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APPENDIX

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APPENDIX: MARYLAND HISTORICAL TRUST LETTER

ASSOCIATES, LLP

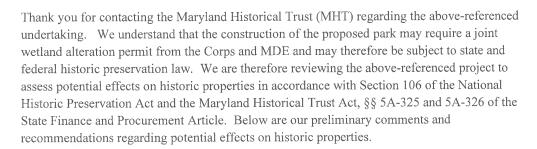


July 15, 2014

Mr. James Ashby Whitman, Requardt & Associates 801 South Caroline Street Baltimore, MD 21231

Re: MHT Review of Ward Road Park, Calvert County, Maryland

Dear Mr. Ashby:



No archeological sites or historic properties have been identified within the project area to date. The project submittal, however, notes that the property is located in the vicinity of several sites that have been recorded in the Maryland Inventory of Historic Properties (MIHP), including the 18th century house known as Red Hall (CT-4) and a Russian Orthodox chapel (CT-73) that has been moved from its original location. MHT files also indicate that several archeological sites (both prehistoric and historic) have been identified to the north and south of the Ward Road Park project area, including one prehistoric site (18CH491) that has been determined to be eligible for listing in the National Register of Historic Places. Given the proximity of these resources, cultural resources investigations may be necessary prior to any construction or ground disturbing activities associated with the park development. We are therefore requesting that we be provided with the information listed below so that we may continue our review of the proposed undertaking and determine whether or not any architectural or archeological investigations are warranted:

 Photographs (print or digital) of all buildings, structures, or ruins located within the project area;

Martin O'Malley, Governor Anthony G. Brown, Lt. Governor Richard Eberhart Hall, AICR, Secretary

Amanda Stakem Conn, Esq., Deputy Secretary

Maryland Historical Trust - 100 Community Place - Crownsville - Maryland - 21032
Tel: 410,514,7600 - Toll Free: 1,800,756,0119 - TTY users: Maryland Relay - MHT, Maryland, gov

- Information regarding the original dates of construction for the buildings located within the project area.
- Site plans, other drawings, and\or a written scope of work illustrating the proposed project.
- A description of the planned treatment (renovation, demolition, etc.) of each building over 50 years of age.

Upon our review of this information, we will be able to provide informed recommendations regarding what, if any, cultural resources investigations are needed.

We look forward to receiving the information requested above and to further coordination as project planning proceeds. If you have any questions or we may be of assistance, please contact Jonathan Sager (regarding historic buildings and landscapes) at jonathan.sager@maryland.gov \ 410-514-7638.

Sincerely,

Dixie L. Henry, Ph.D. Preservation Officer

Maryland Historical Trust

DLH/201401969

APPENDIX: PHASE I ENVIRONMENTAL SITE ASSESSMENT



PHASE I ENVIRONMENTAL SITE ASSESSMENT: **WARD PARK**

JULY 2014

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EXECUTIVE SUMMARY

Calvert County Division of Park and Recreation has requested Whitman, Requardt, & Associates, LLP (WR&A) to prepare a Phase I Environmental Site Assessment (ESA) for the proposed Ward Park located off Ward Road in Dunkirk, MD. According to the Calvert County Recorder, the project site is owned by the Board of County Commissioners of Calvert County and identified as Parcel # 03-106748 / Parcel 70 and Parcel # 03-020045 / Parcel 54 located in Dunkirk, Maryland (herein identified as "project site"). The project site is comprised of approximately 209 acres. This Phase I ESA has not revealed evidence of recognized environmental conditions (RECs) associated with the subsurface at the project site.

Historically, the project site was undeveloped until sometime between 1950-1957 when approximately half of the property was cleared then used primarily for agriculture with two residential homes onsite. The remainder of the project site has remained as undeveloped woodlands.

WR&A conducted the site reconnaissance on April 11, 2014. The project site was surveyed for unusual environmental conditions including discolored or disturbed soil areas, drums, aboveground storage tanks (ASTs), underground storage tanks (USTs), discolored surface water, unusual or noxious odors, transformers, unusual surface features, septic or water supply systems, and groundwater monitoring wells. At the time of WR&A's site reconnaissance the project site consisted of two parcels, Parcel 54 and Parcel 70. Parcel 54, identified with the physical address 10455 Ward Road, consists of approximately 137 acres located south of Ward Road and approximately 32 acres north of Ward Road. Parcel 70, identified with the physical address 10501 Ward Road, consists of approximately 40 acres and is located east of Parcel 54 and south of Ward Road. The entire project site extends north and south of Ward Road and consists of both cleared agricultural areas and undeveloped wooded areas located approximately ½ mile east of the town of Dunkirk, MD. Two residential homes, three large barns and two sheds are located on the project site, specifically within Parcel 54. A vacant caretaker house is located on the north side of Ward Road and the occupied main residence, barns and sheds are located south of Ward Road. WR&A observed indications of three USTs and one underground propane tank onsite, specifically near the occupied residential home. The first UST consists of an old petroleum dispenser and UST port located approximately 85-feet southwest of the home and the project site. WR&A was able to access the UST and determined it to be empty but was unable to determine the tank size. The second tank was observed to be a heating oil UST located along the western side of the home, WR&A did not access this tank and was unable to determine the tank size. The third UST observed during the site reconnaissance was an approximate 250-gallon UST and was observed to be removed from the ground and out of commission and was stored within the barn located approximately 385 feet southeast of the residence. The underground propane tank was observed along the northeastern corner of the home. WR&A did not access the propane tank and was unable to determine the tank size. One padmounted transformer was observed on the west side of the residential home and appeared to be in good condition. Several empty 55-gallon drums were observed in a storage area under one of the barns located southwest of the home and within the eastern most utility shed. Several smaller chemical containers of various sizes, including herbicides, hydraulic oil, coolant and unlabeled chemicals, were also observed within the western most utility shed. No indications of staining were observed around any of the storage tanks, transformer, or chemical storage areas. Two drinking water wells, one near each house, were observed during the site reconnaissance. Evidence of dumping was observed in three areas within the project site. One area, located in the center of parcel 54 contained plastic containers, several 5-gallon buckets and miscellaneous household trash. Another area located on the eastern border of the project site was observed to contain shingles, wood and construction debris. The third area, located near the access road for parcel 70 contained two old couches, some miscellaneous construction debris and approximately



July 2014

a dozen tires. No spills, leaks, noxious odors or indications of monitoring wells were observed on the project site during the site reconnaissance.

WR&A retained Environmental Data Resources (EDR) to perform a search of Federal and State regulatory agency databases for the project site and surrounding vicinity. The EDR report did not identify sites of known environmental concern or regulation associated with the project site but did identify three sites with historic petroleum releases within the search radius.

WR&A submitted a written request to Mr. William Haygood, acting Director of Environmental Health at the Calvert County Department of Health, regarding spills, releases, wells, and other reported environmental concerns associated with the project site. On April 17, 2014 WR&A received a written response which included well and septic information from Mr. Haygood, LEHS, with the Calvert County Health Department, Division of Environmental Health. Mr. Haygood's written response stated that there are no records or information available documenting any violations regarding the property.

Based on WR&A's site visit, the lack of sites identified with known environmental concerns, and topographic reviews of the area and surrounding vicinity, it is unlikely that contamination has adversely impacted the subsurface of the project site.

1.0 INTRODUCTION

1.1 Project Description

Calvert County has requested Whitman, Requardt, & Associates, LLP (WR&A) to prepare a Phase I Environmental Site Assessment (ESA) for the proposed Ward Park located off Ward Road in Dunkirk, MD. According to the Calvert County Recorder, the project site is owned by the Board of County Commissioners of Calvert County and identified as Parcel 70 and Parcel # Parcel 54 both located on Map 006 and located in the Dunkirk, Maryland (herein identified as "project site"). The project site is comprised of approximately 209 acres. A *Site Location Map* is included in this report as *Figure 1*.

1.2 Purpose and Assumptions

WR&A has prepared this Phase I ESA in general conformance with the scope and limitations of ASTM Designation E1527-13: Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, which has been determined to be consistent and compliant with the statutory criteria for all appropriate inquires (40 CFR Part 312 Standards and Practices for All Appropriate Inquiries). Calvert County currently owns the property and is proposing to develop the area as recreational parkland. This Phase I ESA was performed using reasonably ascertainable information in order to identify recognized environmental conditions (RECs) on or around the project site.

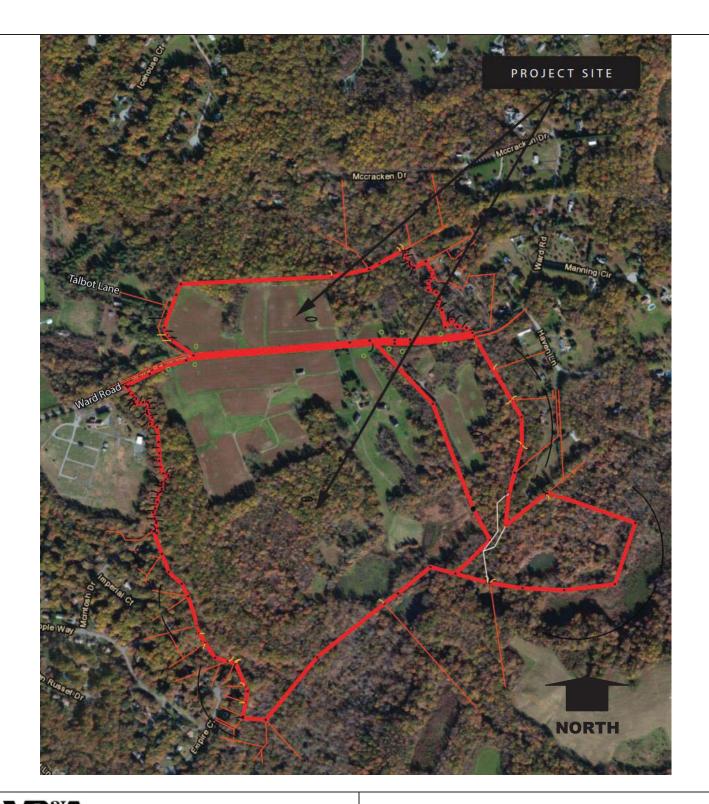
Additionally, it should be noted that portions of this report are based on database information supplied to WR&A by third-party sources. While efforts have been made to substantiate third-party information, such as file reviews, WR&A cannot guarantee its completeness or accuracy.

1.3 Limitations

Information contained in this report is intended to provide Calvert County the necessary level of environmental due diligence to determine if contaminated environmental media or environmental impairments has the likelihood of being encountered during site development. In addition, this information can be used to support regulatory coordination or management methods of contaminated media, if necessary.

Our conclusions regarding this site have been based on observations of existing conditions and our interpretation of site history and site usage data available at the time of report preparation. Therefore, conclusions reached regarding the conditions of this site do not represent a warranty, implied or expressed, that all areas within the project footprint are of a similar quality as may be inferred from observable site conditions and available site history.





Whitman, Requardt & Associates, LLP Engineers Architects Planners SCALE Not to Scale Project Site Location Phase I Environmental Site Assessment Ward Park Dunkirk, Calvert County, Maryland SOURCE Copyright Bing Maps 1

Please be advised that as stated in the ASTM Standard, no environmental site assessment can wholly eliminate uncertainty regarding the potential for environmental liability in connection with the property. Our investigation and analysis is intended to reduce, but not eliminate, the potential for conditions that result in liability for the client.

This report was prepared by Whitman, Requardt & Associates, LLP for the sole and exclusive use of the Calvert County Division of Parks and Recreation. Use and reproduction of this report by any other person without the expressed written permission of Whitman, Requardt & Associates, LLP, and the Calvert County Division of Parks and Recreation is unauthorized, and such use is at the sole risk of the user.

2.0 BACKGROUND INFORMATION

2.1 Topography

The topographic information on the United States Geological Survey (USGS) Topographic Quadrangle Map (Lower Marlboro, MD) for the project site indicates that the ground surface elevation across the project site ranges from approximately 100 feet above mean sea level (AMSL) to 201 feet AMSL on the project site. In general, the project site slopes towards the south towards Hall Creek which flows southeast and eventually discharges into the Patuxent River approximately 3.25 miles to the southwest of the project site. The groundwater flow direction likely mimics the surface topography, which appears to flow south towards Hall Creek at which point it begins flowing west towards the Patuxent River. A *Topographic Map* based on the USGS Topographic Map (Lower Marlboro Quadrangle) is included in this report as *Figure 2*.

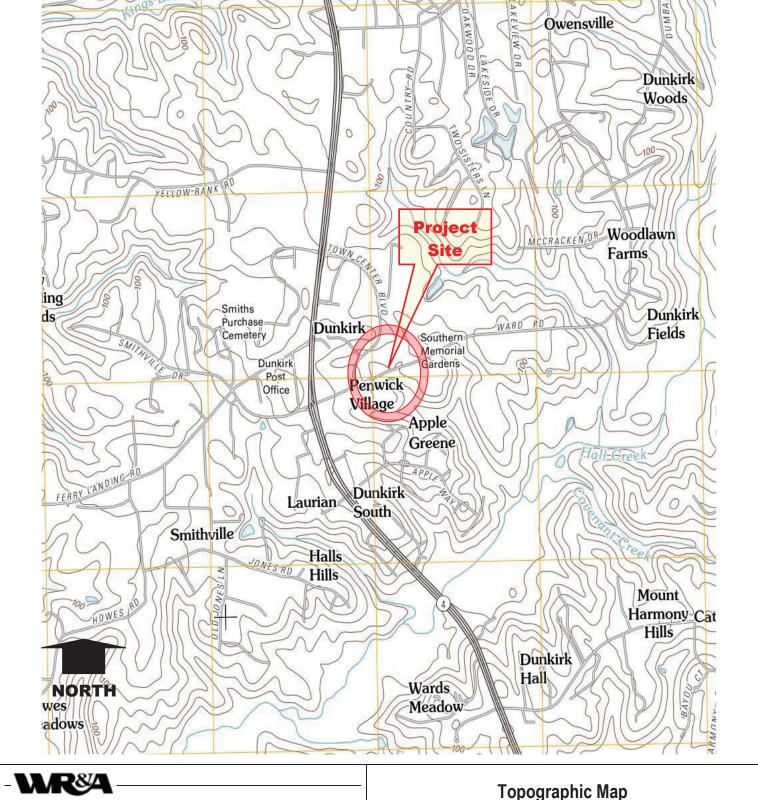
2.2 Soils

According to the soil information provided by the Unites States Department of Agriculture, Natural Resources Conservation Service (NRCS), *Web Soil Survey for Calvert County, Maryland (2013);* the soils underlying the project site are classified as Dodon (Dde) and Marr soils,) Dodon-Marr complex (DmC/DmD, Downer-Woodstown complex (DwE), Ingleside loamy sand (IbC), Ingleside-Evesboro (IeC) , Ingleside-Woodstown (IwC), Marr-Dodon complex (MaB), Rosedale fine sand (RsB) , Woodstown sandy loam (WdA), Zekiah and Issue soils (ZBA).

Dodon and Marr soil is comprised of approximately 50 percent Dodon and 45 percent Marr and five percent minor components; Dodon-Marr Complex is comprised of approximately 65 percent Dodon and 30 percent Marr. Specifically, Dodon soil is a moderately well-drained to well-drained soil derived from loamy fluviomarine deposits with a depth to water table ranging from 15 to 40 inches; Marr soil is a

2





Topographic Map	
Phase I Environmental S Ward Park Dunkirk, Calvert Coun	(
SOURCE USGS TOPOGRAPHIC MAP LOWER	FIGURE 2
_	Phase I Environmental S Ward Park Dunkirk, Calvert Coun

well-drained soil derived from loamy fluviomarine deposits with a depth to water table between 40 to 80 inches.

Downer-Woodstown complex is comprised of approximately 65 percent Downer, 25 percent Woodstown and 10 percent minor components. Downer soil is a well-drained soil derived from loamy fluviomarine deposits and/or gravelly fluviomarine deposits with a depth to water table at approximately 40 to 70 inches. Woodstown soil is a moderately well-drained soil derived from loamy fluviomarine deposits with a depth to water table at approximately 20 to 40 inches.

Ingleside loamy sand is comprised of approximately 80 percent Ingleside and 10 percent Galestown and 10 minor components. Ingleside is a well-drained soil derived from loamy eolian deposits and/or fluviomarine deposits with a depth to water table between 40 to 72 inches.

Ingelside-Evesboro Complex is comprised of approximately 70 percent Ingleside, 10 percent Evesboro and 10 minor components. Ingleside is described above. Evesboro is an excessively drained soil derived from sandy eolian deposits and/or fluviomarine sediments with a depth to water table between 40 to 72 inches.

Ingelside-Woodstown Complex is comprised of approximately 70 percent Ingleside, 20 percent Woodstown and 10 minor components. Ingleside and Woodstown are described above.

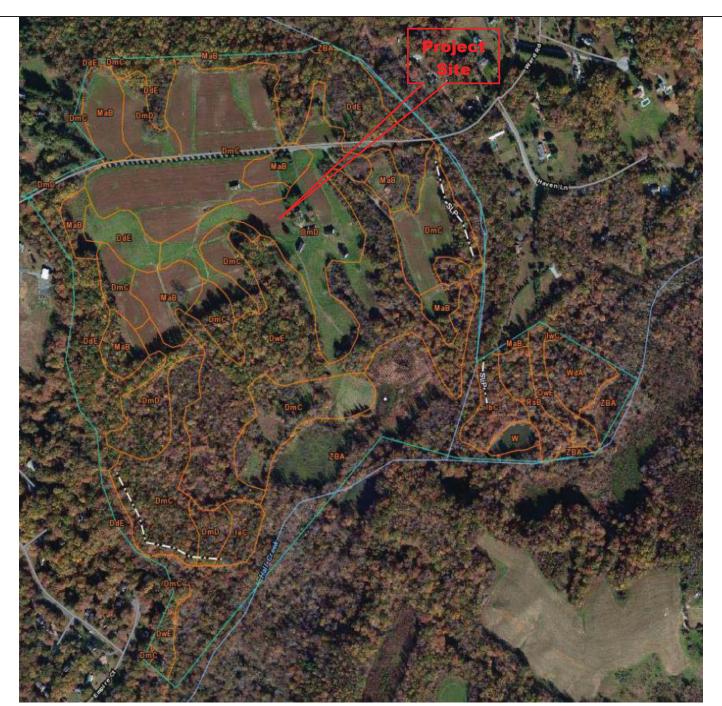
Zekiah and Issue soils are comprised of approximately 40 percent Zekiah, 40 percent Issue and 20 minor components. Specifically, Zekiah soil is a somewhat poorly drained soil derived from loamy alluvium with a depth to water table between 0 to 10 inches; Issue soil is a somewhat poorly drained soil derived from loamy alluvium with a depth to water table between 10 to 20 inches. A *Soil Survey Map* showing the distribution of soils across the project site is shown in *Figure 3*.

2.3 Geology

According to the *Physiographic Provinces and Their Subdivisions in Maryland* (2001) map, Calvert County is located in the Coastal Plain physiographic province of Maryland located between the Potomac River and the Chesapeake Bay. More specifically, Calvert County is located in the Western Shore Uplands Region. According to the *Geologic Map of Maryland* (1968), Upland Deposits (Western Shore) is made up of "Gravel and sand, commonly orange-brown, locally limonite-cemented; minor silt and red, white, or gray clay; (includes Brandywine, Bryn Mawr, and Sunderland Formations of earlier reports); lower gravel member and upper loam in Southern Maryland; thickness 0 to 50 feet." The sediments of the Coastal Plain range in age from Triassic to Quaternary and minerals are mainly gravel and sand with some clay, iron ore and a number of aquifers throughout the region.

3







-WR&A		SOIL SURVEY MAP			
	man, Requardt & Associates, LLP Engineers Architects Planners		P Phase I Environmental Site Assessmer Ward Park Dunkirk, Calvert County, Maryland		ark
SCALE	Not to Scale	DATE July 2014	SOURCE	USDA-NRCS	FIGURE 3

2.4 Previous Land Use

Historical maps were searched in the effort to assess historical land use practices at the project site and in the surrounding vicinity. WR&A reviewed a historic topographic map report, containing maps dating from 1901 to 1970, and an aerial photograph report, containing aerial photographs dating from 1957 to 2011, supplied by Environmental Data Resources (EDR) to determine previous land use for the project site. EDR conducted a search of its collection of available *Sanborn® Fire Insurance Maps* and none were found. The historical reference materials are located in *Appendix A*.

Historically, the project site was undeveloped until sometime between 1950-1957 when approximately half of the property was cleared then used primarily for agriculture with two residential homes onsite. The remainder of the project site has remained as undeveloped woodlands. Properties in the surrounding areas have historically consisted of a mixture of undeveloped woodlands and sparse residential development but have recently become increasingly residentially developed. The 1901, 1906, and 1910 topographic maps depict the project site and surrounding areas as undeveloped. The 1938, 1950 and 1953 topographic maps depict the site as undeveloped with the southern portion of Ward Road depicted as an unimproved road, trending east to west from State Route 4. The 1957 through 2011 aerial photos show the site as it appears today, with the two parcels cleared for agriculture with the residential home and associated barns present. The 1970 topographic map depicts the site consistent with how it appears today with Ward Road as an improved roadway, trending east to west from State Route 4 before the direction changes north to south connecting to Brickhouse Road. Additionally, Google Earth® aerial imagery was also reviewed from the years 1993 to 2012 and showed the project consistent with current conditions. Historic topographic maps and aerial imagery suggest that the project site was cleared for agricultural and residential use sometime between 1950 and 1957. Copies of the 1957 and 2012 aerial photographs are included as *Figures 4 and 5*, respectively.

2.5 Regulatory Contacts and Interviews

On April, 2014 WR&A submitted a written request to Mr. William Haygood, acting Director of Environmental Health at the Calvert County Department of Health regarding spills, releases, wells, and other reported environmental concerns associated with the project site. On April 17, 2014 WR&A received a written response and well and septic information from Mr. Haygood, LEHS, with the Calvert County Health Department, Division of Environmental Health. Mr. Haygood's written response stated that there are no records or information available documenting any violations regarding the property.

On April 10, 2014 WR&A submitted written requests to the Calvert County Fire-Rescue-EMS and the Dunkirk Volunteer Fire Department (Calvert 5) regarding spills, releases, and other reported





WR&A

Whitman, Requardt & Associates, LLP Engineers Architects Planners

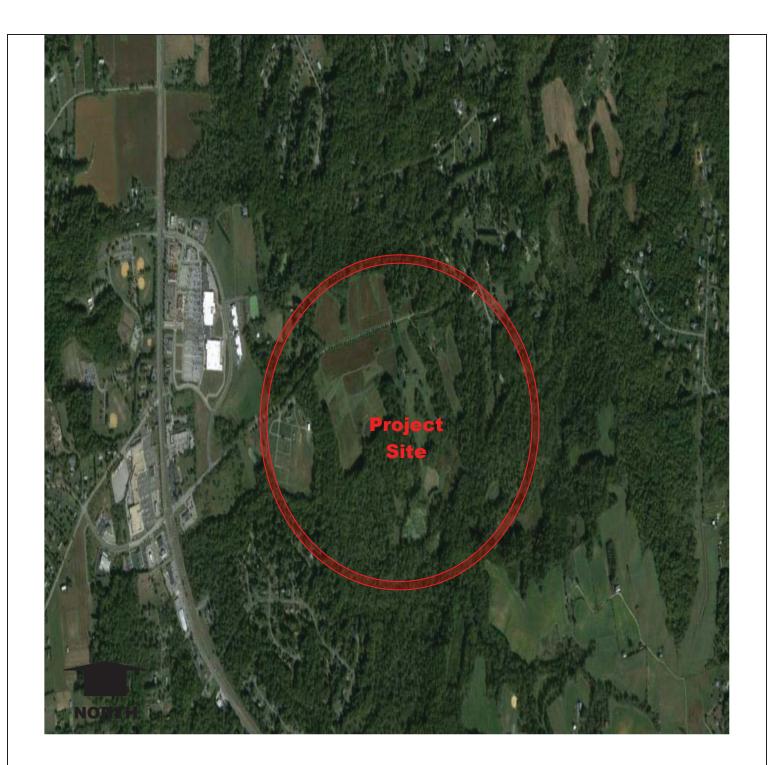
SCALE DATE
Not to Scale July 2014

1957 Aerial Photo

Phase I Environmental Site Assessment Ward Park Dunkirk, Calvert County, Maryland

SOURCE FIGURE

EDR Aerial Photo Decade Package



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Whitman, Requardt & Associates, LLP Engineers Architects Planners **2012 Aerial Photo**

Phase I Environmental Site Assessment Ward Park Dunkirk, Calvert County Maryland

SCALE	DATE	SOURCE	FIGURE
Not to Scale	July 2014	Google Earth	5

environmental concerns associated with the project site. As of the completion of this report, no responses from either the Calvert County Fire-Rescue-EMS or the Calvert 5 Fire Department have been received. If future responses are received, they will be provided as an addendum to this report, under separate cover. Copies of WR&A's correspondence are included in *Appendix B*.

2.6 User Supplied Information

Calvert County provided a property survey map showing parcel identification numbers, acreage, and physical addresses. No other user supplied information from the Client was provided during the preparation of this Phase I ESA.

2.7 Previous Reports

No previous reports were provided during the preparation of this Phase I ESA.

2.8 Supplemental Reports

No supplemental reports were provided during the preparation of this Phase I ESA.

3.0 SITE RECONNAISSANCE

WR&A conducted the site reconnaissance on April 11, 2014. The project site was surveyed for unusual environmental conditions including discolored or disturbed soil areas, drums, aboveground storage tanks (ASTs), underground storage tanks (USTs), discolored surface water, unusual or noxious odors, transformers, unusual surface features, septic or water supply systems, and groundwater monitoring wells.

At the time of WR&A's site reconnaissance the project site consisted of two parcels, Parcel 54 and Parcel 70. Parcel 54, identified with the physical address 10455 Ward Road, consists of approximately 137 acres located south of Ward Road and approximately 32 acres north of Ward Road. Parcel 70, identified with the physical address 10501 Ward Road, consists of approximately 40 acres and is located east of Parcel 54 and south of Ward Road. The entire project site extends north and south of Ward Road and consists of both cleared agricultural areas and undeveloped wooded areas located approximately ½ mile east of the town of Dunkirk, MD. Two residential homes, three large barns and two sheds are located on the project site, specifically within Parcel 54. A vacant caretaker house is located on the north side of Ward Road and the occupied main residence, barns and sheds are located south of Ward Road. WR&A observed indications of three USTs and one underground propane tank onsite, specifically near the occupied residential home. The first UST consists of an old petroleum dispenser and UST port located approximately 85-feet southwest of the home and the project site. WR&A was able to access the UST and determined it to be empty but was unable to determine the tank



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size. The second tank was observed to be a heating oil UST located along the western side of the home, WR&A did not access this tank and was unable to determine the tank size. The third UST observed during the site reconnaissance was an approximate 250-gallon UST and was observed to be removed from the ground and out of commission and was stored within the barn located approximately 385 feet southeast of the residence. The underground propane tank was observed along the northeastern corner of the home. WR&A did not access the propane tank and was unable to determine the tank size. One padmounted transformer was observed on the west side of the residential home and appeared to be in good condition. Several empty 55-gallon drums were observed in a storage area under one of the barns located southwest of the home and within the eastern most utility shed. Several smaller chemical containers of various sizes, including herbicides, hydraulic oil, coolant and unlabeled chemicals, were also observed within the western most utility shed. No indications of staining were observed around any of the storage tanks, transformer, or chemical storage areas. Two drinking water wells, one near each house, were observed during the site reconnaissance. Evidence of dumping was observed in three areas within the project site. One area, located in the center of parcel 54 contained plastic containers, several 5-gallon buckets and miscellaneous household trash. Another area located on the eastern border of the project site was observed to contain shingles, wood and construction debris. The third area, located near the access road for parcel 70 contained two old couches, some miscellaneous construction debris and approximately a dozen tires. No spills, leaks, noxious odors or indications of monitoring wells were observed on the project site during the site reconnaissance. WR&A did not observe pits or groundwater monitoring wells on the project site or on the adjacent properties. Photographs taken during WR&A's site reconnaissance are included in this report as Appendix C.

4.0 SURROUNDING LAND USES

At the time of WR&A's site reconnaissance, an undeveloped wooded area and a few residential homes located off of McCraken Drive bordered the site to the north and east. The area to the south is comprised of a large undeveloped wooded tract of land with some residential homes, churches and a soccer and baseball field associated with the Cardinal Hickey Academy areas along West Harmony Road. A few residential homes mixed with agricultural use and undeveloped woodlands are located immediately to the west with some commercial properties bordering Southern Maryland Boulevard (including Dunkirk Village shopping center) further to the west. WR&A personnel did not observe indications of monitoring wells, obvious spills, leaks, discolored water, noxious odors, stained soils, pits, lagoons, drums, or stressed vegetation consistent with exposure to contaminants on properties bordering the project site.

5.0 REGULATORY RECORDS REVIEW



July 2014

WARD FARM RECREATION AND NATURE PARK MASTER PLAN | CALVERT COUNTY, MD | APPENDIX

WR&A retained EDR to perform a search of Federal and State regulatory agency databases for the project site and surrounding vicinity. This database search was performed to meet the requirements of EPA's Standards and Practices for All Appropriate Inquires (40 CFR Part 312) and the ASTM Standard Practice for ESA (E1527-13). WR&A personnel attempted to field-verify the locations of the regulatory sites identified by EDR, and this information is reflected in the contents of this section. The EDR Radius Map Report is attached to this report as Appendix D. The following databases were searched at the noted search distances:

DATABASE	DESCRIPTION	SEARCH DISTANCE
NPL	National Priorities List (Superfund). Hazardous waste sites targeted for possible long-term remedial action under the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS).	1 mile
Proposed NPL	Proposed National Priority List Sites.	1 mile
Delisted NPL	National Priority List Deletions. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establish the criteria that the EPA uses to delete sites from the NPL.	1 mile
NPL LIENS	Federal Superfund Liens.	Project site
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS). Sites that are proposed for or on the NPL, or in the screening or assessment phase for possible inclusion on the NPL.	½ mile
Federal Facility	Federal Facility Site Information listing	½ mile
CERC-NFRAP	Archived CERCLIS sites with a status of No Further Remedial Action Planned (NFRAP), denoting sites where, following an initial investigation, either no contamination was found, contamination was removed quickly without need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. The NFRAP status does not necessarily indicate that no environmental concerns are present.	½ mile
CORRACTS	Hazardous waste handlers with Resource Conservation and Recovery Act (RCRA) corrective action activity.	1 mile
RCRA-TSDF	Resource Conservation and Recovery Information System (RCRIS), Treatment, Storage, and Disposal (TSD) facilities. Hazardous waste handlers.	½ mile
RCRA-LQG	RCRIS sites that are large-quantity generators (LQG) of hazardous waste. LQGs generate over 1,000 kg of hazardous waste, or over 1 kg of acutely hazardous waste per month.	1/4 mile
RCRA-SQG	RCRIS sites that are small-quantity generators (SQG) of hazardous waste. SQGs generate between 100 kg and 1,000 kg of hazardous waste per month.	1/4 mile
RCRA-CESQG	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.	1/4 mile
RCRA-NonGen	RCRA-Non Generators. Non-Generators do not presently generate hazardous waste.	1/4 mile
ERNS	Emergency Response Notification System. Information on releases of oil and hazardous substances.	Project site
HMIRS	Hazardous Materials Information System Database. A list of release incident information reported to the Department of Transportation by carriers of hazardous materials.	Project site
US ENG CONTROLS	Engineering Controls Sites List. A list of sites with engineering controls in place including various forms of caps, building foundations, liners, and treatment methods.	½ mile
US INST CONTROL	Sites with Institutional Controls. A listing of sites with institutional controls in place, including administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements.	½ mile





FEDERAL DATABASES SEARCHED BY EDR			
DATABASE	DESCRIPTION	SEARCH DISTANCE	
RMP	Risk Management Plans. Required of companies that use certain flammable and toxic substances to develop a Risk Management Program that includes hazard assessments, accident histories, a prevention program, and an emergency response program.	Project site	
UIC	Underground Injection Wells Database	Project site	
NPDES	Wastewater Permit Listing. Listings of wastewater permit locations.	Project Site	
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing. It is comprised of representatives of states with established drycleaner remediation programs.	½ mile	
COAL ASH	Coal Ash Disposal Site Listing	½ mile	
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List. A listing of coal combustion residues surface impoundments with high hazard potential ratings.	½ mile	
COAL ASH DOE	Steam-Electric Plan Operation Data. A listing of power plants that store ash in surface ponds.	Project site	
PCB TRANSFORMER	Database of PCB transformer registrations that includes all PCB registration submittals	Project site	
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.	Project site	
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.	Project site	
PRP	A listing of verified Potentially Responsible Parties	Project site	
2020 COR ACTION	2020 Corrective Action Program List. This RCRA cleanup baseline includes facilities expected to need corrective action. 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.	½ mile	
US AIRS	Aerometric Information Retrieval System Facility Subsystem. A sub-system of the AIRS database that contains compliance data on air pollution point sources regulated by EPA.	Project site	
FINANCIAL ASSURANCE	Financial Assurance Information Listing	Project site	
LRP	A listing of Land Restoration Program sites. Includes information from several databases including VCP, NPL, Brownfields, FUDS, etc.	½ mile	

TRIBAL DATABASES SEARCHED BY EDR			
DATABASE	DATABASE	DATABASE	
INDIAN RESERV	Indian administered lands of the US having area equal to or greater than 640 acres	1 mile	
INDIAN LUST	Leaking Underground Storage Tanks on Indian Land	½ mile	
INDIAN UST	Underground Storage Tanks on Indian Land	1/4 mile	
INDIAN VCP	Voluntary Cleanup Priority Listing	½ mile	
INDIAN ODI	Report on the Status of Open Dumps on Indian Land	½ mile	

EDR PROPRIETARY RECORDS				
DATABASE	DATABASE	DATABASE		
Manufactured Gas Plants	Database including records of coal gas plants used in the US from the 1800's to 1950's	1 mile		
EDR Historical Auto Stations	EDR Proprietary Historic Gas Stations	¼ mile		
ERD Historical Cleaners	EDR Proprietary Historic Dry Cleaners	1/4 mile		



LOCAL (MARYLAND) DATABASES SEARCHED BY EDR			
DATABASE	DESCRIPTION	SEARCH DISTANCE	
SHWS	Notice of Potential Hazardous Waste Sites	1 mile	
SWF/LF	Permitted Solid Waste Disposal Facilities	½ mile	
SWRCY	Recycling Directory	½ mile	
OCPCASES	Oil Control Program Cases	½ mile	
HIST LUST	Recovery Sites	½ mile	
UST	Registered Underground Storage Tank List	1/4 mile	
FEMA UST	A listing of all FEMA owned underground storage tanks	1/4 mile	
ENG CONTROLS	Engineering Controls Site listing. 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.	½ mile	
Historical UST	Historical UST Registered Database	1/4 mile	
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.	Project site	
AST	Permitted Aboveground Storage Tanks	1/4 mile	
INST CONTROL	Voluntary Cleanup Program Applicants/Participants	½ mile	
VCP	Voluntary Cleanup Program Applicants/Participants	½ mile	
DRYCLEANERS	Registered Dry-cleaning Facilities	1/4 mile	
BROWNFIELDS	Eligible Brownfields Properties	½ mile	
AIRS	Permit and Facility Information Listing	Project Site	
LEAD	Lead Inspection Database	Project Site	

The EDR report identified 4 OCPCASES, 1 HIST LUSTs, 1 UST sites in the surrounding vicinity of the project site within the above specified search distances. WR&A requested that MDE search their files for records of the OCPCASES within the project site and specified search distance. MDE indicated that one OCPCASE remained open. On May 5, 2010 WR&A personnel conducted a file review at MDE of these sites that are within the project site or within one city block of the project site. The site locations, regulatory status and other applicable information are listed in the table below.

10



EDR IDENTIFIED REGULATORY SITES IN SURROUNDING REGION				
LOCATION	DATABASE INFORMATION	MDE FILE INFORMATION	DISTANCE/DIRECTION FROM PROJECT SITE	
Charles Edwards Residence 1960 Haven Lane Dunkirk, MD 20754	OCP Case OCP Case #: 10-0468CA Facility Status: Closed / AST leak Date Open: 03/05/2010 Date Closed: 06/02/2010 Release: Yes Cleanup: Yes	 AST leak –residential heating oil. Resident had new AST installed (replacing old AST) in summer of 2008. Product line from previous tank was used. Resident noticed above average consumption of heating oil. Resident began experiencing petroleum odors in house due to leaking line. Contractor replaced the line in 2010. Petroleum contaminated soils remained under house and resident was concerned about their drinking water well. Approximately 2.5 tons of petroleum impacted soil was hand excavated from beneath the house. Area was delineated and potential receptors were sampled and indicated that the contamination was isolated to shallow soils beneath the house. 	± 181 feet east	
Jacquelyn Ewing (Red Hall) 10340 Ward Road, Dunkirk, MD 20754	OCP Case OCP Case #: 2002-0627CA Facility Status: Closed UST Registration: Facility ID: 14205	 ◆ Two USTs: One 1,000-gallon gasoline steel UST and one 550 gallon diesel UST installed in 1971. ◆ Tanks were removed from the ground on 11/8/2001. ◆ No contamination observed under diesel tank and slight contamination observed under gas tank; soil was spread onsite to volatilize. 	<u>+</u> 400 feet west	
Marcella La Fley 10221 Ward Road, Dunkirk, MD 20754	OCP Case OCP Case #: 96-0742CA Facility Status: Closed /AST Leak Date Open: 10/23/1995 Date Closed: 02/21/2001 Release: Yes Cleanup: Yes	◆ MDE information stated file was destroyed.	<u>+</u> 1,050 feet west	





The EDR report did not identify sites of known environmental concern or regulation associated with the project site. The EDR report did not identify any regulatory sites in the surrounding vicinity of the project site within the above specified search distances.

The EDR Report included a list of "Orphan Sites", which EDR indicates could not be plotted on its part due to insufficient address and/or geographic coordinate information. WR&A reviewed the list of Orphan Sites and, based on the descriptions provided, approximated their locations relative to the project site to determine if the Orphan Sites were located within the specified search radii from the project site. Based on WR&A's evaluation of this information, none of these sites appear to be located within the regulatory search limits of the project site.

Based on WR&A's site visit, the lack of sites identified with known environmental concerns, and topographic reviews of the area and surrounding vicinity, it is unlikely that contamination has adversely impacted the subsurface of the project site.

6.0 ENVIRONMENTAL LIEN

WR&A did not request EDR to perform an Environmental LienSearchTM Report for the project site because the Client does not seek to obtain parcels which may be temporarily impacted.

7.0 DATA GAPS

No data gaps have been identified during preparation of this Phase I ESA.



8.0 CONCLUSIONS AND RECOMMENDATIONS

Calvert County has requested a Phase I Environmental Site Assessment (ESA) for the proposed Ward Park located off Ward Road in Dunkirk, MD. According to the Calvert County Recorder, the project site is owned by the Board of County Commissioners of Calvert County and identified as Parcel # 03-106748 / Parcel 70 and Parcel # 03-020045 / Parcel 54 on Map 9 which are located in the St. Charles area of Charles County, Maryland (herein identified as "project site"). The project site is comprised of approximately 209 acres of along Ward Road.

Historically, the project site was undeveloped until sometime between 1950-1957 when approximately half of the property was cleared then used primarily for agriculture with two residential homes. The remainder of the project site has remained as undeveloped woodlands.

WR&A conducted the site reconnaissance on April 11, 2014. The project site was surveyed for unusual environmental conditions including discolored or disturbed soil areas, drums, aboveground storage tanks (ASTs), underground storage tanks (USTs), discolored surface water, unusual or noxious odors, transformers, unusual surface features, septic or water supply systems, and groundwater monitoring wells. At the time of WR&A's site reconnaissance the project site consisted of two parcels, Parcel 54 and Parcel 70. Parcel 54, identified with the physical address 10455 Ward Road, consists of approximately 137 acres located south of Ward Road and approximately 32 acres north of Ward Road. Parcel 70, identified with the physical address 10501 Ward Road, consists of approximately 40 acres and is located east of Parcel 54 and south of Ward Road. The entire project site extends north and south of Ward Road and consists of both cleared agricultural areas and undeveloped wooded areas located approximately ½ mile east of the town of Dunkirk, MD. Two residential homes, three large barns and two sheds are located on the project site, specifically within Parcel 54. A vacant caretaker house is located on the north side of Ward Road and the occupied main residence, barns and sheds are located south of Ward Road. WR&A observed indications of three USTs and one underground propane tank onsite, specifically near the occupied residential home. The first UST consists of an old petroleum dispenser and UST port located approximately 85-feet southwest of the home and the project site. WR&A was able to access the UST and determined it to be empty but was unable to determine the tank size. The second tank was observed to be a heating oil UST located along the western side of the home, WR&A did not access this tank and was unable to determine the tank size. The third UST observed during the site reconnaissance was an approximate 250-gallon UST and was observed to be removed from the ground and out of commission and was stored within the barn located approximately 385 feet southeast of the residence. The underground propane tank was observed along the northeastern corner of



the home. WR&A did not access the propane tank and was unable to determine the tank size. One padmounted transformer was observed on the west side of the residential home and appeared to be in good condition. Several empty 55-gallon drums were observed in a storage area under one of the barns located southwest of the home and within the eastern most utility shed. Several smaller chemical containers of various sizes, including herbicides, hydraulic oil, coolant and unlabeled chemicals, were also observed within the western most utility shed. No indications of staining were observed around any of the storage tanks, transformer, or chemical storage areas. Two drinking water wells, one near each house, were observed during the site reconnaissance. Evidence of dumping was observed in three areas within the project site. One area, located in the center of parcel 54 contained plastic containers, several 5-gallon buckets and miscellaneous household trash. Another area located on the eastern border of the project site was observed to contain shingles, wood and construction debris. The third area, located near the access road for parcel 70 contained two old couches, some miscellaneous construction debris and approximately a dozen tires. No spills, leaks, noxious odors or indications of monitoring wells were observed on the project site during the site reconnaissance.

WR&A did not observe pits or groundwater monitoring wells on the project site or on the adjacent properties. WR&A retained EDR to perform a search of Federal and State regulatory agency databases for the project site and surrounding vicinity. The EDR report did not identify sites of known environmental concern or regulation associated with the project site nor in the surrounding vicinity of the project site within the specified search distances.

In the future, if existing USTs are going to be permanently out of use, specific closure requirements may be required. WR&A was unable to determine the size of the existing USTs located onsite. According to Maryland Department of the Environment (MDE) Oil Control Program (OCP) guidance, USTs with 1,100 gallon capacities or less, used to store petroleum products at a private residence or farm are exempt from most Maryland regulations. However, these systems must comply with closure requirements when no longer used as a fuel source (COMAR 26.10.10). The MDE OCP does not require prior notice of the closure but does require that the contractor is a MDE certified for tank removal activities. Additionally, the tank owner and the contractor must report the discovery of a petroleum release as required by Maryland law and regulations.

Based on the information contained in this report, information provided by Environmental Data Resources, and WR&A's visual inspection of the project site, there are no recognized environmental conditions associated with the project site.



9.0 SIGNATURE(S) AND QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONAL(S)

Signature of the environmental professional below certifies that he/she meets the definition of an environmental professional and maintains the relevant experience in accordance with ASTM Designation E1527-13: Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, which is pursuant to 40 CFR Part 312 Standards and Practices for All Appropriate Inquiries.

Prepared by:

Whitman, Requardt & Associates, LLP

Kein T. Roberts

Kevin T. Roberts, Environmental Scientist (qualified Environmental Professional)

Reviewed by:

Amanda J. Baxter, Vice President (qualified Environmental Professional)



10.0 REFERENCES

- Environmental Data Resources, Inc. (EDR). 2014. Certified Sanborn® Map Report. Ward Park, Ward Road, Dunkirk, MD 20754.
- EDR. 2014. EDR Aerial Photo Decade Package. Ward Park, Ward Road, Dunkirk, MD 2020754.
- EDR. 2013. EDR Historical Topographic Map Report. Ward Park, Ward Road, Dunkirk, MD 20754.
- EDR. 2013. EDR Radius Map with GeoCheck. Ward Park, Ward Road, Dunkirk, MD 20754.
- Environmental Protection Agency. 2005. 40 CFR Part 312 Standards and Practices for All Appropriate Inquiries; Final Rule.
- Google Earth. 2014. "Ward Park, MD" 38° 43'15.79" N and 76°38'51.01" W, Imagery date: 10/12/2012.
- Maryland Department of Natural Resources, Maryland Geological Survey. 1968. Geologic Maps of Maryland: Calvert County.
- Maryland Department of Natural Resources, Maryland Geological Survey. 2001. Physiographic Provinces and Their Subdivisions in Maryland.
- The State of Maryland Department of Assessments & Taxation: http://www.dat.state.md.us/sdatweb/real.html.
- United States Department of Agriculture, Natural Resources Conservation Service. Online Soil Data Mart. 2013. Soil Survey of Calvert County, Maryland.
- United States Geological Survey. 7.5-minute topographic map portions, "Marlboro, United States."



APPENDIX A

HISTORICAL REFERENCE MATERIALS

July 2014

Ward Park

Ward Road Dunkirk, MD 20754

Inquiry Number: 3900443.4

April 03, 2014

EDR Historical Topographic Map Report



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

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EDR Historical Topographic Map Report

Environmental Data Resources, Inc.s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topographic Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the early 1900s.

Thank you for your business.
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with any questions or comments.

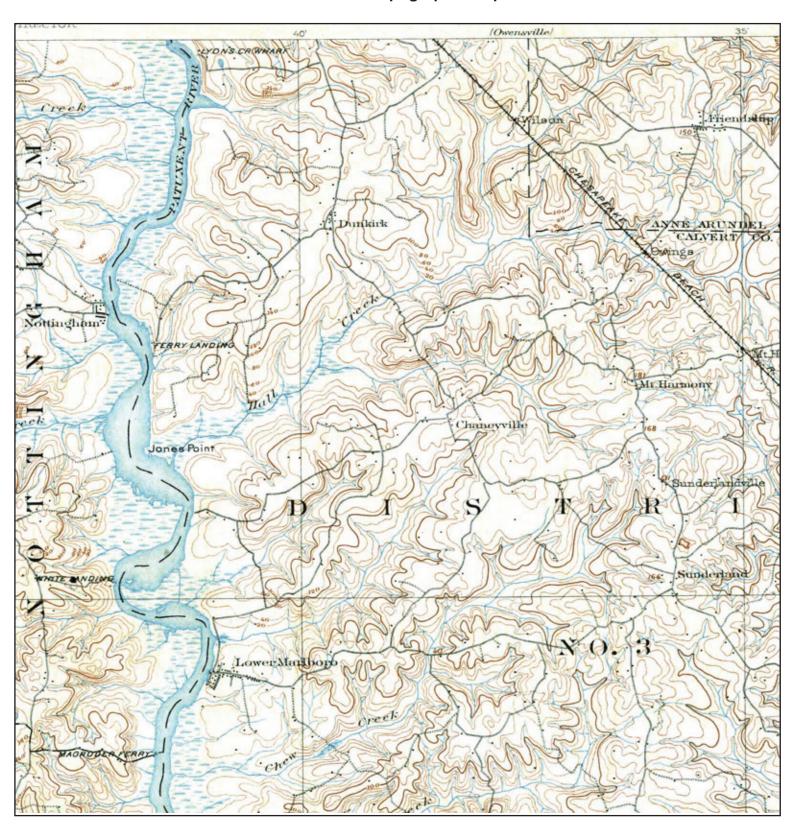
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Historical Topographic Map



N

TARGET QUAD

NAME: PRINCE FREDERICK

MAP YEAR: 1901

SERIES: 15 SCALE: 1:62500 SITE NAME: Ward Park ADDRESS: Ward Road

DDRESS: ward Hoad

Dunkirk, MD 20754

LAT/LONG: 38.7215 / -76.6477

CLIENT: Whitman, Requardt & Assoc, LLP

CONTACT: Kevin T. Roberts INQUIRY#: 3900443.4 RESEARCH DATE: 04/03/2014

Historical Topographic Map



TARGET QUAD NAME:

PATUXENT

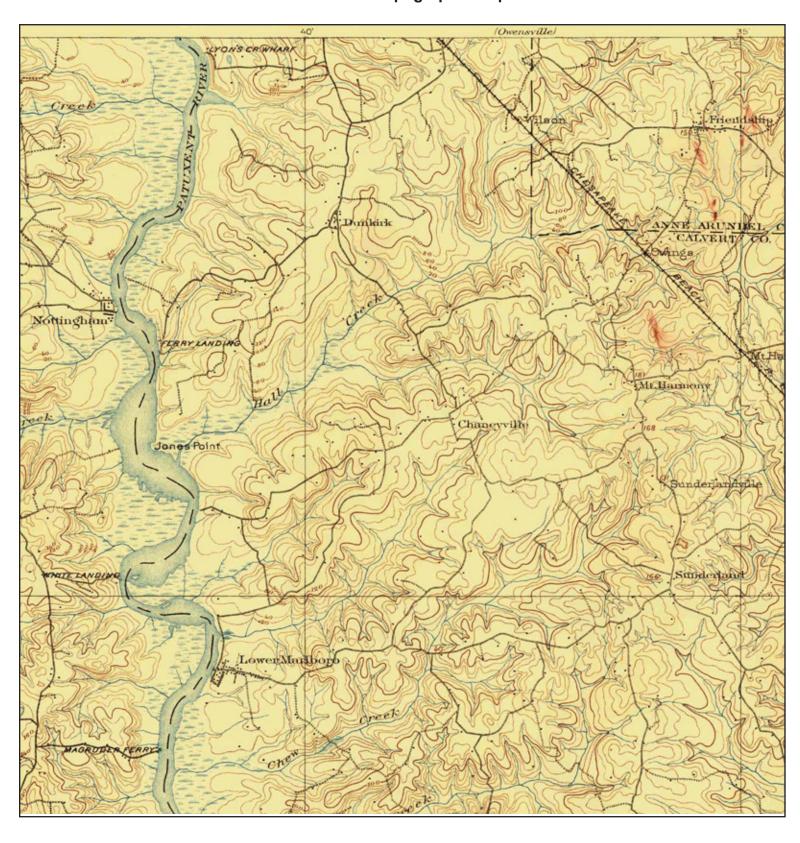
MAP YEAR: 1906

SERIES: 30 SCALE: 1:125000 SITE NAME: Ward Park ADDRESS: Ward Road

Dunkirk, MD 20754

LAT/LONG: 38.7215 / -76.6477 CLIENT: Whitman, Requardt & Assoc, LLP

CONTACT: Kevin T. Roberts INQUIRY#: 3900443.4 RESEARCH DATE: 04/03/2014



N

TARGET QUAD

NAME: PRINCE FREDERICK

MAP YEAR: 1910

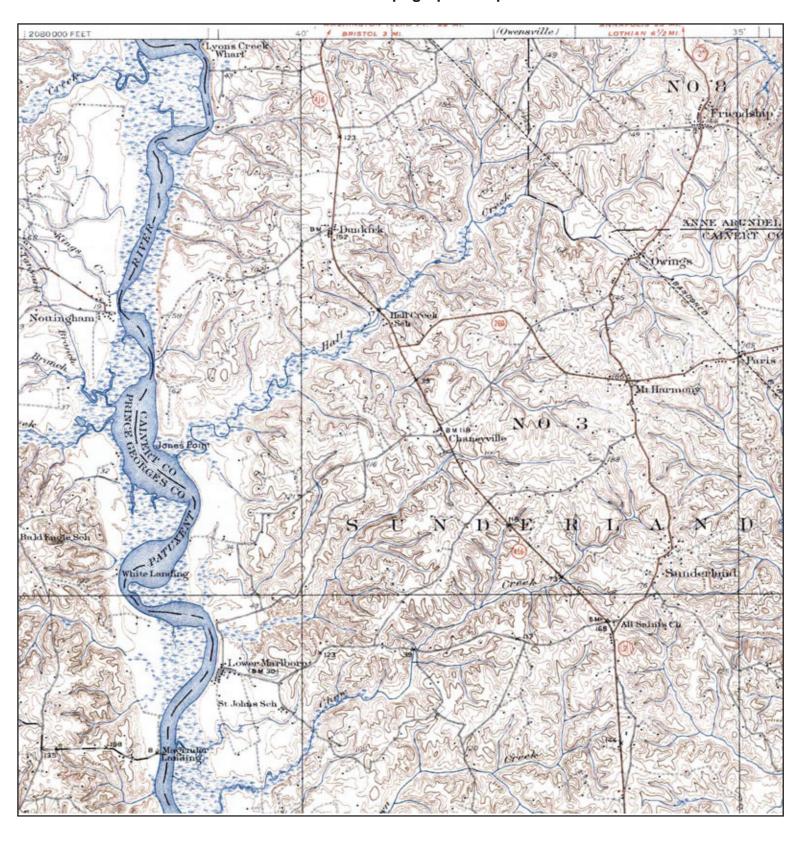
SERIES: 15 SCALE: 1:62500 SITE NAME: Ward Park ADDRESS: Ward Road

Dunkirk, MD 20754

LAT/LONG: 38.7215 / -76.6477

CLIENT: Whitman, Requardt & Assoc, LLP

CONTACT: Kevin T. Roberts INQUIRY#: 3900443.4 RESEARCH DATE: 04/03/2014





TARGET QUAD

NAME: PRINCE FREDERICK

MAP YEAR: 1938

SERIES: 15 SCALE: 1:62500 SITE NAME: Ward Park ADDRESS: Ward Road

Dunkirk, MD 20754

LAT/LONG: 38.7215 / -76.6477

CLIENT: Whitman, Requardt & Assoc, LLP

CONTACT: Kevin T. Roberts INQUIRY#: 3900443.4 RESEARCH DATE: 04/03/2014





TARGET QUAD

NAME: PRINCE FREDERICK

MAP YEAR: 1950

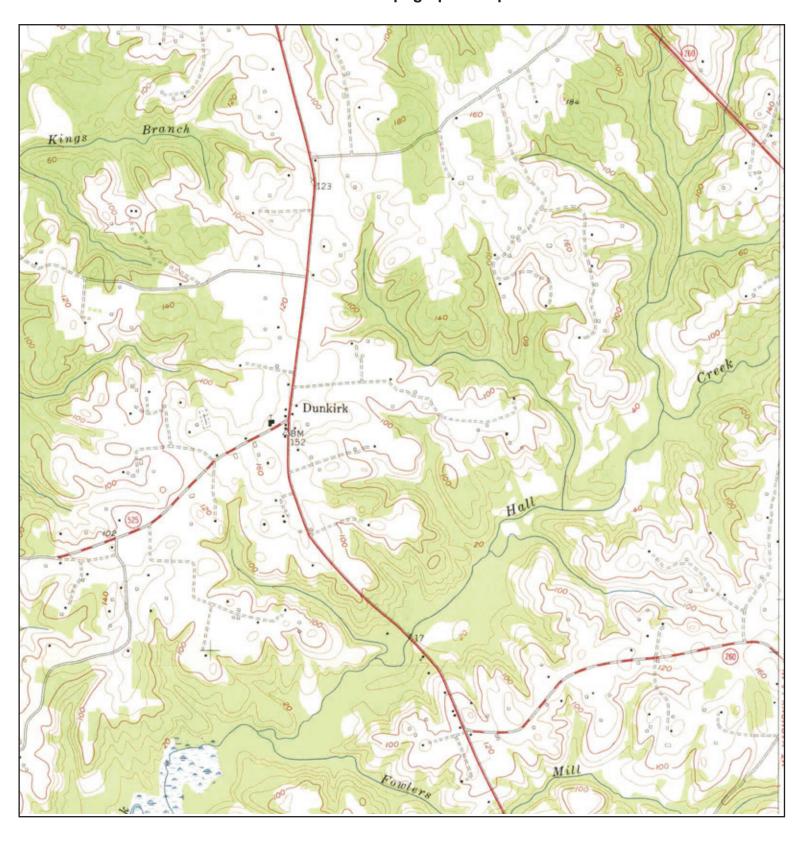
SERIES: 15 SCALE: 1:50000 SITE NAME: Ward Park ADDRESS: Ward Road

Dunkirk, MD 20754

LAT/LONG: 38.7215 / -76.6477

CLIENT: Whitman, Requardt & Assoc, LLP

CONTACT: Kevin T. Roberts INQUIRY#: 3900443.4 RESEARCH DATE: 04/03/2014





TARGET QUAD

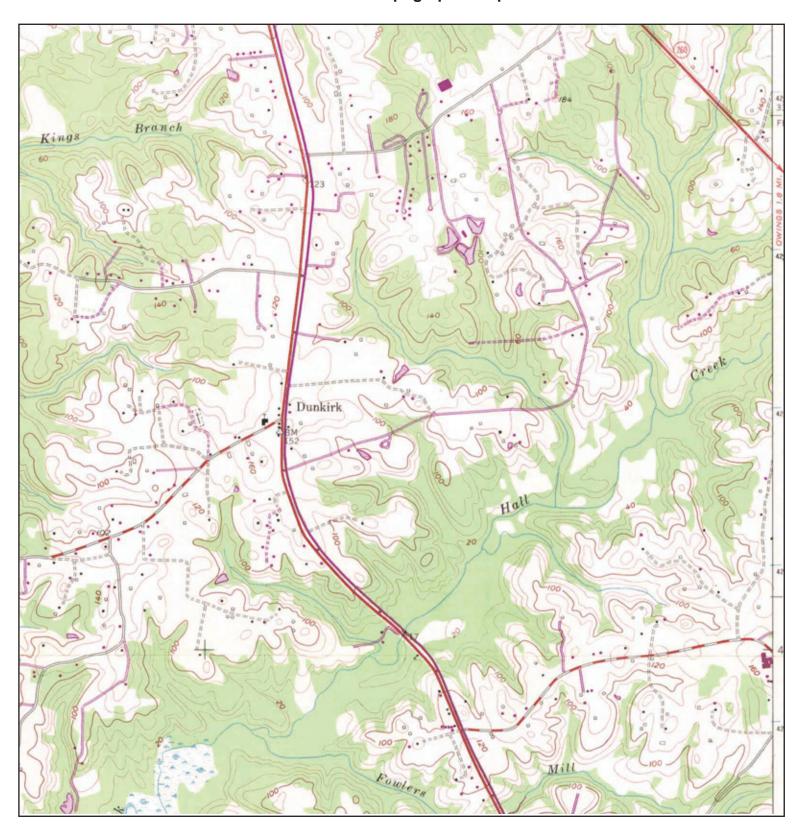
NAME: LOWER MARLBORO

MAP YEAR: 1953

SERIES: 7.5 SCALE: 1:24000 SITE NAME: Ward Park ADDRESS: Ward Road

Dunkirk, MD 20754 LAT/LONG: 38.7215 / -76.6477 CLIENT: Whitman, Requardt & Assoc, LLP CONTACT: Kevin T. Roberts

INQUIRY#: 3900443.4
RESEARCH DATE: 04/03/2014





TARGET QUAD

NAME: LOWER MARLBORO

MAP YEAR: 1970

PHOTOREVISED FROM:1953

SERIES: 7.5 SCALE: 1:24000 SITE NAME: Ward Park ADDRESS: Ward Road

Dunkirk, MD 20754

LAT/LONG: 38.7215 / -76.6477

CLIENT: Whitman, Requardt & Assoc, LLP

CONTACT: Kevin T. Roberts INQUIRY#: 3900443.4 RESEARCH DATE: 04/03/2014

Ward Park

Ward Road Dunkirk, MD 20754

Inquiry Number: 3900443.12

April 08, 2014

The EDR Aerial Photo Decade Package



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Date EDR Searched Historical Sources:

Aerial Photography April 08, 2014

Target Property:

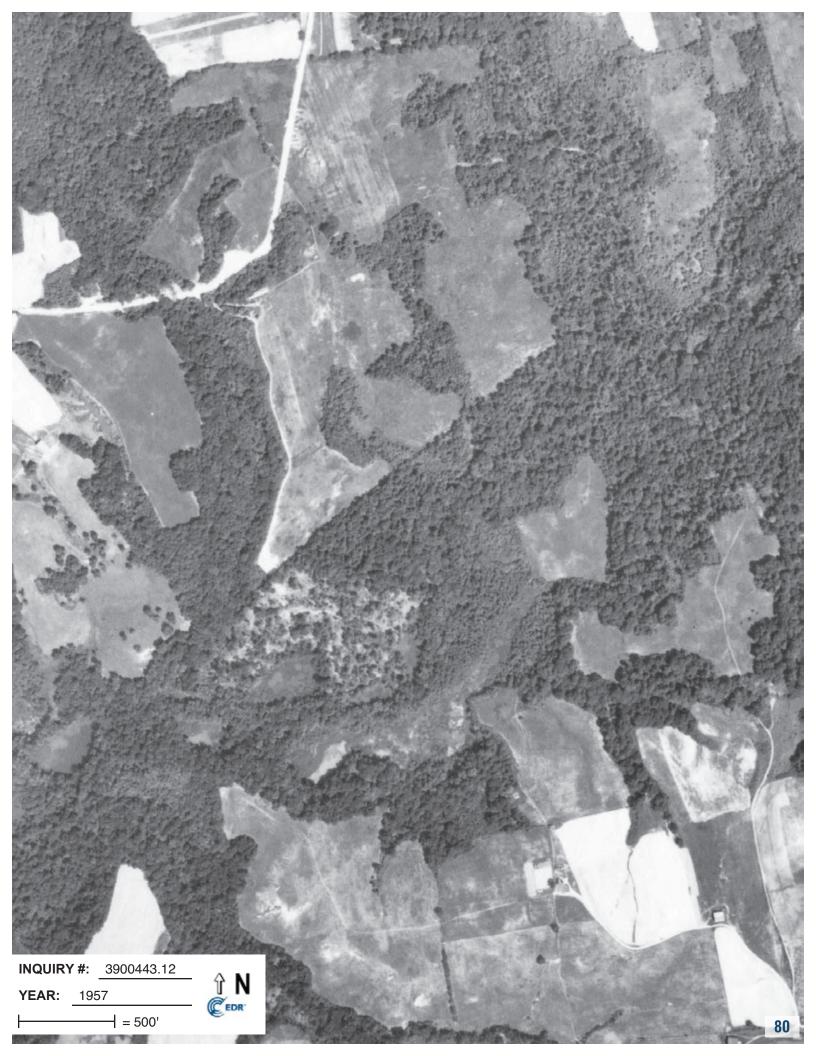
Ward Road
Dunkirk, MD 20754

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1960	Aerial Photograph. Scale: 1"=1000'	Panel #: 38076-F6, Lower Marlboro, MD;/Flight Date: February 12, 1960	EDR
1963	Aerial Photograph. Scale: 1"=500'	Panel #: 38076-F6, Lower Marlboro, MD;/Flight Date: October 13, 1963	EDR
1963	Aerial Photograph. Scale: 1"=500'	Panel #: 38076-F6, Lower Marlboro, MD;/Flight Date: October 13, 1963	EDR
1970	Aerial Photograph. Scale: 1"=500'	Panel #: 38076-F6, Lower Marlboro, MD;/Flight Date: August 03, 1970	EDR
1970	Aerial Photograph. Scale: 1"=500'	Panel #: 38076-F6, Lower Marlboro, MD;/Flight Date: August 03, 1970	EDR
1972	Aerial Photograph. Scale: 1"=750'	Panel #: 38076-F6, Lower Marlboro, MD;/Flight Date: July 15, 1972	EDR
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1981	Aerial Photograph. Scale: 1"=500'	Panel #: 38076-F6, Lower Marlboro, MD;/Flight Date: January 01, 1981	EDR
1993	Aerial Photograph. Scale: 1"=500'	Panel #: 38076-F6, Lower Marlboro, MD;/DOQQ - acquisition dates: April 08, 1993	EDR
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1998	Aerial Photograph. Scale: 1"=750'	Panel #: 38076-F6, Lower Marlboro, MD;/Flight Date: February 10, 1998	EDR
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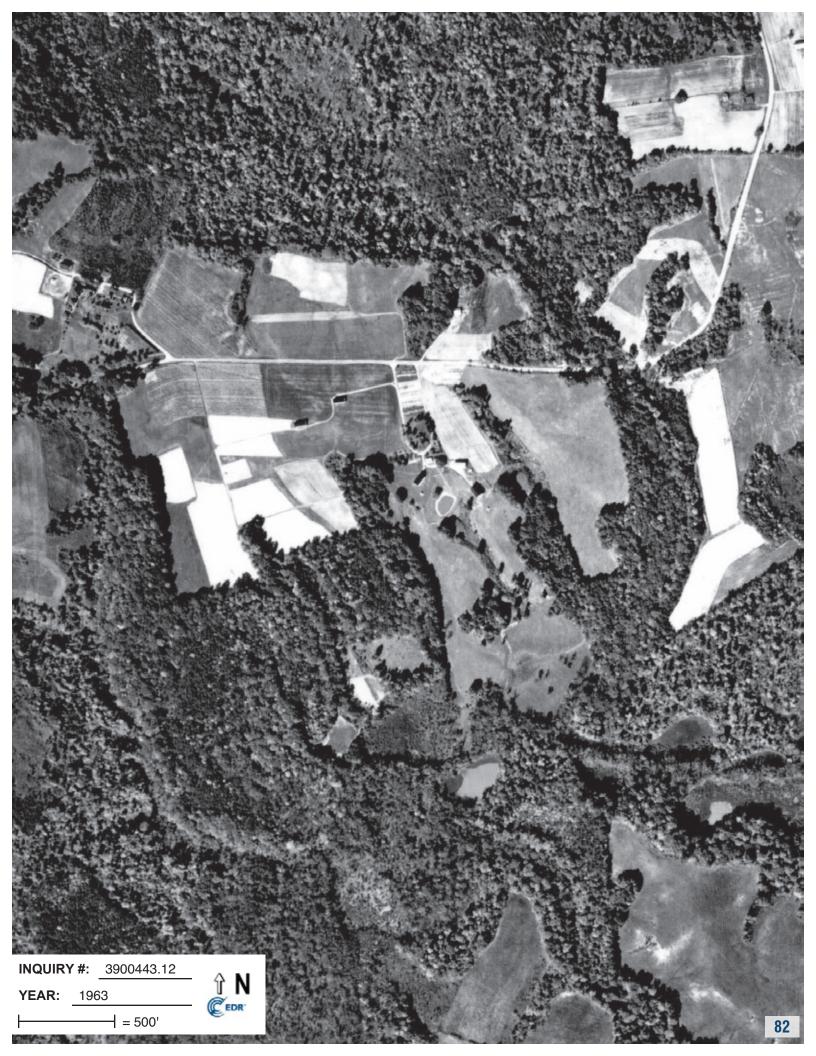
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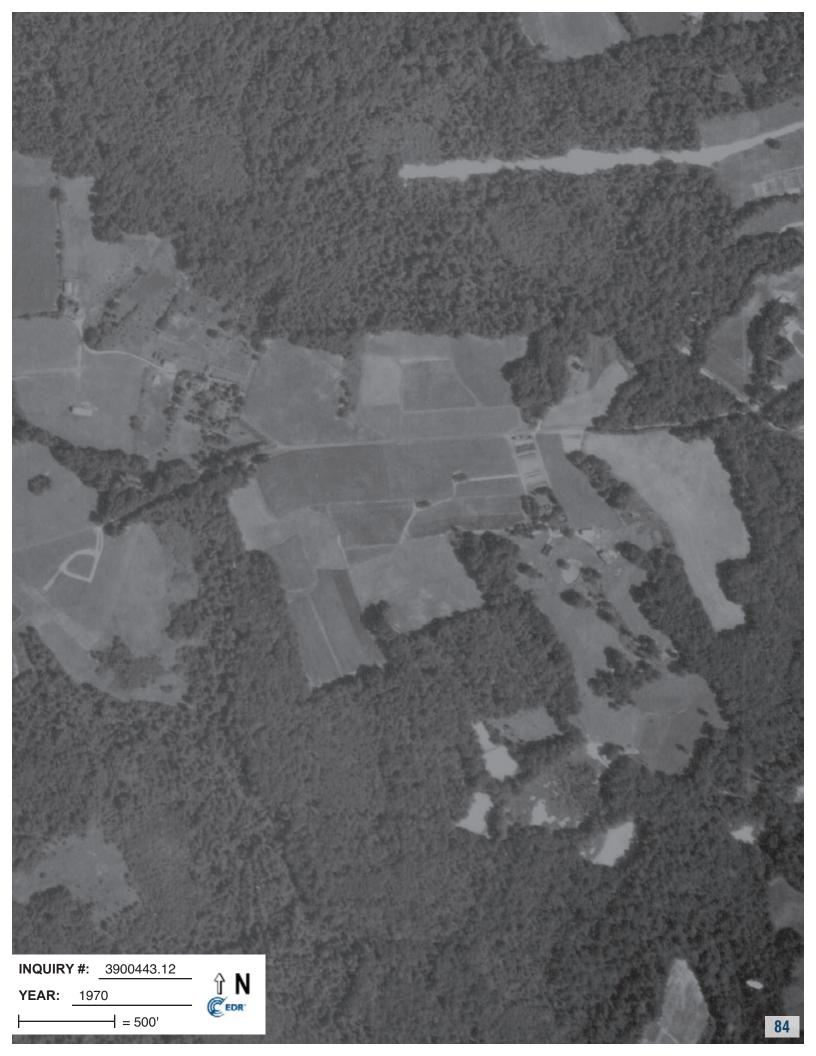


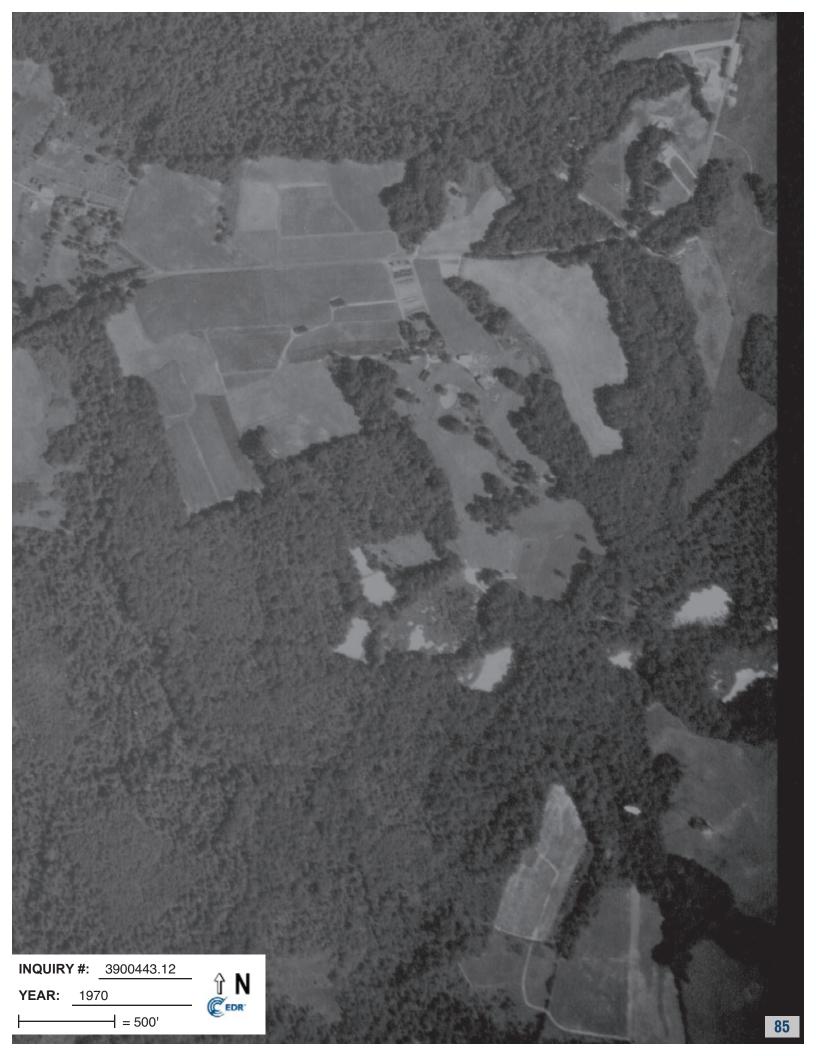












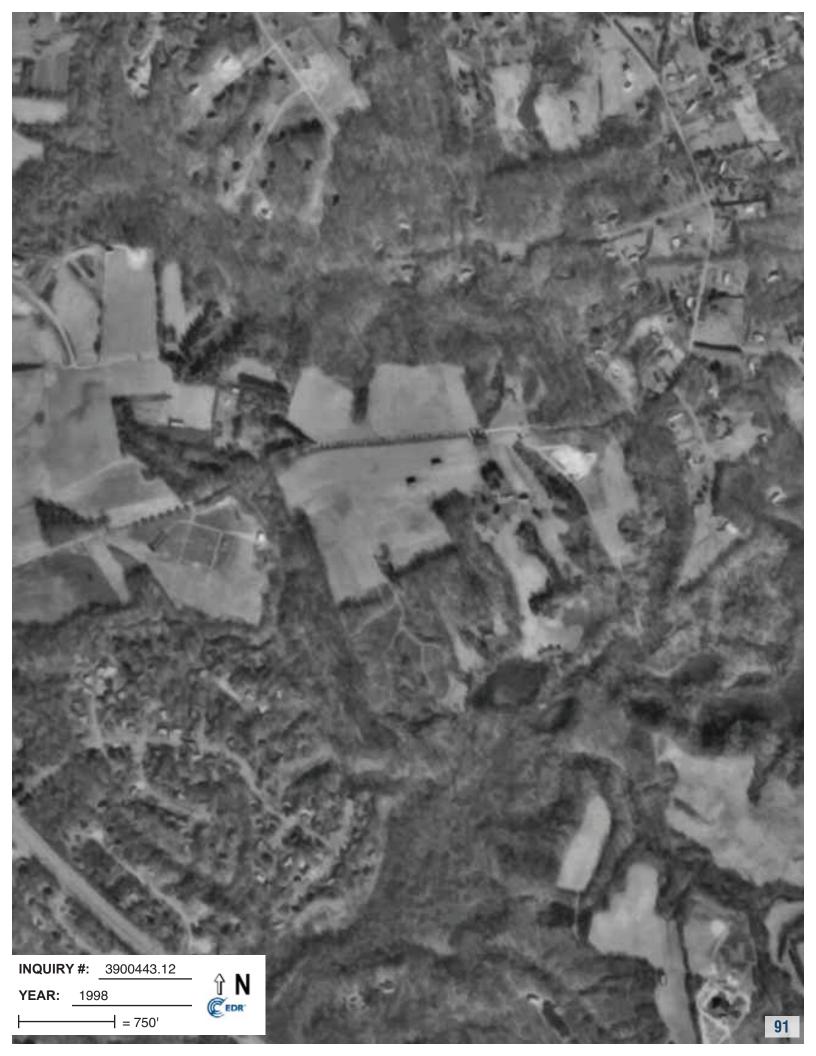


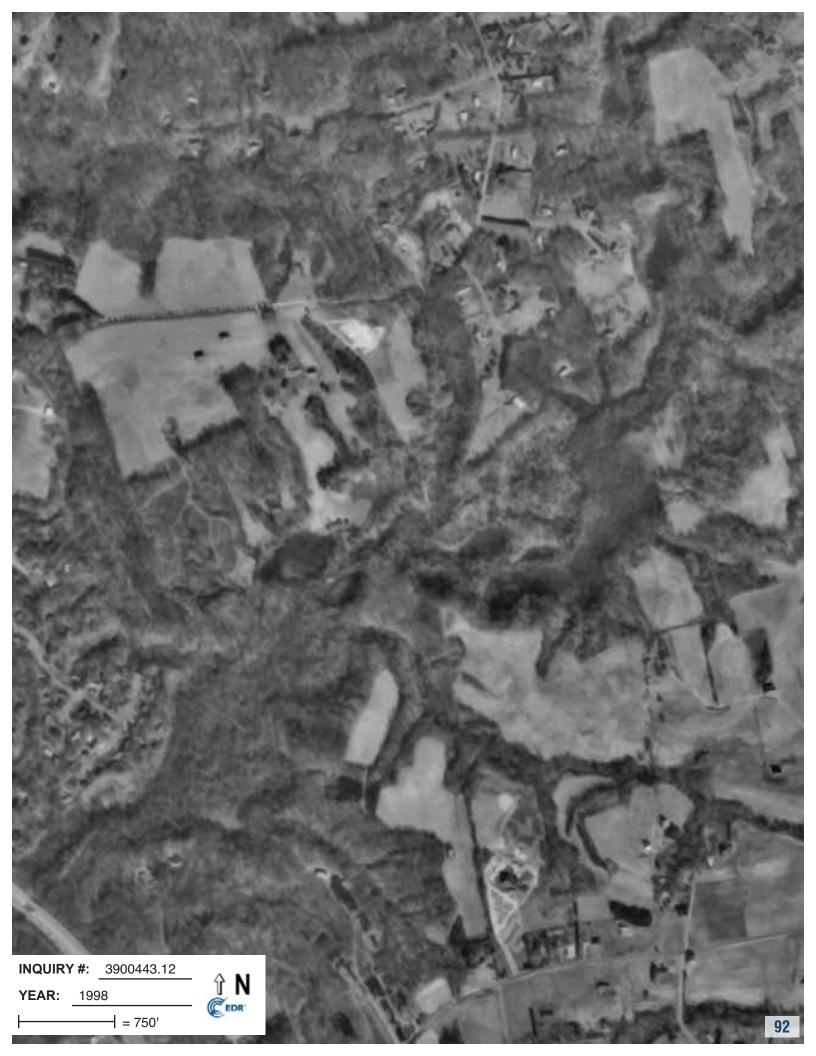




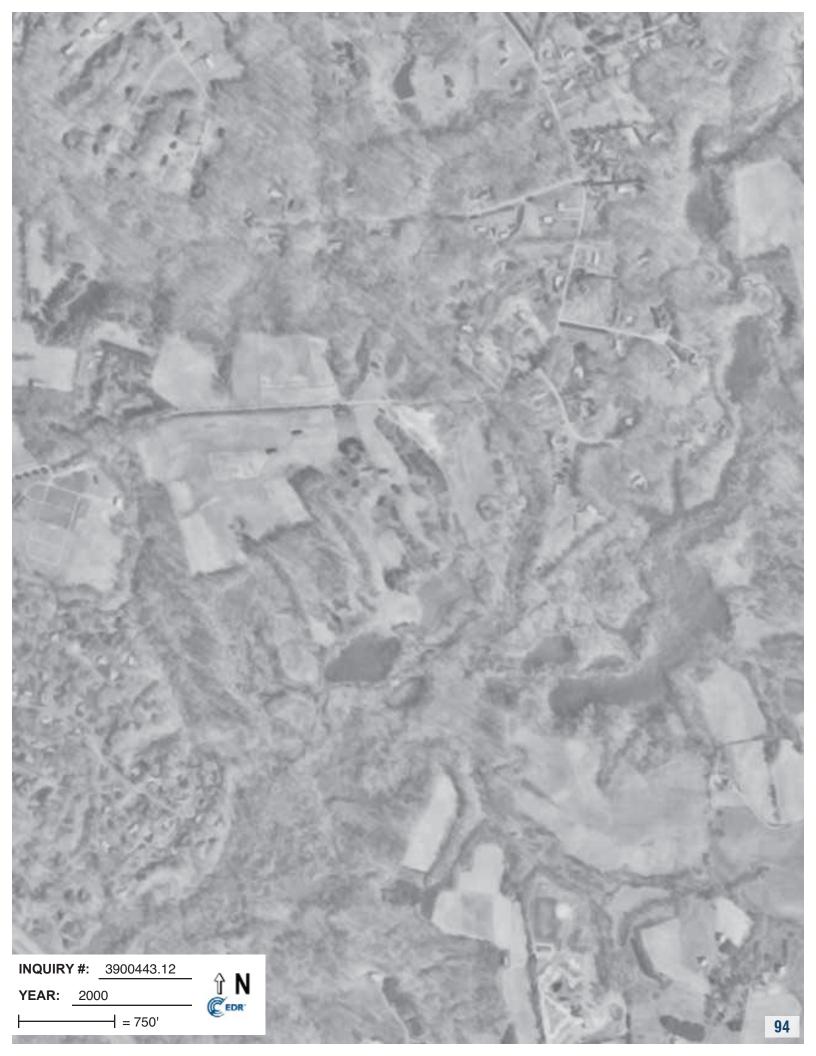




























Ward Park

Ward Road Dunkirk, MD 20754

Inquiry Number: 3900443.5

April 04, 2014

The EDR-City Directory Image Report



Environmental Data Resources Inc

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

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SECTION

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Findings

City Directory Images

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DESCRIPTION

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

<u>Year</u>	Target Street	Cross Street	<u>Source</u>
2013	$\overline{\checkmark}$	$\overline{\checkmark}$	Cole Information Services
2008		$\overline{\checkmark}$	Cole Information Services
2003		$\overline{\checkmark}$	Cole Information Services
1999		$\overline{\checkmark}$	Cole Information Services
1995			Stewart's Criss-Cross Directory
1990			Stewart's Criss-Cross Directory
1985			Stewart's Criss-Cross Directory

RECORD SOURCES

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FINDINGS

TARGET PROPERTY STREET

Ward Road Dunkirk, MD 20754

<u>Year</u>	CD Image	<u>Source</u>	
W WARD RD			
1995	-	Stewart's Criss-Cross Directory	Street not listed in Source
1990	-	Stewart's Criss-Cross Directory	Street not listed in Source
1985	-	Stewart's Criss-Cross Directory	Street not listed in Source
WARD RD			
2013	pg A1	Cole Information Services	
2008	pg A3	Cole Information Services	
2003	pg A5	Cole Information Services	
1999	pg A7	Cole Information Services	
1995	pg A9	Stewart's Criss-Cross Directory	
1990	pg A10	Stewart's Criss-Cross Directory	
1985	pg A11	Stewart's Criss-Cross Directory	

MAHAN RYKIEL

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FINDINGS

CROSS STREETS

<u>Year</u>	CD Image	<u>Source</u>
W WARD RD		
2013	pg. A2	Cole Information Services
2008	pg. A4	Cole Information Services
2003	pg. A6	Cole Information Services
1999	pg. A8	Cole Information Services

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Cole Information Services

WARD RD 2013

10095	CVS PHARMACY
10340	SCOTT BOND
10455	JEAN WARD
10520	KYLE MARKWARD
10525	DONALD SHOMETTE
10590	MICHAEL THOMPSON
10600	DOUGLAS DREIBELBIS
10615	EDWARD WOLSKI
10630	ADAM HOLSWORTH
10640	FRAUKE BOWEN
10650	LUIS KELLY
10660	HOWARD KIDD
10670	JOHN KYLER
10690	JOSE BROADWATER
10700	MABEL VAUGHN
10701	BRADLEY SWEET
10707	ROBERT POUDRIER
10715	SHAWN FUNCHION
10721	BRAD LAFLEY
10830	JERRY SHEPHERD
10920	BROWN LARRY V CPA
	LARRY BROWN
10925	JOSEPH CLEARY
10930	ROBERT LOMEDICO
10940	BRENDAN OAK
10951	MATT BOUDREAU
10971	MARY NICHOLSON
10991	KIMBERLY MUSGROVE
11220	JOHN BALLENGER
11250	WILLIAM HANDLE
11252	B & B MASONRY
11100	SUZANNE BACZYNSKI
11420	WILLIAM WATSON

W WARD RD 2013

3140 ADVANCED SURVETS INC	3140	ADVANCED	SURVEYS INC
---------------------------	------	----------	-------------

ALLSTATE CAPITOL TILE

EXCEL PHYSICAL THERAPY

JE RICE INSURANCE

MEHTA BHARGESH P MD FAAP MIKE GIBBONS ALLSTATE AGENT

PATRICIA BLACKFORD

PATRICIA O BLACKFORD CPA LLC

PATRIOT CONSTRUCTION

SWANIGER MARIA

TONY SPARGO ALLSTATE AGENT

TRACY MARTIAL ARTS

3150 DAWNS EARLY LIGHT

GENTLE FAMILY DENTISTRY LLC

JULIE A SCHEJBAL

LEGG MASON DUNKIRK OFFICE

MONARCH BANK

RATH & CARMEAN LIMITED

3175 CALVERT FINANCIAL

GERGELY ANDREW T MD

3185 KIDS CAMPUS EARLY LEARNING CENTER

3189 US CONCRETE ON SITE INC

10095	CVS
-------	-----

CVS PHARMACY 1881

10155 LEE SIGNS

SOUTHERN MEMORIAL GARDEN

- 10340 SCOTT BOND
- 10455 OCCUPANT UNKNOWN
- 10520 KYLE MARKWARD
- 10525 DONALD SHOMETTE
- 10540 ROBERT PRUSHINSKI
- 10590 MICHAEL THOMPSON
- 10600 DOUGLAS DREIBELBIS
- 10615 BRIAN WOLF
- 10630 ADAM HOLSWORTH
- 10640 FRAUKE BOWEN
- 10650 LUIS KELLY
- 10660 HOWARD KIDD
- 10670 JOHN KYLER
- 10690 EUGENE FOSTER
- 10700 MABEL VAUGHN
- 10701 BRADLEY SWEET
- 10707 ROBERT POUDRIER
- 10711 WILLIAM QUADE
- 10715 OCCUPANT UNKNOWN
- 10721 HELEN THOMPSON
- 10830 J R SHEPHERD
 - JERRY SHEPHERD
- 10920 OCCUPANT UNKNOWN
- 10925 CLEARY INC
 - JOSEPH CLEARY
- 10930 ROBERT LOMEDICO
- 10940 BRENDAN OAK
- 10951 MATTHEW BOUDREAU
- 10971 ALBERT NICHOLSON
- 10991 WANDA HILT
- 11220 JOHN BALLENGER
- 11250 WILLIAM HANDLE
- 11252 B & B MASONRY
 - ROBERT BACZYNSKI
- 11370 ROY YOUNG
- 11420 WILLIAM WATSON

W WARD RD 2008

3140	ADVANCED SURVEYS INC
3140	

ALLSTATE

BAY COUNTRY TRAVEL SERVICE

CURVES

FIRST COUNTY MORTGAGE

J WEBSTER & ASSOCS

LISA GENTRY

MARRICK PROPERTIES INC

NELSON BRENNAN CONSULTANT PATUXENT MORTGAGE CO INC

R A BARRETT & ASSOCS INC

SPARGO TONY

TANAGER

TONY SPARGO

3150 CITIGROUP GLOBAL MARKETS INC

CURVES

DAVID HALE & ASSOCIATES INC

DAWN EARLY LIGHT

HEFFRON SCHWARTZ KOHLER & RAI

LAW OFFICES OF JULIE A SCHEJBAL CHTD

LEGG MASON WOOD WALKER INC

MARRICK

MRKTPLC PROFESSIONAL CENTER

PRIOR ROBERT DR

RATH & CARMEAN LIMITED ATTORNEY

RATH MARGARET LAW OFFICES OF

SMITH BARNEY

SOUTHERN MARYLAND ORAL MAXILLO

3170 DUNKIRK5

3185 PATRICIA BLACKFORD CPA LLC

3189 CALVERT FINANCIAL ADVISORY INC

U S CONCRETE ON SITE INC

10155	LARRY DEFFENBAUGH
	LEE GROUP OF VIRGINIA
	LEE SIGNS
10455	EDWIN WARD
10520	SUSAN BOOTHE
10525	DONALD SHOMETTE
10540	ROBERT PRUSHINSKI
10590	MICHAEL THOMPSON
10600	DOUGLAS DREIBELBIS
10615	OCCUPANT UNKNOWN
10630	CHARLES GRAY
10640	FRAUKE BOWEN
10650	NEAL ARMOUR
10660	HOWARD KIDD
10670	JOHN KYLER
10690	EUGENE FOSTER
10695	JOSEPH PORTER
10700	EDWARD VAUGHN
10701	BRADLEY SWEET
10707	ROBERT POUDRIER
10711	JOSEPH DOUGLAS
	THERESA HOLMGREN
10715	JASON HOOD
10721	MARCELLA LAFLEY
10830	JERRY SHEPHERD
10920	BROWN LARRY V CPA
	LARRY BROWN
10925	JOSEPH CLEARY
10930	ROBERT LOMEDICO
10940	AD MAC CONSULTING CORF
	BRENDAN OAK
10951	MATTHEW BOUDREAU
10971	ALBERT NICHOLSON
10991	WANDA HILT
11220	JOHN BALLENGER
	SATURN CORP
11250	WILLIAM HANDLE
11252	B & B MASONRY
	ROBERT BACZYNSKI
11370	LAURIE TOLSON

11420 STEVEN WATSON

W WARD RD 2003

3140 BAY COUNTRY TRAVEL SERVICE

BEAUTIFUL KITCHENS

CALVERT FINANCIAL ADVISORY INC CHESAPEAKE COUNSELING NETWORK

LEE MONIKA G MD MARVIN OURSLER MICHAEL GILLOOLY

RA BARRETT & ASSOCS INC RICE J E INSURANCE AGENCY

TANAGER INC

TRACYS MARTIAL ARTS ACADEMY

3150 CRUNKLETON ROSE C LAW OFC

DAWNS EARLY LIGHT

DHA INC

LAW OFFICES OF JULIE SCHEJBAL INC

MPI UTILITIES LLC RATH & CARMEAN LTD

114

10155	DOUGLAS MITCHELL
10340	REBECCA HARING
10360	RICHARD EWING
10460	JAMES STURDIVANT
10520	BARBARA ARMOUR
	CRAIG JOST
10525	DONALD SHOMETTE
10540	R PRUSHINSKI
10590	RALPH MANUEL
10600	DOUGLAS DREIBELBIS
10615	B WOLF
10640	F BOWEN
10650	NEAL ARMOUR
10660	HOWARD KIDD
10670	JOHN KYLER
10695	JOSEPH PORTER
10700	EDWARD VAUGHN
10701	BRADLEY SWEET
10707	GILBERT POUDRIER
	L POUDRIER
10711	EMMETT CAVE
	JOSEPH DOUGLAS
10715	DARREL KINCH
	JASON HOOD
	LEE LYONS
10721	M LAFLEY
10830	JERRY SHEPHERD
10920	BROWN LARRY V CPA
10925	JOSEPH CLEARY
10930	MARY LOMEDICO
10940	BRENDAN OAK
10971	ALBERT NICHOLSON
10991	WANDA HILT
11220	JOHN BALLENGER
	SATURN CORPORATION
11250	WILLIAM HANDLE
11252	B & B MASONRY
	ROBERT BACZYNSKI

Cole Information Services

W WARD RD 1999

3140 BARRETT & ASSOCIATES INCORPORATED

BAY COUNTRY TRAVEL SERVICE

BAY COUNTRY TRAVEL SERVICE 3140 W WARD RD CALVERT FINANCIAL ADVISORY INCORPORATED

CENTURY 21 BEST REALTY

MARRICK PROPERTIES INCORPORATED

RICE J E INSURANCE AGENCY TANAGER INCORPORATED

116

	RD (Dunkirk) 20754 thern Md Blvd (Rt 4)		
Map 4:8			
370	Prushinski R	+ 257-4369	95
	#Southern Memorial	1 207 4000	00
	Gardens	257-3311	
10340	Ewing Richard T	855-7837	83
10455	Ward Edwin E	257-2409	
10520	Martin Griz	257-0427	90
10525	Shomette Donald G	855-5280	94
10590	Manuel Ralph	535-5722	90
10590	Manuel Ralph	855-2180	90
10615	Wolf B C	855-2923	94
10640	Bowen Karl A	257-0740	90
10650	Armour Neal	257-9125	88
10690	Farren Walter	855-7959	- =
10695	Porter Joseph B Jr	855-5870	89
10700	Vaughn Edward J	855-7440	
10701	Sweet B A	855-8992	
10707	Nichols L	257-7130	94
10707	Poudrier Gilbert Sr	855-4051	91
10711	Cave Emmett L	855-8540	
10715	Hood Jason	257-0114	94
10715	Lyons Lee	741-5513	90
10721	Lafley Thomas A	855-6570	
10925	Cleary Joseph	855-8746	
10971	Nicholson Albert H Jr	855-8342	
10991	Hilt W L	855-8379	84
11220	Ballenger John W Jr	855-3723	93
11370	Sewell Doris M	855-6938	

	WAILD ILD 1990	
10520	Martin Griz	+257-0427
10525	Covington Ross	855-2102
10590	Manuel Ralph	¤535-5722
10590	Manuel Ralph	¤855-2180
10615	Murphy James R	257-6370
10640	Bowen Karl A	+257-0740
10650	Armour Neal	257-9125
10660	Barham Thomas	855-5027
10695	Porter Joseph B Jr	855-5870
10700	Vaughn Edward J	855-7440
10701	Sweet B A	855-8992
10711	Cave Emmett L	855-8540
10715	Lyons Lee	+741-5513
10721	Lafley Thomas A	855-6570
10925	Cleary Joseph	855-8746
10971	Nicholson Albert H Jr	855-8342
10991	Hilt W L	855-8379
11370	Sewell Doris M	855-6938
	Bellanger Lisa	257-0275
	Ewing Richard T	855-7837
	Farren Walter	855-7959
	King Ronald D	257-3187
	McCann Homer E	855-7257
	Murphy James R	855-8843
	#Southern Memorial	
- 0.1	Gardens	257-3311
	Ward Edwin E	257-2409

	WAILD ID 1909	
10525	Albright Henry H	855-5717
10650	Armour Richard N	+257-2830
10660	Barham Tommy A	+855-5027
10700	Vaughn Edward J	855-7440
10701	Sweet B A	855-8992
10711	Cave Emmett L	855-8540
10715	Flynn Michael R	+855-5303
10721	Lafley Thomas A	855-6570
10951	Cleary J L	855-8984
10951	Cleary Joseph	855-8746
10971	Nicholson Albert H Jr	855-8342
10991	Hilt W L	855-8379
	Ahrons G Robert	855-7439
	Ahrons George Robert	257-9412
	Ewing Richard T	855-7837
	Farren Walter	855-7959
	Godshaw F	257-7593
	King Ronald D	257-3187
	McCann Homer E	855-7257
	Murphy James R	257-6370
	Murphy James R	855-8843
	Reinecke David P	257-3298
	Rollins Rosemary M	257-7002
	#Southern Memorial	
	Gardens	257-3311
	Ward Edwin E	257-2409

Ward Park

Ward Road Dunkirk, MD 20754

Inquiry Number: 3900443.3

April 03, 2014

Certified Sanborn® Map Report



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

Certified Sanborn® Map Report

Site Name: Client Name:

Ward Park Whitman, Requardt & Assoc,

Ward Road 3701 Pender Drive Dunkirk, MD 20754 Fairfax, VA 22030

EDR Inquiry # 3900443.3 Contact: Kevin T. Roberts



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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:

Site Name: Ward Park Address: Ward Road

City, State, Zip: Dunkirk, MD 20754

Cross Street:

P.O. # 42083 Project: Ward Park

Certification # A25A-41DA-8BF2



Sanborn® Library search results Certification # A25A-41DA-8BF2

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American cities and towns. Collections searched:

Library of Congress

✓ University Publications of America

▼ EDR Private Collection

The Sanborn Library LLC Since 1866™

UNMAPPED PROPERTY

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Ward Park

Ward Road Dunkirk, MD 20754

Inquiry Number: 3900443.7

April 04, 2014

EDR Environmental Lien and AUL Search



Environmental Data Resources Inc

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

EDR Environmental Lien and AUL Search

The EDR Environmental Lien and AUL Search 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 with any questions or comments.

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EDR Environmental Lien and AUL Search

TARGET PROPERTY INFORMATION

ADDRESS

Ward Road Ward Park

Dunkirk, MD 20754

RESEARCH SOURCE

Source 1:

Calvert County Recorder Calvert, MD

PROPERTY INFORMATION

Deed 1:

Type of Deed: Deed

Title is vested in: Board of County Commissioners of Calvert County Ma

Title received from: Douglas E Ward & Karen K Ward

 Deed Dated
 2/27/2013

 Deed Recorded:
 3/6/2013

 Book:
 4140

 Page:
 84

 Volume:
 NA

 Instrument:
 NA

 Docket:
 NA

Land Record Comments: see exhibit

Miscellaneous Comments: NA

Legal Description: see exhibit

Legal Current Owner: Board of County Commissioners of Calvert County Maryland

Parcel # / Property Identifier: 03-106748, parcel 70

Comments: see exhibit

Deed 2:

Type of Deed: Deed

Title is vested in: Board of County Commissioners of Calvert County Ma

Title received from: Douglas E Ward Deed Dated 2/27/2013 Deed Recorded: 3/6/2013 4140 Book: Page: 68 Volume: NA Instrument: NA Docket: NA

Land Record Comments:

MAHAN RYKIE

EDR Environmental Lien and AUL Search

see exhibit Miscellaneous Comments: NA **Legal Description:** see exhibit **Legal Current Owner:** Board of County Commissioners of Calvert County Maryland Parcel # / Property Identifier: 03-020045, parcel 54 Comments: see exhibit **ENVIRONMENTAL LIEN Environmental Lien:** Found Not Found X **OTHER ACTIVITY AND USE LIMITATIONS (AULs)** AULs: Found Not Found ×

Deed Exhibit 1

BK 4 1 4 0 PG 0 0 8 4

TAX ID: 03-106748

THIS DEED entered into this 27th day of February, 2013, by and between, DOUGLAS E. WARD and KAREN K. WARD, parties of the first part, and BOARD OF COUNTY COMMISSIONERS OF CALVERT COUNTY, MARYLAND, a body politic, party of the second part.

WITNESSETH, in consideration of the sum of Five Hundred Twenty-One Thousand Dollars (\$521,000.00), to be paid as follows; One-Fifth (1/5) the balance of the consideration (\$104,200.00) by certified check to Seller's order or by wire transfer in accordance with Seller's instructions on the delivery of the Deed, with the remaining balance to be paid by the party of the second part to the parties of the first part, annually in four (4) equal installments of \$104,200.00 over the next four years, and other good and valuable consideration, the receipt of which is hereby acknowledged, the said parties of the first part hereby grant and convey unto the said Board of County Commissioners of Calvert County, Maryland, its successors and/or assigns, in fee simple all that piece or parcel of ground situate, lying and being in the Third Election District of Calvert County, State of Maryland, and is more particularly described as follows, that is to say:

SEE ATTACHED EXHIBIT "A" - LEGAL DESCRIPTION

RECORDATION I 0.0
IR TAX STATE 0.0
NON-RES. WITH 0.0
TOTAL 0.0
Res#CV01 Rcrt#999999
KPS PML Blk#440
Mar 06, 2013 12:41 PM

BEING the property obtained by Douglas E. Ward and Karen K. Ward by virtue of a deed from Edwin E. Ward and Douglas E. Ward dated May 31, 1984 and recorded June 1, 1984 among the Land Records of Calvert County, Maryland in Liber 318, folio 585.

TOGETHER with the buildings thereupon, and the Highes, alleys, ways, waters, privileges, appurtenances and advantages thereto belonging, or in anywise appertaining.

TO HAVE AND TO HOLD the said lot of ground and premises, above described and mentioned, and hereby intended to be conveyed; together with the rights, privileges, appurtenances and advantages thereto belonging or appertaining unto the to the proper use and benefit of the said Board of County Commissioners of Calvert County, Maryland, its successors and/or assigns, in fee simple.

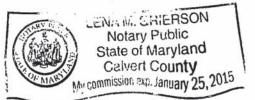
WITNESS the hand and seal of said grantor(s):

DOUGLAS E. WARD

STATE OF Maryland, COUNTY OF Calvert, to wit

I HEREBY CERTIFY that on this 27th day of + tor vary, 2013, before me, the subscriber, a Notary Public of the State and County aforesaid, personally appeared <u>Douglas E. Ward and Karen K. Ward</u>, known to me, or satisfactorily proven to be the person(s) whose name(s) is/are subscribed to the within Deed and who acknowledge that he executed the same for the purposes therein contained.

AS WITNESS my hand and notarial seal.



Notary Public
My commission expires: 01 |05 |2015

I HEREBY CERTIFY that the within instrument was prepared by or under the supervision of the undersigned Maryland attorney.

Robert I. Damaloyii, Esquire

Member of the Bar of the Court of Appeals

This is to Certify that the Taxes on Property 2
Description within have been paid to and including 12 St p d S-15-12
Calvert County Treasurer

CALVERT COUNTY GOVERNMENT

COLLINSON, OLIFF & ASSOMMATIES, ONG. 0086

SURVEYORS · ENGINEERS · LAND PLANNERS P.O. Box 2209 · Prince Frederick, Maryland 20678 410-535-3101 · 301-855-1599 · FAX 410-535-3103

DESCRIPTION OF 40.207 ACRES, MORE OR LESS THE PROPERTY OF DOUGLAS AND KAREN WARD THIRD DISTRICT, CALVERT COUNTY, MARYLAND

BEGINNING for the same at a point where the southerly right-of-way line of Ward Road (30' right-of-way) is intersected by a projection of the westerly outline of Lot 17 in Dunkirk Fields subdivision as shown on a plat thereof recorded among the Plat Records of Calvert County, Maryland in Plat Book J.L.B. 2 at Plat 194 and said point also being the northeast corner of the herein described.

THENCE leaving the point of beginning, so fixed, and the southerly right-of-way line of Ward Road and running with the westerly outlines of Lots 17, 16, 15 and 14 shown on the above mentioned plat of Dunkirk Fields subdivision the following five (5) courses and distances as referenced to the meridian of the herein described, i.e.;

- South 29° 59' 43" East 445.75' to a tall pipe found, passing over a pipe found at 330.62' along said course;
- South 30° 43' 53" East 348.81', passing over a pipe found beside a tall pipe at 178.81' along said course;
- 3) South 00° 54' 13" East 234.15' to a pipe found beside a tall pipe;
- 4) South 14° 54' 17" West 426.49' to a tall pipe found, and;
- 5) South 05° 57' 33" West 287.60' to a tall pipe found at the southernmost corner of the above mentioned Lot 14 of Dunkirk Fields;

THENCE running with a portion of the southeasterly outline of said Lot 14 the following two
(2) courses and distances as referenced to the meridian of the herein described, i.e.;

6) North 50° 51' 17" East - 441.73' to a post, and;

7) North 49° 48' 37" East - 13.01';

THENCE leaving the southeasterly outline of Lot 14 and running with the conveyance from Brenda Dowell Paul to Brenda Dowell Paul and Stuart L. Paul by deed dated December 27, 2010 and recorded among the Land Records of Calvert County, Maryland in Liber K.P.S. 3645 at Folio 129 the following five (5) courses and distances, i.e.;

- 8) South 70° 46' 40" East 791.96' to a pipe found;
- 9) South 18° 37' 22" West 547.27' to a pipe found;
- 10) South 83° 13' 23" West 432.01' to a pipe found;
- 11) North 87° 08' 03" West 354.64', and;
- 12) North 81° 29' 09" West 275.76' to a pipe found at the northeasterly corner of the First Parcel described in the conveyance from Charles H. Prout to Most Reverend Theodore E. McCarrick, Roman Catholic Archbishop of Washington by deed dated July 2, 2004 and recorded among the aforesaid Land Records in Liber K.P.S. 2252 at Folio 533;

THENCE leaving the Paul property and running with a portion of the northerly outline of the First Parcel of said conveyance to Most Reverend Theodore E. McCarrick, Roman Catholic Archbishop of Washington as referenced to the meridian of the herein described, i.e.;

13) North 74° 50' 25" West – 309.90' to a pipe found in the southeasterly outline of that portion of the conveyance from Edwin E. Ward to Edwin E. Ward, Trustee of the Edwin E. Ward Trust, by deed dated January 31, 2006 and recorded among the aforesaid Land Records in Liber K.P.S. 2696 at Folio 164 lying south of Ward Road, passing over a pipe found at 28.39' along said course;

THENCE leaving the First Parcel of the conveyance to Most Reverend Theodore E.

McCarrick, Roman Catholic Archbishop of Washington and running with a portion of the southeasterly

outline and the easterly outline of said Ward property the following four (4) courses and distances as now surveyed, i.e.;

- 14) North 46° 36' 09" East 412.58';
- 15) North 28° 55' 07" West 302.99' to an oak stump;
- 16) North 20° 55' 21" West 963.94' to a pipe found, and;
- 17) North 43° 45' 32" West 702.70' to intersect the southerly right-of-way line of the above mentioned Ward Road (30' right-of-way);

THENCE leaving the easterly outline of the Ward property and running with the southerly right-of-way line of said Ward Road the following three (3) courses and distances as now surveyed, i.e.;

- 18) 162.78' along the arc of a curve to the right, having a radius of 1,535.00' and a chord bearing and distance of North 89° 29' 49" East 162.71' to a point of reverse curvature;
- 19) 134.40' along the arc of a curve to the left, having a radius of 1,290.00' and a chord bearing and distance of North 89° 33' 01" East 134.34' to a point of compound curvature, and;
- 20) 548.02' along the arc of a curve to the left, having a radius of 5,020.00' and a chord bearing and distance of North 83° 26' 18" East 547.75' to the point and place of beginning.

CONTAINING 40.207 acres, more or less, as described and shown on a plat entitled
"BOUNDARY SURVEY, 137.163 ACRES± AND 31.642 ACRES±, THE PROPERTY OF
EDWIN E. WARD, TRUSTEE OF THE EDWIN E. WARD TRUST, AND 40.207 ACRES±,
THE PROPERTY OF DOUGLAS E. WARD AND KAREN K. WARD" by Collinson, Oliff &
Associates, Inc., Registered Professional Engineers and Land Surveyors in February 2013 from a
boundary survey performed by Collinson, Oliff & Associates, Inc. in August 2011.

wife, by deed dated May 31, 1984 and recorded among the Land Records of Calvert County, Maryland in Liber A.B.E. 315 at Folio 585.

THE bearings in the above described being referenced to NAD 1983. I hereby certify that this description was prepared under my responsible charge and is in compliance with requirements set forth in Chapter 06, "Minimum Standards of Practice," COMAR, Title 09, Subtitle 13, Maryland Department of Licensing and Regulation for Land Surveyors, as currently in effect. ry Guelle

Jeffrey L. Tewell

Maryland Professional Land Surveyor No. 21270

License Expiration: June 19, 2013



BK 4 1 4 0 PG 0 0 9 0

AFFIDAVIT AS TO TOTAL PAYMENT

THE undersigned certifies under the penalties of perjury, that the following is true to the best of their knowledge, information and belief, in accordance with Section 10-912(b)(2) of the Tax-General Article of the Annotated Code of Maryland, (the "Withholding Law"):

- That they are the transferors of that real property described in the accompanying deed.
- 2. The amount of total payment for the purpose of the Withholding Law is \$0.00.
- 3. That they are residents of the state of Maryland.

Dated this $\frac{27}{\text{day}}$ of February, 2013.

WITNESS:

TRANSFERORS:

DOUGLAS E WARD

KAREN K. WARD

The Damalouji Law Firm, LLC 135 W. Dares Beach Road Suite 209-A Prince Frederick, MD 20678

Canary – SDAT Goldenrod – Preparei

AOC-CC-300 (5/2007)

State of Maryland Land Instrument Intake Sheet

☐ Baltimore City

BK4140PG0091

2013.

BK 4 1 4 0 PG 0 0 6 8

TAX ID: 03-020045

THIS DEED entered into this 27th day of February, 2013, by and between, DOUGLAS E. WARD, Trustee of the Edwin E. Ward Trust, party of the first part, and BOARD OF COUNTY COMMISSIONERS OF CALVERT COUNTY, MARYLAND, a body politic, party of the second part.

WITNESSETH, in consideration of the sum of Two Million One Hundred Seventy-Nine Thousand Dollars (\$2,179,000.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, the said party of the first part hereby grants and conveys unto the said Board of County Commissioners of Calvert County, Maryland, its successors and/or assigns, in fee simple all that piece or parcel of ground situate, lying and being in the Third Election District of Calvert County, State of Maryland, and is more particularly described as follows, that is to say:

SEE ATTACHED EXHIBIT "A" – LEGAL DESCRIPTION

BEING the property obtained by Edwin E. Ward, Trustee of the Edwin E. Ward Trust by virtue of a deed from Edwin E. Ward dated January 31, 2006 and recorded February 13, 2006 among the Land Records of Calvert County, Maryland in Liber 2696, folio 164.

TOGETHER with the buildings thereupon, and the rights, alleys, ways, waters, privileges,

appurtenances and advantages thereto belonging, or in anywise appertaining.

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KPS PML Blk#440
Mar 06, 2013 12:40 Fm

BK4140PG0069

TO HAVE AND TO HOLD the said lot of ground and premises, above described and mentioned, and hereby intended to be conveyed; together with the rights, privileges, appurtenances and advantages thereto belonging or appertaining unto the to the proper use and benefit of the said Board of County Commissioners of Calvert County, Maryland, its successors and/or assigns, in fee simple.

WITNESS the hand and seal of said grantor(s):

DOUGLAS E. WARD, Trustee of the Edwin E. Ward Trust

I HEREBY CERTIFY that on this 27 day of February, 2013, before me, the subscriber, a Notary Public of the State and County aforesaid, personally appeared Douglas E. Ward as Trustee of the Edwin E. Ward Trust, known to me, or satisfactorily proven to be the person(s) whose name(s) is/are subscribed to the within Deed and who acknowledge that he executed the same for the purposes therein contained.

AS WITNESS my hand and notarial seal.

LENG W. LINIERSON Notary Public State of Maryland Calvert County My commission exp. lanuary 25, 2015 My commission expires

I HEREBY CERTIFY that the within instrument was prepared by or under the supervision of the undersigned Maryland attorney.

Robert I. Damalouji Esquire

Member of the Bar of the Court of Appeals

This is to Certify that the Taxes on Property Description within have been paid to and including 12 SJpd 12,31-12 Calvert County Treasurer

CALVERT COUNTY GOVERNMENT

BY: CAR DATE: 3/6/13

COLLINSON, OLIFF & ASSOCIATES, INC.

SURVEYORS · ENGINEERS · LAND PLANNERS P.O. Box 2209 · Prince Frederick, Maryland 20678 410-535-3101 · 301-855-1599 · FAX 410-535-3103

DESCRIPTION OF 31.642 ACRES, MORE OR LESS
PART OF THE PROPERTY OF
EDWIN E. WARD, TRUSTEE OF THE
EDWIN E. WARD, TRUST
THIRD DISTRICT, CALVERT COUNTY, MARYLAND

BEGINNING for the same at a pipe found at the southeast corner of the Non-buildable Residue shown on a plat entitled "REPLATTING OF PARCEL 291, LOT 1, NON-BUILDABLE RESIDUE, PARCEL A & INGRESS/EGRESS EASEMENTS, RED HALL" recorded among the Plat Records of Calvert County, Maryland in Plat Book K.P.S. 2 at Plat 371 and said pipe also being at the southernmost corner of Lot 6 in Section Two of Dunkirk Woods subdivision as shown on a plat thereof recorded among the aforesaid Plat Records in Plat Book J.L.B. 2 at Plat 115.

THENCE leaving the point of beginning, so fixed, and the above mentioned Non-buildable Residue and running with a portion of the southeasterly outline of said Lot 6 in Section Two of Dunkirk Woods subdivision as referenced to the meridian of the herein described, i.e.;

1) North 60° 40' 23" East – 332.90' to a pipe found at the northwesterly corner of Lot 7R in Section One of Woodlawn Farms subdivision as shown on a plat thereof recorded among the Land Records of Calvert County, Maryland in Liber K.P.S. 1184 at Folio 74, passing over iron rods found at 100.02' and 300.04' along said course;

THENCE leaving the southeasterly outline of Lot 6 in Section Two of Dunkirk Woods subdivision and running with the westerly outline and a portion of the southerly outline of said Lot 7R in Section One of Woodlawn Farms subdivision the following seven (7) courses and distances as referenced to the meridian of the herein described, i.e.;

2) South 29° 34' 33" East - 27.04' to a pipe found;

- 3) South 00° 43' 33" East 60.11' to a pipe found;
- 4) South 66° 37' 33" East 39.01' to a pipe found;
- 5) South 06° 17' 33" East 27.80';
- South 50° 31' 33" East 35.24';
- 7) South 82° 26' 33" East 12.68' to a pipe found, and;
- 8) North 60° 25' 27" East 109.25' to the northwesterly corner of Lot 3 in Section One of Woodlawn Farms subdivision as shown on a plat thereof recorded among the aforesaid Plat Records in Plat Book J.L.B. 2 at Plat 25;

THENCE leaving the southerly outline of Lot 7R in Section One of Woodlawn Farms subdivision and running with the westerly outline of said Lot 3 in Section One of Woodlawn Farms subdivision and a portion of the westerly outline of Lot 2 in Section One of Woodlawn Farms subdivision (Plat Book J.L.B. 2/25) as referenced to the meridian of the herein described, i.e.;

9) South 29° 34' 33" East – 143.61' to a pipe found at the northwesterly corner of the conveyance from Hugh W. Ward, Jr. and Jane Denby Ward, his wife, to Richard N. Armour and Patricia J. Armour, his wife, by deed dated April 15, 1971 and recorded among the aforesaid Land Records in Liber J.L.B. 128 at Folio 209;

THENCE leaving the westerly outline of Lot 2 in Section One of Woodlawn Farms subdivision and running with the westerly outline of said Armour property the following eleven (11) courses and distances as referenced to the meridian of the herein described, i.e.:

- 10) South 46° 23' 27" West 64.05' to a pipe found;
- 11) South 03° 06' 06" West 73.52';
- 12) South 75° 04' 22" East 72.62';
- 13) South 25° 37' 55" East 65.15';

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14) South 21° 33' 24" West - 65.37';
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- 15) South 52° 45' 12" East 50.91';
- 16) South 11° 34' 03" East 150.33';
- 17) North 37° 14' 48" East 83.44';
- 18) South 41° 26' 36" East 79.32';
- 19) South 82° 25' 55" East 75.69', and;
- 20) South 51° 41' 33" East 67.45' to intersect the northerly right-of-way line of Ward Road (30' right-of-way);

THENCE leaving the westerly outline of the Armour property and running with the northerly right-of-way line of said Ward Road the following eight (8) courses and distances as now surveyed, i.e.;

- 21) 531.41' along the arc of a curve to the right, having a radius of 4,990.00' and a chord bearing and distance of South 83° 30' 54" West 531.15' to a point of compound curvature;
- 22) 131.27' along the arc of a curve to the right, having a radius of 1,260.00' and a chord bearing and distance of South 89° 33' 01" West 131.21' to a point of reverse curvature;
- 23) 212.24' along the arc of a curve to the left, having a radius of 1,565.00' and a chord bearing and distance of South 88° 38' 59" West 212.08' to a point of tangency;
- 24) South 84° 45' 52" West 168.64';
- 25) South 85° 27' 11" West 263.93';
- 26) South 85° 13' 32" West 268.99';
- 27) South 85° 33' 33" West 730.44' to a point of curvature, and;

28) 75.29' along the arc of a curve to the left, having a radius of 840.00' and a chord bearing and distance of South 82° 59' 29" West – 75.26';

THENCE leaving the northerly right-of-way line of Ward Road and running with the easterly outline of Parcel A and the easterly and southerly outlines of the Non-buildable Residue shown on the above mentioned plat of Red Hall (Plat Book K.P.S. 2/371) the following seven (7) courses and distances as now surveyed and referenced to the meridian of the herein described, i.e.;

- 29) North 55° 07' 38" West 221.82' to a pipe found;
- 30) North 43° 03' 36" West 63.18' to a pipe found;
- 31) North 18° 57' 00" West 63.81' to a pipe found;
- 32) North 19° 51' 35" East 295.46';
- 33) North 23° 49' 51" East 99.76' to an iron rod found;
- 34) North 87° 11' 35" East 1287.00' to an iron rod found, and;
- 35) North 78° 54' 17" East 324.30' to the point and place of beginning.

CONTAINING 31.642 acres, more or less, as described and shown on a plat entitled "BOUNDARY SURVEY, 137.163 ACRES± AND 31.642 ACRES±, THE PROPERTY OF EDWIN E. WARD, TRUSTEE OF THE EDWIN E. WARD TRUST, AND 40.207 ACRES±, THE PROPERTY OF DOUGLAS E. WARD AND KAREN K. WARD" by Collinson, Oliff & Associates, Inc., Registered Professional Engineers and Land Surveyors in February 2013 from a boundary survey performed by Collinson, Oliff & Associates, Inc. in August 2011.

BEING that portion of the conveyance from Edwin E. Ward to Edwin E. Ward, Trustee of the Edwin E. Ward Trust, by deed dated January 31, 2006 and recorded among the Land Records of Calvert County, Maryland in Liber K.P.S. 2696 at Folio 164 lying north of Ward Road.

in Chapter 06, "Minimum Standards of Practice," COMAR, Title 09, Subtitle 13, Maryland

Department of Licensing and Regulation for Land Surveyors, as currently in effect.

Jeffrey L. Tewell

Maryland Professional Land Surveyor No. 21270

License Expiration: June 19, 2013

COLLINSON, OLIFF & ASSOCIATES, INC. OPG 0 0 75

SURVEYORS • ENGINEERS • LAND PLANNERS P.O. Box 2209 • Prince Frederick, Maryland 20678 410-535-3101 • 301-855-1599 • FAX 410-535-3103

DESCRIPTION OF 137.163 ACRES, MORE OR LESS PART OF THE PROPERTY OF EDWIN E. WARD, TRUSTEE OF THE EDWIN E. WARD, TRUST THIRD DISTRICT, CALVERT COUNTY, MARYLAND

BEGINNING for the same at a point where the southerly right-of-way line of Ward Road (30' right-of-way) is intersected by the westerly outline of the First Parcel described in the conveyance from Edwin E. Ward and Katharine S. Ward, his wife, and H. Wilson Dowell, Jr. to Douglas E. Ward and Karen K. Ward, his wife, by deed dated May 31, 1984 and recorded among the Land Records of Calvert County, Maryland in Liber A.B.E. 315 at Folio 585 and said point being further described as the northeast corner of the herein described.

THENCE leaving the point of beginning, so fixed, and the southerly right-of-way line of Ward Road and running with the westerly outline of the First Parcel described in the above mentioned conveyance to Ward the following four (4) courses and distances as now surveyed and referenced to the meridian of the herein described, i.e.;

- 1) South 43° 45' 32" East 702.70' to a pipe found;
- 2) South 20° 55' 21" East 963.94' to an oak stump;
- 3) South 28° 55' 07" East 302.99', and;
- 4) South 46° 36' 09" West 412.58' to a pipe found in the northerly outline of the First Parcel described in the conveyance from Charles H. Prout to Most Reverend Theodore E. McCarrick, Roman Catholic Archbishop of Washington by deed dated July 2, 2004 and recorded among the aforesaid Land Records in Liber K.P.S. 2252 at Folio 533;

THENCE leaving the westerly outline of the First Parcel described in the above mentioned conveyance to Ward and running with a portion of the northerly outline of the First Parcel of said conveyance to Most Reverend Theodore E. McCarrick, Roman Catholic Archbishop of Washington the following three (3) courses and distances as referenced to the meridian of the herein described, i.e.;

- 5) North 74° 50' 25" West 219.13';
- 6) South 50° 44' 45" West 354.49', and;
- 7) South 53° 24' 36" West 144.52' to a pipe found in a creek at the northeast corner of the conveyance from James F. King, Sr. to King Calvert Farm Limited Partnership by deed dated December 22, 1995 and recorded among the aforesaid Land Records in Liber A.B.E. 839 at Folio 361 and as more particularly described as the First Parcel in the conveyance from Carrow T. Prout, Jr., and others, to Carolyn Prout King and James Forrest King, her husband, by deed dated August 10, 1984 and recorded among the aforesaid Land Records in Liber A.B.E. 330 at Folio 16;

THENCE leaving the First Parcel of the conveyance to Most Reverend Theodore E.

McCarrick, Roman Catholic Archbishop of Washington and running with the northerly outline of said

King Calvert Farm Limited Partnership property the following two (2) courses and distances as

referenced to the meridian of the herein described, i.e.;

- 8) South 51° 16' 52" West 727.22', and;
- 9) South 39° 26' 08" West 684.68' to a pipe found at the northernmost corner of Lot 3R, The Carrow T. Prout Property, as shown on a plat thereof recorded among the Plat Records of Calvert County, Maryland in Plat Book K.P.S. 2 at Plat 358, said pipe also being at the northeast corner of Lot 93 in Section Three of Apple Greene subdivision as shown on a plat thereof recorded among the aforesaid Plat Records in Plat Book J.L.B. 3 at Plat 150;

THENCE leaving the King Calvert Farm Limited Partnership property and Lot 3R, The Carrow T. Prout Property, and running with the northerly outline of said Lot 93 in Section Three of Apple Green subdivision as referenced to the meridian of the herein described, i.e.;

10) North 85° 56' 00" West - 194.70';

THENCE leaving Lot 93 and running with the easterly outlines of Lots 92, 91, 90, 89, 88 and 81 in said Section Three of Apple Green subdivision the following four (4) courses and distances as referenced to the meridian of the herein described, i.e.;

- 11) North 10° 19' 00" East 231.00' to a pipe found, passing over a pipe found at 135.08' along said course;
- 12) North 22° 56' 00" West 257.40' to a pipe found, passing over a pipe found at 45.41' along said course;
- 13) North 75° 11' 00" West 181.50' to a pipe found, passing over pipes found at 12.00' and 68.18' along said course, and;
- 14) North 33° 11' 00" West 150.50' to a pipe found at the southeast corner of Lot 77 in Section Two of Apple Greene subdivision as shown on a plat thereof recorded among the aforesaid Plat Records in Plat Book J.L.B. 3 at Plat 84;

THENCE leaving Lot 81 in Section Three of Apple Green subdivision and running with the easterly outlines of Lots 77, 76 and 69 in said Section Two of Apple Green subdivision the following five (5) courses and distances as referenced to the meridian of the herein described, i.e.;

- 15) North 33° 11' 00" West 97.00' to a pipe found;
- 16) North 18° 11' 00" West 330.00', passing over a pipe found at 69.32' along said course;
- 17) North 27° 26' 00" West 118.80';
- 18) North 47° 26' 00" West 148.50', and;

19) North 20° 26' 00" West – 162.95' to the southeasterly corner of Lot 43 in Section One of Apple Greene subdivision as shown on a plat thereof recorded among the aforesaid Plat Records in Plat Book J.L.B. 3 at Plat 63;

THENCE leaving Lot 69 in Section Two of Apple Green subdivision and running with the easterly outline of said Lot 43 in Section One of Apple Green subdivision as referenced to the meridian of the herein described, i.e.;

20) North 20° 26' 00" West – 205.00' to the southeast corner of the conveyance from Lee Group of Virginia, Inc. to Badtec, Inc. by deed dated February 28, 2006 and recorded among the aforesaid Land Records in Liber K.P.S. 2707 at Folio 435;

THENCE leaving Lot 43 in Section One of Apple Green subdivision and running with the easterly outline of said Badtec, Inc. property and generally with the meandering of a stream the following thirty-two (32) courses and distances as now surveyed, i.e.;

- 21) South 58° 22' 07" East 33.13';
- 22) North 03° 59' 08" West 89.53';
- 23) North 20° 10' 58" West 34.65';
- 24) North 18° 18' 19" East 7.44';
- 25) North 16° 47' 24" West 50.72';
- 26) North 26° 14' 34" East 36.84';
- 27) North 20° 42' 30" East 57.35";
- 28) North 01° 23' 34" West 72.55';
- 29) North 45° 17' 54" East 33.08';
- 30) North 29° 08' 05" East 29.48';
- 31) North 04° 28' 40" West 31.31';

- 32) North 07° 02' 26" East 27.69";
- 33) North 55° 17' 20" East 39.48';
- 34) North 32° 52' 11" East 42.36';
- 35) North 70° 09' 56" West 46.82';
- 36) North 18° 26' 52" West 111.64';
- 37) North 01° 37' 16" East 65.58';
- 38) North 04° 13' 47" West 94.65';
- 39) North 05° 35' 52" West 126.58';
- 40) North 66° 17' 54" West 63.75";
- 41) North 19° 24' 55" East 58.59';
- 42) North 54° 56' 28" West 51.23';
- 43) North 11° 18' 03" West 28.31';
- 44) North 29° 30' 42" East 47.58';
- 45) North 25° 03' 20" West 33.16';
- 46) South 89° 08' 15" West 40.66';
- 47) South 77° 33' 51" West 70.82';
- 48) North 34° 42' 17" West 19.48';
- 49) North 34° 13' 41" East 38.04';
- 50) North 45° 43' 14" West 40.83';
- 51) North 33° 30' 37" West 77.85', and;
- 52) North 47° 53' 55" West 21.94' to intersect the southerly right-of-way line of the above mentioned Ward Road (30' right-of-way);

THENCE leaving the Badtec, Inc. property and running with the southerly right-of-way line of said Ward Road the following eight (8) courses and distances as now surveyed, i.e.;

- 53) North 63° 45' 26" East 225.81' to a point of curvature;
- 54) 329.95' along the arc of a curve to the right, having a radius of 1,585.00' and a chord bearing and distance of North 69° 43' 15" East 329.36' to a point of compound curvature;
- 55) 139.60'along the arc of a curve to the right, having a radius of 810.00' and a chord bearing and distance of North 80° 37' 18" East 139.43' to a point of tangency;
- 56) North 85° 33' 33" East 730.44';
- 57) North 85° 13' 33" East 269.13';
- 58) North 85° 27' 11" East 264.02';
- 59) North 84° 45' 52" East 168.82' to a point of curvature, and;
- 60) 45.39' along the arc of a curve to the right, having a radius of 1,535.00' and a chord bearing and distance of North 85° 36' 42" East 45.39' to the point and place of beginning.

CONTAINING 137.163 acres, more or less, as described and shown on a plat entitled "BOUNDARY SURVEY, 137.163 ACRES± AND 31.642 ACRES±, THE PROPERTY OF EDWIN E. WARD, TRUSTEE OF THE EDWIN E. WARD TRUST, AND 40.207 ACRES±, THE PROPERTY OF DOUGLAS E. WARD AND KAREN K. WARD" by Collinson, Oliff & Associates, Inc., Registered Professional Engineers and Land Surveyors in February 2013 from a boundary survey performed by Collinson, Oliff & Associates, Inc. in August 2011.

BEING that portion of the conveyance from Edwin E. Ward to Edwin E. Ward, Trustee of the Edwin E. Ward Trust, by deed dated January 31, 2006 and recorded among the Land Records of Calvert County, Maryland in Liber K.P.S. 2696 at Folio 164 lying south of Ward Road.

in Chapter 06, "Minimum Standards of Practice," COMAR, Title 09, Subtitle 13, Maryland

Department of Licensing and Regulation for Land Surveyors, as currently in effect.

OF MARY

Jeffrey L. Tewell

Maryland Professional Land Surveyor No. 21270

License Expiration: June 19, 2013

2013 MARYLAND **FORM**

Certification of Exemption from Withholding Upon BK 4 1 4 0 PG 0 0 8 2 Disposition of Maryland Real Estate Affidavit of Residence or Principal Residence

Based on the certification below, Transferor claims exemption from the tax withholding requirements of §10-912 of the Tax-General Article, Annotated Code of Maryland. Section 10-912 provides that certain tax payments must be withheld and paid when a deed or other instrument that effects a change in

ownership of real property is presented for recordation. The requirements of §10-912 do not apply when a transferor provides a certification of Maryland residence or certification that the transferred property is the transferor's principal

-	PROPERTY STORE PROPERTY CONTRACTOR OF THE STORE					
1. Transferor Informati	on					
	Name of Transferor					
Douglas E. Ward, Trustee of the Edwin E. Ward Trust						
2. Reasons for Exemption	on .					
Resident Status I, Transferor, am a resident of the State of Maryland.						
	Transferor is a resident entity as defined in Code of Maryland Regulations (COMAR) 03.04.12.02B(11), I am an agent of Transferor, and I have authority to sign this document on Transferor's behalf.					
Principal Residence	Although I am no longer a resident of the State of Maryland, the Property is my principal residence as defined in IRC 121 and is recorded as such with the State Department of Assessments and Taxation.					
Under penalty of per it is true, correct, an	jury, I certify that I have examined this declaration and that, to the best of my knowledge, d complete.					
3a. Individual Transfer	ors					
Witness	Name					
	Signature					
3b. Entity Transferors	Edwin E. Ward Trust					
Witney\$/Attest	Name of Entity TRUSTEE					
	Douglas E. Ward					
(S	Name					
	Trustee					
	Title					

The Damalouji Law Firm, LLC 135 W. Dares Beach Road Suite 209-A Prince Frederick, MD 20678 2013.0024

State of Maryland Land Instrument Intake Sheet Baltimore City													
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SDAT requires	\vdash		Subdivisi	ion Nau	ie		Lot (3a)	Block	(3b)	Sect/AR (3c)	-	Plat Ref.	SqFt/Acreage (4)
submission of all	\vdash				-	Location	/Address of Prope	erty Being	Conv	eved (2)			
applicable information. A maximum of 40	1045	55 Ward Road	d. Dunkir	k. MD 2		Louis	Auditor			.) (-/		- 991	
characters will be			-			y Identifi	iers (if applicable))				Water Meter	r Account No.
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Real Property Article Section 3-104(g)(3)(i).	Fan.	Hai Conveya	ce: L	es w_i)	Прион.	M. Or Square	C I mo	Irbu.		_		
	If Pr	Partial Conveya	nce, List I	Improve	ments Con	veyed:							
7					ntor(s) Nar					Doc. 2 - C	Franto	or(s) Name(s)	
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From		Doc. 1 – Ov	wner(s) o	f Record	d if Differ	ent from	Grantor(s)	Dor	- 2-(Owner(s) of Rec	cord, i	e Different fr	Grantor(s)
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8					ntee(s) Nar					Doc. 2 - C	Frante	ee(s) Name(s)	7 - 27 - 27 - 27 - 27 - 27 - 27 - 27 -
Transferred	Board	rd of County C	Commissi	ioners o	of Calvert	County, N	Maryland						
То						New	Owner's (Grante	Mailing	Addi				
	1751	Main Street, F	Prince Fr	ederick	, MD 2067		Owner's (Grant	e) Manne	Į Auu.	ess			0.00
9 Other Names		Doc. 1 -	Additions	al Name	s to be Ind	lexed (Op	tional)	D	oc. 2 -	- Additional Na	ımes t	o be Indexed	(Optional)
Other Names to Be Indexed													
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10 Contact/Mail Information	Nan	me: Lena M. G	2rierson	Instru	nent Subii	nitted by	or Contact rerso	'n			Z	Return to Co	ontact Person
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						209-A, P	Prince Frederick, I	MD 2067	88				nop.
							Phone: (41	0) 535-50	8008				ress Provided
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		n		Yes Y	✓ No ✓ No		property being con				resider	nce?	
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		32.00 - 20 mm		Yes V	√ No	Was prop	perty surveyed? If	yes, attach	n copy	of survey (if rec	orded.	no copy requ	ired).
1 :,	Yes Vo Was property surveyed? If yes, attach copy of survey (if recorded, no copy required). Assessment Use Only − Do Not Write Below This Line								-				
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Space Reserved for County Validation	Year Land Build Tota	insfer Number ar nd Ildings al	r				Zoning Use		Grid Parce	el	Plat Section		Lot

CALVERT COUNTY CIRCUIT COURT (Land Records) KPS 4140, p. 0083, MSA_CE4_4261. Date available 03/11/2013. Printed 04/03/2014.

Ward Park

Ward Road Dunkirk, MD 20754

Inquiry Number: 3900443.6

April 03, 2014

The EDR Property Tax Map Report



Environmental Data Resources Inc

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

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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Ward Park

Ward Road Dunkirk, MD 20754

Inquiry Number: 3900443.8

April 03, 2014

EDR Building Permit Report

Target Property and Adjoining Properties



Environmental Data Resources Inc

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

EDR Building Permit Report: Search Documentation

4/03/14

Site Name: **Client Name:**

Ward Park Whitman, Requardt & Assoc.

Ward Road 3701 Pender Drive Dunkirk, MD 20754 Fairfax, VA 22030

EDR Inquiry # 3900443.8 Contact: Kevin T. Roberts

Search Documentation

DATA GAP

The complete collection of Building Permit data available to EDR has been searched, and as of 4/03/14, EDR does not have access to building permits in the city where your target property is located (Dunkirk, MD).

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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 Inquires (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.





APPENDIX B

CORRESPONDENCE

July 2014



WHITMAN, REQUARDT & ASSOCIATES, LLP ENGINEERS - ARCHITECTS - PLANNERS EST. 1915

April 10, 2014

Calvert County Health Department Department of Environmental Health 975 Solomons Island Road P.O. Box 980 Prince Frederick, MD 20678

Re: Ward Park

Phase I Environmental Site Assessment

WO #42083-000

Mr. Bill Haygood, Director, Environmental Health:

Whitman, Requardt & Associates, LLP (WR&A) is currently conducting a Phase I Environmental Site Assessment (ESA) for the Calvert County Division of Parks and Recreation at the proposed "Ward Park" located on Ward Road in Dunkirk, Calvert County, Maryland. An objective of this Phase I ESA is to obtain information indicating recognized environmental conditions within the project footprint, as well as the surrounding vicinity. Please find enclosed a site location map for your reference.

WR&A respectfully requests any information regarding spills, releases, wells, or other features that should be considered in our report. I can be notified of your findings in writing at 3701 Pender Drive, Suite 450, Fairfax, VA 22030, or contacted to arrange a file review visit, if necessary, at 703-293-7432 or by email (kroberts@wrallp.com).

Very truly yours,

Whitman, Requardt & Associates, LLP

Kevin T. Roberts

Environmental Scientist

Kein T. Roberts

Enclosures

cc: Amanda Baxter, WR&A

TAHAN AYAL

CALVERT COUNTY HEALTH DEPARTMENT **DIVISION OF ENVIRONMENTAL HEALTH**

P.O. Box 980 Prince Frederick, Maryland 20678

Laurence Polsky, MD, MPH, F.A.C.O.G. Health Officer

Paul S. McFaden, RS Director



(410) 535-3922

Washington Area (301) 855-1557

FAX (410) 535-5252

www.calverthealth.org

April 9, 2014

To:

Kevin T. Roberts

C/o Whitman, Requardt & Associates, LLP

3701 Pender Drive, Suite 450

Fairfax, Va. 22030

From: William E. Haygood LEHS

Re:

Phase I ESA for the proposed "Ward Park".

The subject property looks to comprise two parcels of land. The first, Map 6, Parcel 54, Tax ID# 03-020045, has a street address of 10455 Ward Road. This property is improved with a residence that is served by an on-site well and septic system. Information pertaining to these installations is attached for your use. The second property is shown as Map 6, Parcel 70, Tax ID# 03-106748 and has a street address of 10501 Ward Road. This property is unimproved. Other than the well and septic systems on the first parcel, there is no other information available documenting any violations on the subject parcels.

In the future, please include the Map and Parcel, Tax ID# or street address for subject properties to ease the search for documents requested. Thank You.

file copies Enc:

Calvert County HEALTH DEPARTMENT

Division of Environmental Health P.O. Box 980 Prince Frederick, Maryland 20678

Laurence Polsky, MD, MPH, F.A.C.O.G Health Officer Paul S. McFaden, R.S. Director

Environmental Health 410-535-3922 301-855-1557 Fax 410-535-5252

SEPTIC FINAL

AP #13-312654

August 22, 2013

Address:

10455 WARD RD DUNKIRK, MD 20754

WARD, EDWIN E TRUSTEE

BOARD OF COUNTY COMMISSIONERS

Primary Applicant

MORGAN E. RUSSELL, INC.

Tax ID: 3- 020045

Parcel ID: 6-54-0-0-0

Critical Area	<u>District</u>	<u>Floodplain</u>	<u>TownCenter</u>	Municipality
N/A	3	N/A	N/A	N/A
N/A	3	N/A	N/A	N/A

A/P Name:

MAP 6 PARCEL 54

Purpose of Permit:

SEPTIC PERMIT

Approved By:

Environmental Health

Date

F-2613

C:\WINDOWS\TEMP\v8_EH_SepticFinal {DA73D4F9-0CAC-4235-8D5F-65B5D9C8F85A}.rpt / 8/22/2013

Calvert County HEALTH DEPARTMENT

Division of Environmental Health P.O. Box 980 Prince Frederick, Maryland 20678

Laurence Polsky, MD, MPH, F.A.C.O.G Health Officer Paul S. McFaden, R.S. Director Environmental Health 410-535-3922 301-855-1557 Fax 410-535-5252

PERMIT

AP #13-312654

May 30, 2013

Address: 10455 WARD RD DUNKIRK, MD 20754

WARD, EDWIN E TRUSTEE

DOUGLAS PARRAN COUNTY ADMIN BOARD O

Primary Applicant

Tax ID: 3- 020045

Parcel ID: 6-54-0-0-0

Critical Area	<u>District</u>	<u>Floodplain</u>	TownCenter	Municipality
N/A	3	N/A	N/A	N/A
N/A	3	N/A	N/A	N/A

A/P Name:

MAP 6 PARCEL 54

Purpose of Permit:

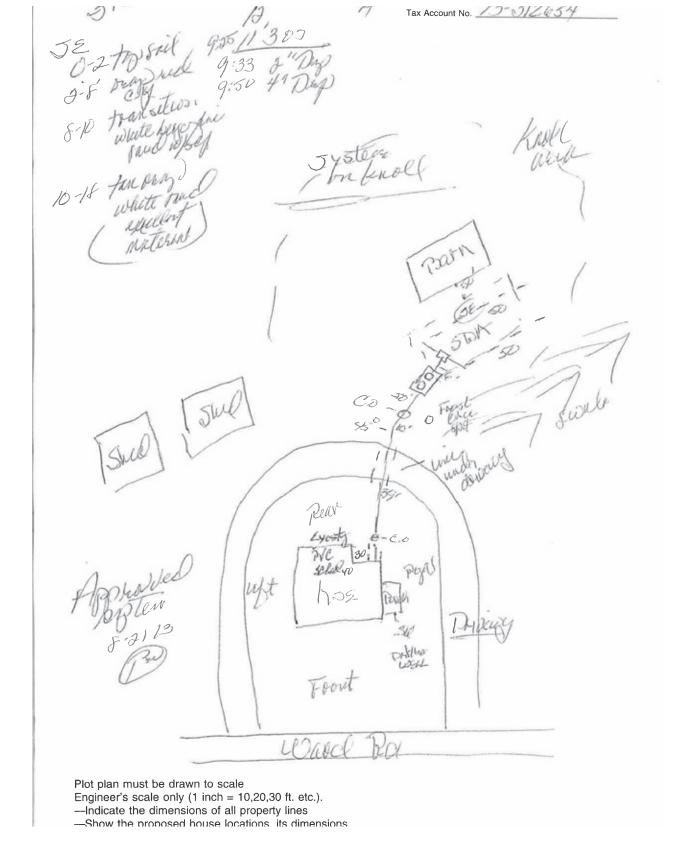
SEPTIC PERMIT

Approved By:

Environmental Health

C:\WINDOWS\TEMP\v8_EH_Permit {C842704D-8E67-4974-9646-9254FFFD5703}.rpt / 5/30/2013

☐ Addition ☐ Remodel ☐ Existing	□ Replace Septic System □ Replace Septic Tank Only □ Existing Septic System □ Proposed Septic System	☐ Proposed Drilled Well ☐ Existing Drilled Well ☐ Existing Well - (dug, b	ored or driven)
CONTRACT PURCHASER			
Applicant: Complete all applicable spaces		Æ	
1. OWNER Board of Com	m ISSIMPLES ADDRESS	175 main Street	
CITY	1 CONTRACTOR	IP CODE 2018 PHONE: HOME 4	
CTT A DDDESS of DDODEDTY		Dunkirk AD 20754 WORK 4	
2. DIRECTIONS TO PROPERTY		/ · · · · · · · · · · · · · · · ·	181-277
DASS Cornelly	•	150-Ariveway on in	ight
	4 4 1 W 1 1 DVA		
3. SUBDIVISION	LOT NO.	BLOCK SECTIO	N
1	TAX MAP NO.	PARCEL NO. 17051	1
4. BUILDING SPECIFICATIONS		E WILLIAM DE BERT	
Residential	Commercial	Other	
Number of Bedrooms3			
	□ No		
	o be no deeper than three feet from g	round surface.	41
plan must be prepared by a registered surveyor. NOTE: Only after the review of the final site plan will The applicant hereby certifies and agrees as follows: (1) that he is authorized to make this application; (2) comply with all regulations of Calvert Coury which work on the above property not specifically describe officials the right to enter onto the property for the posting notices; (6) it will be the responsibility of the this dwelling has been tested and certified by the Heal	approval of a sanitary construction permit be con- that the information is correct; (3) that he will are applicable hereto; (4) that he will perform no d in this application; (5) that he grants County purpose of inspecting the work permitted and applicant to ensure that the water supply serving th Dept.	DO NOT WRITE BELOW THIS I SOIL PERCOLATION INFORMAT Date of Test Test Time Depth	LINE
MAIL TO: PRIN	T OR TYPE	2-5 1900 W 44 a	
DO NOT WRITE BEL	OW THIS LINE	5-10 thansific biggs of	100
H	EALTH DEPARTMENT MINIMUM	RECOMMENDATIONS	
Septic Tank Size gallons	3		
Tile Field: Total lengthft.	No. of Trenches Length	ft. Width ft. Dept	hft.
, 6	ed gravel under the pipe ft., Diameter	separated by	pits
Effec. depth	J. J		square ft.
The house, well and septic system must be loo Any deviations from these plans must have pr	cated as shown on the site plans submitted	d by on	
Permit Issued: Hull S	U Galle Par	fed live from 6.12:	13



C 1 2065 1 23 (THIS NUM TR IS TO BE PIN COLS. 3-6 ON ALL CARI	SEQUENCE NO (DENV USE ONL) PUNCHED	STATE OF MARYLAND WELL COMPLETION REPORT FILL IN THIS FORM COMPLETELY PLEASE PRINT OR TYPE	THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED. COUNTY NUMBER 93-03020045-30
ST/CO USE ONLY DATE Received	DATE WELL COMP	Depth of Well 22 3 5 7 26 (TO NEAREST FOOT)	PERMIT NO. FROM "PERMIT TO DRILL WELL" LA - 8 8 - 3 7 2 6 28 29 30 31 32 33 34 35, 36 37
OWNER <u>Ward</u> , <u>Edwi</u>	n last pames posd	first name	Desirable Am 20754
SUBDIVISION Map 6,	Parcel 54	TOWN	Dunkirk, MD 20754
WELL L		GPOLITING RECORD	
Not required for STATE THE KIND OF PENETRATED, THEIR THICKNESS AND IF	driven wells FORMATIONS COLOR, DEPTH,	WELL HAS BEEN GROUTED (Circle Appropriate Box) TYPE OF GROUTING MATERIAL	1 2 PUMPING TEST
DESCRIPTION (Use additional sheets if needed)	FEET Ch	CEMENT C M BENTONITE CLAY B CAN ASS AND OF BOUNDS	PUMPING RATE (gal. per min.
Crange clay tan sand + white	0 12	GALLONS OF WATER DEPTH OF GROUT SEAL (to nearest foot) from ft. to / 2 (to nearest gal.) METHOD USED TO MEASURE PUMPING RATE WATER LEVEL (distance from land surface)
clay	12 27	(enter 0 if from surface) casing CASING RECORD	BEFORE PUMPING
green clay + black sand	27 246	types insert appropriate STEEL CONCRE	
pink clay .	246 260	code below PLASTIC OTHER	A air P piston T turbine
green clay, Black sand + shell	260 316	MAIN Nominal diameter Total depth CASING top (main) casing of main casing	C centrifugal R rotary O other (describe below)
cenented snad	316 338	TYPE (nearest inch) (nearest foot)	J jet S submersible
B&B sand + shell	338 357 \	60 61 63 64 66 70	27 27
fine black sand	357 367	C OTHER CASING (if used) C diameter depth (feet) H inch from to	
		screen type or open hole insert appropriate code below SCREEN RECORD SCREEN RECORD BRASS BRONZE HOLE PL OT PLASTIC OTHER	CAPACITY: GALLONS PER MINUTE (to pearest gallon) 31 35
		C 2	PUMP COLUMN LENGTH
-		DEPTH (nearest ft.) E A B 9 11 15 17	(nearest ft.) CASING HEIGHT (circle appropriate box and enter casing height) LAND SURFACE
		S 2 23 24 26 30 32	36 below (nearest foot)
CIRCLE APPROPE A A WELL WAS ABANDO WHEN THIS WELL WA	ONED AND SEALED	8 3	LOCATION OF WELL ON LOT SHOW PERMANENT STRUCTURE SUCH AS
E ELECTRIC LOG OBTAI		SLOT SIZE 1 2 3	BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS
P WELL CONVER	TED TO PRODUCTION	N DIAMETER OF SCREEN 560 (NEAREST INCH)	THAN TWO DISTANCES (MEASUREMENTS TO WELL)
HEREBY CERTIFY THAT THIS WELL ACCORDANCE WITH COMAR 26,0 AND IN CONFORMANCE WITH ALL ABOVE CAPTIONED PERMIT, AND T SENTED HEREIN IS ACCURATE AND MY KNOWLEDGE.	4.04 "WELL CONSTRUCT CONDITIONS STATED IN "HAT THE INFORMATION I	GRAVEL PACK CONTROL TO STATE OF THE GRAVEL PACK CONTROL TO THE GRAVE CONTROL TO THE GRAVE PACK CONTROL TO THE GRAVE PACK CONTROL	Jay To Co
DRILLERS IDENT. NO. L. DRILLERS SIGNATURE (MUST MATCH SIGNATURE	ON APPLICATION)	F IN BOX 68 68 OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER) T (E.R.O.S.) W Q 74 75 76	
SITE SUPERVISOR (sign. of responsible for sitework if di	driller or journeyma	TELESCOPE LOG OTHER DATA CASING INDICATOR	
responsible for sitework if di	петенстви регинце	COUNTY	166



WHITMAN, REQUARDT & ASSOCIATES, LLP ENGINEERS · ARCHITECTS · PLANNERS EST. 1915

April 10, 2014

Dunkirk Volunteer Fire Department (Calvert County 5) 3170 West Ward Road Dunkirk, MD 20754

Re: Ward Park

Phase I Environmental Site Assessment

WO #42083-000

Dunkirk Volunteer Fire Department (Calvert County 5):

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Very truly yours,

Whitman, Requardt & Associates, LLP

Kevin T. Roberts

Environmental Scientist

Kein T. Retuta

Enclosures

cc: Amanda Baxter, WR&A



WHITMAN, REQUARDT & ASSOCIATES, LLP ENGINEERS - ARCHITECTS - PLANNERS EST. 1915

April 10, 2014

Calvert County Fire/Rescue/EMS Division 175 Main Street Prince Frederick, MD 20678

Re: Ward Park

Phase I Environmental Site Assessment

WO #42083-000

Calvert County Fire/Rescue/EMS Division:

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Whitman, Requardt & Associates, LLP

Kevin T. Roberts

Environmental Scientist

Kein T. Roberts

Enclosures

cc: Amanda Baxter, WR&A



WHITMAN, REQUARDT & ASSOCIATES, LLP ENGINEERS · ARCHITECTS · PLANNERS EST. 1915

April 8, 2014

Ms. Maria Stephens
Maryland Department of the Environment
Waste Management Administration
1800 Washington Boulevard
Baltimore, Maryland 21230

RE: Ward Park

Phase I Environmental Site Assessment

WO # 42083

Dear Ms. Stephens:

Whitman, Requardt & Associates, LLP (WR&A) is currently conducting a Phase I Environmental Site Assessment (ESA) the proposed Ward Park located on Ward Road in Dunkirk, Calvert County, Maryland. An objective of this Phase I ESA is to obtain information indicating recognized environmental conditions within the project footprint, as well as the surrounding vicinity. WR&A obtained an environmental data report which identified the regulatory sites within the project vicinity. Please find enclosed the table of identified regulatory sites in the vicinity of the Ward Park reconstruction project area.

Site Name(s)	Address	OCP #(s) Facilty ID(s)
Jacquelyn Ewing (Red Hall)	10340 Ward Road, Dunkirk, MD	Facility ID: 14205
Residence	20754	
Charles Edwards Residence	1960 Haven Lane Dunkirk, MD	OCP#: 10-0468CA
	20754	
Maarcella La Fley	10221Ward Road, Dunkirk, MD	OCP#: 96-0742CA
	20754	
Dunkirk Sunoco (Besche Oil Site)	9850 Southern MD. BLVD,	OCP#:93-0750CA
	Dunkirk, MD 20754	(Historical LUST)
Dunkirk Village Shopping Center	Route 4 Ward & Road Dunkirk,	Facility ID: 3004670 (Hist. UST)
	MD 20754	
		Facility ID: 15459

Sincerely,

Kein T. Roberts

Whitman, Requardt & Associates, LLP

Kevin T. Roberts Environmental Scientist

WHITMAN, REQUARDT & ASSOCIATES, LLP 3701 Pender Drive, Suite 450 Fairfax, VA 22030 703-293-7432-direct 703-293-9717 - office 703-273-6773 - fax kroberts@wrallp.com

Enclosures

cc: Amanda Baxter, WR&A

APPENDIX C

SITE PHOTOGRAPHS

July 2014





PHOTO 2: Property south of Ward Road (looking south)



PHOTO 4: Barns and Sheds located south of residence (looking north)



PHOTO 3: Wooded area with road on southern portion of property (looking west)

PAGE 1 OF 7

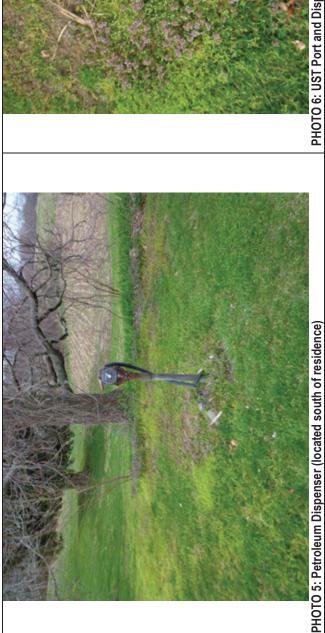






PHOTO 7: Heating oil UST (located on west side of residence)



PAGE 2 OF 7







PHOTO 11: Close up of possible septic port (east of residence)

PAGE 3 OF 7



PHOTO 12: Pad-mounted Transformer (located east of residence)



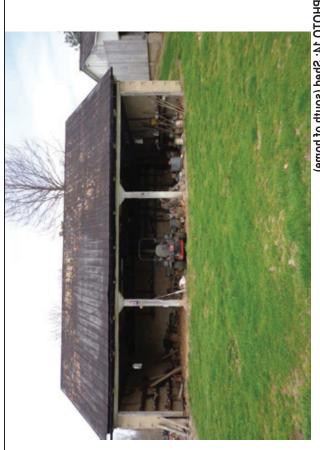


PHOTO 14: Shed (south of home)





PHOTO 16: Empty drums located in shed (southeast of residence)



7 30 A 35A9







PHOTO 20: Dumped furniture on east property (looking north)



7 TO 8 3DA9







Photo 22: Dumping area in center of property (looking east)



PHOTO 24: Wetland area within property interior (looking east)



WARD FARM RECREATION AND NATURE PARK MASTER PLAN | CALVERT COUNTY, MD | APPENDIX

PHOTO 23: Shingles & construction debris dumped along east property line (looking east)

MAHAN RYKIEL





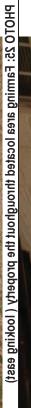




PHOTO 28. Abandoned well at the Dunkirk Sunoco [(Open OCP Case) site (looking east)

PAGE 7 OF 7



APPENDIX D

EDR RADIUS MAP REPORT

July 2014

Ward Park

Ward Road Dunkirk, MD 20754

Inquiry Number: 3900443.2s

April 03, 2014

The EDR Radius Map™ Report with GeoCheck®



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

MAHAN RYKE FORM-LBB-CCAE

MAHAN RYKIEL

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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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TC3900443.2s Page 1

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

WARD ROAD DUNKIRK, MD 20754

COORDINATES

Latitude (North): 38.7215000 - 38° 43' 17.40" Longitude (West): 76.6477000 - 76° 38' 51.72"

Universal Tranverse Mercator: Zone 18 UTM X (Meters): 356757.2 UTM Y (Meters): 4286953.0

Elevation: 129 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 38076-F6 LOWER MARLBORO, MD

Most Recent Revision: 1979

AERIAL PHOTOGRAPHY IN THIS REPORT

Photo Year: 2011 Source: USDA

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 CERCLIS NFRAP site List

CERC-NFRAP...... CERCLIS No Further Remedial Action Planned

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

US ENG CONTROLS..... Engineering Controls Sites List US INST CONTROL..... Sites with Institutional Controls

LUCIS.....Land Use Control Information System

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent CERCLIS

SHWS...... Notice of Potential Hazardous Waste Sites

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

SWF/LF..... Permitted Solid Waste Disposal Facilities

State and tribal leaking storage tank lists

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

State and tribal registered storage tank lists

AST..... Permitted Aboveground Storage Tanks

State and tribal institutional control / engineering control registries

ENG CONTROLS..... Engineering Controls Site listing

INST CONTROL..... Voluntary Cleanup Program Applicants/Participants

State and tribal voluntary cleanup sites

INDIAN VCP..... Voluntary Cleanup Priority Listing

VCP...... Voluntary Cleanup Program Applicants/Participants

State and tribal Brownfields sites

BROWNFIELDS..... Eligible Brownfields Properties

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

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

Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations

ODI...... Open Dump Inventory SWRCY...... Recycling Directory

Local Lists of Hazardous waste / Contaminated Sites

US CDL..... Clandestine Drug Labs

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

Local Lists of Registered Storage Tanks

HIST UST..... Historical UST Registered Database

Local Land Records

LIENS 2..... CERCLA Lien Information

Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System

SPILLS 90...... SPILLS 90 data from FirstSearch

Other Ascertainable Records

CONSENT..... Superfund (CERCLA) Consent Decrees

TRIS...... Toxic Chemical Release Inventory System

TSCA..... Toxic Substances Control Act

FTTS......FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide

Act)/TSCA (Toxic Substances Control Act)

HIST FTTS...... FIFRA/TSCA Tracking System Administrative Case Listing

SSTS..... Section 7 Tracking Systems

ICIS ______Integrated Compliance Information System

FINDS......Facility Index System/Facility Registry System
RAATS.....RCRA Administrative Action Tracking System

RMP..... Risk Management Plans

AIRS..... Permit and Facility Information Listing

LEAD...... Lead Inspection Database INDIAN RESERV..... Indian Reservations

SCRD DRYCLEANERS...... State Coalition for Remediation of Drycleaners Listing

EPA WATCH LIST..... EPA WATCH LIST

Financial Assurance Financial Assurance Information Listing PCB TRANSFORMER PCB Transformer Registration Database

COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List

US AIRS..... Aerometric Information Retrieval System Facility Subsystem

2020 COR ACTION.......... 2020 Corrective Action Program List

LEAD SMELTERS..... Lead Smelter Sites

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	EDR Proprietary Manufactured Gas Plants
EDR US Hist Auto Stat	EDR Exclusive Historic Gas Stations
EDR US Hist Cleaners	EDR Exclusive Historic Dry Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS	Recovered Government Archive State Hazardous Waste Facilities List
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

State and tribal leaking storage tank lists

OCPCASES: Cases monitored by the Oil Control Program.

A review of the OCPCASES list, as provided by EDR, and dated 06/30/2013 has revealed that there are 2 OCPCASES sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CHARLES EDWARDS RESIDENCE Facility Status: CLOSED	1960 HAVEN LANE	E 0 - 1/8 (0.078 mi.)	2	8
LA FLEY,MARCELLA Facility Status: CLOSED	10221 WARD RD	WSW 1/8 - 1/4 (0.206 mi.)	3	8

HIST LUST: In 1999, the Department of the Environment stopped adding new sites to its Recovery Sites Database. Current leaking underground storage tank information maybe found in underground storage tank information maybe found in the OCPCASES database.

A review of the HIST LUST list, as provided by EDR, and dated 03/01/1999 has revealed that there is 1 HIST LUST site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
DUNKIRK SUNOCO (BESCHE OIL SIT	9850 SOUTHERN MD. BLVD.	SW 1/4 - 1/2 (0.495 mi.)	4	8
Open Or Closed: OPEN				

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 the Environment's Listing of Underground Storage Tanks Reported in Maryland.

A review of the UST list, as provided by EDR, and dated 06/30/2013 has revealed that there is 1 UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
JACQUELYN EWING (RED HALL) RES	10340 WARD ROAD	W 0 - 1/8 (0.019 mi.)	1	7

Due to poor or inadequate address information, the following sites were not mapped. Count: 9 records.

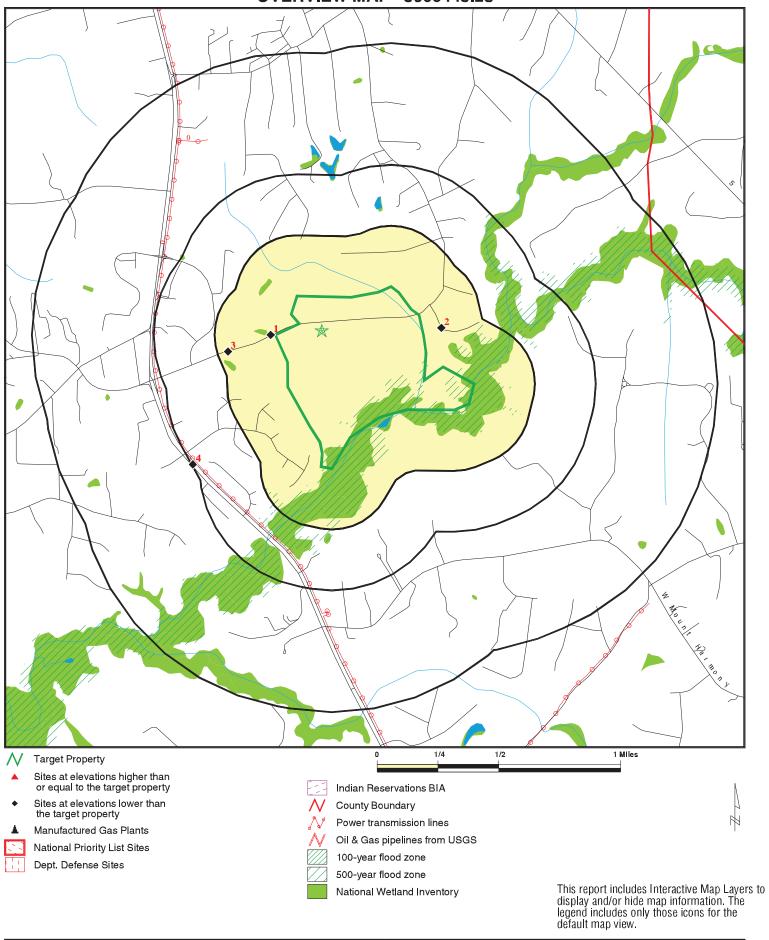
Site Name Database(s)

DUNKIRK SUPPLY TRUSS PLANT
EXXON STATION #2-5880
DUNKIRK VILLA SHOPPING CTR.
WARD'S U.M. CHURCH
S/S #2-5880
DUNKIRK VILLAGE SHOPPING CENTER
HELEN P. MARSELLAS T/A WARDS GROCE
S/S#2-1068
DUNKIRK SUPPLY TRUSS PLANT

HIST UST HIST UST HIST UST UST, Financial Assurance UST, Financial Assurance UST, Financial Assurance UST, Financial Assurance UST, Financial Assurance

OCPCASES, HIST UST

OVERVIEW MAP - 3900443.2s



SITE NAME: Ward Park ADDRESS: Ward Road Dunkirk MD 20754 LAT/LONG: 38.7215 / 76.6477

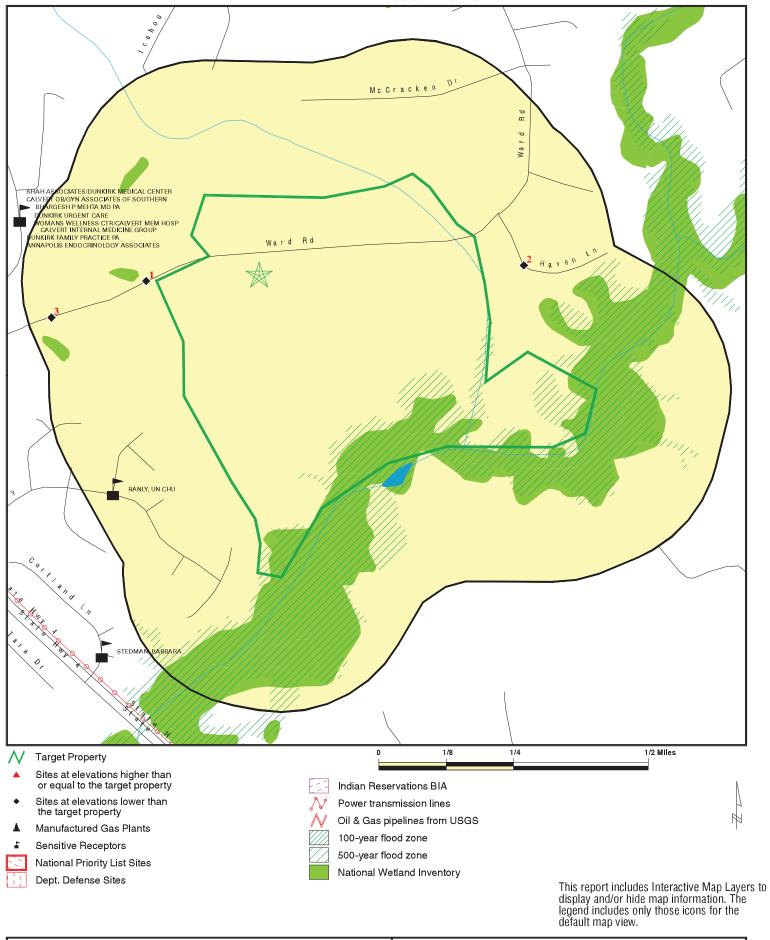
CLIENT: Whitman, Requardt & Assoc, LLP

CONTACT: Kevin T. Roberts INQUIRY #: 3900443.2s

DATE:

April 03, 2014 12:07 pm

DETAIL MAP - 3900443.2s



SITE NAME: Ward Park
ADDRESS: Ward Road

CLIENT: Whitman, Requardt & Assoc, LLP
CONTACT: Kevin T. Roberts

Dunkirk MD 20754 INQUIRY #: 390 LAT/LONG: 38.7215 / 76.6477 DATE: Apr

INQUIRY #: 3900443.2s DATE: April 03, 2014 12:09 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 ENVIRONMENT	TAL RECORDS							
Federal NPL site list								
NPL Proposed NPL NPL LIENS	1.000 1.000 TP		0 0 NR	0 0 NR	0 0 NR	0 0 NR	NR NR NR	0 0 0
Federal Delisted NPL sit	e list							
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
CERCLIS FEDERAL FACILITY	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
Federal CERCLIS NFRA	P site List							
CERC-NFRAP	0.500		0	0	0	NR	NR	0
Federal RCRA CORRAC	TS facilities list	t						
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-COR	RACTS TSD fac	cilities list						
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generator	rs list							
RCRA-LQG RCRA-SQG RCRA-CESQG	0.250 0.250 0.250		0 0 0	0 0 0	NR NR NR	NR NR NR	NR NR NR	0 0 0
Federal institutional con engineering controls reg								
US ENG CONTROLS US INST CONTROL LUCIS	0.500 0.500 0.500		0 0 0	0 0 0	0 0 0	NR NR NR	NR NR NR	0 0 0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equiva	alent CERCLIS							
SHWS	1.000		0	0	0	0	NR	0
State and tribal landfill a solid waste disposal site								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking	storage tank lis	ts						
OCPCASES HIST LUST INDIAN LUST	0.500 0.500 0.500		1 0 0	1 0 0	0 1 0	NR NR NR	NR NR NR	2 1 0
State and tribal registere	ed storage tank	lists						
UST	0.250		1	0	NR	NR	NR	1

MAHAN RYKIEL

MAP FINDINGS SUMMARY

	Search Distance	Target						Total
Database		Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Plotted
AST INDIAN UST FEMA UST	0.250 0.250 0.250		0 0 0	0 0 0	NR NR NR	NR NR NR	NR NR NR	0 0 0
State and tribal institution control / engineering co								
ENG CONTROLS INST CONTROL	0.500 0.500		0	0 0	0	NR NR	NR NR	0
State and tribal voluntar	y cleanup sites							
INDIAN VCP VCP	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
State and tribal Brownfie	elds sites							
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMEN	NTAL RECORDS							
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / S Waste Disposal Sites			v	ŭ	Ü	1411	1411	Ü
DEBRIS REGION 9 ODI SWRCY INDIAN ODI	0.500 0.500 0.500 0.500		0 0 0	0 0 0 0	0 0 0 0	NR NR NR NR	NR NR NR NR	0 0 0 0
Local Lists of Hazardous Contaminated Sites	s waste /							
US CDL US HIST CDL	TP TP		NR NR	NR NR	NR NR	NR NR	NR NR	0
Local Lists of Registere	d Storage Tanks	;						
HIST UST	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
Records of Emergency I	Release Reports							
HMIRS SPILLS 90	TP TP		NR NR	NR NR	NR NR	NR NR	NR NR	0
Other Ascertainable Rec	cords							
RCRA NonGen / NLR DOT OPS DOD FUDS CONSENT ROD	0.250 TP 1.000 1.000 1.000 1.000		0 NR 0 0 0	0 NR 0 0 0	NR NR 0 0 0	NR NR 0 0 0	NR NR NR NR NR	0 0 0 0 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
UMTRA	0.500		0	0	0	NR	NR	0
US MINES	0.250		Ö	Ö	NR	NR	NR	Ö
TRIS	TP		NR	NR	NR	NR	NR	Ö
TSCA	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0
LEAD	TP		NR	NR	NR	NR	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
Financial Assurance PCB TRANSFORMER	TP TP		NR NR	NR NR	NR NR	NR NR	NR NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0 0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH DOL	0.500		0	0	0	NR	NR	0
LRP	0.500		0	ő	ő	NR	NR	Ö
PRP	TP		NR	NR	NR	NR	NR	Ö
US AIRS	TP		NR	NR	NR	NR	NR	Ö
2020 COR ACTION	0.250		0	0	NR	NR	NR	Ō
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICA	AL RECORDS							
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR WGP EDR US Hist Auto Stat	0.250		0	0	NR	NR	NR	0
EDR US Hist Cleaners	0.250		0	0	NR	NR	NR	0
EDR RECOVERED GOVERN	NMENT ARCHI	VES						
Exclusive Recovered Go	ovt. Archives							
DCA LIME	TP		ND	ND	NID	ND	NID	0
RGA HWS RGA LF	TP		NR	NR NB	NR NB	NR	NR	0
RGA LUST	TP		NR NR	NR NR	NR NR	NR NR	NR NR	0 0
HUA LUST	IF		INIT	INIT	INIT	INIT	INIT	U

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID MAP FINDINGS Direction

Distance **EDR ID Number** Elevation Site Database(s) **EPA ID Number**

1 JACQUELYN EWING (RED HALL) RESIDENCE UST U003865606 West 10340 WARD ROAD **Financial Assurance** N/A

< 1/8 **DUNKIRK, MD 20754**

0.019 mi. 101 ft.

UST: Relative:

Facility Id: 14025 Lower Oper Name: Not reported

Actual: Form Name: Jacquelyn R. Ewing

71 ft. Form Title: Not reported Form Date: 12/13/2001 Owner Id: 8947

Owner:

Owner Name: Jacquelyn R. Ewing Trust 10340 Ward Road Owner Address:

Owner City: Dunkirk Owner State: MD 20754 Owner Zip: Owner Phone: (202) 879-6301 Owner Contact: Perry Ives

Tanks:

Tank ID:

Tank Status: Permanently Out of Use

Tank Capacity: Substance Description: Gasoline Tank Compartment: False Compartment Compartment: Α

Date Intalled: 01/01/1972

Tank Material Desc: Asphalt Coated or Bare Steel Pipe Material Desc: Bare or Galvanized Steel

Tank ID: 2

Tank Status: Permanently Out of Use

Tank Capacity: 550 Substance Description: Diesel Tank Compartment: False Compartment Compartment: A

Date Intalled: 01/01/1972

Asphalt Coated or Bare Steel Tank Material Desc: Bare or Galvanized Steel Pipe Material Desc:

MD Financial Assurance 2:

Region: 2 Facility ID: 14025 Self Insured: False Insurance: False Risk Retention Group: False Guarantee: False Surety Bonds: False Letter of Credit: False State Fund: False Other Finance: False Finacnce Comments:

Not reported FR Not Listed: False

Map ID MAP FINDINGS

Direction Distance

EDR ID Number Elevation Site Database(s) **EPA ID Number**

2 **CHARLES EDWARDS RESIDENCE OCPCASES** S110295094 **East**

1960 HAVEN LANE N/A **DUNKIRK, MD 20754**

0.078 mi. 413 ft.

< 1/8

OCP: Relative:

Facility ID: 10-0468CA Lower

Facility Status/Code: CLOSED/Aboveground Tank - Residential Heating Oil

Actual: Date Open: 03/05/2010

77 ft. Date Closed: 06/02/2010 Release: YES

> Cleanup: YES Registration Number: Not reported

LA FLEY, MARCELLA **OCPCASES** S104598394 3

wsw 10221 WARD RD N/A

1/8-1/4 **DUNKIRK, MD**

0.206 mi. 1088 ft.

OCP: Relative:

Facility ID: 96-0742CA Lower

Facility Status/Code: CLOSED/Aboveground Tank Leak

Actual: Date Open: 10/23/1995 100 ft. Date Closed: 02/21/2001

Release: YES Cleanup: YES

Registration Number: Not reported

4 **DUNKIRK SUNOCO (BESCHE OIL SITE) HIST LUST** S101638841

SW 9850 SOUTHERN MD. BLVD. 1/4-1/2 **DUNKIRK, MD 20754**

0.495 mi. 2616 ft.

Historical LUST: Relative:

Recover Type: Monitoring - No active remediation. Sampling of monitoring wells only Lower

County: **CALVERT** Actual: Case Number: 93-0750CA 118 ft. Open/Closed: **OPEN**

N/A

City	EDRID	Site Name	Site Address	Zip Database(s)
DUNKIRK	U004108058 S/S #2-5880	S/S #2-5880	ROUTE 260	20754 UST, Financial Assurance
DUNKIRK	S104633837	EXXON STATION #2-5880	ROUTE 260	20754 HIST UST
DUNKIRK	U003974274	1003974274 DUNKIRK VILLAGE SHOPPING CENTER	RT. 4 & WARD ROAD	20754 UST, Financial Assurance
DUNKIRK	S104630689	104630689 DUNKIRK VILLA SHOPPING CTR.	RT 4 & WARD RD.	20754 HIST UST
DUNKIRK	U004108056	HELEN P. MARSELLAS T/A WARDS GROCE	FERRY LANDING ROAD (ROUTE 4)	20754 UST, Financial Assurance
DUNKIRK	U004065980 S/S#2-1068	S/S#2-1068	10500 SOUTHERN MARYLAND BLVD.R	20754 UST, Financial Assurance
OWINGS	S104630691	104630691 DUNKIRK SUPPLY TRUSS PLANT	RT 260	20736 OCPCASES, HIST UST
OWINGS	U003974273	J003974273 DUNKIRK SUPPLY TRUSS PLANT	RT.260	20736 UST, Financial Assurance
OWINGS	S104636866	WARD'S U.M. CHURCH	WARD'S CHAPEL RD.	20736 HIST UST

ORPHAN SUMMARY

Count: 9 records.

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: 10/25/2013 Source: EPA Telephone: N/A Date Data Arrived at EDR: 11/11/2013 Date Made Active in Reports: 01/28/2014

Last EDR Contact: 01/21/2014 Number of Days to Update: 78 Next Scheduled EDR Contact: 04/21/2014

Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)

Telephone: 202-564-7333

EPA Region 1 EPA Region 6

Telephone 617-918-1143 Telephone: 214-655-6659

EPA Region 3 EPA Region 7

Telephone 215-814-5418 Telephone: 913-551-7247

EPA Region 8 EPA Region 4

Telephone 404-562-8033 Telephone: 303-312-6774

EPA Region 5 EPA Region 9

Telephone 312-886-6686 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: 10/25/2013 Date Data Arrived at EDR: 11/11/2013

Date Made Active in Reports: 01/28/2014

Number of Days to Update: 78

Source: EPA Telephone: N/A

Last EDR Contact: 01/09/2014

Next Scheduled EDR Contact: 04/21/2014 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 Date Data Arrived at EDR: 02/02/1994 Date Made Active in Reports: 03/30/1994

Number of Days to Update: 56

Source: EPA

Telephone: 202-564-4267 Last EDR Contact: 08/15/2011

Next Scheduled EDR Contact: 11/28/2011 Data Release Frequency: No Update Planned

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: 10/25/2013 Date Data Arrived at EDR: 11/11/2013 Date Made Active in Reports: 01/28/2014

Date Made Active in Reports: 01/28/2

Number of Days to Update: 78

Source: EPA Telephone: N/A

Last EDR Contact: 01/09/2014

Next Scheduled EDR Contact: 04/21/2014 Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS 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). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/25/2013 Date Data Arrived at EDR: 11/11/2013 Date Made Active in Reports: 02/13/2014

Number of Days to Update: 94

Source: EPA

Telephone: 703-412-9810 Last EDR Contact: 02/28/2014

Next Scheduled EDR Contact: 06/09/2014 Data Release Frequency: Quarterly

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: 05/31/2013 Date Data Arrived at EDR: 07/08/2013 Date Made Active in Reports: 12/06/2013

Number of Days to Update: 151

Source: Environmental Protection Agency

Telephone: 703-603-8704 Last EDR Contact: 01/10/2014

Next Scheduled EDR Contact: 04/21/2014 Data Release Frequency: Varies

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS 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 this 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. This 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 a potential NPL site.

Date of Government Version: 10/25/2013 Date Data Arrived at EDR: 11/11/2013 Date Made Active in Reports: 02/13/2014

Number of Days to Update: 94

Source: EPA

Telephone: 703-412-9810 Last EDR Contact: 02/28/2014

Next Scheduled EDR Contact: 06/09/2014 Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 09/10/2013 Date Data Arrived at EDR: 10/02/2013 Date Made Active in Reports: 12/16/2013

Number of Days to Update: 75

Source: EPA

Telephone: 800-424-9346 Last EDR Contact: 03/13/2014

Next Scheduled EDR Contact: 07/14/2014 Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

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

Date of Government Version: 09/10/2013 Date Data Arrived at EDR: 10/02/2013 Date Made Active in Reports: 12/16/2013

Number of Days to Update: 75

Source: Environmental Protection Agency

Telephone: 800-438-2474 Last EDR Contact: 03/13/2014

Next Scheduled EDR Contact: 07/14/2014 Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

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

Date of Government Version: 09/10/2013 Date Data Arrived at EDR: 10/02/2013 Date Made Active in Reports: 12/16/2013

Number of Days to Update: 75

Source: Environmental Protection Agency

Telephone: 800-438-2474 Last EDR Contact: 03/13/2014

Next Scheduled EDR Contact: 07/14/2014 Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

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

Date of Government Version: 09/10/2013 Date Data Arrived at EDR: 10/02/2013 Date Made Active in Reports: 12/16/2013

Number of Days to Update: 75

Source: Environmental Protection Agency

Telephone: 800-438-2474 Last EDR Contact: 03/13/2014

Next Scheduled EDR Contact: 07/14/2014 Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

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

Date of Government Version: 09/10/2013 Date Data Arrived at EDR: 10/02/2013 Date Made Active in Reports: 12/16/2013

Number of Days to Update: 75

Source: Environmental Protection Agency

Telephone: 800-438-2474 Last EDR Contact: 03/13/2014

Next Scheduled EDR Contact: 07/14/2014

Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

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: 12/17/2013 Date Data Arrived at EDR: 01/14/2014 Date Made Active in Reports: 01/28/2014

Number of Days to Update: 14

Source: Environmental Protection Agency

Telephone: 703-603-0695 Last EDR Contact: 03/10/2014

Next Scheduled EDR Contact: 06/23/2014 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: 12/17/2013 Date Data Arrived at EDR: 01/14/2014 Date Made Active in Reports: 01/28/2014

Number of Days to Update: 14

Source: Environmental Protection Agency

Telephone: 703-603-0695 Last EDR Contact: 03/10/2014

Next Scheduled EDR Contact: 06/23/2014 Data Release Frequency: Varies

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: 11/20/2013 Date Data Arrived at EDR: 11/21/2013 Date Made Active in Reports: 02/24/2014

Number of Days to Update: 95

Source: Department of the Navy Telephone: 843-820-7326 Last EDR Contact: 02/14/2014

Next Scheduled EDR Contact: 06/02/2014 Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

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

Date of Government Version: 09/30/2013 Date Data Arrived at EDR: 10/01/2013 Date Made Active in Reports: 12/06/2013

Number of Days to Update: 66

Source: National Response Center, United States Coast Guard

Telephone: 202-267-2180 Last EDR Contact: 02/07/2014

Next Scheduled EDR Contact: 04/14/2014 Data Release Frequency: Annually

State- and tribal - equivalent CERCLIS

SHWS: Notice of Potential Hazardous Waste Sites

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: 10/01/2009 Date Data Arrived at EDR: 12/11/2009 Date Made Active in Reports: 12/14/2009

Number of Days to Update: 3

Source: Department of the Environment

Telephone: 410-537-3000 Last EDR Contact: 03/11/2014

Next Scheduled EDR Contact: 05/26/2014 Data Release Frequency: Semi-Annually

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

SWF/LF: Permitted Solid Waste Disposal Facilities

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

Date of Government Version: 12/31/2013 Date Data Arrived at EDR: 02/06/2014 Date Made Active in Reports: 03/14/2014

Number of Days to Update: 36

Source: Department of the Environment

Telephone: 410-537-3375 Last EDR Contact: 11/04/2013

Next Scheduled EDR Contact: 02/17/2014 Data Release Frequency: Annually

State and tribal leaking storage tank lists

OCPCASES: Oil Control Program Cases

Cases monitored by the Oil Control Program. these cases can be leaking underground storage tanks and other belowground releases, leaking aboveground storage tanks, spills and inspections.

Date of Government Version: 06/30/2013 Date Data Arrived at EDR: 07/12/2013 Date Made Active in Reports: 08/26/2013

Number of Days to Update: 45

Source: Department of Environment

Telephone: 410-537-3433 Last EDR Contact: 01/03/2014

Next Scheduled EDR Contact: 04/21/2014 Data Release Frequency: Semi-Annually

HIST LUST: Recovery Sites

In 1999, the Department of the Environment stopped adding new sites to its Recovery Sites Database. Current leaking underground storage tank information maybe found in the OCPCASES database.

Date of Government Version: 03/01/1999 Date Data Arrived at EDR: 03/22/1999 Date Made Active in Reports: 04/16/1999

Number of Days to Update: 25

Source: Department of the Environment

Telephone: 410-537-3433 Last EDR Contact: 02/19/2001 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

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: 03/01/2013 Date Data Arrived at EDR: 03/01/2013 Date Made Active in Reports: 04/12/2013

Number of Days to Update: 42

Source: Environmental Protection Agency

Telephone: 415-972-3372 Last EDR Contact: 01/27/2014

Next Scheduled EDR Contact: 05/12/2014 Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 08/27/2013 Date Data Arrived at EDR: 08/27/2013 Date Made Active in Reports: 11/01/2013

Number of Days to Update: 66

Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 01/27/2014

Next Scheduled EDR Contact: 05/12/2014 Data Release Frequency: Varies

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

Date of Government Version: 11/06/2013 Date Data Arrived at EDR: 11/07/2013 Date Made Active in Reports: 12/06/2013

Number of Days to Update: 29

Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 01/27/2014

Next Scheduled EDR Contact: 05/12/2014 Data Release Frequency: Quarterly

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: 08/27/2012 Date Data Arrived at EDR: 08/28/2012 Date Made Active in Reports: 10/16/2012

Number of Days to Update: 49

Source: EPA Region 8 Telephone: 303-312-6271 Last EDR Contact: 01/27/2014

Next Scheduled EDR Contact: 05/12/2014 Data Release Frequency: Quarterly

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: 02/13/2014 Date Data Arrived at EDR: 02/14/2014 Date Made Active in Reports: 02/24/2014

Number of Days to Update: 10

Source: EPA, Region 5 Telephone: 312-886-7439 Last EDR Contact: 01/27/2014

Next Scheduled EDR Contact: 05/12/2014 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: 02/01/2013 Date Data Arrived at EDR: 05/01/2013 Date Made Active in Reports: 11/01/2013

Number of Days to Update: 184

Source: EPA Region 1 Telephone: 617-918-1313 Last EDR Contact: 01/30/2014

Next Scheduled EDR Contact: 05/12/2014 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: 11/21/2013 Date Data Arrived at EDR: 11/26/2013 Date Made Active in Reports: 02/24/2014

Number of Days to Update: 90

Source: EPA Region 4 Telephone: 404-562-8677 Last EDR Contact: 01/27/2014

Next Scheduled EDR Contact: 05/12/2014 Data Release Frequency: Semi-Annually

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 09/12/2011 Date Data Arrived at EDR: 09/13/2011 Date Made Active in Reports: 11/11/2011

Number of Days to Update: 59

Source: EPA Region 6 Telephone: 214-665-6597 Last EDR Contact: 02/21/2014

Next Scheduled EDR Contact: 05/12/2014 Data Release Frequency: Varies

State and tribal registered storage tank lists

UST: Registered Underground Storage Tank List

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: 06/30/2013 Date Data Arrived at EDR: 07/12/2013 Date Made Active in Reports: 08/26/2013

Number of Days to Update: 45

Source: Department of the Environment

Telephone: 410-537-3433 Last EDR Contact: 02/27/2014

Next Scheduled EDR Contact: 04/28/2014 Data Release Frequency: Varies

AST: Permitted Aboveground Storage Tanks Registered Aboveground Storage Tanks.

Date of Government Version: 08/23/2013 Date Data Arrived at EDR: 08/27/2013 Date Made Active in Reports: 10/01/2013

Number of Days to Update: 35

Source: Department of The Environment

Telephone: 410-537-3000 Last EDR Contact: 01/13/2014

Next Scheduled EDR Contact: 04/28/2014 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: 02/01/2013 Date Data Arrived at EDR: 05/01/2013 Date Made Active in Reports: 01/27/2014

Number of Days to Update: 271

Source: EPA, Region 1 Telephone: 617-918-1313 Last EDR Contact: 01/30/2014

Next Scheduled EDR Contact: 05/12/2014

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: 11/21/2013 Date Data Arrived at EDR: 11/26/2013 Date Made Active in Reports: 02/24/2014

Number of Days to Update: 90

Source: EPA Region 4 Telephone: 404-562-9424 Last EDR Contact: 01/27/2014

Next Scheduled EDR Contact: 05/12/2014 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: 02/13/2014 Date Data Arrived at EDR: 02/14/2014 Date Made Active in Reports: 02/24/2014

Number of Days to Update: 10

Source: EPA Region 5 Telephone: 312-886-6136 Last EDR Contact: 01/27/2014

Next Scheduled EDR Contact: 05/12/2014 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: 01/29/2014 Date Data Arrived at EDR: 01/29/2014 Date Made Active in Reports: 03/12/2014

Number of Days to Update: 42

Source: EPA Region 6 Telephone: 214-665-7591 Last EDR Contact: 01/27/2014

Next Scheduled EDR Contact: 05/12/2014 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: 12/31/2012 Date Data Arrived at EDR: 02/28/2013 Date Made Active in Reports: 04/12/2013

Number of Days to Update: 43

Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 01/27/2014

Next Scheduled EDR Contact: 05/12/2014

Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

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

Date of Government Version: 07/29/2013 Date Data Arrived at EDR: 08/01/2013 Date Made Active in Reports: 11/01/2013

Number of Days to Update: 92

Source: EPA Region 8 Telephone: 303-312-6137 Last EDR Contact: 01/27/2014

Next Scheduled EDR Contact: 05/12/2014 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: 07/29/2013 Date Data Arrived at EDR: 07/30/2013 Date Made Active in Reports: 12/06/2013

Number of Days to Update: 129

Source: EPA Region 9 Telephone: 415-972-3368 Last EDR Contact: 01/27/2014

Next Scheduled EDR Contact: 05/12/2014 Data Release Frequency: Quarterly

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: 02/05/2013 Date Data Arrived at EDR: 02/06/2013 Date Made Active in Reports: 04/12/2013

Number of Days to Update: 65

Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 01/27/2014

Next Scheduled EDR Contact: 05/12/2014 Data Release Frequency: Quarterly

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010 Date Data Arrived at EDR: 02/16/2010 Date Made Active in Reports: 04/12/2010

Number of Days to Update: 55

Source: FEMA

Telephone: 202-646-5797 Last EDR Contact: 01/13/2014

Next Scheduled EDR Contact: 04/28/2014 Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

ENG CONTROLS: Engineering Controls Site listing

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: 11/10/2008 Date Data Arrived at EDR: 11/21/2008 Date Made Active in Reports: 12/17/2008

Number of Days to Update: 26

Source: Department of the Environment

Telephone: 410-537-3422 Last EDR Contact: 03/17/2014

Next Scheduled EDR Contact: 06/30/2014 Data Release Frequency: Varies

INST CONTROL: Voluntary Cleanup Program Applicants/Participants

Sites included in the Voluntary Cleanup Program Applicants/Participants listing that have Deed Restrictions.

Date of Government Version: 02/21/2013 Date Data Arrived at EDR: 03/28/2013 Date Made Active in Reports: 04/29/2013

Number of Days to Update: 32

Source: Department of the Environment

Telephone: 410-537-3493 Last EDR Contact: 03/21/2014

Next Scheduled EDR Contact: 06/30/2014 Data Release Frequency: Semi-Annually

State and tribal voluntary cleanup sites

VCP: Voluntary Cleanup Program Applicants/Participants

The Voluntary Cleanup Program, administrated by the Dept. of the Environment, streamlines the environmental cleanup process for sites, usually industrial or commercial properties, that are contaminated, or perceived to be contaminated, by hazardous substances. Developers and lenders are provided with certain limitations on liability and participants in the program are provided certainty in the process by knowing exactly what will be required.

Date of Government Version: 02/01/2013 Date Data Arrived at EDR: 03/28/2013 Date Made Active in Reports: 04/29/2013

Number of Days to Update: 32

Source: Dept. of the Environment Telephone: 410-537-3000 Last EDR Contact: 03/21/2014

Next Scheduled EDR Contact: 06/30/2014 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: 09/17/2013 Date Data Arrived at EDR: 10/01/2013 Date Made Active in Reports: 12/06/2013

Number of Days to Update: 66

Source: EPA, Region 1 Telephone: 617-918-1102 Last EDR Contact: 04/01/2014

Next Scheduled EDR Contact: 07/14/2014 Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

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

Date of Government Version: 03/20/2008 Date Data Arrived at EDR: 04/22/2008 Date Made Active in Reports: 05/19/2008

Number of Days to Update: 27

Source: EPA, Region 7 Telephone: 913-551-7365 Last EDR Contact: 04/20/2009

Next Scheduled EDR Contact: 07/20/2009

Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Eligible Brownfields Properties

The Site Assessment Section of the State Superfund Division is responsible for conducting federally funded assessments of eligible brownfields properties. These assessments are undertaken to determine whether there are environmental cleanup requirements at these sites.

Date of Government Version: 07/08/2013 Date Data Arrived at EDR: 09/11/2013 Date Made Active in Reports: 09/25/2013

Number of Days to Update: 14

Source: Department of Environment Telephone: 410-537-3000

Last EDR Contact: 03/14/2014

Next Scheduled EDR Contact: 06/23/2014 Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

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

Date of Government Version: 09/24/2013 Date Data Arrived at EDR: 09/24/2013 Date Made Active in Reports: 12/06/2013

Number of Days to Update: 73

Source: Environmental Protection Agency

Telephone: 202-566-2777 Last EDR Contact: 03/20/2014

Next Scheduled EDR Contact: 07/07/2014 Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

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: 01/27/2014

Next Scheduled EDR Contact: 05/12/2014 Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

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

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

SWRCY: Recycling Directory
A listing of recycling facilities.

Date of Government Version: 12/19/2013 Date Data Arrived at EDR: 12/24/2013 Date Made Active in Reports: 02/14/2014

Number of Days to Update: 52

Source: Department of the Environment

Telephone: 410-631-3314 Last EDR Contact: 03/24/2014

Next Scheduled EDR Contact: 07/07/2014 Data Release Frequency: Varies

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: 11/04/2013

Next Scheduled EDR Contact: 02/17/2014 Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs

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

Date of Government Version: 12/04/2013 Date Data Arrived at EDR: 12/10/2013 Date Made Active in Reports: 02/13/2014

Number of Days to Update: 65

Source: Drug Enforcement Administration

Telephone: 202-307-1000 Last EDR Contact: 03/04/2014

Next Scheduled EDR Contact: 06/16/2014 Data Release Frequency: Quarterly

US HIST CDL: National Clandestine Laboratory Register

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

Date of Government Version: 09/01/2007 Date Data Arrived at EDR: 11/19/2008 Date Made Active in Reports: 03/30/2009

Number of Days to Update: 131

Source: Drug Enforcement Administration

Telephone: 202-307-1000 Last EDR Contact: 03/04/2014

Next Scheduled EDR Contact: 06/16/2014 Data Release Frequency: No Update Planned

Local Lists of Registered Storage Tanks

Historical UST: Historical UST Registered Database

In 1997 the Department of the Environment sent out registration forms to all the owner's listed in the UST database. Once they got the registration forms back they entered the information into a new UST database. we call this database UST. Because not all owners returned their forms, we kept the old UST database and labeled it HIST UST so that we would not be missing any past UST records. This listing is no longer updated or maintained by the agency. It is current through November 1996.

Date of Government Version: 11/21/1996 Date Data Arrived at EDR: 09/10/1997 Date Made Active in Reports: 10/22/1997 Number of Days to Update: 42 Source: Department of Environment Telephone: 410-537-3433 Last EDR Contact: 05/15/2000 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

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: 02/06/2013 Date Data Arrived at EDR: 04/25/2013 Date Made Active in Reports: 05/10/2013 Number of Days to Update: 15 Source: Environmental Protection Agency

Telephone: 202-564-6023 Last EDR Contact: 01/27/2014

Next Scheduled EDR Contact: 05/12/2014

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: 12/31/2013 Date Data Arrived at EDR: 01/03/2014 Date Made Active in Reports: 02/24/2014

Number of Days to Update: 52

Source: U.S. Department of Transportation

Telephone: 202-366-4555 Last EDR Contact: 04/01/2014

Next Scheduled EDR Contact: 07/14/2014 Data Release Frequency: Annually

SPILLS 90: SPILLS90 data from FirstSearch

Number of Days to Update: 62

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

Date of Government Version: 07/15/2012 Date Data Arrived at EDR: 01/03/2013 Date Made Active in Reports: 03/06/2013

Source: FirstSearch Telephone: N/A

Last EDR Contact: 01/03/2013 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators

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

Date of Government Version: 09/10/2013 Date Data Arrived at EDR: 10/02/2013 Date Made Active in Reports: 12/16/2013

Number of Days to Update: 75

Source: Environmental Protection Agency

Telephone: 800-438-2474 Last EDR Contact: 03/13/2014

Next Scheduled EDR Contact: 07/14/2014 Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transporation, 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 Transporation, Office of Pipeline Safety

Telephone: 202-366-4595 Last EDR Contact: 02/06/2014

Next Scheduled EDR Contact: 05/19/2014

Data Release Frequency: Varies

DOD: Department of Defense Sites

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

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 11/10/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 62

Source: USGS

Telephone: 888-275-8747 Last EDR Contact: 01/15/2014

Next Scheduled EDR Contact: 04/28/2014 Data Release Frequency: Semi-Annually

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: 12/31/2011 Date Data Arrived at EDR: 02/26/2013 Date Made Active in Reports: 03/13/2013

Number of Days to Update: 15

Source: U.S. Army Corps of Engineers

Telephone: 202-528-4285 Last EDR Contact: 03/10/2014

Next Scheduled EDR Contact: 06/23/2014 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: 12/31/2013 Date Data Arrived at EDR: 01/24/2014 Date Made Active in Reports: 02/24/2014

Number of Days to Update: 31

Source: Department of Justice, Consent Decree Library

Telephone: Varies

Last EDR Contact: 03/27/2014

Next Scheduled EDR Contact: 07/14/2014

Data Release Frequency: Varies

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 Date Data Arrived at EDR: 12/12/2013 Date Made Active in Reports: 02/24/2014

Number of Days to Update: 74

Source: EPA

Telephone: 703-416-0223 Last EDR Contact: 03/11/2014

Next Scheduled EDR Contact: 06/23/2014 Data Release Frequency: Annually

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 Date Data Arrived at EDR: 10/07/2011 Date Made Active in Reports: 03/01/2012

Number of Days to Update: 146

Source: Department of Energy Telephone: 505-845-0011 Last EDR Contact: 02/25/2014

Next Scheduled EDR Contact: 06/09/2014 Data Release Frequency: Varies

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: 08/01/2013 Date Data Arrived at EDR: 09/05/2013 Date Made Active in Reports: 10/03/2013

Number of Days to Update: 28

Source: Department of Labor, Mine Safety and Health Administration

Telephone: 303-231-5959 Last EDR Contact: 03/05/2014

Next Scheduled EDR Contact: 06/16/2014 Data Release Frequency: Semi-Annually

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: 12/31/2011 Date Data Arrived at EDR: 07/31/2013 Date Made Active in Reports: 09/13/2013

Number of Days to Update: 44

Source: EPA

Telephone: 202-566-0250 Last EDR Contact: 02/26/2014

Next Scheduled EDR Contact: 06/09/2014 Data Release Frequency: Annually

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: 12/31/2006 Date Data Arrived at EDR: 09/29/2010 Date Made Active in Reports: 12/02/2010

Number of Days to Update: 64

Source: EPA

Telephone: 202-260-5521 Last EDR Contact: 03/28/2014

Next Scheduled EDR Contact: 07/07/2014 Data Release Frequency: Every 4 Years

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 Date Data Arrived at EDR: 04/16/2009 Date Made Active in Reports: 05/11/2009

Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances

Telephone: 202-566-1667 Last EDR Contact: 02/24/2014

Next Scheduled EDR Contact: 06/09/2014 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 Date Data Arrived at EDR: 04/16/2009 Date Made Active in Reports: 05/11/2009

Number of Days to Update: 25

Source: EPA

Telephone: 202-566-1667 Last EDR Contact: 02/24/2014

Next Scheduled EDR Contact: 06/09/2014 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

SSTS: Section 7 Tracking Systems

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

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

Number of Days to Update: 77

Source: EPA

Telephone: 202-564-4203 Last EDR Contact: 01/28/2014

Next Scheduled EDR Contact: 05/12/2014 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: 07/20/2011 Date Data Arrived at EDR: 11/10/2011 Date Made Active in Reports: 01/10/2012

Number of Days to Update: 61

Source: Environmental Protection Agency

Telephone: 202-564-5088 Last EDR Contact: 10/09/2014

Next Scheduled EDR Contact: 04/28/2014 Data Release Frequency: Quarterly

PADS: PCB Activity Database System

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

Date of Government Version: 06/01/2013 Date Data Arrived at EDR: 07/17/2013 Date Made Active in Reports: 11/01/2013

Number of Days to Update: 107

Source: EPA

Telephone: 202-566-0500 Last EDR Contact: 01/28/2014

Next Scheduled EDR Contact: 04/28/2014 Data Release Frequency: Annually

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: 07/22/2013 Date Data Arrived at EDR: 08/02/2013 Date Made Active in Reports: 11/01/2013

Number of Days to Update: 91

Source: Nuclear Regulatory Commission

Telephone: 301-415-7169 Last EDR Contact: 03/10/2014

Next Scheduled EDR Contact: 06/23/2014 Data Release Frequency: Quarterly

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.

Date of Government Version: 01/09/2014 Date Data Arrived at EDR: 01/10/2014 Date Made Active in Reports: 03/12/2014

Number of Days to Update: 61

Source: Environmental Protection Agency

Telephone: 202-343-9775 Last EDR Contact: 01/10/2014

Next Scheduled EDR Contact: 04/21/2014 Data Release Frequency: Quarterly

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: 11/18/2013 Date Data Arrived at EDR: 02/27/2014 Date Made Active in Reports: 03/12/2014

Number of Days to Update: 13

Source: EPA

Telephone: (215) 814-5000 Last EDR Contact: 03/14/2014

Next Scheduled EDR Contact: 06/23/2014 Data Release Frequency: Quarterly

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 Date Data Arrived at EDR: 07/03/1995 Date Made Active in Reports: 08/07/1995

Number of Days to Update: 35

Source: EPA

Telephone: 202-564-4104 Last EDR Contact: 06/02/2008

Next Scheduled EDR Contact: 09/01/2008 Data Release Frequency: No Update Planned

RMP: Risk Management Plans

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

Date of Government Version: 11/01/2013 Date Data Arrived at EDR: 12/12/2013 Date Made Active in Reports: 02/13/2014

Number of Days to Update: 63

Source: Environmental Protection Agency

Telephone: 202-564-8600 Last EDR Contact: 01/27/2014

Next Scheduled EDR Contact: 05/12/2014 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: 12/31/2011 Date Data Arrived at EDR: 02/26/2013 Date Made Active in Reports: 04/19/2013

Number of Days to Update: 52

Source: EPA/NTIS Telephone: 800-424-9346 Last EDR Contact: 02/28/2014

Next Scheduled EDR Contact: 06/09/2014 Data Release Frequency: Biennially

UIC: Underground Injection Wells Database

A listing of underground injection well locations. The UIC Program is responsible for regulating the construction, operation, permitting, and closure of injection wells that place fluids underground for storage or disposal.

Date of Government Version: 06/14/2013 Date Data Arrived at EDR: 07/30/2013 Date Made Active in Reports: 08/27/2013

Number of Days to Update: 28

Source: Department of the Environment

Telephone: 410-537-3507 Last EDR Contact: 02/10/2014

Next Scheduled EDR Contact: 05/12/2014 Data Release Frequency: Varies

DRYCLEANERS: Registered Drycleaning Facilities
A listing of registered drycleaning facilities.

Date of Government Version: 10/10/2013 Date Data Arrived at EDR: 10/15/2013 Date Made Active in Reports: 11/21/2013

Number of Days to Update: 37

Source: Department of the Environmental

Telephone: 410-537-3220 Last EDR Contact: 01/13/2014

Next Scheduled EDR Contact: 04/28/2014 Data Release Frequency: Varies

NPDES: Wastewater Permit Listing

A listing of wastewater permit locations.

Date of Government Version: 10/31/2013 Date Data Arrived at EDR: 12/11/2013 Date Made Active in Reports: 12/18/2013

Number of Days to Update: 7

Source: Department of the Environment

Telephone: 410-537-3507 Last EDR Contact: 03/11/2014

Next Scheduled EDR Contact: 06/23/2014 Data Release Frequency: Varies

AIRS: Permit and Facility Information Listing

A listing of permitted facilities and emissions information.

Date of Government Version: 12/31/2012 Date Data Arrived at EDR: 12/05/2013 Date Made Active in Reports: 01/08/2014

Number of Days to Update: 34

Source: Department of the Environment

Telephone: 410-537-3220 Last EDR Contact: 01/13/2014

Next Scheduled EDR Contact: 04/28/2014 Data Release Frequency: Varies

LEAD: Lead Inspection Database

The Childhood Lead Poisoning Prevention Program data of lead inspection for the state.

Date of Government Version: 01/13/2014 Date Data Arrived at EDR: 01/14/2014 Date Made Active in Reports: 02/14/2014

Number of Days to Update: 31

Source: Department of Environment, Lead Poisoning Prevention Program

Telephone: 410-537-3000 Last EDR Contact: 03/27/2014

Next Scheduled EDR Contact: 07/14/2014 Data Release Frequency: Varies

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 Date Data Arrived at EDR: 12/08/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 34

Source: USGS

Telephone: 202-208-3710 Last EDR Contact: 01/15/2014

Next Scheduled EDR Contact: 04/28/2014 Data Release Frequency: Semi-Annually

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 Date Data Arrived at EDR: 03/09/2011 Date Made Active in Reports: 05/02/2011

Number of Days to Update: 54

Source: Environmental Protection Agency

Telephone: 615-532-8599 Last EDR Contact: 01/20/2014

Next Scheduled EDR Contact: 05/05/2014 Data Release Frequency: Varies

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: 11/11/2011 Date Data Arrived at EDR: 05/18/2012 Date Made Active in Reports: 05/25/2012

Number of Days to Update: 7

Source: Environmental Protection Agency

Telephone: 703-308-4044 Last EDR Contact: 02/14/2014

Next Scheduled EDR Contact: 05/26/2014 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 1931and 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 Date Data Arrived at EDR: 10/27/2010 Date Made Active in Reports: 12/02/2010

Number of Days to Update: 36

Source: American Journal of Public Health

Telephone: 703-305-6451 Last EDR Contact: 12/02/2009 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 01/29/2013 Date Data Arrived at EDR: 02/14/2013 Date Made Active in Reports: 02/27/2013

Number of Days to Update: 13

Source: Environmental Protection Agency

Telephone: 703-603-8787 Last EDR Contact: 01/03/2014

Next Scheduled EDR Contact: 04/21/2014

Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information.

Date of Government Version: 05/01/2013 Date Data Arrived at EDR: 05/22/2013 Date Made Active in Reports: 06/27/2013

Number of Days to Update: 36

Source: Department of the Environment

Telephone: 410-537-3345 Last EDR Contact: 11/04/2013

Next Scheduled EDR Contact: 02/17/2014

Data Release Frequency: Varies

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: 06/30/2013 Date Data Arrived at EDR: 08/13/2013 Date Made Active in Reports: 09/13/2013

Number of Days to Update: 31

Source: Environmental Protection Agency

Telephone: 617-520-3000 Last EDR Contact: 02/10/2014

Next Scheduled EDR Contact: 05/26/2014 Data Release Frequency: Quarterly

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for storage tank sites.

Date of Government Version: 06/30/2013 Date Data Arrived at EDR: 07/12/2013 Date Made Active in Reports: 08/26/2013

Number of Days to Update: 45

Source: Department of the Environment

Telephone: 410-537-3461 Last EDR Contact: 02/27/2014

Next Scheduled EDR Contact: 04/28/2014 Data Release Frequency: Quarterly

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 Date Data Arrived at EDR: 10/19/2011 Date Made Active in Reports: 01/10/2012

Number of Days to Update: 83

Source: Environmental Protection Agency

Telephone: 202-566-0517 Last EDR Contact: 01/30/2014

Next Scheduled EDR Contact: 05/12/2014 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: 08/17/2010 Date Data Arrived at EDR: 01/03/2011 Date Made Active in Reports: 03/21/2011

Number of Days to Update: 77

Source: Environmental Protection Agency

Telephone: N/A

Last EDR Contact: 03/11/2014

Next Scheduled EDR Contact: 06/23/2014

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: 11/20/2013 Date Data Arrived at EDR: 12/03/2013 Date Made Active in Reports: 02/13/2014

Number of Days to Update: 72

Source: Environmental Protection Agency

Telephone: 202-566-1917 Last EDR Contact: 02/14/2014

Next Scheduled EDR Contact: 06/02/2014 Data Release Frequency: Quarterly

COAL ASH DOE: Sleam-Electric Plan Operation Data

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

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 08/07/2009 Date Made Active in Reports: 10/22/2009

Number of Days to Update: 76

Source: Department of Energy Telephone: 202-586-8719 Last EDR Contact: 01/13/2014

Next Scheduled EDR Contact: 04/28/2014

Data Release Frequency: Varies

COAL ASH: Coal Ash Disposal Site Listing
Coal combustion byproduct site locations.

Date of Government Version: 08/13/2010 Date Data Arrived at EDR: 01/05/2011 Date Made Active in Reports: 01/31/2011

Number of Days to Update: 26

Source: Department of the Environment

Telephone: 410-537-3507 Last EDR Contact: 03/28/2014

Next Scheduled EDR Contact: 07/07/2014 Data Release Frequency: Varies

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 04/15/2013 Date Data Arrived at EDR: 07/03/2013 Date Made Active in Reports: 09/13/2013

Number of Days to Update: 72

Source: EPA Telephone: 202-564-6023 Last EDR Contact: 01/02/2014

Next Scheduled EDR Contact: 04/14/2014 Data Release Frequency: Quarterly

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 Date Data Arrived at EDR: 02/06/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 339

Source: U.S. Geological Survey Telephone: 888-275-8747 Last EDR Contact: 01/15/2014

Next Scheduled EDR Contact: 04/28/2014

Data Release Frequency: N/A

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.

Date of Government Version: 10/23/2013 Date Data Arrived at EDR: 11/06/2013 Date Made Active in Reports: 12/06/2013

Number of Days to Update: 30

Source: EPA

Telephone: 202-564-5962 Last EDR Contact: 03/31/2014

Next Scheduled EDR Contact: 07/14/2014 Data Release Frequency: Annually

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

Date of Government Version: 10/23/2013 Date Data Arrived at EDR: 11/06/2013 Date Made Active in Reports: 12/06/2013

Number of Days to Update: 30

Source: EPA

Telephone: 202-564-5962 Last EDR Contact: 03/31/2014

Next Scheduled EDR Contact: 07/14/2014 Data Release Frequency: Annually

LRP: Land Restoration Program

A listing of Land Restoration Program sites. Site types included in the database are: Voluntary Cleanup Program, National Priority List, Brownfields, Site Assessment, Formerly Used Defense Site, State Master List, Non Master List, Groundwater Investigation and Federal Facility.

Date of Government Version: 07/08/2013 Date Data Arrived at EDR: 09/11/2013 Date Made Active in Reports: 09/25/2013

Number of Days to Update: 14

Source: Department of the Environment

Telephone: 410-537-3000 Last EDR Contact: 03/14/2014

Next Scheduled EDR Contact: 06/23/2014 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 US Hist Auto Stat: 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

EDR US Hist Cleaners: 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 US Hist Auto Stat: EDR Proprietary Historic Gas Stations - Cole

Date of Government Version: N/A Source: N/A
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 US Hist Cleaners: EDR Proprietary Historic Dry Cleaners - Cole

Date of Government Version: N/A

Date Data Arrived at EDR: 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 LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of the Environment in Maryland from 1995-1999..

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013

Date Made Active in Reports: 01/03/2014

Number of Days to Update: 186

Source: Department of the Environment

Telephone: N/A

Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of the Environment in Maryland.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/03/2014

Number of Days to Update: 186

Source: Department of the Environment

Telephone: N/A

Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

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

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/16/2014

Number of Days to Update: 199

Source: Department of the Environment

Telephone: N/A

Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

OTHER DATABASE(S)

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

CT MANIFEST: Hazardous Waste Manifest Data

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

Date of Government Version: 07/30/2013 Date Data Arrived at EDR: 08/19/2013 Date Made Active in Reports: 10/03/2013

Number of Days to Update: 45

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3375 Last EDR Contact: 02/21/2014

Next Scheduled EDR Contact: 06/02/2014 Data Release Frequency: Annually

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2011 Date Data Arrived at EDR: 07/19/2012 Date Made Active in Reports: 08/28/2012

Number of Days to Update: 40

Source: Department of Environmental Protection

Telephone: N/A

Last EDR Contact: 01/17/2014

Next Scheduled EDR Contact: 04/28/2014 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.

Date of Government Version: 12/31/2013 Date Data Arrived at EDR: 02/07/2014 Date Made Active in Reports: 03/31/2014

Number of Days to Update: 52

Source: Department of Environmental Conservation

Telephone: 518-402-8651 Last EDR Contact: 03/12/2014

Next Scheduled EDR Contact: 05/19/2014 Data Release Frequency: Annually

PA MANIFEST: Manifest Information Hazardous waste manifest information.

Date of Government Version: 12/31/2012 Date Data Arrived at EDR: 07/24/2013 Date Made Active in Reports: 08/19/2013

Number of Days to Update: 26

Source: Department of Environmental Protection

Telephone: 717-783-8990 Last EDR Contact: 01/20/2014

Next Scheduled EDR Contact: 05/05/2014 Data Release Frequency: Annually

RI MANIFEST: Manifest information Hazardous waste manifest information

> Date of Government Version: 12/31/2012 Date Data Arrived at EDR: 06/21/2013 Date Made Active in Reports: 08/05/2013

Number of Days to Update: 45

Source: Department of Environmental Management

Telephone: 401-222-2797 Last EDR Contact: 02/24/2014

Next Scheduled EDR Contact: 06/09/2014 Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2012 Date Data Arrived at EDR: 08/09/2013 Date Made Active in Reports: 09/27/2013

Number of Days to Update: 49

Source: Department of Natural Resources

Telephone: N/A

Last EDR Contact: 03/17/2014

Next Scheduled EDR Contact: 06/30/2014 Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data Source: Rextag Strategies Corp. Telephone: (281) 769-2247

U.S. Electric Transmission and Power Plants Systems Digital GIS Data

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.

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: Child Care Providers
Source: Department of Human Resources

Telephone: 410-767-7805

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.

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

STREET AND ADDRESS INFORMATION

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GEOCHECK®-PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

WARD PARK WARD ROAD DUNKIRK, MD 20754

TARGET PROPERTY COORDINATES

Latitude (North): 38.7215 - 38° 43' 17.40" Longitude (West): 76.6477 - 76° 38' 51.72"

Universal Tranverse Mercator: Zone 18 UTM X (Meters): 356757.2 UTM Y (Meters): 4286953.0

Elevation: 129 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map: 38076-F6 LOWER MARLBORO, MD

Most Recent Revision: 1979

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).

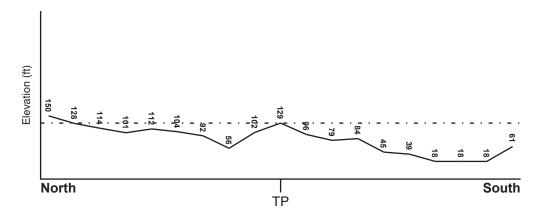
TOPOGRAPHIC INFORMATION

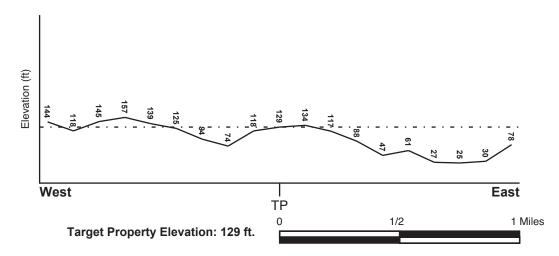
Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient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

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General NW

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.

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

FEMA Flood

Target Property County CALVERT, MD

Electronic Data
YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property:

2400110002B - FEMA Q3 Flood data

Additional Panels in search area:

2400110003B - FEMA Q3 Flood data

NATIONAL WETLAND INVENTORY

NWI Electronic

NWI Quad at Target Property

Data Coverage

LOWER MARLBÖRO

YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

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

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.

MAP ID Not Reported LOCATION FROM TP GENERAL DIRECTION
GROUNDWATER FLOW

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

GEOLOGIC AGE IDENTIFICATION

Era: Cenozoic Category: Stratified Sequence

System: Tertiary Series: Miocene

Code: Tm (decoded above as Era, System & Series)

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

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

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

Soil Component Name: WESTPHALIA

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep,

moderately well and well drained soils with moderately coarse

textures.

Soil Drainage Class: Well drained. Soils have intermediate water holding capacity. Depth to

water table is more than 6 feet.

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

Corrosion Potential - Uncoated Steel: LOW

Depth to Bedrock Min: > 60 inches

Depth to Bedrock Max: > 60 inches

	Soil Layer Information						
Boundary				Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	10 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 2.00 Min: 0.60	Max: 5.50 Min: 3.60
2	10 inches	28 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 2.00 Min: 0.60	Max: 5.50 Min: 3.60
3	28 inches	72 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 6.00 Min: 0.60	Max: 5.50 Min: 3.60

OTHER SOIL TYPES IN AREA

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

Soil Surface Textures: sandy loam

silt loam mucky-peat

Surficial Soil Types: sandy loam

silt loam mucky-peat

Shallow Soil Types: No Other Soil Types

Deeper Soil Types: fine sandy loam

stratified sandy loam silt loam

LOCAL / REGIONAL WATER AGENCY RECORDS

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

WELL SEARCH DISTANCE INFORMATION

DATABASE SEARCH DISTANCE (miles)

Federal USGS 1.000

Federal FRDS PWS Nearest PWS within 1 mile

State Database 1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
D28	USGS40000431358	1/2 - 1 Mile West
C29	USGS40000431379	1/2 - 1 Mile WNW
D31	USGS40000431356	1/2 - 1 Mile West
35	USGS40000431388	1/2 - 1 Mile NE
37	USGS40000431347	1/2 - 1 Mile West
H39	USGS40000431365	1/2 - 1 Mile WNW
L45	USGS40000431302	1/2 - 1 Mile SW
P58	USGS40000431374	1/2 - 1 Mile WNW
P59	USGS40000431373	1/2 - 1 Mile WNW
T92	USGS40000431403	1/2 - 1 Mile North
T103	USGS40000431405	1/2 - 1 Mile North

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

		LOCATION
MAP ID	WELL ID	FROM TP
D21	MD1041028	1/2 - 1 Mile West

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

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	MD6000000463821	1/4 - 1/2 Mile WNW
A2	MD600000529169	1/4 - 1/2 Mile East
A3	MD6000000492177	1/4 - 1/2 Mile East
4	MD600000090039	1/2 - 1 Mile ESE
B5	MD600000091261	1/2 - 1 Mile ENE
B6	MD600000090665	1/2 - 1 Mile ENE
B7	MD600000089897	1/2 - 1 Mile ENE
B8	MD600000092663	1/2 - 1 Mile ENE
B9	MD600000419077	1/2 - 1 Mile ENE
B10	MD6000000415533	1/2 - 1 Mile ENE
B11	MD600000096586	1/2 - 1 Mile ENE
C12	MD6000000342733	1/2 - 1 Mile WNW
13	MD600000469406	1/2 - 1 Mile SW
D14	MD600000091526	1/2 - 1 Mile West
E15	MD6000000324196	1/2 - 1 Mile West

STATE DATABASE WELL INFORMATION

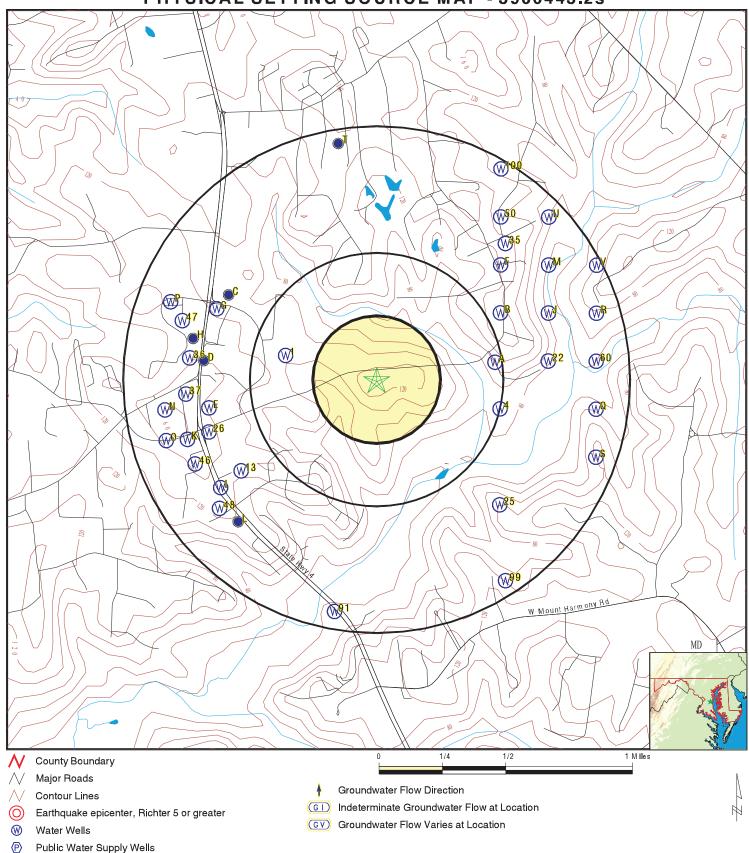
MAP ID	WELL ID	LOCATION FROM TP
WAP ID	WELL ID	
E16	MD6000000094770	1/2 - 1 Mile WSW
F17	MD6000000089853	1/2 - 1 Mile NE
F18	MD6000000415294	1/2 - 1 Mile NE
F19	MD6000000490038	1/2 - 1 Mile NE
E20	MD6000000086818	1/2 - 1 Mile WSW
22	MD6000000489478	1/2 - 1 Mile East
G23	MD6000000349119	1/2 - 1 Mile WNW
E24	MD6000000092887	1/2 - 1 Mile West
25	MD6000000094222	1/2 - 1 Mile SE
26	MD6000000034222 MD6000000415417	1/2 - 1 Mile WSW
G27	MD6000000413417 MD6000000356407	1/2 - 1 Mile WNW
H30	MD6000000330407 MD6000000094883	1/2 - 1 Mile WNW
		1/2 - 1 Mile WWW
132	MD6000000091474	
J33	MD600000089896	1/2 - 1 Mile ENE
J34	MD6000000418734	1/2 - 1 Mile ENE
36	MD6000000415590	1/2 - 1 Mile West
K38	MD6000000455180	1/2 - 1 Mile WSW
K40	MD6000000420217	1/2 - 1 Mile WSW
I41	MD600000348290	1/2 - 1 Mile WSW
L42	MD6000000356070	1/2 - 1 Mile SW
K43	MD6000000478763	1/2 - 1 Mile WSW
K44	MD6000000479203	1/2 - 1 Mile WSW
46	MD6000000088907	1/2 - 1 Mile WSW
47	MD6000000089121	1/2 - 1 Mile WNW
48	MD600000094874	1/2 - 1 Mile SW
K49	MD6000000463865	1/2 - 1 Mile WSW
50	MD6000000090801	1/2 - 1 Mile NE
M51	MD600000091692	1/2 - 1 Mile ENE
M52	MD600000092867	1/2 - 1 Mile ENE
N53	MD600000095595	1/2 - 1 Mile West
N54	MD6000000091443	1/2 - 1 Mile West
N55	MD600000093103	1/2 - 1 Mile West
O56	MD6000000343851	1/2 - 1 Mile WSW
O57	MD6000000392573	1/2 - 1 Mile WSW
60	MD6000000420037	1/2 - 1 Mile East
Q61	MD6000000416263	1/2 - 1 Mile East
Q62	MD6000000096569	1/2 - 1 Mile East
Q63	MD6000000490118	1/2 - 1 Mile East
Q64	MD6000000512790	1/2 - 1 Mile East
Q65	MD6000000502600	1/2 - 1 Mile East
R66	MD6000000087826	1/2 - 1 Mile ENE
R67	MD6000000087802	1/2 - 1 Mile ENE
R68	MD6000000087940	1/2 - 1 Mile ENE
R69	MD6000000087940	1/2 - 1 Mile ENE
R70	MD6000000087833	1/2 - 1 Mile ENE
R71	MD6000000087443 MD6000000087225	1/2 - 1 Mile ENE
R71 R72	MD6000000087225 MD6000000087136	1/2 - 1 Mile ENE
	MD6000000087136 MD6000000087365	1/2 - 1 Mile ENE
R73		
R74	MD6000000087247	1/2 - 1 Mile ENE
R75	MD6000000088015	1/2 - 1 Mile ENE
R76	MD6000000089063	1/2 - 1 Mile ENE
R77	MD6000000088962	1/2 - 1 Mile ENE

GEOCHECK[®] - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

MAP ID WELL ID FROM TF R78 MD6000000089222 1/2 - 1 M R79 MD6000000089179 1/2 - 1 M R80 MD6000000088770 1/2 - 1 M R81 MD6000000088409 1/2 - 1 M	Mile ENE
R79 MD600000089179 1/2 - 1 M R80 MD600000088770 1/2 - 1 M	Aile ENE Aile ENE Aile ENE Aile ENE Aile ENE Aile ENE
R80 MD600000088770 1/2 - 1 M	Mile ENE Mile ENE Mile ENE Mile ENE
	Aile ENE Aile ENE Aile ENE
R81 MD600000088409 1/2 - 1 M	/lile ENE /lile ENE
	/lile ENE
R82 MD600000088068 1/2 - 1 M	-
R83 MD600000088669 1/2 - 1 M	
R84 MD600000088465 1/2 - 1 M	/lile ENE
R85 MD600000019954 1/2 - 1 M	/lile ENE
R86 MD600000087048 1/2 - 1 M	/lile ENE
S87 MD6000000355867 1/2 - 1 M	∕lile ESE
S88 MD6000000497100 1/2 - 1 M	/lile ESE
S89 MD6000000501223 1/2 - 1 M	/lile ESE
T90 MD600000085883 1/2 - 1 M	/lile North
91 MD600000088783 1/2 - 1 M	/lile South
U93 MD6000000349095 1/2 - 1 M	/lile NE
U94 MD600000095748 1/2 - 1 M	/lile NE
U95 MD6000000349121 1/2 - 1 M	/lile NE
U96 MD600000416192 1/2 - 1 M	/lile NE
U97 MD6000000416072 1/2 - 1 M	/lile NE
T98 MD600000086925 1/2 - 1 M	/lile North
99 MD6000000335222 1/2 - 1 M	/lile SSE
100 MD600000090844 1/2 - 1 M	/lile NNE
V101 MD6000000392562 1/2 - 1 M	/lile ENE
V102 MD6000000392998 1/2 - 1 M	/lile ENE

PHYSICAL SETTING SOURCE MAP - 3900443.2s



SITE NAME: Ward Park ADDRESS: Ward Road Dunkirk MD 20754 LAT/LONG: 38.7215 / 76.6477

Cluster of Multiple Icons

Whitman, Requardt & Assoc, LLP

CLIENT: Whitman, Requare CONTACT: Kevin T. Roberts INQUIRY #: 3900443.2s

DATE: April 03, 2014 12:09 pm

Map ID Direction Distance

Elevation Database EDR ID Number

WNW 1/4 - 1/2 Mile Lower

MD WELLS MD6000000463821

Objectid: 463820 County let: CA

Not Reported Permit: CA944579 Mgs id: B1 seq: 4551 B1 recd: 28-MAY-03 City: **CROFTON** State: MD

DAVID B HARTMAN Zip: 20114 Driller na:

Driller id: MWD 517 Est gpm pr:

Use for wa: т Approx dep: 6.0E+002

ROTARY Drill meth: Replacemen: Replace pe: Not Reported Ν Wapid: CA2002G010 Subdivisio: Not Reported Section: Not Reported Lot: Not Reported Nearest to: **DUNKIRK** Town dista: Not Reported Road name: 10300 WARD RD Road side: Ε

Road dista: 525 FT Tax map: 6 Block: Not Reported Parcel: N grid27: 324096.00 E grid27: 898528.00

N grid83: 117301.00 E grid83: 430058.00 Lon dec de: Lat dec de: 76.65 38.72 Issue date: 28-MAY-03 Special fl: Not Reported C1 seq: 4327 C1 recd: 07-JUL-03 20-JUN-03 5.2E+002 Completion: Total dept: Num unsucc: 0 Hydrofract: N Υ CM Grouted: Grout type: 4.1E+002 Grout top: 0 Grout bott:

Casing typ: ST Casing dia: 6.0E+000 4.8E+002 Casing dep: Casing hei: +2 ST Top screen: 4.8E+002 Screen typ: Bottom scr: 5.0E+002 Screen t 1: ST

Top scre 1: 5.05E+002 Bottom s 1: 5.15E+002

Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 6.0E+000 0 Not Reported Telescopin: Not Reported Flowing we: Log type: Not Reported Hrs pumped: 2.4E+001

Pumping ra: 2.0E+002 Level befo: 1.13E+002 Level duri: 1.93E+002 Test pump: S S Pump insta: Install pu: Ν Capacity: 0 Pump hp: 0

Column len: 0 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

A2 **MD WELLS** MD6000000529169 East 1/4 - 1/2 Mile

Lower Objectid: 529168 County let: Not Reported Permit: CA951796 Mgs id: Not Reported B1 seq: 4400 B1 recd: 14-DEC-11

City: **DUNKIRK** State: MD MICHAEL K GRIBBLE 20754 Driller na: Zip:

Driller id: MWD 318 Est gpm pr: 8.0E+000

Use for wa: DW

Approx dep: 3.5E+002 Drill meth: **ROTARY** Replacemen: Replace pe: Not Reported Subdivisio: **DUNKIRK FIELDS** Wapid: Not Reported

TC3900443.2s Page A-10

Section: Not Reported Lot: 17 Nearest to: **DUNKIRK** Town dista: Not Reported Road name: 1970 HAVEN LANE Road side: S Road dista: 100 FT Tax map: 6 Block: Not Reported Parcel: 228 E grid27: 902780.00 N grid27: 323941.00 N grid83: 117254.00 E grid83: 431354.00 Lat dec de: 38.72 Lon dec de: 76.64 Issue date: 15-DEC-11 Special fl: C1 recd: 07-FEB-12 C1 seq: 4531 Completion: 20-DEC-11 Total dept: 2.8E+002 Num unsucc: 0 Hydrofract: Grouted: Υ Grout type: ВС 6.3E+001 Grout top: 0 Grout bott: PL4.0E+000 Casing typ: Casing dia: Casing hei: 2.6E+002 Casing dep: +1 Screen typ: PLTop screen: 2.66E+002 Bottom scr: 2.8E+002 Screen t 1: Not Reported Top scre 1: Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Not Reported Log type: Not Reported Hrs pumped: 2.0E+000 2.5E+001 Level befo: 1.3E+002 Pumping ra: 2.2E+002 Level duri: Test pump: Α Pump insta: Install pu: S Capacity: 7.0E+000 Pump hp: 7.5E-001 Column len: 2.1E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

A3 East MD WELLS MD600000492177

East 1/4 - 1/2 Mile Lower

> Objectid: 492176 County let: CA Not Reported Permit: CA945601 Mgs id: B1 seq: B1 recd: 11-MAY-05 0456 Citv: **DUNKIRK** State: MD Zip: 20754 Driller na: **BRIAN KLOBY** Driller id: MWD 456 Est gpm pr: 1.0E+001 Use for wa: DW Approx dep: 3.2E+002 Drill meth: **ROTARY** Not Reported Replacemen: Replace pe: Wapid: Not Reported Subdivisio: **DUNKIRK FIELDS**

Section: Lot: 5 **DUNKIRK** Town dista: 4 Nearest to: Road name: 1910 MANNING CIRCLE Road side: S Road dista: 80 FT Tax map: 3 Block: 23 Parcel: 267 324000.00 903000.00 N grid27: E grid27: N grid83: 117272.00 E grid83: 431421.00 Lat dec de: 38.72 Lon dec de: 76.64 Issue date: 11-MAY-05 Special fl: Not Reported C1 seq: 8838 C1 recd: 25-JAN-06

Completion: Total dept: 3.28E+002 12-MAY-05 Num unsucc: 0 Hydrofract: Not Reported Grouted: Υ Grout type: ВС Grout top: 0 Grout bott: 2.8E+002 PLCasing dia: 4.0E+000 Casing typ: 3.18E+002 Casing hei: Casing dep: +1 Screen typ: PLTop screen: 3.18E+002 Bottom scr: 3.28E+002 Screen t 1: Not Reported Top scre 1: Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 4.0E+000 Not Reported Flowing we: Not Reported Telescopin: Log type: Not Reported Hrs pumped: 2.0E+000 4.5E+001 1.38E+002 Pumping ra: Level befo: 1.65E+002 Level duri: Test pump: Α Pump insta: Install pu: S Υ Capacity: 1.0E+001 Pump hp: 7.5E-001 Column len: 2.0E+002 Closed: Abandoned: Not Reported Abandon da: Not Reported

ESE 1/2 - 1 Mile Lower

Objectid: 90038 County let: CA Not Reported Permit: CA734272 Mgs id: B1 seq: Not Reported B1 recd: 11-DEC-81 **DUNKIRK** State: MD City: GRIBBLE, JOSEPH H. Zip: 20754 Driller na:

Driller id: MWD0317 Use for wa: DW

3.5E+002 ROTARY Approx dep: Drill meth: Replacemen: Ν Replace pe: Not Reported Wapid: Not Reported Subdivisio: **DUNKIRK FIELDS** Section: Lot: 3

Est gpm pr:

Not Reported Nearest to: DUNKIRK Town dista: 1.3 MI HAVEN LA Road side: Road name: Ε Road dista: 40 FT Tax map: Not Reported Block: Not Reported Parcel: Not Reported 903000.00 N grid27: 323000.00 E grid27: E grid83: N grid83: 116967.00 431421.00 Lat dec de: 38.72 Lon dec de: 76.64 04-DEC-81 Not Reported Issue date: Special fl: Not Reported C1 recd: 22-FEB-82

C1 seq: Total dept: 3.05E+002 Completion: 23-DEC-81 Num unsucc: 0 Hydrofract: Not Reported Υ Grout type: СМ Grouted: Grout top: 0 Grout bott: 1.5E+001 Casing typ: PL Casing dia: 4.0E+000 Casing dep: 2.58E+002 Casing hei: +01 Top screen: PL2.9E+002 Screen typ: Bottom scr: 3.05E+002 Screen t 1: Not Reported

Top scre 1: Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0

231

MD WELLS

8.0E+000

MD600000090039

Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Not Reported Hrs pumped: 1.0E+000 Log type: 2.0E+001 Pumping ra: Level befo: 1.05E+002 Level duri: 1.3E+002 Test pump: Α Not Reported S Pump insta: Install pu: Capacity: 8.0E+000 Pump hp: 5.0E-001 Column len: 1.6E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

B5 ENE 1/2 - 1 Mile Higher

Objectid: 91260 County let: CA

 Permit:
 CA811246
 Mgs id:
 Not Reported

 B1 seq:
 Not Reported
 B1 recd:
 11-DEC-84

 City:
 DUNKIRK
 State:
 MD

Zip: 20754 Driller na: GRIBBLE, MICHAEL K.

Drill meth:

Driller id: MWD0318 Est gpm pr: 8.0E+000

Use for wa: DW Approx dep: 3.5E+002

Replacemen: Y Replace pe: Not Reported Wapid: Not Reported Subdivisio: Not Reported Section: Not Reported Lot: Not Reported Nearest to: DUNKIRK Town dista: 1.3 MI

Nearest to: DUNKIRK Town dista: 1.3 MI
Road name: WARD RD Road side: E
Road dista: 70 FT Tax map: Not Reported
Block: Not Reported Parcel: Not Reported

N grid27: 325000.00 E grid27: 903000.00 E grid83: N grid83: 117577.00 431421.00 Lat dec de: Lon dec de: 38.73 76.64 Issue date: 15-NOV-84 Special fl: Not Reported C1 seq: Not Reported C1 recd: 07-DEC-84 Completion: 21-NOV-84 Total dept: 2.55E+002 Num unsucc: Hydrofract: Not Reported 0 Υ Grouted: Grout type: CM 0 Grout bott: 5.0E+001

Grout top: Casing typ: PL Casing dia: 4.0E+000 Casing dep: 2.0E+002 Casing hei: +01 2.45E+002 PLTop screen: Screen typ: Bottom scr: 2.55E+002 Screen t 1: Not Reported

 Top scre 1:
 0
 Bottom s 1:
 0

 Screen t 2:
 Not Reported
 Top scre 2:
 0

Bottom s 2: 0 Screen dia: 2.0E+000

Flowing we: Not Reported Telescopin: T

Not Reported Hrs pumped: 1.0E+000 Log type: Pumping ra: 3.0E+001 Level befo: 7.5E+001 Level duri: 1.6E+002 Test pump: Α Not Reported Pump insta: Install pu: S 3.0E+001 Pump hp: 5.0E-001 Capacity: Column len: 1.35E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

232

MD WELLS

ROTARY

MD600000091261

Map ID Direction Distance

Elevation Database EDR ID Number

1/2 - 1 Mile

MD WELLS MD600000090665

Higher

Objectid: 90664 County let: CA

Not Reported Permit: CA810521 Mgs id: 30-AUG-83 B1 seq: Not Reported B1 recd: City: **HARWOOD** State: MD

GRIBBLE, MICHAEL K. Zip: 20776 Driller na:

Driller id: MWD0318 Est gpm pr: 8.0E+000

Use for wa: DW Approx dep: 3.5E+002

ROTARY Drill meth: Replacemen: Replace pe: Not Reported Ν Wapid: Not Reported Subdivisio: **DUNKIRK WOODS** Section: Not Reported Lot: 30B

Nearest to: **DUNKIRK** Town dista: 1.2 MI Road name: WARD RD Road side: S Road dista: 100 FT Tax map: Not Reported

Block: Not Reported Parcel: Not Reported N grid27: 325000.00 E grid27: 903000.00 N grid83: E grid83: 431421.00 117577.00 Lon dec de: Lat dec de: 38.73 76.64 Issue date: 23-AUG-83 Special fl: Not Reported C1 seq: Not Reported C1 recd: 05-MAR-84 Completion: 28-DEC-83 Total dept: 2.5E+002 Num unsucc: 0 Hydrofract: Not Reported

Υ CM Grouted: Grout type: 5.0E+001 Grout top: 0 Grout bott: Casing typ: PLCasing dia: 4.0E+000 2.2E+002 Casing dep: Casing hei: +01 2.4E+002 PLTop screen: Screen typ: Bottom scr: 2.5E+002 Screen t 1: Not Reported

Top scre 1: Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 0

2.0E+000 Not Reported Telescopin: Flowing we: Log type: Not Reported Hrs pumped: 2.0E+000 Pumping ra: 3.5E+001 Level befo: 6.0E+001 Level duri: 8.0E+001 Test pump: Α Not Reported S Pump insta: Install pu: Capacity: 8.0E+000 Pump hp: 7.5E-001

Column len: 1.6E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

ENE 1/2 - 1 Mile

MD WELLS MD6000000089897

Higher

Objectid: 89896 County let: CA

Permit: CA734102 Mgs id: Not Reported B1 seq: Not Reported B1 recd: 24-JUN-81 City: **DUNKIRK** State: MD

FORD, JAMES E. Not Reported Driller na: Zip: MWD0165 Est gpm pr: 5.0E+000

Driller id: Use for wa: DW

Approx dep: 3.8E+002 Drill meth: **ROTARY** Replacemen: Replace pe: Not Reported Ν

Not Reported Subdivisio: MINOR BARBARA PRICE Wapid:

TC3900443.2s Page A-14

Lot:

Nearest to: **DUNKIRK** Town dista: 2 MI Road name: WARD RD Road side: Ε Road dista: 3000FT Tax map: Not Reported Block: Not Reported Parcel: Not Reported N grid27: 325000.00 E grid27: 903000.00 N grid83: 117577.00 E grid83: 431421.00 Lat dec de: 38.73 Lon dec de: 76.64 Issue date: 19-JUN-81 Special fl: Not Reported C1 recd: 07-JUL-81 C1 seq: Not Reported Completion: 24-JUN-81 Total dept: 3.4E+002 Num unsucc: 0 Hydrofract: Not Reported Grouted: Υ Grout type: CM 4.0E+000 1.5E+001 Grout top: Grout bott: 4.0E+000 Casing typ: ST Casing dia: Casing hei: 2.94E+002 +01 Casing dep: Screen typ: ST Top screen: 3.3E+002 Bottom scr: 3.4E+002 Screen t 1: Not Reported Top scre 1: 0 Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0

Not Reported

Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Log type: Not Reported Hrs pumped: 4.0E+000 4.0E+001 Level befo: 1.9E+002 Pumping ra: 2.1E+002 Level duri: Test pump: Α Pump insta: Not Reported Install pu: S Capacity: 1.3E+001 Pump hp: 7.5E-001 2.6E+002 Column len: Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

B8 ENE 1/2 - 1 Mile Higher

Section:

MD WELLS MD600000092663

Objectid: 92662 County let: CA Permit: CA812913 Mgs id: Not Reported B1 recd: 28-JAN-87 B1 seq: Not Reported Citv: LUSBY State: MD

Zip: 20657 Driller na: WATTS, FRANCIS W

 Driller id:
 MWD0190
 Est gpm pr:
 1.0E+001

 Use for wa:
 DW

 Approx dep:
 3.5E+002
 Drill meth:
 ROTARY

 Replacemen:
 N
 Replace pe:
 Not Reported

Wapid: Not Reported Subdivisio: ROSEMARY ROLLINS

 Section:
 Not Reported
 Lot:
 2

 Nearest to:
 DUNKIRK
 Town dista:
 1.5 MI

 Road name:
 WARD RD
 Road side:
 W

 Pool distance
 WARD RD
 Road side:
 W

Road dista: 440 FT Tax map: Not Reported Block: Not Reported Parcel: Not Reported N grid27: 325000.00 E grid27: 903000.00 N grid83: 117577.00 E grid83: 431421.00 Lat dec de: 38.73 Lon dec de: 76.64 Issue date: 08-JAN-87 Special fl: Not Reported C1 seq: Not Reported C1 recd: 23-APR-87

3.5E+002 Completion: 09-MAR-87 Total dept: Num unsucc: 0 Hydrofract: Not Reported Grouted: Υ Grout type: ВС Grout top: 0 Grout bott: 4.0E+001 PLCasing dia: 4.0E+000 Casing typ: Casing dep: 2.6E+002 Casing hei: +01 Screen typ: PLTop screen: 3.2E+002 Bottom scr: 3.4E+002 Screen t 1: Not Reported Top scre 1: Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Log type: Not Reported Hrs pumped: 3.0E+000 2.5E+001 1.2E+002 Pumping ra: Level befo: Level duri: 1.35E+002 Test pump: Α Pump insta: Not Reported Install pu: S Capacity: 7.0E+000 Pump hp: 7.5E-001 Column len: 2.0E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

B9 **ENE** 1/2 - 1 Mile Higher

> Completion: Num unsucc:

Grouted:

Grout top:

MD WELLS MD6000000419077

Objectid: 419086 Permit: CA942756 B1 seq: 0732 **SUNDERLAND** City: Zip: 20689

Driller id: MWD 318 Use for wa: DW 3.5E+002 Approx dep: Replacemen: Ν Wapid: Not Reported

Section: Not Reported Nearest to: DUNKIRK 10951 WARD RD Road name: Road dista: 160 FT Block: Not Reported N grid27: 325000.00 N grid83: 117577.00 Lat dec de: 38.73 03-OCT-00 Issue date: C1 seq: 7697

24-OCT-00

0

Υ

0

Casing typ: PL Casing dep: 3.2E+002 PLScreen typ: Bottom scr: 3.35E+002 Top scre 1:

Screen t 2: Not Reported County let: CA Not Reported Mgs id: B1 recd: 03-OCT-00 State: MD

MICHAEL GRIBBLE Driller na: Est gpm pr:

8.0E+000

ROTARY Drill meth: Replace pe: Not Reported Subdivisio: Not Reported Lot: Not Reported

Town dista: 2 Road side: Ε Tax map: 3 Parcel: 279 903000.00 E grid27: E grid83: 431421.00 Lon dec de: 76.64 Special fl: Not Reported C1 recd: 04-JAN-01 Total dept: 3.35E+002 Hydrofract: Ν Grout type: ВС Grout bott: 6.3E+001 Casing dia: 4.0E+000 Casing hei: +1 Top screen: 3.2E+002

Bottom s 1: 0 Top scre 2: 0

Screen t 1:

235

Not Reported

Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Not Reported Hrs pumped: 2.0E+000 Log type: Pumping ra: 2.0E+001 Level befo: 2.0E+002 Level duri: 2.2E+002 Test pump: Α S Pump insta: Install pu: Capacity: 8.0E+000 Pump hp: 7.5E-001 Column len: 2.8E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

B10 ENE 1/2 - 1 Mile Higher

Block:

N grid27:

N grid83:

MD WELLS MD600000415533

 Objectid:
 415532

 Permit:
 CA941383

 B1 seq:
 9342

 City:
 DUNKIRK

 Zip:
 20754

 Driller id:
 MWD 318

 Use for wa:
 DW

Use for wa: DW
Approx dep: 3.5E+002
Replacemen: Y

Wapid: Not Reported
Section: Not Reported
Nearest to: DUNKIRK
Road name: 2010 MCCRACKEN DRIVE
Road dista: 100 FT

Not Reported

325000.00

117577.00

Lat dec de: 38.73 Issue date: 14-OCT-98 C1 seq: 2231 Completion: 14-NOV-98 Num unsucc: 0 Grouted: Υ Grout top: 0 Casing typ: PL Casing dep: 3.0E+002 PLScreen typ: Bottom scr: 3.2E+002 Top scre 1:

Screen t 2: Not Reported Bottom s 2: Not Reported Flowing we: Not Reported Log type: Pumping ra: 2.5E+001 Level duri: 1.9E+002 Pump insta: Υ 7.0E+000 Capacity: Column len: 2.5E+002 Abandoned: Not Reported Est gpm pr:

Drill meth:
Replace pe:
Subdivisio:
Lot:
Town dista:
Road side:

County let:

Mgs id:

State:

B1 recd:

Driller na:

Town dista:
Road side:
Tax map:
Parcel:
E grid27:
E grid83:
Lon dec de:
Special fl:
C1 recd:
Total dept:
Hydrofract:
Grout type:
Grout bott:
Casing dia:
Casing hei:
Top screen:
Screen t 1:
Bottom s 1:
Top scre 2:
Screen dia:
Telescopin:

Screen t 1:
Bottom s 1:
Top scre 2:
Screen dia:
Telescopin:
Hrs pumped:
Level befo:
Test pump:
Install pu:
Pump hp:
Closed:
Abandon da:

ROTARY Not Reported DUNKIRK WOODS 2 3 W 3

903000.00

185

CA

MD

Not Reported

MICHAEL GRIBBLE

13-OCT-98

8.0E+000

431421.00 76.64 Not Reported 24-NOV-98 3.2E+002 N BC 8.4E+001 4.0E+000 +1 3.0E+002 Not Reported 0 0 2.0E+000 T 2.0E+000

S 7.5E-001 Not Reported Not Reported

1.7E+002

Α

Map ID Direction Distance

Elevation Database EDR ID Number

ENE 1/2 - 1 Mile Higher

B11

Lower

MD WELLS MD600000096586

Objectid: 96585 County let: CA

 Permit:
 CA883573
 Mgs id:
 Not Reported

 B1 seq:
 Not Reported
 B1 recd:
 22-JUL-93

 City:
 DUNKIRK
 State:
 MD

Zip: 20754 Driller na: GRIBBLE, MICHAEL K.

Driller id: MWD0318 Est gpm pr: 8.0E+000

Use for wa: DW Approx dep: 3.5E+002

Approx dep:3.5E+002Drill meth:ROTARYReplacemen:YReplace pe:Not Reported

Wapid: Not Reported Subdivisio: WOODLAWN FARMS
Section: Not Reported Lot: 5

Section :Not ReportedLot:5Nearest to:DUNKIRKTown dista:1.5 MIRoad name:10670 WARD RDRoad side:W

Road dista: 75 FT Tax map: Not Reported Block: Not Reported Parcel: Not Reported N grid27: 325000.00 E grid27: 903000.00 N grid83: E grid83: 431421.00 117577.00 Lat dec de: 38.73 Lon dec de: 76.64 Issue date: 26-JUL-93 Special fl: Not Reported C1 seq: Not Reported C1 recd: 27-AUG-93 Completion: 03-AUG-93 Total dept: 2.9E+002 Num unsucc: Hydrofract: Not Reported 0

Υ BC Grouted: Grout type: 1.68E+002 Grout top: 0 Grout bott: Casing typ: PLCasing dia: 4.0E+000 Casing dep: 2.55E+002 Casing hei: +01 2.8E+002 ST Top screen:

 Screen typ:
 ST
 Top screen:
 2.8E+002

 Bottom scr:
 2.9E+002
 Screen t 1:
 Not Reported

 Top scre 1:
 0
 Bottom s 1:
 0

 Screen t 2:
 Not Reported
 Top scre 2:
 0

 Bottom s 2:
 0
 Screen dia:
 2.0E+000

Bottom s 2: Screen dia: 2.0E+000 0 Not Reported Telescopin: Not Reported Flowing we: Not Reported Log type: Hrs pumped: 1.0E+000 Pumping ra: 2.0E+001 Level befo: 1.1E+002 Level duri: 1.35E+002 Test pump: Not Reported Pump insta: Install pu: S

 Capacity:
 8.0E+000
 Pump hp:
 7.5E-001

 Column len:
 1.8E+002
 Closed:
 A

Abandoned: Not Reported Abandon da: Not Reported

C12 WNW 1/2 - 1 Mile

MD WELLS MD600000342733

Objectid: 342732 County let: CA

 Permit:
 CA921043
 Mgs id:
 Not Reported

 B1 seq:
 7953
 B1 recd:
 11-SEP-96

 City:
 PR FREDERICK
 State:
 MD

Zip: 20678 Driller na: STAN KWIATKOWSKI

Driller id: MSD 107 Est gpm pr: 5.0E+001

 Use for wa:
 DW

 Approx dep:
 4.2E+002
 Drill meth:
 ROTARY

 Replacemen:
 N
 Replace pe:
 Not Reported

Wapid: CA1996G020 Subdivisio: CALVERT GATEWAY

TC3900443.2s Page A-18

Section: Not Reported Lot: 3 Nearest to: DUNKIRK Town dista: .3 Road name: TOWN CENTER BLVD Road side: Ν Road dista: 250 FT Tax map: 3.6 Block: 20,21,3 Parcel: 7,20,3 N grid27: 325300.00 E grid27: 897514.00 N grid83: 117668.00 E grid83: 429749.00 Lat dec de: 38.73 Lon dec de: 76.66 Issue date: 13-SEP-96 Special fl: Not Reported C1 recd: 31-JUL-00 C1 seq: 8688 Completion: 04-APR-97 Total dept: 5.2E+002 Num unsucc: 0 Hydrofract: Ν Grouted: Υ Grout type: ВС 5.0E+000 1.26E+002 Grout top: Grout bott: PL4.0E+000 Casing typ: Casing dia: Casing hei: 3.1E+002 Casing dep: +2 Screen typ: ST Top screen: 4.95E+002 Bottom scr: 5.15E+002 Screen t 1: Not Reported Top scre 1: 0 Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Log type: Not Reported Hrs pumped: 8.0E+000 1.26E+002 8.0E+001 Level befo: Pumping ra: 1.8E+002 Level duri: Test pump: Α Pump insta: Install pu: S Capacity: 6.0E+001 Pump hp: 5.0E+000 Column len: 2.0E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

13 SW MD WELLS MD600000469406 1/2 - 1 Mile

 Objectid:
 469405
 County let:

 Permit:
 CA944998
 Mgs id:

 B1 seq:
 6315
 B1 recd:

Lower

City: DUNKIRK State: MD
Zip: 20754 Driller na: MICHAEL K. GRIBBLE

 Driller id:
 MWD 318
 Est gpm pr:
 1.0E+002

 Use for wa:
 I

 Approx dep:
 5.0E+002
 Drill meth:
 ROTARY

 Replacemen:
 N
 Replace pe:
 Not Reported

Wapid: CA1989G008 Subdivisio: SHOPPES@APPLE GREEN

Section: Not Reported Lot: Not Reported

DUNKIRK Town dista: Nearest to: .5 2890 SOUTHERN MD BLVD Road name: Road side: Ε Road dista: 40 FT Tax map: 6 Block: Not Reported Parcel: 15 897609.00 N grid27: 321688.00 E grid27: N grid83: 116567.00 E grid83: 429778.00 Lat dec de: 38.72 Lon dec de: 76.66 Issue date: 18-FEB-04 Special fl: Not Reported C1 seq: 2730 C1 recd: 17-SEP-04

238

CA

Not Reported

18-FEB-04

Completion: 06-APR-04 Total dept: 5.2E+002 Num unsucc: 0 Hydrofract: Not Reported Grouted: Υ Grout type: ВС Grout top: 0 Grout bott: 6.3E+001 PLCasing dia: 6.0E+000 Casing typ: Casing dep: 4.75E+002 Casing hei: +1 Screen typ: ST Top screen: 4.9E+002 Bottom scr: 5.2E+002 Screen t 1: Not Reported Top scre 1: Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 4.0E+000 Flowing we: Not Reported Telescopin: Log type: Not Reported Hrs pumped: 2.4E+001 1.0E+002 1.45E+002 Pumping ra: Level befo: 1.65E+002 S Level duri: Test pump: Pump insta: Install pu: S Υ Capacity: 1.0E+002 Pump hp: 1.5E+001 Column len: 2.73E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

D14 West 1/2 - 1 Mile Higher

MD WELLS MD600000091526

Objectid: 91525 County let: CA Not Reported Permit: CA811553 Mgs id: B1 seq: Not Reported B1 recd: 18-JUN-85 **DUNKIRK** State: MD City: 20754 GRIBBLE, MICHAEL K. Zip: Driller na:

Driller id: MWD0318 Est gpm pr: 8.0E+000

Use for wa:

DW

Est gpm pr. 8.02+00

3.5E+002 **ROTARY** Approx dep: Drill meth: Replacemen: Ν Replace pe: Not Reported Wapid: CA1985G008 Subdivisio: Not Reported Section: Not Reported Lot: Not Reported Nearest to: DUNKIRK Town dista: 0 MI RT 4 Road side: Road name: Ε Road dista: 75 FT Tax map: Not Reported Block: Not Reported Parcel: Not Reported 324000.00 897000.00 N grid27: E grid27: N grid83: E grid83:

117272.00 429592.00 Lat dec de: 38.72 Lon dec de: 76.66 10-JUN-85 Special fl: Issue date: Not Reported C1 seq: Not Reported C1 recd: 26-MAY-86 14-JUN-85 Total dept: 3.3E+002 Completion: Not Reported Num unsucc: 0 Hydrofract: Υ Grout type: СМ Grouted: Grout top: 0 Grout bott: 5.0E+001 Casing typ: PL Casing dia: 4.0E+000 Casing dep: 2.9E+002 Casing hei: +01

 Casing dep:
 2.9E+002
 Casing hei:
 +01

 Screen typ:
 PL
 Top screen:
 3.2E+002

 Bottom scr:
 3.3E+002
 Screen t 1:
 Not Reported

 Top scre 1:
 0
 Bottom s 1:
 0

 Screen t 2:
 Not Reported
 Top scre 2:
 0

Bottom s 2: Screen dia: 0 Flowing we: Not Reported Telescopin: Т Not Reported Hrs pumped: 1.0E+000 Log type: 3.0E+001 Pumping ra: Level befo: 1.6E+002 1.85E+002 Level duri: Test pump: Α Not Reported Install pu: S Pump insta: Capacity: 8.0E+000 Pump hp: 7.5E-001 Column len: 2.2E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

1/2 - 1 Mile Higher

MD WELLS MD6000000324196

Objectid: 324195 County let: CA Permit: CA883213 Mgs id: Not Reported B1 recd: B1 seq: 7153 04-JAN-93 City: WASHINGTON State: DC

MICHAEL K. GRIBBLE Zip: 20017 Driller na:

Driller id: MWD0318 8.0E+000 Est gpm pr:

Use for wa:

Approx dep: 4.0E+002 Drill meth: ROTARY Replace pe: Not Reported Replacemen: Ν

Wapid: CA1990G008 Subdivisio: DUNKIRK MARKET PL Section: Not Reported Lot: Not Reported

Town dista: Nearest to: **DUNKIRK** .25 Road name: 10264 SOUTHERN MD BL Road side: W

75 FT Tax map: Road dista: Not Reported Not Reported Not Reported Block: Parcel: N grid27: 323000.00 E grid27: 897000.00 E grid83: N grid83: 116967.00 429592.00 Lat dec de: 38.72 Lon dec de: 76.66 Issue date: 16-MAR-93 Special fl: Ν

C1 seq: 1814 C1 recd: 17-MAY-96 Completion: 25-MAY-93 Total dept: 3.9E+002 Num unsucc: Hydrofract: Not Reported 0

Grouted: Υ Grout type: BC. Grout top: 0 Grout bott: 3.15E+002 Casing typ: PL Casing dia: 5.0E+000 3.33E+002 Casing dep: Casing hei: 3.5E+002 Top screen: Screen typ: ST

Bottom scr: 3.9E+002 Screen t 1: Not Reported Top scre 1: Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0

2.0E+000 Bottom s 2: Screen dia:

Not Reported Flowing we: Telescopin: Not Reported Hrs pumped: 3.0E+000 Log type: Pumping ra: 4.0E+001 Level befo: 1.6E+002 Level duri: 1.85E+002 Test pump: Α Pump insta: Υ Install pu: S

1.0E+001 Pump hp: 1.5E+000 Capacity: Column len: 2.8E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

Map ID Direction Distance

Elevation Database EDR ID Number

wsw 1/2 - 1 Mile Higher

E16

MD WELLS MD600000094770

Objectid: 94769 County let: CA

Not Reported Permit: CA881039 Mgs id: 12-APR-89 B1 seq: Not Reported B1 recd: City: DUNKIRK State: MD

GRIBBLE, MICHAEL K. Zip: 20754 Driller na:

Driller id: MWD0318 Est gpm pr: 8.0E+000

Use for wa: DW

ROTARY Approx dep: 3.5E+002 Drill meth: Replacemen: Replace pe: Not Reported Ν Wapid: CA1973G001 Subdivisio: **DUNKIRK VILLAGE** Section: Not Reported Lot: Not Reported Nearest to: **DUNKIRK** Town dista: 0 MI

Road name: RT 4 Road side: Ε 150 FT Road dista: Tax map: 6 Block: Parcel: 166 N grid27: 322875.00 E grid27: 896999.00 116929.00 N grid83: E grid83: 429592.00 Lon dec de: Lat dec de: 76.66 38.72 Issue date: 13-APR-89 Special fl: Not Reported C1 seq: Not Reported C1 recd: 30-NOV-90 11-APR-89 Completion: Total dept: 3.5E+002

Num unsucc: 0 Hydrofract: Not Reported Υ Grouted: Grout type: RC. 5.0E+001 Grout top: 0 Grout bott: Casing typ: PLCasing dia: 4.0E+000 3.2E+002 Casing dep: Casing hei: +01 3.4E+002 PLTop screen: Screen typ:

Bottom scr: 3.5E+002 Screen t 1: Not Reported Top scre 1: Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0

Bottom s 2: Screen dia: 2.0E+000 0 Not Reported Telescopin: Flowing we: Not Reported Log type: Hrs pumped: 3.0E+000 Pumping ra: 3.0E+001 Level befo: 1.4E+002 Level duri: 1.65E+002 Test pump: Α Pump insta: Not Reported Install pu: S

Capacity: 8.5E+001 Pump hp: 3.0E+000 Column len: 2.52E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

F17 **MD WELLS** MD6000000089853

1/2 - 1 Mile Lower

> Objectid: 89852 County let: CA Permit: CA734047 Mgs id:

Not Reported B1 seq: Not Reported B1 recd: 11-MAY-81 City: **DUNKIRK** State:

GRIBBLE, JOSEPH H. Not Reported Driller na: Zip:

Driller id: MWD0317 Est gpm pr: 8.0E+000

Use for wa: DW

Approx dep: 3.5E+002 Drill meth: **ROTARY** Replacemen: S Replace pe: Not Reported

Not Reported Subdivisio: **DUNKIRK WOODS** Wapid:

TC3900443.2s Page A-22

Section: Not Reported Lot: Not Reported Nearest to: DUNKIRK Town dista: .4 MI Road name: **INVERNESS WAY** Road side: Road dista: 100 FT Tax map: Not Reported Block: Not Reported Parcel: Not Reported N grid27: 326000.00 E grid27: 903000.00 N grid83: 117881.00 E grid83: 431421.00 Lat dec de: 38.73 Lon dec de: 76.64 Issue date: 06-MAY-81 Special fl: Not Reported C1 recd: 04-JUN-81 C1 seq: Not Reported Completion: 13-MAY-81 Total dept: 3.0E+002 Num unsucc: 0 Hydrofract: Not Reported Grouted: Υ Grout type: CM 0 2.0E+001 Grout top: Grout bott: ST 4.0E+000 Casing typ: Casing dia: Casing hei: 2.52E+002 +01 Casing dep: Screen typ: PLTop screen: 2.85E+002 Bottom scr: 3.0E+002 Screen t 1: Not Reported Top scre 1: 0 Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Log type: Not Reported Hrs pumped: 1.0E+000 3.0E+001 Level befo: 1.21E+002 Pumping ra: 1.43E+002 Level duri: Test pump: Α Pump insta: Not Reported Install pu: S Capacity: 7.0E+000 Pump hp: 5.0E-001 Column len: 1.75E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

F18
NE MD WELLS MD600000415294

NE 1/2 - 1 Mile Lower

> Objectid: 415293 County let: CA Permit: CA941353 Mgs id: Not Reported B1 seq: B1 recd: 29-SEP-98 2980 Citv: **DUNKIRK** State: MD Zip: 20754 Driller na: RICHARD L SHOCKLEY

 Driller id:
 MWD 486
 Est gpm pr:
 8.0E+000

 Use for wa:
 DW
 Drill meth:
 ROTARY

 Approx dep:
 Y
 Replace pe:
 Not Reported

Wapid: Not Reported Subdivisio: DUNKIRK WOOD Section: 1 Lot: 2

Town dista: **DUNKIRK** Nearest to: 1.4 Road name: 1941 ABERDEEN DR Road side: Ν Road dista: 27 FT Tax map: 3 Block: Not Reported Parcel: 142 903000.00 N grid27: 326000.00 E grid27: N grid83: 117881.00 E grid83: 431421.00 Lat dec de: 38.73 Lon dec de: 76.64 Issue date: 29-SEP-98 Special fl: Not Reported C1 seq: 2200 C1 recd: 18-NOV-98

Completion: 12-OCT-98 Total dept: 3.1E+002 Num unsucc: 0 Hydrofract: Grouted: Υ Grout type: BC Grout top: 0 Grout bott: 5.6E+001 Casing typ: PLCasing dia: 4.0E+000 2.99E+002 Casing hei: Casing dep: +2 Screen typ: PLTop screen: 3.0E+002 Bottom scr: 3.1E+002 Screen t 1: Not Reported Top scre 1: Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Log type: Not Reported Hrs pumped: 2.0E+000 3.0E+001 1.11E+002 Pumping ra: Level befo: 1.48E+002 Level duri: Test pump: Α Pump insta: Install pu: S Υ Capacity: 8.0E+000 Pump hp: 7.5E-001 Column len: 1.6E+002 Closed: Abandoned: Not Reported Abandon da: Not Reported

Subdivisio:

F19 NE 1/2 - 1 Mile Lower

Lat dec de:

Issue date:

MD WELLS MD6000000490038

Objectid: 490037 Permit: CA945797 B1 seq: 6907 **DUNKIRK** City: Zip: 20754 MWD 318

38.73

05-OCT-05

7160

Driller id: Use for wa: DW Approx dep: 3.5E+002 Replacemen: Υ

Wapid: Not Reported Section: Nearest to: **DUNKIRK** 9908 EMPIRE CT Road name: Road dista: 40 FT Block: Not Reported N grid27: 326000.00 N grid83: 117881.00

C1 seq: 24-OCT-05 Completion: Num unsucc: 0 Grouted: Υ Grout top: 0 Casing typ: PL Casing dep: 2.51E+002 PLScreen typ: Bottom scr: 2.75E+002

Top scre 1: Screen t 2: Not Reported County let: Not Reported Not Reported Mgs id: B1 recd: 05-OCT-05 State: MD MICHAEL K GRIBBLE Driller na:

Est gpm pr:

8.0E+000

ROTARY Drill meth: Replace pe: Not Reported

APPLE GREENE

Lot: 87 Town dista: 1 Road side: Ν Tax map: 6 Parcel: 278 E grid27: 903000.00 E grid83: 431421.00 Lon dec de: 76.64 Special fl: Not Reported C1 recd: 17-NOV-05 Total dept: 2.75E+002 Hydrofract: N

Grout type: ВС Grout bott: 6.3E+001 Casing dia: 4.0E+000 Casing hei: +1 Top screen: 2.55E+002

Screen t 1: Not Reported Bottom s 1: 0

Top scre 2: 0

Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Not Reported Hrs pumped: 2.0E+000 Log type: Pumping ra: 2.0E+001 Level befo: 1.1E+002 Level duri: 1.3E+002 Test pump: Α S Pump insta: Install pu: Capacity: 8.0E+000 Pump hp: 7.5E-001 Column len: 1.8E+002 Closed: Abandoned: Not Reported Abandon da: Not Reported

1/2 - 1 Mile Higher

MD WELLS MD6000000086818

Objectid: 86817 County let: CA Permit: CA730049 Mgs id: Not Reported Not Reported B1 recd: 25-AUG-72 B1 seq: City: DUNKIRK State: MD WARD, W S CO INC Zip: Not Reported Driller na:

Driller id: MWD0053 1.0E+001 Est gpm pr:

Use for wa:

Approx dep: 3.5E+002 Drill meth: ROTARY Not Reported Replacemen: Replace pe: Ν Wapid: CA1973G001 Subdivisio: Not Reported Section: Not Reported Lot: Not Reported

Town dista: Nearest to: **DUNKIRK** 0 MI Road name: RT 4 Road side: Ε Road dista: 600 FT Tax map: 6 Block: 3 Parcel: 166 N grid27: 322875.00 E grid27: 896940.00 E grid83: N grid83: 116929.00 429574.00 Lat dec de: 38.72 Lon dec de: 76.66 Issue date: 23-AUG-72 Special fl: Not Reported C1 seq: Not Reported C1 recd: 30-JAN-73 Completion: 12-OCT-72 Total dept: 3.42E+002 Num unsucc: 0 Hydrofract: Not Reported Grouted: Υ Grout type: CM Grout top: 0 Grout bott: 3.28E+002

Casing typ: ST Casing dia: 4.0E+000 3.28E+002 Casing dep: Casing hei: +01 3.32E+002 ST Top screen: Screen typ: Bottom scr: 3.38E+002 Screen t 1: Not Reported

Top scre 1: Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0

3.0E+000 Bottom s 2: Screen dia: Not Reported Not Reported Flowing we: Telescopin: Not Reported Hrs pumped: 6.0E+000 Log type: Pumping ra: 2.5E+001 Level befo: 1.3E+002 Level duri: 1.36E+002 Test pump: Α Pump insta: Not Reported Install pu: S 1.8E+001 Pump hp: 1.0E+000 Capacity:

Column len: 2.1E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

Map ID Direction Distance

Elevation Database EDR ID Number

D21 West **FRDS PWS** MD1041028

1/2 - 1 Mile Higher

Lower

PWS ID: MD1041028

Date Initiated: Not Reported Date Deactivated: Not Reported

PWS Name: **DB'S FISH & MEAT MARKET**

ROUTF 4

DUNKIRK, MD 20754

Addressee / Facility: System Owner/Responsible Party

COUNTRY CUTS

ROUTE 4

OWINGS, MD 20736

Facility Latitude: 38 43 18 Facility Longitude: 076 39 38

City Served: Not Reported

Treatment Class: Untreated Population: 00000025

Violations information not reported.

22 East MD WELLS MD6000000489478 1/2 - 1 Mile

489477 Not Reported Objectid: County let: Permit: Mgs id: Not Reported CA945737 B1 seq: 6133 B1 recd: 15-AUG-05

City: **DUNKIRK** State: MD

CURTIS WINSLOW 20754 Driller na: Zip:

Driller id: MSD 150 Est gpm pr: 8.0E+000

Use for wa: DW

ROTARY Approx dep: 2.8E+002 Drill meth: Replacemen: Υ Replace pe: Not Reported Subdivisio: **DUNKIRK FIELDS** Wapid: Not Reported

Not Reported Section: Lot: Nearest to: **DUNKIRK** Town dista: 1910 HAVEN LANE Road name: Road side: Road dista: 175 FT Tax map: Block: 5 Parcel:

228 324000.00 904000.00 N grid27: E grid27: N grid83: 117272.00 E grid83: 431726.00 Lon dec de: Lat dec de: 38.72 76.64 15-AUG-05 Not Reported Issue date: Special fl: C1 seq: Not Reported C1 recd: 15-SEP-05 Completion: 01-SEP-05 Total dept: 2.65E+002

Num unsucc: 0 Hydrofract: Ν Grouted: Υ Grout type: BC Grout top: 0 Grout bott: 1.5E+002 Casing typ: PLCasing dia: 4.0E+000 Casing dep: 2.45E+002 Casing hei: +1 Screen typ: PLTop screen: 2.45E+002 Bottom scr: 2.65E+002 Screen t 1: Not Reported

Bottom s 1: Top scre 1: 0 0

11

1

Ε

Bottom s 2: Screen dia:

Flowing we: Not Reported Telescopin: Not Reported Not Reported Hrs pumped: 3.0E+000 Log type: Pumping ra: 4.0E+001 Level befo: 8.4E+001 Level duri: 1.84E+002 Test pump: Α S Pump insta: Install pu: Capacity: 1.0E+001 Pump hp: 1.0E+000

Column len: 1.6E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

1/2 - 1 Mile Lower

MD WELLS MD6000000349119

Objectid: 349118 County let: CA Permit: CA884269 Mgs id: Not Reported

B1 recd: 07-FEB-95 B1 seq: 6392 City: PR FREDERICK State: MD

MICHAEL K GRIBBLE Zip: 20678 Driller na:

Driller id: MWD 318 3.5E+001 Est gpm pr:

Use for wa:

Approx dep: 4.0E+002 Drill meth: **ROTARY** Replace pe: Not Reported Replacemen: Ν

Wapid: CA1994G002 Subdivisio: MCDONALDS RESTURANT

Section: Not Reported Lot: Not Reported

DUNKIRK Town dista: Nearest to: .5 Road name: **ROUTE 4** Road side: Ε Road dista: 90 FT Tax map: 3 7 Block: 20 Parcel:

N grid27: 324893.00 E grid27: 897065.00 E grid83: N grid83: 117544.00 429612.00 Lat dec de: 38.73 Lon dec de: 76.66 Issue date: 07-FEB-95 Special fl:

C1 seq: 1834 C1 recd: 24-MAR-95 Completion: 11-JAN-95 Total dept: 3.1E+002 Num unsucc: 0

Hydrofract: Not Reported Grouted: Υ Grout type: BC. Grout top: 0 Grout bott: 1.26E+002 Casing typ: PL Casing dia: 4.0E+000 Casing dep: 2.8E+002 Casing hei:

2.8E+002 ST Top screen: Screen typ: Bottom scr: 3.1E+002 Screen t 1: Not Reported Top scre 1: Bottom s 1: 0

Screen t 2: Not Reported Top scre 2:

Bottom s 2: Screen dia:

2.0E+000 Not Reported Not Reported Flowing we: Telescopin: Not Reported Hrs pumped: 2.0E+000 Log type: Pumping ra: 4.0E+001 Level befo: 1.3E+002 Level duri: 1.6E+002 Test pump: Α Pump insta: Install pu: S

3.5E+001 Pump hp: 5.0E+000 Capacity: Column len: 2.3E+002 Closed: Not Reported Abandoned: Abandon da: 18-APR-06

Map ID Direction Distance

Elevation Database EDR ID Number

West 1/2 - 1 Mile Higher

E24

MD WELLS MD600000092887

Objectid: 92886 County let: CA Permit: CA813195 Mgs id:

Not Reported B1 seq: Not Reported B1 recd: 08-MAY-87 City: DUNKIRK State: MD

WARD, WILLARD C. Zip: 20754 Driller na:

Driller id: MWD0053 Est gpm pr: 3.0E+001

Use for wa: ı Approx dep: 4.0E+002

ROTARY Drill meth: Replacemen: Replace pe: Not Reported Ν Wapid: CA1987G005 Subdivisio: Not Reported Section: Not Reported Lot: Not Reported Nearest to: **DUNKIRK** Town dista: 0 MI

Road name: RT 4 Road side: Ε 200 FT Road dista: Tax map: 6 Block: Parcel: 171 N grid27: 323240.00 E grid27: 896802.00 429532.00 N grid83: 117040.00 E grid83: Lon dec de: Lat dec de: 76.66 38.72 Issue date: 08-MAY-87 Special fl: Not Reported C1 seq: Not Reported C1 recd: 24-JUL-87

Completion: 01-JUL-87 Total dept: 3.6E+002 Num unsucc: 0 Hydrofract: Not Reported Υ BC Grouted: Grout type: 3.01E+002 Grout top: 0 Grout bott: Casing typ: PLCasing dia: 4.0E+000

Casing dep: 3.01E+002 Casing hei: +01 3.4E+002 Top screen: Screen typ: ST Bottom scr: 3.6E+002 Screen t 1: Not Reported

Top scre 1: Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 3.0E+000 0

Not Reported Telescopin: Flowing we: Not Reported Log type: Hrs pumped: 8.0E+000 Pumping ra: 5.0E+001 Level befo: 1.65E+002 Level duri: 1.85E+002 Test pump: Not Reported S Pump insta: Install pu:

Capacity: 2.8E+001 Pump hp: 3.0E+000 Column len: 2.5E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

MD WELLS MD6000000094222 SE

1/2 - 1 Mile Lower

> Objectid: 94221 County let: CA

Permit: CA880415 Mgs id: Not Reported B1 seq: Not Reported B1 recd: 19-DEC-88 City: **DUNKIRK** State:

20754 GRIBBLE, MICHAEL K. Driller na: Zip:

Driller id: MWD0318 Est gpm pr: 8.0E+000

Use for wa: DW

Approx dep: 3.5E+002 Drill meth: **ROTARY** Replacemen: Replace pe: Not Reported

Not Reported Subdivisio: **DUNKIRK WOODS** Wapid:

TC3900443.2s Page A-28

Section: Ш Lot: 13 Nearest to: DUNKIRK Town dista: 1 MI Road name: **DUMBARTON DR** Road side: W Road dista: 30 FT Tax map: Not Reported Block: Not Reported Parcel: Not Reported N grid27: 321000.00 E grid27: 903000.00 N grid83: 116357.00 E grid83: 431421.00 Lat dec de: 38.71 Lon dec de: 76.64 Issue date: 20-DEC-88 Special fl: Not Reported Not Reported C1 recd: 03-JAN-89 C1 seq: Completion: 20-DEC-88 Total dept: 3.1E+002 Num unsucc: 0 Hydrofract: Not Reported Grouted: Υ Grout type: CM 0 5.0E+001 Grout top: Grout bott: PL 4.0E+000 Casing typ: Casing dia: Casing hei: 2.6E+002 +01 Casing dep: Screen typ: PLTop screen: 3.0E+002 Bottom scr: 3.1E+002 Screen t 1: Not Reported Top scre 1: 0 Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Log type: Not Reported Hrs pumped: 8.0E+000 3.0E+001 Level befo: 1.25E+002 Pumping ra: 1.7E+002 Level duri: Test pump: Α Pump insta: Not Reported Install pu: S Capacity: 8.0E+000 Pump hp: 7.5E-001 Column len: 1.85E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

26 WSW **MD WELLS** MD6000000415417

Lot:

Special fl:

C1 recd:

1/2 - 1 Mile Higher

Section:

Issue date:

C1 seq:

Objectid: 415416 County let: CA Permit: CA941212 Mgs id: Not Reported B1 seq: B1 recd: 29-JUL-98 9390 Citv: **DUNKIRK** State: MD

Zip: 20754 Driller na: MICHAEL K GRIBBLE Driller id: MWD 318 Est gpm pr: 8.0E+000

Use for wa: DW Approx dep: 3.5E+002 Drill meth: **ROTARY** Replacemen: Replace pe: Not Reported Wapid: CA2003G004 Subdivisio: Not Reported Not Reported Not Reported

DUNKIRK Town dista: Nearest to: .25 10075 SOUTHERN MD BL Road name: Road side: Ε 80 FT Road dista: Tax map: 6 Block: 3 Parcel: 417 N grid27: 322495.00 E grid27: 896937.00 N grid83: 116813.00 E grid83: 429573.00 Lat dec de: 38.72 Lon dec de: 76.66

29-JUL-98

1749

MAHAN RYKIEL

Not Reported

16-NOV-98

Completion: 01-AUG-98 Total dept: 3.3E+002 Num unsucc: Hydrofract: Grouted: Υ Grout type: BC Grout top: 0 Grout bott: 1.05E+002 PLCasing dia: 4.0E+000 Casing typ: 3.2E+002 Casing hei: Casing dep: +1 Screen typ: PLTop screen: 3.2E+002 Bottom scr: 3.3E+002 Screen t 1: Not Reported Top scre 1: Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Log type: Not Reported Hrs pumped: 1.0E+000 3.0E+001 1.95E+002 Pumping ra: Level befo: 2.1E+002 Level duri: Test pump: Α Pump insta: Install pu: S Υ Capacity: 8.0E+000 Pump hp: 7.5E-001 Column len: 2.75E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

G27 WNW 1/2 - 1 Mile Lower

Use for wa:

MD WELLS MD6000000356407

Objectid: 356406 County let: CA Not Reported Permit: CA921044 Mgs id: B1 seq: 7956 B1 recd: 11-SEP-96 **DUNKIRK** State: MD City: STAN KWIATKOWSKI Zip: 20678 Driller na:

Driller id: MSD 107 Est gpm pr: 4.0E+001

4.2E+002 Drill meth: ROTARY Approx dep: Replacemen: Ν Replace pe: Not Reported

Wapid: CA1995G010 Subdivisio: **CALVERT GATEWAY** Section: Not Reported Lot: 2

Nearest to: **DUNKIRK** Town dista: .3 TOWN CENTER BLVD Road side: Ν Road name: Road dista: 250 FT Tax map: 3 Block: 21 Parcel: 347 E grid27: N grid27: 325231.00 897114.00 N grid83: E grid83: 117647.00 429627.00 Lat dec de: 38.73 Lon dec de: 76.66 12-SEP-96 Special fl: Issue date: Not Reported C1 seq: 0866 C1 recd: 31-JUL-00 10-DEC-96 Total dept: 3.55E+002 Completion: Num unsucc: 0 Hydrofract: Not Reported Grouted: Υ

Grout type: ВС Grout top: 6.0E+000 Grout bott: 1.05E+002 Casing typ: PLCasing dia: 4.0E+000 Casing dep: 3.2E+002 Casing hei: +2 ST Top screen: 3.2E+002 Screen typ: Bottom scr: 3.3E+002 Screen t 1: ST

Top scre 1: 3.3E+002 Bottom s 1: 3.4E+002 Screen t 2: ST Top scre 2: 3.4E+002

Bottom s 2: 3.5E+002 Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Not Reported Not Reported Hrs pumped: 6.0E+000 Log type: Pumping ra: 7.0E+001 Level befo: 1.48E+002 Level duri: 2.2E+002 Test pump: Α S Pump insta: Install pu:

Capacity:4.0E+001Pump hp:3.0E+000Column len:3.0E+002Closed:Not ReportedAbandoned:Not ReportedAbandon da:Not Reported

D28
West FED USGS USGS40000431358
1/2 - 1 Mile

Higher

Org. Identifier: USGS-MD

Formal name: USGS Maryland Water Science Center

Monloc Identifier: USGS-384323076393801

Monloc name: CA Bb 56
Monloc type: Well
Monloc desc: Not Reported

Huc code: 02060006 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 38.7230556 Latitude: Longitude: -76.6605556 Sourcemap scale: Not Reported Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Reported

Horiz coord refsys: NAD83 Vert measure val: 135.87 Vert measure units: feet Vertacc measure val: 1

Vert accmeasure units: feet

Vertcollection method: Interpolated from digital elevation model (DEM)

Vert coord refsys: NAVD88 Countrycode:

Aquifername: Northern Atlantic Coastal Plain aquifer system

Formation type: Magothy Formation
Aquifer type: Confined single aquifer

Construction date: 20040406 Welldepth: 520 Welldepth units: ft Wellholedepth: 525

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 0

C29 WNW 1/2 - 1 Mile Lower

Org. Identifier: USGS-MD

Formal name: USGS Maryland Water Science Center

Monloc Identifier: USGS-384335076393401

Monloc name: CA Bb 47
Monloc type: Well
Monloc desc: Not Reported

Huc code:02060006Drainagearea value:Not ReportedDrainagearea Units:Not ReportedContrib drainagearea:Not ReportedContrib drainagearea units:Not ReportedLatitude:38.7265058Longitude:-76.6591298Sourcemap scale:24000

250

FED USGS

USGS40000431379

US

Horiz Acc measure: 1 Horiz Acc measure units: seconds

Horiz Collection method: Global positioning system (GPS), uncorrected

Horiz coord refsys: NAD83 Vert measure val: 120
Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Northern Atlantic Coastal Plain aquifer system

Formation type: Aquia Formation Aquifer type: Not Reported

Construction date: 19961210 Welldepth: 350 Welldepth units: ft Wellholedepth: 355

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 0

1/2 - 1 Mile Higher

> Objectid: 94882 County let: CA Permit: CA881173 Mgs id: Not Reported B1 seq: Not Reported B1 recd: 17-NOV-89 **DUNKIRK** State: MD City:

Zip: 20754 Driller na: GRIBBLE, MICHAEL K.

Driller id: MWD0318 Est gpm pr: 8.0E+000

Use for wa:

3.7E+002 Approx dep: Drill meth: **ROTARY** Replace pe: Not Reported Replacemen: Υ CA1989G021 Subdivisio: Wapid: Not Reported Section: Not Reported Lot: Not Reported **DUNKIRK** Town dista: Nearest to: 1 MI RT 4 Road side: W Road name: Road dista: 25 FT Tax map: 3 Parcel: 22 Block: 21 896750.00 324394.00 E grid27:

N grid27: N grid83: 117392.00 E grid83: 429516.00 Lat dec de: 38.72 Lon dec de: 76.66 Issue date: 20-NOV-89 Special fl: Not Reported C1 seq: Not Reported C1 recd: 05-DEC-89 Completion: 27-NOV-89 Total dept: 3.3E+002 Num unsucc: Hydrofract: Not Reported 0 Grouted: Υ Grout type: BC

Grout top: 0 Grout bott: 1.0E+002 Casing typ: PL Casing dia: 4.0E+000 3.1E+002 Casing dep: Casing hei: +01 3.2E+002 Screen typ: PL Top screen: 3.3E+002 Screen t 1: Not Reported Bottom scr:

 Top scre 1:
 0
 Bottom s 1:
 0

 Screen t 2:
 Not Reported
 Top scre 2:
 0

 Bottom s 2:
 0
 Screen dia:
 2.0I

 Bottom s 2:
 0
 Screen dia:
 2.0E+000

 Flowing we:
 Not Reported
 Telescopin:
 T

 Log type:
 Not Reported
 Hrs pumped:
 5.0E+000

 Log type:
 Not Reported
 Hrs pumped:
 5.0E+000

 Pumping ra:
 2.5E+001
 Level befo:
 1.6E+002

 Level duri:
 1.75E+002
 Test pump:
 A

 Pump insta:
 Not Reported
 Install pu:
 S

 Capacity:
 7.0E+000
 Pump hp:
 1.0E+000

 Column len:
 2.5E+002
 Closed:
 Not Reported

 Abandoned:
 Not Reported
 Abandon da:
 Not Reported

Map ID Direction Distance

Elevation Database EDR ID Number

D31
West FED USGS USGS40000431356

1/2 - 1 Mile Higher

Org. Identifier: USGS-MD

Formal name: USGS Maryland Water Science Center

Monloc Identifier: USGS-384322076394001

Monloc name: CA Bb 1 Monloc type: Well

Monloc desc: Not Reported Huc code: 02060006

Drainagearea value: Not Reported Not Reported Contrib drainagearea: Not Reported Drainagearea Units: Contrib drainagearea units: Not Reported Latitude: 38.7228947 Longitude: -76.6607965 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 144.00 Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Northern Atlantic Coastal Plain aquifer system

Formation type: Pleistocene Series

Aquifer type: Not Reported

Construction date: Not Reported Welldepth: 44

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 51

	Feet below	Feet to			Feet below	Feet to
Date	Surface	Sealevel	Date		Surface	Sealevel
1952-12-22	19.02		1952-09		25.54	
1952-07-18	27.85		1952-0	5-13	16.30	
1952-04-30	14.74		1952-00	3-20	19.25	
1952-02-01	17.14		1952-0 ⁻	1-04	17.88	
1951-11-19	22.12		1951-10	0-23	30.81	
1951-09-13	30.08		1951-07	7-27	28.12	
1951-06-27	22.80		1951-06	6-04	28.05	
1951-04-10	22.52		1951-02	2-22	23.70	
1951-01-17	25.98		1951-0 ⁻	1-02	24.87	
1950-11-28	26.43		1950-1°	1-02	25.27	
1950-09-07	30.74		1950-08	3-10	29.40	
1950-06-28	29.70		1950-0	5-19	27.15	
1950-04-26	25.84		1950-03	3-23	28.84	
1950-02-28	29.52		1950-0 ⁻	1-24	31.55	
1949-12-28	31.51		1949-10	0-03	31.48	
1949-09-14	31.26		1949-08	3-03	30.72	
1949-07-29	33.71		1949-0	3-15	26.79	
1949-05-19	23.05		1949-04	4-15	19.91	
1949-03-24	18.25		1948-0	6-28	27.06	
1948-06-01	25.28		1947-1 ⁻	1-13	28.00	
1947-09-23	31.03		1947-08	3-18	30.23	
1947-07-24	28.50		1947-0	3-30	25.34	
1947-06-18	27.57		1947-0	6-03	29.96	
1947-05-20	29.84		1947-0	5-06	29.36	

Ground-water levels, continued.

Feet below Feet to Feet below Feet to Date Surface Sealevel Date Surface Sealevel

1947-04-22 30.04 1947-04-07 28.64

1947-01-13 26.97

MD WELLS MD6000000091474 SW 1/2 - 1 Mile

Lower

Objectid: 91473 County let: CA Permit: CA811493 Mgs id: Not Reported B1 recd: 01-APR-98 B1 seq: 3347 City: **DUNKIRK** State: MD

Zip: 20754 Driller na: MICHAEL K GRIBBLE

Driller id: MWD0318 Est gpm pr: 8.0E+000 Use for wa: DW

Approx dep: 3.5E+002 Drill meth: **ROTARY** Replace pe: Replacemen: Not Reported Ν Wapid: CA1985G006 Subdivisio: Not Reported

Section: Not Reported Lot: Not Reported Nearest to: **DUNKIRK** Town dista: 25 **ROUTE 4** Road side: Ε Road name: Road dista: 50 FT Tax map: 6 Block: Not Reported Parcel: 2

N grid27: 321356.00 E grid27: 897350.00 N grid83: 116466.00 E grid83: 429699.00 Lat dec de: Lon dec de: 38.72 76.66 13-MAY-85 Issue date: Special fl: Ν C1 seq: 2517 C1 recd: 25-FEB-86 07-JUN-85 Completion: Total dept: 3.4E+002 Not Reported Num unsucc: 0 Hydrofract: Grouted: Υ Grout type: CM Grout top: Grout bott: 5.0E+001 0 PL Casing dia: 4.0E+000 3.0E+002

Casing typ: Casing dep: Casing hei: +1 Screen typ: PLTop screen: 3.25E+002 Bottom scr: 3.4E+002 Screen t 1: Not Reported

Top scre 1: Bottom s 1:

Screen t 2: Not Reported Top scre 2: 0 2.0E+000 Bottom s 2: Screen dia: Flowing we: Not Reported Telescopin: Not Reported 1.0E+000 Log type: Not Reported Hrs pumped: Pumping ra: 2.0E+001 Level befo: 1.5E+002 1.74E+002 Level duri: Test pump: Α

S Pump insta: Install pu: 2.0E+001 5.0E-001 Capacity: Pump hp: Column len: 2.31E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

Lower

MD WELLS MD6000000089896

Objectid: 89895 County let: CA Permit: CA734101 Mas id: Not Reported B1 seq: Not Reported B1 recd: 24-JUN-81 City: **DUNKIRK** State: MD

Not Reported Driller na: FORD, JAMES E. Zip: MWD0165 5.0E+000 Driller id: Est gpm pr:

Use for wa: DW Approx dep: 3.8E+002

Lower

Drill meth: **ROTARY** Not Reported Replacemen: Replace pe: Subdivisio: **BARBARA PRICE** Wapid: Not Reported

Section: Not Reported Lot: 2 **DUNKIRK** Town dista: 2 MI Nearest to: Road name: WARD RD Road side: Ε 4000FT Road dista: Tax map:

Not Reported Parcel: Not Reported Block: Not Reported N grid27: 325000.00 E grid27: 904000.00 N grid83: 117577.00 E grid83: 431726.00 Lat dec de: 38.73 Lon dec de: 76.64 Issue date: 19-JUN-81 Special fl: Not Reported C1 seq: Not Reported C1 recd: 07-JUL-81 22-JUN-81 Completion: Total dept: 3.4E+002

Num unsucc: Hydrofract: Not Reported 0 Grouted: Υ Grout type: CM 4.0E+000 Grout bott: 1.0E+001 Grout top: Casing typ: 4.0E+000 ST Casing dia: Casing dep: 2.94E+002 Casing hei: +01

Screen typ: Top screen: 3.3E+002 3.4E+002 Not Reported Bottom scr: Screen t 1: Top scre 1: Bottom s 1:

Screen t 2: Top scre 2: Not Reported n Bottom s 2: 2.0E+000 Screen dia:

Flowing we: Not Reported Telescopin: Т

6.0E+000 Log type: Not Reported Hrs pumped: 1.8E+002 6.0E+001 Pumping ra: Level befo: Level duri: 2.0E+002 Test pump: Α Pump insta: Not Reported Install pu: S 1.3E+001 7.5E-001 Capacity: Pump hp:

Column len: 2.6E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

J34 ENE **MD WELLS** MD6000000418734 1/2 - 1 Mile

Objectid: County let: CA 418743 Mgs id: CA943083 Not Reported Permit: B1 seq: 9109 B1 recd: 01-MAY-01 City: **DUNKIRK** State: MD

MICHAEL GRIBBLE Zip: 20754 Driller na:

Driller id: MWD 318 Est gpm pr: 8.0E+000

Use for wa: DW

ROTARY Approx dep: 3.5E+002 Drill meth: Replacemen: Replace pe: Not Reported Wapid: Not Reported Subdivisio: **DUNKIRK WOODS**

Section: Lot: 28 Nearest to: DUNKIRK Town dista: 1 Road name: 1950 ABERDEEN DR Road side: W Road dista: 30 FT Tax map: 3 Block: Not Reported Parcel: 142 325000.00 E grid27: 904000.00 N grid27: N grid83: 117577.00 E grid83: 431726.00 Lat dec de: 38.73 Lon dec de: 76.64 Issue date: 01-MAY-01 Special fl: Not Reported C1 recd: C1 seq: 6042 28-JUN-01 Completion: 23-MAY-01 Total dept: 3.07E+002 Num unsucc: 0 Hydrofract: Ν Grouted: Υ Grout type: ВС 6.3E+001 Grout top: 0 Grout bott: PL4.0E+000 Casing typ: Casing dia: 2.8E+002 Casing hei: Casing dep: +1 Screen typ: PLTop screen: 2.92E+002 Bottom scr: 3.07E+002 Screen t 1: Not Reported Top scre 1: Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Log type: Not Reported Hrs pumped: 2.0E+000 2.0E+001 Level befo: 1.6E+002 Pumping ra: 1.8E+002 Level duri: Test pump: Α Pump insta: Install pu: S Capacity: 8.0E+000 Pump hp: 7.5E-001 Column len: 2.3E+002 Closed: Abandoned: Not Reported Abandon da: Not Reported

35 NE FED USGS USGS40000431388

1/2 - 1 Mile Lower

Org. Identifier: USGS-MD

Formal name: USGS Maryland Water Science Center

Monloc Identifier: USGS-384345076381901

Monloc name: CA Bb 32
Monloc type: Well
Monloc desc: Not Reported

02060006 Drainagearea value: Not Reported Huc code: Contrib drainagearea: Drainagearea Units: Not Reported Not Reported 38.7292836 Contrib drainagearea units: Not Reported Latitude: -76.6382953 Sourcemap scale: 24000 Longitude: Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 130.00 Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Northern Atlantic Coastal Plain aquifer system

Formation type: Aquia Formation

Aquifer type: Not Reported Construction date: 19781210

Construction date: 19781210 Welldepth: 380 Welldepth units: ft Wellholedepth: 380 Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1978-12-10 140.00

MD WELLS MD600000415590 1/2 - 1 Mile

Higher

Objectid: 415589 County let: CA Permit: CA941020 Mgs id: Not Reported 21-APR-98 B1 seq: 1207 B1 recd: City: **DUNKIRK** State: MD

 Zip:
 20754
 Driller na:
 RON KINGSBURY

 Driller id:
 MWD 543
 Est gpm pr:
 1.0E+001

 Use for wa:
 DW

 Approx dep:
 4.0E+002
 Drill meth:
 ROTARY

 Replacemen:
 Y
 Replace pe:
 CA733719

 Wapid:
 CA1998G004
 Subdivisio:
 Not Reported

Wapid:CA1998G004Subdivisio:Not ReportedSection:Not ReportedLot:Not ReportedNearest to:DUNKIRKTown dista:Not Reported

Road name: SOUTHERN MD BLVD Road side: W Road dista: 200 FT Tax map: 6 Block: Not Reported Parcel: 194 N grid27: 324037.00 E grid27: 896530.00 E grid83: 429449.00 N grid83: 117283.00 Lat dec de: Lon dec de: 76.66 38.72 Issue date: 21-APR-98 Special fl: Not Reported C1 seq: C1 recd: 08-MAY-98 2647 Completion: 16-APR-98 Total dept: 3.4E+002 Hydrofract: Num unsucc: 0 Ν ВС Grouted: Υ

Grout type: Grout top: 0 Grout bott: 3.0E+002 Casing typ: PL Casing dia: 4.0E+000 Casing dep: 3.2E+002 Casing hei: +.6 3.2E+002 PLTop screen: Screen typ: Bottom scr: 3.4E+002 Screen t 1: Not Reported

Top scre 1: 0 Bottom s 1: 0
Screen t 2: Not Reported Top scre 2: 0

Bottom s 2:0Screen dia:2.0E+000Flowing we:Not ReportedTelescopin:Not ReportedLog type:Not ReportedHrs pumped:1.0E+000Pumping ra:3.0E+001Level befo:1.6E+002

Pumping ra: Level befo: Level duri: 1.9E+002 Test pump: Α Pump insta: Υ Install pu: S 1.3E+001 Pump hp: 1.5E+000 Capacity: Column len: 2.5E+002 Closed: Α

Abandoned: Not Reported Abandon da: Not Reported

Map ID Direction Distance

Elevation Database EDR ID Number

West **FED USGS** USGS40000431347

1/2 - 1 Mile Higher

> Org. Identifier: USGS-MD

Formal name: **USGS Maryland Water Science Center**

Monloc Identifier: USGS-384314076394301

Monloc name: CA Bb 40 Monloc type: Well

Monloc desc: Not Reported 02060004 Huc code:

Not Reported Drainagearea value: Contrib drainagearea: Not Reported Drainagearea Units: Not Reported Contrib drainagearea units: Not Reported 38.7206726 Latitude: Longitude: -76.6616299 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

NAD83 Horiz coord refsys: Vert measure val: 158 Vert measure units: Vertacc measure val: 20 feet

Vert accmeasure units:

Vertcollection method: Interpolated from topographic map

NGVD29 Countrycode: US Vert coord refsys:

Northern Atlantic Coastal Plain aquifer system Aquifername:

Formation type: Aquia Formation Aquifer type: Confined single aquifer

Construction date: 19910329 Welldepth: 395 Welldepth units: ft Wellholedepth: 395

Wellholedepth units:

Ground-water levels, Number of Measurements: 1

Feet below Feet to Surface Sealevel Date

1991-04-03 183

K38 WSW MD WELLS MD6000000455180

1/2 - 1 Mile Higher

> Objectid: 455179 County let: CA Permit: CA944338 Mgs id: Not Reported 07-JAN-03 B1 seq: 3378 B1 recd: **OWINGS** State: City:

RICHARD WINSLOW Zip: 20736 Driller na:

MSD 151 Driller id: Est gpm pr: 8.0E+000

Use for wa:

Approx dep: 2.5E+002 Drill meth: **ROTARY** Replacemen: Replace pe: Not Reported

DUNKIRK MARKET PLACE Wapid: CA2002G021 Subdivisio:

Section: Not Reported Lot: PARCEL A& Nearest to: **DUNKIRK** Town dista: Not Reported

Road name: 10276 SOUTHERN MARYL Road side: W Road dista: 120 FT Tax map: 6 Block: Parcel: 3 362 322514.00 E grid27: N grid27: 896524.00 N grid83: 116819.00 E grid83: 429447.00 Lat dec de: 38.72 Lon dec de: 76.66 Issue date: 07-JAN-03 Special fl: Not Reported C1 seq: 7854 C1 recd: 06-MAR-03

MAHAN RYKIEL

Completion: 19-FEB-03 Total dept: 3.9E+002 Num unsucc: 0 Hydrofract: Grouted: Υ Grout type: BC Grout top: 0 Grout bott: 9.0E+001 PLCasing dia: 4.0E+000 Casing typ: Casing dep: 3.6E+002 Casing hei: +1 Screen typ: PLTop screen: 3.6E+002 Bottom scr: 3.8E+002 Screen t 1: Not Reported Top scre 1: Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 2.0E+000 Not Reported Flowing we: Not Reported Telescopin: Log type: Not Reported Hrs pumped: 3.0E+000 3.0E+001 2.0E+002 Pumping ra: Level befo: 2.24E+002 Level duri: Test pump: Α Pump insta: S Υ Install pu:

Pump hp:

Abandon da:

Closed:

1.0E+000

Not Reported

Not Reported

FED USGS

USGS40000431365

H39 WNW 1/2 - 1 Mile Higher

Capacity:

Column len:

Abandoned:

Org. Identifier: USGS-MD

Formal name: USGS Maryland Water Science Center

7.0E+000

2.8E+002

Not Reported

Monloc Identifier: USGS-384326076394301

Monloc name: CA Bb 26
Monloc type: Well
Monloc desc: Not Reported
Huc code: 02060006

Not Reported Huc code: Drainagearea value: Not Reported Contrib drainagearea: Not Reported Drainagearea Units: Contrib drainagearea units: Not Reported Latitude: 38.7240058 -76.6616299 Sourcemap scale: 24000 Longitude: Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 140.00 Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Northern Atlantic Coastal Plain aquifer system

Formation type: Magothy Formation

Aquifer type: Not Reported

Construction date: 19790603 Welldepth: 531 Welldepth units: ft Wellholedepth: 531

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1979-06-03 120.00

Map ID Direction Distance

Elevation Database EDR ID Number

1/2 - 1 Mile

MD WELLS MD6000000420217

Higher

Objectid: 420226 County let: CA

Not Reported Permit: CA943466 Mgs id: 07-NOV-01 B1 seq: 6035 B1 recd: HUNTINGTOWN City: State: MD

MICHAEL GRIBBLE Zip: 20639 Driller na:

Driller id: MWD 318 Est gpm pr: 3.6E+001

Use for wa: Ι

ROTARY Approx dep: 3.5E+002 Drill meth: Replacemen: Replace pe: Not Reported Ν

Wapid: CA2000G014 Subdivisio: DUNKIRK COMMERCIAL P

Section: Not Reported Lot: 5 Nearest to: **DUNKIRK** Town dista: .25 3170 W WARD Road name: Road side: W Road dista: 300 FT Tax map: 6 Block: Parcel: 433 2 N grid27: 322186.00 E grid27: 896592.00 N grid83: 116719.00 E grid83: 429468.00

Lat dec de: 76.66 38.72 Lon dec de: Issue date: 07-NOV-01 Special fl: Not Reported C1 seq: 0941 C1 recd: 01-OCT-02 Completion: 14-JUL-02 Total dept: 3.5E+002 Num unsucc: 0 Hydrofract: N Υ BC Grouted: Grout type:

6.3E+001 Grout top: 0 Grout bott: Casing typ: PLCasing dia: 4.0E+000 3.1E+002 Casing dep: Casing hei: +1 3.2E+002 PLTop screen: Screen typ: Not Reported

Bottom scr: 3.5E+002 Screen t 1: Top scre 1: Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0

Bottom s 2: Screen dia: 2.0E+000 0 Not Reported Telescopin: Flowing we: Not Reported Log type: Hrs pumped: 2.0E+000 Pumping ra: 6.0E+001 Level befo: 1.7E+002 Level duri: 1.9E+002 Test pump: Pump insta: Install pu: S Υ

Capacity: 3.3E+001 Pump hp: 5.0E-001 Column len: 2.73E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

WSW MD WELLS MD6000000348290 1/2 - 1 Mile

Higher Objectid: 348289 County let:

Permit: CA884576 Mgs id: Not Reported B1 seq: 6256 B1 recd: 24-JAN-95

City: SILVER SPRING State: MD

20901 MICHAEL K GRIBBLE Driller na: Zip:

Driller id: MWD 318 Est gpm pr: 1.0E+001

Use for wa:

Approx dep: 3.5E+002 Drill meth: **ROTARY** Replacemen: Replace pe: Not Reported

CA1995G005 Subdivisio: **COUNTRY PLAZA** Wapid:

TC3900443.2s Page A-40

CA

Section: Not Reported Lot: Not Reported Nearest to: DUNKIRK Town dista: Road name: **ROUTE 4 SOUTH** Road side: W Road dista: 75 FT Tax map: 6 Block: Parcel: 158 3 E grid27: 897019.00 N grid27: 321317.00 N grid83: 116454.00 E grid83: 429598.00 Lat dec de: 38.72 Lon dec de: 76.66 Issue date: 24-JAN-95 Special fl: C1 recd: 03-APR-95 C1 seq: 2345 Completion: 01-FEB-95 Total dept: 3.72E+002 Num unsucc: 0 Hydrofract: Not Reported Grouted: Υ Grout type: ВС 1.26E+002 Grout top: 0 Grout bott: PL4.0E+000 Casing typ: Casing dia: Casing hei: 3.35E+002 Casing dep: +1 Screen typ: PLTop screen: 3.62E+002 Bottom scr: 3.72E+002 Screen t 1: Not Reported Top scre 1: 0 Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Log type: Not Reported Hrs pumped: 2.0E+000 2.0E+001 Level befo: 1.4E+002 Pumping ra: 1.6E+002 Level duri: Test pump: Α Pump insta: Install pu: S

Pump hp:

Abandon da:

Closed:

L42 SW 1/2 - 1 Mile Lower

Capacity:

Column len:

Abandoned:

Replacemen:

Wapid:

Section:

MD WELLS MD600000356070

1.0E+000

CA

MD

Not Reported

Not Reported

MICHAEL K GRIBBLE

10-JUL-96

Objectid: 356069 County let: Permit: CA920916 Mgs id: B1 seq: B1 recd: 5947 Citv: **OWINGS** State: Zip: 20736 Driller na: Driller id: MWD 318 Use for wa: DW Approx dep:

9.0E+000

2.2E+002

Not Reported

 MWD 318
 Est gpm pr:
 8.0E+000

 DW
 3.5E+002
 Drill meth:
 ROTARY

 Y
 Replace pe:
 Not Reported

 CA1996G039
 Subdivisio:
 MABLE HANKINS PROP

 Not Reported
 Lot:
 2R

DUNKIRK Town dista: .5 Nearest to: 9880 SOUTHERN MD BLV Road name: Road side: W 75 FT Road dista: Tax map: 6 Block: Parcel: 295 N grid27: 320601.00 E grid27: 897611.00 N grid83: 116236.00 E grid83: 429779.00 Lat dec de: 38.71 Lon dec de: 76.66 Issue date: 26-JUL-96 Special fl: Not Reported C1 seq: 5182 C1 recd: 15-AUG-96

Completion: 18-JUL-96 Total dept: 3.33E+002 Num unsucc: 0 Hydrofract: Grouted: Υ Grout type: BC Grout top: 0 Grout bott: 6.3E+001 PLCasing dia: 4.0E+000 Casing typ: Casing dep: 3.08E+002 Casing hei: +1 Screen typ: PLTop screen: 3.23E+002 Bottom scr: 3.33E+002 Screen t 1: Not Reported Top scre 1: Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Log type: Not Reported Hrs pumped: 1.0E+000 2.0E+001 1.5E+002 Pumping ra: Level befo: 1.75E+002 Level duri: Test pump: Α Pump insta: Install pu: S Υ Capacity: 1.2E+001 Pump hp: 1.5E+000 Column len: 2.4E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

K43 **WSW** 1/2 - 1 Mile Higher

MD WELLS MD6000000478763

Objectid: 478762 County let: CA Not Reported Permit: CA945439 Mgs id: B1 seq: 7243 B1 recd: 02-DEC-04 **OWINGS** State: MD City: **CURTIS WINSLOW** Zip: 20736 Driller na: MSD 150 Est gpm pr: 8.0E+000

Driller id: Use for wa: DW 4.0E+002 Approx dep: Drill meth:

Replacemen: Υ Wapid: CA2002G016 Section: Not Reported

Nearest to: **DUNKIRK** 10205 KIRKSVILLE LN Road name: Road dista: 128 FT

Block: N grid27: 322327.00 N grid83: 116762.00 Lat dec de: 38.72 02-DEC-04 Issue date: C1 seq: 1576 14-MAR-05 Completion: Num unsucc: 0 Υ Grouted: Grout top: 0

PL Screen typ: Bottom scr: 3.5E+002 Top scre 1:

PL

3.3E+002

Not Reported

Casing typ:

Casing dep:

Screen t 2:

Lot: Town dista: Road side: Tax map: Not Reported Parcel: E grid27: E grid83: Lon dec de: Special fl: C1 recd: Total dept: Hydrofract: Grout type: Grout bott: Casing dia:

Casing hei: Top screen: Screen t 1: Bottom s 1: Top scre 2:

Replace pe:

Subdivisio:

Not Reported **DUNKIRK VFD PROP**

Not Reported

ROTARY

Е 6 433 896478.00 429433.00 76.66 Not Reported 05-APR-05 3.7E+002 Ν ВС 8.0E+001 4.0E+000

+1 3.3E+002 Not Reported 0 0

Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Not Reported Not Reported Hrs pumped: 3.0E+000 Log type: Pumping ra: 2.5E+001 Level befo: 1.95E+002 Level duri: 3.0E+002 Test pump: Α S Pump insta: Install pu:

 Capacity:
 1.3E+001
 Pump hp:
 3.0E+000

 Column len:
 3.15E+002
 Closed:
 A

Abandoned: Not Reported Abandon da: Not Reported

K44 WSW 1/2 - 1 Mile Higher

Objectid: 479202 County let: CA

 Permit:
 CA945443
 Mgs id:
 Not Reported

 B1 seq:
 7244
 B1 recd:
 02-DEC-04

 City:
 OWINGS
 State:
 MD

Zip: 20736 Driller na: CURTIS WINSLOW

 Driller id:
 MSD 150
 Est gpm pr:
 8.0E+000

Use for wa:

Approx dep:4.0E+002Drill meth:ROTARYReplacemen:NReplace pe:Not Reported

Wapid: CA2002G016 Subdivisio: DUNKIRK VFD PROP

Section: Not Reported Lot:

Nearest to:DUNKIRKTown dista:Not ReportedRoad name:10205 KIRKSVILLE LNRoad side:N

Tax map: Road dista: 130 FT 6 433 Block: Not Reported Parcel: N grid27: 322347.00 E grid27: 896468.00 E grid83: N grid83: 116768.00 429430.00 Lat dec de: 38.72 Lon dec de: 76.66 Issue date: 02-DEC-04 Special fl:

 C1 seq:
 1580
 C1 recd:
 05-APR-05

 Completion:
 16-MAR-05
 Total dept:
 3.75E+002

 Num unsure:
 0
 Hydrofract:
 Not Reported

Num unsucc: 0 Hydrofract: Not Reported Grouted: Υ Grout type: BC Grout top: 0 Grout bott: 1.0E+002 Casing typ: PL Casing dia: 4.0E+000 Casing dep: 3.5E+002 Casing hei: 3.5E+002 PLTop screen: Screen typ: Bottom scr: 3.7E+002 Screen t 1: Not Reported

Top scre 1: 0 Bottom s 1: 0

Screen t 2: Not Benorted Top scre 2: 0

Screen t 2: Not Reported Top scre 2: 0
Bottom s 2: 0 Screen dia: 2.0

Bottom s 2:0Screen dia:2.0E+000Flowing we:Not ReportedTelescopin:Not ReportedLog type:Not ReportedHrs pumped:3.0E+000Pumping ra:1.5E+001Level befo:1.95E+002

Level duri: 3.0E+002 Test pump: Α Pump insta: Υ Install pu: S 1.3E+001 Pump hp: 3.0E+000 Capacity: Column len: 3.15E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

262

MD WELLS

MD6000000479203

Map ID Direction Distance

Elevation Database EDR ID Number

L45 SW FED USGS USGS40000431302

1/2 - 1 Mile Lower

Org. Identifier: USGS-MD

Formal name: USGS Maryland Water Science Center

Monloc Identifier: USGS-384248076393001

Monloc name: CA Bb 22 Monloc type: Well

Monloc desc:
Not Reported

02060006 Not Reported Huc code: Drainagearea value: Not Reported Contrib drainagearea: Not Reported Drainagearea Units: Contrib drainagearea units: Not Reported 38.7134506 Latitude: Longitude: -76.6580185 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 120.00 Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Northern Atlantic Coastal Plain aquifer system

Formation type: Aquia Formation Aquifer type: Not Reported

Construction date: 1959 Welldepth: 315

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1959-09-01 96.00

46 WSW MD WELLS MD600000088907

C1 recd:

1/2 - 1 Mile Higher

C1 seq:

Objectid: 88906 County let: CA

 Permit:
 CA732866
 Mgs id:
 Not Reported

 B1 seq:
 Not Reported
 B1 recd:
 24-AUG-78

 City:
 DUNKIRK
 State:
 MD

Zip: Not Reported Driller na: KANARR, PAUL E

 Driller id:
 MWD0243
 Est gpm pr:
 1.7E+001

Use for wa:

 Approx dep:
 3.5E+002
 Drill meth:

 Replacemen:
 N
 Replace pe:

 Wapid:
 CA1995G005
 Subdivisio:

Not Reported

Not Reported Section: Not Reported Lot: Not Reported Nearest to: **DUNKIRK** Town dista: 0 MI Road name: MD RT 4 Road side: W Road dista: 250 FT Tax map: 6 Block: Parcel: 158 321829.00 E grid27: N grid27: 896651.00 N grid83: 116610.00 E grid83: 429486.00 Lat dec de: 38.72 Lon dec de: 76.66 Issue date: 15-AUG-78 Special fl: Not Reported

MAHAN RYKIEL

ROTARY

Not Reported

09-OCT-78

Completion: 11-SEP-78 Total dept: 3.2E+002 Num unsucc: 0 Hydrofract: Not Reported Grouted: Υ Grout type: CM Grout top: 0 Grout bott: 2.0E+001 ST Casing dia: 4.0E+000 Casing typ: Casing dep: 2.52E+002 Casing hei: +01 Screen typ: ST Top screen: 3.05E+002 Bottom scr: 3.2E+002 Screen t 1: Not Reported Top scre 1: Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Log type: Not Reported Hrs pumped: 1.0E+000 2.0E+001 1.1E+002 Pumping ra: Level befo: Level duri: 1.48E+002 Test pump: S Pump insta: Not Reported Install pu: S Capacity: 7.0E+000 Pump hp: 1.0E+000 Column len: 1.89E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

47 WNW 1/2 - 1 Mile Higher

MD6000000089121 MD WELLS

Objectid: 89120 County let: CA Not Reported Permit: CA733129 Mgs id: B1 seq: Not Reported B1 recd: 13-MAR-79 PRINCE FREDERICK State: MD City:

E COAST WELL & PUMP Zip: Not Reported Driller na:

Driller id: MWD0173 Est gpm pr: 2.5E+001

Use for wa:

5.0E+002 Drill meth: **ROTARY** Approx dep: Replacemen: Ν Replace pe: Not Reported Wapid: CA1979G004 Subdivisio: **DUNKIRK PARK** Section: Not Reported Lot: Not Reported **DUNKIRK** Town dista:

Nearest to: MI

MD 4 SO MD BLVD Road side: Road name: Not Reported Road dista: 400 FT Tax map: 3 Block: 20,21 Parcel: 21 N grid27: 324812.00 E grid27: 896373.00 N grid83: E grid83: 117519.00 429401.00 Lat dec de: 38.72 Lon dec de: 76.66 05-MAR-79 Issue date: Special fl: Not Reported C1 seq: Not Reported C1 recd: 05-OCT-79 03-JUN-79 Total dept: 5.12E+002 Completion: Num unsucc: 0 Hydrofract: Not Reported Grout type: СМ Grouted: Υ

Grout top: 6.0E+000 Grout bott: 1.4E+002 Casing typ: ST Casing dia: 4.0E+000 Casing dep: 4.97E+002 Casing hei: +01 ST Top screen: 4.97E+002 Screen typ: Screen t 1: Not Reported

Bottom scr: 5.12E+002 Top scre 1: Bottom s 1: 0

Screen t 2: Not Reported Top scre 2: 0

Bottom s 2: Screen dia: 3.0E+000 Flowing we: Not Reported Telescopin: Not Reported Not Reported Hrs pumped: 1.2E+001 Log type: 6.0E+001 Pumping ra: Level befo: 1.2E+002 Level duri: 1.8E+002 Test pump: Α Not Reported S Pump insta: Install pu: Capacity: 2.5E+001 Pump hp: 5.0E+000 Column len: 1.89E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

48

1/2 - 1 Mile Higher

Objectid: 94873 County let: CA

 Permit:
 CA881162
 Mgs id:
 Not Reported

 B1 seq:
 Not Reported
 B1 recd:
 15-NOV-89

 City:
 OWINGS
 State:
 MD

Zip: 20736 Driller na: WILLIAM DALRYMPLE

Driller id: MWD0476 Est gpm pr: 8.0E+000

Use for wa:

Approx dep:3.5E+002Drill meth:ROTARYReplacemen:NReplace pe:Not ReportedWapid:CA1989G022Subdivisio:Not Reported

Section: Not Reported Lot: Not Reported Town dista: Nearest to: **DUNDKIRK** Road name: RT 2&4 Road side: W Road dista: 170 FT Tax map: 6 Not Reported Block: Parcel: 127 N grid27: 320904.00 E grid27: 897163.00 E grid83: N grid83: 116328.00 429642.00

Lat dec de: Lon dec de: 76.66 38.71 Issue date: 05-DEC-89 Special fl: Not Reported C1 seq: C1 recd: 20-APR-90 6097 Completion: 14-MAR-90 Total dept: 3.6E+002 Num unsucc: 0 Hydrofract: Not Reported Grouted: Υ Grout type: BC 0 Grout bott: 3.0E+001

Grout top: Casing typ: PL Casing dia: 4.0E+000 3.4E+002 Casing dep: Casing hei: 3.4E+002 Ы Top screen: Screen typ: Bottom scr: 3.6E+002 Screen t 1: Not Reported

Top scre 1: 0 Bottom s 1: 0
Serven t 2: Not Reported Top scre 2: 0

Screen t 2: Not Reported Top scre 2: 0

Bottom s 2:0Screen dia:2.0E+000Flowing we:Not ReportedTelescopin:Not ReportedLog type:Not ReportedHrs pumped:3.0E+000Pumping ra:8.0E+001Level befo:1.64E+002

Level duri: 1.75E+002 Test pump: S Pump insta: Υ Install pu: S 7.0E+000 Pump hp: 1.5E+000 Capacity: Column len: 3.0E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

MD WELLS

MD600000094874

MD6000000463865

MD WELLS

GEOCHECK®-PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance

Elevation Database EDR ID Number

K49 1/2 - 1 Mile Higher

> Objectid: 463864 County let: Not Reported Permit: CA944493 Mgs id: Not Reported B1 recd:

B1 seq: 1010 31-MAR-03 City: **DUNKIRK** State: MD

MICHAEL GRIBBLE Zip: 20754 Driller na: Driller id: MWD 318 Est gpm pr: 1.8E+001

Use for wa: ı

Approx dep: 3.5E+002 Drill meth: ROTARY Replacemen: Replace pe: Not Reported Ν

Wapid: CA2000G015 Subdivisio: ARBYS RESTURANT Section: Not Reported Lot:

Nearest to: **DUNKIRK** Town dista: .75 Road name: 10200 KIRKSVILLE LAN Road side: S Road dista: 20 FT Tax map: 6 Block: Parcel: 433 N grid27: 322318.00 E grid27: 896386.00 N grid83: 116759.00 E grid83: 429405.00 Lon dec de: Lat dec de: 38.72 76.66 Issue date: 31-MAR-03 Special fl: Not Reported

C1 seq: 2919 C1 recd: 23-SEP-03 Completion: 07-JUL-03 Total dept: 3.84E+002 Num unsucc: 0 Hydrofract: Ν Υ BC Grouted: Grout type: 6.3E+001 Grout top: 0 Grout bott: Casing typ: PL Casing dia: 4.0E+000 3.6E+002 Casing dep: Casing hei: +1

Screen typ: PL3.71E+002 Top screen: Bottom scr: 3.84E+002 Screen t 1: Not Reported

Bottom s 1: Top scre 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 2.0E+000 Not Reported Telescopin: Flowing we: Log type: Not Reported Hrs pumped: 2.0E+000

Pumping ra: 2.0E+001 Level befo: 2.2E+002 Level duri: 0 Test pump: Α S Υ Install pu: Pump insta: Pump hp: Capacity: 1.0E+001 1.5E+000

Column len: 3.0E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

50 NE 1/2 - 1 Mile Lower

MD WELLS MD600000090801

Objectid: 90800 County let: CA

Permit: CA810675 Mgs id: Not Reported B1 seq: Not Reported B1 recd: 08-DEC-83 City: **DUNKIRK** State: MD

20754 WARD, WILLARD C. Zip: Driller na:

Driller id: MWD0053 Est gpm pr: 1.0E+001

Use for wa: DW

Approx dep: 3.25E+002 Drill meth: **ROTARY** Replacemen: S Replace pe: Not Reported

Not Reported Subdivisio: **DUNKIRK WOODS** Wapid:

TC3900443.2s Page A-47

 Section :
 Not Reported
 Lot:
 20

 Nearest to:
 DUNKIRK
 Town dista:
 1.3 MI

 Road name:
 DUMBARTON DR
 Road side:
 E

 Road dista:
 200 FT
 Tax map:
 Not Reported

Not Reported Block: Not Reported Parcel: Not Reported N grid27: 327000.00 E grid27: 903000.00 N grid83: 118186.00 E grid83: 431421.00 Lat dec de: 38.73 Lon dec de: 76.64 Issue date: 30-NOV-83 Special fl: Not Reported C1 recd: 03-JAN-84 C1 seq: Not Reported Completion: 22-DEC-83 Total dept: 3.22E+002 0 Hydrofract:

Num unsucc: Not Reported Grouted: Υ Grout type: CM 3.0E+000 3.0E+001 Grout top: Grout bott: PL4.0E+000 Casing typ: Casing dia: Casing hei: 2.8E+002 +01 Casing dep: Screen typ: ST Top screen: 3.12E+002 Bottom scr: 3.22E+002 Screen t 1: Not Reported 0 0

 Top scre 1:
 0
 Bottom s 1:
 0

 Screen t 2:
 Not Reported
 Top scre 2:
 0

 Bottom s 2:
 0
 Screen dia:
 3.0E+000

 Flowing we:
 Not Reported
 Telescopin:
 T

Log type: Not Reported Hrs pumped: 8.0E+000 2.0E+001 Level befo: 1.22E+002 Pumping ra: Level duri: 1.32E+002 Test pump: Α Pump insta: Not Reported Install pu: S Capacity: 1.0E+001 Pump hp: 5.0E-001 Column len: 1.68E+002 Closed: Not Reported

Not Reported

M51
ENE MD WELLS MD600000091692

Abandon da:

1/2 - 1 Mile Lower

Abandoned:

Objectid: 91691 County let: CA Permit: CA811738 Mgs id: Not Reported B1 recd: 04-SEP-85 B1 seq: Not Reported Citv: **DUNKIRK** State: MD

Zip: 20754 State. WARD, WILLARD C.

 Driller id:
 MWD0053
 Est gpm pr:
 1.0E+001

 Use for wa:
 DW

 Approx dep:
 3.25E+002
 Drill meth:
 ROTARY

 Replacemen:
 N
 Replace pe:
 Not Reported

Wapid: Not Reported Subdivisio: DUNKIRK FIELDS
Section: 2 Lot: 2
Negreet to: DUNKIRK FIELDS

Section:2Lot:2Nearest to:DUNKIRKTown dista:1.2 MIRoad name:WARD RDRoad side:E

Road dista: 1000FT Tax map: Not Reported Block: Not Reported Parcel: Not Reported N grid27: 326000.00 E grid27: 904000.00 N grid83: 117881.00 E grid83: 431726.00 Lat dec de: 38.73 Lon dec de: 76.64 Issue date: 20-AUG-85 Special fl: Not Reported C1 seq: Not Reported C1 recd: 03-OCT-85

267

Not Reported

Completion: 12-SEP-85 Total dept: 3.22E+002 Num unsucc: 0 Hydrofract: Not Reported Grouted: Υ Grout type: CM Grout top: 3.0E+000 Grout bott: 3.0E+001 Casing typ: PLCasing dia: 4.0E+000 Casing dep: Casing hei: 2.62E+002 +01 Screen typ: ST Top screen: 3.12E+002 Bottom scr: 3.22E+002 Screen t 1: Not Reported Top scre 1: Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 3.0E+000 Not Reported Flowing we: Not Reported Telescopin: Log type: Not Reported Hrs pumped: 4.0E+000 3.0E+001 1.07E+002 Pumping ra: Level befo: Level duri: 1.17E+002 Test pump: Α Pump insta: Not Reported Install pu: S Capacity: 1.0E+001 Pump hp: 7.5E-001 Column len: 1.64E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

M52 ENE 1/2 - 1 Mile Lower

MD WELLS MD600000092867

Objectid: 92866 County let: CA Not Reported Permit: CA813164 Mgs id: B1 seq: Not Reported B1 recd: 30-APR-87 **DUNKIRK** State: MD City: GRIBBLE, MICHAEL K. Zip: 20754 Driller na: Est gpm pr: 8.0E+000

 Driller id:
 MWD0318

 Use for wa:
 DW

 Approx dep:
 3.5E+002

Approx dep:3.5E+002Drill meth:ROTARYReplacemen:YReplace pe:Not ReportedWapid:Not ReportedSubdivisio:DUNKIRK WOODSSection:Not ReportedLot:40

Nearest to: DUNKIRK Town dista: 2 MI **EDINBURGH LA** Road side: Road name: S Road dista: 70 FT Tax map: Not Reported Block: Not Reported Parcel: Not Reported 904000.00 N grid27: 326000.00 E grid27: N grid83: E grid83: 117881.00 431726.00 Lat dec de: 38.73 Lon dec de: 76.64 01-MAY-87 Not Reported Issue date: Special fl: C1 seq: Not Reported C1 recd: 01-JUN-87 06-MAY-87 Total dept: 3.3E+002

Completion: Num unsucc: 0 Hydrofract: Not Reported Υ Grout type: СМ Grouted: Grout top: 0 Grout bott: 5.0E+001 Casing typ: PL Casing dia: 4.0E+000 Casing dep: 2.7E+002 Casing hei: +01 PLTop screen: 3.2E+002 Screen typ: Bottom scr: 3.3E+002 Screen t 1: Not Reported

 Top scre 1:
 0
 Bottom s 1:
 0

 Screen t 2:
 Not Reported
 Top scre 2:
 0

Bottom s 2: Screen dia: 2.0E+000 Telescopin: Not Reported Flowing we: Not Reported Hrs pumped: 1.0E+000 Log type: 1.8E+001 Pumping ra: Level befo: 1.25E+002 Level duri: 1.51E+002 Test pump: Pump insta: Not Reported Install pu: S Capacity: 8.0E+000 Pump hp: 7.5E-001 Column len: 2.15E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

N53

West 1/2 - 1 Mile Higher

Abandoned:

Objectid: 95594 County let: CA Permit: CA882052 Mgs id: Not Reported B1 seq: 8952 B1 recd: 12-MAR-91 WASHINGTON State: DC City:

Zip: 20017 Driller na: GRIBBLE, MICHAEL K.

Driller id: MWD0318 Est gpm pr: 3.0E+001

Use for wa:

Approx dep: 5.0E+002 Drill meth: **ROTARY** Not Reported Replacemen: Ν Replace pe: CA1990G008 Wapid: Subdivisio: Not Reported Section: Not Reported Lot: Not Reported Nearest to: **DUNKIRK** Town dista: .25 MI RT 4 & FERRY LANDING RD W Road name: Road side:

Road dista: 75 FT Tax map: 6 Block: 362 2,3 Parcel: N grid27: 322852.00 E grid27: 896058.00 N grid83: 116922.00 E grid83: 429305.00 Lat dec de: 38.72 Lon dec de: 76.66 Special fl: 21-MAR-91 Not Reported Issue date: C1 seq: Not Reported C1 recd: 12-APR-91 29-MAR-91 Total dept: 5.8E+002 Completion: Num unsucc: 0 Hydrofract: Not Reported

Υ Grouted: Grout type: BC 0 Grout top: Grout bott: 1.0E+002 4.0E+000 Casing typ: PL Casing dia: 5.2E+002 Casing hei: Casing dep: Screen typ: ST Top screen: 3.65E+002 3.95E+002 Screen t 1: Not Reported Bottom scr:

 Top scre 1:
 0
 Bottom s 1:
 0

 Screen t 2:
 Not Reported
 Top scre 2:
 0

 Bottom s 2:
 0
 Screen dia:
 2.0E+000

Not Reported

Flowing we: Not Reported Telescopin: T
Log type: Not Reported Hrs pumped: 2.0E+000

3.5E+001 Level befo: 1.94E+002 Pumping ra: 2.29E+002 Level duri: Test pump: Α Pump insta: Not Reported Install pu: S Capacity: 3.0E+001 Pump hp: 5.0E+001 Column len: 2.94E+002 Closed: Not Reported

Abandon da:

269

Not Reported

MD WELLS

MD600000095595

Map ID Direction Distance

Elevation Database EDR ID Number

Drill meth:

Total dept:

West 1/2 - 1 Mile Higher

Completion:

1/2 - 1 Mile

N54

MD WELLS MD600000091443

ROTARY

2.7E+002

Objectid: 91442 County let: CA Not Reported Permit: CA811458 Mgs id:

24-APR-85 B1 seq: Not Reported B1 recd: City: DUNKIRK State: MD

GRIBBLE, MICHAEL K. Zip: 20754 Driller na: 8.0E+000

Driller id: MWD0318 Est gpm pr:

Use for wa: ı Approx dep: 3.5E+002

Replacemen: Ν Replace pe: Not Reported Wapid: CA1985G004 Subdivisio: Not Reported Section: Not Reported Lot: Not Reported Nearest to: **DUNKIRK** Town dista: .3 MI Road name: RT 4 Road side: Ε

Road dista: 150 FT Tax map: Not Reported Block: Not Reported Parcel: Not Reported N grid27: 323000.00 E grid27: 896000.00 N grid83: 0.00 E grid83: 429287.00 Lon dec de: Lat dec de: 38.72 76.66 Issue date: 15-APR-85 Special fl: Not Reported C1 seq: Not Reported C1 recd: 30-DEC-86

Num unsucc: 0 Hydrofract: Not Reported Υ CM Grouted: Grout type: 5.0E+001 Grout top: 0 Grout bott: Casing typ: PL Casing dia: 4.0E+000 1.8E+002 Casing dep: Casing hei: +01 Screen typ: PL2.6E+002 Top screen: Bottom scr: 2.7E+002 Screen t 1: Not Reported

14-JUL-85

Bottom s 1: Top scre 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 2.0E+000 Not Reported Telescopin: Flowing we: Log type: Not Reported Hrs pumped: 1.0E+000 Pumping ra: 2.5E+001 Level befo: 9.0E+001 Level duri: 1.2E+002 Test pump: Α

S Not Reported Install pu: Pump insta: Pump hp: Capacity: 8.0E+000 7.5E-001 Column len: 1.8E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

N55 **MD WELLS** West

Higher Objectid: 93102 County let: CA

Permit: CA813465 Mgs id: Not Reported B1 seq: Not Reported B1 recd: 15-AUG-87 City: CHURCHTON State:

20733 GRIBBLE, MICHAEL K. Zip: Driller na:

Driller id: MWD0318 Est gpm pr: 8.0E+000

Use for wa:

Approx dep: 3.5E+002 Drill meth: **ROTARY** Replacemen: Ν Replace pe: Not Reported CA1987G012 Subdivisio: Not Reported Wapid:

MD600000093103

Section: Not Reported Lot: Not Reported **DUNKIRK** Nearest to: Town dista: 0 MI Road name: RT 2-4 Road side: W 70 FT Road dista: Tax map: Not Reported Block: Not Reported Parcel: Not Reported N grid27: 323000.00 E grid27: 896000.00 N grid83: 116967.00 E grid83: 429287.00 Lat dec de: 38.72 Lon dec de: 76.66 15-SEP-87 Special fl: Not Reported Issue date: C1 seq: Not Reported C1 recd: Not Reported Completion: Not Reported Total dept: Num unsucc: 0 Hydrofract: Not Reported Grouted: Not Reported Grout type: Not Reported Grout top: Grout bott: Not Reported Casing dia: 0 0 Casing hei: +00

Casing typ: Casing dep: Top screen: Screen typ: Not Reported 0 Not Reported Bottom scr: Screen t 1:

Top scre 1: Bottom s 1: Not Reported 0 Screen t 2: Top scre 2: Bottom s 2: Screen dia: 0

Flowing we: Not Reported Telescopin: Not Reported

Not Reported Log type: Hrs pumped: Pumping ra: 0 Level befo:

Level duri: 0 Test pump: Not Reported Not Reported Not Reported Pump insta: Install pu:

Capacity: Pump hp:

Column len: Closed: Not Reported

Abandoned: Not Reported Abandon da: Not Reported

O56 WSW 1/2 - 1 Mile Higher

MD WELLS MD6000000343851

343850 County let: Objectid: CA Permit: CA882731 Mgs id: Not Reported 30-MAR-92 B1 seq: 1068 B1 recd:

WASHINGTON City: State: DC GRIBBLE MICHAEL K. 20017 Driller na: Zip:

Driller id: MWD318 3.0E+001 Est gpm pr:

Use for wa:

ROTARY 5.0E+002 Drill meth: Approx dep: Not Reported Replacemen: Replace pe: Ν Wapid: CA1992G024 Subdivisio: **SAFEWAY** Section: Not Reported Lot: WELL #2 Town dista: Nearest to: **DUNKIRK** .25 MI

RT 4 & FERRYLANDING RD W Road name: Road side: Tax map: 80 FT 6 Road dista: 409 Block: 3 Parcel: N grid27: 322360.00 E grid27: 896048.00 N grid83: 116772.00 E grid83: 429302.00 Lat dec de: 38.72 Lon dec de: 76.66 Issue date: Not Reported Special fl: Not Reported 2260 C1 recd: 14-OCT-04 C1 seq:

Completion: 05-MAY-92 Total dept: 3.95E+002 Num unsucc: 0 Hydrofract: Not Reported Grouted: Υ Grout type: Grout top: 0 Grout bott: 8.0E+001 PLCasing dia: 4.0E+000 Casing typ: Casing dep: 3.2E+002 Casing hei: +1 Screen typ: ST Top screen: 3.42E+002 Bottom scr: 3.72E+002 Screen t 1: Not Reported Top scre 1: Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Log type: Not Reported Hrs pumped: 5.0E+000 3.5E+001 1.5E+002 Pumping ra: Level befo: 1.8E+002 S Level duri: Test pump: Pump insta: Install pu: S Capacity: 3.0E+001 Pump hp: 5.0E+000 Column len: 2.5E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

O57 WSW 1/2 - 1 Mile Higher

MD WELLS MD6000000392573

Objectid: 392572 County let: CA Not Reported Permit: CA940696 Mgs id: B1 seq: 2354 B1 recd: 07-OCT-97 **UPPER MARLBOR** State: MD City:

City: UPPER MARLBOR State: MD

Zip: 20772 Driller na: MICHAEL K GRIBBLE

Driller id: MWD 318 Est gpm pr: 8.0E+000

Use for wa:

Approx dep:3.5E+002Drill meth:ROTARYReplacemen:NReplace pe:Not Reported

Wapid: CA2005G018 Subdivisio: DUNKIRK MARKET PLACE

Section: Not Reported Lot: Not Reported

DUNKIRK Nearest to: Town dista: .25 RT 4 & FERRYLANDING Road side: S Road name: Road dista: Not Reported Tax map: 6 Block: Parcel: 362 E grid27: N grid27: 322265.00 896048.00 N grid83: E grid83: 429302.00 116743.00 Lat dec de: 38.72 Lon dec de: 76.66 07-OCT-97 Issue date: Special fl: Not Reported C1 seq: 8206 C1 recd: 21-AUG-98 22-APR-98 Total dept: 3.15E+002 Completion: Num unsucc: 0 Hydrofract: N Grout type: ВС Grouted: Υ

Grout top: 0 Grout bott: 1.05E+002 Casing typ: PL Casing dia: 4.0E+000 Casing dep: 3.0E+002 Casing hei: +1 PLTop screen: 3.0E+002 Screen typ:

Bottom scr: 3.15E+002 Screen t 1: Not Reported

 Top scre 1:
 0
 Bottom s 1:
 0

 Screen t 2:
 Not Reported
 Top scre 2:
 0

Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Not Reported Hrs pumped: 2.0E+000 Log type: Pumping ra: 2.8E+001 Level befo: 1.75E+002 Level duri: 2.0E+002 Test pump: Α S Install pu: Pump insta: Capacity: 1.8E+001 Pump hp: 2.0E+000 Column len: 2.52E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

FED USGS USGS40000431374

1/2 - 1 Mile Higher

> Org. Identifier: **USGS-MD**

Formal name: USGS Maryland Water Science Center

Monloc Identifier: USGS-384333076394702

Monloc name: CA Bb 28 Monloc type: Well

Monloc desc: C16 was 138.67. FMG 7/10. MDWatResAdm surv 11/87.

Huc code: 02060006 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 38.7259502 Latitude: Longitude: -76.6627411 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 138.80 Vertacc measure val: Vert measure units: feet .01

Vert accmeasure units: feet

Vertcollection method: Level or other surveying method

US Vert coord refsys: NGVD29 Countrycode:

Northern Atlantic Coastal Plain aquifer system Aquifername:

Formation type: Nanjemoy Formation Aquifer type: Not Reported

19800611

Construction date: Welldepth: 170 Welldepth units: ft Wellholedepth: 200

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 283

Data	Feet below	Feet to Sealevel		Doto	Feet below	Feet to
Date	Surface	Sealevel		Date	Surface	Sealevel
2005-01-18	83.77			2004-09-24	83.80	
2004-07-30	82.77			2004-04-14	80.82	
2004-03-16	80.47			2004-02-11	80.08	
2004-01-14	80.00			2003-12-15	80.10	
2003-11-19	80.24			2003-10-27	80.32	
2003-09-24	80.15			2003-08-27	79.98	
2003-07-23	79.62			2003-06-24	79.51	
2003-05-28	79.55			2003-04-23	79.78	
2003-03-26	80.61			2003-02-26	81.72	
2003-01-29	82.27			2002-12-19	83.56	
2002-11-26	84.32			2002-10-28	85.09	
2002-09-25	84.97			2002-08-28	84.62	
2002-07-29	83.64			2002-06-27	82.95	
2002-05-31	82.51			2002-04-26	82.53	
2002-03-22	82.54			2002-02-25	82.61	

Ground Wate	r levels, cont Feet below	Feet to		Feet below	Feet to
Date	Surface	Sealevel	Date	Surface	Sealeve
2002-01-29	82.40		2001-12-18	82.07	
2001-11-27	82.98		2001-10-29	81.68	
2001-09-26	81.03		2001-08-28	80.73	
2001-07-17	80.12		2001-06-27	79.65	
2001-05-31	79.31		2001-04-23	79.25	
2001-03-22	79.88		2001-02-15	80.16	
2001-01-08	80.35		2000-12-14	80.49	
2000-11-28	80.21		2000-10-18	80.17	
2000-09-12	80.77		2000-08-08	80.57	
2000-07-18	80.38		2000-06-21	80.08	
2000-05-23	79.89		2000-04-26	80.21	
2000-03-08	80.95		2000-02-24	80.97	
2000-01-14	81.13		1999-12-14	81.21	
1999-11-17	81.86		1999-10-13	82.67	
1999-09-22	83.34		1999-08-24	83.85	
1999-07-20	82.73		1999-06-02	81.99	
1999-05-06	81.84		1999-04-08	82.05	
1999-03-02	82.70		1999-02-10	82.95	
1999-01-05	83.03		1998-12-08	82.83	
1998-11-05	82.20		1998-10-07	81.19	
1998-09-09	80.03		1998-08-27	79.46	
1998-07-10	77.65		1998-06-10	77.05	
1998-05-04	76.55		1998-04-06	76.85	
1998-03-17	77.67		1998-02-03	79.48	
1998-01-12	79.97		1997-12-04	80.19	
1997-11-18	80.57		1997-10-21	80.66	
1997-09-16	79.95		1997-08-28	79.54	
1997-07-08	78.65		1997-06-27	78.38	
1997-05-06	77.64		1997-04-08	77.55	
1997-03-18	77.67		1997-02-06	77.88	
1997-01-07	78.13		1996-12-10	78.61	
1996-11-06	79.31		1996-10-01	79.13	
1996-09-18	78.94		1996-08-27	78.85	
1996-07-10	78.66		1996-06-04	78.42	
1996-05-08	78.65		1996-04-03	79.44	
1996-03-12	79.82		1996-02-13	80.16	
1996-01-25	80.43		1995-12-12	81.08	
1995-11-03	81.34		1995-10-06	81.20	
1995-09-12	80.90		1995-08-16	80.08	
1995-07-12	79.59		1995-06-07	79.49	
1995-05-09	79.50		1995-04-11	79.66	
1995-03-01	79.81		1995-02-08	79.79	
1995-01-13	80.06		1994-12-08	80.07	
1994-11-04	79.91		1994-10-14	79.76	
1994-09-16	79.73		1994-08-12	79.33	
1994-07-19	78.55		1994-06-17	78.45	
1994-05-12	77.65		1994-04-15	78.19	
1994-03-04	79.56		1994-02-04	80.40	
1994-01-07	80.25		1993-12-03	80.98	
1993-11-04	80.78		1993-10-08	80.40	
1993-09-09	79.88		1993-08-02	78.78	
1993-07-09	78.35		1993-06-04	77.50	
1993-05-07	77.54		1993-04-09	76.95	
1993-03-04	78.57		1993-02-05	79.04	
1993-01-08	79.18		1992-12-11	79.34	

GEOCHECK \$- PHYSICAL SETTING SOURCE MAP FINDINGS

	er levels, con Feet below			Feet below	Feet to
Date	Surface	Sealevel	Date	Surface	Sealeve
1992-11-06	79.60	·	1992-10-09	79.64	
1992-09-03	79.66		1992-08-07	79.58	
1992-07-10	79.37		1992-06-05	79.01	
1992-05-15	79.06		1992-04-10	79.40	
1992-03-06	79.93		1992-02-07	79.93	
1992-01-10	80.19		1991-12-13	80.45	
1991-11-08	80.60		1991-10-04	80.33	
1991-09-13	80.15		1991-08-15	79.16	
1991-07-09	79.02		1991-06-13	78.68	
1991-05-09	78.25		1991-04-12	78.38	
1991-03-06	78.40		1991-02-07	78.52	
1991-01-17	78.69		1990-12-07	78.97	
1990-11-08	78.50		1990-10-19	78.25	
1990-09-01	78.31		1990-08-01	78.24	
1990-07-10	77.93		1990-06-12	77.98	
1990-05-09	77.89		1990-04-09	77.87	
1990-03-07	78.02		1990-02-07	77.88	
1990-01-04	77.85		1989-12-06	78.07	
1989-11-01	78.22		1989-10-11	78.38	
1989-09-12	78.48		1989-08-09	78.13	
1989-07-11	78.03		1989-06-14	78.32	
1989-05-09	78.95		1989-04-11	79.47	
1989-03-01	80.34		1989-02-07	80.61	
1989-01-17	80.76		1988-12-06	81.04	
1988-11-01	81.08		1988-10-11	80.94	
1988-09-14	80.62		1988-08-03	79.97	
1988-07-12	79.73		1988-06-01	79.13	
1988-05-03	79.30		1988-04-12	79.37	
1988-03-01	79.91		1988-02-03	80.40	
1988-01-06	80.74		1987-12-02	80.75	
1987-11-04	80.67		1987-10-06	80.25	
1987-09-11	80.06		1987-08-05	80.42	
1987-07-08	78.67		1987-06-03	79.02	
1987-05-05	79.37		1987-03-04	79.07	
1987-02-10	79.40		1987-01-06	80.19	
1986-12-03	80.75		1986-11-12	79.98	
1986-10-15	80.74		1986-08-06	80.09	
1986-07-09	79.65		1986-06-04	80.19	
1986-05-14	78.96		1986-04-02	78.73	
1986-03-04	77.91		1986-01-31	79.09	
1986-01-03	78.50		1985-12-03	79.34	
1985-11-13	78.96		1985-10-08	79.97	
1985-09-11	79.76		1985-08-06	79.94	
1985-07-10	79.66		1985-06-12	79.33	
1985-04-03	79.23		1985-03-05	79.46	
1985-02-12	79.47		1985-01-09	79.46	
1984-12-10	79.60		1984-10-31	79.34	
1984-10-09	79.40		1984-09-11	79.06	
1984-08-08	78.52		1984-07-11	78.02	
1984-06-11	77.81		1984-04-03	78.03	
1984-03-07	77.86		1984-02-01	78.67	
1984-01-12	78.88		1983-11-16	79.55	
1983-10-03	79.43		1983-09-07	78.93	
1983-08-09	78.25		1983-07-20	78.11	
1983-06-07	77.60		1983-05-02	78.07	

Ground-wate	er levels, conting Feet below	nued. Feet to		Feet below	Feet to
Date	Surface	Sealevel	Date	Surface	Sealevel
1983-03-31	78.72		1983-03-02	79.23	
1983-02-03	79.32		1983-01-06	79.62	
1982-11-24	79.80		1982-11-02	79.89	
1982-10-04	79.85		1982-09-03	79.70	
1982-08-03	79.47		1982-07-07	79.49	
1982-06-02	79.44		1982-05-03	79.83	
1982-04-02	80.08		1982-03-03	80.59	
1982-02-01	80.96		1982-01-05	81.18	
1981-12-02	81.03		1981-11-05	81.07	
1981-10-02	80.80		1981-08-04	80.38	
1981-07-01	80.26		1981-06-01	80.33	
1981-05-01	80.51		1981-04-03	80.38	
1981-03-02	80.59		1981-02-06	79.12	
1980-12-16	80.72		1980-10-31	80.44	
1980-10-03	80.07		1980-09-02	79.71	
1980-08-04	79.31		1980-07-07	78.96	
1980-06-23	97				

P59
WNW FED USGS USGS40000431373
1/2 - 1 Mile

Higher

Org. Identifier: USGS-MD

Formal name: USGS Maryland Water Science Center

Monloc Identifier: USGS-384333076394701

Monloc name: CA Bb 27 Monloc type: Well

Monloc desc: leveled in by MD WRA 11/87 138.40

02060006 Drainagearea value: Not Reported Huc code: Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 38.7259502 Longitude: -76.6627411 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds Horiz Collection method: Interpolated from map 137.87 Horiz coord refsys: NAD83 Vert measure val: Vert measure units: feet Vertacc measure val: .01 Vert accmeasure units: feet Vertcollection method: Level or other surveying method US Vert coord refsys: NGVD29 Countrycode: Northern Atlantic Coastal Plain aquifer system Aquifername:

Formation type: Aquia Formation Aquifer type: Not Reported

Construction date: 19790801 Welldepth: 320 Welldepth units: ft Wellholedepth: 440

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 303

-		Feet to Sealevel 	Date		Feet to Sealevel
2005-02-16 1 2005-02-10 1 2004-12-14 1 2004-07-21 1	72.88 73.67		2005-02-10 2005-01-18 2004-09-24 2004-06-24	173.36 176.01	

	r levels, con Feet below			Feet below	Feet to
Date	Surface	Sealevel	Date	Surface	Sealeve
 2004-05-24	173.41		2004-04-14	170.74	
2004-03-16	170.91		2004-02-23	171.16	
2004-02-11	171.74		2004-01-14	171.96	
2003-12-15	172.20		2003-11-19	172.72	
2003-10-27	173.93		2003-09-24	174.04	
2003-08-27	174.41		2003-07-23	173.92	
2003-06-24	172.71		2003-05-28	172.65	
2003-04-23	172.83		2003-03-26	172.71	
2003-02-26	173.55		2003-01-29	174.69	
2002-12-19	175.63		2002-11-26	176.42	
2002-10-28	178.34		2002-09-25	180.79	
2002-08-28	182.95		2002-07-29	179.75	
2002-06-27	176.93		2002-05-31	169.08	
2002-04-26	171.08		2002-03-23	170.49	
2002-02-25	170.84		2002-01-29	172.06	
2001-12-18	171.86		2001-11-27	173.08	
2001-10-29	173.22		2001-09-26	173.61	
2001-08-28	173.97		2001-07-17	173.75	
2001-06-27	171.92		2001-05-31	170.94	
2001-04-23	167.90		2001-03-22	167.74	
2001-02-15	168.32		2001-01-08	168.82	
2000-12-14	168.83		2000-11-28	168.34	
2000-10-18	169.53		2000-09-12	170.15	
2000-08-08	169.64		2000-07-18	170.44	
2000-06-08	169.84		2000-07-18	169.04	
2000-00-21	167.24		2000-03-23	168.39	
2000-04-20	168.43		2000-03-08	168.90	
1999-12-14	168.94		1999-11-17	169.91	
1999-10-13	171.30		1999-09-22	171.68	
1999-08-24	171.30		1999-07-20	175.26	
1999-06-24	173.97		1999-05-06	166.70	
1999-04-08	166.40		1999-03-02	167.02	
1999-02-10	167.57		1999-01-05	168.48	
1998-12-08	168.74		1998-11-05	170.01	
1998-10-07	171.31		1998-09-09	170.01	
1998-08-27	171.18		1998-07-10	166.62	
1998-06-27	165.97		1998-05-04	160.02	
	162.38		1998-03-17	162.74	
1998-04-06 1998-02-03	163.57		1998-01-12	164.19	
	164.29		1997-11-18		
1997-12-04				164.82	
1997-10-21	166.23		1997-09-16	166.59	
1997-08-28	166.57		1997-07-08	165.35	
1997-06-27	165.29		1997-05-06	162.38	
1997-04-08	162.08		1997-03-18	162.14	
1997-02-06	162.93		1997-01-07	162.96	
1996-12-10	163.04		1996-11-06	163.28	
1996-10-01	163.81		1996-09-18	164.03	
1996-08-27	164.15		1996-07-10	164.27	
1996-06-05	162.63		1996-05-08	162.15	
1996-04-03	161.52		1996-03-12	161.75	
1996-02-13	162.20		1996-01-25	162.59	
1995-12-12	163.41		1995-11-03	164.44	
1995-10-06	165.94		1995-09-12	168.35	
1995-08-16	164.38		1995-07-12	162.03	
1995-06-07	161.70		1995-05-09	161.26	

on our rate	er levels, con Feet below			Feet below	Feet to
Date	Surface	Sealevel	Date	Surface	Sealevel
1995-04-11	160.81		1995-03-01	160.25	
1995-02-08	160.23		1995-01-13	160.47	
1994-12-08	160.76		1994-11-04	161.34	
1994-10-14	162.05		1994-09-16	162.26	
1994-08-12	163.29		1994-07-19	164.25	
1994-06-17	163.09		1994-05-12	159.21	
1994-04-15	158.67		1994-03-04	159.53	
1994-02-04	159.90		1994-01-07	159.90	
1993-12-03	160.45		1993-11-04	161.45	
1993-10-08	162.73		1993-09-09	164.60	
1993-08-02	164.84		1993-07-09	163.18	
1993-06-04	159.55		1993-05-07	158.34	
1993-04-09	157.89		1993-03-04	157.97	
1993-02-05	157.84		1993-01-08	157.78	
1992-12-11	157.72		1992-11-06	158.46	
1992-10-09	158.78		1992-09-03	159.62	
1992-08-07	159.76		1992-07-10	159.12	
1992-06-05	157.12		1992-05-15	156.83	
1992-04-10	156.23		1992-03-06	156.55	
1992-02-07	156.57		1992-01-10	156.76	
1991-12-13	157.20		1991-11-08	158.14	
1991-10-04	159.15		1991-09-13	159.99	
1991-08-15	160.32		1991-07-09	160.19	
1991-06-13	159.34		1991-05-09	154.44	
1991-04-12	154.32		1991-03-06	153.91	
1991-02-07	154.23		1991-01-17	154.38	
1990-12-07	154.80		1990-11-08	155.36	
1990-10-19	156.34		1990-09-05	155.90	
1990-08-01	156.21		1990-07-10	155.63	
1990-06-12	154.76		1990-05-09	153.90	
1990-04-09	153.32		1990-03-07	153.76	
1990-02-07	153.56		1990-01-04	154.13	
1989-12-06	153.86		1989-11-01	154.35	
1989-10-11	154.72		1989-09-12	156.60	
1989-08-09	154.83 153.57		1989-07-11 1989-05-09	153.80 152.48	
1989-06-14 1989-04-11	153.57		1989-03-01	152.46	
1989-02-07	152.07		1989-01-17	153.27	
1988-12-08	168.74		1988-12-06	153.89	
1988-11-05	170.01		1988-11-01	155.03	
1988-10-11	155.76		1988-09-14	156.59	
1988-08-03	157.74		1988-07-12	160.09	
1988-06-01	153.46		1988-05-03	152.04	
1988-04-12	151.36		1988-03-01	152.42	
1988-02-03	152.11		1988-01-06	152.00	
1987-12-02	152.03		1987-11-04	152.53	
1987-10-06	153.33		1987-09-11	154.35	
1987-08-05	155.86		1987-07-08	148.13	
1987-06-03	146.64		1987-05-05	149.51	
1987-04-07	148.45		1987-03-04	148.83	
1987-02-10	148.54		1987-01-06	149.08	
1986-12-03	149.39		1986-11-12	150.43	
1986-10-15	150.93		1986-09-10	150.01	
1986-08-06	150.75		1986-07-09	151.50	

Ground-wate	er levels, conti				
Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1986-04-02	146.96		1986-03-04	146.04	
1986-01-31	146.27		1986-01-03	146.22	
1985-12-03	145.86		1985-11-13	146.27	
1985-10-08	147.28		1985-09-11	147.46	
1985-08-06	146.91		1985-07-10	146.83	
1985-06-12	145.69		1985-05-08	146.24	
1985-04-03	144.08		1985-03-05	144.02	
1985-02-12	143.95		1985-01-09	144.28	
1984-12-10	146.23		1984-10-31	143.68	
1984-10-09	144.89		1984-09-11	144.86	
1984-08-08	144.03		1984-07-11	143.63	
1984-06-11	141.61		1984-05-09	142.35	
1984-04-03	142.37		1984-03-07	142.44	
1984-02-01	142.87		1984-01-12	142.71	
1983-11-16	142.52		1983-10-03	143.42	
1983-09-07	143.68		1983-08-09	140.16	
1983-07-20	142.53		1983-06-07	140.33	
1983-05-02	139.90		1983-03-31	139.60	
1983-03-02	139.37		1983-02-03	139.35	
1983-01-06	139.93		1982-11-24	140.09	
1982-11-02	140.11		1982-10-04	140.29	
1982-09-03	140.08		1982-08-03	140.20	
1982-07-07	139.26		1982-06-02	138.71	
1982-05-03	138.10		1982-04-02		
1982-03-03	137.95		1982-02-01		
1982-01-05	138.03		1981-12-02		
1981-11-05	138.42		1981-10-02		
1981-09-09	138.28		1981-07-01	137.32	
1981-06-01	136.85		1981-05-01	136.29	
1981-04-03	136.23		1981-03-02		
1981-02-06	134.50		1980-12-16	138.60	
1980-10-31	136.60		1980-10-03	139.38	
1980-09-02	136.93		1980-08-04		
1980-07-07	138.40		1980-05-06		
1980-04-03	136.11		1980-02-08		
1980-01-04	138.40		1979-11-01	134.05	
1979-10-04	133.87		1979-08-30	133.83	
1979-08-01	120				

60 East 1/2 - 1 Mile MD WELLS MD6000000420037

Lower

Objectid: 420046 County let: CA Not Reported CA943147 Mgs id: Permit: B1 seq: B1 recd: 01-JUN-01 9171 City: HUNTINGTOWN State: MICHAEL K GRIBBLE Zip: 20639 Driller na: Driller id: MWD 318 Est gpm pr: 8.0E+000

Use for wa: DW 3.5E+002 Drill meth: **ROTARY** Approx dep: Replacemen: Replace pe: Not Reported Wapid: Not Reported Subdivisio: CABIN BRANCH

Section: Not Reported Lot: 39 Nearest to: **OWINGS** Town dista: 1 9345 MEGATHA LA Е Road name: Road side: Road dista: 49 FT Tax map: 7 Block: Not Reported Parcel: 543 N grid27: 324000.00 E grid27: 905000.00 N grid83: 117272.00 E grid83: 432031.00 Lat dec de: 38.72 76.63 Lon dec de: Issue date: 01-JUN-01 Special fl: Not Reported 17-AUG-01 C1 seq: 0814 C1 recd: Completion: 11-JUL-01 Total dept: 3.75E+002 Num unsucc: 0 Hydrofract: Ν Grouted: Υ Grout type: BC 6.3E+001 Grout top: 0 Grout bott: 4.0E+000 Casing typ: PL Casing dia: Casing dep: 3.6E+002 Casing hei: +1 3.6E+002 Screen typ: PL Top screen: 3.75E+002 Not Reported Screen t 1: Bottom scr: Top scre 1: 0 Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Not Reported 2.0E+000 Hrs pumped: Log type: Pumping ra: 2.0E+001 Level befo: 1.7E+002 Level duri: 1.9E+002 Test pump: Α Pump insta: Install pu: S 7.5E-001 Capacity: 7.0E+000 Pump hp: Column len: 2.5E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

Q61 East MD WELLS MD600000416263

1/2 - 1 Mile Lower

Objectid: 416262 County let: Permit: CA942248 Mgs id: B1 recd: B1 seq: 2767 City: **DUNKIRK** State: Driller na: Zip: 20754 Driller id: MWD 318 Est gpm pr: Use for wa: DW Approx dep: 3.5E+002 Drill meth: Replacemen: Replace pe:

Wapid: Not Reported Not Reported Section: **DUNKIRK** Nearest to: Road name: 1950 HAVEN LA 90 FT Road dista: Not Reported Block: 323000.00 N grid27: N grid83: 116967.00 Lat dec de: 38.72 Issue date: 06-JAN-00 C1 seq: 4014

Drill meth:
Replace pe:
Subdivisio:
Lot:
Town dista:
Road side:
Tax map:
Parcel:
E grid27:
E grid83:
Lon dec de:
Special fl:
C1 recd:

06-JAN-00 MD MICHAEL K GRIBBLE 8.0E+000 ROTARY

DUNKIRK FIELDS 15 2 S 6 228 905000.00 432031.00 76.63 Not Reported 02-FEB-00

Not Reported

CA

Not Reported

Completion: 12-JAN-00 Total dept: 2.75E+002 Num unsucc: 0 Hydrofract: Grouted: Υ Grout type: BC Grout top: 0 Grout bott: 6.3E+001 PLCasing dia: 4.0E+000 Casing typ: Casing dep: 2.6E+002 Casing hei: +1 Screen typ: PLTop screen: 2.6E+002 Bottom scr: 2.75E+002 Screen t 1: Not Reported Top scre 1: Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Log type: Not Reported Hrs pumped: 2.0E+000 3.0E+001 1.0E+002 Pumping ra: Level befo: 1.25E+002 Level duri: Test pump: Α Pump insta: Install pu: S Υ Capacity: 8.0E+000 Pump hp: 7.5E-001 Column len: 1.6E+002 Closed: Abandoned: Not Reported Abandon da: Not Reported

Q62 East 1/2 - 1 Mile Lower

MD WELLS MD600000096569

Objectid: 96568 County let: CA Not Reported Permit: CA883535 Mgs id: B1 seq: Not Reported B1 recd: 01-JUL-93 **DUNKIRK** State: MD City: GRIBBLE, MICHAEL K. Zip: 20754 Driller na:

Driller id: MWD0318 Est gpm pr: 8.0E+000

Use for wa: DW

3.5E+002 **ROTARY** Approx dep: Drill meth: Replacemen: Υ Replace pe: Not Reported Wapid: Subdivisio: **DUNKIRK WOODS** Not Reported

Section: Not Reported Lot: 43 **DUNKIRK** Nearest to: Town dista: 1 MI

1721 EDINBURGH LANE Road side: Road name: Ε Road dista: 75 FT Tax map: Not Reported Block: Not Reported Parcel: Not Reported E grid27: 905000.00 N grid27: 323000.00 N grid83: E grid83: 116967.00 432031.00 Lat dec de: 38.72 Lon dec de: 76.63 02-JUL-93 Not Reported Issue date: Special fl: C1 seq: Not Reported C1 recd: 21-OCT-93 Total dept: 2.95E+002 Completion: 09-JUL-93 Num unsucc: 0 Hydrofract: Not Reported

Υ Grout type: ВС Grouted: Grout top: 0 Grout bott: 1.05E+002 Casing typ: PL Casing dia: 4.0E+000 Casing dep: 2.8E+002 Casing hei: +01 Top screen: PL2.8E+002 Screen typ: Bottom scr: 2.95E+002 Screen t 1: Not Reported

Top scre 1: Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0

Bottom s 2: Screen dia: 2.0E+000 Not Reported Flowing we: Telescopin: Log type: Not Reported Hrs pumped: 1.0E+000 2.2E+001 Pumping ra: Level befo: 1.45E+002 Level duri: 1.7E+002 Test pump: Not Reported Pump insta: Install pu: S 8.0E+000 Capacity: Pump hp: 7.5E-001 Column len: 2.25E+002 Closed: Abandoned: Not Reported Abandon da: Not Reported

Q63 East 1/2 - 1 Mile Lower

MD WELLS MD600000490118

Objectid: 490117 County let: CA Permit: CA945751 Mgs id: Not Reported B1 seq: 6953 B1 recd: 25-AUG-05 HUNTINGTOWN MDCity: State:

Zip: 20639 Driller na: MICHAEL K. GRIBBLE

Driller id: MWD 318 Est gpm pr: 8.0E+000

Use for wa: DW

Approx dep:3.5E+002Drill meth:ROTARYReplacemen:NReplace pe:Not ReportedWapid:Not ReportedSubdivisio:COVENANT CREEK

Section: Not Reported Lot: Nearest to: **OWINGS** Town dista: 2 9540 COVENANT CT Ν Road name: Road side: 6 Road dista: 75 FT Tax map: 427 Block: Not Reported Parcel: N grid27: 323000.00 905000.00 E grid27: N grid83: 116967.00 E grid83: 432031.00 Lat dec de: 38.72 Lon dec de: 76.63 Not Reported 25-AUG-05 Special fl: Issue date: C1 seq: 7112 C1 recd: 17-NOV-05

Completion: 29-SEP-05 Total dept: 3.7E+002 Num unsucc: 0 Hydrofract: Not Reported Grouted: Υ Grout type: BC 6.3E+001 Grout top: 0 Grout bott: Casing typ: PLCasing dia: 4.0E+000 Casing dep: 3.4E+002 Casing hei: +1 Screen typ: PLTop screen: 3.5E+002 3.7E+002 Screen t 1: Not Reported Bottom scr:

Top scre 1: 0 Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Τ 2.0E+000 Log type: Not Reported Hrs pumped: Pumping ra: 2.0E+001 Level befo: 1.8E+002 2.0E+002 Level duri: Test pump: S

Pump insta:YInstall pu:SCapacity:1.0E+001Pump hp:1.5E+000Column len:2.8E+002Closed:Not ReportedAbandoned:Not ReportedAbandon da:Not Reported

Map ID Direction Distance

Elevation Database EDR ID Number

East 1/2 - 1 Mile Lower

Q64

MD WELLS MD6000000512790

Objectid: 512824 County let: Not Reported Permit: CA950887 Mgs id: Not Reported B1 recd: B1 seq: 1330 02-JUL-08 City: HUNTINGTOWN State: MD

MICHAEL K GRIBBLE Zip: 20639 Driller na:

Driller id: MWD 318 Est gpm pr: 8.0E+000

Use for wa: DW

Approx dep: 4.0E+002 Drill meth: ROTARY Replacemen: Replace pe: Not Reported Ν Wapid: Not Reported Subdivisio: COVENANT CREEK

Section: Not Reported Lot: 35 Nearest to: **OWINGS** Town dista: 2 Road name: 9607 COVENANT CT Road side: Ε Road dista: Not Reported Tax map: 6 Block: Not Reported Parcel: 454

N grid27: 323000.00 E grid27: 905000.00 N grid83: 116967.00 E grid83: 432031.00 Lon dec de: Lat dec de: 38.72 76.63 Issue date: 02-JUL-08 Special fl: Not Reported C1 seq: 2954 C1 recd: 19-AUG-08 Completion: 05-AUG-08 Total dept: 3.15E+002

Num unsucc: 0 Hydrofract: Ν Υ BC Grouted: Grout type: 6.3E+001 Grout top: 0 Grout bott: Casing typ: PL Casing dia: 4.0E+000 3.0E+002 Not Reported Casing dep: Casing hei: Screen typ: PL3.01E+002 Top screen: Bottom scr: 3.15E+002 Screen t 1: Not Reported

Bottom s 1: Top scre 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 2.0E+000 Not Reported Telescopin: Flowing we: Log type: Not Reported Hrs pumped: 1.0E+000 Pumping ra: 2.5E+001 Level befo: 1.4E+002 Level duri: 2.3E+002 Test pump: Α S Install pu: Pump insta:

Pump hp: Capacity: 7.0E+000 1.0E+000 Column len: 2.2E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

Q65 East 1/2 - 1 Mile Lower

MD WELLS MD6000000502600

Objectid: 502599 County let: Not Reported CA950383 Mgs id: Not Reported Permit: B1 seq: 0085 B1 recd: 24-OCT-06

City: HUNTINGTOWN State:

MICHAEL K GRIBBLE Zip: 20639 Driller na:

Driller id: MWD 318 Est gpm pr: 8.0E+000

Use for wa: DW

Approx dep: 3.5E+002 Drill meth: **ROTARY** Replacemen: Ν Replace pe: Not Reported Wapid:

Not Reported Subdivisio: COVENANT CREEK

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Section: Not Reported Lot: 15 Nearest to: **OWINGS** Town dista: 2 Road name: 9601 COVENANT CT Road side: Ν Road dista: 85 FT Tax map: 6 Block: Not Reported Parcel: 427 N grid27: 323000.00 E grid27: 905000.00 N grid83: 116967.00 E grid83: 432031.00 Lat dec de: 38.72 Lon dec de: 76.63 Issue date: 25-OCT-06 Special fl: Not Reported C1 recd: 07-MAR-07 C1 seq: 9257 Completion: 28-FEB-07 Total dept: 3.25E+002 Num unsucc: 0 Hydrofract: Ν Grouted: Υ Grout type: ВС 4.2E+001 Grout top: 0 Grout bott: PL4.0E+000 Casing typ: Casing dia: Casing hei: 3.0E+002 Casing dep: +1 Screen typ: PLTop screen: 3.09E+002 Bottom scr: 3.23E+002 Screen t 1: Not Reported Top scre 1: 0 Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Log type: Not Reported Hrs pumped: 1.0E+000 3.0E+001 Level befo: 1.0E+000 Pumping ra: Level duri: 2.4E+002 Test pump: Α Pump insta: Install pu: S Capacity: 1.2E+001 Pump hp: 1.5E+000 Column len: 2.3E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

R66
ENE MD WELLS MD600000087826

Lon dec de:

Special fl:

C1 recd:

1/2 - 1 Mile

Lat dec de:

Issue date:

C1 seq:

Objectid: 87825 County let: CA Permit: CA731443 Mgs id: Not Reported B1 recd: 25-JUN-76 B1 seq: Not Reported Citv: **UPPER MARLBORO** State: MD Zip: Not Reported Driller na: KANARR, PAUL Driller id: MWD0243 Est gpm pr: 6.0E+000 Use for wa: DW Approx dep: 3.0E+002 Drill meth: **ROTARY** Replacemen: Replace pe: Not Reported Wapid: Not Reported Subdivisio: **ODYSSEY** Not Reported Section: Lot: 30 **OWINGS** Town dista: 3 MI Nearest to: Road name: MD RT 260 Road side: Ν Road dista: 300 FT Tax map: Not Reported Block: Not Reported Parcel: Not Reported N grid27: 325000.00 E grid27: 905000.00 N grid83: 117577.00 E grid83: 432031.00

38.73

24-JUN-76

Not Reported

284

76.63

07-JUL-76

Not Reported

3.3E+002 Completion: 29-JUN-76 Total dept: Num unsucc: 0 Hydrofract: Not Reported Grouted: Υ Grout type: CM Grout top: 0 Grout bott: 1.1E+001 ST Casing dia: 4.0E+000 Casing typ: Casing dep: 2.32E+002 Casing hei: +01 Screen typ: PLTop screen: 3.2E+002 Bottom scr: 3.3E+002 Screen t 1: Not Reported Top scre 1: Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Log type: Not Reported Hrs pumped: 4.0E+000 7.0E+000 1.51E+002 Pumping ra: Level befo: Level duri: 1.72E+002 Test pump: S Pump insta: Not Reported Install pu: S Capacity: 7.0E+000 Pump hp: 1.0E+000 Column len: 1.9E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

R67 ENE 1/2 - 1 Mile Lower

MD6000000087802 MD WELLS

Objectid: 87801 County let: CA Not Reported Permit: CA731415 Mgs id: B1 seq: Not Reported B1 recd: 08-JUN-76 **DUNKIRK** State: MD City: Not Reported BUNKER, HH & SONS Zip: Driller na:

Driller id: MWD0055 Est gpm pr: 1.0E+001

DW Use for wa:

2.5E+002 **ROTARY** Approx dep: Drill meth: Replacemen: Υ Replace pe: CA730826

Wapid: Subdivisio: **DUNKIRK WOODS** Not Reported

Section: Lot: 13 Nearest to: LAKE WOOD Town dista: 1 MI

Road side: Road name: **BRICK HOUSE RD** S Road dista: 1 MI Tax map: Not Reported Block: Not Reported Parcel: Not Reported 905000.00 N grid27: 325000.00 E grid27: E grid83: N grid83: 117577.00 432031.00

Lat dec de: 38.73 Lon dec de: 76.63 07-JUN-76 Issue date: Special fl: Not Reported C1 seq: Not Reported C1 recd: Not Reported

Total dept: Completion: Not Reported Not Reported Num unsucc: Hydrofract:

Not Reported Grout type: Not Reported Grouted: Grout top: Grout bott: Casing typ: Not Reported Casing dia: 0

Casing dep: 0 Casing hei: +00 Top screen: Not Reported 0 Screen typ:

Bottom scr: 0 Screen t 1: Not Reported

Top scre 1: Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0

Bottom s 2: Screen dia:

Flowing we: Not Reported Telescopin: Not Reported

Not Reported Hrs pumped: Log type: Pumping ra: Level befo:

Level duri: Test pump: Not Reported 0 Not Reported Pump insta: Not Reported Install pu:

Capacity: 0 Pump hp: 0 Column len: 0 Closed: С

Abandoned: Not Reported Abandon da: Not Reported

1/2 - 1 Mile Lower

MD WELLS MD6000000087940

Objectid: 87939 County let: CA Permit: CA731594 Mgs id: Not Reported 15-SEP-76 B1 recd: B1 seq: Not Reported City: HAMPTON PARK State: MD

BRANHAM WELL DRLG Zip: Not Reported Driller na:

Driller id: MWD0080 1.0E+001 Est gpm pr:

Use for wa: DW

Approx dep: 3.5E+002 Drill meth: **ROTARY** Not Reported Replacemen: Replace pe: Ν Wapid: Not Reported Subdivisio: **BRIGHT ACRES** Section: Not Reported Lot: Not Reported

Town dista: Nearest to: **DUNKIRK** 1 MI Road name: RT 260& WARD CHAPEL Road side: Ν

Tax map: Road dista: Not Reported 35 FT Not Reported Not Reported Block: Parcel: N grid27: 325000.00 E grid27: 905000.00 E grid83: N grid83: 117577.00 432031.00 Lat dec de: Lon dec de: 76.63 38.73 Issue date: 14-SEP-76 Special fl: Not Reported C1 seq: Not Reported C1 recd: 28-OCT-76 Completion: Not Reported Total dept: 4.0E+002 Num unsucc: Hydrofract: Not Reported 0 Grouted: Υ Grout type: CM Grout top: 0 Grout bott: 2.0E+001

Casing typ: PL Casing dia: 4.0E+000 3.93E+002 Casing dep: Casing hei: +01 3.93E+002 Screen typ: Ы Top screen: Bottom scr: 4.0E+002 Screen t 1: Not Reported

Top scre 1: Bottom s 1: 0 Screen t 2: Not Reported Top scre 2:

2.0E+000 Bottom s 2: Screen dia: Not Reported Not Reported Flowing we: Telescopin: Not Reported Hrs pumped: 4.0E+000 Log type: Pumping ra: 1.0E+001 Level befo: 1.0E+002 Level duri: 2.0E+002 Test pump: Α Pump insta: Not Reported Install pu: S 6.0E+000 1.0E+000

Pump hp: Capacity: Column len: 2.5E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

Map ID Direction Distance

Elevation Database EDR ID Number

1/2 - 1 Mile Lower

R69

MD WELLS MD600000087833

Objectid: 87832 County let: CA

Permit: CA731451 Mgs id: Not Reported Not Reported B1 seq: B1 recd: 06-JUL-76 City: **BOULEVARD HTS** State: MD WARD, W S CO INC

Zip: Not Reported Driller na: Driller id: MWD0053 Est gpm pr: 1.0E+001

Use for wa: DW

3.25E+002 **ROTARY** Approx dep: Drill meth: Replacemen: Replace pe: Not Reported Ν Wapid: Not Reported Subdivisio: EARL HICKS

Section: Not Reported Lot: 3 Nearest to: **OWINGS** Town dista: 2 MI Road name: RT 260 Road side: W Road dista: 900 FT Tax map: Not Reported

Block: Not Reported Parcel: Not Reported N grid27: 325000.00 E grid27: 905000.00 N grid83: E grid83: 432031.00 117577.00 Lon dec de: Lat dec de: 76.63 38.73 Issue date: 02-JUL-76 Special fl: Not Reported C1 seq: Not Reported C1 recd: 31-AUG-76 Completion: 05-AUG-76 Total dept: 3.05E+002 Num unsucc: 0 Hydrofract: Not Reported

CM Grouted: Υ Grout type: 3.0E+001 Grout top: 3.0E+000 Grout bott: Casing typ: ST Casing dia: 4.0E+000 2.85E+002 Casing dep: Casing hei: +01 Screen typ: 2.85E+002 HO Top screen: Bottom scr: 3.05E+002 Screen t 1: Not Reported

Bottom s 1: Top scre 1: 0 0 Screen t 2: Not Reported Top scre 2: 0

Bottom s 2: Screen dia: 0 Not Reported Telescopin: Not Reported Flowing we: Log type: Not Reported Hrs pumped: 6.0E+000 Pumping ra: 4.0E+001 Level befo: 1.23E+002 Level duri: 1.35E+002 Test pump: Α

S Not Reported Install pu: Pump insta: Pump hp: Capacity: 1.0E+001 1.0E+000 Column len: 1.68E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

R70 **MD WELLS** MD6000000087443

ENE 1/2 - 1 Mile Lower

> Objectid: 87442 County let: CA

CA730921 Mgs id: Not Reported Permit: B1 seq: Not Reported B1 recd: 06-MAY-75

City: **DUNKIRK** State:

LEATHERBURY, TAYLOR Zip: Not Reported Driller na:

Driller id: MWD0226 Est gpm pr: 6.0E+000

Use for wa: DW

Approx dep: 2.8E+002 Drill meth: **ROTARY** Replacemen: Ν Replace pe: Not Reported

Not Reported Subdivisio: **ODYSSEY** Wapid:

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Lot:

22

Nearest to: **OWINGS** Town dista: 3 MI Road name: RAMBLE DR Road side: Ε Road dista: 150 FT Tax map: Not Reported Block: Not Reported Parcel: Not Reported N grid27: 325000.00 E grid27: 905000.00 N grid83: 117577.00 E grid83: 432031.00 Lat dec de: 38.73 Lon dec de: 76.63 Issue date: 30-APR-75 Special fl: Not Reported C1 recd: C1 seq: Not Reported 06-JAN-77 Completion: 17-MAY-75 Total dept: 3.15E+002 Num unsucc: 0 Hydrofract: Not Reported Grouted: Υ Grout type: CM 0 3.0E+001 Grout top: Grout bott:

Not Reported

ST 4.0E+000 Casing typ: Casing dia: Casing hei: 2.9E+002 +01 Casing dep: Screen typ: ST Top screen: 2.9E+002 Bottom scr: 3.15E+002 Screen t 1: Not Reported Top scre 1: 0 Bottom s 1: 0

Screen t 2: Not Reported Top scre 2: 0

Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Not Reported Log type: Not Reported Hrs pumped: 4.0E+000 1.5E+001 Level befo: 1.07E+002 Pumping ra:

Level duri: 3.15E+002 Test pump: Α Pump insta: Not Reported Install pu: S Capacity: 1.0E+001 Pump hp: 1.0E+000 Column len: 1.89E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

R71 ENE 1/2 - 1 Mile Lower

Section:

MD WELLS MD600000087225

87224 Objectid: County let: CA Permit: CA730618 Mgs id: Not Reported B1 seq: B1 recd: 20-JUN-74 Not Reported PRINCE FREDERICK Citv: State: MD

Zip: Not Reported Driller na: FRANK'S WELL DRLG CO

MWD0005 Driller id: Est gpm pr: 1.0E+001 Use for wa: DW Approx dep: 3.0E+002 Drill meth: **ROTARY** Replacemen: Replace pe: Not Reported **ODYSSEY**

Wapid: Not Reported Subdivisio: Not Reported Section: Lot: 4 **OWNINGS** Town dista: 6 MI Nearest to: Road name: RT 260 Road side: Ν

Road dista: 600 FT Tax map: Not Reported Block: Not Reported Parcel: Not Reported N grid27: 325000.00 E grid27: 905000.00 432031.00 N grid83: 117577.00 E grid83: Lat dec de: 38.73 Lon dec de: 76.63 Issue date: 14-JUN-74 Special fl: Not Reported C1 seq: Not Reported C1 recd: 18-JUL-74

Completion: 03-JUL-74 Total dept: 3.58E+002 Num unsucc: 0 Hydrofract: Not Reported Grouted: Υ Grout type: BC Grout top: 0 Grout bott: 2.0E+001 ST Casing dia: 4.0E+000 Casing typ: Casing dep: 3.48E+002 Casing hei: +01 Screen typ: ST Top screen: 3.48E+002 Bottom scr: 3.58E+002 Screen t 1: Not Reported Top scre 1: Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 2.0E+000 Not Reported Flowing we: Not Reported Telescopin: Log type: Not Reported Hrs pumped: 2.0E+000 7.0E+000 1.5E+002 Pumping ra: Level befo: Level duri: 1.6E+002 Test pump: Α Pump insta: Not Reported Install pu: S Capacity: 7.0E+000 Pump hp: 1.0E+000 Column len: 2.0E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

R72 ENE 1/2 - 1 Mile Lower

> Grouted: Grout top:

MD WELLS MD6000000087136

Objectid: 87135 Permit: CA730494 Mgs id: B1 seq: Not Reported **CHESAPEAKE** State: City: Zip: Not Reported Driller na: Driller id: MWD0053

DW Use for wa: 3.5E+002 Approx dep: Replacemen: Ν

Wapid: Not Reported Section: Not Reported Nearest to: DUNKIRK WARDS RD Road name: Road dista: 300 FT Block: Not Reported N grid27: 325000.00 N grid83: 117577.00 Lat dec de: 38.73 01-APR-74 Issue date: C1 seq: Not Reported Completion: 27-AUG-74 Num unsucc: 0

Casing typ: ST Casing dep: 3.05E+002 НО Screen typ: Bottom scr: 3.45E+002 Top scre 1:

Υ

0

Screen t 2: Not Reported County let: CA Not Reported B1 recd: 02-APR-74 MD

WARD, W S CO INC Est gpm pr: 1.0E+001

ROTARY Drill meth: Replace pe: Not Reported Subdivisio: DUNKIRK FIELDS Lot: Not Reported Town dista: 1 MI Road side: S Tax map: Not Reported Parcel: Not Reported 905000.00 E grid27:

E grid83: 432031.00 Lon dec de: 76.63 Special fl: Not Reported C1 recd: 30-SEP-74 Total dept: 3.45E+002 Hydrofract: Not Reported Grout type: СМ Grout bott: 3.5E+001 Casing dia: 4.0E+000 Casing hei: +02 Top screen: 3.05E+002 Screen t 1: Not Reported

Bottom s 1: 0 Top scre 2: 0

Telescopin:

Bottom s 2: 0 Screen dia: 0

Not Reported

Not Reported Hrs pumped: 6.0E+000 Log type: 2.5E+001 Pumping ra: Level befo: 1.15E+002 Level duri: 1.2E+002 Test pump: Α Not Reported S Pump insta: Install pu: Capacity: 1.0E+001 Pump hp: 1.0E+000 Column len: 1.47E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

R73 ENE 1/2 - 1 Mile Lower

Flowing we:

MD WELLS MD600000087365

Not Reported

Objectid: 87364 County let: CA Permit: CA730826 Mgs id: Not Reported B1 recd: 08-JAN-75 B1 seq: Not Reported City: **OWINGS** State: MD

Zip: Not Reported Driller na: BUNKER, H H & SONS

Driller id: MWD0055 Est gpm pr: 1.0E+001

Use for wa: DW

Approx dep:2.5E+002Drill meth:ROTARYReplacemen:NReplace pe:Not ReportedWapid:Not ReportedSubdivisio:DUNKIRK WOODS

Section: 1 Lot: 13

Nearest to:LAKEWOODTown dista:1 MIRoad name:BRICKHOUSE RDRoad side:S

Road dista: Tax map: Not Reported 1 MI Not Reported Not Reported Block: Parcel: N grid27: 325000.00 E grid27: 905000.00 E grid83: N grid83: 117577.00 432031.00 Lat dec de: 38.73 Lon dec de: 76.63 Issue date: 07-JAN-75 Special fl: Not Reported C1 seq: Not Reported C1 recd: 20-MAR-75 Completion: 04-MAR-75 Total dept: 2.45E+002 0 Hydrofract: Not Reported Υ Grout type: CM

Num unsucc: Grouted: Grout top: 3.0E+000 Grout bott: 2.0E+001 Casing typ: ST Casing dia: 4.0E+000 Casing dep: 2.35E+002 Casing hei: +01 2.4E+002 ST Top screen: Screen typ: Bottom scr: 2.45E+002 Screen t 1: Not Reported

Top scre 1: 0 Bottom s 1: 0
Screen t 2: Not Reported Top scre 2: 0

Bottom s 2:0Screen dia:2.0E+000Flowing we:Not ReportedTelescopin:T

Flowing we: Not Reported Telescopin: T
Log type: Not Reported Hrs pumped: 3.0E+000
Pumping ra: 7.0E+000 Level befo: 1.15E+002

Level duri: 1.75E+002 Test pump: Α Pump insta: Not Reported Install pu: S 7.0E+000 Pump hp: 1.0E+000 Capacity: Column len: 1.8E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

Map ID Direction Distance

EDR ID Number Elevation Database **R74**

ENE 1/2 - 1 Mile Lower

Completion:

Num unsucc:

MD WELLS MD6000000087247

CA

Not Reported

SLATER, JAMES H

08-JUL-74

1.0E+001

ROTARY

1

Ν

4 MI

Not Reported CEDAR RUN DIV

Not Reported

Not Reported 905000.00

432031.00

76.63

08-NOV-74

2.9E+002

5.0E+001

4.0E+000

2.8E+002

Not Reported

CM

+01

0

0

Not Reported

Not Reported

Objectid: 87246 Permit: CA730644 B1 seq: Not Reported **HARWOOD** City: Zip: Not Reported Driller id: MWD0268 Use for wa:

DW 3.0E+002 Ν

02-OCT-74

0

Approx dep: Replacemen: Wapid: Not Reported Section: Not Reported Nearest to: **OWINGS** Road name: **CEDAR RUN** Road dista: 20 FT Block: Not Reported N grid27: 325000.00 N grid83: 117577.00 Lat dec de: 38.73 Issue date: 03-JUL-74 Not Reported C1 seq:

Grouted: Grout top: 3.0E+000 PLCasing typ: 2.7E+002 Casing dep: Screen typ: PLBottom scr: 2.9E+002 Top scre 1: 0 Screen t 2: Not Reported Bottom s 2: 0 Flowing we: Log type: 4.0E+001 Pumping ra: Level duri: 1.3E+002

Not Reported Not Reported Pump insta: Not Reported Capacity: 1.0E+001 Column len: 2.0E+002 Abandoned: Not Reported

County let: Mgs id: B1 recd: State: Driller na: Est gpm pr:

Drill meth: Replace pe: Subdivisio: Lot: Town dista: Road side: Tax map: Parcel: E grid27: E grid83: Lon dec de: Special fl: C1 recd:

Total dept: Hydrofract: Grout type: Grout bott: Casing dia: Casing hei: Top screen: Screen t 1: Bottom s 1: Top scre 2: Screen dia: Telescopin: Hrs pumped: Level befo: Test pump: Install pu: Pump hp: Closed: Abandon da:

County let:

Mgs id: B1 recd:

State:

Driller na:

2.0E+000 4.0E+000 1.0E+002 Α S 1.0E+000 Not Reported Not Reported

MD WELLS

MD6000000088015

R75 1/2 - 1 Mile Lower

Replacemen:

Wapid:

Objectid: 88014 Permit: CA731698 Not Reported B1 seq: City: **OWINGS** Zip: Not Reported Driller id: MWD0243 Use for wa: DW Approx dep: 3.5E+002

Ν

Not Reported Subdivisio:

Est gpm pr: 6.0E+000 Drill meth: Replace pe:

ROTARY Not Reported **ODYSSEY**

Not Reported

KANARR, PAUL

04-NOV-76

CA

MD

TC3900443.2s Page A-72

Section: Not Reported Lot: 36 Nearest to: **OWINGS** Town dista: 2.1 MI Road name: MD RT 260 Road side: Road dista: 350 FT Tax map: Not Reported Block: Not Reported Parcel: Not Reported 325000.00 E grid27: 905000.00 N grid27: N grid83: 117577.00 E grid83: 432031.00 Lat dec de: 38.73 Lon dec de: 76.63 Issue date: 03-NOV-76 Special fl: Not Reported C1 recd: C1 seq: Not Reported 22-NOV-76 Completion: 15-NOV-76 Total dept: 3.45E+002 Num unsucc: 0 Hydrofract: Not Reported Grouted: Υ Grout type: CM 0 1.8E+001 Grout top: Grout bott: ST 4.0E+000 Casing typ: Casing dia: Casing hei: 2.32E+002 +01 Casing dep: Screen typ: PLTop screen: 3.3E+002 Bottom scr: 3.45E+002 Screen t 1: Not Reported Top scre 1: 0 Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Log type: Not Reported Hrs pumped: 3.0E+000 7.0E+000 Level befo: 1.49E+002 Pumping ra: 1.82E+002 Level duri: Test pump: S Pump insta: Not Reported Install pu: S Capacity: 7.0E+000 Pump hp: 1.0E+000 Column len: 1.95E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

R76
ENE MD WELLS MD600000089063

ENE 1/2 - 1 Mile Lower

> 89062 Objectid: County let: CA Permit: CA733062 Mgs id: Not Reported B1 recd: 18-DEC-78 B1 seq: Not Reported FORRESTVILLE Citv: State: MD Zip: 20689 Driller na: KANARR, PAUL Driller id: MWD0243 Est gpm pr: 8.0E+000 Use for wa: DW Approx dep: 3.0E+002 Drill meth: **ROTARY** Replacemen: Replace pe: Not Reported Wapid: Not Reported Subdivisio: Not Reported Not Reported Not Reported Section: Lot: **OWINGS** Town dista: 2 MI Nearest to: Road name: RT 260 Road side: Ν Road dista: 75 FT Tax map: Not Reported Block: Not Reported Parcel: Not Reported

N grid27: 325000.00 E grid27: 905000.00 432031.00 N grid83: 117577.00 E grid83: Lat dec de: 38.73 Lon dec de: 76.63 Issue date: 14-DEC-78 Special fl: Not Reported C1 seq: Not Reported C1 recd: 05-MAR-79

Completion: 14-FEB-79 Total dept: 3.6E+002 Num unsucc: 0 Hydrofract: Not Reported Grouted: Υ Grout type: CM Grout top: 0 Grout bott: 2.3E+001 ST Casing dia: 4.0E+000 Casing typ: Casing dep: 2.58E+002 Casing hei: +01 Screen typ: PLTop screen: 3.4E+002 Bottom scr: 3.6E+002 Screen t 1: Not Reported Top scre 1: Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Log type: Not Reported Hrs pumped: 1.0E+000 3.0E+001 1.4E+002 Pumping ra: Level befo: Level duri: 1.62E+002 Test pump: Α Pump insta: Not Reported Install pu: S Capacity: 7.0E+000 Pump hp: 1.0E+000 Column len: 1.9E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

R77 ENE 1/2 - 1 Mile Lower

MD WELLS MD600000088962

Objectid: 88961 County let: CA Not Reported Permit: CA732931 Mgs id: B1 seq: Not Reported B1 recd: 22-SEP-78 **UPPER MARLBORO** State: MD City: KANARR, PAUL E Zip: Not Reported Driller na:

Driller id: MWD0243
Use for wa: DW

Approx dep: 3.25E+002

Replacemen: N Wapid: Not Reported

Section: Not Reported Nearest to: OWINGS

CHEWS BRANCH RD Road name: Road dista: 75 FT Block: Not Reported N grid27: 325000.00 N grid83: 117577.00 Lat dec de: 38.73 20-SEP-78 Issue date: C1 seq: Not Reported 12-SEP-78 Completion: Num unsucc: 0 Υ Grouted:

0

ST

 Casing dep:
 2.29E+002

 Screen typ:
 ST

 Bottom scr:
 2.85E+002

 Top scre 1:
 0

Grout top:

Casing typ:

Screen t 2: Not Reported

Driller na: KANARR, Est gpm pr: 7.0E+000

Drill meth: ROTARY

Replace pe: Not Reported
Subdivisio: EARLE HICKS SUBDIV
Lot: 4

Lot: 4
Town dista: 2.0 MI
Road side: W

Tax map: Not Reported Parcel: Not Reported E grid27: 905000.00 E grid83: 432031.00 Lon dec de: 76.63 Special fl: Not Reported C1 recd: 19-OCT-78 Total dept: 2.85E+002 Hydrofract: Not Reported Grout type: СМ

 Grout bott:
 2.0E+001

 Casing dia:
 4.0E+000

 Casing hei:
 +01

 Top screen:
 2.75E+002

 Screen t 1:
 Not Reported

Bottom s 1: 0
Top scre 2: 0

Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Not Reported Hrs pumped: 1.0E+000 Log type: Pumping ra: 3.0E+001 Level befo: 1.0E+002 Level duri: 1.41E+002 Test pump: S Not Reported S Pump insta: Install pu: Capacity: 7.0E+000 Pump hp: 1.0E+000 Column len: 1.8E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

1/2 - 1 Mile Lower

MD WELLS MD6000000089222

Objectid: 89221 Permit: CA733260 B1 seq: Not Reported City: HYATTSVILLE Zip: Not Reported Driller id: MWD0243 Use for wa: DW Approx dep: 3.25E+002 Replacemen: Ν

Wapid: Not Reported Section: Nearest to: **OWINGS** Road name: JOURNEY DR

Road dista: 75 FT Not Reported Block: N grid27: 325000.00 N grid83: 117577.00 Lat dec de: 38.73 Issue date: 24-MAY-79 C1 seq: Not Reported Completion: 30-MAY-79 Num unsucc: 0 Υ Grouted: Grout top: 0 Casing typ: ST 2.32E+002 Casing dep:

Screen typ: Bottom scr:

Top scre 1: Screen t 2: Not Reported Bottom s 2: Not Reported Flowing we: Not Reported Log type: Pumping ra: 6.0E+000 Level duri: 1.53E+002 Pump insta: Not Reported 7.0E+000 Capacity: Column len: 1.8E+002 Abandoned: Not Reported

PL

3.3E+002

County let: Mgs id: B1 recd: State: Driller na: Est gpm pr: Drill meth: Replace pe:

Subdivisio: Lot: Town dista: Road side: Tax map: Parcel: E grid27: E grid83: Lon dec de: Special fl: C1 recd: Total dept: Hydrofract: Grout type: Grout bott: Casing dia: Casing hei: Top screen: Screen t 1: Bottom s 1:

Top scre 2: Screen dia: Telescopin: Hrs pumped: Level befo: Test pump: Install pu: Pump hp: Closed: Abandon da:

8.0E+000 **ROTARY** Not Reported ODDYSSEY 2.8 MI Not Reported Not Reported 905000.00

432031.00

76.63

Not Reported

Not Reported

KANARR, PAUL

25-MAY-79

CA

MD

35

W

28-JAN-80 3.3E+002 Not Reported CM 2.1E+001 4.0E+000 +01 3.2E+002 Not Reported 0 0 2.0E+000 1.0E+000 1.3E+002

Α

S

1.0E+000

Not Reported

Not Reported

MAHAN RYKIEL

Map ID Direction Distance

Database EDR ID Number Elevation **R79**

ENE 1/2 - 1 Mile Lower

Objectid:

Lat dec de:

MD WELLS MD6000000089179

CA

Not Reported

KANARR, PAUL

03-MAY-79

8.0E+000

ROTARY

1 MI

S

Not Reported

Not Reported

Not Reported

Permit: CA733209 B1 seq: Not Reported **BALTIMORE** City: Zip: Not Reported Driller id: MWD0243 DW Use for wa: 3.0E+002 Approx dep:

89178

38.73

Replacemen: Ν Wapid: Not Reported Section: Not Reported **OWINGS** Nearest to: Road name: RT 260 Road dista: 50 FT Block: Not Reported N grid27: 325000.00 N grid83: 117577.00

Issue date: 01-MAY-79 Not Reported C1 seq: Completion: 14-JUL-79 Num unsucc: 0 Grouted: Υ Grout top: 0 Casing typ: ST 2.52E+002 Casing dep: Screen typ: PLBottom scr: 3.7E+002 Top scre 1: 0 Screen t 2: Not Reported Bottom s 2: 0 Flowing we: Not Reported Log type: Not Reported

2.0E+001 Pumping ra: Level duri: 1.3E+002 Pump insta: Not Reported Capacity: 7.0E+000 Column len: 1.7E+002 Abandoned: Not Reported

County let: Mgs id: B1 recd: State: Driller na: Est gpm pr:

Drill meth: Replace pe: Subdivisio: Lot: Town dista: Road side: Tax map: Parcel: E grid27: E grid83: Lon dec de: Special fl: C1 recd: Total dept: Hydrofract: Grout type: Grout bott: Casing dia: Casing hei: Top screen: Screen t 1:

Bottom s 1: Top scre 2: Screen dia: Telescopin: Hrs pumped: Level befo: Test pump: Install pu: Pump hp: Closed: Abandon da: Not Reported Not Reported 905000.00 432031.00 76.63 Not Reported 30-JUL-79 3.7E+002 Not Reported CM 2.3E+001 4.0E+000 +01 3.55E+002 Not Reported 0

0 2.0E+000 1.0E+000 1.1E+002 Α S 1.0E+000

Not Reported

Not Reported

MD600000088770

R80 1/2 - 1 Mile Lower

> Objectid: 88769 Permit: CA732669 Not Reported B1 seq: City: **DUNKIRK** Zip: Not Reported Driller id: MWD0243 Use for wa: DW

Approx dep: 3.0E+002 Replacemen: Ν Wapid: Not Reported

County let: Mgs id: B1 recd: State: Driller na: Est gpm pr:

Drill meth: Replace pe:

Subdivisio:

Not Reported 24-APR-78 KANARR, PAUL

MD WELLS

6.0E+000 **ROTARY**

CA

MD

Not Reported **ODYSSEY**

TC3900443.2s Page A-76

Section: Not Reported Lot: 28 Nearest to: **OWINGS** Town dista: 2.8 MI Road name: WANDER RD Road side: Road dista: 80 FT Tax map: Not Reported Block: Not Reported Parcel: Not Reported N grid27: 325000.00 E grid27: 905000.00 N grid83: 117577.00 E grid83: 432031.00 Lat dec de: 38.73 Lon dec de: 76.63 Issue date: 21-APR-78 Special fl: Not Reported C1 recd: C1 seq: Not Reported 16-MAY-78 Completion: 03-MAY-78 Total dept: 2.75E+002 Num unsucc: 0 Hydrofract: Not Reported Grouted: Υ Grout type: CM 0 1.8E+001 Grout top: Grout bott: ST 4.0E+000 Casing typ: Casing dia: Casing hei: 2.3E+002 +01 Casing dep: Screen typ: ST Top screen: 2.65E+002 Bottom scr: 2.75E+002 Screen t 1: Not Reported Top scre 1: Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Log type: Not Reported Hrs pumped: 1.0E+000 3.0E+001 Level befo: 9.6E+001 Pumping ra: Level duri: 1.42E+002 Test pump: Α Pump insta: Not Reported Install pu: S Capacity: 1.1E+001 Pump hp: 1.0E+000 Column len: 1.65E+002 Closed: Not Reported Abandoned: Υ Abandon da: 01-MAR-95

1/2 - 1 Mile Lower

> Objectid: 88408 County let: CA Permit: CA732211 Mgs id: Not Reported B1 seq: B1 recd: 08-AUG-77 Not Reported PRINCE FREDERICK Citv: State: MD Zip: Not Reported Driller na: KANARR, PAUL Driller id: MWD0243 Est gpm pr: 6.0E+000 Use for wa: DW Approx dep: 3.0E+002 Drill meth: **ROTARY** Replacemen: Replace pe: Not Reported Wapid: Not Reported Subdivisio: **ODYSSEY** Not Reported 24 Section: Lot: Town dista: **OWINGS** 2.2 MI Nearest to: Road name: MD RT 260 Road side: Ν Road dista: 300 FT Tax map: 3 Block: Not Reported Parcel: 215 N grid27: 325000.00 E grid27: 905000.00 N grid83: 117577.00 E grid83: 432031.00 Lat dec de: 38.73 Lon dec de: 76.63 Issue date: 04-AUG-77 Special fl: Not Reported C1 seq: Not Reported C1 recd: 19-SEP-77

Completion: 29-AUG-77 Total dept: 3.15E+002 Num unsucc: 0 Hydrofract: Not Reported Grouted: Υ Grout type: CM Grout top: 0 Grout bott: 1.4E+001 ST Casing dia: 4.0E+000 Casing typ: Casing dep: 2.52E+002 Casing hei: +01 Screen typ: PLTop screen: 3.05E+002 Bottom scr: 3.15E+002 Screen t 1: Not Reported Top scre 1: Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Log type: Not Reported Hrs pumped: 1.0E+000 2.0E+001 1.4E+002 Pumping ra: Level befo: S Level duri: 1.6E+002 Test pump: Pump insta: Not Reported Install pu: S Capacity: 1.0E+001 Pump hp: 1.0E+000 Column len: 1.8E+002 Closed: Not Reported Abandoned: Υ Abandon da: 13-APR-96

R82 ENE 1/2 - 1 Mile Lower

MD WELLS MD600000088068

Objectid: 88067 Permit: CA731758 B1 seq: Not Reported **OWINGS** City: Not Reported Zip: Driller id: MWD0243 DW Use for wa: 3.75E+002 Approx dep: Ν

Replacemen: Wapid: Not Reported Section: Not Reported Nearest to: **OWINGS** RT 20 Road name: Road dista: 200 FT Block: Not Reported N grid27: 325000.00 N grid83: 117577.00 Lat dec de: 38.73 05-JAN-77 Issue date: C1 seq: Not Reported 25-JAN-77 Completion: Num unsucc: 0 Υ Grouted: Grout top: 0 Casing typ: ST

PLScreen typ: Bottom scr: 3.15E+002 Top scre 1: Screen t 2: Not Reported

2.52E+002

Casing dep:

County let: Mgs id: B1 recd: State: Driller na: Est gpm pr: Drill meth: Replace pe: Subdivisio:

ROTARY Not Reported **ODYSSEY** Lot: 2 Town dista: Road side: N Tax map: Parcel: E grid27: E grid83: Lon dec de: Special fl: C1 recd: Total dept: Hydrofract: Grout type: Grout bott: Casing dia: Casing hei: Top screen: Screen t 1: Bottom s 1: 0 Top scre 2: 0

2.2 MI Not Reported Not Reported 905000.00 432031.00 76.63 Not Reported 18-FEB-77 3.15E+002 Not Reported СМ 1.6E+001 4.0E+000 +01 3.0E+002 Not Reported

CA

MD

Not Reported

KANARR. PAUL

06-JAN-77

6.0E+000

Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Not Reported Hrs pumped: 2.0E+000 Log type: 2.5E+001 Pumping ra: Level befo: 1.1E+002 Level duri: 1.69E+002 Test pump: S Not Reported S Pump insta: Install pu: Capacity: 7.0E+000 Pump hp: 1.0E+000 Column len: 1.95E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

County let:

Mgs id:

State:

B1 recd:

Special fl:

C1 recd:

1/2 - 1 Mile Lower

Issue date:

Completion:

Level duri:

Capacity: Column len:

Pump insta:

Abandoned:

C1 seq:

MD WELLS MD6000000088669

Objectid: 88668 Permit: CA732540 B1 seq: Not Reported City: DUNKIRK Zip: Not Reported Driller id: MWD0243 Use for wa: DW 3.0E+002

Approx dep: Replacemen: Ν Wapid: Not Reported Section: Not Reported **OWINGS** Nearest to: Road name: MD RT 260 Road dista: 300 FT Not Reported Block: N grid27: 325000.00 N grid83: 117577.00 Lat dec de: 38.73

Num unsucc: 0 Υ Grouted: Grout top: 0 Casing typ: ST 2.52E+002 Casing dep: PLScreen typ: Bottom scr: 2.95E+002 Top scre 1: Screen t 2: Bottom s 2: Flowing we: Log type: Pumping ra:

Not Reported Not Reported Not Reported 1.0E+001 1.45E+002 Not Reported 7.0E+000 2.0E+002 Not Reported

17-JAN-78

08-JUN-78

Not Reported

Driller na: Est gpm pr: Drill meth: Replace pe: Subdivisio: Lot: Town dista: Road side: Tax map: Parcel: E grid27: E grid83: Lon dec de:

Total dept: Hydrofract: Grout type: Grout bott: Casing dia: Casing hei: Top screen: Screen t 1: Bottom s 1: Top scre 2: Screen dia: Telescopin: Hrs pumped: Level befo: Test pump: Install pu: Pump hp: Closed: Abandon da:

ROTARY Not Reported ODYSSEY 19 2.2 MI Not Reported Not Reported 905000.00 432031.00 76.63 Not Reported 13-JUN-78 2.95E+002

Not Reported

1.6E+001

4.0E+000

CM

CA

MD

Ν

Not Reported

KANARR, PAUL

19-JAN-78

6.0E+000

+01 2.85E+002 Not Reported 0 0 2.0E+000 2.0E+000 1.1E+002 S S 1.0E+000 Not Reported Not Reported

Map ID Direction Distance

Elevation Database EDR ID Number **R84**

County let:

Mgs id:

1/2 - 1 Mile Lower

Wapid:

Section:

Nearest to:

Road name:

Road dista:

Block:

N grid27:

N grid83:

Lat dec de:

Issue date:

MD WELLS MD6000000088465

Objectid: 88464 Permit: CA732277 Not Reported B1 seq: City: **OWINGS** Zip: Not Reported Driller id: MWD0243 Use for wa: DW Approx dep: Replacemen:

3.5E+002 Ν Not Reported Not Reported **OWINGS** WANDER RD 150 FT Not Reported 325000.00 117577.00

38.73

01-SEP-77

C1 seq: Not Reported Completion: 15-SEP-77 Num unsucc: 0 Υ Grouted: Grout top: 0 Casing typ: ST 2.52E+002 Casing dep: Screen typ: PLBottom scr: 3.15E+002 Top scre 1: 0 Screen t 2: Not Reported Bottom s 2: Not Reported Flowing we: Log type: Not Reported Pumping ra: 1.5E+001 Level duri: 1.75E+002 Not Reported Pump insta:

B1 recd: State: Driller na: Est gpm pr: Drill meth: Replace pe: Subdivisio: Lot: Town dista: Road side: Tax map: Parcel: E grid27: E grid83: Lon dec de: Special fl: C1 recd:

Total dept: Hydrofract: Grout type: Grout bott: Casing dia: Casing hei: Top screen: Screen t 1: Bottom s 1: Top scre 2: Screen dia: Telescopin: Hrs pumped: Level befo: Test pump: Install pu: Pump hp: Closed: Abandon da: 2.6 MI W Not Reported Not Reported 905000.00 432031.00 76.63 Not Reported 28-SEP-77 3.15E+002 Not Reported CM 1.7E+001 4.0E+000 +01 3.05E+002 Not Reported 0 2.0E+000 1.0E+000 1.55E+002

CA

MD

31

Not Reported

KANARR, PAUL

06-SEP-77

6.0E+000

ROTARY

ODYSSEY

Not Reported

S S 1.0E+000 Not Reported Not Reported

MD WELLS

R85 ENE 1/2 - 1 Mile Lower

Wapid:

Capacity:

Column len:

Abandoned:

Objectid: 19953 AA737413 Permit: B1 seq: Not Reported City: SUITLAND Zip: Not Reported Driller id: MWD0053 Use for wa: DW Approx dep: 3.25E+002 Replacemen:

Ν Not Reported

7.0E+000

1.9E+002

Not Reported

County let: Mgs id: B1 recd: State: Driller na: Est gpm pr:

Drill meth:

Replace pe:

Subdivisio:

Not Reported 25-MAY-77 MD WARD, W S CO INC 1.0E+001

AA

ROTARY Not Reported Not Reported

TC3900443.2s Page A-80

MD600000019954

Section: Not Reported Lot: Not Reported Nearest to: FRIENDSHIP Town dista: 2 MI Road name: SANDSBURY RD Road side: Road dista: 300 FT Tax map: Not Reported Block: Not Reported Parcel: Not Reported 325000.00 E grid27: 905000.00 N grid27: N grid83: 117577.00 E grid83: 432031.00 Lat dec de: 38.73 Lon dec de: 76.63 Issue date: 24-MAY-77 Special fl: Not Reported C1 recd: C1 seq: Not Reported 29-DEC-77 Completion: 20-NOV-77 Total dept: 3.35E+002 Num unsucc: 0 Hydrofract: Not Reported Grouted: Υ Grout type: СМ 0 3.1E+001 Grout top: Grout bott: ST 4.0E+000 Casing typ: Casing dia: Casing hei: 3.25E+002 +02 Casing dep: Screen typ: ST Top screen: 3.25E+002 Bottom scr: 3.35E+002 Screen t 1: Not Reported Top scre 1: 0 Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 3.0E+000 Flowing we: Not Reported Telescopin: Not Reported Log type: Not Reported Hrs pumped: 8.0E+000 2.6E+001 Level befo: 1.35E+002 Pumping ra: 1.5E+002 Level duri: Test pump: Α Pump insta: Not Reported Install pu: S Capacity: 1.0E+001 Pump hp: 1.0E+000 2.1E+002 Column len: Closed: Not Reported Not Reported Abandoned: Not Reported Abandon da:

R86
ENE MD WELLS MD600000087048

ENE 1/2 - 1 Mile Lower

> 87047 Objectid: County let: CA Permit: CA730371 Mgs id: Not Reported 25-OCT-73 B1 recd: B1 seq: Not Reported Citv: **UPPER MARLBORO** State: MD Zip: Not Reported Driller na: WARD, W S CO INC

MWD0053 Driller id: Est gpm pr: 1.0E+001 Use for wa: DW Approx dep: 3.5E+002 Drill meth: **ROTARY** Replacemen: Replace pe: Not Reported Wapid: Not Reported Subdivisio: **DUNKIRK WOODS**

Section: Not Reported Lot: 16
Nearest to: DUNKIRK Town dista: 1 MI
Road name: WARDS RD Road side: E

Road dista: 600 FT Tax map: Not Reported Block: Not Reported Parcel: Not Reported N grid27: 325000.00 E grid27: 905000.00 N grid83: 117577.00 E grid83: 432031.00 Lat dec de: 38.73 Lon dec de: 76.63 Issue date: 24-OCT-73 Special fl: Not Reported C1 seq: Not Reported C1 recd: 26-NOV-73

Completion: 28-OCT-73 Total dept: 3.05E+002 Num unsucc: 0 Hydrofract: Not Reported Grouted: Υ Grout type: Grout top: 4.0E+000 Grout bott: 3.0E+001 ST Casing dia: 4.0E+000 Casing typ: Casing dep: 2.5E+002 Casing hei: +01 Screen typ: НО Top screen: 2.5E+002 Bottom scr: 3.05E+002 Screen t 1: Not Reported Top scre 1: Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 0 Flowing we: Not Reported Telescopin: Not Reported Log type: Not Reported Hrs pumped: 4.0E+000 3.0E+001 6.3E+001 Pumping ra: Level befo: S Level duri: 8.1E+001 Test pump: Pump insta: Not Reported Install pu: S Capacity: 1.0E+001 Pump hp: 1.0E+000 Column len: 1.08E+002 Closed: Not Reported

Not Reported

Abandon da:

S87 ESE 1/2 - 1 Mile Lower

Abandoned:

MD WELLS MD600000355867

Not Reported

Objectid: 355866 County let: CA Not Reported Permit: CA920637 Mgs id: 23-FEB-96 B1 seq: 6067 B1 recd: **OWINGS** State: MD City: MICHAEL K GRIBBLE Zip: 20736 Driller na:

 Driller id:
 MWD 318
 Est gpm pr:
 8.0E+000

 Use for wa:
 DW

3.5E+002 **ROTARY** Approx dep: Drill meth: Replacemen: Υ Replace pe: CA732211 Wapid: Subdivisio: **ODYSSEY** Not Reported Section: Not Reported Lot: 24 Nearest to: **OWINGS** Town dista: 3 11836 RAMBLE DRIVE Road side: W Road name: Road dista: 75 FT Tax map: 3 Block: Not Reported Parcel: 215 E grid27: 905000.00 N grid27: 322000.00

N grid83: E grid83: 116662.00 432031.00 Lat dec de: 38.72 Lon dec de: 76.63 26-FEB-96 Issue date: Special fl: C1 seq: 8301 C1 recd: 17-MAY-96 13-APR-96 Total dept: 3.2E+002 Completion: Num unsucc: 0 Hydrofract: N Υ Grout type: ВС Grouted: Grout top: 0 Grout bott: 2.1E+002 Casing typ: PL Casing dia: 4.0E+000

 Casing dep:
 3.0E+002
 Casing hei:
 +1

 Screen typ:
 PL
 Top screen:
 3.1E+002

 Bottom scr:
 3.2E+002
 Screen t 1:
 Not Reported

 Top scre 1:
 0
 Bottom s 1:
 0

 Screen t 2:
 Not Reported
 Top scre 2:
 0

Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Not Reported Hrs pumped: 1.0E+000 Log type: Pumping ra: 3.0E+001 Level befo: 1.3E+002 Level duri: 1.55E+002 Test pump: Α S Pump insta: Install pu: Capacity: 8.0E+000 Pump hp: 7.5E-001 Column len: 2.1E+002 Closed:

Abandoned: Not Reported Abandon da: Not Reported

S88 ESE 1/2 - 1 Mile Lower

MD WELLS MD600000497100

Objectid: 497099 County let: Not Reported Permit: CA950093 Mgs id: Not Reported B1 recd: B1 seq: 1730 03-JAN-06 City: HUNTINGTOWN State: MD

Zip: 20639 Driller na: MICHAEL K GRIBBLE

Driller id: MWD 318 Est gpm pr: 8.0E+000

Use for wa:

DW

Approx dep: 3.5E+002 Drill meth: ROTARY
Replacemen: N Replace pe: Not Reported

Wapid: Not Reported Subdivisio: COVENANT CREEK Section: Not Reported Lot: 9
Nearest to: OWINGS Town dista: 2

Road name: 9570 COVENANT CT Road side: Ν Road dista: 65 FT Tax map: 6 Not Reported Parcel: Block: 427 N grid27: 322000.00 E grid27: 905000.00 E grid83: N grid83: 116662.00 432031.00 76.63 Lat dec de: 38.72 Lon dec de: Issue date: 04-JAN-06 Special fl: Not Reported C1 seq: 4549 C1 recd: 29-JUN-06 Completion: 21-FEB-06 Total dept: 3.35E+002 Hydrofract: Ν 0

Num unsucc: ВС Grouted: Υ Grout type: Grout top: 0 Grout bott: 6.3E+001 Casing typ: PL Casing dia: 4.0E+000 Casing dep: 3.1E+002 Casing hei: 3.15E+002 PLTop screen: Screen typ: Bottom scr: 3.35E+002 Screen t 1: Not Reported

 Top scre 1:
 0
 Bottom s 1:
 0

 Screen t 2:
 Not Reported
 Top scre 2:
 0

Bottom s 2: 0 Screen dia: 2.0E+000

Flowing we: Not Reported Telescopin: T

Not Reported Hrs pumped: 2.0E+000 Log type: Pumping ra: 3.5E+001 Level befo: 1.5E+002 Level duri: 1.7E+002 Test pump: Α Pump insta: Υ Install pu: S

Capacity:7.0E+000Pump hp:1.0E+000Column len:2.3E+002Closed:Not ReportedAbandoned:Not ReportedAbandon da:Not Reported

Map ID Direction Distance

Elevation Database EDR ID Number

Lot:

ESE 1/2 - 1 Mile Lower

Section:

S89

MD WELLS MD600000501223

 Objectid:
 501222
 County let:
 CA

 Permit:
 CA950382
 Mgs id:
 Not

Not Reported

 Permit:
 CA950382
 Mgs id:
 Not Reported

 B1 seq:
 0093
 B1 recd:
 23-OCT-06

 City:
 HUNTINGTOWN
 State:
 MD

Zip: 20639 Driller na: MICHAEL K. GRIBBLE

 Driller id:
 MWD 318
 Est gpm pr:
 8.0E+000

Use for wa: DW

Approx dep:4.0E+002Drill meth:ROTARYReplacemen:NReplace pe:Not ReportedWapid:Not ReportedSubdivisio:COVENANT CREEK

Nearest to: **OWINGS** Town dista: 2 Road name: 9550 COVENANT CT Road side: S Road dista: 85 FT Tax map: 6 Block: Parcel: 427 Not Reported N grid27: 322000.00 E grid27: 905000.00 N grid83: 116662.00 E grid83: 432031.00 Lon dec de: Lat dec de: 38.72 76.63 Issue date: 24-OCT-06 Special fl: Not Reported C1 seq: 9256 C1 recd: 23-JAN-06

Completion: 16-JAN-07 Total dept: 3.57E+002 Num unsucc: 0 Hydrofract: Not Reported Υ Grouted: Grout type: RC. 6.3E+001 Grout top: 0 Grout bott: Casing typ: PL Casing dia: 4.0E+000 3.4E+002 Casing dep: Casing hei: +1 Screen typ: PL3.44E+002 Top screen:

 Screen typ:
 PL
 Top screen:
 3.44E+002

 Bottom scr:
 3.57E+002
 Screen t 1:
 Not Reported

Bottom s 1: Top scre 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 2.0E+000 Not Reported Telescopin: Flowing we: Not Reported Log type: Hrs pumped: 1.0E+000 Pumping ra: 2.5E+001 Level befo: 1.8E+002 Level duri: 3.0E+002 Test pump: Α

S Install pu: Pump insta: Υ Pump hp: Capacity: 1.2E+001 1.5E+000 Column len: 2.8E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

North 1/2 - 1 Mile Higher

Objectid: 85882 County let: CA

Permit:CA660044Mgs id:Not ReportedB1 seq:Not ReportedB1 recd:Not Reported

City: GREENBELT, State: MD

Zip: Not Reported Driller na: WARD, WILLARD S

Driller id: MWD0000 Est gpm pr: 3.0E+001

Use for wa: DW

Approx dep:0Drill meth:ROTARYReplacemen:Not ReportedReplace pe:Not ReportedWapid:CA1966G005Subdivisio:LAKEWOOD

TC3900443.2s Page A-84

MD WELLS

MD6000000085883

Section: Not Reported Lot: Not Reported Nearest to: **DUNKIRK** Town dista: Not Reported Road name: RT 4 Road side: Road dista: .5 MI Tax map: Not Reported Block: Not Reported Parcel: Not Reported 328378.00 E grid27: 899566.00 N grid27: N grid83: 118606.00 E grid83: 430374.00 Lat dec de: 38.73 Lon dec de: 76.65 Issue date: Not Reported Special fl: Not Reported C1 recd: C1 seq: Not Reported Not Reported Completion: 01-FEB-66 Total dept: 4.25E+002 Num unsucc: Hydrofract: Not Reported Grouted: Not Reported Grout type: Not Reported Grout top: 0 Grout bott: 0 4.0E+000 Casing typ: Not Reported Casing dia: Casing hei: 3.45E+002 Casing dep: +00 Screen typ: ST Top screen: 3.45E+002 Bottom scr: 3.55E+002 Screen t 1: Not Reported Top scre 1: 0 Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 0 Flowing we: Not Reported Telescopin: Not Reported Log type: Not Reported Hrs pumped: 8.0E+000 Level befo: 1.37E+002 Pumping ra: Level duri: 1.47E+002 Test pump: Α Pump insta: Not Reported Install pu: Not Reported Capacity: Pump hp: Column len: Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

91 South MD WELLS MD600000088783 1/2 - 1 Mile

Lower Objectid: 88782 County let: CA Permit: CA732691 Mgs id: Not Reported B1 recd: 08-MAY-78 B1 seq: Not Reported City: **DUNKIRK** State: MD Zip: Not Reported Driller na: **DENNIS THOMAS** MWD0226 Driller id: Est gpm pr: 5.0E+000 Use for wa:

Approx dep:2.5E+002Drill meth:ROTARYReplacemen:NReplace pe:Not ReportedWapid:CA1978G009Subdivisio:Not ReportedSection:Not ReportedLot:Not Reported

DUNKIRK Town dista: 1 MI Nearest to: Road name: MD RT 4 Road side: S 75 FT Road dista: Tax map: Block: 10 Parcel: 191,103 N grid27: 318765.00 E grid27: 899567.00 N grid83: 115676.00 E grid83: 430375.00 Lat dec de: 38.71 Lon dec de: 76.65 Issue date: 18-APR-78 Special fl: Not Reported C1 seq: Not Reported C1 recd: 07-JUN-79

Completion: 15-SEP-78 Total dept: 2.3E+002 Num unsucc: 0 Hydrofract: Not Reported Grouted: Υ Grout type: CM Grout top: 0 Grout bott: 9.0E+001 ST Casing dia: 4.0E+000 Casing typ: Casing hei: 2.0E+002 Casing dep: +01 Screen typ: PLTop screen: 2.0E+002 Bottom scr: 2.3E+002 Screen t 1: Not Reported Top scre 1: Bottom s 1: 0

Top scre 1: 0 Bottom s 1: 0
Screen t 2: Not Reported Top scre 2: 0
Rettom s 2: 0 Serron dia: 2

Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Not Reported Not Reported Hrs pumped: 3.0E+000 Log type: 2.0E+001 5.4E+001 Pumping ra: Level befo: Level duri: 2.3E+002 Test pump: Α Pump insta: Not Reported S Install pu: Capacity: 1.0E+001 Pump hp: 1.0E+000 Column len: 1.2E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

T92 North 1/2 - 1 Mile Higher

Org. Identifier: USGS-MD

Formal name: USGS Maryland Water Science Center

Monloc Identifier: USGS-384405076390201

Monloc name: CA Bb 41
Monloc type: Well
Monloc desc: Not Reported
Huc code: 02060006

Not Reported Drainagearea value: Not Reported Contrib drainagearea: Not Reported Drainagearea Units: Contrib drainagearea units: Not Reported Latitude: 38.734839 -76.6502405 Sourcemap scale: 24000 Longitude: Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 155
Vert measure units: feet Vertacc measure val: 10
Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Northern Atlantic Coastal Plain aquifer system

Formation type: Aquia Formation
Aquifer type: Confined single aquifer

Construction date: 19660201 Welldepth: 355
Welldepth units: ft Wellholedepth: 425

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1966-02-01 137

305

FED USGS

USGS40000431403

Map ID Direction Distance

Elevation Database EDR ID Number

1/2 - 1 Mile Lower

U93

MD WELLS MD6000000349095

Objectid: 349094 County let: CA Permit: CA884298 Mgs id:

Not Reported B1 recd: 01-AUG-94 B1 seq: 5704 City: CHESAPEAKE BC State: MD

MICHAEL K GRIBBLE Zip: 20732 Driller na:

Driller id: MWD 318 Est gpm pr: 8.0E+000

Use for wa: DW

Approx dep: 3.5E+002 Drill meth: ROTARY Replacemen: Replace pe: Not Reported Ν

Wapid: Not Reported Subdivisio: WELCHPOOLE ESTATE

Section: Not Reported Lot: 4 Nearest to: DUNKIRK Town dista: 1 Road name: WELCHPOOLE COURT Road side: S

Road dista: 75 FT Tax map: Not Reported Block: Not Reported Parcel: Not Reported N grid27: 327000.00 E grid27: 904000.00 N grid83: 118186.00 E grid83: 431726.00 Lon dec de: Lat dec de: 38.73 76.64 Issue date: 01-AUG-94 Special fl: C1 seq: 7261 C1 recd: 13-OCT-94

15-SEP-94 Completion: Total dept: 3.1E+002 Num unsucc: 0 Hydrofract: Not Reported Υ BC Grouted: Grout type: 1.05E+002 Grout top: 0 Grout bott: Casing typ: PL Casing dia: 4.0E+000

2.8E+002 Casing dep: Casing hei: +1 Screen typ: PLTop screen: 2.95E+002 3.1E+002 Screen t 1: Not Reported

Bottom scr: Bottom s 1: Top scre 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 2.0E+000 Not Reported Telescopin: Flowing we:

Not Reported Log type: Hrs pumped: 1.0E+000 Pumping ra: 3.5E+001 Level befo: 1.6E+002 Level duri: 1.85E+002 Test pump: Α S Υ Install pu: Pump insta: Pump hp: Capacity: 1.0E+001 1.5E+000

Column len: 2.4E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

U94 NE

MD WELLS MD600000095748 1/2 - 1 Mile Lower

Objectid: 95747 County let: CA Permit: CA882201 Mgs id: Not Reported

B1 seq: Not Reported B1 recd: 12-JUN-91 City: WASHINGTON State: DC

GRIBBLE, MICHAEL K. Zip: 20024 Driller na:

Driller id: MWD0318 Est gpm pr: 8.0E+000

Use for wa: DW

Approx dep: 3.5E+002 Drill meth: **ROTARY** Replacemen: Replace pe: Not Reported

Not Reported Subdivisio: **DUNKIRK WOODS** Wapid:

Section: Lot: 42 Nearest to: DUNKIRK Town dista: 2 MI Road name: **EDINBURGH LANE** Road side: W Road dista: 100 FT Tax map: 3 Block: Not Reported Parcel: 142 327000.00 E grid27: 904000.00 N grid27: N grid83: 118186.00 E grid83: 431726.00 Lat dec de: 38.73 Lon dec de: 76.64 Issue date: 18-JUN-91 Special fl: Not Reported C1 recd: 15-JUL-91 C1 seq: Not Reported Completion: 19-JUN-91 Total dept: 3.1E+002 Num unsucc: 0 Hydrofract: Not Reported Grouted: Υ Grout type: ВС 1.0E+002 Grout top: 0 Grout bott: PL4.0E+000 Casing typ: Casing dia: Casing hei: 2.8E+002 +01 Casing dep: Screen typ: PLTop screen: 3.0E+002 Bottom scr: 3.1E+002 Screen t 1: Not Reported Top scre 1: 0 Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Log type: Not Reported Hrs pumped: 2.0E+000 2.0E+001 Level befo: 1.45E+002 Pumping ra: 1.7E+002 Level duri: Test pump: Α Pump insta: Not Reported Install pu: S Capacity: 8.0E+000 Pump hp: 7.5E-001 2.3E+002 Column len: Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

U95 NE **MD WELLS** MD6000000349121 1/2 - 1 Mile

Lower Objectid: 349120 Permit: CA884270

County let: CA Mgs id: Not Reported B1 seq: B1 recd: 27-JUL-94 7111 Citv: **BOWIE** State: MD

Zip: 20720 Driller na: MICHAEL MIRFIELD 0

MWD 305 Driller id: Est gpm pr:

Use for wa: G Approx dep: 2.0E+002 Drill meth: **ROTARY** Replacemen: Replace pe: Not Reported

Wapid: Not Reported Subdivisio: WELCHPOOLE ESTATES

Not Reported 3 Section: Lot: Town dista: **DUNKIRK** 3.5 Nearest to: Road name: WARD ROAD Road side: W Road dista: 100 FT Tax map: 3 Block: 16 Parcel: 323 904000.00 N grid27: 327000.00 E grid27: N grid83: 118186.00 E grid83: 431726.00 Lat dec de: 38.73 Lon dec de: 76.64 Issue date: 27-JUL-94 Special fl: Not Reported C1 seq: 7253 C1 recd: 01-NOV-94

27-OCT-94 Completion: Total dept: 2.0E+002 Num unsucc: Hydrofract: Grout type: ВС Grouted: Υ Grout top: n Grout bott: 2.0E+002 Casing typ: Not Reported Casing dia: 0 Casing dep: Casing hei: Not Reported Screen typ: Not Reported Top screen: Bottom scr: Screen t 1: Not Reported 0 Top scre 1: Bottom s 1: 0 0 Not Reported Screen t 2: Top scre 2: 0 Bottom s 2: Screen dia: 0 Flowing we: Not Reported Telescopin: Not Reported Log type: Not Reported Hrs pumped: 0 Level befo: Pumping ra: 0 Level duri: Test pump: Not Reported

Pump insta: Not Reported Install pu: Not Reported Capacity: 0 Pump hp: Not Reported Column len: 0 Closed:

Not Reported Abandoned: Not Reported Abandon da:

U96 NE 1/2 - 1 Mile Lower

MD WELLS MD6000000416192

Objectid: 416191 County let: CA Mgs id: Permit: CA941941 Not Reported B1 seq: B1 recd: 02-AUG-99 6153 City: **DUNKIRK** State: Zip: 20754 Driller na:

RICHARD WINSLOW

8.0E+000 Driller id: MSD 151 Est gpm pr:

Use for wa: DW

ROTARY Approx dep: 3.7E+002 Drill meth: Replacemen: Replace pe: Not Reported

Wapid: Not Reported Subdivisio: DUNKIRK WOODS Section: Lot: 22 Nearest to: **DUNKIRK** Town dista: 1 Road name: 1911 ABERDEEN DRIVE Road side: Ν Road dista: 15 FT Tax map: 3

Parcel: Not Reported 142 Block: N grid27: 327000.00 E grid27: 904000.00 N grid83: 118186.00 E grid83: 431726.00 Lat dec de: 38.73 Lon dec de: 76.64 Issue date: 02-AUG-99 Special fl: Not Reported C1 seq: 4105 C1 recd: 17-SEP-99 Total dept: 3.3E+002 Completion: 20-AUG-99 Num unsucc: 0 Hydrofract: Ν Grouted: Υ Grout type: BC 4.0E+001 Grout top: 0 Grout bott: 4.0E+000 Casing typ: ы Casing dia:

Casing dep: 3.1E+002 Casing hei: Screen typ: PLTop screen: 3.1E+002 Bottom scr: 3.3E+002 Screen t 1: Not Reported

Top scre 1: Bottom s 1: 0 Screen t 2: 0 Not Reported Top scre 2:

Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Not Reported Not Reported Hrs pumped: 3.0E+000 Log type: Pumping ra: 6.0E+001 Level befo: 1.5E+002 Level duri: 1.65E+002 Test pump: Α S Pump insta: Install pu: Capacity: 7.0E+000 Pump hp: 1.0E+000 Column len: 2.4E+002 Closed:

Abandoned: Not Reported Abandon da: Not Reported

NE 1/2 - 1 Mile Lower

MD WELLS MD6000000416072

Objectid: 416071 County let: CA Permit: CA942078 Mgs id: Not Reported B1 recd: B1 seq: 4430 07-OCT-99 City: **DUNKIRK** State: MD RICHARD WINSLOW Zip: 20754 Driller na:

Driller id: MSD 151 8.0E+000 Est gpm pr: Use for wa: DW

ROTARY Approx dep: 3.7E+002 Drill meth: Not Reported Replacemen: Replace pe: **DUNKIRK WOODS**

Wapid: Not Reported Subdivisio: Section: Lot: Town dista: 2 Nearest to: DUNKIRK

Road name: 1921 ABERDEEN DR Road side: Ν 15 FT Road dista: Tax map: 3 Not Reported Parcel: Block: 142 N grid27: 327000.00 E grid27: 904000.00 E grid83: N grid83: 118186.00 431726.00 Lat dec de: 38.73 Lon dec de: 76.64 Issue date: 07-OCT-99 Special fl: Not Reported C1 seq: C1 recd: 30-NOV-99 2746 Completion: 29-OCT-99 Total dept: 3.25E+002 Hydrofract: 0 Ν

Num unsucc: ВС Grouted: Υ Grout type: 4.0E+001 Grout top: 0 Grout bott: Casing typ: PL Casing dia: 4.0E+000 Casing dep: 3.0E+002 Casing hei: 3.05E+002 PLTop screen: Screen typ: Bottom scr: 3.25E+002 Screen t 1: Not Reported

Top scre 1: Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 2.0E+000 Bottom s 2: Screen dia:

Not Reported Flowing we: Telescopin: Not Reported Hrs pumped: 3.0E+000 Log type: Pumping ra: 5.0E+001 Level befo: 1.4E+002 Level duri: 1.48E+002 Test pump: Α Pump insta: Υ Install pu: S 7.0E+000 Pump hp: 7.5E-001 Capacity:

Column len: 2.3E+002 Closed: Abandoned: Not Reported Abandon da: Not Reported

Α

Мар	ID
Direc	tion
Dista	nce

EDR ID Number Database Elevation

T98 North 1/2 - 1 Mile Higher

MD WELLS MD6000000086925

Objectid: 86924 County let: Permit: CA730196 Mgs id: B1 seq: Not Reported B1 recd: **DUNKIRK** State: City: Zip: Not Reported Driller na:

WARD, W S CO INC

CA

Not Reported

24-APR-73

ROTARY

5.0E+001

Est gpm pr:

Driller id: MWD0053 DW Use for wa: Approx dep: 4.0E+002

Replacemen: S CA1966G005 Wapid: Section: Not Reported DUNKIRK Nearest to: Road name: **BRICK HOUSE RD**

Road dista: 1200FT Block: Not Reported N grid27: 328481.00 N grid83: 118638.00 Lat dec de: 38.73 Issue date: 23-APR-73 Not Reported C1 seq: Completion: 28-JUN-73 Num unsucc: 0 Grouted:

6.0E+000

ST

Casing typ: 3.15E+002 Casing dep: Screen typ: ST Bottom scr: 3.2E+002 3.3E+002 Top scre 1: Screen t 2: Not Reported Bottom s 2: 0 Flowing we: Not Reported Log type: Not Reported 6.0E+001 Pumping ra: Level duri: 1.6E+002

Pump insta: Not Reported Capacity: 4.0E+001 Column len: 2.75E+002 Abandoned: Not Reported

Drill meth: Replace pe: Subdivisio: Lot: Town dista: Road side: Tax map: Parcel: E grid27: E grid83: Lon dec de:

Special fl: C1 recd: Total dept: Hydrofract: Grout type: Grout bott: Casing dia: Casing hei: Top screen:

Screen t 1: Bottom s 1: Top scre 2: Screen dia: Telescopin: Hrs pumped: Level befo: Test pump: Install pu: Pump hp: Closed: Abandon da: Not Reported LAKE WOOD Not Reported 1 MI S Not Reported Not Reported 899579.00 430378.00 76.65 Not Reported 21-JUL-73 3.35E+002 Not Reported CM

3.15E+002 4.0E+000 +01 3.15E+002 ST 3.35E+002 0 3.0E+000 Τ 4.0E+000 1.28E+002 S S 5.0E+000 Not Reported

Not Reported

MD WELLS MD6000000335222

99 1/2 - 1 Mile Lower

Replacemen:

Wapid:

Grout top:

Objectid: 335221 Permit: CA881376 B1 seq: 2341 City: **OWINGS** Zip: 20736 Driller id: MWD393 Use for wa: Approx dep:

3.5E+002 Ν CA2005G022 Est gpm pr: Drill meth: Replace pe: Subdivisio:

County let:

Mgs id:

State:

B1 recd:

Driller na:

1.5E+001 **ROTARY**

Not Reported

WARD JR. WILLARD C.

07-MAR-90

CA

MD

Not Reported Not Reported

MAHAN RYKIEL

Section: Not Reported Lot: Not Reported Nearest to: CHANEYVILLE Town dista: Road name: MT. HARMONY ROAD Road side: Ν Road dista: 600 FT Tax map: 6 Block: Parcel: 82 11 E grid27: 903128.00 N grid27: 319421.00 N grid83: 115876.00 E grid83: 431460.00 Lat dec de: 38.71 Lon dec de: 76.64 Issue date: 07-MAR-90 Special fl: Not Reported C1 recd: C1 seq: 2000 19-JUL-90 Completion: 20-JUN-90 Total dept: 3.59E+002 Num unsucc: 0 Hydrofract: Not Reported Grouted: Υ Grout type: СМ 2.94E+002 Grout top: 0 Grout bott: PL4.0E+000 Casing typ: Casing dia: Casing hei: 2.94E+002 Casing dep: +1 Screen typ: ST Top screen: 3.49E+002 Bottom scr: 3.59E+002 Screen t 1: Not Reported Top scre 1: 0 Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 3.0E+000 Flowing we: Not Reported Telescopin: Log type: Not Reported Hrs pumped: 6.0E+000 4.0E+001 Level befo: 1.2E+002 Pumping ra: 1.4E+002 Level duri: Test pump: S Pump insta: Install pu: S Capacity: 2.5E+001 Pump hp: 1.5E+000 Column len: 2.4E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

NNE 1/2 - 1 Mile Lower

> Objectid: 90843 County let: CA Permit: CA810732 Mgs id: Not Reported B1 recd: 11-JAN-84 B1 seq: Not Reported City: LUSBY State: MD

Zip: 20657 Driller na: BRANHAM, JAMES A.

 Driller id:
 MWD0352
 Est gpm pr:
 1.0E+001

 Use for wa:
 DW

 Approx dep:
 3.5E+002
 Drill meth:
 ROTARY

 Replacemen:
 N
 Replace pe:
 Not Reported

Wapid: Not Reported Subdivisio: **DUNKIRK WOODS** Not Reported Section: Lot: 5 **DUNKIRK** Town dista: Nearest to: 1.5 MI Road name: **DUMBARTON DR** Road side: W

Road dista: 75 FT Tax map: Not Reported Block: Not Reported Parcel: Not Reported N grid27: 328000.00 E grid27: 903000.00 N grid83: 118491.00 E grid83: 431421.00 Lat dec de: 38.73 Lon dec de: 76.64 Issue date: 06-JAN-84 Special fl: Not Reported C1 seq: Not Reported C1 recd: 03-FEB-84

Completion: 10-JAN-84 Total dept: 2.9E+002 Num unsucc: 0 Hydrofract: Not Reported Grouted: Υ Grout type: BC Grout top: 5.0E+000 Grout bott: 3.0E+001 PLCasing dia: 4.0E+000 Casing typ: Casing dep: 2.8E+002 Casing hei: +01 Screen typ: PLTop screen: 2.8E+002 Bottom scr: 2.9E+002 Screen t 1: Not Reported Top scre 1: Bottom s 1: 0 Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 2.0E+000 Not Reported Flowing we: Not Reported Telescopin: Log type: Not Reported Hrs pumped: 5.0E+000 3.0E+001 1.0E+002 Pumping ra: Level befo: Level duri: 1.8E+002 Test pump: Α Pump insta: Not Reported Install pu: S Capacity: 7.0E+000 Pump hp: 7.5E-001 Column len: 2.5E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

V101 ENE 1/2 - 1 Mile Lower

MD WELLS MD6000000392562

8.0E+000

Objectid: 392561 County let: CA Not Reported Permit: CA940720 Mgs id: B1 seq: 2368 B1 recd: 22-OCT-97 PR FREDERICK State: City: MICHAEL K GRIBBLE Zip: 20678 Driller na:

Driller id: MWD 318 Est gpm pr: Use for wa: DW

Approx dep:3.5E+002Drill meth:ROTARYReplacemen:NReplace pe:Not ReportedWapid:Not ReportedSubdivisio:WELCHPOOLE ESTATES

Section :Not ReportedLot:11Nearest to:DUNKIRKTown dista:.75Road name:2115 WELCHEPOOLE COURoad side:N

Road dista: 100 FT Tax map: Not Reported Block: Not Reported Parcel: Not Reported E grid27: 905000.00 N grid27: 326000.00 N grid83: E grid83: 117881.00 432031.00 Lat dec de: 38.73 Lon dec de: 76.63 22-OCT-97 Issue date: Special fl: Not Reported C1 seq: 8231 C1 recd: 05-MAR-98 07-NOV-97 Total dept: 3.3E+002 Completion: Num unsucc: 0 Hydrofract: N Υ Grout type: ВС Grouted: Grout top: 0 Grout bott: 1.05E+002 Casing typ: PL Casing dia: 4.0E+000 Casing dep: 3.0E+002 Casing hei: +1

 Casing dep:
 3.0E+002
 Casing hei:
 +1

 Screen typ:
 PL
 Top screen:
 3.15E+002

 Bottom scr:
 3.3E+002
 Screen t 1:
 Not Reported

 Top scre 1:
 0
 Bottom s 1:
 0

 Screen t 2:
 Not Reported
 Top scre 2:
 0

Bottom s 2: Screen dia: 2.0E+000 Not Reported Flowing we: Telescopin: Log type: Not Reported Hrs pumped: 1.0E+000 2.0E+001 1.85E+002 Pumping ra: Level befo: Level duri: 2.05E+002 Test pump: S Pump insta: Install pu: Capacity: 8.0E+000 Pump hp: 7.5E-001 Column len: 2.65E+002 Closed: Not Reported Abandoned: Not Reported Abandon da: Not Reported

V102 ENE 1/2 - 1 Mile Lower

MD6000000392998

MD WELLS

Objectid: 392997 County let: CA Permit: CA940933 Mgs id: Not Reported B1 seq: 1070 B1 recd: 12-MAR-98 HUNTINGTOWN City: State: MD

Zip: 20639 Driller na: MICHAEL K GRIBBLE

 Driller id:
 MWD 318
 Est gpm pr:
 8.0E+000

Use for wa: DW

Approx dep:3.5E+002Drill meth:ROTARYReplacemen:NReplace pe:Not ReportedWapid:Not ReportedSubdivisio:DUNKIRK WOODS

Section :Not ReportedLot:11Nearest to:DUNKIRKTown dista:2Road name:2061 MCCRACKEN DRRoad side:W

Road dista: 90 FT Not Reported Tax map: Not Reported Block: Not Reported Parcel: N grid27: 326000.00 905000.00 E grid27: N grid83: 117881.00 E grid83: 432031.00 Lat dec de: 38.73 Lon dec de: 76.63 12-MAR-98 Not Reported Special fl: Issue date: C1 seq: 7455 C1 recd: 21-AUG-98 Completion: Total dept: 2.8E+002 01-MAY-98 Num unsucc: 0 Hydrofract: Ν Grouted: Υ Grout type: BC Grout top: 0 Grout bott: 1.04E+002 Casing typ: PLCasing dia: 4.0E+000 Casing dep: 2.6E+002 Casing hei: +1

 Casing dep:
 2.6E+002
 Casing hei:
 +1

 Screen typ:
 PL
 Top screen:
 2.6E+002

 Bottom scr:
 2.8E+002
 Screen t 1:
 Not Reported

 Top scree1:
 0
 Bottom s 1:
 0

Top scre 1: Screen t 2: Not Reported Top scre 2: 0 Bottom s 2: Screen dia: 2.0E+000 Flowing we: Not Reported Telescopin: Т 2.0E+000 Log type: Not Reported Hrs pumped: Pumping ra: 2.0E+001 Level befo: 1.4E+002 1.6E+002 Level duri: Test pump: Α

Pump insta:YInstall pu:SCapacity:8.0E+000Pump hp:7.5E-001Column len:2.2E+002Closed:Not ReportedAbandoned:Not ReportedAbandon da:Not Reported

Map ID Direction Distance

Elevation Database EDR ID Number

North 1/2 - 1 Mile Higher

T103

FED USGS USGS40000431405

riigilei

Org. Identifier: USGS-MD

Formal name: USGS Maryland Water Science Center

Monloc Identifier: USGS-384408076390301

Monloc name: CA Bb 30 Monloc type: Well

Monloc desc: Not Reported

02060006 Drainagearea value: Not Reported Huc code: Contrib drainagearea: Not Reported Drainagearea Units: Not Reported Contrib drainagearea units: Not Reported Latitude: 38.7356723 Longitude: -76.6505183 Sourcemap scale: 24000 Horiz Acc measure: 5 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 160.00 Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Northern Atlantic Coastal Plain aquifer system

Formation type: Aquia Formation Aquifer type: Not Reported

Construction date: 19730628 Welldepth: 335 Welldepth units: ft Wellholedepth: 335

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1979-04-12 154.00

AREA RADON INFORMATION

EPA Region 3 Statistical Summary Readings for Zip Code: 20754

Number of sites tested: 222.

Maximum Radon Level: 75.1 pCi/L. Minimum Radon Level: 0.2 pCi/L.

pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
<4	4-10	10-20	20-50	50-100	>100
81 (36.49%)	75 (33.78%)	35 (15.77%)	29 (13.06%)	2 (0.90%)	0 (0.00%)

Federal EPA Radon Zone for CALVERT County: 1

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.

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

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.

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 Services

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 Services (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, 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

Maryland Public Supply Wells Database

Source: Department of the Environment

Telephone: 410-537-3702

Water use types included are farm (livestock watering and agricultural irrigation), geo-thermal, industrial-commercial-state and federal government, municipal, test-observation-monitoring.

OTHER STATE DATABASE INFORMATION

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

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PHYSICAL SETTING SOURCE RECORDS SEARCHED

STREET AND ADDRESS INFORMATION

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USDA CUSTOM SOIL RESOURCE REPORT FOR CALVERT COUNTY



USDA United States
Department of Agriculture

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 **Calvert County, Maryland**



May 7, 2014

MAHAN RYKIEL

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.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means

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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

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.

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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.



Map Unit Legend

Calvert County, Maryland (MD009)				
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI	
DdE	Dodon and Marr soils, 15 to 25 percent slopes	127.2	21.9%	
DdG	Dodon and Marr soils, 25 to 80 percent slopes	24.8	4.3%	
DmC	Dodon-Marr complex, 5 to 10 percent slopes	118.4	20.4%	
DmD	Dodon-Marr complex, 10 to 15 percent slopes	67.4	11.6%	
DwE	Downer-Woodstown complex, 15 to 25 percent slopes	52.9	9.1%	
IbC	Ingleside loamy sand, 5 to 10 percent slopes	3.5	0.6%	
leC	Ingleside-Evesboro complex, 5 to 10 percent slopes	2.2	0.4%	
IgB	Ingleside-Galestown complex, 0 to 5 percent slopes	11.6	2.0%	
lwC	Ingleside-Woodstown complex, 5 to 10 percent slopes	7.2	1.2%	
MaA	Marr-Dodon complex, 0 to 2 percent slopes	4.5	0.8%	
МаВ	Marr-Dodon complex, 2 to 5 percent slopes	38.4	6.6%	
RsB	Rosedale fine sand, 0 to 5 percent slopes	3.3	0.6%	
W	Water	2.5	0.4%	
WdA	Woodstown sandy loam, 0 to 2 percent slopes	7.6	1.3%	
ZBA	Zekiah and Issue soils, 0 to 2 percent slopes, frequently flooded	109.0	18.8%	
Totals for Area of Interest		580.6	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 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

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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.

Calvert County, Maryland

DdE—Dodon and Marr soils, 15 to 25 percent slopes

Map Unit Setting

Elevation: 0 to 190 feet

Mean annual precipitation: 40 to 50 inches Mean annual air temperature: 52 to 57 degrees F

Frost-free period: 180 to 210 days

Map Unit Composition

Dodon and similar soils: 50 percent Marr and similar soils: 45 percent Minor components: 5 percent

Description of Dodon

Setting

Landform: Knolls, interfluves

Landform position (three-dimensional): Tread

Down-slope shape: Convex, linear Across-slope shape: Convex, linear

Parent material: Loamy fluviomarine deposits

Properties and qualities

Slope: 15 to 25 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.60 to 2.00 in/hr)

Depth to water table: About 15 to 40 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: High (about 9.8 inches)

Interpretive groups

Farmland classification: Not prime farmland

Land capability (nonirrigated): 6e

Hydrologic Soil Group: B

Typical profile

0 to 9 inches: Fine sandy loam 9 to 36 inches: Sandy clay loam 36 to 48 inches: Sandy clay loam 48 to 64 inches: Fine sandy loam

Description of Marr

Setting

Landform: Interfluves, knolls

Landform position (three-dimensional): Side slope

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Loamy fluviomarine deposits

Properties and qualities

Slope: 15 to 25 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.60 to 1.98 in/hr)

Depth to water table: About 40 to 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: High (about 9.5 inches)

Interpretive groups

Farmland classification: Not prime farmland

Land capability (nonirrigated): 6e Hydrologic Soil Group: B

Typical profile

0 to 12 inches: Fine sandy loam 12 to 25 inches: Fine sandy loam 25 to 57 inches: Sandy clay loam 57 to 76 inches: Loamy fine sand

Minor Components

Zekiah

Percent of map unit: 5 percent

Landform: Flood plains, drainageways

Down-slope shape: Linear Across-slope shape: Linear

DdG—Dodon and Marr soils, 25 to 80 percent slopes

Map Unit Setting

Elevation: 0 to 180 feet

Mean annual precipitation: 40 to 50 inches Mean annual air temperature: 52 to 57 degrees F

Frost-free period: 180 to 210 days

Map Unit Composition

Dodon and similar soils: 50 percent Marr and similar soils: 45 percent Minor components: 5 percent

Description of Dodon

Setting

Landform: Interfluves, knolls

Landform position (three-dimensional): Tread

Down-slope shape: Linear, convex

Across-slope shape: Linear, convex

Parent material: Loamy fluviomarine deposits

Properties and qualities

Slope: 40 to 80 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.60 to 2.00 in/hr)

Depth to water table: About 15 to 40 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: High (about 9.8 inches)

Interpretive groups

Farmland classification: Not prime farmland

Land capability (nonirrigated): 7e Hydrologic Soil Group: B

Typical profile

0 to 9 inches: Fine sandy loam 9 to 36 inches: Sandy clay loam 36 to 48 inches: Sandy clay loam 48 to 64 inches: Fine sandy loam

Description of Marr

Setting

Landform: Knolls, interfluves

Landform position (three-dimensional): Side slope

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Loamy fluviomarine deposits

Properties and qualities

Slope: 40 to 80 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.60 to 1.98 in/hr)

Depth to water table: About 40 to 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: High (about 9.5 inches)

Interpretive groups

Farmland classification: Not prime farmland

Land capability (nonirrigated): 7e Hydrologic Soil Group: B

Typical profile

0 to 12 inches: Fine sandy loam 12 to 25 inches: Fine sandy loam 25 to 57 inches: Sandy clay loam 57 to 76 inches: Loamy fine sand

Minor Components

Zekiah

Percent of map unit: 5 percent

Landform: Drainageways, flood plains

Down-slope shape: Linear Across-slope shape: Linear

DmC—Dodon-Marr complex, 5 to 10 percent slopes

Map Unit Setting

Elevation: 0 to 190 feet

Mean annual precipitation: 40 to 50 inches Mean annual air temperature: 52 to 57 degrees F

Frost-free period: 180 to 210 days

Map Unit Composition

Dodon and similar soils: 65 percent Marr and similar soils: 30 percent Minor components: 5 percent

Description of Dodon

Setting

Landform: Interfluves, knolls

Landform position (three-dimensional): Tread

Down-slope shape: Linear, convex Across-slope shape: Linear, convex

Parent material: Loamy fluviomarine deposits

Properties and qualities

Slope: 5 to 10 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.60 to 2.00 in/hr)

Depth to water table: About 15 to 40 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: High (about 9.8 inches)

Interpretive groups

Farmland classification: Farmland of statewide importance

Land capability (nonirrigated): 3e

Hydrologic Soil Group: B

Typical profile

0 to 9 inches: Fine sandy loam 9 to 36 inches: Sandy clay loam

36 to 48 inches: Sandy clay loam 48 to 64 inches: Fine sandy loam

Description of Marr

Setting

Landform: Knolls, interfluves

Landform position (three-dimensional): Side slope

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Loamy fluviomarine deposits

Properties and qualities

Slope: 5 to 10 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.60 to 1.98 in/hr)

Depth to water table: About 40 to 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: High (about 9.5 inches)

Interpretive groups

Farmland classification: Farmland of statewide importance

Land capability (nonirrigated): 3e Hydrologic Soil Group: B

Typical profile

0 to 12 inches: Fine sandy loam 12 to 25 inches: Fine sandy loam 25 to 57 inches: Sandy clay loam 57 to 76 inches: Loamy fine sand

Minor Components

Issue

Percent of map unit: 5 percent

Landform: Drainhead complexes, drainageways, flood plains

Down-slope shape: Linear Across-slope shape: Linear

DmD—Dodon-Marr complex, 10 to 15 percent slopes

Map Unit Setting

Elevation: 0 to 250 feet

Mean annual precipitation: 40 to 50 inches Mean annual air temperature: 52 to 57 degrees F

Frost-free period: 180 to 210 days

Map Unit Composition

Dodon and similar soils: 65 percent Marr and similar soils: 30 percent Minor components: 5 percent

Description of Dodon

Setting

Landform: Knolls, interfluves

Landform position (three-dimensional): Tread

Down-slope shape: Convex, linear Across-slope shape: Convex, linear

Parent material: Loamy fluviomarine deposits

Properties and qualities

Slope: 10 to 15 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.60 to 2.00 in/hr)

Depth to water table: About 15 to 40 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: High (about 9.8 inches)

Interpretive groups

Farmland classification: Not prime farmland

Land capability (nonirrigated): 4e

Hydrologic Soil Group: B

Typical profile

0 to 9 inches: Fine sandy loam 9 to 36 inches: Sandy clay loam 36 to 48 inches: Sandy clay loam 48 to 64 inches: Fine sandy loam

Description of Marr

Setting

Landform: Interfluves, knolls

Landform position (three-dimensional): Side slope

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Loamy fluviomarine deposits

Properties and qualities

Slope: 10 to 15 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.60 to 1.98 in/hr)

Depth to water table: About 40 to 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: High (about 9.5 inches)

Interpretive groups

Farmland classification: Not prime farmland

Land capability (nonirrigated): 4e Hydrologic Soil Group: B

Typical profile

0 to 12 inches: Fine sandy loam 12 to 25 inches: Fine sandy loam 25 to 57 inches: Sandy clay loam 57 to 76 inches: Loamy fine sand

Minor Components

Issue

Percent of map unit: 5 percent

Landform: Flood plains, drainageways, drainhead complexes

Down-slope shape: Linear Across-slope shape: Linear

DwE—Downer-Woodstown complex, 15 to 25 percent slopes

Map Unit Setting

Elevation: 0 to 200 feet

Mean annual precipitation: 40 to 50 inches Mean annual air temperature: 52 to 57 degrees F

Frost-free period: 180 to 210 days

Map Unit Composition

Downer, .-, and similar soils: 65 percent Woodstown and similar soils: 25 percent

Minor components: 10 percent

Description of Downer, .-

Setting

Landform: Low hills, knolls

Landform position (three-dimensional): Side slope

Down-slope shape: Linear, convex

Across-slope shape: Linear

Parent material: Loamy fluviomarine deposits and/or gravelly fluviomarine deposits

Properties and qualities

Slope: 15 to 25 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.60 to 6.00 in/hr)

Depth to water table: About 40 to 72 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Moderate (about 6.6 inches)

Interpretive groups

Farmland classification: Not prime farmland

Land capability (nonirrigated): 4e

Hydrologic Soil Group: B

Typical profile

0 to 3 inches: Loamy sand 3 to 16 inches: Loamy sand 16 to 36 inches: Sandy loam 36 to 48 inches: Loamy sand

48 to 80 inches: Stratified sand to sandy loam

Description of Woodstown

Setting

Landform: Fluviomarine terraces, pediments, broad interstream divides,

depressions, stream terraces, swales Landform position (three-dimensional): Tread

Down-slope shape: Linear, concave Across-slope shape: Linear, concave

Parent material: Loamy fluviomarine deposits

Properties and qualities

Slope: 15 to 25 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.20 to 2.00 in/hr)

Depth to water table: About 20 to 40 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: Moderate (about 8.9 inches)

Interpretive groups

Farmland classification: Not prime farmland

Land capability (nonirrigated): 6e

Hydrologic Soil Group: C

Typical profile

0 to 8 inches: Sandy loam 8 to 28 inches: Loam

28 to 42 inches: Fine sandy loam 42 to 60 inches: Sandy loam 60 to 72 inches: Loamy sand

Minor Components

Galestown

Percent of map unit: 5 percent

Landform: Knolls, fluviomarine terraces, interfluves Landform position (two-dimensional): Backslope Landform position (three-dimensional): Riser

Down-slope shape: Convex Across-slope shape: Linear

Issue

Percent of map unit: 5 percent

Landform: Flood plains, drainageways, drainhead complexes

Down-slope shape: Linear Across-slope shape: Linear

IbC—Ingleside loamy sand, 5 to 10 percent slopes

Map Unit Setting

Elevation: 0 to 90 feet

Mean annual precipitation: 40 to 50 inches Mean annual air temperature: 52 to 57 degrees F

Frost-free period: 180 to 210 days

Map Unit Composition

Ingleside and similar soils: 80 percent Galestown and similar soils: 10 percent

Minor components: 10 percent

Description of Ingleside

Settina

Landform: Broad interstream divides, fluviomarine terraces

Landform position (two-dimensional): Summit, backslope, shoulder

Landform position (three-dimensional): Side slope, tread

Down-slope shape: Convex, linear Across-slope shape: Convex, linear

Parent material: Loamy eolian deposits and/or fluviomarine deposits

Properties and qualities

Slope: 5 to 10 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high

(0.06 to 5.95 in/hr)

Depth to water table: About 40 to 72 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: Moderate (about 6.6 inches)

Interpretive groups

Farmland classification: Farmland of statewide importance

Land capability (nonirrigated): 3e

Hydrologic Soil Group: B

Typical profile

0 to 10 inches: Loamy sand 10 to 15 inches: Sandy loam 15 to 33 inches: Sandy loam

33 to 43 inches: Sandy loam 43 to 56 inches: Loamy sand 56 to 80 inches: Silt loam

Description of Galestown

Setting

Landform: Interfluves, knolls, fluviomarine terraces Landform position (two-dimensional): Backslope Landform position (three-dimensional): Riser

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Sandy eolian deposits and/or fluviomarine deposits

Properties and qualities

Slope: 5 to 10 percent

Depth to restrictive feature: More than 80 inches Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): High to very high (6.00

to 19.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: Low (about 5.8 inches)

Interpretive groups

Farmland classification: Farmland of statewide importance

Land capability (nonirrigated): 4e

Hydrologic Soil Group: A

Typical profile

0 to 3 inches: Sand

3 to 21 inches: Loamy sand 21 to 48 inches: Loamy sand 48 to 72 inches: Loamy sand

Minor Components

Hammonton

Percent of map unit: 10 percent

Landform: Flats, depressions, drainageways

Down-slope shape: Linear, concave Across-slope shape: Linear, concave

leC—Ingleside-Evesboro complex, 5 to 10 percent slopes

Map Unit Setting

Elevation: 0 to 190 feet

Mean annual precipitation: 40 to 50 inches Mean annual air temperature: 52 to 57 degrees F

Frost-free period: 180 to 220 days

Map Unit Composition

Ingleside and similar soils: 70 percent Evesboro and similar soils: 25 percent

Minor components: 5 percent

Description of Ingleside

Setting

Landform: Fluviomarine terraces, broad interstream divides Landform position (two-dimensional): Summit, backslope, shoulder

Landform position (three-dimensional): Side slope, tread

Down-slope shape: Linear, convex Across-slope shape: Linear, convex

Parent material: Loamy eolian deposits and/or fluviomarine deposits

Properties and qualities

Slope: 5 to 10 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high

(0.06 to 5.95 in/hr)

Depth to water table: About 40 to 72 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: Moderate (about 6.6 inches)

Interpretive groups

Farmland classification: Farmland of statewide importance

Land capability (nonirrigated): 3e Hydrologic Soil Group: B

Typical profile

0 to 10 inches: Loamy sand 10 to 15 inches: Sandy loam 15 to 33 inches: Sandy loam 33 to 43 inches: Sandy loam 43 to 56 inches: Loamy sand 56 to 80 inches: Silt loam

Description of Evesboro

Setting

Landform: Knolls, dunes

Landform position (three-dimensional): Rise

Down-slope shape: Convex Across-slope shape: Convex

Parent material: Sandy eolian deposits and/or fluviomarine sediments

Properties and qualities

Slope: 5 to 10 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Excessively drained

Capacity of the most limiting layer to transmit water (Ksat): High to very high (6.38

to 99.90 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: Low (about 3.7 inches)

Interpretive groups

Farmland classification: Farmland of statewide importance

Land capability (nonirrigated): 4e

Hydrologic Soil Group: A

Typical profile

0 to 4 inches: Sand

4 to 16 inches: Loamy sand 16 to 39 inches: Loamy sand 39 to 80 inches: Sand

Minor Components

Hammonton

Percent of map unit: 5 percent

Landform: Flats, drainageways, depressions

Down-slope shape: Linear, concave Across-slope shape: Linear, concave

IgB—Ingleside-Galestown complex, 0 to 5 percent slopes

Map Unit Setting

Elevation: 0 to 180 feet

Mean annual precipitation: 40 to 50 inches Mean annual air temperature: 52 to 57 degrees F

Frost-free period: 180 to 210 days

Map Unit Composition

Ingleside and similar soils: 50 percent Galestown and similar soils: 50 percent

Description of Galestown

Setting

Landform: Knolls, fluviomarine terraces, interfluves Landform position (two-dimensional): Backslope Landform position (three-dimensional): Riser

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Sandy eolian deposits and/or fluviomarine deposits

Properties and qualities

Slope: 0 to 5 percent

Depth to restrictive feature: More than 80 inches Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): High to very high (6.00

to 19.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: Low (about 5.8 inches)

Interpretive groups

Farmland classification: All areas are prime farmland

Land capability (nonirrigated): 3s

Hydrologic Soil Group: A

Typical profile

0 to 3 inches: Sand

3 to 21 inches: Loamy sand 21 to 48 inches: Loamy sand 48 to 72 inches: Loamy sand

Description of Ingleside

Setting

Landform: Fluviomarine terraces, broad interstream divides

Landform position (two-dimensional): Summit, backslope, shoulder

Landform position (three-dimensional): Side slope, tread

Down-slope shape: Linear, convex Across-slope shape: Linear, convex

Parent material: Loamy eolian deposits and/or fluviomarine deposits

Properties and qualities

Slope: 0 to 5 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high

(0.06 to 5.95 in/hr)

Depth to water table: About 40 to 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: Moderate (about 6.6 inches)

Interpretive groups

Farmland classification: All areas are prime farmland

Land capability (nonirrigated): 2e

Hydrologic Soil Group: B

Typical profile

0 to 10 inches: Loamy sand 10 to 15 inches: Sandy loam 15 to 33 inches: Sandy loam 33 to 43 inches: Sandy loam 43 to 56 inches: Loamy sand 56 to 80 inches: Silt loam

IwC—Ingleside-Woodstown complex, 5 to 10 percent slopes

Map Unit Setting

Elevation: 0 to 190 feet

Mean annual precipitation: 40 to 50 inches Mean annual air temperature: 52 to 57 degrees F

Frost-free period: 180 to 210 days

Map Unit Composition

Ingleside and similar soils: 70 percent Woodstown and similar soils: 20 percent

Minor components: 10 percent

Description of Ingleside

Setting

Landform: Broad interstream divides, fluviomarine terraces

Landform position (two-dimensional): Summit, backslope, shoulder

Landform position (three-dimensional): Side slope, tread

Down-slope shape: Convex, linear Across-slope shape: Convex, linear

Parent material: Loamy eolian deposits and/or fluviomarine deposits

Properties and qualities

Slope: 5 to 10 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high

(0.06 to 5.95 in/hr)

Depth to water table: About 40 to 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: Moderate (about 6.6 inches)

Interpretive groups

Farmland classification: Farmland of statewide importance

Land capability (nonirrigated): 3e

Hydrologic Soil Group: B

Typical profile

0 to 10 inches: Loamy sand 10 to 15 inches: Sandy loam 15 to 33 inches: Sandy loam 33 to 43 inches: Sandy loam 43 to 56 inches: Loamy sand 56 to 80 inches: Silt loam

Description of Woodstown

Setting

Landform: Fluviomarine terraces, pediments, broad interstream divides,

depressions, stream terraces, swales Landform position (three-dimensional): Tread

Down-slope shape: Linear, concave Across-slope shape: Linear, concave

Parent material: Loamy fluviomarine deposits

Properties and qualities

Slope: 5 to 10 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.20 to 2.00 in/hr)

Depth to water table: About 20 to 42 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: Moderate (about 8.9 inches)

Interpretive groups

Farmland classification: Farmland of statewide importance

Land capability (nonirrigated): 3e

Hydrologic Soil Group: C

Typical profile

0 to 8 inches: Sandy loam 8 to 28 inches: Loam

28 to 42 inches: Fine sandy loam 42 to 60 inches: Sandy loam 60 to 72 inches: Loamy sand

Minor Components

Issue

Percent of map unit: 10 percent

Landform: Drainhead complexes, flood plains, drainageways

Down-slope shape: Linear Across-slope shape: Linear

MaA—Marr-Dodon complex, 0 to 2 percent slopes

Map Unit Setting

Elevation: 10 to 200 feet

Mean annual precipitation: 40 to 50 inches Mean annual air temperature: 52 to 57 degrees F

Frost-free period: 180 to 210 days

Map Unit Composition

Marr and similar soils: 80 percent Dodon and similar soils: 20 percent

Description of Marr

Setting

Landform: Knolls, interfluves

Landform position (three-dimensional): Side slope

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Loamy fluviomarine deposits

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.60 to 1.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: High (about 9.5 inches)

Interpretive groups

Farmland classification: All areas are prime farmland

Land capability (nonirrigated): 1 Hydrologic Soil Group: B

Typical profile

0 to 12 inches: Fine sandy loam 12 to 25 inches: Fine sandy loam 25 to 57 inches: Sandy clay loam 57 to 76 inches: Loamy fine sand

Description of Dodon

Setting

Landform: Stream terraces

Landform position (three-dimensional): Tread

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Loamy fluviomarine deposits

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.60 to 2.00 in/hr)

Depth to water table: About 20 to 40 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: High (about 9.8 inches)

Interpretive groups

Farmland classification: All areas are prime farmland

Land capability (nonirrigated): 2w Hydrologic Soil Group: B

Typical profile

0 to 9 inches: Fine sandy loam 9 to 36 inches: Sandy clay loam 36 to 48 inches: Sandy clay loam 48 to 64 inches: Fine sandy loam

MaB—Marr-Dodon complex, 2 to 5 percent slopes

Map Unit Setting

Elevation: 0 to 200 feet

Mean annual precipitation: 40 to 50 inches Mean annual air temperature: 52 to 57 degrees F

Frost-free period: 180 to 210 days

Map Unit Composition

Marr and similar soils: 45 percent Dodon and similar soils: 35 percent Minor components: 20 percent

Description of Marr

Setting

Landform: Interfluves, knolls

Landform position (three-dimensional): Side slope

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Loamy fluviomarine deposits

Properties and qualities

Slope: 2 to 5 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.60 to 1.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: High (about 9.5 inches)

Interpretive groups

Farmland classification: All areas are prime farmland

Land capability (nonirrigated): 2e Hydrologic Soil Group: B

Typical profile

0 to 12 inches: Fine sandy loam 12 to 25 inches: Fine sandy loam 25 to 57 inches: Sandy clay loam

57 to 76 inches: Loamy fine sand

Description of Dodon

Setting

Landform: Stream terraces

Landform position (three-dimensional): Tread

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Loamy fluviomarine deposits

Properties and qualities

Slope: 2 to 5 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.60 to 2.00 in/hr)

Depth to water table: About 20 to 40 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: High (about 9.8 inches)

Interpretive groups

Farmland classification: All areas are prime farmland

Land capability (nonirrigated): 2e

Hydrologic Soil Group: B

Typical profile

0 to 9 inches: Fine sandy loam 9 to 36 inches: Sandy clay loam 36 to 48 inches: Sandy clay loam 48 to 64 inches: Fine sandy loam

Minor Components

Hambrook

Percent of map unit: 10 percent

Landform: Broad interstream divides, interfluves, fluviomarine terraces

Landform position (three-dimensional): Tread

Down-slope shape: Linear Across-slope shape: Linear

Liverpool

Percent of map unit: 10 percent

Landform: Terraces

Landform position (three-dimensional): Tread

Down-slope shape: Linear Across-slope shape: Linear

RsB—Rosedale fine sand, 0 to 5 percent slopes

Map Unit Setting

Elevation: 0 to 180 feet

Mean annual precipitation: 40 to 50 inches Mean annual air temperature: 52 to 57 degrees F

Frost-free period: 180 to 210 days

Map Unit Composition

Rosedale and similar soils: 95 percent

Minor components: 5 percent

Description of Rosedale

Setting

Landform: Terraces

Landform position (three-dimensional): Tread

Down-slope shape: Convex Across-slope shape: Convex

Parent material: Loamy alluvium over sandy alluvium

Properties and qualities

Slope: 0 to 5 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.57 to 5.95 in/hr)

Depth to water table: About 30 to 72 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: Low (about 4.2 inches)

Interpretive groups

Farmland classification: Prime farmland if irrigated

Land capability (nonirrigated): 2e

Hydrologic Soil Group: A

Typical profile

0 to 8 inches: Fine sand 8 to 24 inches: Fine sand 24 to 36 inches: Sandy loam 36 to 42 inches: Loamy sand 42 to 84 inches: Sand

Minor Components

Galestown

Percent of map unit: 5 percent

Landform: Interfluves, fluviomarine terraces, knolls

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Riser

Down-slope shape: Convex Across-slope shape: Linear

W-Water

Map Unit Composition

Water: 100 percent

WdA—Woodstown sandy loam, 0 to 2 percent slopes

Map Unit Setting

Elevation: 0 to 150 feet

Mean annual precipitation: 40 to 50 inches Mean annual air temperature: 52 to 57 degrees F

Frost-free period: 180 to 210 days

Map Unit Composition

Woodstown and similar soils: 85 percent

Minor components: 15 percent

Description of Woodstown

Setting

Landform: Swales, drainhead complexes, interfluves, depressions, broad

interstream divides, fluviomarine terraces Landform position (two-dimensional): Footslope Landform position (three-dimensional): Tread

Down-slope shape: Linear, concave Across-slope shape: Concave, linear

Parent material: Loamy fluviomarine deposits

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.20 to 2.00 in/hr)

Depth to water table: About 20 to 42 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: Moderate (about 8.9 inches)

Interpretive groups

Farmland classification: All areas are prime farmland

Land capability (nonirrigated): 2w

Hydrologic Soil Group: C

Typical profile

0 to 8 inches: Sandy loam 8 to 28 inches: Loam

28 to 42 inches: Fine sandy loam 42 to 60 inches: Sandy loam 60 to 72 inches: Loamy sand

Minor Components

Annemessex

Percent of map unit: 10 percent

Landform: Fluviomarine terraces, stream terraces Landform position (three-dimensional): Tread

Down-slope shape: Linear Across-slope shape: Concave

Fallsington

Percent of map unit: 5 percent
Landform: Flats, depressions, swales
Landform position (three-dimensional): Talf

Down-slope shape: Linear, concave Across-slope shape: Linear, concave

ZBA—Zekiah and Issue soils, 0 to 2 percent slopes, frequently flooded

Map Unit Setting

Elevation: 0 to 600 feet

Mean annual precipitation: 40 to 50 inches Mean annual air temperature: 50 to 57 degrees F

Frost-free period: 180 to 210 days

Map Unit Composition

Zekiah and similar soils: 40 percent Issue and similar soils: 40 percent Minor components: 20 percent

Description of Issue

Setting

Landform: Flood plains, drainhead complexes, drainageways

Down-slope shape: Linear Across-slope shape: Linear Parent material: Loamy alluvium

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches Drainage class: Somewhat poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.60 to 2.00 in/hr)

Depth to water table: About 10 to 20 inches

Frequency of flooding: Occasional Frequency of ponding: None

Available water capacity: High (about 9.9 inches)

Interpretive groups

Farmland classification: Not prime farmland

Land capability (nonirrigated): 5w

Hydrologic Soil Group: C

Typical profile

0 to 4 inches: Silt loam 4 to 19 inches: Loam

19 to 30 inches: Fine sandy loam 30 to 58 inches: Fine sandy loam

58 to 70 inches: Silt loam

Description of Zekiah

Setting

Landform: Flood plains, drainageways

Down-slope shape: Linear Across-slope shape: Linear Parent material: Loamy alluvium

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.05 to 1.42 in/hr)

Depth to water table: About 0 to 10 inches

Frequency of flooding: Frequent Frequency of ponding: Frequent

Available water capacity: High (about 10.9 inches)

Interpretive groups

Farmland classification: Not prime farmland

Land capability (nonirrigated): 5w

Hydrologic Soil Group: D

Typical profile

0 to 10 inches: Silt loam 10 to 35 inches: Silt loam 35 to 60 inches: Mucky silt loam 60 to 72 inches: Sandy loam

Minor Components

Widewater

Percent of map unit: 10 percent Landform: Drainageways, flood plains

Down-slope shape: Linear Across-slope shape: Linear

Fallsington

Percent of map unit: 5 percent

Landform: Depressions, swales, drainageways

Down-slope shape: Concave, linear Across-slope shape: Concave

Longmarsh

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

MAHAN RYKIEL

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Soil Information for All Uses

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Hydrologic Soil Group

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

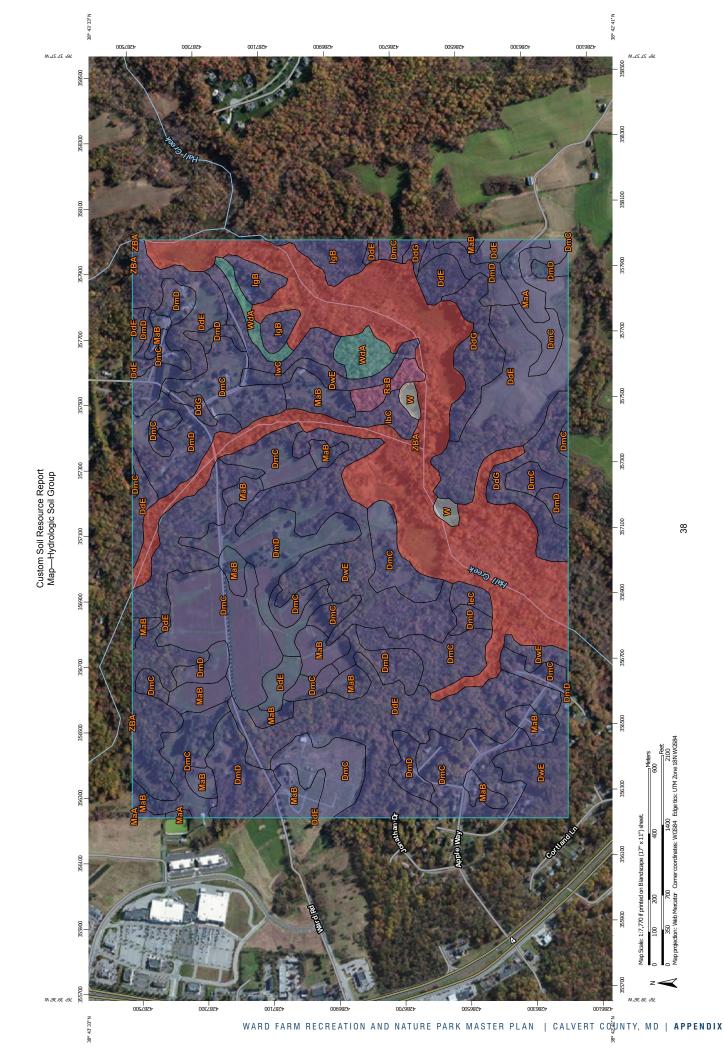
Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.



Table—Hydrologic Soil Group

Hydrologic Soil Group— Summary by Map Unit — Calvert County, Maryland (MD009)								
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI				
DdE	Dodon and Marr soils, 15 to 25 percent slopes	В	127.2	21.9%				
DdG	Dodon and Marr soils, 25 to 80 percent slopes	В	24.8	4.3%				
DmC	Dodon-Marr complex, 5 to 10 percent slopes	В	118.4	20.4%				
DmD	Dodon-Marr complex, 10 to 15 percent slopes	В	67.4	11.6%				
DwE	Downer-Woodstown complex, 15 to 25 percent slopes	В	52.9	9.1%				
IbC	Ingleside loamy sand, 5 to 10 percent slopes	В	3.5	0.6%				
leC	Ingleside-Evesboro complex, 5 to 10 percent slopes	В	2.2	0.4%				
IgB	Ingleside-Galestown complex, 0 to 5 percent slopes	В	11.6	2.0%				
IwC	Ingleside-Woodstown complex, 5 to 10 percent slopes	В	7.2	1.2%				
MaA	Marr-Dodon complex, 0 to 2 percent slopes	В	4.5	0.8%				
МаВ	Marr-Dodon complex, 2 to 5 percent slopes	В	38.4	6.6%				
RsB	Rosedale fine sand, 0 to 5 percent slopes	A	3.3	0.6%				
W	Water		2.5	0.4%				
WdA	Woodstown sandy loam, 0 to 2 percent slopes	С	7.6	1.3%				
ZBA	Zekiah and Issue soils, 0 to 2 percent slopes, frequently flooded	D	109.0	18.8%				
Totals for Area of Inter	est		580.6	100.0%				

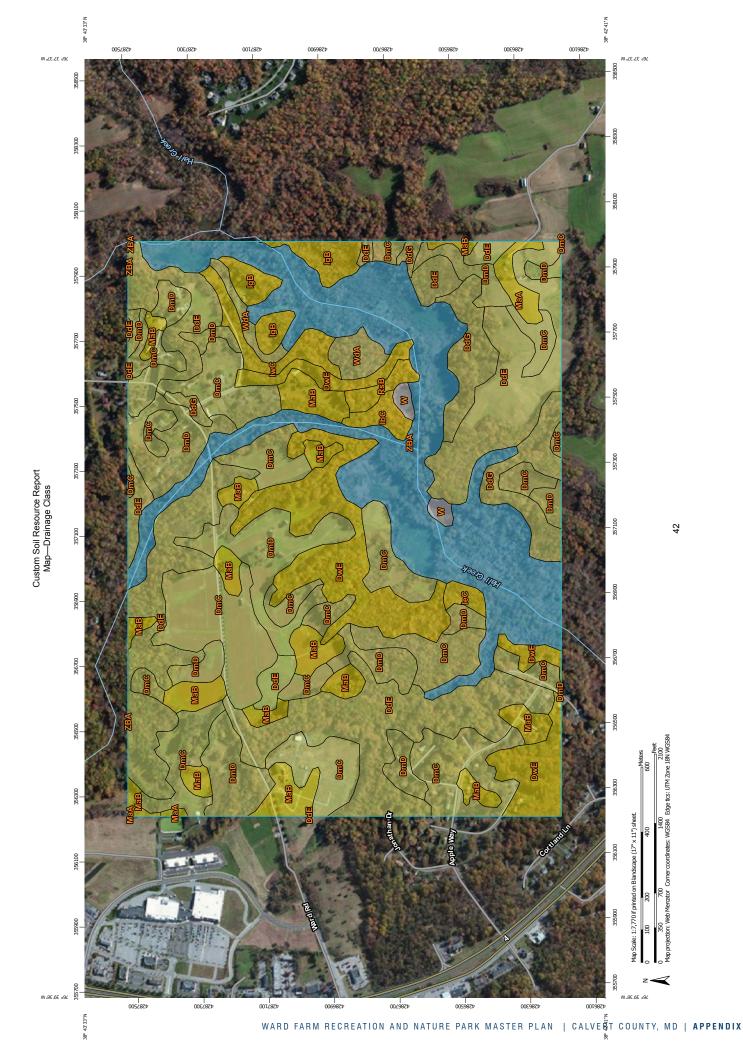
Rating Options—Hydrologic Soil Group

Aggregation Method: Dominant Condition
Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Drainage Class

"Drainage class (natural)" refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized-excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained, and very poorly drained. These classes are defined in the "Soil Survey Manual."



of map unit boundaries may be evident.

Table—Drainage Class

	Drainage Class— Summa	ry by Map Unit — Calvert C	ounty, Maryland (MD009)	
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
DdE	Dodon and Marr soils, 15 to 25 percent slopes	Moderately well drained	127.2	21.9%
DdG	Dodon and Marr soils, 25 to 80 percent slopes	Moderately well drained	24.8	4.3%
DmC	Dodon-Marr complex, 5 to 10 percent slopes	Moderately well drained	118.4	20.4%
DmD	Dodon-Marr complex, 10 to 15 percent slopes	Moderately well drained	67.4	11.6%
DwE	Downer-Woodstown complex, 15 to 25 percent slopes	Well drained	52.9	9.1%
IbC	Ingleside loamy sand, 5 to 10 percent slopes	Well drained	3.5	0.6%
IeC	Ingleside-Evesboro complex, 5 to 10 percent slopes	Well drained	2.2	0.4%
IgB	Ingleside-Galestown complex, 0 to 5 percent slopes	Well drained	11.6	2.0%
IwC	Ingleside-Woodstown complex, 5 to 10 percent slopes	Well drained	7.2	1.2%
MaA	Marr-Dodon complex, 0 to 2 percent slopes	Well drained	4.5	0.8%
МаВ	Marr-Dodon complex, 2 to 5 percent slopes	Well drained	38.4	6.6%
RsB	Rosedale fine sand, 0 to 5 percent slopes	Well drained	3.3	0.6%
W	Water		2.5	0.4%
WdA	Woodstown sandy loam, 0 to 2 percent slopes	Moderately well drained	7.6	1.3%
ZBA	Zekiah and Issue soils, 0 to 2 percent slopes, frequently flooded	Poorly drained	109.0	18.8%
Totals for Area of Inter	rest		580.6	100.0%

Rating Options—Drainage Class

Aggregation Method: Dominant Condition
Component Percent Cutoff: None Specified

Tie-break Rule: Higher

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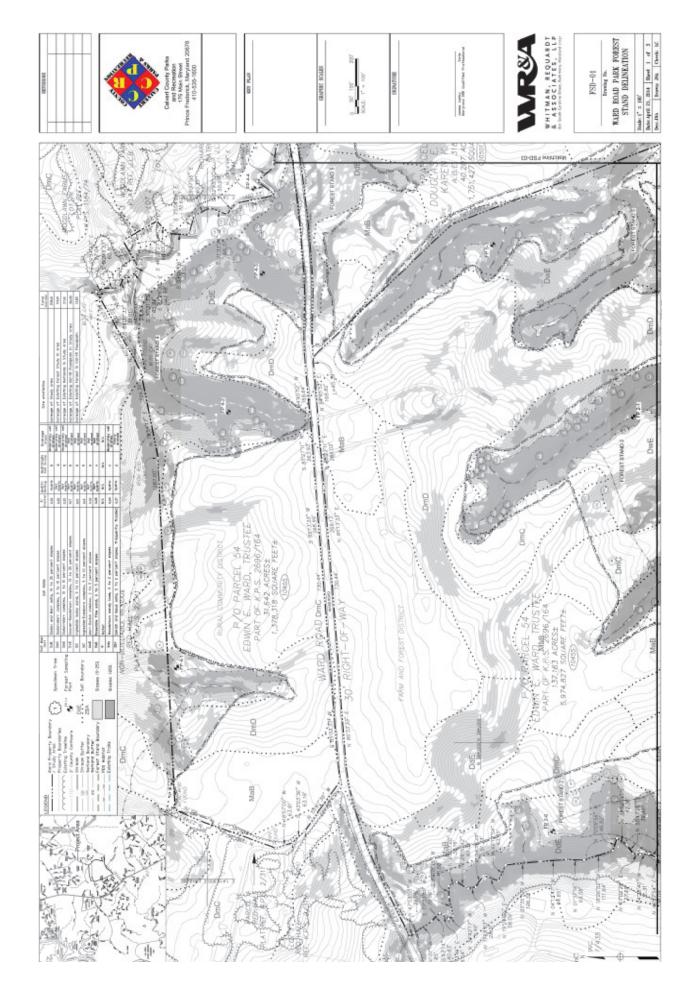
Custom Soil Resource Report

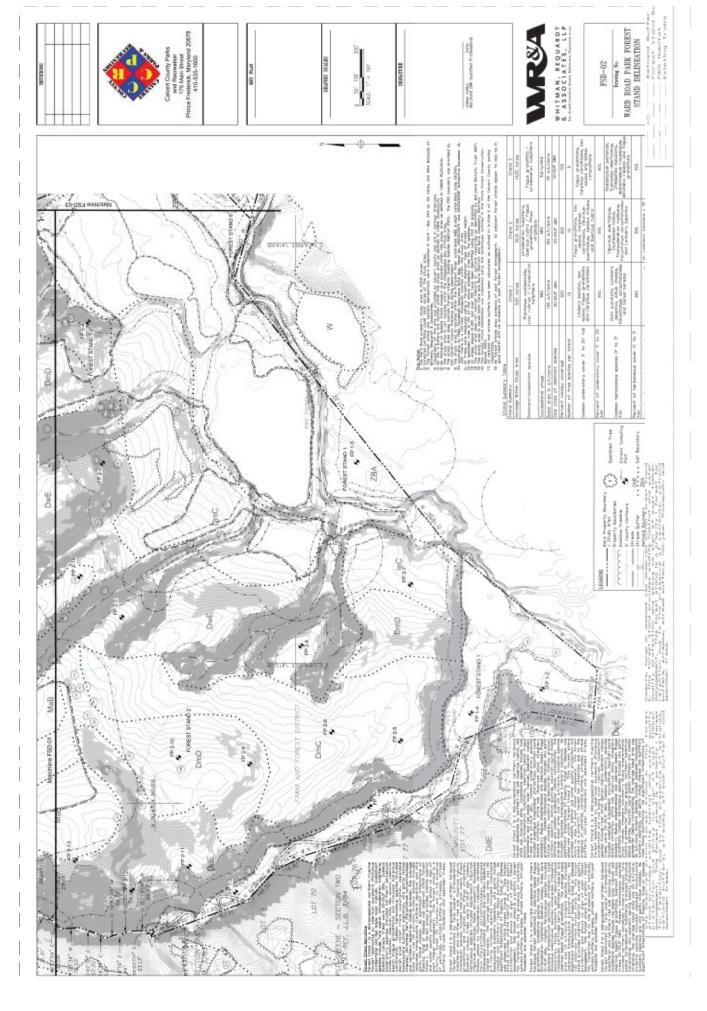
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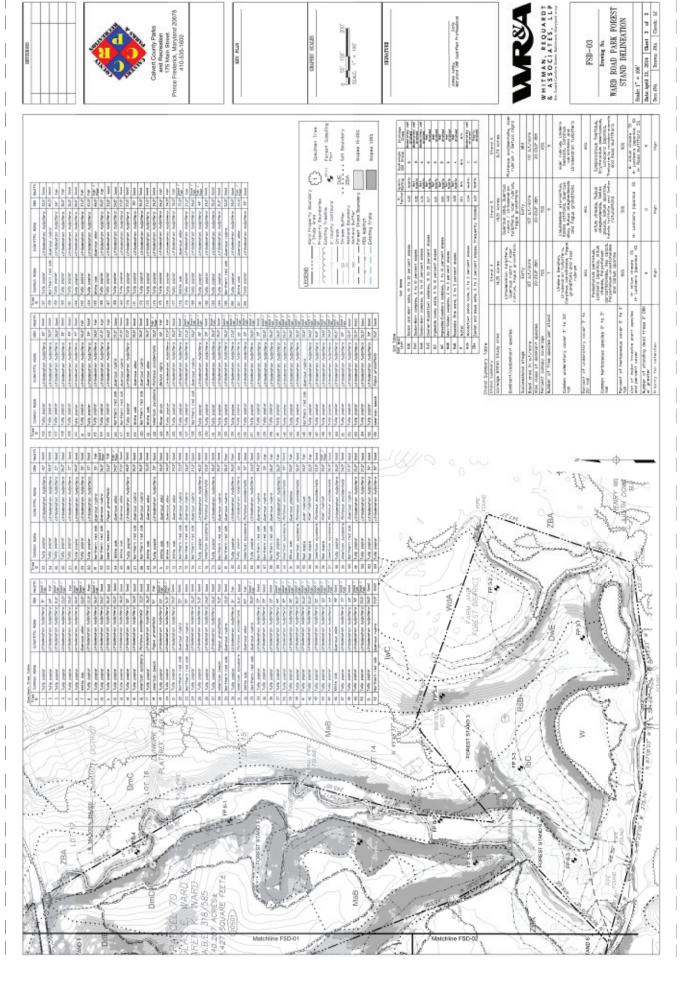
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APPENDIX: FOREST STAND DELINEATION







APPENDIX: MARYLAND DEPARTMENT OF NATURAL RESOURCES LETTER



Martin O'Malley, Governor Anthony G. Brown, Lt. Governor Joseph P. Gill, Secretary Frank W. Dawson III, Deputy Secretary

May 29, 2014

Mr. James Ashby Whitman, Requardt and Assoc., LLP 801 South Caroline Street Baltimore, MD 21231

RE: Environmental Review for Ward Road Park, Proposed New County Park, Dunkirk, Calvert County, Maryland.

Dear Mr. Ashby:

The Wildlife and Heritage Service has determined that there are no State or Federal records for rare, threatened or endangered species within the boundaries of the project site as delineated. This statement should not be interpreted however as meaning that rare, threatened or endangered species are not in fact present. If appropriate habitat is available, certain species could be present without documentation because adequate surveys have not been conducted. It is also important to note that the utilization of state funds, or the need to obtain a state authorized permit may warrant additional evaluations that could lead to protection or survey recommendations by the Wildlife and Heritage Service. If this project falls into one of these categories, please contact us for further coordination.

Our analysis of the information provided also suggests that the forested area on the project site contains Forest Interior Dwelling Bird habitat. Populations of many Forest Interior Dwelling Bird species (FIDS) are declining in Maryland and throughout the eastern United States. The conservation of FIDS habitat is strongly encouraged by the Department of Natural Resources. The following guidelines could be incorporated as appropriate into the site design to help minimize the project's impacts on FIDS and other native forest plants and wildlife:

- 1. Restrict development to nonforested areas.
- 2. If forest loss or disturbance is unavoidable, concentrate or restrict development to the following areas:
 - a. the perimeter of the forest (i.e., within 300 feet of existing forest edge)
 - b. thin strips of upland forest less than 300 feet wide
 - c. small, isolated forests less than 50 acres in size
 - d. portions of the forest with low quality FIDS habitat, (i.e., areas that are already heavily fragmented, relatively young, exhibit low structural diversity, etc.)
- 3. Maximize the amount if forest "interior" (forest area >300 feet from the forest edge) within each forest tract (i.e., minimize the forest edge: area ratio). Circular forest tracts are ideal and square tracts are better than rectangular or long, linear forests.
- 4. Minimize forest isolation. Generally, forests that are adjacent, close to, or connected to other forests provide higher quality FIDS habitat than more isolated forests.

Tawes State Office Building - 580 Taylor Avenue - Annanolis Maryland 21401

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- 5. Limit forest removal to the "footprint" of houses and to that which is necessary for the placement of roads and driveways.
- 6. Minimize the number and length of driveways and roads.
- 7. Roads and driveways should be as narrow and as short as possible; preferably less than 25 and 15 feet, respectively
- 8. Maintain forest canopy closure over roads and driveways.
- 9. Maintain forest habitat up to the edges of roads and driveways; do not create or maintain mowed grassy berms.
- 10. Maintain or create wildlife corridors.
- 11. Do not remove or disturb forest habitat during April-August, the breeding season for most FIDS. This seasonal restriction may be expanded to February-August if certain early nesting FIDS (e.g., Barred Owl) are present.
- 12. Landscape homes with native trees, shrubs and other plants and/or encourage homeowners to do so.
- Encourage homeowners to keep pet cats indoors or, if taken outside, kept on a leash or inside a fenced area.
- 14. In forested areas reserved from development, promote the development of a diverse forest understory by removing livestock from forested areas and controlling white-tailed deer populations. Do not mow the forest understory or remove woody debris and snags.
- 15. Afforestation efforts should target a) riparian or streamside areas that lack woody vegetative buffers, b) forested riparian areas less than 300 feet wide, and c) gaps or peninsulas of nonforested habitat within or adjacent to existing FIDS habitat.

Thank you for allowing us the opportunity to review this project. If you should have any further questions regarding this information, please contact me at (410) 260-8573.

Sincerely,

Lori A. Byrne,

Loui a. Bym

Environmental Review Coordinator Wildlife and Heritage Service

MD Dept. of Natural Resources

ER# 2014.0631.ct

APPENDIX: U.S. FISH & WILDLIFE SERVICE LETTER

MAHAN RYKIEL



United States Department of the Interior

FISH AND WILDLIFE SERVICE Chesapeake Bay Ecological Services Field Office 177 ADMIRAL COCHRANE DRIVE ANNAPOLIS, MD 21401 PHONE: (410)573-4599 FAX: (410)266-9127



Consultation Tracking Number: 05E2CB00-2014-SLI-1773

Project Name: Ward Road

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, proposed and candidate species, as well as proposed and final designated critical habitat, 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 (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

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 Act, 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 website 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.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the

human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2))

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

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). Additionally, wind energy projects should follow the 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; and

http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

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 Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment



Preliminary Species list

Provided by:

Chesapeake Bay Ecological Services Field Office 177 ADMIRAL COCHRANE DRIVE ANNAPOLIS, MD 21401 (410) 573-4599

Consultation Tracking Number: 05E2CB00-2014-SLI-1773

Project Type: Recreation Construction / Maintenance

Project Description: Construct a new park for outdoor recreation







United States Department of Interior Fish and Wildlife Service

Project name: Ward Road

Project Location Map:



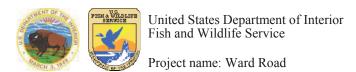
Project Coordinates: MULTIPOLYGON (((-76.6510854 38.7236917, -76.6430178 38.7245433, -76.6402283 38.7221862, -76.6377153 38.7167186, -76.6413441 38.7174651, -76.6430261 38.7175273, -76.6447062 38.7173213, -76.6473777 38.7154814, -76.6485534 38.7158583, -76.6498408 38.7174639, -76.650742 38.7209462, -76.6510854 38.7236917)))

Project Counties: Calvert, MD

Endangered Species Act Species List

There are a total of 0 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.



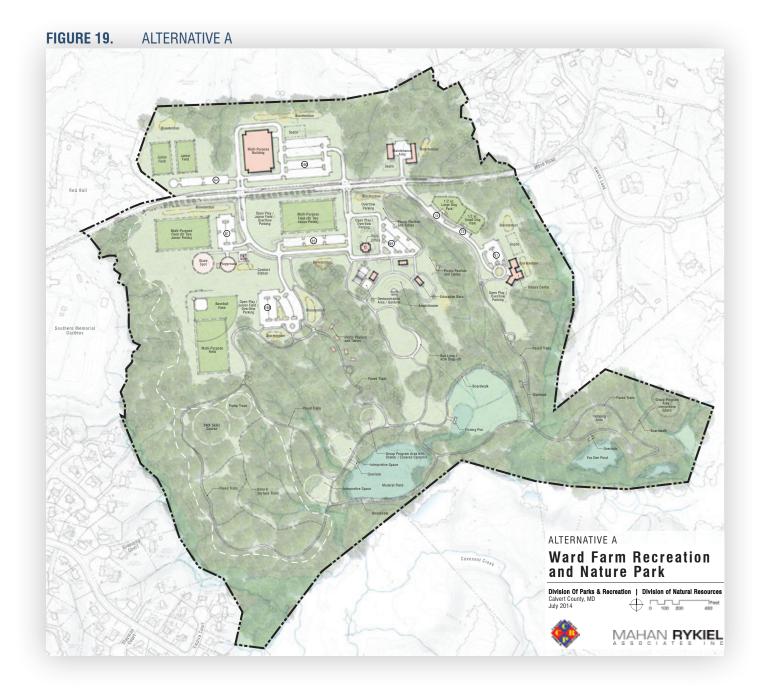


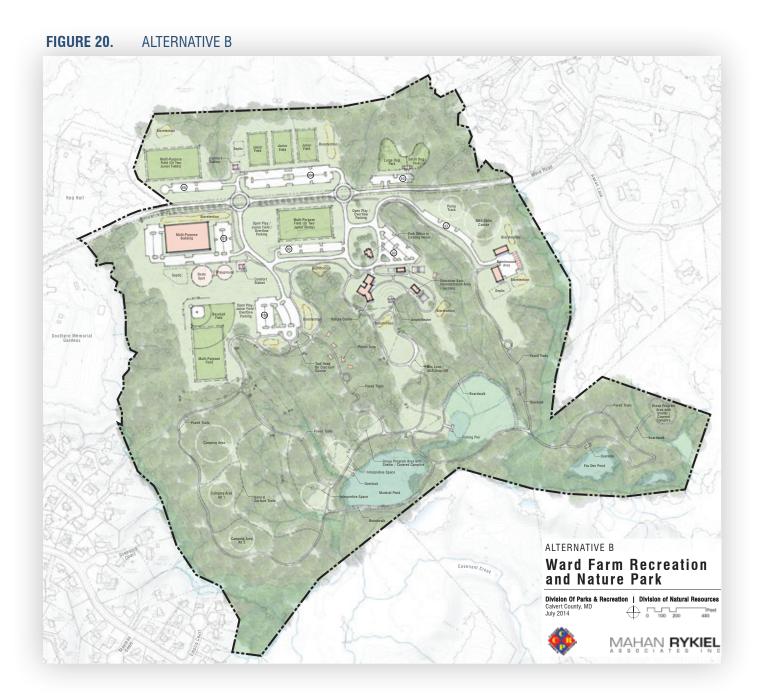
Critical habitats that lie within your project area

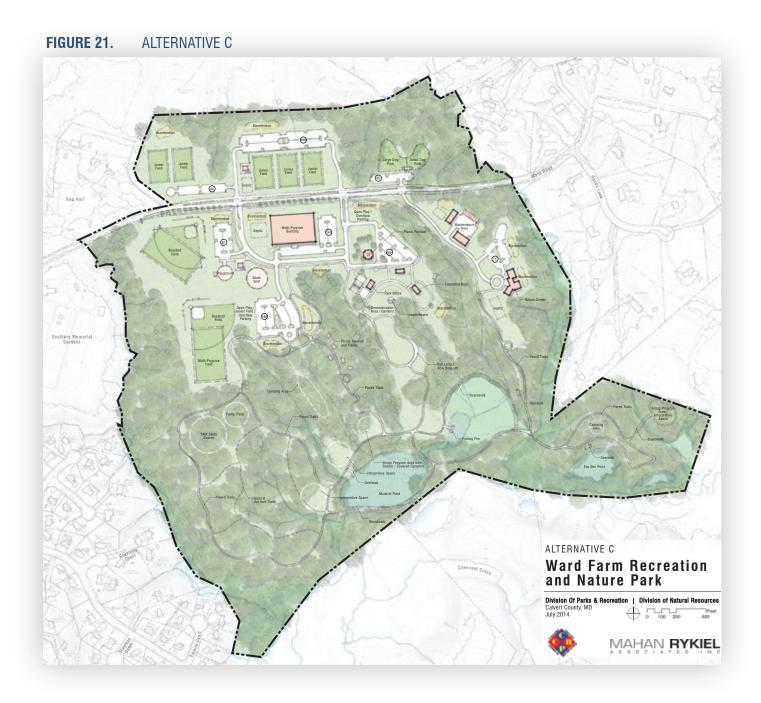
There are no critical habitats within your project area.



APPENDIX: MASTER PLAN ALTERNATIVES







APPENDIX: **DETAILED COST ESTIMATE**

COST ESTIMATE WORKSHEET- Draft

Project: Ward Road Park Master Plan Prepared by: CO
Proj. No.: 14021 Checked by: CB
Date: 9/18/2014

Area

Ward Road Improvements	\$ 1,263,808.00
Well and Water Distribution System	\$ 1,237,600.00
Phase 1a - Rec Fields South - Upper Terrace	\$ 5,939,609.80
Phase 1b - Rec Fields South - Lower Terrace	\$ 4,560,450.34
Phase 1c - Existing House Renovation	\$ 150,000.00
Phase 2 - Rec Fields North	\$ 3,764,856.85
Phase 3 - Dog Park	\$ 987,362.13
Phase 4 Nature Center, Parking, and Educational Area	\$ 4,197,524.93
Phase 5 - Maintenance Facility	\$ 2,425,586.80
Phase 6 - Picnic/Camp Area	\$ 1,846,474.93
Phase 7 - Trail System	\$ 2,378,068.62

Total \$ 28,751,342.42

COST ESTIMATE WORKSHEET- Draft

Project: Ward Road Park Master Plan

Proj. No.: 14021

Prepared by: CO Checked by: CB Date: 9/18/2014

ITEM	DESCRIPTION	QTY.	UNIT	COST	TOTAL
	Ward Road Improvements				
1	Roadway Improvements allowance (Ward Road)	1	LS	700,000.00	\$ 700,000.00
2	Maintenance of Traffic (Ward Road)	1	LS	20,000.00	\$ 20,000.00
3	Utility Relocation Allowance (Ward Road)	1	LS	60,000.00	\$ 60,000.00
4	Split Rail Fence	4,400	LF	20.00	\$ 88,000.00
	Contingency			30%	\$ 260,400.00
				Subtotal	\$ 1,128,400.00
			A & E F	ees @ 12%	\$ 135,408.00
			Total R	Road Improvements	\$ 1,263,808.00
ITEM	DESCRIPTION	QTY.	Total F	Road Improvements COST	\$ 1,263,808.00 TOTAL
ITEM	DESCRIPTION Well and Water Distribution System	QTY.		·	\$, ,
ITEM 1				·	, ,
	Well and Water Distribution System		UNIT	COST	TOTAL
	Well and Water Distribution System		UNIT	COST	\$ TOTAL
	Well and Water Distribution System Well, control, pump, small hydro pneumatic tank, building, permitting		LS	COST 850,000.00	\$ TOTAL 850,000.00
	Well and Water Distribution System Well, control, pump, small hydro pneumatic tank, building, permitting		LS	COST 850,000.00	\$ TOTAL 850,000.00

4	Mobilization	1	LS	15,000.00	\$ 15,000.00	
5	Site Trailer	1	LS	10,000.00	\$ 10,000.00	
	Civil/Site Work					
6	Topsoil, strip and replace	12,907	CY	5.00	\$ 64,533.33	
7	Grading / Earthwork	125,000	CY	8.00	\$ 1,000,000.00	
8	Roadway, asphalt	17,000	SF	4.50	\$ 76,500.00	
9	Curb and Gutter	4,600	LF	18.00	\$ 82,800.00	
10	Parking, asphalt	73,000	SF	4.50	\$ 328,500.00	
11	Concrete Sidewalk	40,500	SF	6.00	\$ 243,000.00	
	Site Utilities					
12	Water Utilities	1,600	LF	15.00	\$ 24,000.00	
13	Septic System	1	LS	15,000.00	\$ 15,000.00	
14	Storm Drain Utilities	2,000	LF	35.00	\$ 70,000.00	
15	Power	1	LS	300,000.00	\$ 300,000.00	
16	Stormwater Managemement (Bioretention)	13,050	SF	8.00	\$ 104,400.00	
	Active Rec Areas	_				
17	Baseball Fields/Multipurpose Field Combo	1	LS	\$ 796,099.00	\$ 796,099.00	
18	Multi-Purpose Fields	1	LS	391,320.00	\$ 391,320.00	
20	Field Fencing	940	LF	20.00	\$ 18,800.00	
_	Landscape	_				
21	Entrance Gates	1	EA	15,000.00	\$ 15,000.00	
22	Park Signage	1	LS	15,000.00	\$ 15,000.00	
23	Bioretention Plantings (2" Plugs @ 12" O.C.)	14,700	EA	3.50	\$ 51,450.00	
24	Landscaping (plantings and site stabilization)	1	LS	75,000.00	\$ 75,000.00	
25	Site Furnishings	1	LS	25,000.00	\$ 25,000.00	
	Structures	_				
26	Comfort Station (with built in storage)	1	LS	180,000.00	\$ 180,000.00	
27	Playground	1	LS	75,000.00	\$ 75,000.00	
	Contingency			30%	\$ 1,223,820.70	
				Subtotal	\$ 5,303,223.03	
			A & E	Fees @ 12%	\$ 636,386.76	
				Total Area 1a	\$ 5,939,609.80	

QTY. UNIT

2 EA

1 LS

1 LS

COST

4,000.00 \$

80,000.00 \$

15,000.00 \$

TOTAL

8,000.00

80,000.00

15,000.00

ITEM

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DESCRIPTION

Area 1a - Rec Fields South - Upper Terrace
Erosion & Sediment Control/Preliminary

Construction Entrance

E&S Maintenance

Sediment Control Measures

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ГЕМ	DESCRIPTION	QTY.	UNIT	COST	TOTAL
	Area 2 - Rec Fields North				
	Erosion & Sediment Control/Preliminary	_			
1	Construction Entrance	1	EA	4,000.00	\$ 4,000.00
2	Sediment Control Measures	1	LS	80,000.00	\$ 80,000.00
3	E&S Maintenance	1	LS	15,000.00	\$ 15,000.00
4	Mobilization	1	LS	15,000.00	\$ 15,000.00
5	Site Trailer	1	LS	10,000.00	\$ 10,000.00
	Civil/Site Work	_			
6	Topsoil, strip and replace	10,487	CY	5.00	\$ 52,433.33
7	Grading / Earthwork	45,000	CY	8.00	\$ 360,000.00
8	Roadway, asphalt	19,600	SF	4.50	\$ 88,200.00
9	Curb and Gutter	4,600	LF	18.00	\$ 82,800.00
10	Parking, asphalt	74,000	SF	4.50	\$ 333,000.00
11	Concrete Sidewalk	10,000	SF	6.00	\$ 60,000.00
12	Comfort Station	1	EA	180,000.00	\$ 180,000.00
	Site Utilities	_			
13	Water Utilities	1,300	LF	15.00	\$ 19,500.00
14	Septic System	1	LS	15,000.00	\$ 15,000.00
15	Storm Drain Utilities	1,600	LF	35.00	\$ 56,000.00
16	Power	1	LS	200,000.00	\$ 200,000.00
17	Stormwater Managemement (Bioretention)	10,360	SF	8.00	\$ 82,880.00
	Active Rec Areas	_			
18	Multi-Purpose Fields	1	LS	391,320.00	\$ 391,320.00
19	Junior Fields	2	LS	195,660.00	\$ 391,320.00
20	Field Fencing	940	LF	20.00	\$ 18,800.00
	Landscape	_			
21	Bioretention Plantings (2" Plugs @ 12" O.C.)	13,000	EA	3.50	\$ 45,500.00
22	Landscaping (plantings and site stabilization)	1	LS	65,000.00	\$ 65,000.00
23	Site Furnishings	1	LS	20,000.00	\$ 20,000.00
	Contingency			30%	\$ 775,726.00
				Subtotal	\$ 3,361,479.33
			A & E F	ees @ 12%	\$ 403,377.52
				Total Area 2	\$ 3,764,856.85

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ITEM	DESCRIPTION	QTY.	UNIT	COST	TOTAL
	Area 3 - Dog Park				
	Erosion & Sediment Control/Preliminary				
1	Site Demolition / Clearing/Grub	_ 2	AC	2,000.00	\$ 4,000.00
2	Construction Entrance	1	EA	4,000.00	\$ 4,000.00
3	Sediment Control Measures	1	LS	40,000.00	\$ 40,000.00
4	E&S Maintenance	1	LS	8,000.00	\$ 8,000.00
5	Mobilization	1	LS	8,000.00	\$ 8,000.00
6	Site Trailer	1	LS	5,000.00	\$ 5,000.00
	Civil/Site Work	_			
7	Topsoil, strip and replace	3,227	CY	5.00	\$ 16,133.33
8	Grading / Earthwork	17,000	CY	8.00	\$ 136,000.00
9	Restroom	1	LS	20,000.00	\$ 20,000.00
10	Fencing (4' high chain link)	1,900	LF	20.00	\$ 38,000.00
11	Curb and Gutter	800	LF	18.00	\$ 14,400.00
12	Parking and Access Drive, asphalt	14,000	SF	4.50	\$ 63,000.00
13	Concrete Sidewalk	6,500	SF	6.00	\$ 39,000.00
14	Sun Shelter Structures	2	EA	10,000.00	\$ 20,000.00
15	Storage Shed	1	EA	20,000.00	\$ 20,000.00
	Site Utilities	_			
16	Water Utilities	800	LF	15.00	\$ 12,000.00
17	Restroon (composting toilet)	1	LS	100,000.00	\$ 100,000.00
18	Storm Drain Utilities	600	LF	35.00	\$ 21,000.00
19	Power	1	LS	50,000.00	\$ 50,000.00
20	Stormwater Managemement (Bioretention)	2,563	SF	8.00	\$ 20,500.00
	Landscape	_			
21	Bioretention Plantings (2" Plugs @ 12" O.C.)	2,600	EA	3.50	\$ 9,100.00
22	Landscaping (plantings and site stabilization)	1	LS	20,000.00	\$ 20,000.00
23	Site Furnishings	1	LS	10,000.00	\$ 10,000.00
	Contingency			30%	\$ 203,440.00
				Subtotal	\$ 881,573.33
			A & E F	ees @ 12%	\$ 105,788.80
				Total Area 3	\$ 987,362.13

ITEM	DESCRIPTION	QTY.	UNIT	COST	TOTAL
	Area 4 Nature Center, Parking, and Educational Area				
	Erosion & Sediment Control/Preliminary				
1	Construction Entrance	1	EA	4,000.00	\$ 4,000.00
2	Sediment Control Measures	1	LS	60,000.00	\$ 60,000.00
3	E&S Maintenance	1	LS	10,000.00	\$ 10,000.00
4	Mobilization	1	LS	15,000.00	\$ 15,000.00
5	Site Trailer	1	LS	10,000.00	\$ 10,000.00
	Civil/Site Work				
6	Topsoil, strip and replace	5,647	CY	5.00	\$ 28,233.33
7	Grading / Earthwork	6,000	CY	8.00	\$ 48,000.00
8	Roadway, asphalt	6,450	LF	4.50	\$ 29,025.00
9	Curb and Gutter	2,650	LF	18.00	\$ 47,700.00
10	Parking, asphalt	43,000	SF	4.50	\$ 193,500.00
11	Concrete Sidewalk	22,000	SF	6.00	\$ 132,000.00
	Site Utilities				
1	Fire protection storage tank and pump with house (Nature Ctr & park office)	1	LS	300,000.00	\$ 300,000.00
2	Water Utilities	300	LF	15.00	\$ 4,500.00
3	Septic System	1	LS	25,000.00	\$ 25,000.00
4	Storm Drain Utilities	1,800	LF	35.00	\$ 63,000.00
5	Power	1	LS	350,000.00	\$ 350,000.00
6	Stormwater Managemement (Bioretention)	10,207	SF	8.00	\$ 81,657.14
	Structures				
7	Nature Center (Phase 4c)	7,000	SF	150.00	\$ 1,050,000.00
8	Amphitheater (Phase 4b)	1	LS	100,000.00	\$ 100,000.00
9	Barn Rehabilitation	3	LS	35,000.00	\$ 105,000.00
	Landscape				
10	Bioretention Plantings (2" Plugs @ 12" O.C.)	11,800	EA	3.50	\$ 41,300.00
11	Garden/Demonstration Areas (Phase 4b)	2	LS	35,000.00	\$ 70,000.00
12	Landscaping (plantings and site stabilization)	1	LS	45,000.00	\$ 45,000.00
13	Children's Nature Play Area	1	LS	50,000.00	\$ 50,000.00
14	Site Furnishings	1	LS	20,000.00	\$ 20,000.00
	Contingency			30%	\$ 864,874.64
				Subtotal	\$ 3,747,790.12
			A & E F	ees @ 12%	\$ 449,734.81

Total Area 4

4,197,524.93

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ЕМ	DESCRIPTION	QTY.	UNIT	COST	TOTA
	Area 5 - Maintenance Facility				
	Erosion & Sediment Control/Preliminary				
1	Construction Entrance	1	EA	4,000.00	\$ 4,000.00
2	Sediment Control Measures	1	LS	60,000.00	\$ 60,000.00
3	E&S Maintenance	1	LS	10,000.00	\$ 10,000.00
4	Mobilization	1	LS	15,000.00	\$ 15,000.00
5	Site Trailer	1	LS	10,000.00	\$ 10,000.00
	Civil/Site Work				
6	Topsoil, strip and replace	2,420	CY	5.00	\$ 12,100.00
7	Grading / Earthwork	8,000	CY	8.00	\$ 64,000.00
8	Roadway, asphalt	30,450	LF	4.50	\$ 137,025.00
9	Curb and Gutter	2,000	LF	18.00	\$ 36,000.00
10	Maintenance Facility	1	LS	1,000,000.00	\$ 1,000,000.00
	Site Utilities				
11	Water Utilities	1,300	LF	15.00	\$ 19,500.00
12	Sewer System	1	LS	15,000.00	\$ 15,000.00
13	Storm Drain Utilities	800	LF	35.00	\$ 28,000.00
14	Power	1	LS	180,000.00	\$ 180,000.00
15	Stormwater Managemement (Bioretention)	4,350	SF	8.00	\$ 34,800.00
	Landscape				
16	Bioretention Plantings (2" Plugs @ 12" O.C.)	5,000	EA	3.50	\$ 17,500.00
	Landscaping (plantings and site stabilization)	1	LS	20,000.00	\$ 20,000.00
	Site Furnishings	1	LS	3,000.00	\$ 3,000.00
	Contingency			30%	\$ 499,777.50
				Subtotal	\$ 2,165,702.50
			A & E I	Fees @ 12%	\$ 259,884.30
				Total Area 5	\$ 2,425,586.80

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EM	DESCRIPTION	QTY.	UNIT	COST		TOTAL
	Area 6 - Picnic/Camp Area					
	Erosion & Sediment Control/Preliminary					
1	Site Demolition / Clearing/Grub	1	AC	1,000.00	\$	1,000.00
2	Construction Entrance	1	EA	4,000.00	\$	4,000.00
3	Sediment Control Measures	1	LS	80,000.00	\$	80,000.00
4	E&S Maintenance	1	LS	10,000.00	\$	10,000.00
5	Mobilization	1	LS	15,000.00	\$	15,000.00
6	Site Trailer	1	LS	10,000.00	\$	10,000.00
	Civil/Site Work	_				
7	Topsoil, strip and replace	3,227	CY	5.00	\$	16,133.33
8	Grading / Earthwork	8,000	CY	8.00	\$	64,000.00
9	Roadway, asphalt	9,500	SF	4.50	\$	42,750.00
10	Curb and Gutter	2,000	LF	18.00	\$	36,000.00
11	Parking, asphalt	34,000	SF	4.50	\$	153,000.00
12	Concrete Sidewalk	6,400	SF	6.00	\$	38,400.00
	Site Utilities	_				
12	Water Utilities	800	LF	15.00	\$	12,000.00
13	Septic System	1	LS	15,000.00	\$	15,000.00
14	Storm Drain Utilities	1,100	LF	35.00	\$	38,500.00
15	Power	1	LS	130,000.00	\$	130,000.00
16	Stormwater Managemement (Bioretention)	5,438	SF	8.00	\$	43,500.00
	Landscape	_				
17	Bioretention Plantings (2" Plugs @ 12" O.C.)	5,400	EA	3.50	\$	18,900.00
18	Landscaping (plantings and site stabilization)	1	LS	35,000.00	\$	25,000.00
19	Site Furnishings	1	LS	15,000.00	\$	15,000.00
20	Playground	1	LS	75,000.00	\$	75,000.00
	Structures	_				
21	Comfort Station	1	LS	125,000.00	\$	125,000.00
22	Picnic Pavilions	3	LS	100,000.00	\$	300,000.00
	Contingency			30%	\$	380,455.00
			s	Subtotal	\$	1,648,638.33
			A & E Fees @ 12% \$			197,836.60
			Т	otal Area 6	\$	1,846,474.93

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Total Area 7 \$ 2,378,068.62

ITEM	DESCRIPTION	QTY.	UNIT	COST	TOTAL
	Area 7 - Trail System				
	Erosion & Sediment Control/Preliminary				
1	Site Demolition / Clearing/Grub	2	AC	1,000.00	\$ 2,000.00
2	Construction Entrance	1	EA	4,000.00	\$ 4,000.00
3	Sediment Control Measures	1	LS	20,000.00	\$ 20,000.00
4	E&S Maintenance	1	LS	4,000.00	\$ 4,000.00
5	Mobilization	1	LS	8,000.00	\$ 8,000.00
6	Site Trailer	1	LS	5,000.00	\$ 5,000.00
	Civil/Site Work				
7	Topsoil, strip and replace	1,385	CY	5.00	\$ 6,925.93
8	Grading / Earthwork	2,770	CY	8.00	\$ 22,162.96
	Site Utilities				
9	Water Utilities		LF	15.00	\$ -
10	Sewer Utilities		LF	20.00	\$ -
11	Pump Station		LS	10,000.00	\$ -
	Power	1	LS	150,000.00	\$ 150,000.00
	Structures				
12	Sheltered Overlook at Fishing Pond (150 person)	•	I LS	100,000.00	\$ 100,000.00
13	Amphitheater/Open Teaching Area	•	I LS	10,000.00	\$ 10,000.00
14	Council House and Camp Fire	•	I LS	75,000.00	\$ 75,000.00
15	Restroom (composting toilet)	•	I LS	100,000.00	\$ 100,000.00
16	Pavilion between Ponds (30 person)	•	I LS	75,000.00	\$ 75,000.00
17	Pavilion at Fox Den Pond	•	I LS	75,000.00	\$ 75,000.00
18	Specialty Skills Area	•	I LS	100,000.00	\$ 100,000.00
	Bridge over stream in southeast corner	•	I LS	50,000.00	\$ 50,000.00
	Landscape				
19	Shade Structures	3	EA	0.00	\$ -
20	Disc Golf Course	1	LS	0.00	\$ -
21	Piers/Overlooks	4	EA	35,000.00	\$ 140,000.00
22	AsphaltStabilized Trails (8' wide)	5,600	LF	18.00	\$ 100,800.00
23	Variable Surface Trails	7,100	LF	14.00	\$ 99,400.00
24	Natural Surface Trails	6,000	LF	8.00	\$ 48,000.00
25	Boardwalk (8' wide)	2,400	LF	120.00	\$ 288,000.00
26	Landscaping (plantings and site stabilization)	1	LS	100,000.00	\$ 100,000.00
27	Site Furniture	1	LS	50,000.00	\$ 50,000.00
	Contingency			30%	\$ 489,986.67
			-	Subtotal	\$ 2,123,275.56
			A & E Fe	es @ 12%	\$ 254,793.07
			_		

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BALL FIELDS BREAKDOWN

Scoreboard, electronic

Baseball Fields				
Field, infield mix & outfield sod, mound	107,823	SE	\$0.70 \$ 75,476.10	
Import topsoil	1,997		\$30.00 \$ 59,910.00	
Irrigation	107,823		\$1.00 \$ 107,823.00	
Dugouts	,	EA	\$5,000.00 \$ 10,000.00	
Backstop	1		\$30,000.00 \$ 30,000.00	
8' Chainlink Fence	400		\$28.00 \$ 11,200.00	
Bleachers, 20'x10'		EA	\$10,000.00 \$ 20,000.00	
Player Benches	_	LF	\$80.00 \$ 3,200.00	
Foul poles		EA	\$1,200.00 \$ 2,400.00	
Field lights		EA	\$40,000.00 \$ 240,000.00	
Lights conduit & wire, direct burried, allowance	1,800		\$30.00 \$ 54,000.00	
Pull box / misc. lighting equipment, allowance	,	EA	\$10,000.00 \$ 10,000.00	
· · · · · · · · · · · · · · · · · · ·		_, ,	\$ 624,009.10	
Multi Durraga Field				
Multi-Purpose Field	75,600	QE.	\$0.70 \$ 52.020.00	
Field, sod	,		\$0.70 \$ 52,920.00	
Import topsoil	1,400		\$30.00 \$ 42,000.00	
Irrigation	75,600	LF	\$1.00 \$ 75,600.00	
Player Benches Miss sports oquipment	1		\$80.00 \$ 4,800.00 \$10,000.00 \$ 10,000.00	
Misc. sports equipment	4		\$40,000.00 \$ 160,000.00	
Field lights Lights conduit & wire, direct burried, allowance	1,200		\$30.00 \$ 36,000.00	
Pull box / misc. lighting equipment, allowance	,	EA	\$10,000.00 \$ 10,000.00	
Tull box / misc. lighting equipment, anowance	'	LA	\$ 391,320.00	
Baseball Field with Overlapping Multipurpose Field				
Field, infield mix & outfield sod, mound	147,823		\$0.70 \$ 103,476.10	
Import topsoil	2,800		\$30.00 \$ 84,000.00	
Irrigation	147,823		\$1.00 \$ 147,823.00	
Dugouts		EA	\$5,000.00 \$ 10,000.00	
Backstop		EA	\$30,000.00 \$ 30,000.00	
8' Chainlink Fence	400		\$28.00 \$ 11,200.00	
Bleachers, 20'x10'		EA	\$10,000.00 \$ 20,000.00	
Player Benches		LF	\$80.00 \$ 3,200.00	
Foul poles	2		\$1,200.00 \$ 2,400.00	
Field lights	8		\$40,000.00 \$ 320,000.00	
Lights conduit & wire, direct burried, allowance	1,800		\$30.00 \$ 54,000.00	
Pull box / misc. lighting equipment, allowance	1	EA	\$10,000.00 \$ 10,000.00 \$ 706,000.10	
			\$ 796,099.10	
PA System	1	EA	\$5,000.00 \$ 5,000.00 not include	3€

395

1 EA \$15,000.00 \$ 15,000.00

SITE LIGHTING	Quantity		Unit cost	subtotal	subtotal by phase	
Phase 1a					\$405,000	
- 11000 100	19	EA	\$5,000	\$95,000	\$495,000	
30' high sharp cut-off street light Ball field lights	10	EA	\$40,000	\$400,000		
Phase 1b	10	LA	\$40,000	φ 4 00,000		
	40	F.	# 5 000	005.000	\$385,000	
30' high sharp cut-off street light	13	EA	\$5,000	\$65,000		
Ball field lights	8	EA	\$40,000	\$320,000		
Phase 2	1		AT 000	005.000	\$485,000	
30' high sharp cut-off street light	17	EA	\$5,000	\$85,000		
Ball field lights	10	EA	\$40,000	\$400,000		
Phase 3					\$10,000	
30' high sharp cut-off street light	2	EA	\$5,000	\$10,000		
Ball field lights	0	EA	\$40,000	\$0		
Phase 4a					\$50,000	
30' high sharp cut-off street light	10	EA	\$5,000	\$50,000		
Ball field lights	0	EA	\$40,000	\$0		
Phase 4b & c		LS		\$20,000	\$20,000	
30' high sharp cut-off street light	0	EA	\$5,000	\$0		
Ball field lights	0	EA	\$40,000	\$0	\$0	
Phase 5					\$35,000	
30' high sharp cut-off street light	7	EA	\$5,000	\$35,000		
Ball field lights	0	EA	\$40,000	\$0		
Phase 6					\$40,000	
30' high sharp cut-off street light	8	EA	\$5,000	\$40,000		
Ball field lights	0	EA	\$40,000	\$0		
Phase 7				incidental to structures		
30' high sharp cut-off street light	0	EA	\$5,000	\$0		
Ball field lights	0	EA	\$40,000	\$0	\$0	

Total \$1,025,000

WARD FARM RECREATION AND NATURE PARK

COMPREHENSIVE MASTER PLAN

Prepared for
Calvert County, Maryland
Parks and Recreation Division
Natural Resources Division

Prepared by
Mahan Rykiel Associates, Inc.
Whitman, Requardt & Associates, LLP