

INTERIM RESPONSE AND DEVELOPMENT COMPLETION REPORT

**AREA B: SUB-PARCEL B6-2
TRADEPOINT ATLANTIC
SPARROWS POINT, MARYLAND**

Prepared For:



TRADEPOINT ATLANTIC
1600 Sparrows Point Boulevard
Sparrows Point, Maryland 21219

Prepared By:



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ARM Project No. 20010206

Respectfully Submitted,
ARM Group LLC



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Revision 0 – September 22, 2021

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1.0 INTRODUCTION

ARM Group LLC (ARM), on behalf of Tradepoint Atlantic, has prepared this Interim Response and Development Completion Report for the portion of the Tradepoint Atlantic property that has been designated as Area B: Sub-Parcel B6-2 (the Site). This report documents the work completed under the Sub-Parcel B6-2 Response and Development Work Plan (RADWP), Revision 1, dated January 24, 2018. Additional work completed within the sub-parcel (including the development of Retail Area #1 through #3, and the Marketing Center) will be addressed in additional closure documents to be submitted under separate cover.

The Sub-Parcel B6-2 development area boundary was adjusted from the boundary originally presented in the Sub-Parcel B6-2 RADWP. The updated boundary was presented in the Sub-Parcel B6-2 RADWP Addendum: SLRA Update dated June 28, 2021. The updated boundary consists of approximately 38 acres, the majority of which is within the northern portion of Parcel B6 with approximately 0.14 acres in the adjacent Parcel A6.

All documents related to the investigation and development of the sub-parcel are listed in the Reference List in **Appendix A**.

Phase II Investigations specific to soil and groundwater conditions were performed for the areas surrounding Sub-Parcel B6-2 in accordance with the following agency-approved Phase II Investigation Work Plans:

- Area B: Parcel B6 (Revision 2) dated May 12, 2016.
- Area A: Parcel A6 (Revision 0) dated October 11, 2018.
- Finishing Mills Groundwater Investigation (Revision 1) dated July 7, 2016.

The full analytical results and conclusions of each investigation have been presented to the agencies in the following Phase II Investigation Reports:

- Area B: Parcel B6 (Revision 2) dated March 16, 2018.
- Area A: Parcel A6 (Revision 0) dated June 23, 2020.
- Finishing Mills Groundwater Investigation (Revision 0) dated November 30, 2016.

The Sub-Parcel B6-2 Response and Development Work Plan (RADWP) (Revision 1) dated January 24, 2018 was approved for implementation by the Maryland Department of the Environment (MDE) on February 9, 2018. Subsequent addendums were submitted to propose further development for specific portions of the sub-parcel (Retail Areas #1 through #3). These developments will be discussed in completion reports to be submitted under separate cover.

The development of Sub-Parcel B6-2 generally included well abandonment, slag placement, mass grading, and minor utility installations.

1.1. REPORT PURPOSE

The purpose of this Interim Response and Development Completion Report is to document response actions and development activities completed under the Sub-Parcel B6-2 RADWP. In addition, this report is being submitted in accordance with the requirements outlined in the following agreements:

- Administrative Consent Order (ACO) between Tradepoint Atlantic (formerly Sparrows Point Terminal, LLC) and the Maryland Department of the Environment (MDE), effective September 12, 2014; and
- Settlement Agreement and Covenant Not to Sue (SA) between Tradepoint Atlantic (formerly Sparrows Point Terminal, LLC) and the United States Environmental Protection Agency (USEPA), effective November 25, 2014.

The following section (Section 1.2) provides the project background and Section 1.3 provides an overview of the Site development and response action activities. The response actions performed are described in Section 2.0, site development activities are summarized in Section 3.0, and conclusions are provided in Section 4.0.

1.2. PROJECT BACKGROUND

1.2.1. Site Description and History

From the late 1800s until 2012, the production and manufacturing of steel was conducted at Sparrows Point. Iron and steel production operations and processes at Sparrows Point included raw material handling, coke production, sinter production, iron production, steel production, and semi-finished and finished product preparation. In 1970, Sparrows Point was the largest steel facility in the United States, producing hot and cold rolled sheets, coated materials, pipes, plates, and rod and wire. The steel making operations at the Facility ceased in fall 2012.

Parcel B6 comprises approximately 148.5 acres of the approximately 3,100-acre former steel mill (**Figure 1**) that operated for over one hundred years. In 2012, steelmaking operations at the facility ceased. From 2013 to the present day, a demolition contractor has been demolishing the majority of the above-grade structures on the site-wide property.

The Sub-Parcel B6-2 development area consists of approximately 38 acres, the majority of which is within the northern portion of Parcel B6 with approximately 0.14 acres in the adjacent Parcel A6. The Site is zoned Manufacturing Heavy-Industrial Major (MH-IM), and was not occupied prior to the start of development activities. Prior to the start of development activities, all former buildings were demolished.

1.2.2. Historical Environmental Activities

Prior to demolition, the Sub-Parcel B6-2 Development Area was formerly occupied by the Hot Strip Mill Area (located to the south of the Site) which performed heating and rolling hot bands of metal, and cooling and coiling of the finished products. Several railways which supported the Hot Strip Mill and larger Finishing Mills Area passed through the Site. A small petroleum recovery facility was previously located near the western end of the Site and contained a small rectangular surface impoundment which was diked to separate it from the Humphrey Creek. Minor structures formerly located at the Site included service buildings, access gates, and parking lots. More information regarding previous steel finishing activities can be found in the Phase II Investigation Report – Area B: Parcel B6 (Revision 2 dated March 16, 2018).

A Phase I ESA was completed by Weaver Boos Consultants for the entire Sparrows Point property on May 19, 2014. The Phase I ESA identified particular features across the Tradepoint Atlantic property which presented potential risks to the environment. The results of the Phase I ESA are described in more detail in the Sub-Parcel B6-2 RADWP (Revision 1 dated May 20, 2018).

The Phase I ESA identified the following RECs within the Sub-Parcel B6-2 boundaries:

- Apparent Historical Surface Impoundment (“G” Gate) (REC 22, Finding 273)
- TMC Oil Recovery Plant and Impoundment (REC 26, Finding 278)

Relevant SWMUs and AOCs were also identified as located in Figure 3-1 from the DCC Report. There were no SWMUs or AOCs identified within the Sub-Parcel B6-2 boundary.

1.2.3. Phase II Investigation

Phase II Investigations specific to soil and groundwater conditions were performed for the areas surrounding Sub-Parcel B6-2 in accordance with the requirements outlined in the ACO as further described in the following agency-approved Phase II Investigation Work Plans:

- Area B: Parcel B6 (Revision 2) dated May 12, 2016.
- Area A: Parcel A6 (Revision 0) dated October 11, 2018.
- Finishing Mills Groundwater Investigation (Revision 1) dated July 7, 2016.

All soil and groundwater samples were collected and analyzed in accordance with agency-approved protocols during these Phase II Investigations, the specific details of which can be reviewed in each agency-approved Work Plan. Each Phase II Investigation was developed to target specific features which represented a potential release of hazardous substances and/or petroleum products to the environment, including RECs, SWMUs, and AOCs as well as numerous other targets defined from former operations that would have the potential for environmental contamination. Samples were also collected at site-wide locations to ensure full coverage of each

investigation area. The full analytical results and conclusions of each investigation have been presented to the agencies in the following Phase II Investigation Reports:

- Area B: Parcel B6 (Revision 2) dated March 16, 2018.
- Area A: Parcel A6 (Revision 0) dated June 23, 2020.
- Finishing Mills Groundwater Investigation (Revision 0) dated November 30, 2016.

1.3. SITE DEVELOPMENT AND RESPONSE ACTIONS

The Site has been developed for retail use. This Completion Report addresses site grading and minor utility installations. Further development (including Retail Areas #1 through #3) will be addressed in separate closure documents to be submitted under separate cover. Subsequent site use would involve indoor workers in the retail facilities, and truck drivers entering and leaving the Site with goods.

The response and development actions approved for protection of human health and the environment at the Site included proper abandonment of piezometers and environmental capping. This completion report does not address the completion of a capping remedy on the sub-parcel.

2.0 RESPONSE ACTIVITIES

2.1. WELL ABANDONMENT

Permanent groundwater monitoring wells SW-077-MWI, SW-077-MWS, SW-078-MWI, SW-078-MWS, TM12-PZM006, TM14-PZM005, TM16-PZM007, which were located inside the Sub-Parcel B6-2 development boundary and sampled during the Finishing Mills Groundwater Investigation, were properly abandoned in accordance with COMAR 26.04.04.34 through 36 on February 22, 2018; March 8, 2018; September 04, 2018, prior to the start of development activities. One temporary groundwater sampling points (piezometers), FM-010-PZS, was installed in Sub-Parcel B6-2 during the Parcel B6 Phase II Investigation or during subsequent delineation activities. This piezometer was properly abandoned in accordance with COMAR 26.04.04.34 through 36 on January 10, 2017 and November 29, 2017.

A total of 70 delineation piezometers were installed within and immediately adjacent to the western boundary of Sub-Parcel B6-2 in the vicinity of location B6-066-SB. Approval to abandon the network was requested in the NAPL Delineation Completion Report Comment Response Letter and Piezometer Abandonment Request Letter dated March 26, 2021. The network was approved for abandonment by the MDE via email on April 15, 2021.

There are no remaining wells (or piezometers) on the sub-parcel. Abandoned groundwater points are shown on **Figure 2**. Abandonment records are provided in **Appendix B**.

3.0 SITE DEVELOPMENT ACTIVITIES

This section presents a summary of the completed development work as well as materials management and other protocols that were followed during the development work performed under the Sub-Parcel B6-2 RADWP to adequately mitigate potential risks for future uses of the property. The general scope of the Sub-Parcel B6-2 RADWP was limited to grading activities and utility installations. The development area is shown in **Figure 3**.

Development activities began in April 2018 with DXI as the General Contractor. Full-time oversight was performed by an Environmental Professional (EP) provided by Hillis Carnes Engineering Associates (HCEA) during intrusive development activities to ensure compliance with environmental regulations and the development plans, including performing dust monitoring and soil screening services. The Notice of Completion of Remedial Actions letter provided by HCEA (**Appendix C**) states that the project was completed in general accordance with the Sub-Parcel B6-2 RADWP. Select Daily Field Reports prepared by the EP are included in **Appendix D**. One notable occurrence occurred during development on January 9, 2019 and is discussed in further detail in Section 3.10. The Daily Field Reports for all work conducted in January 2019 are included in **Appendix D**. A compiled set of all Daily Field Reports for the development work performed under the Sub-Parcel B6-2 RADWP is included as an electronic attachment.

Site development activities are discussed in the Quarterly Development Status Updates for the second, third, and fourth quarters of 2018 (**Appendix E**). A Quarterly Development Status Update was not prepared for an additional six days of utility installation work completed in January 2019; however, the corresponding Daily Field Reports have been included in **Appendix D**. The following sections provide information not covered in the Quarterly Development Status Updates.

3.1. PRE-CONSTRUCTION MEETING

Prior to any earthwork being conducted on-site, a pre-construction meeting was held to address proper operating procedures for working on-site and handling potentially contaminated material. Records are provided in **Appendix F**.

3.2. GRADING AND SITE PREPARATION

Mass grading was performed across the entire site under the Sub-Parcel B6-2 RADWP. Processed slag fill from elsewhere on the Tradepoint Atlantic property was placed across the entire site in preparation for further development activities. No excess material was generated during grading activities. No materials left the 3,100 acre property.

3.3. UTILITY INSTALLATION

Excavated material that did not exhibit evidence of impacts was placed on-site under areas where capping was planned. The majority of utility excavations completed under the Sub-Parcel B6-2 RADWP were completed within the slag layer placed during grading activities. All materials encountered below the slag layer were replaced inside the trenches as backfill. Slag excavated from utility trenches was replaced inside the trenches as backfill or was used during site grading activities. Utility trenches were backfilled using excavated slag and with bedding consisting of #57 stone and CR-6 stone from Martin Marietta.

3.4. FILL MATERIALS

The following fill materials were used during the grading and utility installation of Sub-Parcel B6-2:

- #57 Stone, approved by the MDE via email on May 16, 2018;
- CR-6 Stone, approved by the MDE via email on May 16, 2018; and

Clean fill approval documentation is provided in **Appendix G**.

3.5. PLACEMENT OF SUB-BASE

Processed slag aggregate from elsewhere on the Tradepoint Atlantic property was used during grading activities across the entire sub-parcel.

3.6. SOIL SAMPLING AND DISPOSAL

The EP screened excavated material with a MiniRAE photoionization detector (PID). During site grading and utility activities completed under the Sub-Parcel B6-2 RADWP, no soil was segregated due to elevated PID readings, odors, or staining.

3.7. DUST CONTROL

General construction operations, including removal of existing foundations or utilities, soil excavation and transport, soil grading, trenching for utilities, and cap construction activities were performed at the Site. To limit worker exposure to contaminants borne on dust and windblown particulates, dust control measures were to be implemented, if warranted when the above activities were performed. The action level used for the purpose of determining the need for additional dust suppression techniques (e.g. watering and/or misting) during the response and development activities on Site was 3.0 mg/m³.

Dust monitoring was performed with three MetOne E-sampler dust monitors. The dust monitors were placed daily upwind of, downwind of, and inside the active work zone. Dust readings were recorded at each monitor at a rate of once per minute. Daily summaries of 15-minute average dust

readings are provided as an electronic attachment. Dust control measures were to be implemented if a sustained level above 3.0 mg/m³ was observed. Two exceedances of the 3.0 mg/m³ action level were observed during construction activities. However, the exceedances appeared to be associated with trucks passing near the monitor and were not sustained for more than one minute. During the six days of work completed in January 2019, electronic dust monitoring was not conducted due to the limited scope of work planned. Visual dust monitoring was conducted, and no visible dust was observed. The Contractor utilized a water truck to mitigate dust generation during the development work operations.

3.8. WATER MANAGEMENT

All dewatering discharges associated with the development of Sub-Parcel B6-2 were transmitted to the Tin Mill Canal, which leads to the on-site wastewater treatment plant. During the second and third quarters of 2018, dewatering was discharged downstream of the active remediation area of the Tin Mill Canal. In the fourth quarter of 2018, dewatering discharges were transmitted through filter bags to the Tin Mill Canal. No sheens or odors were detected in any dewatering discharges. Groundwater was not encountered during the six days of work completed in January 2019.

3.9. HEALTH AND SAFETY

The contractor was responsible for following safety procedures, including schedule limitations, to control contact with potentially contaminated soil or groundwater. The RADWP specified that level D protection would be adequate to mitigate risk to Construction Workers.

3.10. NOTABLE OCCURRENCES

On January 9, 2019, a water line was damaged during excavation activities. The water line was capped, and no observations of sheen or odors were noted. The Daily Field Reports for the work conducted in January 2019 are included in **Appendix D**.

3.11. PAVING

No paving was completed under the scope of work described in this Interim Completion Report for the Sub-Parcel B6-2 RADWP. Capping activities operations will be discussed in the Development Completion Report(s) for the work performed for individual portions of the sub-parcel (e.g. Retail Area #1) to be submitted under separate cover.

3.12. LANDSCAPED AREAS

No landscaping was completed under the scope of work described in this Interim Completion Report for the Sub-Parcel B6-2 RADWP. Landscape capping will be discussed in the

Development Completion Reports(s) for the development work performed for individual portions of the sub-parcel (e.g. Retail Area #1) to be submitted under separate cover.

3.13. INSTITUTIONAL CONTROLS (FUTURE LAND USE CONTROLS)

Long-term conditions related to future use of the Site will be described within the No Further Action Letter (NFA) and COC. These conditions will be discussed in the Development Completion Reports(s) for the development work performed for individual portions of the sub-parcel (e.g. Retail Area #1) to be submitted under separate cover.

4.0 CONCLUSION

Between April 2018 and April 2020, response and development actions were conducted as part of the redevelopment of the Site identified as Sub-Parcel B6-2. The development activities conducted to date on Sub-Parcel B6-2 generally included well abandonment, slag placement, mass grading, and minor utility installations. Additional grading may be conducted in the individual areas of Sub-Parcel B6-2 as described in the RADWP Addendums for Retail Areas #1 through #3 to finalize grade during development activities. These activities will be discussed in the Development Completion Report(s) for the work performed for individual portions of the sub-parcel (e.g. Retail Area #1) to be submitted under separate cover.

The remedial actions specified in the RADWP included: abandonment of temporary groundwater collection points and wells, capping of building and parking areas with paving (to be addressed in separate closure documents); capping of landscaped areas and utility corridors within the cap with clean fill (to be addressed in separate closure documents); and implementation of institutional controls (to be addressed in separate closure documents).

A Notice of Completion of Remedial Actions, prepared by the EP, a Professional Engineer registered in Maryland, is enclosed in **Appendix C** to certify that the development actions have been completed in accordance with the requirements described in the RADWP.

FIGURES



Site Boundary

Parcel Boundaries

Private Property

Tradeport Atlantic
Area A and Area B Parcels
January 15, 2021

05001,0002,000

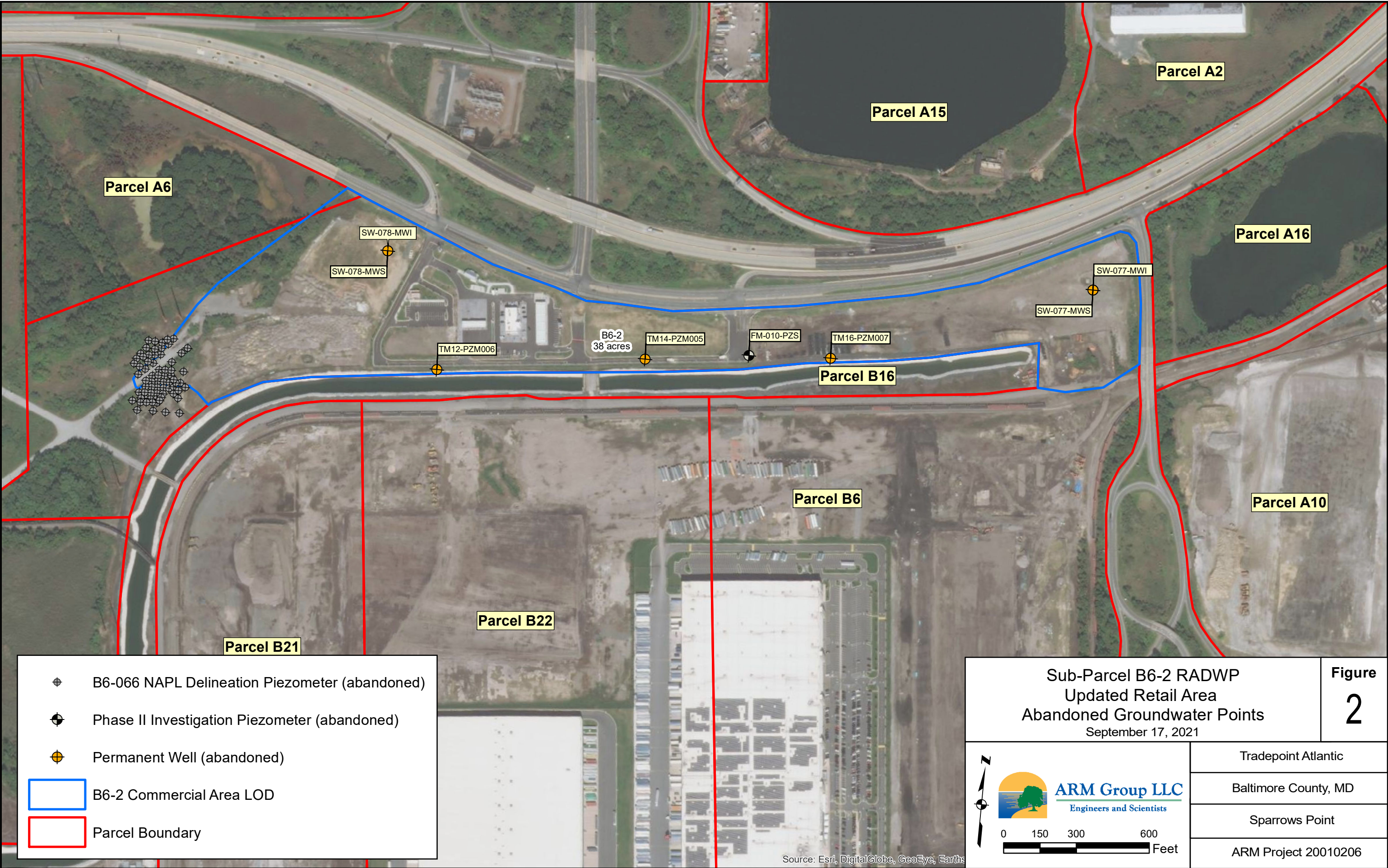
Feet

ARM Group LLC

Engineers and Scientists

Figure
1

Tradeport Atlantic
Sparrows Point
Baltimore County, MD
Area A: Project 200101
Area B: Project 200102





APPENDIX A

Reference List

Sub-Parcel B6-2

- Weaver Boos Consultants (2014). *Phase I Environmental Site Assessment: Former RG Steel Facility*. Final Draft. May 19, 2014.
- ARM Group, Inc. (2016). *Phase II Investigation Work Plan, Area B: Parcel B6*. Revision 2. May 12, 2016.
- ARM Group, Inc. (2016). *Phase II Investigation Work Plan, Finishing Mills Groundwater*. Revision 1. July 7, 2016.
- ARM Group, Inc. (2016). *Phase II Investigation Report, Finishing Mills Groundwater*. Revision 0. November 30, 2016.
- ARM Group, Inc. (2017). *Utility Excavation NAPL Contingency Plan*. Revision 4. June 19, 2017.
- ARM Group, Inc. (2018). *Response and Development Work Plan Area B: Sub-Parcel B6-2*. Revision 1. February 9, 2018.
- ARM Group, Inc. (2018). *Phase II Investigation Report Area B: Parcel B6*. Revision 2. March 6, 2018.
- ARM Group, Inc. (2019). *Response And Development Work Plan Addendum: Retail Area #1, Area B: Sub-Parcel B6-2*. Revision 2. May 22, 2018.
- ARM Group, Inc. (2018). *Quarterly Development Status Update: Second Quarter 2018, Area B: Sub-Parcel B6-1*. August 21, 2018.
- ARM Group, Inc. (2018). *Phase II Investigation Work Plan, Area A: Parcel A6*. Revision 0. October 11, 2018.
- ARM Group, Inc. (2018). *Quarterly Development Status Update: Third Quarter 2018, Area B: Sub-Parcel B6-1*. October 31, 2018.
- ARM Group, Inc. (2019). *Quarterly Development Status Update: Fourth Quarter 2018, Area B: Sub-Parcel B6-1*. January 30, 2019.
- ARM Group, Inc. (2019). *Request for Modifications to Response And Development Work Plan Addendum (Revision 2): Royal Farms Station – Retail Area #1, Area B: Sub-Parcel B6-2*. Revision 2. May 22, 2018.
- ARM Group LLC (2020). *Phase II Investigation Report Area A: Parcel A6*. Revision 0. June 23, 2020.

Reference List

Sub-Parcel B6-2

ARM Group LLC (2021). *RADWP Addendum: SLRA Update – Area B: Sub-Parcel B6-2*. June 28, 2021.

ARM Group LLC (2021). *Response And Development Work Plan Addendum: Retail Area #2 – Flex Building, Area B: Sub-Parcel B6-2*. July 8, 2021.

ARM Group LLC (2021). *Response And Development Work Plan Addendum: Retail Area #3 – Project Pancake, Area B: Sub-Parcel B6-2*. July 27, 2021.

APPENDIX B

Well/Piezometer Abandonment Form

Well/Piezometer ID: SW-077-MWI

General Project Information:

Client: TPA

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 3/8/2018

Abandonment Contractor: Allied

Abandonment Method (check appropriate):

1. PVC → Pulled ☐ / Split ☐ / Perforated ☐ / Left-In-Place ☒
2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Heron O/W probe, grout, geoprobe trash pump

ARM Representative(s): L. Perrin

Well Diameter (inches): 2.00

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 11.10
Measured: 53.74	Depth to NAPL (TOC): No DNAPL/LNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): _____

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any): Split then left in place per Allied.



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Columbia, Maryland 21046
(410) 290-7775 FAX: (410) 290-7775

Well/Piezometer Abandonment Form

Well/Piezometer ID: SW-077-MWS

General Project Information:

Client: TPA

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 2/22/2018

Abandonment Contractor: Allied

Abandonment Method (check appropriate):

1. PVC → Pulled ☒ / Split ☐ / Perforated ☐ / Left-In-Place ☐
2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Heron O/W probe, grout and grout machine

ARM Representative(s): L. Perrin

Well Diameter (inches): 2.00

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 11.00
Measured: 17.64	Depth to NAPL (TOC): No DNAPL/LNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): _____

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



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Well/Piezometer Abandonment Form

Well/Piezometer ID: SW-078-MWI

General Project Information:

Client: TPA

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 3/8/2018

Abandonment Contractor: Allied

Abandonment Method (check appropriate):

1. PVC → Pulled ☐ / Split ☐ / Perforated ☐ / Left-In-Place ☒
2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Heron O/W probe, trash pump, Geoprobe

ARM Representative(s): L. Perrin

Well Diameter (inches): 2.00

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 15.64
Measured: 56.36	Depth to NAPL (TOC): No DNAPL/LNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): _____

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any): Split and left in place



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Well/Piezometer Abandonment Form

Well/Piezometer ID: SW-078-MWS

General Project Information:

Client: TPA

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 3/8/2018

Abandonment Contractor: Allied

Abandonment Method (check appropriate):

1. PVC → Pulled ☒ / Split ☐ / Perforated ☐ / Left-In-Place ☐
2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Heron O/W probe, grout and grout machine

ARM Representative(s): L. Perrin

Well Diameter (inches): 2.00

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 7.33
Measured: 17.36	Depth to NAPL (TOC): No DNAPL/LNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): _____

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



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Well/Piezometer Abandonment Form

Well/Piezometer ID: TM12-PZM006

General Project Information:

Client: TPA

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 3/8/2018

Abandonment Contractor: Allied

Abandonment Method (check appropriate):

1. PVC → Pulled ☐ / Split ☐ / Perforated ☐ / Left-In-Place ☒
2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Heron O/W probe, grout machine, geoprobe

ARM Representative(s): L. Perrin

Well Diameter (inches): 2.00

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log): 19.00	Depth to Water (TOC): 11.75
Measured: 18.65	Depth to NAPL (TOC): No DNAPL/LNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): _____

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any): Split and left in place per Allied.



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Well/Piezometer Abandonment Form

Well/Piezometer ID: TM14-PZM005

General Project Information:

Client: TPA

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 3/8/2018

Abandonment Contractor: Allied

Abandonment Method (check appropriate):

1. PVC → Pulled ☐ / Split ☐ / Perforated ☐ / Left-In-Place ☒
2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Heron O/W probe, grout and trash pump, geoprobe

ARM Representative(s): L. Perrin

Well Diameter (inches): 2.00

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log): 16.00	Depth to Water (TOC): 8.44
Measured: 15.58	Depth to NAPL (TOC): No DNAPL/LNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): _____

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



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Well/Piezometer Abandonment Form

Well/Piezometer ID: TM16-PZM007

General Project Information:

Client: TPA

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 2/22/2018

Abandonment Contractor: Allied

Abandonment Method (check appropriate):

1. PVC → Pulled ☒ / Split ☐ / Perforated ☐ / Left-In-Place ☐
2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Heron O/W probe, grout and grout machine

ARM Representative(s): L. Perrin

Well Diameter (inches): 2.00

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log): 17.00	Depth to Water (TOC): 11.00
Measured: 17.19	Depth to NAPL (TOC): No DNAPL/LNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): _____

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



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Well/Piezometer Abandonment Form

Well/Piezometer ID: FM-010-PZS

General Project Information:

Client: TPA

Site Location: Sparrows Point, MD

Parcel ID: B6/FM

Abandonment Date: 1/10/2017

Abandonment Contractor: GSI

Abandonment Method (check appropriate):

1. PVC → Pulled ☒ / Split ☐ / Perforated ☐ / Left-In-Place ☐
2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Heron O/W probe, grout, geoprobe

ARM Representative(s): L. Perrin

Well Diameter (inches): 1.00

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC):
Measured:	Depth to NAPL (TOC): No DNAPL/LNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): _____

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any): Removed 10' of screen and 8' of riser; placed chips at surface



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066 AAA-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor: GSI

Abandonment Method (check appropriate):

1. PVC → Pulled ☒ / Split ☐ / Perforated ☒ / Left-In-Place ☐
2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Geoprobe 7822DT, Grout pump

ARM Representative(s): L. Perrin

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 8.74
Measured: 16.72	Depth to NAPL (TOC): NO D/L NAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066AA-P2

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 11/29/17

Abandonment Contractor: Allied

Abandonment Method (circle appropriate):

1. PVC → Pulled / Split / Perforated / Left-In-Place
2. Abandoned → Grout / Bentonite Chips

Field Equipment: Geoprobe / Grout machine 95% Portland
5% Bent.

ARM Representative(s): L. Perrin

Well Diameter: 1

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 8.40
Measured: 17.32	Depth to NAPL (TOC): NO NAPL / UNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066 NAPL

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066A-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor: GSI

Abandonment Method (check appropriate):

1. PVC → Pulled ☒ / Split ☐ / Perforated ☒ / Left-In-Place ☐
2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Geoprobe 7822DT, Grout pump

ARM Representative(s): L. Perrin

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): NA
Measured: NA	Depth to NAPL (TOC): NA

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any): Bent did not gauge
Broken few inches above surface



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066BBB-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor: GST

Abandonment Method (check appropriate):

1. PVC → Pulled ☒ / Split ☐ / Perforated ☒ / Left-In-Place ☐
2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Geoprobe 7822DT, Grout pump

ARM Representative(s): L. Perrin

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 6.76
Measured: 19.09	Depth to NAPL (TOC): 19.09 ft No D/C NAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066 BB-P2

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 11/29/17

Abandonment Contractor: Alwed

Abandonment Method (circle appropriate):

1. PVC → Pulled / Split / Perforated / Left-In-Place
2. Abandoned → Grout / Bentonite Chips

Field Equipment: Geoprobe / Grout machine 95% Portland 5% Bent

ARM Representative(s): L. Perrin

Well Diameter: 1

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 11.84
Measured: 17.25	Depth to NAPL (TOC): NO DNAPL / LNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066 NAPL

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066B-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/24/17

Abandonment Contractor:

Abandonment Method (circle appropriate):

1. PVC → Pulled / Split / Perforated / Left-In-Place
2. Abandoned → Grout / Bentonite Chips

Field Equipment:

ARM Representative(s): Lisa Perrin

Well Diameter: 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): Not Measured
Measured: Not Measured	Depth to NAPL (TOC): Not Measured

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):

Transcribed from ARM field book records. Piezometer was found destroyed and was not abandoned.



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066CCC-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor: GST

Abandonment Method (check appropriate):

1. PVC → Pulled ☒ / Split ☐ / Perforated ☒ / Left-In-Place ☐
2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Geoprobe 7822DT, Grout pump

ARM Representative(s): L. Perrin

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 8.02
Measured: 16.56	Depth to NAPL (TOC): 6.53

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066CC-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 11/29/17

Abandonment Contractor: Allied

Abandonment Method (circle appropriate):

1. PVC → Pulled / Split / Perforated / Left-In-Place
2. Abandoned → Grout / Bentonite Chips

Field Equipment: Geoprobe, Grout machine 95% portland
5% Bent.

ARM Representative(s): L. Perrin

Well Diameter: 1

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 10.85
Measured: 17.53	Depth to NAPL (TOC): No DNAPL/LNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066 NAPL

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066C-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 2/8/17

Abandonment Contractor:

Abandonment Method (circle appropriate):

1. PVC → Pulled / Split / Perforated / Left-In-Place
2. Abandoned → Grout / Bentonite Chips

Field Equipment:

ARM Representative(s): Lisa Perrin

Well Diameter: 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): Not Measured
Measured: Not Measured	Depth to NAPL (TOC): Not Measured

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):

Transcribed from ARM field book records. Piezometer was found destroyed and was not abandoned.



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066DDD-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor: GSI

Abandonment Method (check appropriate):

1. PVC → Pulled ☒ / Split ☐ / Perforated ☒ / Left-In-Place ☐
2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Geoprobe 7822DT, Grout pump

ARM Representative(s): L. Perrin

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 4.81
Measured: 17.62	Depth to NAPL (TOC): No DNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066DD-P2

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 11/29/17

Abandonment Contractor: Allied

Abandonment Method (circle appropriate):

1. PVC → Pulled / Split / Perforated / Left-In-Place
2. Abandoned → Grout / Bentonite Chips

Field Equipment: Geoprobe/Grout machine 95% Portland
5% Bent.

ARM Representative(s): L. Perrin

Well Diameter: 1

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 13.01 TOC
Measured: 17.96 TOC	Depth to NAPL (TOC): NO DNAPL/LNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066 NAPL

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066D-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor: GSI

Abandonment Method (check appropriate):

1. PVC → Pulled ☒ / Split ☐ / Perforated ☒ / Left-In-Place ☐
2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Geoprobe 7822DT, Grout pump

ARM Representative(s): L. Perrin

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 10.02
Measured: 16.98	Depth to NAPL (TOC): 10.01

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066 EEE-P2

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 11/29/17

Abandonment Contractor: AMIED

Abandonment Method (circle appropriate):

1. PVC → ☒ Pulled / ☐ Split / ☐ Perforated / ☐ Left-In-Place
2. Abandoned → ☒ Grout / ☐ Bentonite Chips

Field Equipment: Geoprobe/Grout machine 95% Portland 5% Bent.

ARM Representative(s): L. Perrin

Well Diameter: 1

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 7.37
Measured: 17.04	Depth to NAPL (TOC): NO NAPL/WNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066 NAPL

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066 EE-P2

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 11/29/17

Abandonment Contractor: Allied

Abandonment Method (circle appropriate):

1. PVC → Pulled / Split / Perforated / Left-In-Place
2. Abandoned → Grout / Bentonite Chips

Field Equipment: Geoprobe, grout machine, 95% Portland, 5% Bent.

ARM Representative(s): L. Penn

Well Diameter: 1

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 8.88
Measured: 17.45	Depth to NAPL (TOC): 17.45 NO DNAPL UNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066 NAPL

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066E-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor: GSI

Abandonment Method (check appropriate):

1. PVC → Pulled ☒ / Split ☐ / Perforated ☒ / Left-In-Place ☐ Broken S/w
1.92'
2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Geoprobe 7822DT, Grout pump

ARM Representative(s): L. Perren

Well Diameter (inches): 11

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 7.20
Measured: 14.83	Depth to NAPL (TOC): NO D/LNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066FFF-P2

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor: GSI

Abandonment Method (check appropriate):

1. PVC → Pulled ☒ / Split ☐ / Perforated ☒ / Left-In-Place ☐
2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Geoprobe 7822DT, Grout pump

ARM Representative(s): L. Perrin

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 6.55
Measured: 8.00	Depth to NAPL (TOC): NO D/L NAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):

was previously gauged DTB to 8' but removed ~12' PVC + screen



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066FF-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 11/29/17

Abandonment Contractor: Allied

Abandonment Method (circle appropriate):

1. PVC — Pulled / Split / Perforated / Left-In-Place
2. Abandoned — Grout / Bentonite Chips

Field Equipment: Geoprobe 7822DT, Grout Pump

ARM Representative(s): Lisa Perrin

Well Diameter: 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 12.12'
Measured: 17.34'	Depth to NAPL (TOC): No LNAPL/DNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):

Transcribed from ARM field book records.



ARM Group Inc.
Engineers and Scientists
9175 Guilford Road - Suite 310
Columbia, Maryland 21046
(410) 290-7775 FAX: (410) 290-7775

Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066 F-pz

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor: GSF

Abandonment Method (check appropriate):

1. PVC → Pulled ☒ / Split ☐ / Perforated ☒ / Left-In-Place ☐

2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Geoprobe 7822JT, Grout pump

ARM Representative(s): L. Perrin

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 8.00
Measured: 16.51	Depth to NAPL (TOC): 7.99

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



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(410) 290-7775 FAX: (410) 290-7775

Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066GGG-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 11/29/17

Abandonment Contractor:

Abandonment Method (circle appropriate):

1. PVC → Pulled / Split / Perforated / Left-In-Place
2. Abandoned → Grout / Bentonite Chips

Field Equipment:

ARM Representative(s): Lisa Perrin

Well Diameter: 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): Not Measured
Measured: Not Measured	Depth to NAPL (TOC): Not Measured

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):

Transcribed from ARM field book records. Piezometer was found destroyed and was not abandoned.



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066GG-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 11/29/17

Abandonment Contractor: Allied

Abandonment Method (circle appropriate):

1. PVC — Pulled / Split / Perforated / Left-In-Place
2. Abandoned — Grout / Bentonite Chips

Field Equipment: Geoprobe 7822DT, Grout Pump

ARM Representative(s): Lisa Perrin

Well Diameter: 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 12.04'
Measured: 17.91'	Depth to NAPL (TOC): No LNAPL/DNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):

Transcribed from ARM field book records.



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-0666-92

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor:

Abandonment Method (check appropriate):

1. PVC → Pulled ☐ / Split ☐ / Perforated ☒ / Left-In-Place ☐ * Did not abandon
2. Abandoned → Grout ☐ / Bentonite Chips ☐

Field Equipment: NA

ARM Representative(s): L. Perrin

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): NA
Measured: NA	Depth to NAPL (TOC): NA

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-0666

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):

could not locate & destroyed



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-HHH-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor:

Abandonment Method (check appropriate):

1. PVC → Pulled ☐ / Split ☐ / Perforated ☒ / Left-In-Place ☐ Did not abandon
2. Abandoned → Grout ☐ / Bentonite Chips ☐

Field Equipment: NA

ARM Representative(s): L. Perrin

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): NA
Measured: NA	Depth to NAPL (TOC): NA

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):

Could not locate → destroyed



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066 H H-P2

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 11/29/15

Abandonment Contractor: Allied

Abandonment Method (circle appropriate):

1. PVC → Pulled / Split / Perforated / Left-In-Place
2. Abandoned → Grout / Bentonite Chips

Field Equipment: Geoprobe/grout machine 95% portland 5% bent.

ARM Representative(s): L. Perrin

Well Diameter: 1

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 12.14
Measured: 17.03	Depth to NAPL (TOC): NO DNAPL / LNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066 NAPL

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066H-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 11/29/17 and 11/28/17

Abandonment Contractor: Allied

Abandonment Method (circle appropriate):

1. PVC → Pulled / Split / Perforated / Left-In-Place
2. Abandoned → Grout / Bentonite Chips

Field Equipment: Geoprobe / Grout machine 95% Portland
5% Bentonite

ARM Representative(s): Lifervin

Well Diameter: 1

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 10.32
Measured: 16.23	Depth to NAPL (TOC): NO DNAPL / LNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066 NAPL

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066 IIII - pr

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 11/29/17

Abandonment Contractor: Allied

Abandonment Method (circle appropriate):

1. PVC → Pulled / Split / Perforated / Left-In-Place ← per E. Magdard
2. Abandoned → Grout / Bentonite Chips

Field Equipment: Geoprobe / Grout machine 95% Portland
5% Bent

ARM Representative(s): L. Perrin

Well Diameter: 1

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 8.77
Measured: 18.19	Depth to NAPL (TOC): No DNAPL/LNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066 NAPL

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any): Large pallets blocking access



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066 II-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 11/29/17

Abandonment Contractor: Allied

Abandonment Method (circle appropriate):

1. PVC → Pulled / Split / Perforated / Left-In-Place
2. Abandoned → Grout / Bentonite Chips

Field Equipment: Geoprobe, Grout machine 95% portland
5% bent.

ARM Representative(s): L. Perrin

Well Diameter: 1

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 8.55
Measured: 17.90	Depth to NAPL (TOC): NO DNAPL LNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066 NAPL

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066I-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/4/18

Abandonment Contractor:

Abandonment Method (circle appropriate):

1. PVC → Pulled / Split / Perforated / Left-In-Place
2. Abandoned → Grout / Bentonite Chips

Field Equipment:

ARM Representative(s): Lisa Perrin

Well Diameter: 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): Not Measured
Measured: Not Measured	Depth to NAPL (TOC): Not Measured

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):

Transcribed from ARM field book records. Piezometer was found destroyed and was not abandoned.



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066JJJ-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor: GSI

Abandonment Method (check appropriate):

1. PVC → Pulled ☒ / Split ☐ / Perforated ☒ / Left-In-Place ☐
2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Geoprobe 7822DT, Grout pump

ARM Representative(s): L. Perrin

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 8.00
Measured: 21.44	Depth to NAPL (TOC): No D/LNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



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Columbia, Maryland 21046

(410) 290-7775 FAX: (410) 290-7775

Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066JJ-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor:

Abandonment Method (check appropriate):

1. PVC → Pulled ☐ / Split ☐ / Perforated ☒ / Left-In-Place ☐ *Did not Abandon*
2. Abandoned → Grout ☐ / Bentonite Chips ☐

Field Equipment: NA

ARM Representative(s): L Perrin

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): NA
Measured: NA	Depth to NAPL (TOC): NA

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):

Could not locate → destroyed



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066 J-pz

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor:

Abandonment Method (check appropriate):

1. PVC → Pulled ☐ / Split ☐ / Perforated ☒ / Left-In-Place ☐ * Did not Abandon
2. Abandoned → Grout ☐ / Bentonite Chips ☐

Field Equipment: NA

ARM Representative(s): L Perrin

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): NA
Measured: NA	Depth to NAPL (TOC): NA

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):

Could not locate → destroyed



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066 RKK-P2

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 11/29/17

Abandonment Contractor: Allied

Abandonment Method (circle appropriate):

1. PVC → Pulled / Split / Perforated / Left-In-Place
2. Abandoned → Grout / Bentonite Chips

Field Equipment: Geoprobe / Grout machine 45% Portland 5% Bent

ARM Representative(s): L. Perrin

Well Diameter: 1

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 13.60
Measured: 18.86	Depth to NAPL (TOC): No NAPL / LNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066 NAPL

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066KK-PZ

General Project Information:

Client: TPA

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 1/12/21

Abandonment Contractor:

Abandonment Method (circle appropriate):

1. PVC → Pulled / Split / Perforated / Left-In-Place
2. Abandoned → Grout / Bentonite Chips

Field Equipment:

ARM Representative(s): Lisa Perrin

Well Diameter: 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): Not Measured
Measured: Not Measured	Depth to NAPL (TOC): Not Measured

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):

Transcribed from ARM field book records. Piezometer was found destroyed and was not abandoned.



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066H-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 11/29/17

Abandonment Contractor: Allied

Abandonment Method (circle appropriate):

1. PVC — Pulled / Split / Perforated / Left-In-Place
2. Abandoned — Grout / Bentonite Chips

Field Equipment: Geoprobe 7822DT, Grout Pump

ARM Representative(s): Lisa Perrin

Well Diameter: 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 10.32'
Measured: 16.23'	Depth to NAPL (TOC): No LNAPL/DNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):

Transcribed from ARM field book records.



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066LLL-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 11/29/17

Abandonment Contractor: Allied

Abandonment Method (circle appropriate):

1. PVC → Pulled / Split / Perforated / Left-In-Place
2. Abandoned → Grout / Bentonite Chips

Field Equipment: Geoprobe / Grout machine 95% portland
5% bent

ARM Representative(s): L. Perrin

Well Diameter: 1

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 12.73
Measured: 21.43	Depth to NAPL (TOC): NO DNAPL / LNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066 NAPL

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066LL-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 4/14/18

Abandonment Contractor:

Abandonment Method (circle appropriate):

1. PVC → Pulled / Split / Perforated / Left-In-Place
2. Abandoned → Grout / Bentonite Chips

Field Equipment:

ARM Representative(s): Lisa Perrin

Well Diameter: 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): Not Measured
Measured: Not Measured	Depth to NAPL (TOC): Not Measured

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):

Transcribed from ARM field book records. Piezometer was found destroyed and was not abandoned.



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066L-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor: GSI

Abandonment Method (check appropriate):

1. PVC → Pulled ☒ / Split ☐ / Perforated ☒ / Left-In-Place ☐
2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Geoprobe 2822DT, Grout pump

ARM Representative(s): L. Perrin

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 7.95
Measured: 17.99	Depth to NAPL (TOC): NO D/L NAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



ARM Group LLC
Engineers and Scientists
9175 Guilford Road - Suite 310
Columbia, Maryland 21046
(410) 290-7775 FAX: (410) 290-7775

Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066mm-P2

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor: GSI

Abandonment Method (check appropriate):

1. PVC → Pulled ☒ / Split ☐ / Perforated ☒ / Left-In-Place ☐
2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Geoprobe 7822DT, Grout pump

ARM Representative(s): L. Perrin

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 11.00
Measured: 15.58	Depth to NAPL (TOC): NO D/L NAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



ARM Group LLC
Engineers and Scientists
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Columbia, Maryland 21046
(410) 290-7775 FAX: (410) 290-7775

Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066MM-PZ

General Project Information:

Client: TPA

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 1/12/21

Abandonment Contractor:

Abandonment Method (circle appropriate):

1. PVC → Pulled / Split / Perforated / Left-In-Place
2. Abandoned → Grout / Bentonite Chips

Field Equipment:

ARM Representative(s): Lisa Perrin

Well Diameter: 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): Not Measured
Measured: Not Measured	Depth to NAPL (TOC): Not Measured

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):

Transcribed from ARM field book records. Piezometer was found destroyed and was not abandoned.



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(410) 290-7775 FAX: (410) 290-7775

Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066m-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor: GSI

Abandonment Method (check appropriate):

1. PVC → Pulled ☒ / Split ☐ / Perforated ☒ / Left-In-Place ☐
2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Geoprobe 7822DT, Grout pump

ARM Representative(s): L. Perrin

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 10.60
Measured: 18.01	Depth to NAPL (TOC): NO D/LNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066 NNN-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor: GSI

Abandonment Method (check appropriate):

1. PVC → Pulled ☒ / Split ☐ / Perforated ☒ / Left-In-Place ☐

2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Geoprobe TB22DT, Grout pump

ARM Representative(s): L. Perrin

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 6.36
Measured: 19.99	Depth to NAPL (TOC): NO D/L NAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066NN-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 8/10/18

Abandonment Contractor:

Abandonment Method (circle appropriate):

1. PVC → Pulled / Split / Perforated / Left-In-Place
2. Abandoned → Grout / Bentonite Chips

Field Equipment:

ARM Representative(s): Lisa Perrin

Well Diameter: 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): Not Measured
Measured: Not Measured	Depth to NAPL (TOC): Not Measured

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):

Transcribed from ARM field book records. Piezometer was found destroyed and was not abandoned.



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066N-P2

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor: GST

Abandonment Method (check appropriate):

1. PVC → Pulled ☒ / Split ☐ / Perforated ☒ / Left-In-Place ☐
2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Geoprobe 7822DT, Grout pump

ARM Representative(s): L. Perrin

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 7.92
Measured: 17.98	Depth to NAPL (TOC): trace LNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066000-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor: GSI

Abandonment Method (check appropriate):

1. PVC → Pulled ☒ / Split ☐ / Perforated ☒ / Left-In-Place ☐
2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Geoprobe 7822DT, Grout pump

ARM Representative(s): L. Perron

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 4.94
Measured: 16.74	Depth to NAPL (TOC): NO D/CNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066OO-PZ

General Project Information:

Client: TPA

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 4/14/21

Abandonment Contractor:

Abandonment Method (circle appropriate):

1. PVC → Pulled / Split / Perforated / Left-In-Place
2. Abandoned → Grout / Bentonite Chips

Field Equipment:

ARM Representative(s): Lisa Perrin

Well Diameter: 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): Not Measured
Measured: Not Measured	Depth to NAPL (TOC): Not Measured

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):

Transcribed from ARM field book records. Piezometer was found destroyed and was not abandoned.



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Engineers and Scientists
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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-0660-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor: GSI

Abandonment Method (check appropriate):

1. PVC → Pulled ☒ / Split ☐ / Perforated ☒ / Left-In-Place ☐
2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Geoprobe 7822DT, Grout pump

ARM Representative(s): L. Perrin

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): NA
Measured: NA	Depth to NAPL (TOC): NA

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any): * Broken few inches above surface
Couldn't gauge



ARM Group LLC

Engineers and Scientists

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Well/Piezometer Abandonment Form

Well/Piezometer ID:

B6-066PPP-P2

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 11/29/17

Abandonment Contractor: Allied

Abandonment Method (circle appropriate):

1. PVC → Pulled / Split / Perforated / Left-In-Place
2. Abandoned → Grout / Bentonite Chips

Field Equipment:

Geoprobe/Grout machine 95% Portland
5% Bent.

ARM Representative(s):

L. Perrin

Well Diameter:

1

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 7.10
Measured: 17.06	Depth to NAPL (TOC): NO DNAPL/LNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066 NAPL

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



ARM Group Inc.

Earth Resource Engineers and Consultants

9175 Guilford Road - Suite 310

Columbia, Maryland 21046

(410) 290-7775 FAX: (410) 290-7775

Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066PP-PZ

General Project Information:

Client: TPA

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 4/14/21

Abandonment Contractor:

Abandonment Method (circle appropriate):

1. PVC → Pulled / Split / Perforated / Left-In-Place
2. Abandoned → Grout / Bentonite Chips

Field Equipment:

ARM Representative(s): Lisa Perrin

Well Diameter: 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): Not Measured
Measured: Not Measured	Depth to NAPL (TOC): Not Measured

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):

Transcribed from ARM field book records. Piezometer was found destroyed and was not abandoned.



ARM Group Inc.
Engineers and Scientists
9175 Guilford Road - Suite 310
Columbia, Maryland 21046
(410) 290-7775 FAX: (410) 290-7775

Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066P-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor: GSI

Abandonment Method (check appropriate):

1. PVC → Pulled ☒ / Split ☐ / Perforated ☒ / Left-In-Place ☐
2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Geoprobe 7822DT Grout pump

ARM Representative(s): L. Perrin

Well Diameter (inches): 11

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 9.16
Measured: 19.62	Depth to NAPL (TOC): trace LNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



ARM Group LLC

Engineers and Scientists

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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066-P2

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor:

Abandonment Method (check appropriate):

1. PVC → Pulled ☐ / Split ☐ / Perforated ☒ / Left-In-Place ☐ *Did not abandon*
2. Abandoned → Grout ☐ / Bentonite Chips ☐

Field Equipment: NA

ARM Representative(s): L. Perrin

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): NA
Measured: NA	Depth to NAPL (TOC): NA

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):

could not locate → destroyed



ARM Group LLC

Engineers and Scientists

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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066Q-P2

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor: GSI

Abandonment Method (check appropriate):

1. PVC → Pulled ☐ / Split ☐ / Perforated ☒ / Left-In-Place ☒
2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Grout pump

ARM Representative(s): L. Perrin

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): NA
Measured: NA	Depth to NAPL (TOC): NA

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any): Broken at surface → couldn't remove PVC, could not gauge



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066QQ-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor:

Abandonment Method (check appropriate):

1. PVC → Pulled ☐ / Split ☐ / Perforated ☒ / Left-In-Place ☐ *★ Did not abandon*
2. Abandoned → Grout ☐ / Bentonite Chips ☐

Field Equipment: NA

ARM Representative(s): L. Perrin

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): NA
Measured: NA	Depth to NAPL (TOC): NA

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):

could not locate → destroyed



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066QQQ-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 12/14/18

Abandonment Contractor:

Abandonment Method (circle appropriate):

1. PVC → Pulled / Split / Perforated / Left-In-Place
2. Abandoned → Grout / Bentonite Chips

Field Equipment:

ARM Representative(s): Lisa Perrin

Well Diameter: 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): Not Measured
Measured: Not Measured	Depth to NAPL (TOC): Not Measured

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):

Transcribed from ARM field book records. Piezometer was found destroyed and was not abandoned.



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066R-PZ

General Project Information:

Client: TPA

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 1/12/21

Abandonment Contractor:

Abandonment Method (circle appropriate):

1. PVC → Pulled / Split / Perforated / Left-In-Place
2. Abandoned → Grout / Bentonite Chips

Field Equipment:

ARM Representative(s): Lisa Perrin

Well Diameter: 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): Not Measured
Measured: Not Measured	Depth to NAPL (TOC): Not Measured

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):

Transcribed from ARM field book records. Piezometer was found destroyed and was not abandoned.



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Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066 RR-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor: GSI

Abandonment Method (check appropriate):

1. PVC → Pulled ☒ / Split ☐ / Perforated ☒ / Left-In-Place ☐
2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Geoprobe 7822DT, Grout Pump

ARM Representative(s): L. Penn

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 11.23
Measured: 19.44	Depth to NAPL (TOC): NO D/L NAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



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Well/Piezometer Abandonment Form

Well/Piezometer ID:

B6-066RRR-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID:

B6

Abandonment Date:

11/29/17

Abandonment Contractor:

Allied

Abandonment Method (circle appropriate):

1. PVC → Pulled / Split / Perforated / Left-In-Place
2. Abandoned → Grout / Bentonite Chips

Field Equipment:

Geoprobe / grout machine 95% Portland
5% Bent.

ARM Representative(s):

L. Perrin

Well Diameter:

1

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 8.03
Measured: 16.72	Depth to NAPL (TOC): No NAPL / LNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066 NAPL

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



ARM Group Inc.

Earth Resource Engineers and Consultants

9175 Guilford Road - Suite 310

Columbia, Maryland 21046

(410) 290-7775 FAX: (410) 290-7775

Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066S-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor:

Abandonment Method (check appropriate):

1. PVC → Pulled ☐ / Split ☐ / Perforated ☒ / Left-In-Place ☐ *Did not Abandon*
2. Abandoned → Grout ☐ / Bentonite Chips ☐

Field Equipment: NA

ARM Representative(s): L. Perrin

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): NA
Measured: NA	Depth to NAPL (TOC): NA

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):

could not locate → destroyed



ARM Group LLC

Engineers and Scientists

9175 Guilford Road - Suite 310

Columbia, Maryland 21046

(410) 290-7775 FAX: (410) 290-7775

Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066SS-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor:

Abandonment Method (check appropriate):

1. PVC → Pulled ☐ / Split ☐ / Perforated ☒ / Left-In-Place ☐ * Did not abandon
2. Abandoned → Grout ☐ / Bentonite Chips ☐

Field Equipment: NA

ARM Representative(s): L Perrin

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): NA
Measured: NA	Depth to NAPL (TOC): NA

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):

Could not locate → destroyed



ARM Group LLC

Engineers and Scientists

9175 Guilford Road - Suite 310

Columbia, Maryland 21046

(410) 290-7775 FAX: (410) 290-7775

Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066T-P2

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor: GSI

Abandonment Method (check appropriate):

1. PVC → Pulled ☒ / Split ☐ / Perforated ☒ / Left-In-Place ☐
2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Geoprobe 2822DT, Grout pump

ARM Representative(s): L. Perren

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 9.99
Measured: 17.24	Depth to NAPL (TOC): NO D/L NAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



ARM Group LLC
Engineers and Scientists
9175 Guilford Road - Suite 310
Columbia, Maryland 21046
(410) 290-7775 FAX: (410) 290-7775

Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066 TT-P2

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor: BSI

Abandonment Method (check appropriate):

1. PVC → Pulled ☒ / Split ☐ / Perforated ☒ / Left-In-Place ☐
2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Geoprobe Z822DT, Grout pump

ARM Representative(s): L. Perrin

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 11.62
Measured: 19.87	Depth to NAPL (TOC): NO D/L NAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



ARM Group LLC
Engineers and Scientists
9175 Guilford Road - Suite 310
Columbia, Maryland 21046
(410) 290-7775 FAX: (410) 290-7775

Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066U-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor:

Abandonment Method (check appropriate):

1. PVC → Pulled ☐ / Split ☐ / Perforated ☒ / Left-In-Place ☐

2. Abandoned → Grout ☐ / Bentonite Chips ☐

* Did not
Abandon

Field Equipment: NA

ARM Representative(s): L Perrin

Well Diameter (inches): 1 1/4

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): NA
Measured: NA	Depth to NAPL (TOC): NA

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066U

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):

Could not locate → destroyed



ARM Group LLC

Engineers and Scientists

9175 Guilford Road - Suite 310

Columbia, Maryland 21046

(410) 290-7775 FAX: (410) 290-7775

Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-06644-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor: GSE

Abandonment Method (check appropriate):

1. PVC → Pulled ☒ / Split ☐ / Perforated ☒ / Left-In-Place ☐
2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Geoprobe 7822DT, Grout pump

ARM Representative(s): L. Perrin

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 10.66
Measured: 16.73	Depth to NAPL (TOC): No D/LNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



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Engineers and Scientists
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Columbia, Maryland 21046
(410) 290-7775 FAX: (410) 290-7775

Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066VV-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor:

Abandonment Method (check appropriate):

1. PVC → Puled ☐ / Split ☐ / Perforated ☒ / Left-In-Place ☐ * Did not abandon
2. Abandoned → Grout ☐ / Bentonite Chips ☐

Field Equipment: NA

ARM Representative(s): L Perrin

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): NA
Measured: NA	Depth to NAPL (TOC): NA

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any): Could not locate → destroyed



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Engineers and Scientists
9175 Guilford Road - Suite 310
Columbia, Maryland 21046
(410) 290-7775 FAX: (410) 290-7775

Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066W-P2

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor:

Abandonment Method (check appropriate):

1. PVC → Pulled ☐ / Split ☐ / Perforated ☒ / Left-In-Place ☐ * Did not Abandon
2. Abandoned → Grout ☐ / Bentonite Chips ☐

Field Equipment: NA

ARM Representative(s): L. Perrin

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): NA
Measured: NA	Depth to NAPL (TOC): NA

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):

Could not locate → destroyed



ARM Group LLC
Engineers and Scientists
9175 Guilford Road - Suite 310
Columbia, Maryland 21046
(410) 290-7775 FAX: (410) 290-7775

Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066 WW-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor:

Abandonment Method (check appropriate):

1. PVC → Pulled ☐ / Split ☐ / Perforated ☒ / Left-In-Place ☐ *did not abandon*
2. Abandoned → Grout ☐ / Bentonite Chips ☐

Field Equipment: NA

ARM Representative(s): L. Perrin

Well Diameter (inches): _____

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): NA
Measured: NA	Depth to NAPL (TOC): NA

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):

could not locate → destroyed



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Engineers and Scientists

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Columbia, Maryland 21046

(410) 290-7775 FAX: (410) 290-7775

Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066X-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor: GSI

Abandonment Method (check appropriate):

1. PVC → Pulled ☒ / Split ☐ / Perforated ☒ / Left-In-Place ☐

2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Geoprobe 7822DT, Grout pump

ARM Representative(s): L. Perrin

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 10.21
Measured: 15.10	Depth to NAPL (TOC): NO D/NAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



ARM Group LLC

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Columbia, Maryland 21046

(410) 290-7775 FAX: (410) 290-7775

Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066 XX-82

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor: GSI

Abandonment Method (check appropriate):

1. PVC → Pulled ☒ / Split ☐ / Perforated ☒ / Left-In-Place ☐
2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Geoprobe 7822DT, Grout pump

ARM Representative(s): L. Perrin

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 6.33
Measured: 17.2	Depth to NAPL (TOC): trace LNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



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Engineers and Scientists
9175 Guilford Road - Suite 310
Columbia, Maryland 21046
(410) 290-7775 FAX: (410) 290-7775

Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066Y-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor: GSI

Abandonment Method (check appropriate):

1. PVC → Pulled ☒ / Split ☐ / Perforated ☒ / Left-In-Place ☐
2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Geoprobe 7822DT, Grout pump

ARM Representative(s): L. Perrin

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 9.40
Measured: blocked? 12.40	Depth to NAPL (TOC): NO D/LNAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



ARM Group LLC
Engineers and Scientists
9175 Guilford Road - Suite 310
Columbia, Maryland 21046
(410) 290-7775 FAX: (410) 290-7775

Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-0668YY-P2

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor:

Abandonment Method (check appropriate):

1. PVC → Pulled ☐ / Split ☐ / Perforated ☒ / Left-In-Place ☐ * Did not abandon
2. Abandoned → Grout ☐ / Bentonite Chips ☐

Field Equipment: NA

ARM Representative(s): L. Fernin

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): NA
Measured: NA	Depth to NAPL (TOC): NA

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any): could not locate * Destroyed



ARM Group LLC
Engineers and Scientists
9175 Guilford Road - Suite 310
Columbia, Maryland 21046
(410) 290-7775 FAX: (410) 290-7775

Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066Z-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/3/21

Abandonment Contractor: GSI

Abandonment Method (check appropriate):

1. PVC → Pulled ☒ / Split ☐ / Perforated ☒ / Left-In-Place ☐
2. Abandoned → Grout ☒ / Bentonite Chips ☐

Field Equipment: Geoprobe 7822DT, Grout pump

ARM Representative(s): L. Perrin

Well Diameter (inches): 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): 10.31
Measured: 17.88	Depth to NAPL (TOC): NO D/C NAPL

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):



ARM Group LLC
Engineers and Scientists
9175 Guilford Road - Suite 310
Columbia, Maryland 21046
(410) 290-7775 FAX: (410) 290-7775

Well/Piezometer Abandonment Form

Well/Piezometer ID: B6-066B-PZ

General Project Information:

Client: EAG

Site Location: Sparrows Point, MD

Parcel ID: B6

Abandonment Date: 5/24/17

Abandonment Contractor:

Abandonment Method (circle appropriate):

1. PVC → Pulled / Split / Perforated / Left-In-Place
2. Abandoned → Grout / Bentonite Chips

Field Equipment:

ARM Representative(s): Lisa Perrin

Well Diameter: 1"

Depth to Bottom (TOC)	Final Gauging Prior to Abandonment:
Reported (historical/log):	Depth to Water (TOC): Not Measured
Measured: Not Measured	Depth to NAPL (TOC): Not Measured

Please note if this abandonment is for a known NAPL delineation/monitoring area or individual NAPL screening piezometer and identify the name of the delineation area (e.g., B6-066 NAPL Area or B5-144 Screening Piezometer): B6-066

Please Note: If NAPL is identified in a piezometer, the Project Manager should be notified and the piezometer may not be abandoned unless the presence of NAPL is already known and a decision has been made to abandon the NAPL monitoring network.

Additional Comments (if any):

Transcribed from ARM field book records. Piezometer was found destroyed and was not abandoned.



ARM Group Inc.
Engineers and Scientists
9175 Guilford Road - Suite 310
Columbia, Maryland 21046
(410) 290-7775 FAX: (410) 290-7775

APPENDIX C

March 15, 2021

Mr. Pete Haid
Tradepoint Atlantic
1600 Sparrows Point Boulevard
Baltimore, Maryland 21219

10975 Guilford Road, Suite A
Annapolis Junction, MD 20701
Phone (410) 880-4788
Fax (410) 880-4098
www.hcea.com

RE: Notice of Completion of Remedial Actions
Area B: Sub-Parcel B6-2
Baltimore County, Maryland
HCEA Project Number 18148A

Mr. Haid:

Hillis-Carnes Engineering Associates, Inc. (HCEA) is pleased to provide this Notice of Completion of Remedial Actions (Notice) for Area B: Sub-Parcel B6-2 in the Sparrows Point area of Baltimore County, Maryland (Site).

In conjunction with HCEA's environmental services at the Site, HCEA was provided with the Response and Development Work Plan for Area B: Sub-Parcel B6-2 (Revision 1 – January 24, 2018), hereafter referred to as the RDWP. Based on observations made during HCEA's environmental monitoring at the Site, to the best of our knowledge, understanding, and belief, the project (e.g., grading and utility installation) was completed in general accordance with the RDWP.

This Notice has been prepared for the exclusive use of the Client pursuant to the agreement between the Client and HCEA, dated March 27, 2018, in accordance with generally accepted industry practices. All terms and conditions set forth in the agreement are incorporated herein. No warranty, express or implied, is made herein. Use and reproduction of this Notice by any other person is unauthorized.

HCEA appreciates the opportunity to have been of assistance on this project. If you have any questions regarding this Notice, please feel free to contact us at 410-880-4788.

Sincerely,

HILLIS-CARNES ENGINEERING ASSOCIATES, INC.



Christopher J. Hillis, P.E.
Project Engineer
chillis@hcea.com



Keith M. Progin
Senior Environmental Project Manager
kprogin@hcea.com

APPENDIX D

HILLIS-CARNES

ENGINEERING ASSOCIATES

10975 Guilford Rd. Suite A
Annapolis Junction, MD 20701
Phone: 410-880-4788 Fax: 410-880-4098

Page 1 of 1

FIELD REPORT

Project No.: 18019A

Report No.:

Date: January 8, 2019

Project Name: B6-2

Weather/Temp: Cloudy/mid 40s

Client: Trade Point Atlantic

Travel Time: hr **Lunch Time:** hr

Contractor:

On Site Time: hr **Total Time:** hr

A. Description of Work:

HCEA arrived onsite per client request for observation, and soil monitoring services.

Dixie excavated two areas in the southwest of the B6-2 parcel and installed storm drain just north of the canal. HCEA inspected soil excavated from the excavation area and no instance of odors, staining, or PID readings above 10 ppm was observed.

Dust monitors were not deployed on this date due to the limited work. However, no excessive dust was observed.

B. Tests Performed/Testing Equipment Used

Soil monitoring/PID

C: Problems **Non-Compliance** ☐

D. Referenced Plans/Drawings

Verification: _____ **Reviewed By:** KH m Png **Technician:** Benjamin Jones

HILLIS-CARNES

ENGINEERING ASSOCIATES

10975 Guilford Rd. Suite A
Annapolis Junction, MD 20701
Phone: 410-880-4788 Fax: 410-880-4098

Page 1 of 1

FIELD REPORT

Project No.: 18019A

Report No.:

Date: January 9, 2019

Project Name: B6-2

Weather/Temp: Cloudy/mid 40s

Client: Trade Point Atlantic

Travel Time: hr **Lunch Time:** hr

Contractor:

On Site Time: hr **Total Time:** hr

A. Description of Work:

HCEA arrived onsite per client request for observation, and soil monitoring services.

Dixie excavated an area in the west of the B6-2 parcel, just west of the TPA building. Dixie hit a water line while excavating. HCEA inspected soil excavated from the excavation area and no instance of odors, staining, or PID readings above 10 ppm was observed. Water leaking out of pipe was capped and area was backfilled.

Dust monitors were not deployed on this date due to the limited work. However, no excessive dust was observed.

B. Tests Performed/Testing Equipment Used

Soil monitoring/PID

C: Problems **Non-Compliance** ☐

D. Referenced Plans/Drawings

Verification: _____ **Reviewed By:** KIR m Pyg **Technician:** Benjamin Jones

HILLIS-CARNES

ENGINEERING ASSOCIATES

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Annapolis Junction, MD 20701
Phone: 410-880-4788 Fax: 410-880-4098

Page 1 of 1

FIELD REPORT

Project No.: 18019A

Report No.:

Date: January 10, 2019

Project Name: B6-2

Weather/Temp: Cloudy/mid 30s

Client: Trade Point Atlantic

Travel Time: hr **Lunch Time:** hr

Contractor:

On Site Time: hr **Total Time:** hr

A. Description of Work:

HCEA arrived onsite per client request for observation, and soil monitoring services.

Dixie excavated an area in the west of the B6-2 parcel, just east of the TPA building in order to work on water pipe in that area. HCEA inspected soil excavated from the excavation area and no instance of odors, staining, or PID readings above 10 ppm was observed.

Dust monitors were not deployed on this date due to the limited work. However, no excessive dust was observed.

B. Tests Performed/Testing Equipment Used

Soil monitoring/PID

C: Problems **Non-Compliance** ☐

D. Referenced Plans/Drawings

Verification: _____ **Reviewed By:** KH m Png **Technician:** Benjamin Jones

HILLIS-CARNES

ENGINEERING ASSOCIATES

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Annapolis Junction, MD 20701
Phone: 410-880-4788 Fax: 410-880-4098

Page 1 of 1

FIELD REPORT

Project No.: 18019A

Report No.:

Date: January 11, 2019

Project Name: B6-2

Weather/Temp: Clear/high 30s

Client: Trade Point Atlantic

Travel Time: hr **Lunch Time:** hr

Contractor:

On Site Time: hr **Total Time:** hr

A. Description of Work:

HCEA arrived onsite per client request for observation, and soil monitoring services.

Dixie worked in the excavated area in the west of the B6-2 parcel, just east of the TPA building in order to work on water pipe.

Dust monitors were not deployed on this date due to the limited work. However, no excessive dust was observed.

B. Tests Performed/Testing Equipment Used

Soil monitoring/PID

C: Problems **Non-Compliance** ☐

D. Referenced Plans/Drawings

Verification: _____ **Reviewed By:** KH m Py **Technician:** Benjamin Jones

HILLIS-CARNES

ENGINEERING ASSOCIATES

10975 Guilford Rd. Suite A
Annapolis Junction, MD 20701
Phone: 410-880-4788 Fax: 410-880-4098

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FIELD REPORT

Project No.: 18019A

Report No.:

Date: January 12, 2019

Project Name: B6-2

Weather/Temp: Cloudy/mid 30s

Client: Trade Point Atlantic

Travel Time: hr **Lunch Time:** hr

Contractor:

On Site Time: hr **Total Time:** hr

A. Description of Work:

HCEA arrived onsite per client request for observation, and soil monitoring services.

Dixie worked in the excavated area in the west of the B6-2 parcel, just east of the TPA building in order to cap water pipe.

B. Tests Performed/Testing Equipment Used

Soil monitoring/PID

C: Problems **Non-Compliance** ☐

D. Referenced Plans/Drawings

Verification: _____ **Reviewed By:** KR m Png **Technician:** Benjamin Jones

HILLIS-CARNES

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FIELD REPORT

Project No.: 18019A

Report No.:

Date: January 14, 2019

Project Name: B6-2

Weather/Temp: Clear/mid 30s

Client: Trade Point Atlantic

Travel Time: hr **Lunch Time:** hr

Contractor:

On Site Time: hr **Total Time:** hr

A. Description of Work:

HCEA arrived onsite per client request for observation, and soil monitoring services.

Dixie backfilled the excavated area on west side of the B6-2 parcel, just east of the TPA building that was excavated in order to work on the water pipe.

Dust monitors were not deployed on this date due to the limited work. However, no excessive dust was observed.

B. Tests Performed/Testing Equipment Used

Soil monitoring/PID

C: Problems **Non-Compliance** ☐

D. Referenced Plans/Drawings

Verification: _____ **Reviewed By:** KR m Pyg **Technician:** Benjamin Jones

APPENDIX E



ARM Group Inc.

Engineers and Scientists

August 21, 2018

Ms. Barbara Brown
Project Coordinator
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, MD 21230

Re: Quarterly Development Status Update
Second Quarter 2018
Area B: Sub-Parcel B6-2
Tradepoint Atlantic
Sparrows Point, Maryland

Dear Ms. Brown,

ARM Group Inc. (ARM), on behalf of EnviroAnalytics Group (EAG), has prepared this Quarterly Development Status Update to document ongoing and completed development activities performed on Sub-Parcel B6-2 (the Site) during the second quarter of 2018. The Sub-Parcel B6-2 Response and Development Work Plan (RADWP) Addendum – Retail Area #1 (dated May 22, 2018) was approved by the agencies by email on June 5, 2018. The initial expected development of Sub-Parcel B6-2 includes grading and utility work.

Environmental Oversight

Full-time oversight was performed by an Environmental Professional (EP) provided by Hillis Carnes Engineering Associates (HCEA) during pre-development (demolition phase) and development activities. In addition to general oversight to ensure compliance with environmental regulations and the development plans, the EP was responsible for performing dust monitoring and soil screening services during intrusive activities.

Development Progress

Development work commenced on April 9, 2018 with Dixie as the General Contractor. Grading was completed for a parking lot. Construction of the building is ongoing. Utility trench work associated with the building construction is ongoing.

Dust Monitoring

Dust monitoring was performed with MetOne E-Sampler dust monitors. During the second quarter of 2018, one exceedance of the 3.0 mg/m³ action level occurred on June 19th, 2018 and did not last more than one minute. Because the exceedance was recorded on the upwind

monitor, the dust was likely not generated during Sub-Parcel B6-2 Retail Area #1 development activities. When dust generation was anticipated due to site conditions and planned development work, the Contractor proactively utilized a water truck to suppress dust.

Soil Management

Slag brought to the site was placed and graded across the entire development area.

The EP screened excavated material with a MultiRAE photoionization detector (PID). During the second quarter of 2018, no soil was segregated due to elevated PID readings, odors, or staining. Materials excavated during utility installations were placed beneath the slag fill at the eastern and western edges of the development area.

Excavated Soil Sampling and Disposal

During the second quarter of 2018, no materials were segregated due to elevated PID readings, staining, or odors. Thus, no sampling of stockpiled soil was required, and no soils were removed from the site for disposal at Greys Landfill or elsewhere.

Water Management

All dewatering discharges associated with the development of Sub-Parcel B6-2 were transmitted to the Tin Mill Canal, which leads to the on-site wastewater treatment plant. Dewatering was discharged downstream of the active remediation area of the Tin Mill Canal.

Notable Occurrences

None

If you have questions regarding any information covered in this document, please feel free to contact ARM Group Inc. at (410) 290-7775.

Respectfully Submitted,
ARM Group Inc.



Melissa A. Replogle, E.I.T.
Staff Engineer



T. Neil Peters, P.E.
Senior Vice President





ARM Group Inc.

Engineers and Scientists

October 31, 2018

Ms. Barbara Brown
Project Coordinator
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, MD 21230

Re: Quarterly Development Status Update
Third Quarter 2018
Area B: Sub-Parcel B6-2
Tradepoint Atlantic
Sparrows Point, Maryland

Dear Ms. Brown,

ARM Group Inc. (ARM), on behalf of EnviroAnalytics Group (EAG), has prepared this Quarterly Development Status Update to document ongoing and completed development activities performed on Sub-Parcel B6-2 (the Site) during the third quarter of 2018. The Sub-Parcel B6-2 Response and Development Work Plan (RADWP) Addendum – Retail Area #1 (dated May 22, 2018) was approved by the agencies by email on June 5, 2018. The initial expected development of Sub-Parcel B6-2 includes grading and utility work. Development work completed on Sub-Parcel B6-2 prior to July 1, 2018 is discussed in the previously submitted Quarterly Development Status Update (dated August 21, 2018).

Environmental Oversight

Full-time oversight was performed by an Environmental Professional (EP) provided by Hillis Carnes Engineering Associates (HCEA) during pre-development (demolition phase) and development activities. In addition to general oversight to ensure compliance with environmental regulations and the development plans, the EP was responsible for performing dust monitoring and soil screening services during intrusive activities.

Development Progress

Development work commenced prior to the third quarter of 2018 with Dixie as the General Contractor. Grading and slag placement were performed. A water line and conduit were installed, and structures were installed at the water line junction. Test pitting in support of future water line installation was performed.

Dust Monitoring

Dust monitoring was performed with MetOne E-Sampler dust monitors. During the third quarter of 2018, one exceedance of the 3.0 mg/m³ action level was recorded on the downwind monitor on September 5th, 2018. The exceedance did not last more than one minute and had a maximum 15-minute average concentration of 0.761 mg/m³. When dust generation was anticipated due to site conditions and planned development work, the Contractor proactively utilized a water truck to suppress dust.

Soil Management

Slag brought to the site was placed and graded across the entire development area.

The EP screened excavated material with a MultiRAE photoionization detector (PID). During the third quarter of 2018, no soil was segregated due to elevated PID readings, odors, or staining. Materials excavated during utility installations were replaced inside the utility trenches as backfill. The utility excavations predominantly occurred at shallow depths within the graded slag layer.

Excavated Soil Sampling and Disposal

During the third quarter of 2018, no materials were segregated due to elevated PID readings, staining, or odors. Thus, no sampling of stockpiled soil was required, and no soils were removed from the site for disposal at Greys Landfill or elsewhere.

Water Management

All dewatering discharges associated with the development of Sub-Parcel B6-2 were transmitted to the Tin Mill Canal, which leads to the on-site wastewater treatment plant. Dewatering was discharged downstream of the active area of the Tin Mill Canal maintenance cleanup. No dewatering was required in August or September 2018.

Notable Occurrences

None



If you have questions regarding any information covered in this document, please feel free to contact ARM Group Inc. at (410) 290-7775.

Respectfully Submitted,
ARM Group Inc.



Melissa A. Replogle, E.I.T.
Staff Engineer



T. Neil Peters, P.E.
Senior Vice President





ARM Group Inc.

Engineers and Scientists

January 30, 2019

Ms. Barbara Brown
Project Coordinator
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, MD 21230

Re: Quarterly Development Status Update
Fourth Quarter 2018
Area B: Sub-Parcel B6-2
Tradepoint Atlantic
Sparrows Point, MD 21219

Dear Ms. Brown,

ARM Group Inc. (ARM), on behalf of EnviroAnalytics Group (EAG), has prepared this Quarterly Development Status Update to document ongoing and completed development activities performed on Sub-Parcel B6-2 (the Site) during the fourth quarter of 2018. The Sub-Parcel B6-2 Response and Development Work Plan (RADWP) Addendum – Retail Area #1 (Revision 2 dated May 22, 2018) was approved by the agencies by email on June 5, 2018. The initial overall development of Sub-Parcel B6-2 Retail Area #1 includes grading and utility work. Development work completed on Sub-Parcel B6-2 prior to October 1, 2018 is discussed in the previously submitted Quarterly Development Status Updates (dated August 21, 2018; and October 31, 2018).

Environmental Oversight

Full-time oversight was performed by an Environmental Professional (EP) provided by Hillis Carnes Engineering Associates (HCEA) during pre-development (demolition phase) and intrusive development activities. In addition to general oversight to ensure compliance with environmental regulations and the development plans, the EP was responsible for performing dust monitoring and soil screening services during intrusive activities. No development work was performed in December 2018.

Development Progress

Development work commenced prior to the fourth quarter of 2018 with Dixie as the General Contractor. Excavations for a water line were performed, primarily at shallow depths within the graded slag layer, and the water line was installed. No development work was performed in December 2018.

Dust Monitoring

Dust monitoring was performed with MetOne E-Sampler dust monitors. During the fourth quarter of 2018, there were no exceedances of the 3.0 mg/m³ action level. When dust generation was anticipated due to site conditions and planned development work, the Contractor proactively utilized a water truck to suppress dust.

Soil Management

The EP screened excavated material with a MultiRAE photoionization detector (PID). During the fourth quarter of 2018, no soil was segregated due to elevated PID readings, odors, or staining. Materials excavated during utility installations were replaced inside the utility trenches as backfill. The utility excavations predominantly occurred at shallow depths within the graded slag layer.

Excavated Soil Sampling and Disposal

During the fourth quarter of 2018, no materials were segregated due to elevated PID readings, staining, or odors. Therefore, no sampling of stockpiled soil was required, and no soils were removed from the site for disposal at Greys Landfill or elsewhere.

Water Management

At the direction of Tradepoint Atlantic personnel, all dewatering discharges associated with the development of Sub-Parcel B6-2 were transmitted through filter bags to the Tin Mill Canal, which leads to the Humphreys Creek Wastewater Treatment Plant. No sheens or odors were detected in any dewatering discharges. No dewatering was required in December 2018.

Notable Occurrences

None

If you have questions regarding any information covered in this document, please feel free to contact ARM Group Inc. at (410) 290-7775.

Respectfully Submitted,
ARM Group Inc.



Melissa A. Replogle, E.I.T.
Staff Engineer



T. Neil Peters, P.E.
Senior Vice President



APPENDIX F

Memo

To: Mr. Peter Haid – Tradepoint Atlantic
From: Ms. Gina Galimberti
cc: Mr. Keith Progin
Date: March 19, 2018
Re: Sub-Parcel B6-2 - Pre-Construction Meeting for Grading and Utilities

On March 15, 2018, a pre-construction meeting for grading and utility work to be conducted by Dixie Construction at Sub-Parcel B6-2 was held at the Tradepoint office at 1600 Sparrows Point Boulevard. In attendance were:

- Mr. Peter Haid – Environmental Director, Tradepoint Atlantic
- Mr. Robert H. Coburn – Tradepoint Atlantic
- Mr. Pat Dixon – VP Operations, Dixie Construction
- Mr. James Modafferi, CHST, Safety & Training Manager, Dixie Construction
- Mr. DJ Kellum, Superintendent, Dixie Construction
- Mr. Keith Progin – Senior Environmental Project Manager, Hillis-Carnes Engineering
- Ms. Gina Galimberti – Environmental Services Manager, Hillis-Carnes Engineering

During this meeting, the Environmental Professional roles that will be performed by Hillis-Carnes during the applicable portions of the project were discussed. The roles generally include: a) monitoring of excavated soil; b) air monitoring for particulate dust; c) monitoring of dewatering activity; and d) documentation. A summary of these roles was provided to the attendees and is attached to this memorandum.

CRRGP F KZ'I

"

Keith Progin

From: Barbara Brown -MDE- <barbara.brown1@maryland.gov>
Sent: Wednesday, May 16, 2018 1:57 PM
To: Keith Progin
Cc: Jennifer Sohns -MDE- (jennifer.sohns@maryland.gov); phaid@tradepointatlantic.com
Subject: Re: SPT - Northern and Southern Sewer Clean Fill Requests

Hello Keith

The stone material from the Texas and Churchville Quarry as documented in the letters from Martin Marietta is acceptable for use at the Sparrows Point site as clean fill material on either commercial or industrial land use areas.

On Fri, May 11, 2018 at 3:09 PM, Keith Progin <kprogin@hcea.com> wrote:

Please see the attached affidavits for the proposed clean fill to be used during the northern and southern sewer lines. The material comes from Martin Marietta (formerly Blue Grass). Please let me know if this material is suitable.

Thanks!

Keith Progin | Project Manager, Environmental Division

HILLIS-CARNES ENGINEERING ASSOCIATES

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ENGINEERING ASSOCIATES

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Barbara Brown
MDE-LRP-VCP Section Head
direct 410 537 3212
general 410 537 3493

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