016	Last EDR Contact: 03/30/2016
Number of Days to Update: 34	Next Scheduled EDR Contact: 07/11/2016
	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: 12/09/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/02/2016	Telephone: 800-438-2474
Date Made Active in Reports: 04/05/2016	Last EDR Contact: 03/30/2016
Number of Days to Update: 34	Next Scheduled EDR Contact: 07/11/2016
	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: 12/09/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/02/2016	Telephone: 800-438-2474
Date Made Active in Reports: 04/05/2016	Last EDR Contact: 03/30/2016
Number of Days to Update: 34	Next Scheduled EDR Contact: 07/11/2016
	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: 12/09/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/02/2016	Telephone: 800-438-2474
Date Made Active in Reports: 04/05/2016	Last EDR Contact: 03/30/2016
Number of Days to Update: 34	Next Scheduled EDR Contact: 07/11/2016
	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: 12/09/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/02/2016	Telephone: 800-438-2474
Date Made Active in Reports: 04/05/2016	Last EDR Contact: 03/30/2016
Number of Days to Update: 34	Next Scheduled EDR Contact: 07/11/2016
	Data Release Frequency: Varies

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: 05/28/2015	Source: Department of the Navy
Date Data Arrived at EDR: 05/29/2015	Telephone: 843-820-7326
Date Made Active in Reports: 06/11/2015	Last EDR Contact: 05/16/2016
Number of Days to Update: 13	Next Scheduled EDR Contact: 08/29/2016
	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: 09/10/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/11/2015	Telephone: 703-603-0695
Date Made Active in Reports: 11/03/2015	Last EDR Contact: 05/25/2016
Number of Days to Update: 53	Next Scheduled EDR Contact: 09/12/2016
	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: 09/10/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/11/2015	Telephone: 703-603-0695
Date Made Active in Reports: 11/03/2015	Last EDR Contact: 05/25/2016
Number of Days to Update: 53	Next Scheduled EDR Contact: 09/12/2016
	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: 03/28/2016

Date Data Arrived at EDR: 03/30/2016

Date Made Active in Reports: 05/20/2016

Number of Days to Update: 51

Source: National Response Center, United States Coast Guard

Telephone: 202-267-2180

Last EDR Contact: 03/30/2016

Next Scheduled EDR Contact: 07/11/2016

Data Release Frequency: Annually

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

Date Data Arrived at EDR: N/A

Date Made Active in Reports: N/A

Number of Days to Update: N/A

Source: Department of Environmental Protection

Telephone: 304-926-0455

Last EDR Contact: 05/20/2016

Next Scheduled EDR Contact: 09/05/2016

Data Release Frequency: N/A

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

SWF/LF: List of M.S.W. Landfills/Transfer Station Listing

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: 01/06/2016

Date Data Arrived at EDR: 01/12/2016

Date Made Active in Reports: 03/08/2016

Number of Days to Update: 56

Source: Division of Environmental Protection

Telephone: 304-926-0499

Last EDR Contact: 03/28/2016

Next Scheduled EDR Contact: 07/11/2016

Data Release Frequency: Varies

LCP: Landfill Closure Program

The WV DEP's LCAP aids the owners/permittees of landfills that were required to cease operations because of certain statutory closure deadlines for non-composite lined facilities

Date of Government Version: 12/31/2015

Date Data Arrived at EDR: 03/18/2016

Date Made Active in Reports: 04/15/2016

Number of Days to Update: 28

Source: Department of Environmental Protection

Telephone: 304-926-0499

Last EDR Contact: 06/06/2016

Next Scheduled EDR Contact: 09/19/2016

Data Release Frequency: Annually

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tanks

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 12/28/2015

Date Data Arrived at EDR: 03/03/2016

Date Made Active in Reports: 04/15/2016

Number of Days to Update: 43

Source: Division of Environmental Protection

Telephone: 304-926-0455

Last EDR Contact: 06/02/2016

Next Scheduled EDR Contact: 09/12/2016

Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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

Date of Government Version: 10/09/2015	Source: EPA Region 7
Date Data Arrived at EDR: 02/12/2016	Telephone: 913-551-7003
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 04/29/2016
Number of Days to Update: 112	Next Scheduled EDR Contact: 08/08/2016
	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: 10/27/2015	Source: EPA Region 1
Date Data Arrived at EDR: 10/29/2015	Telephone: 617-918-1313
Date Made Active in Reports: 01/04/2016	Last EDR Contact: 04/29/2016
Number of Days to Update: 67	Next Scheduled EDR Contact: 08/08/2016
	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: 02/05/2016	Source: EPA Region 4
Date Data Arrived at EDR: 04/29/2016	Telephone: 404-562-8677
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 04/26/2016
Number of Days to Update: 35	Next Scheduled EDR Contact: 08/08/2016
	Data Release Frequency: Semi-Annually

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: 10/13/2015	Source: EPA Region 8
Date Data Arrived at EDR: 10/23/2015	Telephone: 303-312-6271
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 04/27/2016
Number of Days to Update: 118	Next Scheduled EDR Contact: 08/08/2016
	Data Release Frequency: Quarterly

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: 02/25/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/27/2016	Telephone: 415-972-3372
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 04/27/2016
Number of Days to Update: 37	Next Scheduled EDR Contact: 08/08/2016
	Data Release Frequency: Quarterly

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

Date of Government Version: 12/11/2015	Source: EPA Region 6
Date Data Arrived at EDR: 02/19/2016	Telephone: 214-665-6597
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 04/29/2016
Number of Days to Update: 105	Next Scheduled EDR Contact: 08/08/2016
	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: 02/17/2016	Source: EPA, Region 5
Date Data Arrived at EDR: 04/27/2016	Telephone: 312-886-7439
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 04/27/2016
Number of Days to Update: 37	Next Scheduled EDR Contact: 08/08/2016
	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: 01/07/2016	Source: EPA Region 10
Date Data Arrived at EDR: 01/08/2016	Telephone: 206-553-2857
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 04/29/2016
Number of Days to Update: 41	Next Scheduled EDR Contact: 08/08/2016
	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: 01/01/2010	Source: FEMA
Date Data Arrived at EDR: 02/16/2010	Telephone: 202-646-5797
Date Made Active in Reports: 04/12/2010	Last EDR Contact: 04/11/2016
Number of Days to Update: 55	Next Scheduled EDR Contact: 07/25/2016
	Data Release Frequency: Varies

UST: Underground Storage Tank Database
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: 03/02/2016	Source: Division of Environmental Protection
Date Data Arrived at EDR: 03/03/2016	Telephone: 304-926-0495
Date Made Active in Reports: 04/15/2016	Last EDR Contact: 05/31/2016
Number of Days to Update: 43	Next Scheduled EDR Contact: 09/12/2016
	Data Release Frequency: Annually

AST: Aboveground Storage Tanks
A listing of aboveground storage tank site locations.

Date of Government Version: 01/25/2016	Source: DEP
Date Data Arrived at EDR: 01/28/2016	Telephone: 304-926-0499
Date Made Active in Reports: 03/08/2016	Last EDR Contact: 04/25/2016
Number of Days to Update: 40	Next Scheduled EDR Contact: 08/08/2016
	Data Release Frequency: Varies

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: 12/03/2015	Source: EPA Region 6
Date Data Arrived at EDR: 02/04/2016	Telephone: 214-665-7591
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 04/29/2016
Number of Days to Update: 120	Next Scheduled EDR Contact: 08/08/2016
	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: 09/23/2014	Source: EPA Region 7
Date Data Arrived at EDR: 11/25/2014	Telephone: 913-551-7003
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 04/29/2016
Number of Days to Update: 65	Next Scheduled EDR Contact: 08/08/2016
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 01/26/2016	Source: EPA Region 8
Date Data Arrived at EDR: 02/05/2016	Telephone: 303-312-6137
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 04/29/2016
Number of Days to Update: 119	Next Scheduled EDR Contact: 08/08/2016
	Data Release Frequency: Quarterly

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: 10/20/2015	Source: EPA, Region 1
Date Data Arrived at EDR: 10/29/2015	Telephone: 617-918-1313
Date Made Active in Reports: 01/04/2016	Last EDR Contact: 04/29/2016
Number of Days to Update: 67	Next Scheduled EDR Contact: 08/08/2016
	Data Release Frequency: Varies

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: 02/05/2016	Source: EPA Region 4
Date Data Arrived at EDR: 04/29/2016	Telephone: 404-562-9424
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 04/26/2016
Number of Days to Update: 35	Next Scheduled EDR Contact: 08/08/2016
	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: 11/05/2015	Source: EPA Region 5
Date Data Arrived at EDR: 11/13/2015	Telephone: 312-886-6136
Date Made Active in Reports: 01/04/2016	Last EDR Contact: 04/27/2016
Number of Days to Update: 52	Next Scheduled EDR Contact: 08/08/2016
	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: 01/07/2016	Source: EPA Region 10
Date Data Arrived at EDR: 01/08/2016	Telephone: 206-553-2857
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 04/29/2016
Number of Days to Update: 41	Next Scheduled EDR Contact: 08/08/2016
	Data Release Frequency: Quarterly

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: 02/25/2016	Source: EPA Region 9
Date Data Arrived at EDR: 04/27/2016	Telephone: 415-972-3368
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 04/27/2016
Number of Days to Update: 37	Next Scheduled EDR Contact: 08/08/2016
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

State and tribal institutional control / engineering control registries

INST CONTROL: Sites with Institutional Controls
Sites that have institutional controls in place.

Date of Government Version: 01/20/2016	Source: Department of Environmental Protection
Date Data Arrived at EDR: 02/26/2016	Telephone: 304-558-2508
Date Made Active in Reports: 04/15/2016	Last EDR Contact: 05/23/2016
Number of Days to Update: 49	Next Scheduled EDR Contact: 09/05/2016
	Data Release Frequency: Varies

State and tribal voluntary cleanup sites

VCP: Voluntary Remediation Sites
Sites involved in the Voluntary Remediation Program.

Date of Government Version: 01/20/2016	Source: Department of Environmental Protection
Date Data Arrived at EDR: 02/26/2016	Telephone: 304-558-2745
Date Made Active in Reports: 04/15/2016	Last EDR Contact: 05/23/2016
Number of Days to Update: 49	Next Scheduled EDR Contact: 09/05/2016
	Data Release Frequency: Semi-Annually

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: 04/01/2016
Number of Days to Update: 142	Next Scheduled EDR Contact: 07/11/2016
	Data Release Frequency: Varies

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

State and tribal Brownfields sites

BROWNFIELDS: Brownfields Sites Listing
Brownfields are abandoned, idle or underused commercial or industrial properties, where the expansion or redevelopment is hindered by real or perceived contamination. Brownfields vary in size, location, age, and past use -- they can be anything from a five-hundred acre automobile assembly plant to a small, abandoned corner gas station.

Date of Government Version: 05/14/2013	Source: Department of Environmental Protection
Date Data Arrived at EDR: 07/05/2013	Telephone: 304-926-0455
Date Made Active in Reports: 08/15/2013	Last EDR Contact: 04/01/2016
Number of Days to Update: 41	Next Scheduled EDR Contact: 07/11/2016
	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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/22/2015
Date Data Arrived at EDR: 12/23/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/22/2016
Next Scheduled EDR Contact: 07/04/2016
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: 04/27/2016
Next Scheduled EDR Contact: 08/15/2016
Data Release Frequency: Varies

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.

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

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: 04/21/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: No Update Planned

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: 02/18/2016
Date Data Arrived at EDR: 03/07/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 88

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/01/2016
Next Scheduled EDR Contact: 06/13/2016
Data Release Frequency: No Update Planned

CDL: Drug Lab Site Locations

A listing of clandestine drug lab site locations.

Date of Government Version: 04/08/2016
Date Data Arrived at EDR: 04/13/2016
Date Made Active in Reports: 06/14/2016
Number of Days to Update: 62

Source: Department of Environmental Protection
Telephone: 304-926-0499
Last EDR Contact: 04/13/2016
Next Scheduled EDR Contact: 07/25/2016
Data Release Frequency: Varies

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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/18/2016
Date Data Arrived at EDR: 03/07/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 88

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/31/2016
Next Scheduled EDR Contact: 09/12/2016
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: 02/18/2014
Date Data Arrived at EDR: 03/18/2014
Date Made Active in Reports: 04/24/2014
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 04/26/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Varies

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.

Date of Government Version: 06/24/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/02/2015
Number of Days to Update: 68

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 03/30/2016
Next Scheduled EDR Contact: 07/11/2016
Data Release Frequency: Annually

SPILLS: Spills Listing

A listing of spills and releases reported to the Office of Emergency Services, they do not include any TRI information.

Date of Government Version: 04/12/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/14/2016
Number of Days to Update: 46

Source: Office of Emergency Services
Telephone: 304-558-5380
Last EDR Contact: 04/25/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Varies

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: 12/09/2015
Date Data Arrived at EDR: 03/02/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: 800-438-2474
Last EDR Contact: 03/30/2016
Next Scheduled EDR Contact: 07/11/2016
Data Release Frequency: Varies

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
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 06/10/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 04/15/2016
Number of Days to Update: 62	Next Scheduled EDR Contact: 07/25/2016
	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: 04/15/2016
Number of Days to Update: 339	Next Scheduled EDR Contact: 07/25/2016
	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: 03/07/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/09/2011	Telephone: 615-532-8599
Date Made Active in Reports: 05/02/2011	Last EDR Contact: 05/20/2016
Number of Days to Update: 54	Next Scheduled EDR Contact: 08/29/2016
	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: 09/01/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/03/2015	Telephone: 202-566-1917
Date Made Active in Reports: 11/03/2015	Last EDR Contact: 05/18/2016
Number of Days to Update: 61	Next Scheduled EDR Contact: 08/29/2016
	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.

Date of Government Version: 08/30/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/21/2014	Telephone: 617-520-3000
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 05/09/2016
Number of Days to Update: 88	Next Scheduled EDR Contact: 08/22/2016
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/03/2015	Telephone: 703-308-4044
Date Made Active in Reports: 03/09/2015	Last EDR Contact: 05/12/2016
Number of Days to Update: 6	Next Scheduled EDR Contact: 08/22/2016
	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	Source: EPA
Date Data Arrived at EDR: 01/15/2015	Telephone: 202-260-5521
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 03/24/2016
Number of Days to Update: 14	Next Scheduled EDR Contact: 07/04/2016
	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	Source: EPA
Date Data Arrived at EDR: 11/24/2015	Telephone: 202-566-0250
Date Made Active in Reports: 04/05/2016	Last EDR Contact: 05/24/2016
Number of Days to Update: 133	Next Scheduled EDR Contact: 09/05/2016
	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	Source: EPA
Date Data Arrived at EDR: 12/10/2010	Telephone: 202-564-4203
Date Made Active in Reports: 02/25/2011	Last EDR Contact: 04/25/2016
Number of Days to Update: 77	Next Scheduled EDR Contact: 08/08/2016
	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: 11/25/2013	Source: EPA
Date Data Arrived at EDR: 12/12/2013	Telephone: 703-416-0223
Date Made Active in Reports: 02/24/2014	Last EDR Contact: 06/07/2016
Number of Days to Update: 74	Next Scheduled EDR Contact: 09/19/2016
	Data Release Frequency: Annually

RMP: Risk Management Plans

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 08/01/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/26/2015	Telephone: 202-564-8600
Date Made Active in Reports: 11/03/2015	Last EDR Contact: 04/25/2016
Number of Days to Update: 69	Next Scheduled EDR Contact: 08/08/2016
	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: 05/12/2016
Number of Days to Update: 3	Next Scheduled EDR Contact: 08/22/2016
	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: 07/01/2014	Source: EPA
Date Data Arrived at EDR: 10/15/2014	Telephone: 202-566-0500
Date Made Active in Reports: 11/17/2014	Last EDR Contact: 04/12/2016
Number of Days to Update: 33	Next Scheduled EDR Contact: 07/25/2016
	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: 01/23/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/06/2015	Telephone: 202-564-5088
Date Made Active in Reports: 03/09/2015	Last EDR Contact: 04/08/2016
Number of Days to Update: 31	Next Scheduled EDR Contact: 07/25/2016
	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: 05/20/2016
Number of Days to Update: 25	Next Scheduled EDR Contact: 09/05/2016
	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: 05/20/2016
Number of Days to Update: 25	Next Scheduled EDR Contact: 09/05/2016
	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: 03/07/2016	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 03/18/2016	Telephone: 301-415-7169
Date Made Active in Reports: 04/15/2016	Last EDR Contact: 05/06/2016
Number of Days to Update: 28	Next Scheduled EDR Contact: 08/22/2016
	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: 06/09/2016
Number of Days to Update: 76	Next Scheduled EDR Contact: 09/19/2016
	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: 06/10/2016
Number of Days to Update: 40	Next Scheduled EDR Contact: 09/19/2016
	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: 04/26/2016
Number of Days to Update: 83	Next Scheduled EDR Contact: 08/08/2016
	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: 07/07/2015
Date Data Arrived at EDR: 07/09/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 69

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 04/08/2016
Next Scheduled EDR Contact: 07/18/2016
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: 05/04/2016
Next Scheduled EDR Contact: 08/15/2016
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: 12/31/2014
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 46

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 03/24/2016
Next Scheduled EDR Contact: 07/11/2016
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: 12/31/2013
Date Data Arrived at EDR: 02/24/2015
Date Made Active in Reports: 09/30/2015
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 05/27/2016
Next Scheduled EDR Contact: 09/05/2016
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: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 12/08/2006	Telephone: 202-208-3710
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 04/15/2016
Number of Days to Update: 34	Next Scheduled EDR Contact: 07/25/2016
	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: 03/11/2016	Source: Department of Energy
Date Data Arrived at EDR: 03/15/2016	Telephone: 202-586-3559
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 05/09/2016
Number of Days to Update: 80	Next Scheduled EDR Contact: 08/22/2016
	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: 09/14/2010	Source: Department of Energy
Date Data Arrived at EDR: 10/07/2011	Telephone: 505-845-0011
Date Made Active in Reports: 03/01/2012	Last EDR Contact: 05/23/2016
Number of Days to Update: 146	Next Scheduled EDR Contact: 09/05/2016
	Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 11/25/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/26/2014	Telephone: 703-603-8787
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 04/07/2016
Number of Days to Update: 64	Next Scheduled EDR Contact: 07/18/2016
	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: 10/20/2015
Date Data Arrived at EDR: 10/27/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 69

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 03/24/2016
Next Scheduled EDR Contact: 07/11/2016
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data A listing of minor source facilities.

Date of Government Version: 10/20/2015
Date Data Arrived at EDR: 10/27/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 69

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 03/24/2016
Next Scheduled EDR Contact: 07/11/2016
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: 02/09/2016
Date Data Arrived at EDR: 03/02/2016
Date Made Active in Reports: 04/15/2016
Number of Days to Update: 44

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 06/02/2016
Next Scheduled EDR Contact: 09/12/2016
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: 06/03/2016
Next Scheduled EDR Contact: 09/12/2016
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: 06/03/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: Varies

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: 07/20/2015
Date Data Arrived at EDR: 09/09/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 55

Source: EPA
Telephone: (215) 814-5000
Last EDR Contact: 06/08/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 10/25/2015	Source: Department of Defense
Date Data Arrived at EDR: 01/29/2016	Telephone: 571-373-0407
Date Made Active in Reports: 04/05/2016	Last EDR Contact: 04/18/2016
Number of Days to Update: 67	Next Scheduled EDR Contact: 07/04/2016
	Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing

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

Date of Government Version: 03/01/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/03/2016	Telephone: 202-564-0527
Date Made Active in Reports: 04/05/2016	Last EDR Contact: 05/25/2016
Number of Days to Update: 33	Next Scheduled EDR Contact: 09/12/2016
	Data Release Frequency: Varies

AIRS: Permitted Facility and Emissions Listing

Permitted facility and emissions information listing.

Date of Government Version: 03/31/2016	Source: Department of Environmental Protection
Date Data Arrived at EDR: 05/03/2016	Telephone: 304-926-0499
Date Made Active in Reports: 06/14/2016	Last EDR Contact: 04/25/2016
Number of Days to Update: 42	Next Scheduled EDR Contact: 08/08/2016
	Data Release Frequency: Varies

COAL ASH: Coal Ash Landfills

A listing of coal ash landfill site locations.

Date of Government Version: 11/20/2015	Source: Department of Environmental Protection
Date Data Arrived at EDR: 04/14/2016	Telephone: 304-926-0499
Date Made Active in Reports: 06/15/2016	Last EDR Contact: 04/11/2016
Number of Days to Update: 62	Next Scheduled EDR Contact: 07/25/2016
	Data Release Frequency: Varies

DRYCLEANERS: Listing of Drycleaner Locations

A listing of drycleaners which use perchloroethylene.

Date of Government Version: 05/19/2015	Source: Department of Environmental Protection
Date Data Arrived at EDR: 05/22/2015	Telephone: 304-926-0475
Date Made Active in Reports: 07/20/2015	Last EDR Contact: 05/16/2016
Number of Days to Update: 59	Next Scheduled EDR Contact: 08/29/2016
	Data Release Frequency: Varies

Financial Assurance: 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: 03/05/2013	Source: Department of Environmental Protection
Date Data Arrived at EDR: 03/07/2013	Telephone: 304-926-0499
Date Made Active in Reports: 04/05/2013	Last EDR Contact: 05/31/2016
Number of Days to Update: 29	Next Scheduled EDR Contact: 09/12/2016
	Data Release Frequency: Varies

NPDES: Wastewater Discharge Permits Listing

A listing of wastewater discharge permits.

Date of Government Version: 01/21/2016	Source: Department of Environmental Protection
Date Data Arrived at EDR: 01/26/2016	Telephone: 304-926-0495
Date Made Active in Reports: 03/08/2016	Last EDR Contact: 05/16/2016
Number of Days to Update: 42	Next Scheduled EDR Contact: 08/01/2016
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UIC: Underground Injection Wells

A listing of underground injection well locations.

Date of Government Version: 04/25/2016	Source: Department of Environmental Protection
Date Data Arrived at EDR: 04/28/2016	Telephone: 304-926-0499
Date Made Active in Reports: 06/15/2016	Last EDR Contact: 01/28/2016
Number of Days to Update: 48	Next Scheduled EDR Contact: 05/09/2016
	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: 09/20/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/23/2015	Telephone: 202-564-2280
Date Made Active in Reports: 01/04/2016	Last EDR Contact: 03/23/2016
Number of Days to Update: 103	Next Scheduled EDR Contact: 07/04/2016
	Data Release Frequency: Quarterly

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: 02/22/2016	Source: EPA
Date Data Arrived at EDR: 02/24/2016	Telephone: 800-385-6164
Date Made Active in Reports: 05/20/2016	Last EDR Contact: 05/25/2016
Number of Days to Update: 86	Next Scheduled EDR Contact: 09/05/2016
	Data Release Frequency: Quarterly

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	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historic Gas 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	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EDR Hist Cleaner: EDR Exclusive Historic Dry 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.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: 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 Division of Environmental Protection in West Virginia.

Date of Government Version: N/A	Source: Division of Environmental Protection
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 01/20/2014	Last EDR Contact: 06/01/2012
Number of Days to Update: 203	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 Division of Environmental Protection in West Virginia.

Date of Government Version: N/A	Source: Division of Environmental Protection
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 12/30/2013	Last EDR Contact: 06/01/2012
Number of Days to Update: 182	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.

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2013	Source: Department of Environmental Protection
Date Data Arrived at EDR: 07/17/2015	Telephone: N/A
Date Made Active in Reports: 08/12/2015	Last EDR Contact: 04/12/2016
Number of Days to Update: 26	Next Scheduled EDR Contact: 07/25/2016
	Data Release Frequency: Annually

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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/01/2016
Date Data Arrived at EDR: 02/03/2016
Date Made Active in Reports: 03/22/2016
Number of Days to Update: 48

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 05/06/2016
Next Scheduled EDR Contact: 08/15/2016
Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/24/2015
Date Made Active in Reports: 08/18/2015
Number of Days to Update: 25

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 04/18/2016
Next Scheduled EDR Contact: 08/01/2016
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: 06/06/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 04/14/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 50

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/13/2016
Next Scheduled EDR Contact: 09/26/2016
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.

Nursing Homes

Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: Day Care Center List

Source: Office of Social Services

Telephone: 304-558-7980

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

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.

State Wetlands Data: Wetland Inventory

Source: US Fish & Wildlife Service

Telephone: 703-358-2171

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

WVSU EA
5000 FAIRLAWN AVENUE
DUNBAR, WV 25064

TARGET PROPERTY COORDINATES

Latitude (North):	38.378178 - 38° 22' 41.44"
Longitude (West):	81.771239 - 81° 46' 16.46"
Universal Transverse Mercator:	Zone 17
UTM X (Meters):	432634.3
UTM Y (Meters):	4247851.0
Elevation:	600 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	6010682 SAINT ALBANS, WV
Version Date:	2014
Northeast Map:	6010666 POCATALICO, WV
Version Date:	2014
Southeast Map:	6014363 CHARLESTON WEST, WV
Version Date:	2014
Southwest Map:	6014357 ALUM CREEK, WV
Version Date:	2014

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).

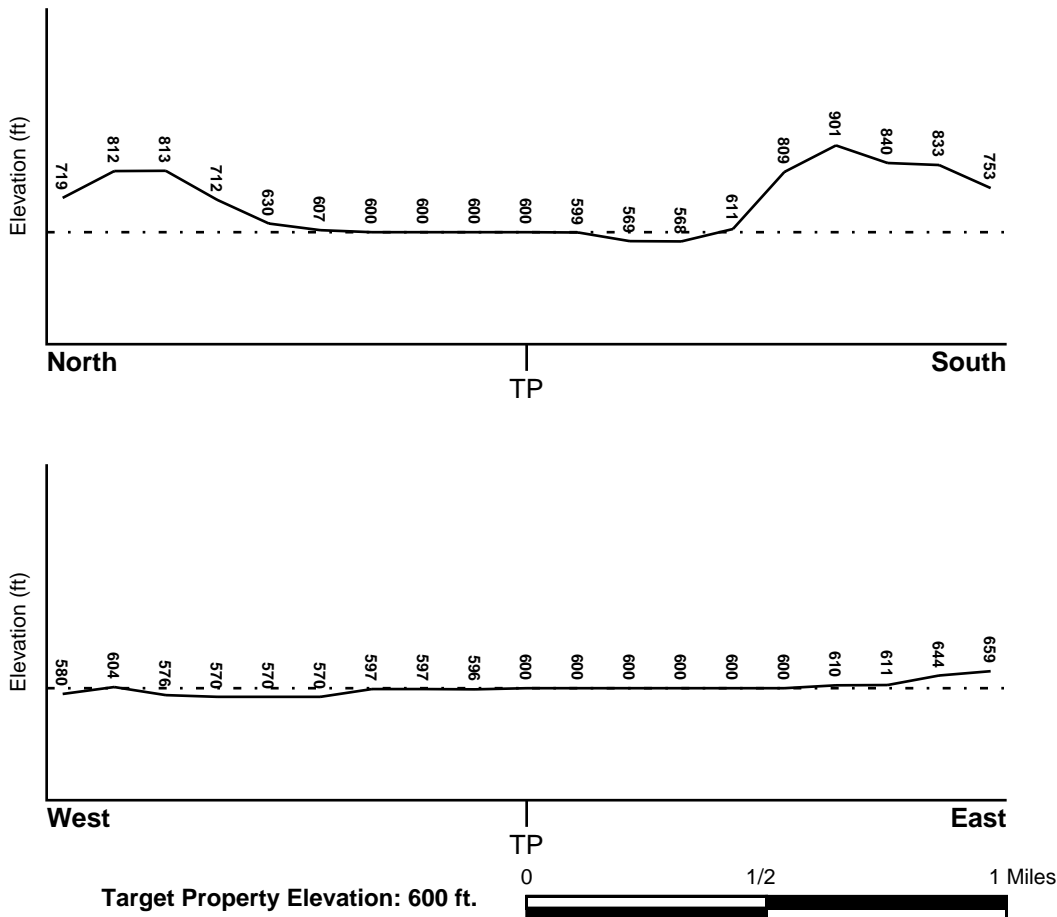
TOPOGRAPHIC INFORMATION

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 South

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>Target Property County</u> KANAWHA, WV	<u>FEMA Flood Electronic Data</u> YES - refer to the Overview Map and Detail Map
Flood Plain Panel at Target Property:	54039C - FEMA DFIRM Flood data
Additional Panels in search area:	Not Reported

NATIONAL WETLAND INVENTORY

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

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

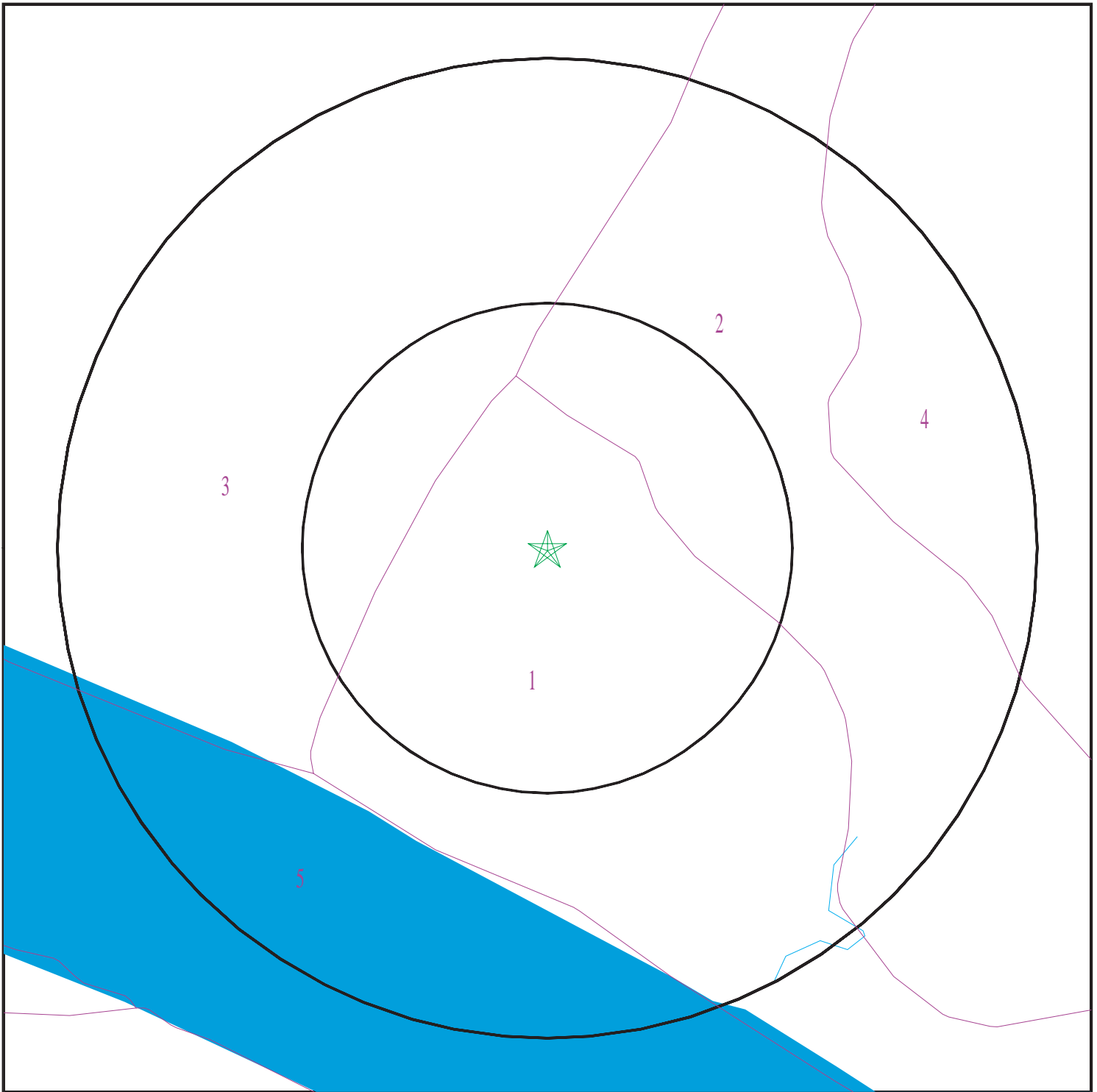
Era:	Paleozoic
System:	Pennsylvanian
Series:	Missourian Series
Code:	PP3 (<i>decoded above as Era, System & Series</i>)

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).

SSURGO SOIL MAP - 4649665.2s



- ★ Target Property
- SSURGO Soil
- Water

0 1/16 1/8 1/4 Miles



SITE NAME: WVSU EA
ADDRESS: 5000 Fairlawn Avenue
Dunbar WV 25064
LAT/LONG: 38.378178 / 81.771239

CLIENT: Terradon Corp.
CONTACT: Michael Pickens
INQUIRY #: 4649665.2s
DATE: June 16, 2016 4:19 pm

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

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. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Urban land

Soil Surface Texture: bedrock

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class:
Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	bedrock	Not reported	Not reported	Max: Min:	Max: Min:

Soil Map ID: 2

Soil Component Name: Udorthents, smoothed

Soil Surface Texture: bedrock

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class:
Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 3

Soil Component Name: Urban land

Soil Surface Texture: bedrock

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class:
Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

Soil Map ID: 4

Soil Component Name: Urban land

Soil Surface Texture: bedrock

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class:
Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 20 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	bedrock	Not reported	Not reported	Max: Min:	Max: Min:

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 5

Soil Component Name: Water

Soil Surface Texture: bedrock

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class:
Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

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.

WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 0.001 miles
State Database	1.000

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	USGS40001296937	1/8 - 1/4 Mile SSW
2	USGS40001296934	1/2 - 1 Mile WSW
3	USGS40001296975	1/2 - 1 Mile WNW
4	USGS40001296955	1/2 - 1 Mile East
5	USGS40001296920	1/2 - 1 Mile SE
6	USGS40001296940	1/2 - 1 Mile ESE
7	USGS40001296970	1/2 - 1 Mile ENE
8	USGS40001296905	1/2 - 1 Mile SE
9	USGS40001297046	1/2 - 1 Mile NW

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

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

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

STATE DATABASE WELL INFORMATION

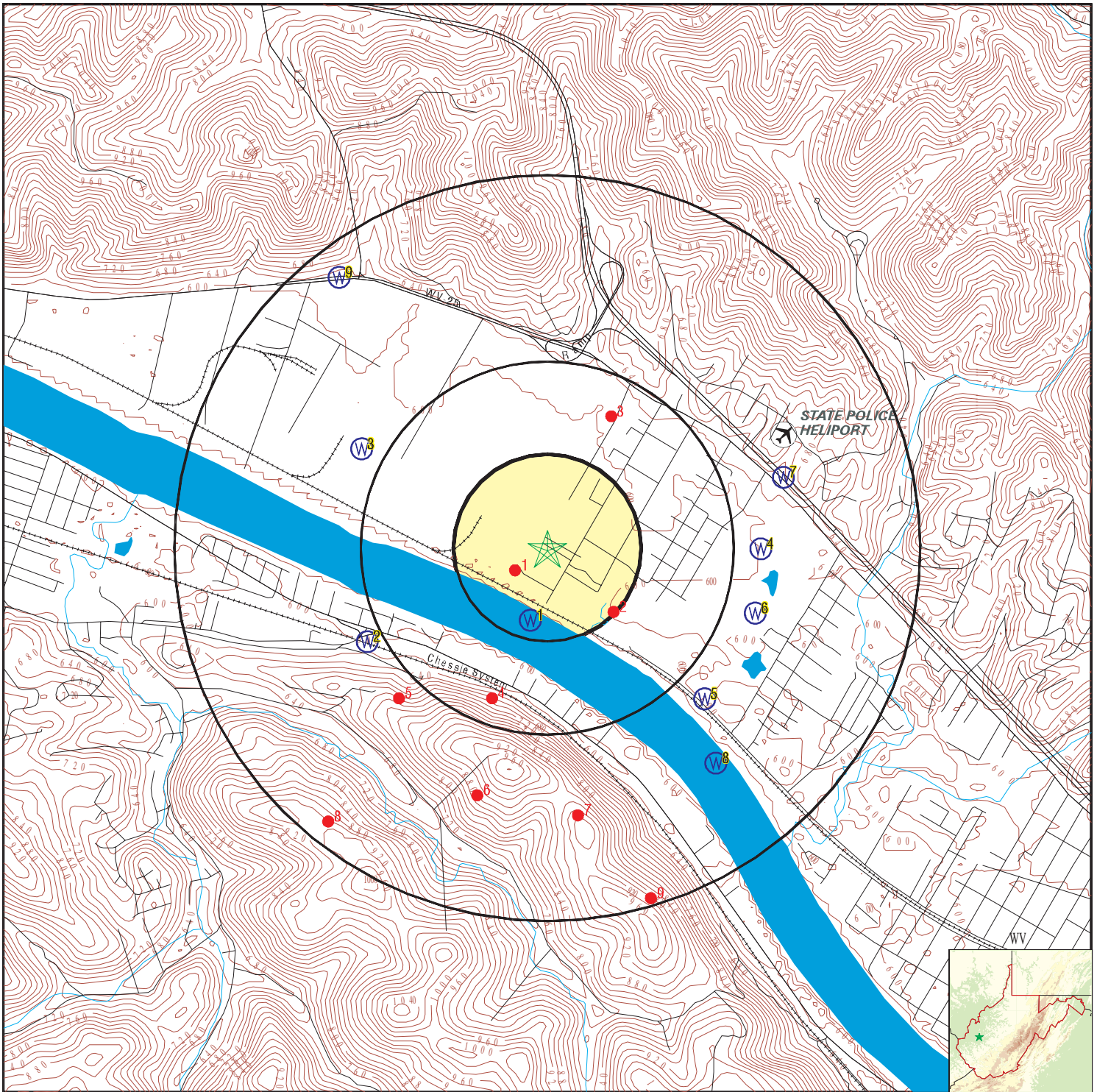
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	WVOG11000059392	0 - 1/8 Mile SW
2	WVOG11000061911	1/8 - 1/4 Mile SE
3	WVOG11000124513	1/4 - 1/2 Mile NNE
4	WVOG11000027668	1/4 - 1/2 Mile SSW
5	WVOG11000053785	1/2 - 1 Mile SW
6	WVOG11000085886	1/2 - 1 Mile SSW
7	WVOG11000084327	1/2 - 1 Mile South
8	WVOG11000085729	1/2 - 1 Mile SW
9	WVOG11000056907	1/2 - 1 Mile SSE

PHYSICAL SETTING SOURCE MAP - 4649665.2s



- County Boundary
- Major Roads
- Contour Lines
- Airports
- 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
- Oil, gas or related wells

SITE NAME: WVSU EA
 ADDRESS: 5000 Fairlawn Avenue
 Dunbar WV 25064
 LAT/LONG: 38.378178 / 81.771239

CLIENT: Terradon Corp.
 CONTACT: Michael Pickens
 INQUIRY #: 4649665.2s
 DATE: June 16, 2016 4:19 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

1
SSW
1/8 - 1/4 Mile
Lower

FED USGS USGS40001296937

Org. Identifier:	USGS-WV		
Formal name:	USGS West Virginia Water Science Center		
Monloc Identifier:	USGS-382231081462001		
Monloc name:	Kan-0344		
Monloc type:	Well		
Monloc desc:	Original station name was 4003088		
Huc code:	05050008	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	38.3753722
Longitude:	-81.7720721	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	593.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19570101	Welldepth:	56
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

	Feet below	Feet to
Date	Surface	Sealevel

1957-05-01	24.00	

2
WSW
1/2 - 1 Mile
Higher

FED USGS USGS40001296934

Org. Identifier:	USGS-WV		
Formal name:	USGS West Virginia Water Science Center		
Monloc Identifier:	USGS-382228081464901		
Monloc name:	Kan-0342		
Monloc type:	Well		
Monloc desc:	Original station name was 4004024		
Huc code:	05050008	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	38.3745387
Longitude:	-81.7801279	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	583.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Aquifer type:	Not Reported	Welldepth:	47
Construction date:	19570101	Wellholedepth:	Not Reported
Welldepth units:	ft		
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel

1957-05-01	21.00	

3
WNW
1/2 - 1 Mile
Lower

FED USGS USGS40001296975

Org. Identifier:	USGS-WV		
Formal name:	USGS West Virginia Water Science Center		
Monloc Identifier:	USGS-382255081465001		
Monloc name:	Kan-0356		
Monloc type:	Well		
Monloc desc:	Original station name was 4003087		
Huc code:	05050008	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	38.3820386
Longitude:	-81.7804058	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	591.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Pennsylvanian aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19400101	Welldepth:	95
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

4
East
1/2 - 1 Mile
Higher

FED USGS USGS40001296955

Org. Identifier:	USGS-WV		
Formal name:	USGS West Virginia Water Science Center		
Monloc Identifier:	USGS-382241081453901		
Monloc name:	Kan-0352		
Monloc type:	Well		
Monloc desc:	Original station name was 4003089		
Huc code:	05050008	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	38.37815
Longitude:	-81.7606829	Sourcemap scale:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	599.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19560101	Welldepth:	62
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel

1956-12-01	15.00	

5
SE
1/2 - 1 Mile
Lower

FED USGS USGS40001296920

Org. Identifier:	USGS-WV		
Formal name:	USGS West Virginia Water Science Center		
Monloc Identifier:	USGS-382220081454901		
Monloc name:	Kan-0339		
Monloc type:	Well		
Monloc desc:	Original station name was 4003092		
Huc code:	05050008	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	38.3723168
Longitude:	-81.7634606	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	582.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19560101	Welldepth:	43
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel

1956-12-01	21.00	

6
ESE
1/2 - 1 Mile
Higher

FED USGS USGS40001296940

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Org. Identifier:	USGS-WV		
Formal name:	USGS West Virginia Water Science Center		
Monloc Identifier:	USGS-382232081454001		
Monloc name:	Kan-0346		
Monloc type:	Well		
Monloc desc:	Original station name was 4003091		
Huc code:	05050008	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	38.3756501
Longitude:	-81.7609606	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	600.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19560101	Welldepth:	63
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel

1956-12-01	38.00	

7

**ENE
1/2 - 1 Mile
Higher**

FED USGS

USGS40001296970

Org. Identifier:	USGS-WV		
Formal name:	USGS West Virginia Water Science Center		
Monloc Identifier:	USGS-382251081453501		
Monloc name:	Kan-0355		
Monloc type:	Well		
Monloc desc:	Original station name was 4003090		
Huc code:	05050008	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	38.3809278
Longitude:	-81.7595718	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	598.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Aquifer type:	Not Reported	Welldepth:	62
Construction date:	19560101	Wellholedepth:	Not Reported
Welldepth units:	ft		
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

8
SE
1/2 - 1 Mile
Lower

FED USGS USGS40001296905

Org. Identifier:	USGS-WV		
Formal name:	USGS West Virginia Water Science Center		
Monloc Identifier:	USGS-382211081454701		
Monloc name:	Kan-0326		
Monloc type:	Well		
Monloc desc:	Orig staname was 40-9-09 WESTVACO CORP		
Huc code:	05050008	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	38.3698169
Longitude:	-81.762905	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	605.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Pennsylvanian aquifers		
Formation type:	Allegheny Formation		
Aquifer type:	Not Reported		
Construction date:	19440101	Welldepth:	153
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

9
NW
1/2 - 1 Mile
Higher

FED USGS USGS40001297046

Org. Identifier:	USGS-WV		
Formal name:	USGS West Virginia Water Science Center		
Monloc Identifier:	USGS-382319081465401		
Monloc name:	Kan-0379		
Monloc type:	Well		
Monloc desc:	Original station name was 4003086		
Huc code:	05050008	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	38.388705
Longitude:	-81.7815171	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	616.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Pennsylvanian aquifers		
Formation type:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Aquifer type: Not Reported
Construction date: 19390101
Welldepth units: ft
Wellholedepth units: Not Reported

Welldepth: 120
Wellholedepth: Not Reported

Ground-water levels, Number of Measurements: 0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

1
SW
0 - 1/8 Mile

OIL_GAS WVOG11000059392

Fid:	59391	Permitid:	3906366
County:	39	Permit:	6366
Api:	039-06366	Lateral:	0
Well type:	GAS	Well use:	PROD
Well depth:	SWG3	Well rig:	RRIG
Permit typ:	NEWEL	Issue date:	2014-05-20
Complete d:	2014-10-01		
Resp party:	RESERVE OIL & GAS, INC.		
Well statu:	NAVL	Farm name:	WVSU BRD. OF GOVERNORS
Well numbr:	WVSU 2		
Well x:	432496		
Well y:	4247963		
Geosource:	NEW	Received d:	2014-05-16
Marcellusf:	0		
Formation:	Lower Huron		
Link:	http://www.wvgs.wvnet.edu/oginfo/pipeline/pipeline2.asp?txtsearchapi=4703906366		
Webmap:	http://tagis.dep.wv.gov/imap/imap.php?x=432496&y=4247963&datum=83&level=17&pntlabel=039-06366		
Site id:	WVOG11000059392		

2
SE
1/8 - 1/4 Mile

OIL_GAS WVOG11000061911

Fid:	61910	Permitid:	3906363
County:	39	Permit:	6363
Api:	039-06363	Lateral:	0
Well type:	GAS	Well use:	PROD
Well depth:	SWG3	Well rig:	RRIG
Permit typ:	NEWEL	Issue date:	2013-08-29
Complete d:	2014-05-18		
Resp party:	RESERVE OIL & GAS, INC.		
Well statu:	NAVL	Farm name:	BOARD OF GOVERNORS , WVSU
Well numbr:	WEST VIRGINIA STATE UNIVERSITY #1		
Well x:	432920		
Well y:	4247780		
Geosource:	NEW	Received d:	2013-08-20
Marcellusf:	0		
Formation:	Lower Huron		
Link:	http://www.wvgs.wvnet.edu/oginfo/pipeline/pipeline2.asp?txtsearchapi=4703906363		
Webmap:	http://tagis.dep.wv.gov/imap/imap.php?x=432920&y=4247780&datum=83&level=17&pntlabel=039-06363		
Site id:	WVOG11000061911		

3
NNE
1/4 - 1/2 Mile

OIL_GAS WVOG11000124513

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Fid:	124512	Permitid:	3906371
County:	39	Permit:	6371
Api:	039-06371	Lateral:	0
Well type:	NAVL	Well use:	NAVL
Well depth:	SWG3	Well rig:	NAVL
Permit typ:	NEWEL	Issue date:	2015-02-12
Complete d:	NA		
Resp party:	RESERVE OIL & GAS, INC.		
Well statu:	NAVL	Farm name:	BOARD OF GOVERNORS, WV STA
Well numbr:	WVSU 3		
Well x:	432917		
Well y:	4248624		
Geosource:	NEW	Received d:	2014-12-17
Marcellusf:	0		
Formation:	Lower Huron,Rhinestreet		
Link:	http://www.wvgs.wvnet.edu/oginfo/pipeline/pipeline2.asp?txtsearchapi=4703906371		
Webmap:	http://tagis.dep.wv.gov/imap/imap.php?x=432917&y=4248624&datum=83&level=17&pntlabel=039-06371		
Site id:	WVOG11000124513		

4

SSW

1/4 - 1/2 Mile

OIL_GAS

WVOG11000027668

Fid:	27667	Permitid:	3905722
County:	39	Permit:	5722
Api:	039-05722	Lateral:	0
Well type:	GAS	Well use:	PROD
Well depth:	SWG3	Well rig:	RRIG
Permit typ:	NEWEL	Issue date:	2005-04-28
Complete d:	NA		
Resp party:	BLUE CREEK GAS COMPANY		
Well statu:	AC	Farm name:	BLACKWELL, RALPH
Well numbr:	MORRISON 1		
Well x:	432392.6		
Well y:	4247411.3		
Geosource:	WVGES	Received d:	2005-04-26
Marcellusf:	0		
Formation:	Not Available		
Link:	http://www.wvgs.wvnet.edu/oginfo/pipeline/pipeline2.asp?txtsearchapi=4703905722		
Webmap:	http://tagis.dep.wv.gov/imap/imap.php?x=432392.6&y=4247411.3&datum=83&level=17&pntlabel=039-05722		
Site id:	WVOG11000027668		

5

SW

1/2 - 1 Mile

OIL_GAS

WVOG11000053785

Fid:	53784	Permitid:	3904919
County:	39	Permit:	4919
Api:	039-04919	Lateral:	0
Well type:	NAVL	Well use:	NAVL
Well depth:	NAVL	Well rig:	NAVL
Permit typ:	NEWEL	Issue date:	1993-10-07
Complete d:	1993-10-07		
Resp party:	BLUE CREEK GAS COMPANY		
Well statu:	AC	Farm name:	WEBSTER, VERNAL D., SR.
Well numbr:	WEBSTER 1		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well x: 431990.6
 Well y: 4247414.7
 Geosource: WVGES Received d: 1993-09-22
 Marcellusf: 0
 Formation: Not Available
 Link: <http://www.wvgs.wvnet.edu/oginfo/pipeline/pipeline2.asp?txtsearchapi=4703904919>
 Webmap: <http://tagis.dep.wv.gov/imap/imap.php?x=431990.6&y=4247414.7&datum=83&level=17&pntlabel=039-04919>
 Site id: WVOG11000053785

6
SSW
1/2 - 1 Mile

OIL_GAS WVOG11000085886

Fid:	85885	Permitid:	3904229
County:	39	Permit:	4229
Api:	039-04229	Lateral:	0
Well type:	NAVL	Well use:	NAVL
Well depth:	NAVL	Well rig:	NAVL
Permit typ:	OTHRW	Issue date:	1985-10-13
Complete d:	NA		
Resp party:	BLUE CREEK GAS COMPANY		
Well statu:	AC	Farm name:	BECKER, EARL
Well numbr:	BECKER 1		
Well x:	432324.7		
Well y:	4246993.2		
Geosource:	WVGES	Received d:	NA
Marcellusf:	0		
Formation:	Not Available		
Link:	http://www.wvgs.wvnet.edu/oginfo/pipeline/pipeline2.asp?txtsearchapi=4703904229		
Webmap:	http://tagis.dep.wv.gov/imap/imap.php?x=432324.7&y=4246993.2&datum=83&level=17&pntlabel=039-04229		
Site id:	WVOG11000085886		

7
South
1/2 - 1 Mile

OIL_GAS WVOG11000084327

Fid:	84326	Permitid:	3906269
County:	39	Permit:	6269
Api:	039-06269	Lateral:	0
Well type:	GAS	Well use:	PROD
Well depth:	SWG3	Well rig:	RRIG
Permit typ:	NEWEL	Issue date:	2010-09-13
Complete d:	2011-01-10		
Resp party:	BLUE CREEK GAS COMPANY		
Well statu:	AC	Farm name:	WV RADIO CORPORATION
Well numbr:	RADIO 2		
Well x:	432758.71		
Well y:	4246903.23		
Geosource:	ERIS-LL	Received d:	2010-08-25
Marcellusf:	0		
Formation:	Berea		
Link:	http://www.wvgs.wvnet.edu/oginfo/pipeline/pipeline2.asp?txtsearchapi=4703906269		
Webmap:	http://tagis.dep.wv.gov/imap/imap.php?x=432758.71&y=4246903.23&datum=83&level=17&pntlabel=039-06269		
Site id:	WVOG11000084327		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

8
SW
1/2 - 1 Mile

OIL_GAS WVOG11000085729

Fid:	85728	Permitid:	3903902
County:	39	Permit:	3902
Api:	039-03902	Lateral:	0
Well type:	NAVL	Well use:	NAVL
Well depth:	NAVL	Well rig:	NAVL
Permit typ:	OTHRW	Issue date:	1982-10-01
Complete d:	NA		
Resp party:	RUBIN RESOURCES CO.		
Well statu:	AC	Farm name:	CASTLEBERRY, KELLY
Well numbr:	CASTLEBERRY 1		
Well x:	431680.5		
Well y:	4246885.8		
Geosource:	WVGES	Received d:	NA
Marcellusf:	0		
Formation:	Not Available		
Link:	http://www.wvgs.wvnet.edu/oginfo/pipeline/pipeline2.asp?txtsearchapi=4703903902		
Webmap:	http://tagis.dep.wv.gov/imap/imap.php?x=431680.5&y=4246885.8&datum=83&level=17&pntlabel=039-03902		
Site id:	WVOG11000085729		

9
SSE
1/2 - 1 Mile

OIL_GAS WVOG11000056907

Fid:	56906	Permitid:	3906237
County:	39	Permit:	6237
Api:	039-06237	Lateral:	0
Well type:	GAS	Well use:	PROD
Well depth:	SWG3	Well rig:	RRIG
Permit typ:	NEWEL	Issue date:	2009-10-01
Complete d:	2009-11-04		
Resp party:	BLUE CREEK GAS COMPANY		
Well statu:	AC	Farm name:	UG YOUNG III
Well numbr:	RADIO 1		
Well x:	433070.52		
Well y:	4246543.26		
Geosource:	ERIS-LL	Received d:	2009-09-15
Marcellusf:	0		
Formation:	Devonian Shale		
Link:	http://www.wvgs.wvnet.edu/oginfo/pipeline/pipeline2.asp?txtsearchapi=4703906237		
Webmap:	http://tagis.dep.wv.gov/imap/imap.php?x=433070.52&y=4246543.26&datum=83&level=17&pntlabel=039-06237		
Site id:	WVOG11000056907		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

EPA Region 3 Statistical Summary Readings for Zip Code: 25064

Number of sites tested: 72.

Maximum Radon Level: 12.2 pCi/L.

Minimum Radon Level: 0.3 pCi/L.

pCi/L <4	pCi/L 4-10	pCi/L 10-20	pCi/L 20-50	pCi/L 50-100	pCi/L >100
45 (62.50%)	23 (31.94%)	4 (5.56%)	0 (0.00%)	0 (0.00%)	0 (0.00%)

Federal EPA Radon Zone for KANAWHA County: 3

- 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, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

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.

State Wetlands Data: Wetland Inventory

Source: US Fish & Wildlife Service

Telephone: 703-358-2171

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

West Virginia Water Well Information

Source: Bureau of Public Health

Telephone: 304-558-6765

OTHER STATE DATABASE INFORMATION

West Virginia Oil and Gas Well Database

Source: Department of Environmental Protection

Telephone: 304-926-0450

Oil and Gas well locations in the state.

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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WVSU EA

5000 Fairlawn Avenue

Dunbar, WV 25064

Inquiry Number: 4649665.3

June 17, 2016

Certified Sanborn® Map Report



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

Certified Sanborn® Map Report

06/17/16

Site Name:

WVSU EA
5000 Fairlawn Avenue
Dunbar, WV 25064
EDR Inquiry # 4649665.3

Client Name:

Terradon Corp.
P.O. Box 519
Nitro, WV 25143
Contact: Michael Pickens



The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Terradon Corp. were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 0250-4411-9FC2

PO # NA

Project WVSU EA

Maps Provided:

1950
1933



Sanborn® Library search results

Certification #: 0250-4411-9FC2

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- Library of Congress
- University Publications of America
- EDR Private Collection

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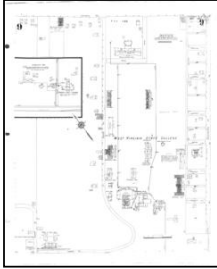
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Sanborn Sheet Key

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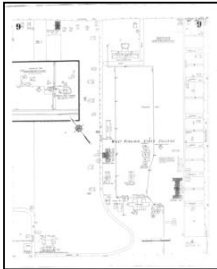


1950 Source Sheets



Volume 1, Sheet 9
1950

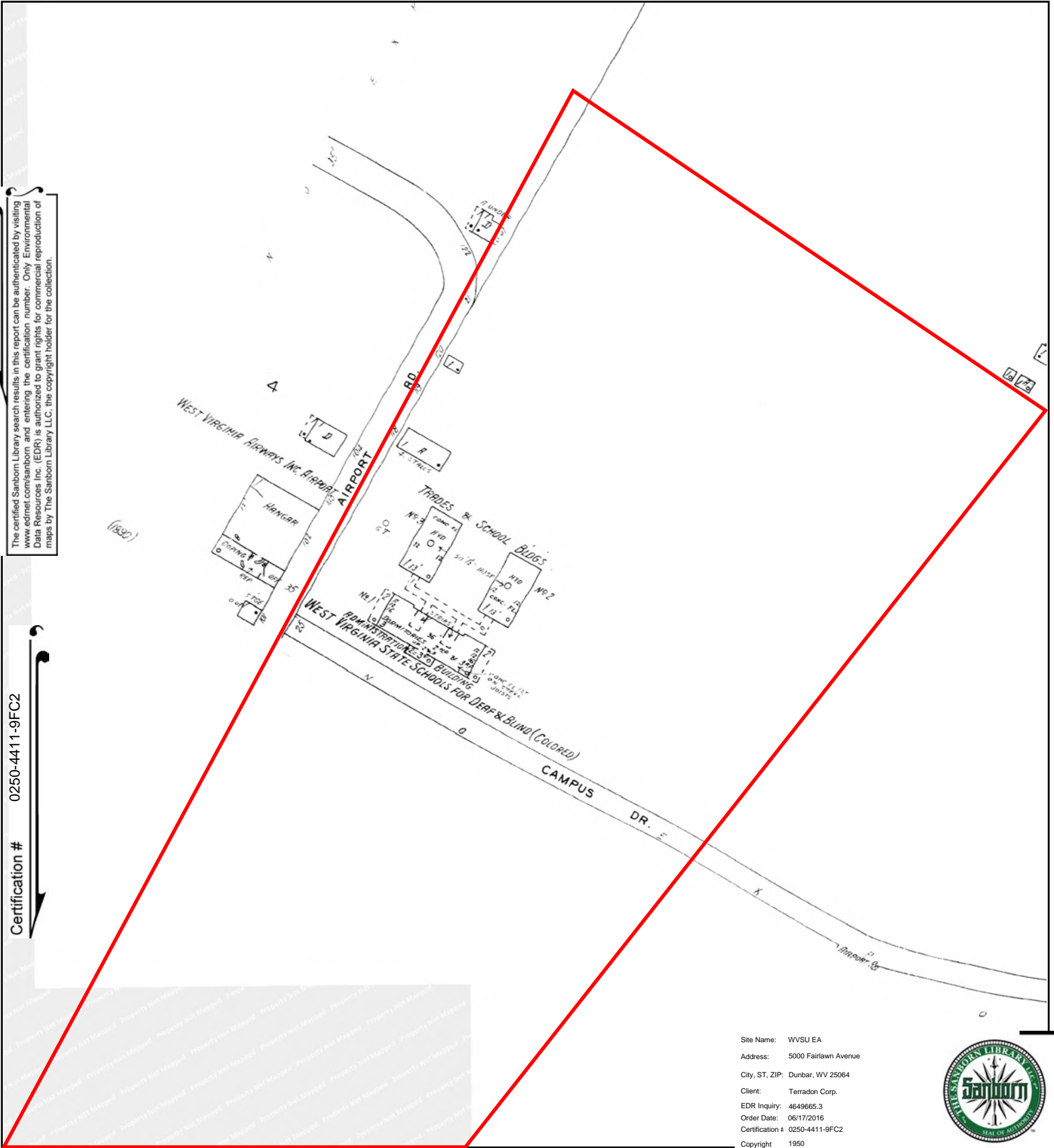
1933 Source Sheets



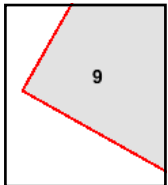
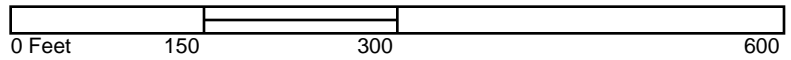
Volume 1, Sheet 9
1933

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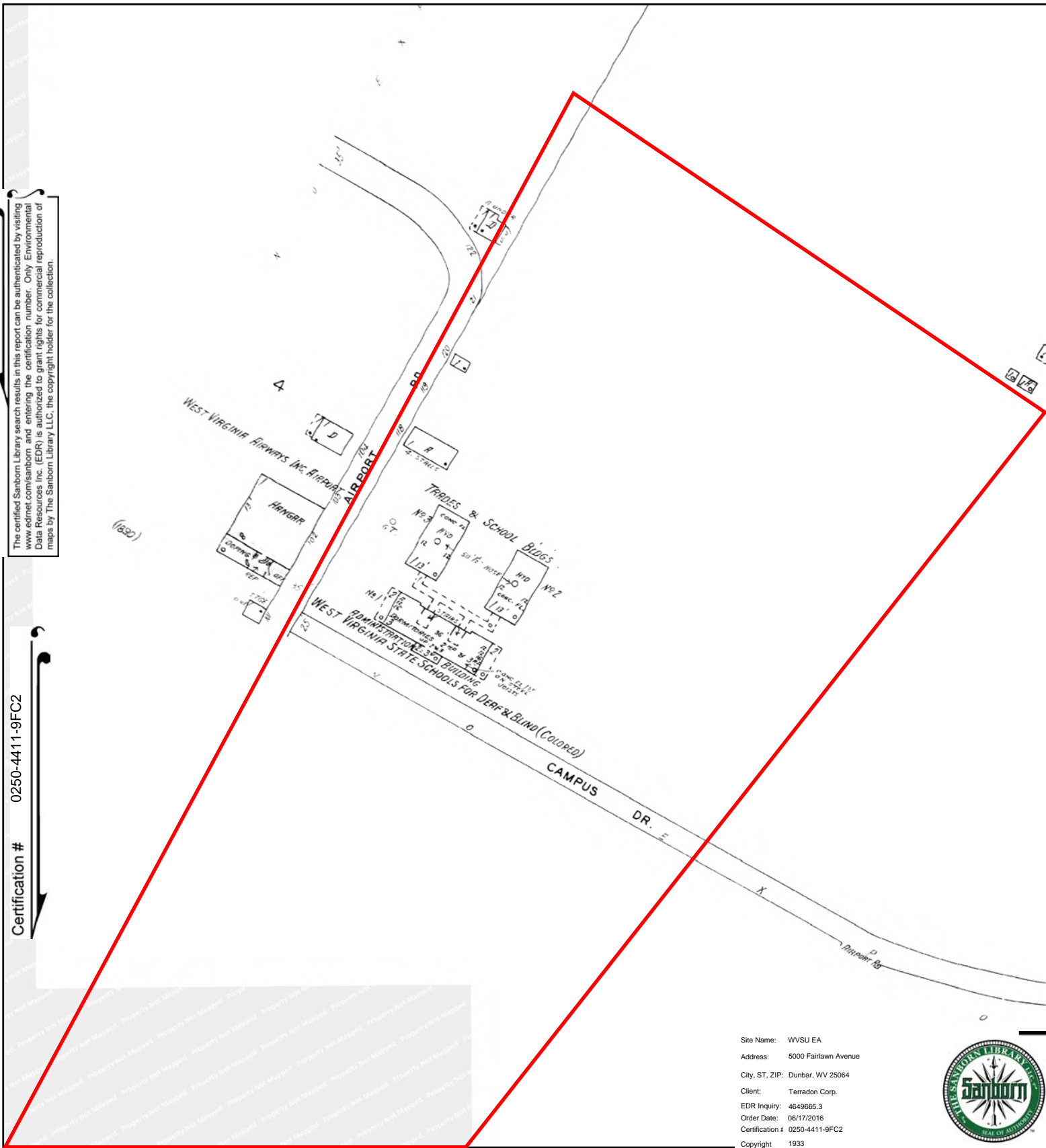


Volume 1, Sheet 9



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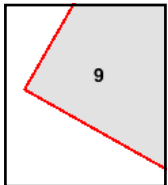
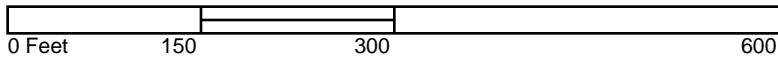
Certification # 0250-4411-9FC2



Site Name: WVSU EA
 Address: 5000 Fairlawn Avenue
 City, ST, ZIP: Dunbar, WV 25064
 Client: Terradon Corp.
 EDR Inquiry: 4649665.3
 Order Date: 06/17/2016
 Certification # 0250-4411-9FC2
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This Certified Sanborn Map combines the following sheets. Outlined areas indicate map sheets within the collection.



Volume 1, Sheet 9



Appendix D



United States Department of the Interior

FISH AND WILDLIFE SERVICE

West Virginia Field Office
694 Beverly Pike
Elkins, West Virginia 26241



Contact Name: Clayton Gue

Email Address or Fax Number: clayton.gue@terradon.com

FWS File # 2016-i-0701 All future correspondence should clearly reference this file #.

Project: WVSU NEPA EA

Date of Letter Request: 08/04/2016

This is in response to your letter requesting threatened and endangered species information in regard to the proposed project listed above. These comments are provided pursuant to the Endangered Species Act (ESA, 87 Stat. 884, as amended; 16 U. S. C. 1531 *et seq.*).

We have made a “no effect” determination that the project will not affect federally listed endangered or threatened species. Therefore no biological assessment or further section 7 consultation under the ESA is required with the Fish and Wildlife Service. Should project plans change or amendments be proposed that we have not considered in your proposed action, or if additional information on listed and proposed species becomes available, or if new species become listed or critical habitat is designated, this determination may be reconsidered.

Definitive determinations of the presences of waters of the United States, including wetlands, in the project area and the need for permits, if any, are made by the U.S. Army Corps of Engineers. They may be contacted at Huntington District, Regulatory Branch, 502 Eighth Street, Huntington, West Virginia, 25701, telephone (304) 399-5710.

08/15/2016

Reviewer's signature and date

8/23/2016

Field Supervisor's signature and date



United States Department of the Interior



FISH AND WILDLIFE SERVICE
West Virginia Ecological Services Field Office
694 BEVERLY PIKE
ELKINS, WV 26241
PHONE: (304)636-6586 FAX: (304)636-7824
URL: www.fws.gov/westvirginiafieldoffice/

Consultation Code: 05E2WV00-2016-SLI-0690

August 04, 2016

Event Code: 05E2WV00-2016-E-00901

Project Name: WVSU NEPA EA

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, and proposed species, designated critical habitat, and candidate species that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*). This list can also be used to determine whether listed species may be present for projects without federal agency involvement.

If the official species list you receive identifies any listed, proposed, or candidate species as potentially occurring in the proposed project area, then further section 7 consultation under the ESA is required with the Fish and Wildlife Service. Please submit a project review request to the West Virginia Field Office. To find out what information needs to be submitted with your project review request go to this link:

<http://www.fws.gov/westvirginiafieldoffice/projectreview.html>

Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you should submit to our office.

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. This verification can

be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC site at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). For information on bald and golden eagles in your project area please contact the West Virginia Division of Natural Resources, Natural Heritage Program at P.O. Box 67 Elkins, WV 26241, or call 304-637-0245.

Additionally, wind energy projects should follow the Service's wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>; and [http://www.fws.gov/westvirginiafieldoffice/PDF/Communication%20Tower%20Letter%20\(1\).pd](http://www.fws.gov/westvirginiafieldoffice/PDF/Communication%20Tower%20Letter%20(1).pd)

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the ESA.

Attachment



United States Department of Interior
Fish and Wildlife Service

Project name: WVSU NEPA EA

Official Species List

Provided by:

West Virginia Ecological Services Field Office

694 BEVERLY PIKE

ELKINS, WV 26241

(304) 636-6586

<http://www.fws.gov/westvirginiafieldoffice/>

Consultation Code: 05E2WV00-2016-SLI-0690

Event Code: 05E2WV00-2016-E-00901

Project Type: DEVELOPMENT

Project Name: WVSU NEPA EA

Project Description: TERRADON Corporation (TERRADON) is requesting project review of any federally threatened, endangered, or proposed species near site renovations located at 5000 Fairlawn Avenue, Institute, West Virginia. West Virginia State University (WVSU) recently acquired land that was formerly associated with West Virginia Division of Rehabilitation Services adjacently located west of WVSU across Barron Drive on the southwest end of the campus. WVSU is proposing to renovate the F. Ray Powers Building to accommodate academic growth of the campus as well as a Historical Building associated with the former West Virginia State Schools for Deaf & Blind (Historical Portion of Rehabilitation Services Building C). The remainder of the acquired property is to be deconstructed and used as parking and new transit lanes.

TERRADON is in the process of preparing a National Environmental Policy Act (NEPA) Environmental Assessment (EA), which is a comprehensive study that identifies environmental impacts of a land development action and analyzes a broad set of parameters including biodiversity, environmental justice, wetlands, air and water pollution, traffic, geotechnical risks, public safety issues, and hazardous substance issues. The purpose of the EA is to analyze the potential environmental impacts of the proposed project, and to determine whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).

Note: Subject Property is currently owned by West Virginia State University Board of Governors.

The proposed project site activities consist of approximately 30 acres situated west of Barron Drive



United States Department of Interior
Fish and Wildlife Service

Project name: WVSU NEPA EA

on the south western end of WVSU located at 5000 Fairlawn Avenue, Institute, West Virginia. The coordinates for the center of the subject property are 38 22' 45.70" N latitude, 81 46' 14.12" W longitude.

Proposed Site activities consist of the additions of new vehicular circulation patterns, parking areas, pedestrian circulation sidewalks, maintenance buildings, agricultural buildings, and storage areas. As per site additions, the east and west wings of Building C of the former Rehabilitation Center will be deconstructed to preserve the original historic building associated with the former school associated with the West Virginia State Schools for Deaf & Blind. The F. Ray Powers Building associated with the former Rehabilitation Center will be remodeled for academic purposes and consists of four floors at approximately 27,750 ft². The proposed structures on the subject property will be constructed with brick façade and metal roof structures. The total imprint of new additional structures associated with the maintenance and agricultural use will be approximately 34,282 square feet or 0.79 acres; 23,458 ft² for the maintenance building and four 2,706 ft² agricultural buildings as depicted in the Proposed Layout. No forested habitat or aquatic resources will be disturbed as part of the proposed project.

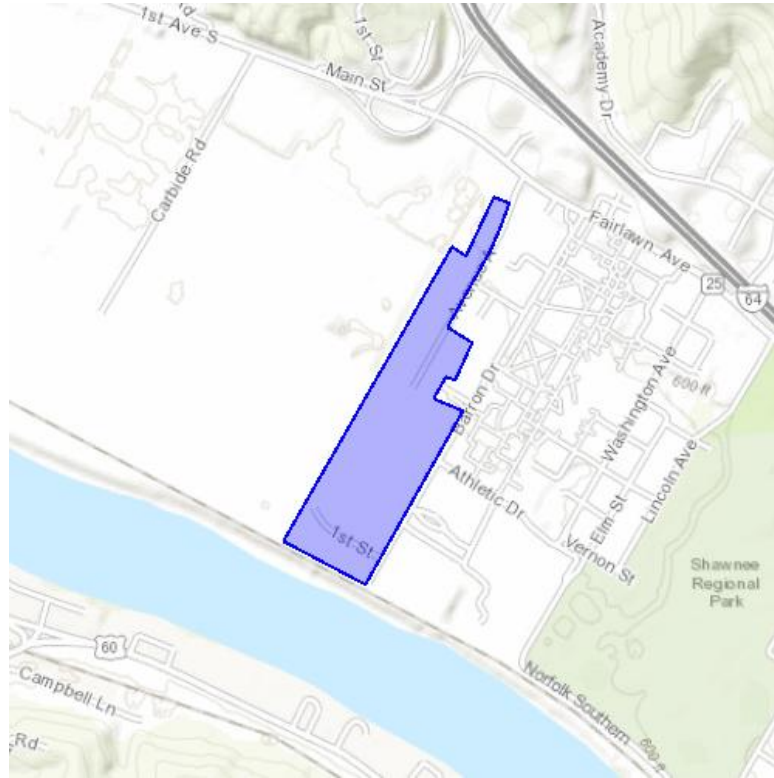
Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.



United States Department of Interior
Fish and Wildlife Service

Project name: WVSU NEPA EA

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-81.77136898040771 38.37601449321413, -81.7687726020813 38.379664735066996, -81.76954507827759 38.37991704912696, -81.7692232131958 38.38037121221724, -81.76898717880249 38.38030392897637, -81.76851511001587 38.381077682468046, -81.76918029785156 38.381414094448225, -81.76803231239319 38.38304567035748, -81.7677640914917 38.383499813805315, -81.76753878593445 38.383996004312785, -81.76792502403259 38.384147383789966, -81.76869750022888 38.382894288574576, -81.76906228065491 38.38308772079651, -81.77358448505402 38.37691024933829, -81.77136898040771 38.37601449321413)))

Project Counties: Kanawha, WV



United States Department of Interior
Fish and Wildlife Service

Project name: WVSU NEPA EA

Endangered Species Act Species List

There are a total of 8 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Clams	Status	Has Critical Habitat	Condition(s)
fanshell (<i>Cyprogenia stegaria</i>)	Endangered		
Pink mucket (<i>Lampsilis abrupta</i>) Population: Entire	Endangered		
Sheepnose Mussel (<i>Plethobasus cyphus</i>)	Endangered		
Snuffbox mussel (<i>Epioblasma triquetra</i>)	Endangered		
Spectaclecase (mussel) (<i>Cumberlandia monodonta</i>)	Endangered		
Mammals			
Indiana bat (<i>Myotis sodalis</i>) Population: Entire	Endangered		
Northern long-eared Bat (<i>Myotis septentrionalis</i>)	Threatened		
Virginia Big-Eared bat (<i>Corynorhinus (=plecotus) townsendii virginianus</i>) Population: Entire	Endangered	Final designated	



United States Department of Interior
Fish and Wildlife Service

Project name: WVSU NEPA EA

Critical habitats that lie within your project area

There are no critical habitats within your project area.

Appendix E



The Culture Center
1900 Kanawha Blvd., E.
Charleston, WV 25305-0300

Randall Reid-Smith, Commissioner

Phone 304.558.0220 • www.wvculture.org
Fax 304.558.2779 • TDD 304.558.3562

EEO/AA Employer

May 2, 2017

Mr. Andrew Weidman
Archaeologist/ Cultural Resource Specialist
Terradon Corporation
P. O. Box 519
Nitro, West Virginia 25143

RE: West Virginia State University Campus Expansion Project
FR#: 16-976-KA-1

Dear Mr. Weidman:

We have reviewed the technical report titled, *Phase I Cultural Resource Assessment Survey of the Campus Expansion Area, West Virginia State University, Institute, Kanawha County, West Virginia*, which was prepared by Terradon Corporation for the above referenced project. As required by Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations, 36 CFR 800: "Protection of Historic Properties," we submit our comments.

Archaeological Resources:

According to the report, a systematic Phase I archaeological survey was conducted within an area measuring 8.95 acres. Archaeological survey methodology included pedestrian survey, shovel probe excavations and hand-augered probes. The proposed project area contained disturbed soils associated with the construction and demolition of several structures. Portions of the proposed project area also contained ashy lenses containing fragments of coal and teardrop/cylindrical-shaped silica pellets which are interpreted as being an industrial byproduct utilized as fill. One prehistoric lithic scatter was identified during the archaeological survey. Site 46KA692 consists of five flakes recovered from disturbed soils containing modern materials including screw-top amber bottle glass, clear glass, ferrous metal bolts, plastic and ceramic tile. The report states that site 46KA692 is ineligible for inclusion in the National Register of Historic Places due to the limited vertical and horizontal extent of the prehistoric artifacts, the limited artifact assemblage, and the heavily disturbed contexts which yielded the artifacts. We concur with this determination. In our opinion, no historic properties are present. No further consultation is necessary.

Architectural Resources:

Thank you for the submission and Historic Property Inventory forms. We have reviewed the submitted documentation and concur with the consultant that the West Virginia Colored School for the Deaf and Blind Building C (KA-7356) is *eligible* for the National Register of Historic Places under Criterion A for its association with education and black history in West Virginia. However, we agree that the proposed project will have *no adverse effect* on this resource because the proposed project will have no direct effect and only minor indirect effects from the renovations to the F. Ray Power Building.

In addition, we concur that the West Virginia Colored School for the Deaf and Blind Building A (KA-7357) and the West Virginia Colored School for the Deaf and Blind Building E (KA-7358) are *not eligible* for the National Register of Historic Places because both buildings have been substantially renovated and no longer retain the

May 2, 2017
Mr. A. Weidman
FR# 16-976-KA-1
Page 2

integrity or significance necessary to be listed in the National Register. These substantial renovations and modern infill, such as the F. Ray Power Building, has compromised the survey area's potential to be a historic district. We concur that the proposed project will result in *no adverse effect* to any architectural properties eligible for or included in the National Register of Historic Places. No further consultation is necessary regarding architectural resources; however, we ask that you contact our office if your project should change.

Cemetery Resources:

Thank you for the submission and the West Virginia Cemetery Inventory Form. We have reviewed the submitted documentation and agree with the consultant that the Cabell Cemetery (46KA691) meets Criterion B to be eligible for the National Register of Historic Places because the individuals buried within the cemetery are significant to community of Institute. However, while we agree that the cemetery has lost some of its integrity, we believe the cemetery meets Criterion Consideration C because the cemetery, and in particular the grave of Samuel I. Cabell (Cabble), entombs "a historical figure of outstanding importance" and "there is no appropriate site or building associated with his productive life." Therefore, the Cabell Cemetery is *eligible* for the National Register of Historic Places, but because the setting surrounding the cemetery has already been substantially altered, the proposed renovation for the F. Ray Power Building will neither directly or indirectly impact the cemetery. We concur that the proposed project will have *no adverse effect* to the Cabell Cemetery; however, we ask that you contact our office if your project should change.

We appreciate the opportunity to be of service. *If you have questions regarding our comments or the Section 106 process, please contact Katie M. Turner, Archaeologist, or Benjamin M. Riggle, Structural Historian, at (304) 558-0240.*

Sincerely,



Susan M. Pierce
Deputy State Historic Preservation Officer

SMP/KMT/BMR



The Culture Center
1900 Kanawha Blvd., E.
Charleston, WV 25305-0300

Randall Reid-Smith, Commissioner

Phone 304.558.0220 • www.wvculture.org
Fax 304.558.2779 • TDD 304.558.3562

EEO/AA Employer

September 20, 2016

Mr. Clayton Gue
Project Geologist
Terradon Corporation
P.O. Box 519
Nitro, West Virginia 25143

RE: West Virginia State University – F. Ray Powers Building Renovation
FR#: 16-976-KA

Dear Ms. Gue:

We have reviewed the above mentioned project to determine its effects to cultural resources. As required by Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations, 36 CFR 800: "Protection of Historic Properties," we submit our comments.

According to the submitted information, West Virginia State University proposes to develop property recently purchased from the West Virginia Division of Rehabilitation Services located in Institute, Kanawha County. It is our understanding that the proposed project will entail renovation of the extant F. Ray Powers Building. It is also our understanding that other proposed project activities include the addition and renovations of vehicular circulation patterns, parking areas, pedestrian circulation sidewalks, maintenance buildings, agricultural buildings, and storage areas. We also understand that the proposed structures on the subject property will be constructed with brick façade and metal roof structures. The total imprint of new additional structures associated with the maintenance and agricultural use will be approximately 24,282 square feet or 0.79 acres; 23,458 ft² for the maintenance building and four 2,706 ft² agricultural buildings.

Archaeological Resources:

A search of our records indicates that there are several sites within the general vicinity of the proposed project area. While portions of the proposed project area have been significantly disturbed, we have concerns regarding the extent of disturbances within other portions of the proposed project area. Therefore, we have requested that a phase I archaeological survey be completed prior to the development of the proposed project area. Per our guidelines, phase I methodology should include completion of a pedestrian survey of the entire proposed project area, excavation of shovel test pits, and geoarchaeological/deep testing where alluvial soils are encountered. We will provide further comment upon the receipt of the resulting technical report.

Architectural Resources:

We cannot complete our review with the information provided. At this time, we request that you complete a Historic Property Inventory (HPI) form for the two resources older than 50 years of age

September 20, 2016

Mr. C. Gue

FR# 16-976-KA

Page 2

located within the proposed project area, the building formerly associated with the West Virginia State School for the Deaf & Blind and the watch tower formerly associated with the West Virginia Airways Incorporated Airport. The HPI form can be accessed on-line at <http://www.wvculture.org/shpo/forms.html>. Instructions for this form can be accessed at <http://www.wvculture.org/shpo/hpifinst.pdf>. Please be sure to indicate the age of construction and details about any changes, additions and/or alterations the resource has experienced. Both resources need a determination of eligibility for the National Register of Historic Places (NRHP) by a qualified professional meeting the *Secretary of the Interior's Historic Preservation Professional Qualification Standards*. According to your letter, these two buildings "will not be directly or indirectly impacted during site activities and initial phases of project design," however, because there will be alterations caused by the project in the vicinity of these two buildings, it is our opinion that the project may cause impacts to these resources and a formal evaluation is justified. We will provide additional comments upon receipt of the requested information.

We appreciate the opportunity to be of service. *If you have questions regarding our comments or the Section 106 process, please contact Katie M. Turner, Archaeologist, or Benjamin M. Riggle, Structural Historian, at (304) 558-0240.*

Sincerely,



Susan M. Pierce

Deputy State Historic Preservation Officer

SMP/KMT/BMR

**PHASE I CULTURAL RESOURCE ASSESSMENT SURVEY
OF THE CAMPUS EXPANSION AREA, WEST VIRGINIA
STATE UNIVERSITY, INSTITUTE, KANAWHA COUNTY,
WEST VIRGINIA**

FR # 16-976-KA

By:
Andrew J. Weidman, MA, RPA

LEAD AGENCY:
United States Department of Agriculture-National Institute of Food and Agriculture

PREPARED FOR:
West Virginia State University
5000 Fairlawn Ave, Institute, WV 25112
(304) 766-3000

PREPARED BY:



TERRADON Corporation
409 Jacobson Drive
Nitro, West Virginia 25159
Phone: (304) 645-4636

TERRADON Project Number: 1601-0421-001

A handwritten signature in black ink, appearing to read "A. Weidman", is written over a white rectangular background.

Andrew J. Weidman, MA, RPA
Principal Investigator

March 2017

MANAGEMENT SUMMARY

TERRADON Corporation (TERRADON), on behalf of West Virginia State University (WVSU), conducted a Phase I Cultural Resource Assessment of the newly acquired campus expansion area at 5000 Fairlawn Avenue, Institute, Kanawha County, West Virginia. WVSU acquired the property, which was previously associated with West Virginia Division of Rehabilitation Services (WV DRS) and includes a number of existing buildings, parking areas, roads, recreation areas, and utilities, as part of their plan to accommodate academic growth. The parcel is located immediately west of the existing WVSU campus across from Barron Drive (Figure 1). WVSU is proposing the addition of new vehicular circulation patterns, parking areas, pedestrian circulation sidewalks, maintenance buildings, agricultural buildings, and storage areas (see Appendix C: Construction Plans). The Area of Potential Effect (APE) includes four parcels (A, B, C, and D) where new construction will involve ground-disturbing activities. These parcels combined encompass an approximately 8.95 acre (3.62 hectares) area.

The purpose of this Phase I Cultural Resource Assessment was to identify and document resources within the APE that may be eligible for inclusion in the National Register of Historic Places (NRHP) and to assess whether these resources will be adversely impacted by the proposed project. This project was conducted to comply with the requirements of the National Environmental Policy Act of 1969 and Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations, 36 CFR Part 800 – Protection of Historic Properties. All work was done in accordance with the West Virginia State Historic Preservation Office's (WV SHPO) *Guidelines for Phase I, II, and III Archaeological Investigations and Technical Report Preparation*. Fieldwork was conducted from January 31 to February 2, 2017.

A records review conducted using the WV SHPO Interactive GIS Map (Accessed 1/17/2017) indicated that no previously identified prehistoric or historic resources eligible for or listed in the NRHP are located within the APE. One historic period and modern cemetery is located immediately east of the APE and was evaluated as part of this survey per the request of the WV SHPO.

This assessment consisted of systematic shovel testing, pedestrian survey, and deep auger testing of all areas where ground disturbance is planned and the evaluation of the Cabell Cemetery located immediately east of the APE. The Phase I archaeological investigations identified one previously unrecorded archaeological site, 46KA692, a small prehistoric lithic scatter consisting of five pieces of lithic manufacturing debris. All prehistoric artifacts were recovered from a heavily disturbed context that contained modern materials from the construction and demolition of the modern structures formerly associated with the WV DRS. Due to the limited spatial extent, limited artifact assemblage, and heavy disturbance at the site, it is recommended that 46KA692 is not eligible for inclusion in the NRHP.

The Cabell Cemetery contains the graves of several individuals significant to the community of Institute, Kanawha County, and the state of West Virginia and satisfies NRHP eligibility Criterion B. However, due to substantial changes to the cemetery and surrounding areas over time, the Cabell cemetery has not retained the degree of integrity necessary to be recommended as eligible for the NRHP. The cemetery will be avoided in its entirety by the proposed project.

Based on the results of these investigations, no prehistoric or historic resources eligible for listing in the NRHP will be affected by the proposed undertaking. It is recommended that no additional archaeological investigations are necessary within the APE. However, should intact archaeological deposits or human remains be identified during construction, all work in the area of discovery should cease and the WV SHPO and the agency representative be immediately notified.

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1. INTRODUCTION

This report documents the Phase I Cultural Resource Assessment of the newly acquired West Virginia State University (WVSU) campus expansion area in Institute, Kanawha County, West Virginia conducted by TERRADON Corporation (TERRADON) on behalf of WVSU. WVSU acquired the land, which was previously associated with West Virginia Division of Rehabilitation Services (WV DRS) and includes a number of existing buildings, parking areas, roads, recreation areas, and utilities, as part of their plan to accommodate academic growth. The subject property is located immediately west of the existing WVSU campus across from Barron Drive (Figure 1). WVSU is proposing addition of new vehicular circulation patterns, parking areas, pedestrian circulation sidewalks, maintenance buildings, agricultural buildings, and storage areas (see Appendix C: Construction Drawings). The Area of Potential Effect (APE) for this project includes four parcels (A, B, C, and D) where new construction will involve ground-disturbing activities (Figure 2). Newly acquired lands that will not involve ground disturbance were not included in this assessment. The parcels surveyed combine to represent an approximately 8.95 acre (3.62 hectares) area. Fieldwork for the project was conducted from January 31 to February 2, 2017.

The purpose of this Phase I cultural resource assessment is to identify and document any resources within the Area of Potential Effect that may be eligible for inclusion in the National Register of Historic Places (NRHP) and to assess whether these resources will be adversely impacted by the proposed project. The lead agency for this project is the United States Department of Agriculture-National Institute of Food and Agriculture. This project was conducted to satisfy the requirements of the National Environmental Policy Act of 1969 and Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations, 36 CFR Part 800 – Protection of Historic Properties. All work was done in accordance with the West Virginia State Historic Preservation Office *Guidelines for Phase I, II, and III Archaeological Investigations and Technical Report Preparation*.

A records review for the project was conducted through the West Virginia State Historic Preservation Office (WV SHPO) Interactive GIS Map (Accessed 1/17/2017). Additional physical records were reviewed at the WV SHPO on January 19th, 2017. Available historic maps and aerial photographs were also examined. The area investigated for the background research extended 2 miles (3.2 km) from the APE boundary. Review of the WV SHPO databases indicated that no previously identified prehistoric or historic resources eligible for or listed in the NRHP are located within the APE. One historic period and modern cemetery is located adjacent to the APE and was evaluated as part of this survey per the request of the WV SHPO.

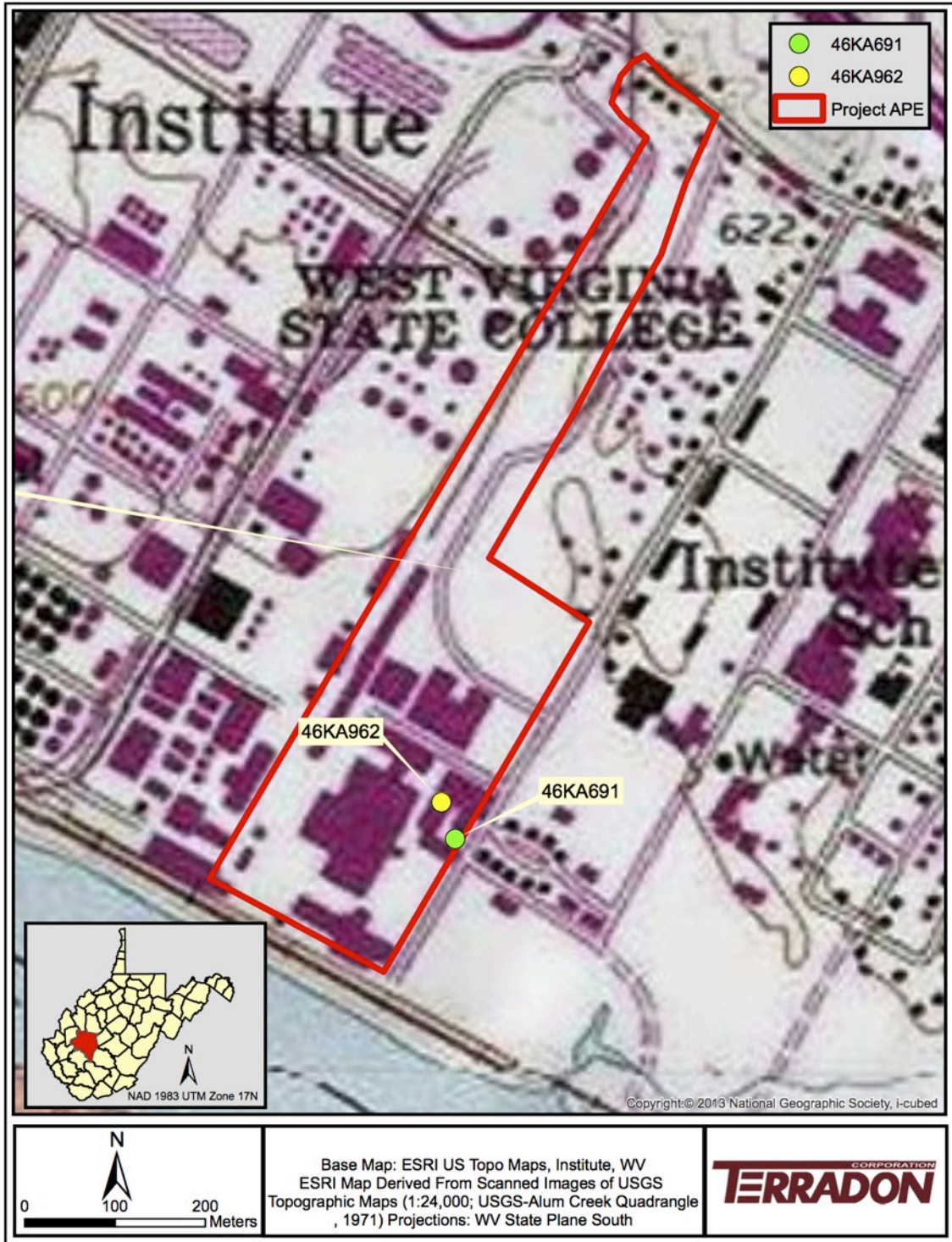


Figure 1. USGS 7.5' Quadrangle (St. Albans, WV) showing the APE and resources documented as part of this assessment.

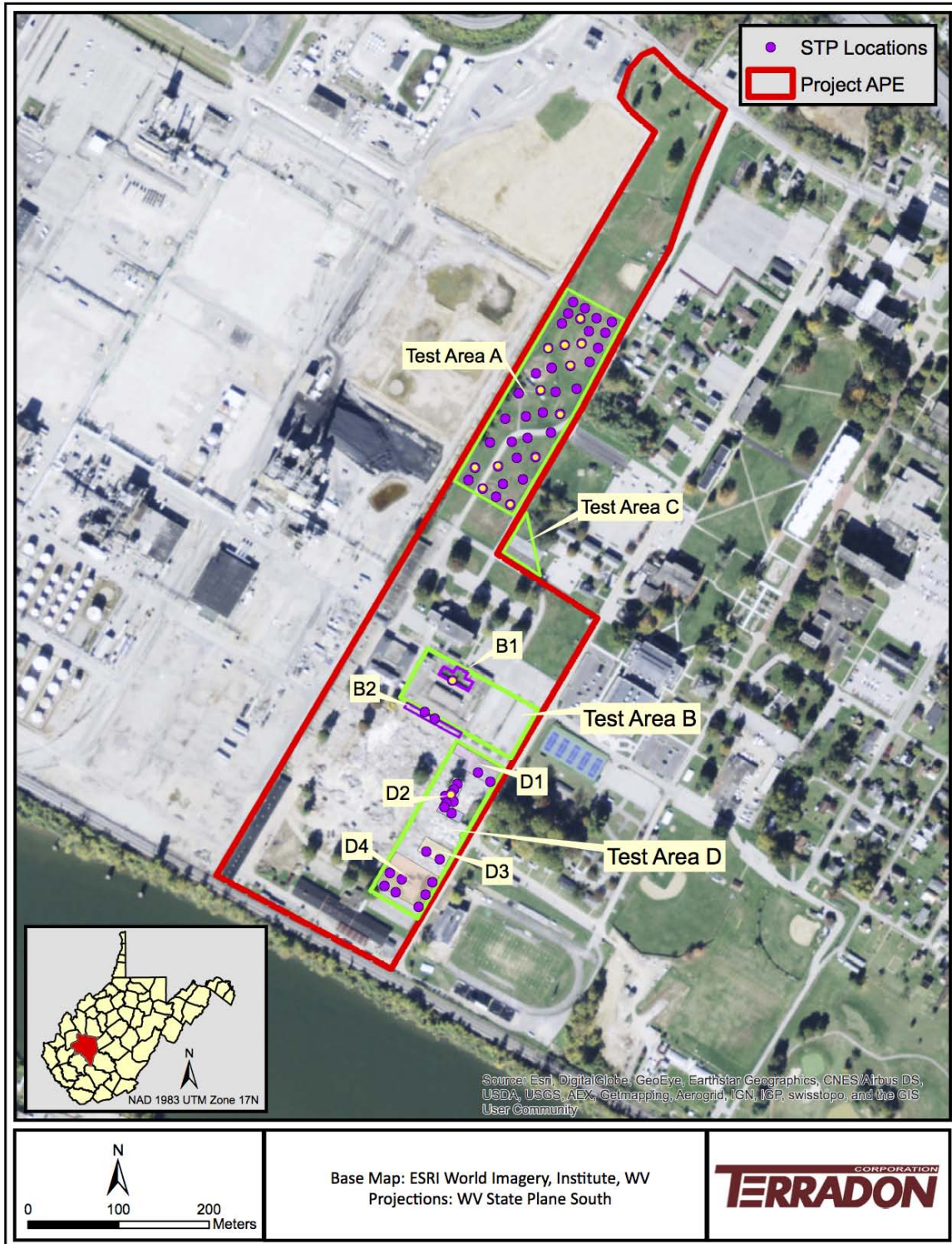


Figure 2. Aerial imagery showing Test Areas and shovel test probe locations (Yellow center indicates deep auger test location).

2. ENVIRONMENTAL SETTING

Physiography

Kanawha County and the community of Institute are located in the Kanawha Formation of the unglaciated Appalachian Plateau physiographic province. The region is part of a highly dissected plateau and is characterized by ridgelines, steep hillsides, saddles, benches, and V-shaped drainages (Van Houten et al. 1981). Along the floodplain and terraces of the Kanawha River there is generally less topographic relief.

The elevation in Kanawha County Ranges from 566 ft amsl at the lowest point in the Kanawha River to 2,898 ft amsl (Van Houten et al. 1981).

Geology

The underlying geology of Kanawha County consists of sedimentary shale, limestone, siltstone, sandstone, claystone, and coal deposits of the Upper and Middle Pennsylvanian geologic eras (Arndt 1979; Cardwell 1968; Krebs and Teets 1914).

The Kanawha Formation contains a type of chert suitable for the manufacture of stone tools, Kanawha Black Flint (Krebs and Teets 1914). Kanawha Black is known to exist throughout the county in both primary and secondary geologic contexts, although it is most often found in secondary context as river-worn cobbles and gravel (Yerkes and Peccora 1994). Although it varies throughout the formation, Kanawha Black Flint is generally described as semi-vitreous, medium to course grained, and ranging from deep black to gray. Weathered samples often display a cream or white cortical layer (Yerkes and Pecora 1994).

Hydrology

The Kanawha River is the primary waterway flowing through Kanawha County and drains the entire county. The Elk River drains into the Kanawha River in Charleston, approximately 4 miles east of the project area. All waterways ultimately drain into the Ohio River. The APE is located approximately 45m (147.6 ft) northeast of the Kanawha River on a relatively level floodplain and river terrace. An unnamed, intermittent drainage was identified on historic aerial imagery within the APE on maps predating 1971. This drainage has since been re-channelized and flows linearly along the western edge of the current project area.

Soils

Soils within the overall APE are part of the Urban Land-Kanawha association, which are nearly level or gently sloping well drained soils located on the floodplain of the Kanawha and Coal Rivers (Van Houten et al. 1981) (Figure 3). The individual soils within the APE are summarized below in Table 1 (USDA-NRCS 2017). The Urban Land classification describes areas that are dominated by modern urban infrastructure – buildings, streets, highways, and industrial complexes. Kanawha soils are deep, lime-influenced alluvial soils formed from washed-out upland soils underlain by shale, siltstone, and sandstone. They generally consist of a dark brown, moderately coarse surface layer followed by dark yellowish brown to dark brown subsoil (Van Houten et al. 1981).

Table 1. Soil types within APE (from USDA-NRCS Web Soil Survey).

Map Unit Symbol	Map Unit Name	Acres	Percent
UC	Udorthents, smoothed-Urban land complex	15.4	45.80%
Ue	Urban land	2.3	6.70%
Uk	Urban land-Kanawha complex	15.8	47.00%
VaB	Vandalia silt loam, 3 to 8 percent slopes	0.1	0.40%
Totals		33.6	100.00%



Figure 3. Soils Map showing APE (from USDA-NRCS Web Soil Survey).

Current Land Use

The project area is located on the site of the former West Virginia Division of Rehabilitation Services (WV DRS). The site includes a number of existing buildings, parking areas, roads, recreation areas, and utilities. According to historical maps and aerial imagery, the structures that are currently located within the archaeological Test Areas were constructed ca. 1971. The majority of the structures associated with the WV DRS were demolished sometime between 2012 and 2015. The current vegetation consists of well-maintained grasses, hardwood trees, and ornamental shrubs and bushes.

Climate

The modern climate of Kanawha County is classified as “humid continental”, consisting of a wide range of seasonally variable temperatures, with warm to hot summers and cold to very cold winters (Köppen 1900; Van Houten et al. 1981). Temperature and precipitation data compiled for the Soil Conservation Service by the National Climatic Center, Asheville, North Carolina show that during the winter months (December through February), average temperatures ranged from 34.1 to 37.2 with average precipitation of 3.3 inches and an average snowfall of 7.4 inches. During the summer months (May through August), average temperatures ranged from 63.8 to 74.6 with average precipitation of 3.9 inches (Van Houten et al. 1981).

Modern Environment

Flora

Kanawha County is located in a mixed mesophytic forest environment. Mixed mesophytic forests are among the most diverse in the eastern United States. Characteristic tree species include beech (*Fagus grandifolia*) yellow poplar (*Liriodendron tulipifera*), Virginia pine (*Pinus virginiana*), sugar maple (*Acer saccharum*), yellow buckeye (*Aesculus flava*), red oak (*Quercus rubra*), white oak (*Quercus alba*), Black locust (*Robinia pseudoacacia*), American basswood (*Tilia americana* var. *heterophylla*), and formerly American chestnut (*Castanea dentata*) (Braun 1950, Muller 1982; Ricketts et al. 1999).

Fauna

Prior to the arrival of European settlers, faunal species common to the region included white-tailed deer (*Odocoileus virginianus*), elk (*Cervus canadensis*), black bear (*Ursus americanus*), gray wolf (*Canis lupus*), mountain lion (*Puma concolor*), bobcat (*Lynx rufus*), bison (*Bison bison*), beaver (*Castor canadensis*), otter (*Lontra canadensis*), rabbit (*Sylvilagus*), squirrel (*Sciurus carolinensis*), red fox (*Vulpes vulpes*), gray fox (*Urocyon cinereoargenteus*), muskrat (*Ondatra zibethicus*), raccoon (*Procyon lotor*), and opossum (*Didelphimorphia*). Avian fauna available to native peoples included wild turkey (*Meleagris gallopavo*), wood duck (*Aix sponsa*), ruffed grouse (*Bonasa umbellus*), as well as migratory waterfowl such as the Canada goose (*Branta canadensis*). Amphibian and reptilian resources available include various species of turtles snakes, frogs, lizards, and salamanders. Aquatic resources present include largemouth bass (*Micropterus salmoides*), smallmouth bass (*Micropterus dolomieu*), spotted bass (*Micropterus punctulatus*), bluegill (*Lepomis macrochirus*), crappie (genus *Pomoxis*), and various species of shellfish and mussels (Hight 2006; Pauley 2006; Phillips 2006; West Virginia Division of Natural Resources 2003).

3. REGIONAL CULTURE HISTORY

This section provides a regional synopsis of general cultural trends over the last 15,000 years in the Kanawha Valley and surrounding area. While not intended to be a comprehensive assessment, it provides a framework for discussing the results of this survey.

The prehistoric period in the Kanawha River Valley and larger region can be divided into four generalized periods: Paleoindian, Archaic, Woodland, and Late-Prehistoric.

Paleoindian Period (15,000–10,000 B.P. [13000–8000 B.C.]

Paleoindians in North America have traditionally been characterized as highly mobile big game hunters who, after migrating from northern Asia, followed and preyed upon Pleistocene mammals as they migrated across the landscape. The abundance of virgin woodland with unsuspecting megafauna to exploit and minimal competition from preexisting inhabitants enabled them to spread rapidly across the continent (Caldwell 1958; Griffin 1952; Wormington 1957). Their reliance on high-quality, cryptocrystalline toolstone, it has been suggested, kept them “tethered” to or highly reliant on toolstone outcrops located non-uniformly across the landscape (Gardner 1977, 1983; Goodyear 1989).

In recent decades, however, new archaeological data for the Paleoindian period and a re-evaluation of existing data suggest that Paleoindians, particularly in eastern North America, were likely opportunistic generalists that exploited a diverse range of biotic resources and may have been less mobile than they are often portrayed (Anderson 1990; Dincauze 1993; Hollenbach 2007; Meltzer 1988, 1993; Speth et al. 2013; Walker and Driskell 2007). Current understanding of the Paleoindian period in North America acknowledges considerable behavioral and technological variability and recognizes the high degree of regional variation.

In West Virginia, no universally accepted intact Paleoindian sites have been reported. However, a number of diagnostic Paleoindian projectile points have been reported as isolated surface finds, from temporally indistinct archaeological contexts, or disturbed contexts (Updike 2001). These artifacts have all been lanceolate fluted and unfluted projectile points that are generally accepted as diagnostic to the Paleoindian period in eastern North America. In addition to the more recognizable lanceolate projectile points, the Paleoindian toolkit also included end scrapers, side scrapers, spokeshaves, graters, bifacial cores, conical cores, and blades (Bradley 1982; Bradley and Stanford 2004; Bradley et al. 2010; Collins, 1999; Gardner 1989, Morrow 1995; Sain and Goodyear 2012).

While isolated surface artifacts have been identified in the Kanawha River Valley, no buried, intact Paleoindian deposits have been identified (Anslinger 1996). Throughout the eastern United States, Paleoindians are known to have exploited a number of environmental settings, including the level floodplains and terraces of major rivers and in dissected uplands, both of which are found in the Kanawha River Valley region.

The Paleoindian Period can generally be divided into three sub-periods – Early, Middle, and Late.

Early Paleoindian Period (15,000–13,000 B.P. [13000-11000 B.C.]

The Early Paleoindian period represents the earliest human occupation of the North American continent and generally is seen as the predecessor to the more widespread and archaeological visible Clovis culture. No archaeological evidence of Early Paleoindian sites has been reported

for West Virginia (Lepper 1999). Several archaeological sites in the region demonstrate evidence of an Early Paleoindian occupation, including Meadowcroft Rockshelter in Pennsylvania, Saltville in Virginia, and Cactus Hill in Virginia (Adovasio et al. 1998; McAvoy and McAvoy 1997; McDonald 2000).

Middle Paleoindian Period (13,000–10,900 B.P. [11000–8900 B.C.]

The Middle Paleoindian period in eastern North America is marked by the widespread occurrence of the Clovis culture, characterized by their distinctive fluted, lanceolate Clovis projectile points. Although the Clovis culture is most easily recognized by these diagnostic projectile points, several additional aspects of their lithic technology have been established as diagnostic, including large, prismatic blades and transversely-flaked, end-thinned lanceolate preforms (Bradley 1982; Bradley and Stanford 2004; Bradley et al. 2010; Collins 1999; Goodyear and Steffy 2003, 2006; Morrow 1995; Sain and Goodyear 2012).

Late Paleoindian Period (10,900–10,000 B.P. [8900–8000 B.C.]

The Late Paleoindian period is marked by a recognizable reorganization of subsistence and settlement patterns (Sassaman 2010; Walker and Driskell 2007; Walthall 1998; Walthall and Koldehoff 1998). Behavior changed in large part as a response to a changing environment that was transitioning from one of large mammals and patchy resources to one more akin to our modern environment. The changing terminal Pleistocene climate caused major shifts in vegetation patterns, increasing biotic resource homogeneity and perhaps contributing to the extinction of over thirty-five Pleistocene mammalian genera (Grayson 1991; Griffin 1967). Resources were becoming increasingly predictable and hunter-gatherer technological organization was being restructured toward the exploitation of a wider range of biotic resources (Goodyear 1974, 1982; Hollenbach 2007; Morse 1973; Morse et al. 1996; Walker 2007).

Late Paleoindian projectile points demonstrate a technological change—they are smaller, thin, and oftentimes re-sharpened lanceolate projectile points. Common types in the region include Dalton, Plano, Beaver Lake, and Quad. This change in technology has been attributed to a shift from hunting Pleistocene megafauna to hunting smaller mammals such as deer (Claggett and Cable 1982; Goodyear 1974, 1982; Morse 1973).

Archaic Period (10,000–3,000 B.P. [8000–1000 B.C.]

The Archaic Period in eastern North America is generally viewed as a time of population increase, increased sedentism, exploitation of a wider range of subsistence resources, and eventual adaptation to modern environmental conditions. The Archaic Period can be divided into three sub-periods – Early, Middle, and Late - based on technological, behavioral, and climatic changes.

Early Archaic (10,000–8,000 B.P. [8000–6000 B.C.]

Because the environmental and behavioral changes that mark the beginning of the Archaic Period were gradual, there is considerable overlap between the Late Paleoindian Period and the Early Archaic. Early Archaic groups, like their Paleoindian predecessors, remained highly mobile and employed a generalized foraging and hunting subsistence strategy. Archaeological evidence suggests that Early Archaic groups remained residentially mobile, oftentimes within a “range” or

within a single river basin, seasonally relocating to areas based on the availability of resources (Claggett and Cable 1982; Anderson and Schuldenrein 1983).

This type of mobility manifests itself in an archaeologically-distinct pattern, where most sites were generally used for short periods of time (and oftentimes for specialized purposes) and contain archaeological deposits that are generally small, have a low artifact density, and are scattered across both upland and river valley environments. Certain sites show evidence of reuse over time, although archaeological evidence of long-term occupation – such as postholes from shelters, burials, or refuse middens – are rare (Anslinger 1996).

The beginning of the Early Archaic generally corresponds to a shift from a cold, dry Pleistocene climate to a cool, moist climate that marks the beginning of the Holocene epoch. As the boreal forests of the Pleistocene were gradually replaced with deciduous hardwood forests, many of the fauna that inhabit today's woodland environments began to thrive (Jeffries 2008).

The archaeological record of the Early Archaic suggests that a shift occurred towards increased reliance on a wider variety of resources – wild plants, small game, and aquatic resources (Steponaitis 1986). This is perhaps a function of the seasonal movement to maximize access to available resources, resulting in increased opportunities in a variety of environmental settings with newly exploitable subsistence resources.

Early Archaic lithic technology remained highly curated. Hafted biface technology often exhibits multiple re-sharpening episodes, sometimes resulting in highly beveled margins or full exhaustion of the tool. In the Kanawha River Valley, following a regional trend, projectile points for the first time exhibit both basal bifurcation and basal grinding, design elements that better accommodate hafting. Common Early Archaic diagnostic projectile point types in the region include the side and corner notched Kirk, Palmer, Charleston, St. Albans, and Kessel types, stemmed Kanawha, Kirk, and MacCorkle types, and the bifurcated LeCroy and St. Albans types (Broyles 1971, Justice 1987). Broyles' excavations and research at the stratified St. Albans site (46KA27) in Kanawha County (1966, 1971) established a projectile point and stone tool chronology for the Archaic period in the Kanawha Valley. The Early Archaic projectile point chronology at the St. Albans site follows what later researchers have verified, that the Early Archaic projectile point chronology follows a general trend across much of the eastern United States (Broster and Norton 1996; Broyles 1971; Coe 1964; Collins 1979; Goldman-Finn and Driskell [eds.] 1994).

Middle Archaic (8,000–5,000 B.P. [6000–3000 B.C.]

The Middle Archaic Period is generally characterized by a marked population increase, increased regionalization, increased sedentism, a shift to modern environmental conditions, and the introduction of new technological advances. The period is bracketed by the Hypsithermal Climatic Optimum, a warming and drying trend that harbored increased resource options and stability in the region (Delcourt and Delcourt 1983, 1985; Gunn 1997; Watts et al. 1996). As the resource options expanded, groups developed new adaptations to procure and process the resources. Having a wider variety of resources to exploit, groups became increasingly adept at procuring resources within their particular landscapes and became more sedentary. The Middle Archaic period also provides the first compelling evidence of monumentality and long distance social interaction in eastern North America (Sassaman and Anderson 1996; Smith 1986).

Archaeologically, Middle Archaic sites are generally larger, display a wider variety of artifacts, and contain more artifact volume than their predecessors. Large midden sites often have a

significant amount of fire-cracked rock (FCR), indicating that there was long-term use of the site and that extensive plant and animal processing was likely occurring on a regular basis.

A variety of new tool forms were introduced during the Middle Archaic that separate it from the prior periods. Ground stone mortars, pestles, and nutting stones used for plant, nut, and bone processing are first encountered. Ground and polished stone adzes and grooved axes were first used for woodworking. New innovations first seen in the Middle Archaic include the atlatl, bone pins, awls, punches, and fishhooks, groundstone atlatl weights, and net sinkers.

Chipped stone tool assemblages shifted from highly curated toolkits to more expedient use of locally available, and oftentimes lower quality, toolstone (Cable 1992; Sassaman et al. 1988). Diagnostic hafted bifaces from the Middle Archaic include a continuation of the bifurcated types from the Early Archaic, Stanly, Morrow Mountain I, Morrow Mountain II, Guilford, Hansford side-notched, Amos, and side-notched Big Sandy types (Coe 1964; Gardner 1987; Purrington 1983; Smith 1986; Steponaitis 1986; Wilkins 1985).

Late Archaic (5,000–3,000 B.P. [3000–1000 B.C.]

The Late Archaic period in eastern North America can be generally characterized by increased sedentism, increased organizational and technological complexity, increased population density, and increased settlement variability throughout the landscape. Throughout the continent, Late Archaic groups adapted to regionally distinct environments through the development of new, specialized technologies (Jefferies 2008). New developments during this period include extensive long-distance trade of prestige goods, construction of monumental architecture, increased warfare, ceramic pottery, increasingly complex burial practices, early plant domestication, exploitation of shellfish (Claassen 1996; Griffin 1967; Kidder 2006, 2010; Russo 2010).

Throughout eastern North America, a common theme during the Late Archaic is logistically organized “collector” mobility and settlement patterns. Logistically organized collectors achieve maximum resource efficiency by choosing a central location and sending out task groups to gather resources (Kelly 1995:120). Collectors tend to make fewer residential moves (sometimes choosing residential bases based on variables other than subsistence resources), enabling them to live in areas of greater resource variability. Task groups are sent out on “logistical forays” to procure specific resources beyond the typical foraging radius, sometimes staying in temporary camps (field camps, stations, caches) multiple days before returning to the residential base camp (Binford 1980; Kelly 1995). This pattern results in increased use of centralized base camp, typically located along larger river bottoms, with smaller satellite hunting and resource extraction camps located peripheral to the base camps (Binford 1980). Archaeologically, base camp sites often contain a large amount of FCR, complex midden deposits, subsurface cooking features, and a highly variable artifact assemblage (Jefferies 2008).

Continuing the trend first seen in the Middle Archaic, chipped stone tool assemblages shifted from highly curated toolkits to more expedient use of locally available, and oftentimes lower quality, toolstone (Cable 1992; Purrington 1983; Sassaman et al. 1988). Late Archaic projectile points types include Buffalo Stemmed, Brewerton, Lamoka, Savannah River (Broyles 1971, 1976; Hughes and Niquette 1991; Justice 1987; Moxley 1982; Ritchie 1994).

Woodland Period (3,000–1,000 B.P. [1000 B.C. –A.D. 1000])

The Woodland Period in eastern North America is generally characterized by an increased reliance on plant cultivation, mound and earthwork construction, ritualistic mortuary practices, the widespread use of pottery, and a gradual shift towards village-based settlement patterns. The widely recognized Adena and Hopewell cultures generally follow the temporal designations of Early and Middle Woodland, respectively. The Woodland Period can be divided into three sub-periods – Early, Middle, and Late - based on technological, behavioral, and climatic changes. Much of what is known about the Early Woodland in the Kanawha Valley comes from the excavation of mounds and mound complexes during the late-19th century by Cyrus Thomas and the U.S. Bureau of Ethnology under the direction of Col. P.W. Norris (Thomas 1887, 1894).

Early Woodland Period (3,000–1,950 B.P. [1000B.C.–A.D. 50])

The Early Woodland period generally follow the trends set forth during the Late Archaic period, but with the addition of the traditions that came to define the Adena complex – construction of conical burial mounds, oftentimes in groups or complexes, increased long-distance trade, and ritualistic mortuary practices (Applegate 2008). Hunting and gathering remained the predominant mode of subsistence, with evidence of some domestic plant cultivation. Early Woodland residential settlement patterns are marked by fewer occupations of river bottoms and increased occupation of high terraces, upland benches, or rockshelters or along tributaries feeding the larger rivers (Niquette 1992; Voigt et al. 1999).

Widespread ritualistic burial practices are first seen during Early Woodland period. New types of burial spaces include conical burial mounds and log-lined burial pits. New burial practices include the interment of group members in areas peripheral to the domestic realm such as caves and rockshelters, and the interment of group members with grave goods such as stone tools or exotic trade items (Applegate 2008; Dragoo 1963; Updike 2001).

Archaeologically, the Early Woodland in the Kanawha Valley is distinguished from the Late Archaic by the presence of thick, cord-marked pottery. Early Woodland ceramics are typically tempered with crushed stone or sand. Predominant ceramic types include Fayette Thick, Marion Thick, and Half-Moon cordmarked, all with straight rims and flat bases (Griffin 1943, 1945; Lothrop et al. 2007; Updike 2001).

Early Woodland projectile points generally trend towards smaller stemmed and notched types falling under the generalized “Cogswell Phase” such as Buck Creek Barbed, as well as Adena leaf-shaped or ovate-stemmed types such as (Ledbetter and O’Steen 1992). Other common chipped stone tool types include graters, knives, scrapers, and drills. In addition to continued use of ground stone tools such as nutting stones and mortar and pestles, ground stone celts become common for the first time during the Early Woodland period (Applegate 2008).

Middle Woodland Period (1,950–1,250 B.P. [A.D. 50–750])

Throughout eastern North America, the middle Woodland period is generally associated with the end of the Adena complex and the beginning of the Hopewell complex. Despite the lack of data representing the Middle Woodland Period in the Kanawha River Valley, inferences can be drawn from the surrounding regions (Updike 2001). The Middle Woodland is a period of increasing social, political, and economic complexity. The Hopewell complex is the most recognizable manifestation of these advances, documented by the construction of elaborate burial and

ceremonial mounds, increasingly ritualistic mortuary practices, and long-distance exchange of goods.

Archaeologically, the Middle Woodland in the Kanawha Valley is distinguished from the Early Woodland by a shift in settlement patterns, distinct differences in pottery and lithic technology, and a marked increase in exotic trade materials oftentimes found in association with burials. Large, continually occupied Middle woodland sites are commonly seen in association with river bottomlands. They generally produce evidence of permanent occupation – an increase in permanent structures, large refuse middens, subsurface cooking pit features, and the absence of storage pits that would indicate the seasonal storage of resources (Smith 1986; Steponaitis 1986; Voigt and Griffiths 1999).

Middle Woodland ceramics exhibit an increase in form types (barrel-shaped, flower pot-shaped, conoidal, sub-conoidal) and surface treatments (simple stamped, check stamped, dentate, cord-marked, fabric-impressed, incised-punctated, brushed). There is also an increase in larger sized storage and cooking vessels. Although these ceramic technological changes are not commonly observed within the Kanawha River Valley, predominant “Hopewellian inspired” ceramic types, from the larger region include Havana, Scioto, and Marksville (McMichael and Mairs 1969).

Middle Woodland projectile points generally trend towards smaller triangular and stemmed types, perhaps reflecting the intensified use of the bow and arrow, a technology first seen during the Early Woodland. Middle Woodland projectile point types include such as Copena, Copena triangular, Jack’s Reef triangular, Snyders, Affinis Snyders, Stueben, Baker’s Creek, Lowe, and Chesser (Crane and Griffin 1966; Justice 1987; Mocas 1992).

The presence of exotic materials – mica, copper bracelets, gorgets, marine shell beads, etc. – indicate a heightened level of interregional trade among Middle Woodland groups. Non-utilitarian objects are frequently found at Middle Woodland sites, such as steatite bowls, groundstone pipes and discoidals, and bone and shell decorative pieces (Applegate 2008).

Late Woodland Period (1,250–ca. 950 B.P. [A.D. 750–ca. 1000])

The Late Woodland period in eastern North America carries over many of the characteristics of the Middle Woodland period, with the notable exception of a marked decrease in Hopewellian pottery types. The period also serves transitional phase in which later traditions of large-scale agriculture, population aggregation, and political elitism begin to emerge (Anderson et al. 1986; Sassaman 1990).

Late woodland settlement patterns are generally highly regionally variable (Applegate 2008). A notable shift in settlement patterns occurs during the Late Woodland period, as most sites are either located on terraces, upland, and rockshelters or along major river bottoms (Maslowski 1985; Updike 2006). At the Late Woodland period Childers site on the Ohio River, Lepper (2005) estimates that as many as 120 people were living on-site throughout the entire year for approximately 20 years.

In the Kanawha River Valley, the Late Woodland period consists of the Buck Garden and Schoolhouse phases (Anslinger 1996; McMichael 1968; Railey and Henderson 1986). Late Woodland subsistence still relied primarily on hunting and gathering, though plant cultivation was an increasingly important aspect of their diet.

Diagnostic ceramic types include Watson, Buck Garden Corded, and Parkline Cordmarked (McMichael 1968; Railey and Henderson 1986; Seeman and Dancey 2000; Updike 2001). Ceramic types are generally thick, stone tempered, and cordmarked or plain.

The chipped stone tool assemblage of the Late Woodland consists of Chesser, Lowe, Raccoon notched; Jack's Reef types and triangular forms such as Levanna and Madison (Ahler 1987; Anslinger 1996; Ledbetter and O'Steen 1992; Shott et al. 1993).

Late-Prehistoric Period (ca. 950–250 B.P. [ca. A.D. 1000–1700])

The Late-Prehistoric Period in eastern North America is generally characterized by an increased reliance on large-scale, maize-based agriculture, mound and earthwork construction, ritualistic mortuary practices, long distance trade networks, increased sociopolitical complexity, increased social inequality, hierarchical village-based settlement patterns, and shell-tempered pottery. Mound centers were established as political and social centers of chiefly power. The hierarchical settlement pattern included smaller villages and hamlets peripheral to the mound centers (Anderson et al. 1986; Anderson 1996).

The groups living in the Kanawha River Valley during this period are widely recognized as part of the larger Fort Ancient culture. While Fort Ancient people shared many of the general trends seen during the Late Prehistoric period in Eastern North America, there are seen as a distinct social and geographic entity. The Fort Ancient territory spans much of the Ohio River Valley, including parts of Indiana, Kentucky, Ohio, and West Virginia (Spencer 2016).

The Fort Ancient Culture can be divided into three sub-periods – Early (Roseberry Phase), Middle (Blennerhassett Phase), and Late (Madisonville Horizon) (Graybill 1981; Henderson and Turnbow 1992; Spencer 2016).

Early Fort Ancient (Roseberry Phase) (950–700 B.P. [A.D. 1000–1250])

Early Fort Ancient settlements tend to be found on floodplains or terraces of streams and rivers (Spencer 2016; Updike 2001). This period received its phase name from the Roseberry Farm village site near the confluence of the Ohio and Kanawha rivers (Graybill 1981). Domestic structures are generally square or rectangular post-supported pithouses. Individual domestic structures are arranged in a circular or oval pattern with a central plaza in the middle (Graybill 1988; Spencer 2016).

Technologically, Early Fort Ancient culture is distinguishable from its predecessor by shell-tempered, constricted-neck vessels with handles and plain or banded punctate decorative motifs (Graybill 1988; Spencer 2016; Updike 2001). Lithic projectile point manufacturing trends included small, triangular points, oftentimes made from the local Kanawha Black chert, although there are examples manufactured from non-local raw materials (Spencer 2016). Other distinctive objects commonly found in Early Fort Ancient components include deer antler and bone projectile points, bone awls, bone beads and pendants, and shell pendants and beads (Spencer 2016). By the Early Fort Ancient Period, people in the Kanawha River Valley were cultivating maize as a staple of their diet. Evidence of maize agriculture has been found at multiple Early Fort Ancient sites (Spencer 2016).

Middle Fort Ancient (Blennerhassett Phase) (700–500 B.P. [A.D. 1250–1450])

Middle Fort Ancient sites are more rare than their predecessors and tend to be found on river floodplains (Spencer 2016; Updike 2006). There have only been eight Middle Fort Ancient sites identified in West Virginia, and only one has been adequately documented, the Blennerhassett Village site in Wood County (Graybill 1981; Spencer 2016; Updike 2001). As such, much of what is seen archaeologically during the Early Fort Ancient Period continues into the Middle Fort Ancient Period.

Late Fort Ancient (Madisonville Horizon) (500–200 B.P. [A.D. 1450–1700])

There is a distinct change from previous periods that mark the advent of the Late Fort Ancient Period. Villages tend to be exclusively located in floodplains, are noticeably larger, and have palisaded walls (Graybill 1988; Spencer 2016). This perhaps suggests there were outside pressures forcing Late Fort Ancient people to strengthen their ability to protect themselves by banding together at a fortified location. Throughout the Ohio Valley, there is a marked increase in cultural transmission that is evidenced by the consistency in artifact types (Graybill 1988; Spencer 2016).

Cultural materials commonly found in Fort Ancient sites include small, triangular projectile points, smoking pipes, copper beads and ornaments, discoidals, clay figurines, Madisonville pottery, non-local lithic materials, and marine shell gorgets. These gorgets, made from exotic marine whelk shells from coastal regions, display either a rattlesnake motif or a human face (“mask”) motif, are distinctive markers of the Late Fort Ancient Culture (Graybill 1988; Maslowski 1984; Spencer 2016).

Historic Period (ca. 1750-Late-Twentieth Century)

As a result of the French and Indian War (1754-1763), the area that is currently Kanawha County was prohibited from European-American settlement by the British government. Following the war, the government of the state of Virginia sent land surveyors into the region during the early 1770's to provide land grants to military servicemen that participated in the French and Indian War. The first known non-aboriginal settlers in what is now Kanawha County arrived in 1773 (Cohen 1987).

Kanawha County was established as its own county in 1789, created from portions of Greenbrier and Montgomery Counties (Atkinson 1876). However, threats from Native American groups – primarily the Shawnee – limited European settlement in the region. The forced removal of Native Americans from the region in 1794 resulted in a boom in settlement of the county, with most settlers congregating within the Kanawha River Valley and around the city of Charleston (Cohen 1987).

During the first half of the nineteenth century, the county saw an influx of residents and industries. The most prominent industry at the time was salt manufacturing. The Kanawha Valley, it was discovered, had a rich supply of natural subsurface salt deposits. Salt brine was extracted from the underground salt deposits and boiled down to create a finished product. The industry thrived in the region for almost seven decades, falling into a decline following the Civil War (Cohen 1987). The timber and coal industries were also prominent sources of economic production within the county prior to the Civil War.

The Civil War directly created the state of West Virginia. Following the secession of Virginia from the Union, loyalists in the northern and western parts of the state organized a series of meetings, the First and Second Wheeling Conventions, to decide whether they would remain loyal to Virginia or to the Union. Ultimately, they chose the latter, forming a new state, West Virginia, in 1863 (Williams 2001). Kanawha County, as with many counties in the region, saw divided allegiances during the Civil War. Military regiments were organized for both sides during the course of the war. Confederate forces under Henry A. Wise seized control of Charleston, the county economic and social center, early on in the war. The Confederacy maintained control of the city for a short period of time, until Union forces under Jacob P. Cox and George McClellan drove them from the city in 1861. Confederate forces again took control of the city and the larger Kanawha Valley in 1862, holding it for only six weeks until Union forces recaptured the city, which they held until the end of the war. The salt deposits that had spurred development of the valley were of vital importance to the war efforts on both sides (Cohen 1987).

Following the Civil War, Kanawha County saw its economy grow primarily through resources extraction – coal, oil, and natural gas – and the transportation of these resources via the growing number of railroads that serviced the region – the Chesapeake & Ohio, the Kanawha & Michigan, and several smaller rail lines that serviced the main lines (Cohen 1987). The industrial revolution fuelled the extraction of coal throughout the region, and coal became the major driver in the economy of Kanawha County.

Institute, WV History

George Washington originally owned the land that Institute, WV now occupies. The land was granted to Washington by the King of England, then re-granted to him by the Governor of Virginia following the Revolutionary and French and Indian Wars. The property was left to Martha Washington following her husband's death, then to her successors upon her death.

Samuel I. Cabell, a wealthy plantation owner from Virginia, purchased the land, encompassing 967 acres of bottomland along the Kanawha River, in 1853 for the purpose of establishing a plantation. Cabell, who came from a highly influential landowning family in Virginia, acquired a number of slaves while in Virginia, relocating to the Kanawha Valley to contract out his slaves to the salt operations that were prominent in the valley at the time. Cabell married one of his slaves, Mary Barnes (Cabell), and the two would eventually have 13 children together (Haught 1971).

By the time Cabell had purchased the land, he had already granted freedom to his former slave wife and their children. In his will, he ordered that his estate be divided between his wife and children upon his death. Perhaps because of this, or perhaps because of his support for the Confederacy, or perhaps due to his abrasive personality, Cabell was murdered in 1865 and buried in the cemetery on the property. Following his death, Cabell's descendants and other African-Americans formed an African-American community referred to as both Cabell Farm and Piney Grove. This community would one day grow into what is now Institute.

In 1890, U.S. Congress passed the Second Morrill Act, stating that certain funding would be withdrawn from states that did not provide higher educational opportunities for African-Americans. The West Virginia governor and legislature sought a home for the newly designated "West Virginia Colored Institute" only to find that no community in the suitable areas was willing to grant them the land. However, the African-American community at institute welcomed the idea and the inhabitants, including Samuel Cabell's daughter, Marina, sold the state the 80-acre tract, which would become the home of the West Virginia Colored Institute in 1891. The school, now known as West Virginia State University, was formerly known as the West Virginia

Colored Institute (1891-1915), the West Virginia Collegiate Institute (1915-1929), and West Virginia State College (1929-2004) (Haught 1971).

The land currently slated for development by WVSU was previously owned by the West Virginia Division of Rehabilitation Services, which constructed buildings on the property beginning as early as 1971. Prior to that, the property housed structures owned by the West Virginia State School for the Deaf and Blind and the West Virginia Airways Incorporated Airport.

4. PREVIOUS RESEARCH

Literature Review

Background research and a records review for the project was conducted using the WV SHPO Interactive GIS Map (Accessed 1/14/2017). In addition to the online records search, TERRADON staff visited the West Virginia Division of Archives and History to conduct additional research on 1/19/2017. The area investigated for the background research extended 2 miles (3.2 km) beyond the APE boundary.

Previous Investigations

Six previously conducted archaeological surveys have been conducted within a 2-mile radius of the proposed facility (Figure 4; Tables 2 and 3). One previous archaeological investigation has been conducted within a portion of the APE (Orr 2005).

In 2005, Cultural Resource Analysts, Inc. (CRAI) conducted a Phase I investigation of the property at 99 Barron Drive on the WVSU campus. This survey included a portion of the current APE, the area designated Area C (Figure 2). CRAI identified archaeological site 46KA434, a multi-component prehistoric and historic site with “spatially and stratigraphically mixed deposits” (Orr 2005). The site is situated immediately northeast of Area C, and systematic shovel testing by CRAI indicated that the site does not exist within Area C of the current project.

Historic Map and Aerial Photography Research

A series of historic maps were analyzed to evaluate changes in land use over time and determine if any historic structures were present within the APE. Historic maps were (United States Geologic Service Topographic Map Explorer, accessed January 2017).

TERRADON utilized EDR to research historical aerial photographs and city directory information for the proposed project area in order to determine previous land use. Historical aerial photographs covering the subject property from 1955 to 2011 were provided by EDR. Photographs were identified for the years 1955, 1957, 1971, 1976, 1984, 1986, 1990, 1996, 2007, 2009, and 2011.

Previously Recorded Resources

Review of the West Virginia State Historic Preservation Office databases indicated that no previously identified prehistoric resources, historic resources, or cemeteries are located within the current APE. Background research found that six archaeological resources are within a 1-mile radius of the project area (Table 3, Figure 4). As noted above, archaeological site 46KA434, a multi-component prehistoric and historic site with “spatially and stratigraphically mixed deposits” was identified immediately northeast of the current project’s Area C, and systematic shovel testing by CRAI indicated that the site does not exist within boundaries the current project (Orr 2005). The Shawnee Reservation Mound (Mound No. 31) is located approximately 0.7km (0.43 mi) east of the project area boundary. The site was listed as eligible for the NRHP in 1978.

Four properties within a 2-mile radius of the project area are listed in the NRHP (Table 4, Figure 4).

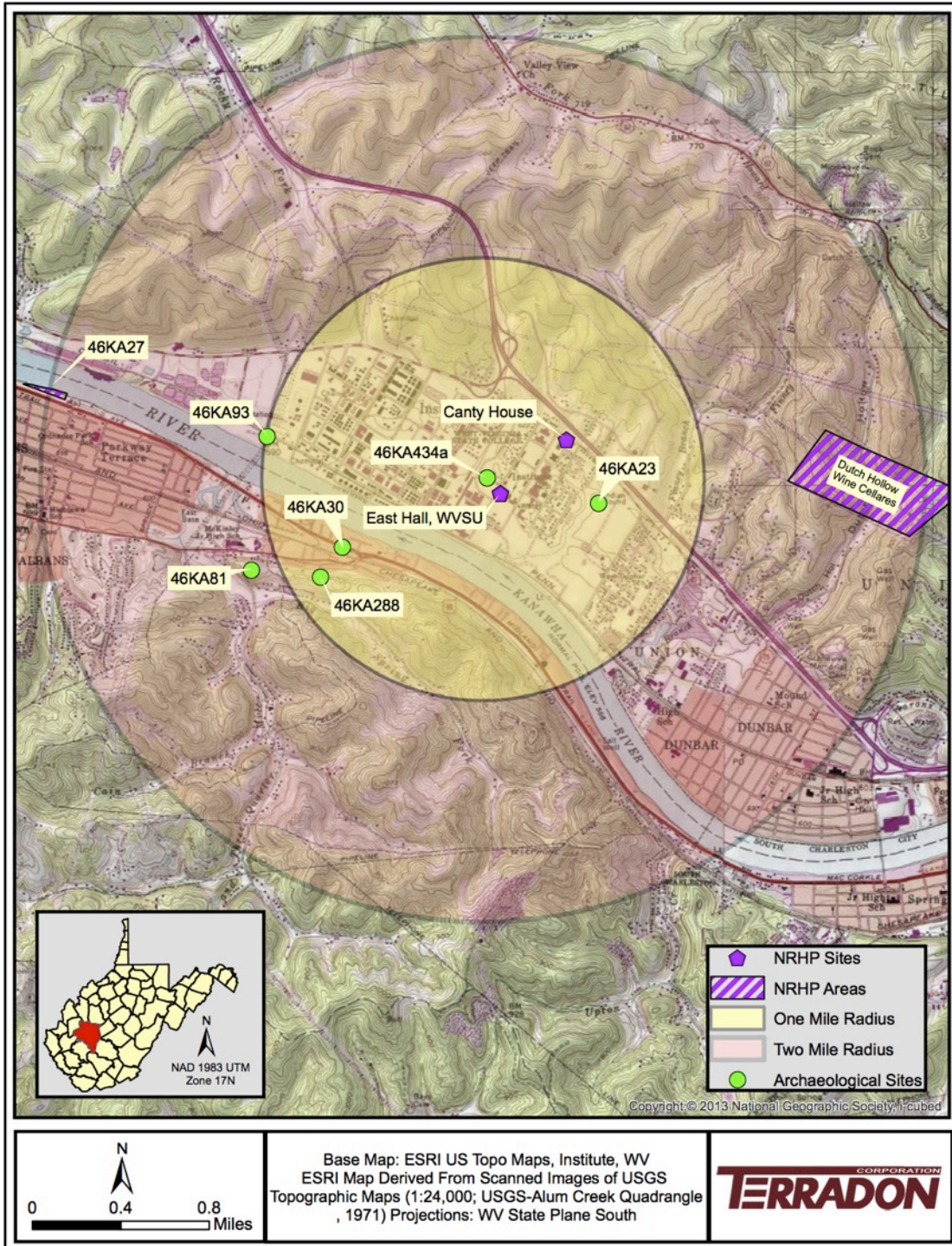


Figure 4. USGS 7.5' Quadrangle (St. Albans, WV) showing previously identified resources within a 1-mile (1.6 km) radius of APE and NRHP-listed properties within 2-mile (3.2 km) radius of APE.

Table 2. Previously conducted archaeological surveys within a 2-mile (3.2 km) radius of proposed facility.

WV Survey #	Report Title	Report Author / Company	Survey Date
04-130-KA-2	Phase I Archaeological Survey at 99 Barron Drive, West Virginia State University, Institute, Kanawha County, West Virginia	Michael L. Orr, CRAI	2005
91-286-KA	Phase I Archaeological Survey of the Proposed Goff Mountain West Landfill Parcel Near St. Albans, Union District, Kanawha County, West Virginia	Joel S. Dzodin, GAI Consultants	1991
00-624-KA	Phase I Archaeological Survey and Architectural Assessment for a Proposed Cell Tower Site on Ogden Road in Institute, Kanawha County, West Virginia	Aaron O. Smith and Karen E. Hudson, CRAI	2000
14-419-KA	Abbreviated Technical Report for the Phase I Archaeological Survey of the Proposed Union Carbide Corporation PTO Site, Monitoring Wells 313 and 132, Union District, Kanawha County, West Virginia	Jamie. S. Reece, CRAI	2014
08-372-KA	A Phase I Cultural Resource Management Survey for the Proposed CHA Dunbar PCS Wireless Cellular Tower in Kanawha County, West Virginia	Ryan Weller and Justin Zink, Weller and Associates	2007
07-332-KA	No Report	NA	NA
13-970-KA	Archaeological Assessment TCNS ID 97900 Proposed 195-Foot Monopole Telecommunications Tower (199-Foot Overall Height with Appurtenances) Within a 3,000 square-foot (279 square-meter) Proposed Lease Area	Matthew Beazley and Dina Bazzill, Environmental Corporation of America	2013

Table 3. Previously recorded archaeological sites and cemeteries within a 1-mile (1.6 km) radius of APE (Blanks= “Information Unavailable”).

Site #	Name	Cultural Affiliation	Site Type	NRHP Status
46KA23	Shawnee Reservation Mound (Mound No. 31)	Unassigned Prehistoric	Mound	Eligible (1978)
46KA30	Murad Mound	Adena (?)	Mound <i>*Destroyed</i>	
46KA81	Blizzard Site	Unassigned Prehistoric	Unknown	
46KA93	Landing Site	Unassigned Prehistoric	Open Air Habitation	
46KA288	None	Unassigned Prehistoric	Small lithic scatter	
46KA434-a	FS-1	Unassigned Prehistoric, Historic	Open Air Habitation, Domestic Historic	

Table 4. NRHP-listed properties within 2-mile (3.2 km) radius of APE.

ID #	Name	Type/Date	Year Listed	Distance from APE
70000654	Dutch Hollow Wine Cellars	ca. 1860 Wine Cellars	1970	1.91 km
88001585	East Hall, WVSU	ca. 1893 Educational	1988	0.05 km
88001587	Canty House ("The Magnolia"), WVSU	ca. 1900 Residence	1988	0.37 km
74002012	St.Albans Site	Archaic and Woodland Period Prehistoric	1974	3.08 km

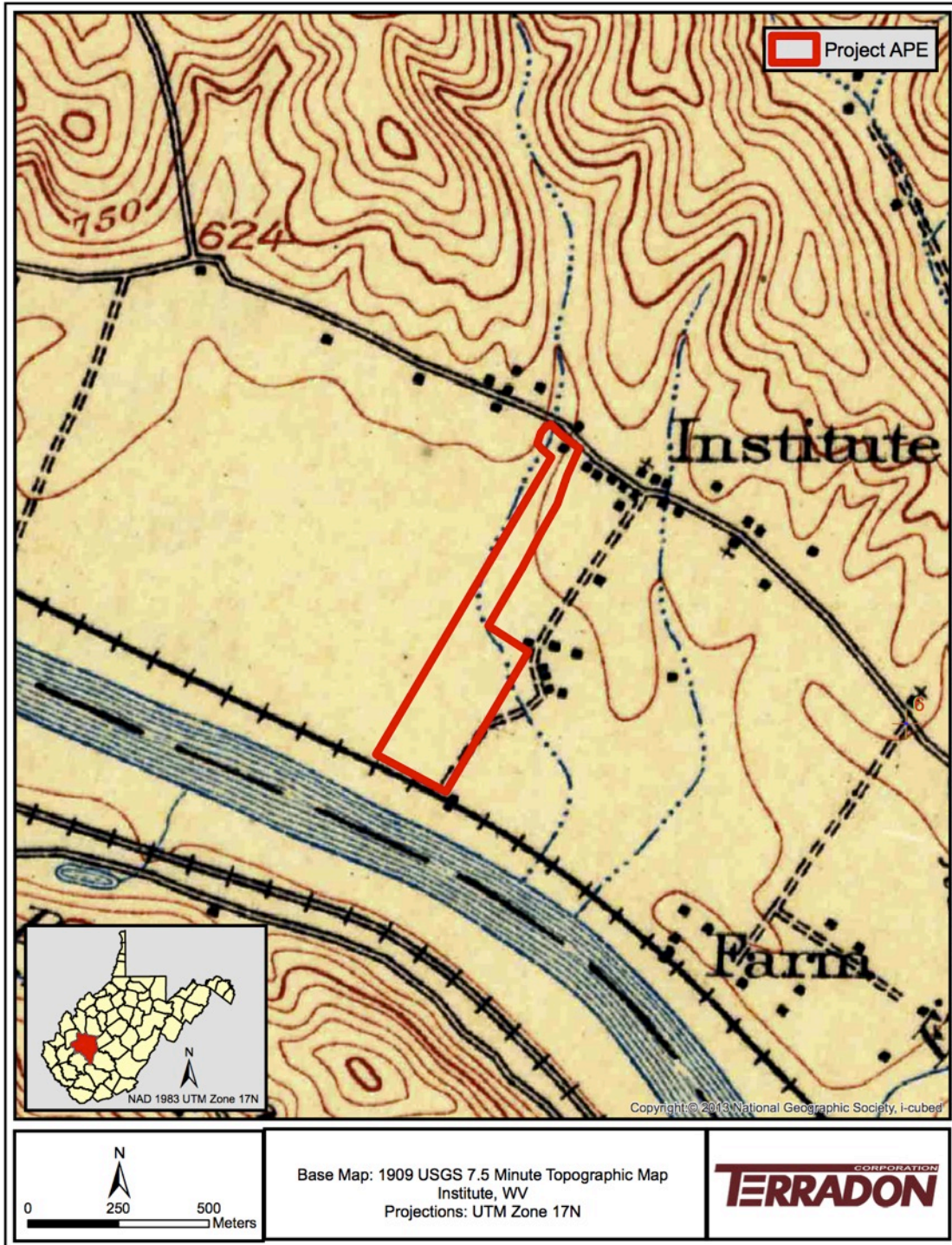


Figure 5. 1909 USGS Topographic Map showing location of APE.

□



Figure 6. 1955 USGS aerial photograph showing location of APE (in red).

5. RESEARCH DESIGN AND METHODOLOGY

The research design and methodology for this project employed the West Virginia State Historic Preservation Office's *Guidelines for Phase I, II, and III Archaeological Investigations and Technical Report Preparation* to guide all work. This archaeological component of this project employed a standard Phase I reconnaissance survey methodology to identify any archaeological resources and evaluate whether these resources may be eligible for the NRHP.

Area of Potential Effect (APE)

The Area of Potential Effect (APE) for this project was developed in coordination with TERRADON Project Managers and WVSU staff using information and maps provided by the client. The archaeological survey is intended to only test areas where ground disturbance is planned as part of the current project design, which consists of new vehicular circulation patterns, parking areas, pedestrian circulation sidewalks, maintenance buildings, agricultural buildings, and storage areas (See Appendix C). The APE for this project includes four test areas (A, B, C, and D) where new construction will involve ground-disturbing activities (Figure 2). Newly acquired lands that will not involve ground disturbance were not included in this assessment. The parcels to be surveyed combine to represent an approximately 8.95 acre (3.62 hectares) area.

Fieldwork

The Phase I archaeological assessment is being conducted to determine whether previously unidentified archaeological resources are present within the portions of the overall project area that are to be developed as part of the current project plan. The archaeological assessment will include subsurface shovel testing, deep auger testing, and pedestrian survey. In addition, WV SHPO staff requested that the small historic period and modern cemetery located immediately east of the current project area be documented as part of this survey. Cemetery documentation will include mapping of all cemetery features, photographs of each gravestone, and photographs of the overall resource, all of which will be documented through the completion of a West Virginia Cemetery Survey Form. The completed West Virginia Cemetery Survey Form for this resource (Cabell Cemetery) is located in Appendix B of this report.

Pedestrian survey will be conducted along transects running spaced at a 10-15 meter intervals. The pedestrian survey will identify any potentially historic aboveground resources and will include an inspection of the ground surface for the presence of prehistoric or historic cultural materials or features.

Shovel test probes (STPs) will be excavated both systematically and judgmentally as field conditions allow for. As much of the southern portion of the project area (Test Areas B and D) is covered with slab concrete from the former structures, areas where subsurface testing is feasible will be tested. Systematic shovel testing will consist of excavation of STPs at 15 m intervals along transects spaced 15m apart. If areas being shovel tested indicate visibly disturbed soil deposits, the interval between STPs will be increased to a 30-m interval until undisturbed soils are encountered. All STPs will measure 50 cm in diameter and be excavated to a depth of 1m or until archaeologically sterile subsoil is encountered. All excavated soils will be screened through ¼" mesh hardware cloth. Depths of soil strata and soil color/texture will be recorded using a Munsell soil chart. Each shovel test profile will be photographed using a digital camera.

At the base of a sample of STPs, a 4-inch diameter hand auger will be used to examine the soils to a depth of at least 1.9 meters below the ground surface to determine potential for buried cultural or alluvial deposits. Soil from the auger test will be visually examined for anomalies or changes in color/texture and will be screened through ¼” mesh hardware cloth.

Photographs will be taken of the general landscape, all identified resources, a sample of STPs and auger tests, and any additional appropriate features using a Nikon 16.0 megapixel digital camera with a 4.5-90.0mm wide optical zoom lens.

The location of each STP, aboveground feature, archaeological site, historic resource, cemetery, or any other appropriate landmark will be recorded using a Trimble GeoXT Global Positioning System unit with sub-meter accuracy.

Laboratory Methods

Upon completion of fieldwork, all recovered artifacts will be taken to TERRADON’s laboratory facility to be processed and analyzed. Each bulk provenience bag, piece-plotted artifact, and soil sample will be given an arbitrary Field Specimen (FS) number. All materials from the bulk provenience bags will be washed, sorted, categorized, and cataloged. Analysis of all artifact types recovered will employ standard industry procedures.

Prehistoric lithics were the only artifact category recovered as part of the current project. Lithic artifacts will be sorted into tools or debitage categories. Tools will be analyzed according to their morphology in using standard regional and pan-regional typologies (e.g. Andrefsky 2005; Broyles 1971; Coe 1964; Justice, 1987). Debitage analysis will follow aggregate analysis procedures considered standard within the field of archaeology (e.g. Ahler 1989; Sullivan and Rozen 1985).

All artifacts, field specimens, field notes, maps, field recording forms, digital photographs, and other project-related documents will be temporarily stored at TERRADON’s Lewisburg, West Virginia office until a permanent curation facility is designated.

Site Significance and NRHP Evaluations

All archaeological or other cultural resources recorded as part of this survey will be evaluated for inclusion in the NRHP. If necessary, recommendations will be made to assist the client in making decisions regarding further documentation that may be needed. In accordance with 36 CFR 60.4, four broad criteria will be used to make a NRHP eligibility recommendation. In order to be considered eligible for the NRHP, a resource must satisfy at least one of the following criteria:

- A. it is associated with events that have made a significant contribution to the broad pattern of our history; or
- B. it is associated with the lives of significant persons in our past;
- C. it embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction;
- D. it has yielded, or may be likely to yield, information important to history or prehistory.

In addition to meeting at least one of the above criteria, the resource must also possess certain aspects of integrity – location, design, setting, materials, workmanship, feeling, and association – and in many instances will require multiple aspects. Certain resources – cemeteries, birthplaces or graves, religious properties, moved properties, reconstructed properties, commemorative properties, and properties achieving significance within the past fifty years – will also be required to meet additional Criteria Considerations to be considered eligible.

Unanticipated Discoveries

In the event that human remains are encountered during the archaeological investigations or the overall undertaking, all remains will be left in place, work will immediately cease, and the lead Federal agency and the West Virginia Division of Culture and History will be informed of the discovery within 24 hours. In accordance with 36 CFR 800 §800.2(C), it will be the responsibility of the lead Federal agency to contact the appropriate Native American Tribes.

6. RESULTS

A Phase I archaeological assessment of the WVSU campus expansion area parcel was conducted from January 31 through February 2, 2017. The Area of Potential Effect (APE) for this project includes four parcels (A, B, C, and D) where new construction will involve ground-disturbing activities (Figure 2). Newly acquired lands that will not involve ground disturbance were not included in this assessment. The parcels surveyed combine to represent an approximately 8.95 acre (3.62 hectare) area.

Test Area A

Test Area A (TA-A) was the largest parcel surveyed at 4.17 acres (1.69 ha). Planned construction activities include addition of agricultural and maintenance buildings and a parking area. Survey methods included shovel testing, pedestrian survey, and deep auger testing up to 2m below the surface. Surface visibility was generally poor due to grass cover, although several small areas showed exposed surface (Figures 7 and 8).

Subsurface shovel testing was conducted along four transects running generally N-S spaced at a 15m intervals. A total of 39 STPs were excavated in TA-A. Beginning at the southern end of TA-A, shovel test pits were excavated at 15m intervals. Heavy disturbance noted throughout the entire southern end resulted in the increase of the STP interval to 30 m until the heavily disturbed fill deposits were no longer present, which occurred towards the northern end of the test area. Working north along each transect, the interval between STPs was reduced to 15m when the fill material was no longer present. A slight but visible rise in surface elevation coincided with the lack of fill material. This portion of TA-A consists of the northernmost 30-40 meters (Figure 2).

At the base of 12 of the total 39 STPs, additional auger testing was conducted to determine if deeply buried alluvial or cultural deposits were present up to 2m below the ground surface. No cultural materials were recovered from the STPs or the auger tests.

A typical soil profile for the heavily disturbed portion of TA-A consisted of dark yellowish brown (10YR4/4) silt loam from 0-13 cmbs, mottled strong brown 7.5YR5/8 silt clay and brownish yellow 10YR6/6 silt clay with gravel and coal fill from 13-36 cmbs, and black 10YR2/1 fine ash with lenses of gray 10YR6/1 fine ash from 36-190 cmbs. The ashy layers contained small fragments of burned coal and teardrop or cylindrical-shaped glass (Figure 9).

A typical soil profile for the northern portion of TA-A consisted of dark yellowish brown (10YR4/4) silt loam from 0-13 cmbs, mottled strong brown 7.5YR4/6 silt clay and brownish yellow 7.5YR5/8 silt clay from 13-78 cmbs, mottled strong brown 7.5YR5/6 with 10YR6/8 silt clay from 78-152 cmbs, and brown 7.5YR5/2 compact clay from 152-190 cmbs (Figure 10).

Aerial photographs from 1955 and 1957 show what appears to be a water feature – possibly a wetland or retention pond – throughout the disturbed portion of TA-A (Figure 6). Historical maps from 1909 through 1965 indicate an unnamed drainage flowing through the disturbed portion of TA-A and coinciding with the inundated area on the aerial imagery. The drainage shown on the historic maps was at some point between 1965 and 1971 redirected to flow along the western boundary of the WVSU expansion parcel. The deep, ashy deposits throughout the disturbed fill portion of TA-A were likely added during this period as fill to level the area for development by the West Virginia Department of Rehabilitation Services. The ashy layer appears to be an industrial byproduct related to the burning of coal. It contains black and gray fine ash and, is

some instances, small fragments of burned coal and teardrop or cylindrical-shaped silica pellets. In all STPs where the dark ashy material was encountered, a fill layer of clay and/or silty clay material was placed on top to serve as a cap.



Figure 7. Test Area A, general landscape facing north



Figure 8. Test Area A, general landscape facing west.

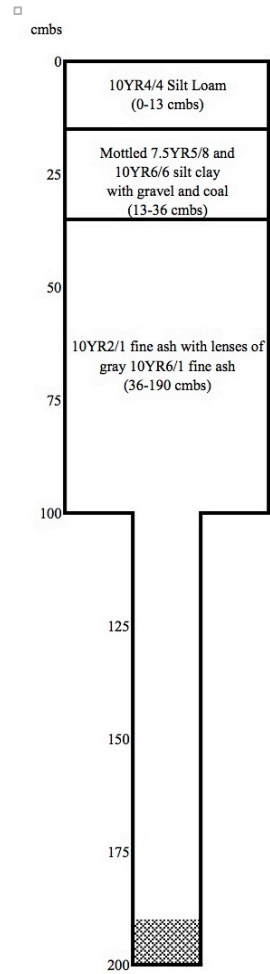


Figure 9. Photograph and soil profile sketch of heavily disturbed portion of Test Area A (ST A2-1).

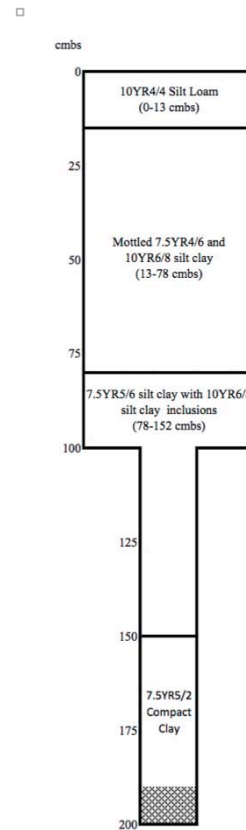


Figure 10. Photograph and soil profile sketch of northern portion of Test Area A (ST A2-8).

Test Area B

Test Area B (TA-B) is almost entirely developed, with a standing structure (ca. 1971) formerly associated with the WV DRS and asphalt parking areas comprising greater than 90 percent of the surface area. The current construction plans call for the demolition of the standing structure and creating an asphalt parking area in its place. While the entire planned parking area is approximately 2.21 acres (0.89 ha), the testable portion consists of two areas: B1 and B2 (Figure 2). These areas combine to measure 0.21 acres (0.9 ha). Because no structures were constructed in this area, it was considered to have a medium probability for intact soils and/or archaeological deposits. Survey methods included shovel testing and pedestrian survey. Surface visibility was generally poor due to grass cover, although several small areas of exposed surface showed only modern construction materials associated with the construction of the current structure (Figures 11 and 12).

Due to the small size of the testable areas, subsurface shovel testing was conducted along a single transect running generally E-W with STPs spaced at a 15m intervals in area B-2. Buried utilities restricted testing along the eastern margin of B-2. A single ST confirmed heavy disturbance in area B-1. A total of 3 STPs were excavated in TA-B.

The soil profile for TA-B1 consisted of dark yellowish brown (10YR4/4) silt loam from 0-15 cmbs, mottled strong brown 7.5YR4/6 with pebble-sized coal fragments from 15-63 cmbs, and black 10YR2/1 fine ash with pebble-sized coal fragments from 63-190 cmbs. The ashy layers contained pebble-sized fragments of burned coal and teardrop-shaped silica beads (Figure 13). As described in the previous section, aerial photographs from 1955 and 1957 and historical maps from 1909 through 1965 indicate an unnamed drainage flowing nearby the current location of TA-B1. The deep, ashy deposits in TA-B1 were likely added during this period as fill to level the area for development by the West Virginia Department of Rehabilitation Services.

A typical soil profile for TA-B2 consisted of mottled dark yellowish brown (10YR4/4) and 7.5YR4/6 silt loam with pebble-sized coal fragments, river-worn gravel, and modern construction debris from 0-45 cmbs, mottled strong brown 7.5YR4/6 silt clay and brownish yellow 7.5YR5/8 silt clay from 45-80 cmbs, and strong brown 7.5YR4/6 silt clay from 80-110 cmbs (Figure 14).

Test Area C

Test Area C (TA-C) (0.26 acres [.10 ha]) was included as part of this survey due to the proposed addition of a new segment of road connecting two existing roads (See Appendix C: Construction Drawings). Background research conducted via the WV SHPO Interactive GIS Map (Accessed 1/14/2017) indicated that a multicomponent prehistoric and historic period site 46KA434 was identified immediately east of the area designated TA-C. Further investigation conducted at the West Virginia Division of Archives and History (1/19/2017) confirmed that TA-C had been previously surveyed in 2005 as part of the evaluation of the historic Curtis House located at 99 Barron Drive on the campus of WVSU (Orr 2005). Site 46KA434 was recommended as not eligible for the NRHP and, furthermore, will not be impacted by the proposed current undertaking.

The 2005 archaeological investigation included excavation of STPs at 15-m intervals along transects spaced 15m apart and additional deep testing with a bucket auger. The portion of the 2005 survey area that subsumed the current area of TA-C included 6 STPs and 2 deep bucket auger tests. These tests indicated that all of TA-C is heavily disturbed, similar to the disturbed areas in TA-A and TA-B, with a thick layer of coal ash/byproduct up to a depth of 100cmbs (see Orr 2005).



Figure 11. General landscape Test Area B-1, facing west.



Figure 12. General Landscape of Test Area B-2, facing east.

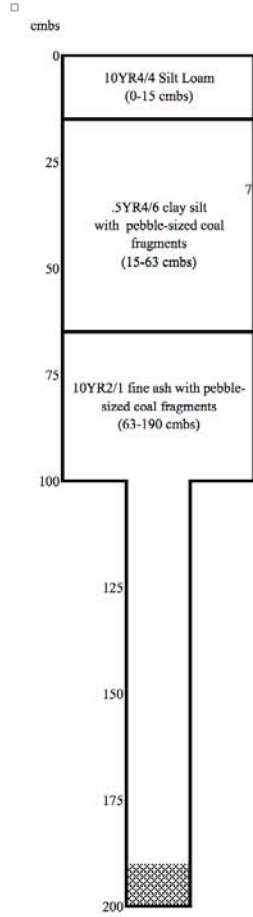


Figure 13. Photograph and soil profile sketch of Test Area B-1 (ST B-3).

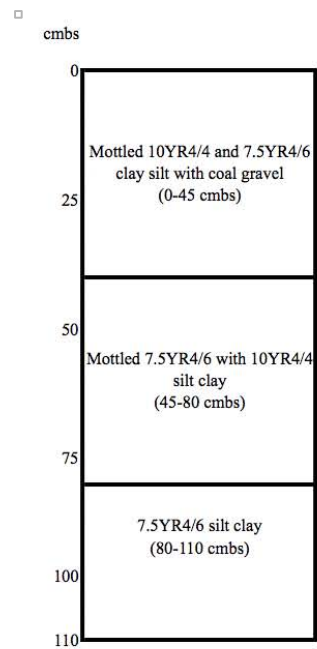


Figure 14. Photograph and soil profile sketch of Test Area B-2 (ST B-2).

Test Area D

Test Area D (TA-D) was, up until ca. 2013, almost entirely developed with multiple structures (ca. 1971) and asphalt parking areas formerly associated with the WV DRS. The current project involves the creation of an asphalt parking area over the entirety of TA-D (see Appendix C). While the entire planned parking area is approximately 2.21 acres (0.89 ha), the testable portion consists of four areas – undeveloped courtyards and lawns – least likely to be impacted by the construction and demolition of the WV DRS structures: D1, D2, D3, and D4 (Figure 2). These areas combine to measure 0.98 acres (0.40 ha). Survey methods included shovel testing, deep bucket auger testing, and pedestrian survey. Surface visibility was generally poor due to grass cover, although several small areas of exposed surface showed only modern construction materials associated with the construction and demolition of the former structures.

D1

Test Area D1 (TA-D1) is a 0.21-acre (0.09 ha) parcel consisting of level terrain and covered in grasses. Prior to the demolition of the surrounding structures built ca. 1971, the area was an open green space located immediately north of the recently demolished structure. Because no structure was constructed in this area, it was considered to have a medium probability for intact soils and/or archaeological deposits. Two STPs were excavated at a 15-m interval along a single

transect. Both contained disturbed soils with modern construction materials up to ~40 cmbs. No prehistoric or historic materials were present.

A typical soil profile for TA-D1 consisted of dark yellowish brown (10YR4/4) silty clay loam from 0-12 cmbs, 10YR4/4 silt clay with a heavy concentration of modern construction debris from 12-38 cmbs, and 10YR4/6 silt clay from 38-100 cmbs (Figure 15).

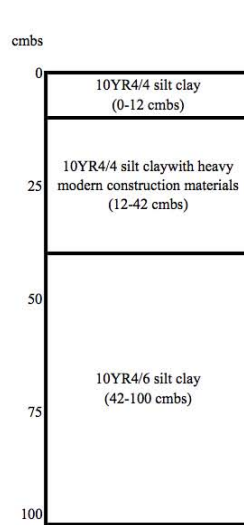


Figure 15. Representative soil profile sketch for Test Area D1.

D2

Test Area D2 (TA-D2) is a 0.16-acre (0.07 ha) parcel consisting of level terrain and covered in grasses and concrete. Prior to the demolition of the surrounding structures built ca. 1971, the area was an open-air courtyard with concrete sidewalks entirely enclosed by surrounding structures and the fence demarcating the adjacent Cabell Cemetery. Because no structure was constructed in this area, it was considered to have a medium probability for intact soils and/or archaeological deposits. Two STPs were excavated at a 15-m interval along a single diagonal transect within the L-shaped area (Figure 2). Both contained disturbed soils with modern construction materials up to ~40 cmbs. One also contained prehistoric lithic manufacturing debris in direct context with the modern construction materials. This positive STP was delineated at 5-m intervals in a cruciform pattern (Figure 16). Two additional STPs were positive for prehistoric materials. This site is described in full detail below.

Site 46KA692

46KA692 is a small, prehistoric lithic scatter in a heavily disturbed context. A total of five prehistoric artifacts, all lithic manufacturing debris, were recovered from three positive shovel test pits (Figure 16; Table 5). The prehistoric materials were found exclusively in direct association with modern materials, including screw-top amber bottle glass, clear glass, ferrous metal bolts, plastic, ceramic tile, etc. associated with the construction, occupation, and demolition of the structures formerly located at the site. The construction of the WV DRS structures occurred sometime between 1971 and 1976. A total of 8 STPs were excavated to delineate the site boundaries and acquire a representative sample of artifacts. Site delineation was limited to the

east and west by two large concrete building slab foundations. No diagnostic artifacts were recovered and no features were encountered. The completed site form for this site is located in Appendix A.

The site is situated on the floodplain of the Kanawha River approximately 50 m (164.0 ft) NW of the intersection of Barron Drive and Stadium Drive on the campus of West Virginia State University. The site is located in the former courtyard of the building complex, which was demolished sometime between 2012 and 2015 and formerly associated with the West Virginia Division of Rehabilitation Services (WV DRS) (Figures 17 and 18).

A representative soil profile for site 46KA692 consisted of reddish brown (2.5YR4/4) silty clay loam with modern construction materials from 0-19 cmbs, 10YR3/4 silt clay with a heavy concentration of modern construction debris from 19-47 cmbs, and 7.5YR4/6 silt clay from 47-190 cmbs (Figure 19). All prehistoric materials were recovered from Strat II (19-47 cmbs).

Due to the limited vertical and horizontal extent of the prehistoric artifacts, the limited artifact assemblage, and the heavy disturbance that characterizes this site, 46KA692 does not have the type or quality of information or retain the degree of integrity to be considered significant in a local or regional context.

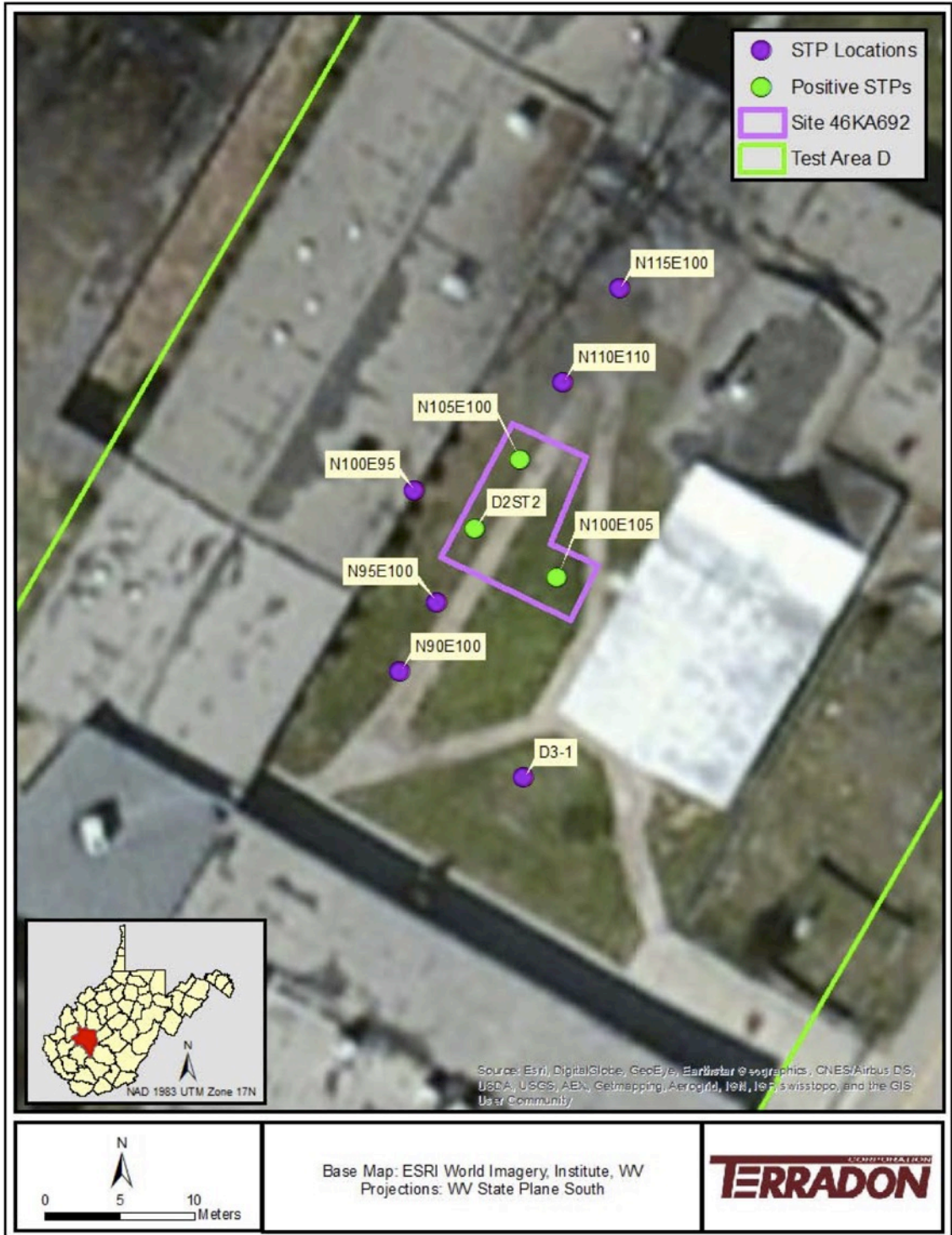


Figure 16. Site plan view for 46KA692.



Figure 17. Site 46KA692, facing north.



Figure 18. Site 46KA692, facing south.

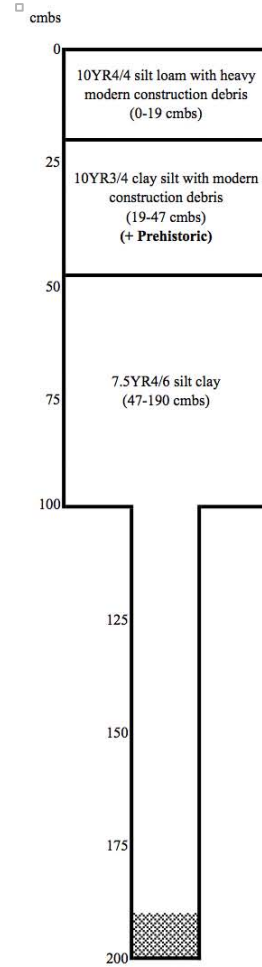


Figure 19. Representative photograph and soil profile sketch for Test Area D2 and site 46KA692.

Table 5. Prehistoric lithics from 46KA692.

Test Area	Provenience	Depth (cmbs)	Artifact Class	Material	Size Grade	Count	Weight (g)
D2	ST 2	12-32	Lithic Debitage	Kanawha (Black)	<1/4 in.	2	0.1
D2	N100 E105	25-30	Lithic Debitage	Kanawha (Black)	<3/4 in.	1	2.1
D2	N105 E100	19-47	Lithic Debitage	Kanawha (Gray)	<1/4 in.	1	0.1
D2	N105 E100	19-47	Lithic Debitage	Poss. Flint Ridge	<1/2 in.	1	0.3

D3

Test Area D3 (TA-D3) is a 0.15-acre (0.06 ha) parcel consisting of mildly sloped terrain (approx. 1-2 percent) and covered in grasses with several areas of exposed building material debris and concrete (Figure 20). Prior to the demolition of the surrounding structures built ca. 1971, the area was an open-air courtyard enclosed by structures on three sides. Because no structure was constructed in this area, it was considered to have a medium-probability for intact soils and/or archaeological deposits. Two STPs were excavated at a 15-m interval along a single transect oriented E-W within the area. Both contained heavily disturbed soils with modern construction materials observed up to 100 cmbs. This area is at a slightly lower elevation than the surrounding areas and appears to have been partially filled in with fill dirt and construction debris.

A typical soil profile for TA-B2 consisted of brown 7.5YR4/4 silty clay loam mixed with heavy modern construction debris from 0-30 cmbs overlying strong brown 7.5YR4/6 silt clay with red 2.5YR4/6 clay inclusions with angular and river-worn gravel and modern construction debris from 30-100 cmbs (Figure 21).



Figure 20. General landscape for Test Area D3 showing slight drop in elevation, facing south.

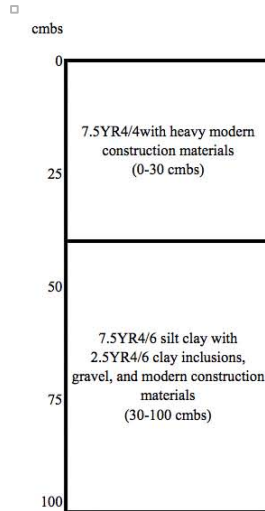


Figure 21. Representative soil profile sketch for Test Area D3 (ST D3-1).

D4

Test Area D4 (TA-D4) is a 0.46-acre (0.19 ha) parcel consisting of level terrain and covered with well-maintained grass. A chapel is located in the center of the parcel. Because no structures other than the chapel were constructed in this area, it was considered to have a medium/high probability for intact soils and/or archaeological deposits. According to the project designs, the entire area is going to be converted into a parking area (see Appendix C). Survey methods included shovel testing and pedestrian survey. Surface visibility was generally poor due to grass cover.

Subsurface shovel testing was conducted along three transects running generally N-S spaced at a 15m intervals. The interval between Transect 2 and Transect 3 was increased by 5m to avoid the chapel. A total of 7 STPs were excavated in TA-D4. Heavy disturbance was noted throughout the entire test area, as fill deposits were present throughout the entirety of all STPs. No prehistoric or historic materials were present in TA-D4.

A typical soil profile for TA-D4 consisted of brownish yellow (10YR6/6) silty clay loam from 0-57 cmbs overlying a gray 10YR6/1 fine ash from 57-100 cmbs (Figure 22). The ashy layers contained small fragments of burned coal and teardrop or cylindrical-shaped glass. Other STPs in TA-D4 had shallower deposits of the gray ashy coal byproduct fill layer with a clay fill layer beneath it containing modern refuse, including asphalt, cement, aluminum beverage cans, and tile.

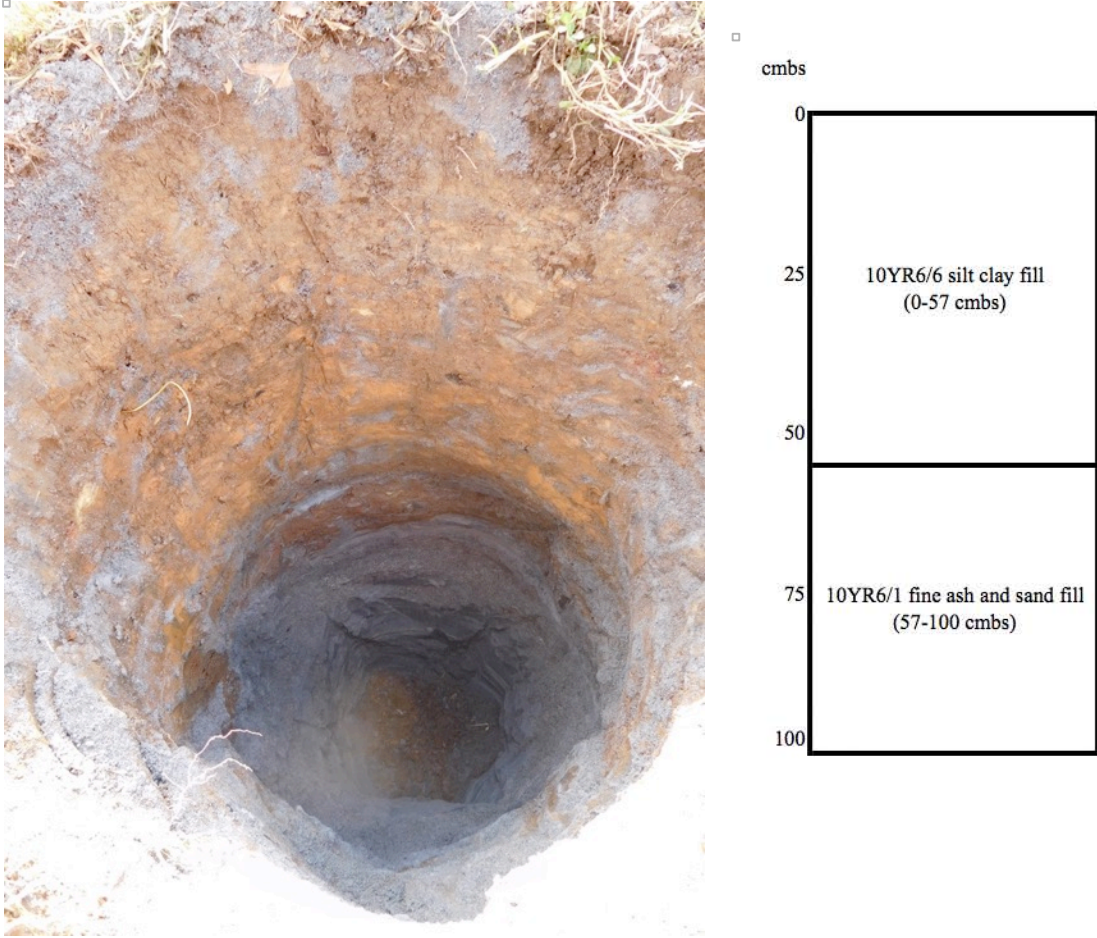


Figure 22. Representative photograph and soil profile sketch for Test Area D4 (ST D4-2-1).

The Cabell Cemetery (46KA691)

Although the Cabell Cemetery will be avoided by all ground disturbing activities related to the current undertaking, WV SHPO staff requested that the cemetery be documented as part of this survey. The completed West Virginia Cemetery Survey Form for Cabell Cemetery is located in Appendix A of this report.

The Cabell Cemetery measures approximately 15.9m x 27.4 m (52 x 90 ft.) and contains a total of 27 interments (Table 6). Photographs of prominent individuals mentioned below are presented in Figures 23-25. Overview photographs of the cemetery area presented in Figures 26 and 27. Additional photographs are presented as part of the West Virginia Cemetery Inventory Form (Appendix B).

Cabell Cemetery (alternatively spelled “Cabble”) is a small family and community cemetery that serves the town of Institute, WV and the former African-American community that predates the town. The earliest grave marker in the cemetery dates to July 18th, 1865 and marks the resting place of Samuel I. Cabell. Cabell was a wealthy plantation owner from Virginia whose life heavily influenced the history of the town of Institute and of West Virginia State University (formerly West Virginia Colored Institute (1891-1915), West Virginia Collegiate Institute (1915-1929), and West Virginia State College (1929-2004).

Cabell, who came from an influential landowning family in Virginia, acquired a number of slaves while in Virginia. Cabell relocated to the Kanawha Valley to contract out his slaves as workers in the salt operations that were prominent in the valley at the time. Cabell married one of his slaves, Mary Barnes (Cabell), and the two would eventually have 13 children together. Mary and an their child, Soula Cabell, are buried next to Samuel (Haught 1971).

Cabell purchased the land where the cemetery stands and the surrounding 967 acres in 1853 for the purpose of establishing a plantation. By then, Cabell had already granted freedom to his former slave wife and children. In his will, he ordered that his estate be divided between his wife and children upon his death (Haught 1971). Perhaps because of this, or perhaps because of his support for the Confederacy, or perhaps due to his abrasive personality, Cabell was murdered in 1865 and buried in the cemetery that holds his name. Following his death, Cabell’s descendants and other African-Americans formed an African-American community referred to as both Cabell Farm and Piney Grove. This community would one day grow into what is now Institute.

In 1890, U.S. Congress passed the Second Morrill Act, stating that certain funding would be withdrawn from states that did not provide educational opportunities for African-Americans. The West Virginia governor and legislature sought a home for the newly designated “West Virginia Colored Institute” only to find that the communities they had pre-selected were not willing to grant them the land. However, the African-American community at institute welcomed the idea and the inhabitants, including Samuel Cabell’s daughter, Marina, sold the state the 80-acre tract, which eventually became known as Institute (Haught 1971). A more detailed account of the Samuel I. Cabell family history in Institute is provided by Haught (1971).

In addition to the Cabell family, Austin Wingate Curtis, Sr. is buried at the Cabell cemetery along with his wife, Dora Brown (Curtis), granddaughter of Samuel and Mary Cabell. Curtis, Sr. was prominent agriculturalist and founder of the WVSU Department of Agriculture. Curtis served as the chair of the Department of Agriculture for 46 years and wrote a number of popular books on agriculture and gardening.

Austin and Dora Curtis are also the parents of Austin Wingate Curtis, Jr. a prominent African-American figure and agriculturalists. Curtis, Jr. is best known for his collaboration with George Washington Carver at the Tuskegee Institute where they researched a variety of uses for agricultural products, namely sweet potatoes and peanuts (Orr 2005). The Curtis House, located approximately 260 m NE of the cemetery, served as the home for Curtis, Sr. and Curtis, Jr. and has been recommended as eligible for inclusion in the NRHP (WV SHPO - KA4929; Orr 2005).

Discussion – Cabell Cemetery

It is the opinion of TERRADON that the Cabell Cemetery satisfies Criterion B of the NRHP criteria for evaluating historic properties – properties “that are associated with the lives of significant persons in our past”. The Cabell Cemetery is the final resting place of plantation owner Samuel I. Cabell and his former-slave wife, Mary (Barnes) Cabell. The lives of Samuel and Mary (Barnes) Cabell heavily influenced the history of the town of Institute and of West Virginia State University.

However, it is also the opinion of TERRADON that the cemetery has not retained the degree of integrity required to merit individual distinction in the NRHP. While the cemetery has retained its integrity of location, it has not retained enough of the other elements of integrity (design, setting, materials, workmanship, feeling, and association) necessary to be considered eligible for the following reasons:

- The original grave marker of Mary (Barnes) Cabell (d. 1900), if there ever was one, appears to have been replaced by a granite marker likely during the past 50 years.
- The engraved text on the original grave marker of Samuel Cabell has been painted with black paint to provide clarity, apparently recently.
- There has been a metal post-and-chain boundary installed along the perimeter of the cemetery that does not date to the period of significance for the cemetery. Also, more recently, a metal chain link fence has been erected around the perimeter of the cemetery (including the post-and-chain boundary marker).
- An active two-lane road runs approximately 2m (6.56 ft) east of the cemetery and 5m (16.4 ft) east of the burial plots of the Samuel and Mary Cabell.
- There is no apparent organization to the cemetery layout, with a modern burials mixed throughout. A burial from the year 2000 is located approximately 4m (13.1 ft) from the markers of Samuel and Mary Cabell.
- A number of modern structures (industrial, football stadium, residential, religious) have been constructed within the view shed of the cemetery.

Furthermore, we do not believe the individual graves of the significant individuals would be eligible for the NRHP due to the same reasons of diminished integrity.

Although the Cabell Cemetery lacks the integrity required to merit individual distinction in the NRHP, it has characteristics that may potentially contribute to the recognition of the larger Institute / WVSU area as an historic district. The proposed parking areas to be constructed to the west of the cemetery will not impact the cemetery’s potential to be included as a feature of a historic district associated with the community of Institute or WVSU.

Table 6. Interments as Cabell Cemetery, West Virginia State University

Name	Birth	Death	Notes
Samuel I. Cabble (Cabell)	Unknown	July 18, 1865	"In his 63rd year of his age"
Mary Cabell	1815	1900	
Soula I. Cabble	May 29, 1848	September 30, 1859	D/O Samuel & Mary Cabell
Austin Wingate Curtis Sr.	May 17, 1872	March 23, 1950	
Dora (Brown) Curtis	December 19, 1875	February 1, 1960	
Henry Augustus Brown	July 7, 1918	August 19, 1981	S/O Winfield Augustus & Eva Brown
Alice (Brown) Ridley	May 5, 1920		D/O Winfield Augustus & Eva Brown
Andrew Scott Calloway	1934	1983	SN US Coast Guard, Korea
Alice Brown	1852	1922	W/O Scott Brown
Scott Brown	1850	No Date	
Graydon (Cabell) Brown	1909	1924	
Elmo Sidney Thurman	1887	1952	
Andrew H. Calloway	June 17, 1899	June 24, 1984	
Thelma Brown	July 13, 1903	October 24, 1987	w/o Andrew H. Brown
Daisy J. Brown	January 20, 1905	1999	w/o of Basil E. Brown
Basil E. Brown	November 16, 1897	August 17, 1969	
Jenne (Cabell) Thurman	June 3, 1889	October 30, 1963	
Hessie (Brown) Howard	February 18, 1881	December 18, 1960 (?)	
Rosco Ward Howard	May 15, 1881	June 17, 1965	
Lottie F. Brown	1874	1959	w/o Leonard N. Brown
Leonard N. Brown	1872	1956	
Elizabeth (Brown) Peacock	October 15, 1912	September 12, 1989	d/o Leonard N. & Lottie F. Brown
Winfield Augustus Brown	November 9, 1886	May 31, 1950	
Eva (Calbert) Brown	June 15, 1884	September 14, 1942	w/o W. A. Brown
Ruth Holt Cabell	October 3, 1902	September 25, 1999	
J. McHenry Jones	1859	1909	



Figure 23. Grave marker for Samuel I. Cabell (“Saml I. Cabble”)



Figure 24. Detail, grave marker for Samuel I. Cabell (“Saml I. Cabble”)



Figure 25. Grave marker for Mary (Barnes) Cabell



Figure 26. Cabell Cemetery overview, facing northwest.



Figure 27. Cabell Cemetery overview, facing north

7. SUMMARY AND RECOMMENDATIONS

TERRADON Corporation (TERRADON), on behalf of West Virginia State University (WVSU), has completed a Phase I Cultural Resource Assessment of the newly acquired campus expansion area in Institute, Kanawha County, West Virginia. WVSU is proposing addition of new vehicular circulation patterns, parking areas, pedestrian circulation sidewalks, maintenance buildings, agricultural buildings, and storage areas. The Area of Potential Effect (APE) investigated as part of this project includes four parcels (A, B, C, and D) where new construction will involve ground-disturbing activities. These parcels combined encompass an approximately 8.95 acre (3.62 hectares) area.

The purpose of this Phase I cultural resource assessment was to identify and document any cultural resources within the Area of Potential Effect that may be eligible for inclusion in the National Register of Historic Places (NRHP) and to assess whether these resources will be adversely impacted by the proposed project. Fieldwork for the project was conducted from January 31 to February 2, 2017.

The Phase I archaeological survey consisted of systematic shovel testing, pedestrian survey, and deep auger testing of all areas where ground disturbance is planned and the evaluation of the Cabell Cemetery (46KA691) located immediately east of the APE. The Phase I archaeological investigations identified one previously unrecorded archaeological site, 46KA692, a small prehistoric lithic scatter consisting of five pieces of lithic manufacturing debris. All prehistoric artifacts were recovered from a heavily disturbed context that contained modern materials from the construction and demolition of the modern structures formerly associated with the West Virginia Division of Rehabilitation Services. Due to the limited spatial extent, limited artifact assemblage, and heavy disturbance at the site, TERRADON recommends that 46KA692 is not eligible for inclusion in the NRHP.

The Cabell Cemetery (46KA691) on the eastern boundary of the APE evaluated as part of this assessment contains 27 interments dating from the late 19th century through the early 21st century. This cemetery contains the graves of several individuals significant to the town of Institute, West Virginia and satisfies NRHP eligibility Criterion B. However, the cemetery has not retained the degree of integrity necessary to be recommended as eligible for the NRHP. Furthermore, the individual graves of the significant persons are not eligible for the NRHP due to the same reasons of diminished integrity. Although the Cabell Cemetery lacks the integrity required to merit individual distinction in the NRHP, it has characteristics that may allow it to be included as part of a larger Institute / WVSU historic district. The cemetery will be avoided in its entirety by the proposed project. The proposed paving of a parking area to the west of the cemetery will not affect the ability of the cemetery to be included as part of a potential future historic district.

Based on the results of these investigations, no prehistoric or historic resources eligible for listing in the NRHP will be affected by the proposed undertaking. It is recommended that no additional archaeological investigations are necessary within the APE. However, should intact archaeological deposits or human remains be identified during construction, all work in the area of discovery should cease and the West Virginia Division of Culture and History and the lead federal agency representative be immediately notified.

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APPENDIX A. WEST VIRGINIA SITE FORM

NR rating: _____

WEST VIRGINIA ARCHAEOLOGICAL SITE FORM

Revised 2010

Type of Form (Check One): New Form Revised Form

1. Site No.: 46KA692

2. Site Name: FS-1

3. County: Kanawha

4. 7.5' Quadrangle: St. Albans, WV

5. UTM Zone (circle one): X 17 18 NAD: NAD83

Northing: 4248002.98 Easting: 432686.56

Northing: _____ Easting: _____

6. Location Description: Site is located on the West Virginia State University (WVSU) Campus in Institute, WV. Site is within the former West Virginia Division of Rehabilitation Services property approximately 50 m (164.0 ft) NW of the intersection of Barron Drive and Stadium Drive.

7. Ownership (Name/Address/Tenant): WVSU _____

8. Temporal Affiliations: Prehistoric Protohistoric Historic Prehistoric and Historic

9. Prehistoric Temporal Period(s) Represented: Unassigned Paleoindian Archaic, E M L

Woodland, E M L Late Prehistoric Protohistoric

10. Historic Temporal Period(s) Represented: 1700-1750 1751-1800 1801-1850

1851-1900 1901-1950 1951-Present Unassigned

11. Prehistoric Site Type (select as many as appropriate): Lithic Scatter Cave/Rockshelter

Habitation: Village Hamlet Extractive: Quarry Workshop

Earth Mound Stone Mound Earthwork Burial Area Petroglyph/Pictograph

Other _____

12. Historic Site Type (select as many as appropriate): Residential Farmstead

Commercial Industrial Military Trail/Trace/Road Other _____

Is site associated with any standing structures? Yes No

Has a WV Historic Inventory Form been completed for the structure? Yes No

13. Site Condition: Unknown Undisturbed Destroyed Disturbed

Site Number: _____

2

(**explain**): All prehistoric artifacts were recovered from a heavily disturbed context that also contained modern materials from the construction and demolition of the c. 1971 structures formerly associated with the West Virginia Division of Rehabilitation Services. Site consists of five pieces of non-diagnostic lithic manufacturing debris from three positive shovel test pits.

14. Describe current land use: Site located in courtyard area of former West Virginia Division of Rehabilitation Services buildings. Buildings formerly encompassing the courtyard and site have been demolished. Currently a vacant lot with remnants of the building foundations, sidewalks, and parking areas remaining.

15. Topographical Location: Floodplain Terrace 1 2 3 Ridgetop
 Gap/Saddle Hillside/Bench Bluff Other: _____

16. Physiographic Province: Appalachian Plateau Transitional Ridge and Valley

17. Soils: Soil Association Urban Land - Kanawha _____

Soil Series-Phase/Complex Urban Land - Kanawha Complex _____

18. Vegetation: Cleared; short grass, single oak tree **19. Elevation:** _____ 595 _____ (ft/m amsl)

20. Slope %: _____ 0-1% _____ **21. Slope Direction:** South - Southwest _____

22. Nearest Water Source (select only one, as appropriate):

Name: Kanawha River _____ Spring River Perennial Stream

Intermittent Stream Swamp/Bog Other: _____

Major Drainage (name): Kanawha River _____ **Minor Drainage (name):** _____

23. Distance to water (ft/m) _____ 777.6 ft / 237 m _____ (horizontal) _____ ~30 m _____ (vertical)

24. Site Area (Dimensions in meters): _____ ~ 10 m x 10 m _____

Basis for site area estimate: Paced Taped Historic Maps Aerial Photograph

Transit/Alidade Unrecorded Other _____

25. Site Description (include description of site, setting, nature and location of artifacts and concentrations, features, and significance of site in a local or regional context. Use Continuation Sheet if necessary:

The site is a small, prehistoric lithic scatter in a heavily disturbed context. A total of five prehistoric artifacts, all of which were lithic manufacturing debris, were recovered from three positive shovel test pits. No diagnostic artifacts were recovered and no features were encountered.

The site is located on the floodplain of the Kanawha River approximately 50 m (164.0 ft) NW of the intersection of Barron Drive and Stadium Drive on the campus of West Virginia State University. The site is located in the former courtyard of the building complex, which was demolished sometime between 2012 and 2015 and formerly associated with the West Virginia Division of Rehabilitation Services (WV DRS).

Site Number: _____

3

WEST VIRGINIA ARCHAEOLOGICAL SITE FORM CONTINUATION SHEET

The prehistoric materials were found in direct association with modern materials, including screw-top amber bottle glass, clear glass, ferrous metal bolts, plastic, ceramic tile, etc. associated with the construction and demolition of the buildings formerly located at the site. The construction of the WV DRS structures occurred sometime between 1971 and 1976. Due to the limited spatial extent, limited artifact assemblage, and heavy disturbance at this site, it is not considered significant in a local or regional context.

26. Investigation Type (select as many as appropriate): Examination of Collection

Pedestrian Survey Surface Collection Shovel Tests Test Unit(s)

Test Trench(es) Deep Test(s) Auger/Soil Corer PZ Removal

Mitigation/Block Excavation Aerial Photographs Remote Sensing

Unknown Other: _____

27. Surface Collection Strategy (select as many as appropriate):

Not Applicable Grab Sample Diagnostics Controlled-Total Controlled-Sample

Other (specify): _____

28. Surface Visibility (select only one as appropriate): None Less than 10% 11-50%

51-90% 91-100% Unrecorded

29. Has site been excavated? Yes No Estimated Percentage of Site Excavated: _____

30. Artifacts Collected (estimate percentage of artifacts collected): 100% of artifacts observed

Prehistoric Artifacts Collected (select as many as appropriate; include frequencies):

Lithics: Debitage Tools _____ Projectile Points _____ FCR _____

Ceramics: Rim Sherds _____ Body Sherds _____ Faunal Remains _____

Botanical Remains _____ Human Skeletal Remains _____ Other _____

Historic Artifacts Collected (select as many as appropriate; include frequencies):

Architectural: Bricks _____ Window Glass _____ Nails _____ Other _____

Ceramics _____ Bottle Glass _____ Military _____ Weapons _____ Personal _____

Food Remains _____ Metal _____ Other _____

Provide a brief description of diagnostic artifacts: No diagnostic artifacts recovered

31. Curation Location: TERRADON Corporation, 425 N. Jefferson Street, Lewisburg, WV 24901 _____

32. Is Site Eligible to NRHP?: Yes No Unevaluated Unknown

Explain: Site has been significantly disturbed by modern development associated with the West Virginia Division of Rehabilitation Services. All prehistoric artifacts were found in direct association with modern materials, including screw-top amber bottle glass, clear glass, ferrous metal bolts, plastic, ceramic tile, etc.

Site Number: _____

5

associated with the construction and demolition of the buildings formerly located at the site. Due to the limited spatial extent, limited artifact assemblage, and heavy disturbance at this site, it is not considered significant in a local or regional context and not eligible for the NRHP _____

33. Form Prepared by: Andrew J. Weidman, MA, RPA _____

34. Affiliation: TERRADON Corporation _____

35. Address: P.O. Box 1635, Lewisburg, WV 24901 _____

36. Phone Number: (865) 385-0012 _____ **37. E-Mail: andrew.weidman@terraddon.com**

38. Date of Fieldwork: Feb. 2, 2017 _____ **39. Date Form Prepared: Feb. 8, 2017** _____

40. References (Please note any bibliographic references): _____

41. Map (Attach portion of USGS quadrangle map and sketch location with nearest landmarks and other recorded sites; include north arrow, key, and scale)



**West Virginia Division of Culture and History
State Historic Preservation Office
1900 Kanawha Blvd., East
Charleston, WV 25305
(304) 558-0220**

This program receives federal funds from the National Park Service. Regulations of the U.S. Department of the Interior prohibit unlawful discrimination in departmental Federally Assisted Programs on the basis of race, color, national origin, age, or handicap. Any person who believes he or she has been discriminated against in any program, activity, or facility operated by a recipient of Federal Assistance should write to: Director, Equal Opportunity Program, U.S. Department of the Interior, National Park Service, P.O. Box 37127, Washington, D.C. 20013-7127.

APPENDIX B. WEST VIRGINIA CEMETERY FORM

West Virginia Cemetery Inventory Form NR rating: _____

(Revised 26 September 2014)

1. Trinomial Number (OFFICE USE ONLY): _____
2. Cemetery Name, Historic: Cabell Cemetery Cemetery Name, Common: Cabell Cemetery
3. County: Kanawha 4. 7.5' Quadrangle Name: St. Albans
5. UTM Zone: 17S NAD: NAD83
Easting: 432709.93 Northing: 4247987.79
Easting: _____ Northing: _____
6. Location: On campus of West Virginia State University at the intersection of Barron Drive and Stadium Drive on the west side of Barron Drive.
7. Ownership: Public: Municipal _____ County _____ State _____ Federal _____
Private: Family _____ Church _____ Denomination _____
Fraternal _____ Other West Virginia State University
8. Burial Population: Predominantly African American, one known Euro-American
9. Predominant Surnames: Brown, Cabell (Cabble), Calloway, Curtis, Howard, Thurman
10. Mass Grave: Yes _____ No X Explain: All individual interments
11. Public Accessibility: Unrestricted X
Restricted _____
For permission to visit, contact _____
12. Access into cemetery: By foot X By car X
13. Terrain: Terrace
14. Bounded by: Fence X Wall _____ Hedge _____ Other _____
15. Condition: Well-maintained X Poorly maintained _____ Overgrown, easily identifiable _____
Overgrown, unidentifiable _____ Unidentifiable, but known to exist through tradition or other means (identify source) _____
16. Disturbances: None observed
17. Cemetery Size and Orientation (please give dimensions in feet, and indicate compass direction for long and short axis): 52 ft (115 degrees) x 90 ft. (25 degrees)

West Virginia Cemetery Inventory Form NR rating: _____

Trinomial Number: _____ Cemetery Name: Cabell Cemetery

18. Historical Background (use continuation sheet if necessary): Cabell Cemetery (sometimes spelled "Cabble") is a small family and community cemetery for the town of Institute, WV and the former African-American community that predates the town. The earliest grave marker in the cemetery dates to July 18th, 1865 and marks the resting place of Samuel I. Cabell. See Continuation Sheet below

19. Gravestones (Please list the number of gravestones that fit in the categories below. If this is guess or an approximation, put "circa" before the number. Include photographs and/or sketches of representative decorative carvings.):

Number of headstones 23 Number of burials 27 Footstones? Yes X No _____

Number of gravestones with burial dates from the 18th century 0 19th century 2

*Unknown n=1 20th century 24 21th century _____

Please list the earliest headstone date 1865 Most recent date 2000

Number of gravestones of each material: Slate _____ Marble 2 (?) Granite 20
Sandstone _____ Fieldstone _____
Other Metal - 1

Number of gravestones that are: Readable 23 Eroded _____ Badly Tilted _____
Cracked/Broken _____ Broken but standing _____ Broken, no longer standing _____
Location of stones no longer standing _____

Restoration efforts, if any: Cemetery is well maintained. Black paint (?) lettering has been superimposed onto original chiselled name and dates of Samuel I. Cabell grave marker.

20. Attachments: 1) a copy of the topographic quadrangle map indicating the cemetery's location, 2) general photograph(s) of the cemetery showing its setting and/or location, and 3) a list or copies of any reference information about the cemetery (books, personal communication, etc.).

21. Recorder: Andrew Weidman, MA, RPA - TERRADON Date: January 31, 2017

Address: P.O. Box 1635 Telephone Number: (865) 385-0012
Lewisburg WV, 24901

Please return form to:
WV State Historic Preservation Office
The Cultural Center
1900 Kanawha Boulevard, East
Charleston, West Virginia 25305-0300

□

Cabell Cemetery

Cabell Cemetery (sometimes spelled “Cabble”) is a small family and community cemetery that served the community of Institute, WV and the former African-American community that predates the town. The earliest grave marker in the cemetery dates to July 18th, 1865 and marks the resting place of Samuel I. Cabell. Cabell was a wealthy plantation owner whose life heavily influenced the history of the town of Institute and of West Virginia State University (formerly West Virginia Colored Institute (1891-1915), West Virginia Collegiate Institute (1915-1929), and West Virginia State College (1929-2004).

Cabell, who came from a highly influential landowning family, acquired a number of slaves while living in Virginia. Cabell relocated to the Kanawha Valley to contract out his slaves as workers in the salt operations that were prominent in the valley at the time. While in the Kanawha Valley, Cabell married one of his slaves, Mary Barnes (Cabell), and the two would eventually have 13 children together. Mary and an their child, Soula Cabell, are buried next to Samuel (Haught 1971).

Cabell purchased the land where the cemetery stands and the surrounding 967 acres in 1853 for the purpose of establishing a plantation. By then, Cabell had already granted freedom to his former slave wife and children. In his will, he ordered that his estate be divided between his wife and children upon his death (Haught 1971). Perhaps because of this, or perhaps because of his support for the Confederacy, or perhaps due to his abrasive personality, Cabell was murdered in 1865 and buried I the cemetery that holds his name. Following his death, Cabell’s descendants and other African-Americans formed an African-American community referred to as both Cabell Farm and Piney Grove. This community would one day grow into what is now Institute.

In 1890, U.S. Congress passed the Second Morrill Act, stating that certain funding would be withdrawn from states that did not provide educational opportunities for African-Americans. The West Virginia governor and legislature sought a home for the newly designated “West Virginia Colored Institute” only to find that no community was willing to grant them the land. However, the African-American community at institute welcomed the idea and the inhabitants, including Samuel Cabell’s daughter, Marina, sold the state the 80-acre tract, which eventually became known as Institute (Haught 1971).

A detailed account of the Samuel I. Cabell family history in Institute is provided by Haught (1971), which is included with this form as an attachment.

In addition to the Cabell family, Austin Wingate Curtis, Sr. is buried at the Cabell cemetery along with his wife, Dora Brown (Curtis), granddaughter of Samuel and Mary Cabell. Curtis, Sr. was prominent agriculturalist and founder of the WVSU Department of Agriculture. Curtis served as the chair of the Department of Agriculture for 46 years and wrote a number of popular books on agriculture and gardening.

Austin and Dora Curtis are also the parents of Austin Wingate Curtis, Jr. a prominent African-American figure and agriculturalists. Curtis, Jr. is best known for his collaboration with George Washington Carver at the Tuskegee Institute where they researched a variety of uses for agricultural products, namely sweet potatoes and peanuts (Orr 2005). The Curtis House, located approximately 260 m NE of the cemetery, served as the home for Curtis, Sr. and Curtis, Jr. and has been recommended as eligible for inclusion on the NRHP (KA4929; Orr 2005).

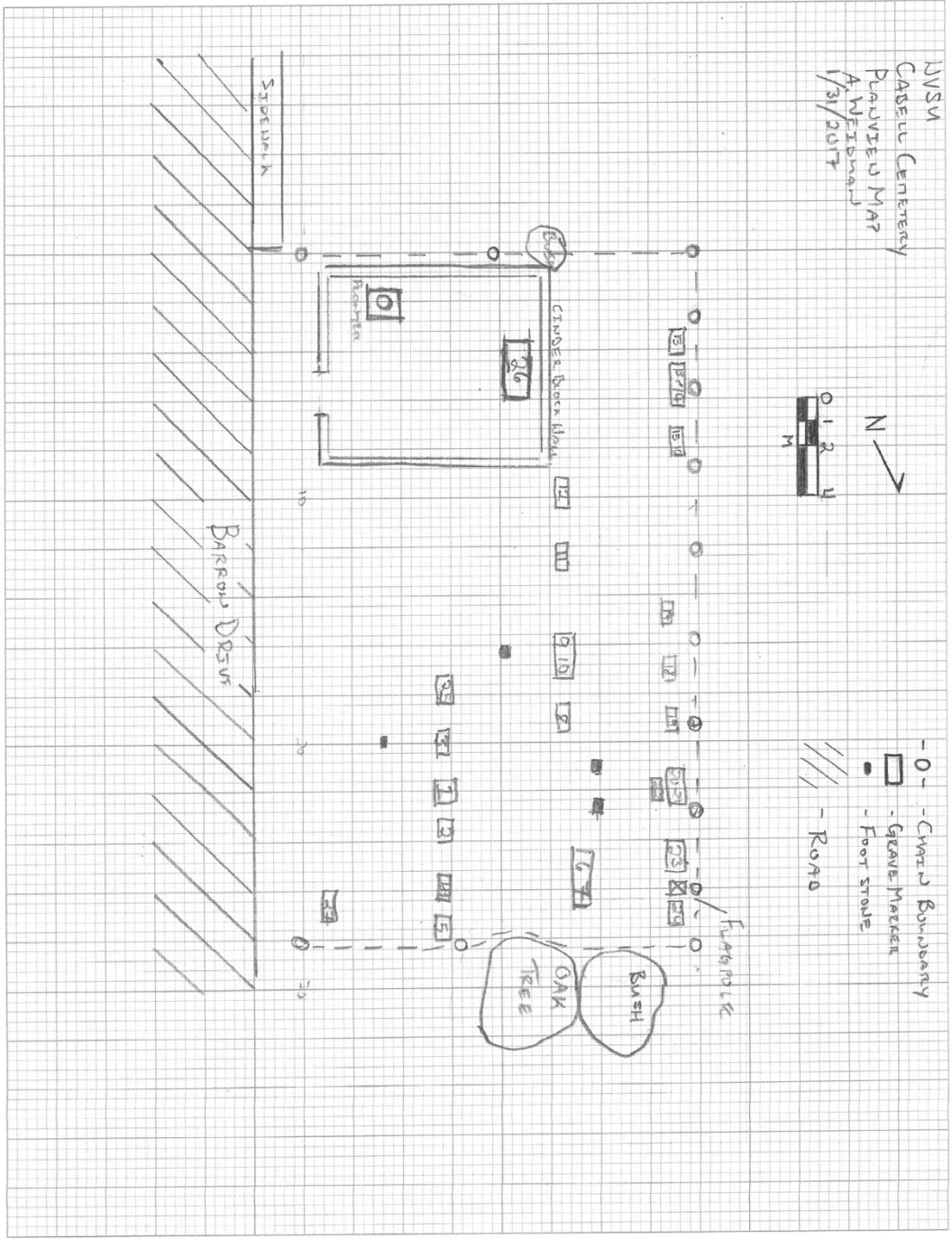
□

Haight, James A.

1971 Institute: It Springs from Epic Love Story. *West Virginia History*. Volume 32, Number 2 (January 1971), pp. 101-107.

Orr, Michael L.

2005 Phase I Archaeological Survey at 99 Barron Drive, West Virginia State University, Institute, West Virginia. Cultural Resource Analysts, Inc. *On file at West Virginia Division of Culture and History*.



Cabell Cemetery Planview Sketch map.1/31/2017.

Cabell Cemetery Burials, West Virginia State University, February 2017

ID#	Name	Birth	Death	Notes
1	Samuel I. Cabble	Unknown	July 18, 1865	"In his 63rd of his age"
2	Mary Cabell	1815	1900	
3	Soula I. Cabble	May 29, 1848	September 30, 1859	d/o Samuel & Mary Cabell
4	Austin Wingate Curtis Sr.	May 17, 1872	March 23, 1950	
5	Dora (Brown) Curtis	December 19, 1875	February 1, 1960	
6	Henry Augustus Brown	July 7, 1918	August 19, 1981	s/o Winfield Augustus & Eva Brown
7	Alice (Brown) Ridley	May 5, 1920	No Date	d/o Winfield Augustus & Eva Brown
8	Andrew Scott Calloway	1934	1983	SN US Coast Guard, Korea
9	Alice Brown	1852	1922	w/o Scott Brown
10	Scott Brown	1850	No Date	
11	Graydon (Cabell) Brown	1909	1924	
12	Elmo Sidney Thurman	1887	1952	
13	Andrew H. Calloway	June 17, 1899	June 24, 1984	
14	Thelma Brown	July 13, 1903	October 24, 1987	w/o Andrew H. Brown
15	Daisy J. Brown	January 20, 1905	No Date	w/o of Basil E. Brown
16	Basil E. Brown	November 16, 1897	August 17, 1969	
17	Jennie (Cabell) Thurman	June 3, 1889	October 30, 1963	
18	Hassie (Brown) Howard	February 18, 1881	December 18, 1960 (?)	
19	Rosceo Ward Howard	May 15, 1881	June 17, 1965	
20	Lottie F. Brown	1874	1959	w/o Leonard N. Brown
21	Leonard N. Brown	1872	1956	
22	Elizabeth (Brown) Peacock	October 15, 1912	September 12, 1989	d/o Leonard N. & Lottie F. Brown
23	Winfield Augustus Brown	November 9, 1886	May 31, 1950	
24	Eva (Calbert) Brown	June 15, 1884	September 14, 1942	w/o W. A. Brown
25	Ruth Holt Cabell	October 3, 1902	August 25, 1999	
26	J. McHenry Jones	1859	1909	
27	Alice C. Fort	Oct 18, 1908	April 24, 2000	

APPENDIX C. PROJECT CONSTRUCTION PLANS



F. RAY POWER BUILDING DETERMINATION OF EFFECTS REPORT



2/27/2017

West Virginia State University



Prepared for Terradon Corporation

P.O. Box 519, Nitro, WV 25143

By Aurora Research Associates LLC

1436 Graham Road, Silver Lake, OH 44224

F. Ray Power Building Determination of Effects Report

WEST VIRGINIA STATE UNIVERSITY

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PROJECT BACKGROUND

West Virginia State University (WVSU) acquired the F. Ray Power Building and surrounding property in 2013. The property was formerly the site of the West Virginia Vocational Rehabilitation Center beginning in the late 1950s through 2011. WVSU plans to renovate the F. Ray Power Building, constructed in 1975, for academic use and to augment the site with new vehicular circulation patterns, parking areas, sidewalks and other activities.

PROJECT AREA DESCRIPTION AND HISTORY

The project area is located in Institute, Kanawha County, West Virginia, adjacent to the campus of West Virginia State University, the state's historically black land-grant college. It is bordered on the south by the Kanawha River and on the west by the Bayer Crop Science chemical manufacturing facility. West Virginia State University was founded in 1891 as the West Virginia Colored Institute under the Second Morrill Act of 1890 which established black land-grant colleges. It was renamed the West Virginia Collegiate Institute in 1915, West Virginia State College in 1929 and finally West Virginia State University in 2004.¹

In 1919, three black West Virginia legislators, T.G. Nutter, Harry J. Capehart and John V. Coleman, succeeded in 1919 in passing a bill for the establishment of a school for deaf and blind black children in West Virginia. The West Virginia School for the Deaf and Blind had been established in Romney in 1870 but was segregated. Black West Virginian children who were deaf or blind were sent to the Maryland Institution for Colored Blind and Deaf-Mutes with funding from the West Virginia School for the Deaf and Blind. It took until 1925 for the state legislature to appropriate the money for construction of the West Virginia School for the Colored Deaf and Blind.² The school was located in Institute, presumably to take advantage of the resources offered by the West Virginia Collegiate Institute. Historic Sanborn maps show that in 1933, the property consisted of the main Neoclassical structure, which contained administration and dormitories, and two two-

¹ Thorn, Arline R. "West Virginia State University." e-WV: The West Virginia Encyclopedia. 18 July 2016. Web. 27 February 2017.

² Museum of the American Printing House for the Blind. "West Virginia School for the Colored Deaf and Blind." <https://www.aph.org/museum/programs/colored-schools/west-virginia/>. Accessed 27 February 2017.

F. Ray Power Building Determination of Effects Report

story structures labelled “trades and school buildings” that formed a courtyard behind the main building. The structures were separate and connected by walkways. Campus Drive, which is no longer extant, passed directly in front of the main building. There was also a four-stall auto garage.³ A gymnasium and auditorium was constructed in 1950.⁴

The school operated until 1954, when the landmark Supreme Court case *Brown vs. Board of Education* desegregated public schools and the students were integrated into the WV School for the Deaf and Blind at Romney. Newspaper articles indicate that the property was being used as the State Vocational Rehabilitation Center by 1958, when a “new wing” was dedicated at the site. Construction of additional buildings at the site continued through the 1970s. The F. Ray Power Building was constructed in 1975. The Rehabilitation Center provided both residential and outpatient therapy and training for disabled people. It included dormitories, recreational facilities, classroom space and vocational training facilities. The Rehabilitation Center ceased operation as a residential and outpatient facility in 2007. The F. Ray Power Building continued to be used as administrative offices for the West Virginia Division of Rehabilitation Services until 2011. West Virginia State University acquired the entire property in 2013 and a number of structures were demolished in 2016.

SURVEY METHODOLOGY

Courtney Zimmerman of Aurora Research Associates LLC (ARA) visited the site on February 21, 2017. Ms. Zimmerman documented the site using photography and performed an historic survey of the structures within the vicinity of the F. Ray Power Building. The Area of Potential Effect (APE) included standing structures within the immediate vicinity of the F. Ray Power Building. Three structures 50 years of age or older were documented within the APE, as follows:

- KA-7356: West Virginia School for the Colored Deaf and Blind/West Virginia Rehabilitation Center Building C

³ EDR. *Certified Sanborn Map Report: WVSU EA*. 1950 and 1933 Source Sheets. Digital report on file at Terradon Corp., Nitro, WV. June 17, 2016.

⁴ “Board to Award Two Contracts.” *Charleston Daily Mail*. 15 March 1950. P 20.

- KA-7357: West Virginia School for the Colored Deaf and Blind Gymnasium/West Virginia Rehabilitation Center Building A
- KA-7358: West Virginia School for the Colored Deaf and Blind Auto Garage/West Virginia Rehabilitation Center Building E

SURVEY RESULTS

The project area has gone through significant alterations including multiple additions, constructions and demolitions. However, the original West Virginia School for the Colored Deaf and Blind is still extant and readily recognizable. The building is significant under Criterion A on a state level for its role in education of black and disabled children, and as a representation of the history of segregation in the state. It retains sufficient integrity of design, location, setting, feeling and association to convey its significance. Although it does possess significance under Criterion C as an example of institutional Neoclassical design, alterations including window replacements and infill additions have compromised its integrity of materials and workmanship, and thus it is not eligible under Criterion C.

The gymnasium building/Rehab Center Building A and the auto garage/Rehab Center Building E have both undergone multiple large scale additions that obscure the buildings' original purpose, design and role in the history of the school. Neither are these buildings significant in their later roles as part of the West Virginia Vocational Rehabilitation Center. Although the center helped many disabled people with rehabilitation and vocational training, it is not historically significant in the context of education and social services in the state. Furthermore, most of the buildings associated with the Rehab Center have been demolished and/or did not meet the age requirement for the National Register.

The F. Ray Power Building was constructed in 1975 and does not meet the age requirement for the National Register of Historic Places.

DETERMINATION OF EFFECT

The proposed project is confined to the footprint and immediate surrounding area of the F. Ray Power Building, which is not listed in or eligible for the National Register of Historic Places. The proposed activities will not affect the physical fabric of West Virginia School for the Colored Deaf and Blind, nor will they adversely affect the setting. Therefore it is

concluded that the project will have no adverse effect to any properties listed in or eligible for the National Register of Historic Places.

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APPENDIX A
PROJECT AREA MAP

APPENDIX B
PHOTOGRAPHS



1. F. Ray Power Building, looking south.



F. Ray Power Building Determination of Effects Report

2. WV School for the Colored Deaf and Blind, looking north.



3. WV School for the Colored Deaf and Blind, looking south from F. Ray Power Building.



4. WV School for the Colored Deaf and Blind Gymnasium, looking southeast from F. Ray Power Building



5. WV School for Colored Deaf and Blind east wing, looking north.



6. WV School for Colored Deaf and Blind auto garage, looking west.



7. WV School for Colored Deaf and Blind environs, looking west



8. WV School for Colored Deaf and Blind west wing, looking south

West Virginia State University F. Ray Power Building Renovation Historic Resource Map



Google Earth



Historic Resource Map

KA-7356: West Virginia School for the Colored Deaf and Blind/WV Vocational Rehabilitation Center Building C

KA-7357: WV School for the Colored Deaf and Blind Gymnasium/Rehab Center Building A

KA-7358: WV School for the Colored Deaf and Blind Auto Garage/Rehab Center Building E

 Area of Potential Effect

February 27, 2017

Aurora Research Associates LLC

1436 Graham Road

Silver Lake, OH 44224

Internal Rating: _____



WEST VIRGINIA HISTORIC PROPERTY INVENTORY FORM

Street Address Barron Drive	Common/Historic Name/Both <input type="checkbox"/> Common <input type="checkbox"/> Historic <input checked="" type="checkbox"/> Both West Virginia Colored School for the Deaf & Blind/ Bldg C	Field Survey #	Site # (SHPO Only) KA 7356
Town or Community Institute	County Kanawha	Negative No.	NR Listed Date NR
Architect/Builder	Date of Construction 1925 <input type="checkbox"/> Circa	Style (SHPO Only)	
Exterior Siding / Materials Brick	Roofing Material Slate	Foundation	
Property Use or Function Education	UTM Zone 17 NAD Easting 432612 Northing 4248135		
Survey Organization & Date Aurora Research Associates LLC 2/21/2017	Quadrangle Name Saint Albans		
Part of What Survey / FR#			



Site No.

Name: West Virginia Colored School for the Deaf & Blind/ Bldg C

Survey #: KA 7356

Survey/FR#:

Present Owners West Virginia State University	Owners' Mailing Address PO Box 1000 Institute, WV 25112
Describe Setting This property is located in Institute, West Virginia, in Kanawha County between Interstate 64 and the Kanawha River. The West Virginia State University campus is located to the southeast and a large industrial plant is located to the northwest. The building is located on a large flat river valley lot and was part of a large complex of buildings, many of which have been demolished.	Acres <input type="checkbox"/> Artifacts Present
Description of Buildings or Site (Original and Present) See continuation sheet.	3 Stories 11 Front Bays
Alterations <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Enclosure of side porches ca. 1955; Window replacements ca. 2009	
Additions <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Side wings connected ca. 1960 Courtyard infill ca. 1970.	
Describe all Outbuildings	
Statement of Significance See continuation sheet.	
Bibliographical References See continuation sheet.	
Form Prepared By: Name/Organization: Courtney Zimmerman Address: 1436 Graham Road Silver Lake, OH 44224 Phone #: 304-685-7410	Date: 2/21/2017 Aurora Research Associates LLC

WEST VIRGINIA HISTORIC PROPERTY FORM

CONTINUATION SHEET

Name: West Virginia Colored School for the Deaf & Blind/ Bldg C

Survey #: KA 7356

Survey/FR#:

Description of Buildings or Site

This is a three-story brick building with a hipped slate roof. The building originally consisted of the primary main building with two detached two-story wings located behind and oriented perpendicular to the main structure. The main building is a formal Neoclassical design dominated by a two-story portico across the central three bays. The ground floor forms the base of the building and is demarcated with a pronounced sandstone water table band above the ground floor windows. The main entrance and *piano nobile* are located on the first floor and are accessible via a large split staircase with cast iron railing leading to the portico. The portico consists of Corinthian columns: two sets of paired columns at each corner and two single columns spaced evenly across the front. There are single pilasters where the portico meets the wall. The cornice and pediment contain dentils and modillions and a semi-circular fan-shaped window. The portico appears to be constructed of stone or concrete and wood. The main entrance is a double door, currently covered with plywood, with a surround consisting of pilasters, entablature, broken pediment and a 5-light transom. Windows on the ground floor consist of simple rectangular openings currently covered with plywood. Windows on the first floor are 12-over-1 aluminum sashes with a semicircular brick arch, stone keystones, springers, and sills and a stacked header decorative brick pattern in the semicircular area between the arch and lintel. Windows on the top floor are 12-over-1 replacement aluminum sashes beneath a brick soldier course at the top of the wall. The windows in the bay to the left of the portico have been infilled with brick on all three stories. Air conditioning vents have been installed beneath most of the windows on the ground and first floors. The main building has two-story hipped-roof wings extending out from each side that were formerly covered porches. They were enclosed and now contain paired 6-over-1 wood sash windows on the front bay and paired 8-over-1 wood sash windows in each of the three bays on the sides. The ground floor windows are covered with plywood. The top floor of the main building above the porch wings in three bays and contains windows similar to the front facade.

The two rear wings are each 5 bays wide and 9 bays long and have hipped asphalt shingle roofs. The outer side facades contain tall window openings with brick flat arches and stone keystones and sills. The fourth and sixth bays from the front (main building) have larger arched window openings that have been infilled with stucco. The fifth bay on the west wing contains a deeply recessed service entrance covered in white and green-flecked glazed tile. The windows on the upper floor consist of 6-over-1 aluminum sashes with stone sills in each bay. There are air conditioning vents installed above the ground floor level sporadically. The rear facade of each wing formerly contained 5 window openings with brick flat arch and stone keystone. Two windows on each rear facade have been infilled with brick and the rest are covered in plywood. Two single door openings have been added to each rear facade.

These three separate buildings have been connected together with several additions. The earliest additions appear to be two-story brick connections between the wings and the rear of the main building. These structures are brick and three bays wide and each contain three paired 6-over-6 aluminum sash windows. The addition on the east side has a deeply recessed ground floor with a steel column supporting the structure above and various boarded doors. The west side contains two boarded window openings. A one-story flat-roof addition behind the main building linking these two additions may have been constructed at the same time. Later, a one-story flat-roof addition was constructed to fill the entire courtyard between the wings, and consists of a band of 12 metal frame windows (currently) boarded with doors on either end and a deep overhang metal fascia roof.

WEST VIRGINIA HISTORIC PROPERTY FORM CONTINUATION SHEET

Name: West Virginia School for the Colored Deaf and Blind/ Building C
Survey Number: KA-7356
Project / FR#:

WV School for CDB continuation sheet

Statement of Significance

This structure was built in 1926 to house the West Virginia School for the Colored Deaf and Blind. Prior to this time, African-American children who were deaf or blind were sent to the Maryland Institution for Colored Blind and Deaf-Mutes with funding from the West Virginia School for the Deaf and Blind in Romney. Three African-American legislators, T.G. Nutter, Harry J. Capehart and John V. Coleman, succeeded in 1919 in gaining approval for the establishment of an institution in West Virginia, but the money was not appropriated until 1926. The school was located in Institute, presumably to take advantage of the resources offered by West Virginia Collegiate Institute (now WV State University), the state's black land-grant college. The school operated until 1954, when the landmark Supreme Court case *Brown vs. Board of Education* desegregated public schools and the students were integrated into the WV School for the Deaf and Blind at Romney.

Historic Sanborn maps show that in 1933, the property consisted of the main Neoclassical structure, which contained administration and dormitories, and two two-story structures labelled "trades and school buildings" that formed a courtyard behind the main building. The structures were separate and connected by walkways. Campus Drive, which is no longer extant, passed directly in front of the main building. Newspaper articles indicate that the property was being used as the State Vocational Rehabilitation Center by 1958, when a "new wing" was dedicated at the site. Construction of additional buildings at the site continued through the 1970s.

The Rehabilitation Center ceased operation as a residential and outpatient facility in 2007. The F. Ray Power Building continued to be used as administrative offices for the West Virginia Division of Rehabilitation Services until 2011. West Virginia State University acquired the entire property in 2013 and a number of structures were demolished in 2016.

This structure is eligible for the National Register of Historic Places under Criterion A for its role in West Virginia educational and black history. It represents both a progressive effort to provide services to disabled black children and the era of segregation. Though the building retains its overall Neoclassical design, alterations including window replacements and infill additions have compromised its integrity of design, workmanship and materials and thus it is not eligible under Criterion C. The building was not found to have any significant link to a notable historical figure and is not eligible under Criterion B. The surrounding landscape is largely disturbed and it is not expected to yield any significance historic or prehistoric information under Criterion D.

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WEST VIRGINIA HISTORIC PROPERTY FORM CONTINUATION SHEET

Name: West Virginia School for the Colored Deaf and Blind/ Building C
Survey Number: KA-7356
Project / FR#:

WV School for CDB continuation sheet

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Overview looking south from F. Ray Power Building.



West Wing looking south.



East Wing looking north.

WEST VIRGINIA HISTORIC PROPERTY FORM CONTINUATION SHEET

Name: West Virginia School for the Colored Deaf and Blind/ Building C
Survey Number: KA-7356
Project / FR#:

WV School for CDB continuation sheet




West Virginia School for the Colored Deaf and Blind, 1943. Image source: WV Division of Rehabilitation Services.
www.wvdrs.org/index.cfm?fuseaction=home.displaystory&groupID=87&itemid=22

Internal Rating: _____



WEST VIRGINIA HISTORIC PROPERTY INVENTORY FORM

Street Address Barron Drive	Common/Historic Name/Both <input type="checkbox"/> Common <input type="checkbox"/> Historic <input checked="" type="checkbox"/> Both WV School for Colored Deaf & Blind Gymnasium/ Building A	Field Survey #	Site # (SHPO Only) KA 7357
Town or Community Institute	County Kanawha	Negative No.	NR Listed Date NR
Architect/Builder Faulkes Brothers of South Charleston	Date of Construction 1950 <input type="checkbox"/> Circa	Style (SHPO Only)	
Exterior Siding / Materials Brick	Roofing Material Built-up (tar paper, gravel)	Foundation	
Property Use or Function Education	UTM Zone 17 NAD 1983 Easting 432679 Northing 4248110		
Survey Organization & Date Aurora Research Associates LLC	Quadrangle Name Saint Albans		
Part of What Survey / FR#			



Site No.

Name: WV School for Colored Deaf & Blind Gymnasium/ Building A

Survey #: KA 7357

Survey/FR#:

Present Owners West Virginia State University	Owners' Mailing Address PO Box 1000 Institute, WV 25112	
Describe Setting This property is located in Institute, West Virginia, in Kanawha County between Interstate 64 and the Kanawha River. The West Virginia State University campus is located to the southeast and a large industrial plant is located to the northwest. The building is located on a large flat river valley lot and was part of a large complex of buildings, many of which have been demolished.	Acres <input type="checkbox"/> Artifacts Present	
Description of Buildings or Site (Original and Present) See continuation sheet	Stories	Front Bays
Alterations <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Additions <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Several large one-story additions ca. 1965		
Describe all Outbuildings		
Statement of Significance See continuation sheet.		
Bibliographical References "Rehab Effort Gains Funds, Head Says." Charleston Gazette. 24 Apr 1974. P 1D. Accessed online at newspaperarchive.com, Feb 27, 2017		
Form Prepared By: Name/Organization: Courtney Zimmerman		Date: Aurora Research Associates LLC
Address: 1436 Graham Road Silver Lake. OH 44224		
Phone #: 304-685-7410		

WEST VIRGINIA HISTORIC PROPERTY FORM CONTINUATION SHEET

Name: WV School for Colored Deaf & Blind Gymnasium/ Building A

Survey #: KA 7357

Survey/FR#:

Description of Buildings or Site

This structure consists of a two-story brick rectangular structure that has been surrounded with multiple additions. The central structure appears to be a gymnasium/auditorium and is 6 bays long. It has a flat roof. Each bay contains a large triple multi-pane metal industrial window unit. The easternmost bays on both sides contain small metal window units. The side facades are plain brick walls. The structure has a large one-story addition surrounding it that contains a band of 36 metal windows each 6 horizontal panes tall on the south side. The flat roof overhangs the windows and has a concrete soffit sloping back towards the top of the windows. The easternmost bay is demarcated by a brick "fin" on the left and a stone "fin" on the right extending from the wall under the roof overhang. It contains a glass door entrance surrounded by metal fixed windows. The band of windows and deep sloping roof overhang is repeated on the north side of the addition.

The next additions appear to be two one-story L-shaped wings extending symmetrically from the north side of the structure to form a courtyard. These are simple brick structures with windows generally consisting of paired metal awning units with 4 horizontal panes each. There is a large entrance bay, now boarded, on the north side of the west wing, and a large garage bay, also boarded, on the west wall of the east wing.

Finally, there is a large one-story flat-roof rectangular addition on the west wide of the structure extending the length of the first addition and partially along the west wing. The south side of this section has a deep roof overhang supported on brick wall piers at either end. The south facade contains three horizontal window openings, currently boarded, over a short brick wall with concrete coping and vertical board paneling above. The west side contains a band of large metal 1-over-1 windows and a small rectangular vestibule with flat roof.

Statement of Significance

This building is adjacent to the former West Virginia School for the Colored Deaf and Blind, which was built in 1926. Newspaper records indicate that a gymnasium/auditorium was constructed for the school in 1950. Based on design and materials, the two-story portion of this building may be the gymnasium. The school was closed in 1955 due to the *Brown vs. Board of Education* Supreme Court ruling requiring integration. The property then became the West Virginia Vocational Rehabilitation Center, which provided rehabilitation and job training for disabled people. The site was greatly expanded throughout the late 1950s into the 1970s with additions and new construction. The multiple additions on this building appear to date from the 1960s.

Due to multiple additions and alterations, this property lacks integrity and is not eligible for the National Register of Historic Places under any criteria. The original gymnasium for the School for the Colored Deaf and Blind is obscured by later additions. Though the WV Vocational Rehabilitation Center provided a vital service to many disabled people between the late 1950s and 2011, it does not possess historical significance under any National Register criteria. Furthermore, the majority of the center's buildings have been demolished.

Bibliography

EDR. *Certified Sanborn Map Report: WVSU EA*. 1950 and 1933 Source Sheets. Digital report on file at Terradon Corp., Nitro, WV. June 17, 2016.


"Funding: Byrd Boosts Rehab Center." *Charleston Daily Mail*. 25 Jan 1974. P 7A. Accessed online at newspaperarchive.com, Feb 27, 2017.

"Kiwanis Told Disabled Aid Now Accepted." *Charleston Gazette*. 20 Aug 1958. P 13. Accessed online at newspaperarchive.com, Feb 27, 2017

Internal Rating: _____



WEST VIRGINIA HISTORIC PROPERTY INVENTORY FORM

Street Address Barron Drive	Common/Historic Name/Both <input type="checkbox"/> Common <input checked="" type="checkbox"/> Historic <input type="checkbox"/> Both Auto Garage/ WV Rehab Center Building E	Field Survey #	Site # (SHPO Only) KA 7358
Town or Community Institute	County Kanawha	Negative No.	NR Listed Date NR
Architect/Builder	Date of Construction 1925 <input checked="" type="checkbox"/> Circa	Style (SHPO Only)	
Exterior Siding / Materials Brick	Roofing Material Asphalt - shingles	Foundation	
Property Use or Function Transportation	UTM Zone 17 NAD 1983 Easting 432610 Northing 4248199		
Survey Organization & Date Aurora Research Associates LLC	Quadrangle Name Saint Albans		
Part of What Survey / FR#			



Site No.

Name: Auto Garage/ WV Rehab Center Building E

Survey #: KA 7358

Survey/FR#:

Present Owners West Virginia State University	Owners' Mailing Address PO Box 1000 Institute, WV 25112
Describe Setting This property is located in Institute, West Virginia, in Kanawha County between Interstate 64 and the Kanawha River. The West Virginia State University campus is located to the southeast and a large industrial plant is located to the northwest. The building is located on a large flat river valley lot and was part of a large complex of buildings, many of which have been demolished.	
Acres <input type="checkbox"/> Artifacts Present	
Description of Buildings or Site (Original and Present) See continuation sheet.	1 Stories Front Bays
Alterations <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Additions <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Describe all Outbuildings	
Statement of Significance See continuation sheet.	
Bibliographical References	
Form Prepared By: Name/Organization: Courtney Zimmerman	Date: Aurora Research Associates LLC
Address: 1436 Graham Road Silver Lake. OH 44224	
Phone #: 304-685-7410	

WEST VIRGINIA HISTORIC PROPERTY FORM

CONTINUATION SHEET

Name: Auto Garage/ WV Rehab Center Building E

Survey #: KA 7358

Survey/FR#:

Description of Buildings or Site

This structure consists of three sections. The oldest is a one-story brick bungalow with rectangular plan and hipped roof. It has a hipped dormer on the front (east) and back (west) sides. Each dormer contains a 4-pane by 4-pane metal casement window with additional 1-over-1 sidelights on either side. The brick wall is laid in a running bond pattern with a Flemish course every 7th course. The top and bottom of the wall is marked by a soldier course. There is a hipped porch roof with deep overhang supported on slender metal columns that extends across the front side and around the corner to the south facade. There is an exterior basement stair with metal railing leading below grade on the front facade. The front facade has one wooden door on the right that is accessed by two concrete stairs and a door on the left at grade that is currently boarded. There is a small one-story brick addition with flat roof to the north of this section that contains a single metal door with square window and rectangular transom, a metal garage door and a sign that says "Laundry." There is also a large brick chimney at the northeast corner of this addition.

This structure has two very long one-story additions extending north and south. The north addition is of mid-century commercial design and has a brick exterior and is approximately 15 bays and 300' long. It has a flat roof with a deep cantilevered metal overhang. The bays contain a mixture of single and double metal doors, large metal industrial awning and hopper windows and large metal garage bay doors. The south addition has Brutalist influences. It has a brick exterior and is approximately 8 bays and 485' long. It has a flat roof with a moderate overhang. The northern half of the south addition contains two recessed entrances separated by large banks of multipane metal hopper windows. The southern half of the south addition contains three bays separated by brick "fins" that extend through and above the roofline. Each bay contains a deeply recessed entrance marked by wide backward-angled walls. Windows consist of evenly-spaced square openings (currently boarded), horizontally-oriented 12-pane (3 wide by 4 high) metal awning windows and large single pane fixed windows (partially boarded).

Statement of Significance

The original section of this building is noted on the 1933 Sanborn maps as a 4-stall auto garage. It was most likely built at the same time as the WV School for the Colored Deaf and Blind or shortly thereafter. The large additions were built in the late 1950s through the 1970s after the West Virginia Vocational Rehabilitation Center took over the property. The north addition may have housed the center's auto repair facility and the south addition appears to have contained classroom space.

Due to multiple additions and alterations, this property lacks integrity and is not eligible for the National Register of Historic Places under any criteria. The auto garage that was part of the School for the Colored Deaf and Blind is obscured by alterations and later additions. Though the WV Vocational Rehabilitation Center provided a vital service to many disabled people between the late 1950s and 2011, it does not possess historical significance under any National Register criteria. Furthermore, the majority of the center's buildings have been demolished.

Appendix F

Project Site: Photo Log
Institute, Kanawha County, West Virginia



Northern Subject Property Facing North (Photo 1)



Northern Subject Property Facing West Toward Bayer Crop Science (Photo 2)



Northern Subject Property Facing Southwest toward Bayer Crop Science (Photo 3)



Northern Subject Property Facing South toward F. Ray Powers Building (Photo 4)



Subject Property and Adjacent Property Facing North Displaying Unnamed Perennial Stream and Associated Vegetation (Photo 5)



Unnamed Perennial Stream Facing South Towards Former Building E of Rehabilitation Center (Photo 6)



Subject Property Natural Gas Well and Regulator Facing Southwest (Photo 7)



Southern Subject Property Storage Buildings (Photo 8)



Southern Extent of Subject Property Facing North Toward Former Building C of Rehabilitation Center (Photo 9)



Center of Subject Property Facing North Toward Former Building C of Rehabilitation Center (Photo 10)



Southwestern Extent of Subject Property Facing East (Photo 11)



Southwestern Extent of Subject Property Maintenance Facility Facing South (Photo 12)



Front of Building C Facing Northeast (Photo 13)



Front of Building C and Building E Facing North (Photo 14)



Area in Between Building C and F. Ray Powers Building Facing East (Photo 15)



Area in Between Building C East Wing Facing South (Photo 16)



Rear of Building C Facing South (Photo 17)



Rear of Building C Facing Northeast (Photo 18)



North (Front) of F. Ray Powers Building Facing South (Photo 19)



Front of F. Ray Powers Building Facing Southwest (Photo 20)



Corridor connecting F. Ray Powers Building to East Wing of Building C (Photo 21)



Front of Building E Facing Southwest (Photo 22)



Center of Subject Property Facing North (Photo 23)



Center of Subject Property Facing East (Photo 24)



Maintenance/ Storage area located on the Southern Extent of the Subject Property (Photo 25)



Cemetery Adjacent to Project Site Facing West Towards Project Site and Bayer Crop Science (Photo 26)



**West Side of Building C Displaying Original Building and West Wing Corridor Extension
(Photo 27)**



Former Airport Watch Tower (Front) Facing West with Building E additions located North and South of the Watch Tower (Photo 28)



Former Airport Watch Tower (Front) Facing Southwest with Building E additions located South of the Watch Tower (Photo 29)



Watch Tower Interior Facing West (Photo 30)



Samaritan Baptist Church Facing Northeast (Photo 31)



Samaritan Baptist Church Facing Northwest (Photo 32)

Appendix G