



**Appendix I**  
**Well Redevelopment**  
**Field Forms**

**Monitoring Well Development Record**

Client: Pepco Date: 12/12/16 Time: Start 1025  
 Project Name: Benning Road RI/FS Finish 1140  
 Project Number: 60340344  
 Developer(s): B. Daniels, N. Barrett

**1. WELL CONSTRUCTION DATA**

- a. Casing Diameter/Material 2" PVC
- b. Given Total Well Depth (TOC) 34.32
- c. Given Screen Interval (bgs) 10-35
- d. Measured Total Well Depth (TOC) 34.00
- e. Measured Depth to Water (TOC) 10.45
- f. Well Volume (gal) 3.84

Well Volume (gal) = Water Column Height [ft] (d - e) x 0.1632  
 (for 2" well)

**2. WELL DEVELOPMENT DATA**

Well screen surged with surge block?  Yes / No

Pump type(s) Whale

Turbidity Meter (Make/Model/Serial Number) LaMotte 2020we S/N:5995

Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)
1025	Start surge										
<del>1045</del>	2 gal										
1045	Pump on										
1120	36 gal										
1125	55	62.2									
1135	70	17.2									
1140	80	7.88									

Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added

Total Volume Added \_\_\_\_\_ Total Volume Removed 80 Final Turbidity 7.88

Total Volume Removed >110% of Total Volume Added?  Yes / No Final Turbidity <10 NTU?  Yes / No

Comments Pump rate = 1.5 gal/min

Signature [Signature] Date 12/12/16

## Monitoring Well Development Record

Client: Peppo Date: 12/12/16 Time: Start 1053  
 Project Name: Benning Road RI/FS Finish 1205  
 Project Number: 60340344  
 Developer(s): B Daniels, N. Barrett

### 1. WELL CONSTRUCTION DATA

a. Casing Diameter/Material 2" PVC d. Measured Total Well Depth (TOC) 51.45  
 b. Given Total Well Depth (TOC) 51.49 e. Measured Depth to Water (TOC) 10.45  
 c. Given Screen Interval (bgs) 40-52 f. Well Volume (gal) 6.69

Well Volume (gal) = Water Column Height [ft] (d - e) x 0.1632  
 (for 2" well)

### 2. WELL DEVELOPMENT DATA

Well screen surged with surge block?  Yes / No

Pump type(s) Whale

Turbidity Meter (Make/Model/Serial Number) LaMotte 2020we SN:15995

Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)
1050	Start surge										
	2 gal										
1100	Start pump										
1130	55 gal										
1150	90 gal	23.5									
1155	100	19.8									
1200	110	13.4									
1205	120	9.76									

Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added

Total Volume Added \_\_\_\_\_ Total Volume Removed 120 Final Turbidity 9.76

Total Volume Removed >110% of Total Volume Added? Yes / No Final Turbidity <10 NTU?  Yes / No

Comments Pump rate is 2 gal/min

Signature [Signature] Date 12/12/16

15 03  
17 55

0906



Well ID: MW-~~18~~ 2A  
24

# Monitoring Well Development Record

Client: Pepco Date: 12/7/16 Time: Start 0845  
 Project Name: Benning Road RI/FS Finish 1045  
 Project Number: 60340344  
 Developer(s): Daniel Hubert

## 1. WELL CONSTRUCTION DATA

a. Casing Diameter/Material <u>2" PVC</u>	d. Measured Total Well Depth (TOC) <u>NA</u> <u>27.78</u>
b. Given Total Well Depth (TOC) <u>27.50</u> <u>34.32</u>	e. Measured Depth to Water (TOC) <u>11'</u>
c. Given Screen Interval (bgs) <u>10-35</u> <u>8-28</u>	f. Well Volume (gal) _____

Well Volume (gal) = Water Column Height [ft] (d - e) x 0.1632  
 (for 2" well)

## 2. WELL DEVELOPMENT DATA

Well screen surged with surge block? Yes / No

Pump type(s) Whale pump (small)

Turbidity Meter (Make/Model/Serial Number) LaMotte 2020 WAE Turbidimeter Pin# : 034026

Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)
0850											
0906											
0945											
1005											
1014	118	16.18									
1022	132	6.64									

Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added

Total Volume Added NA Total Volume Removed 132 Final Turbidity 6.64

Total Volume Removed >110% of Total Volume Added? Yes / No Final Turbidity <10 NTU? Yes / No

Comments Manually surge well screen with surge block from 0850-0905. Use whale pump to manually surge well screen. Develop/purge until clear, sediment-free discharge (<10 NTU)

5 gals → 2 mins 58 sec 172 sec = 1.74 gals/minute

Signature [Signature] Date 12/7/16



Well ID: MW-~~23~~ 23  
24

### Monitoring Well Development Record

Client: Pepco Date: 12/7/10 Time: Start 0750  
 Project Name: Benning Road RI/FS Finish 1000  
 Project Number: 60340344 12/8/10 1000  
 Developer(s): Daniel Thibaut 1145

#### 1. WELL CONSTRUCTION DATA

a. Casing Diameter/Material 2" PVC d. Measured Total Well Depth (TOC) 53.51 52.52  
 b. Given Total Well Depth (TOC) 54.49 52.57 e. Measured Depth to Water (TOC) 11.18  
 c. Given Screen Interval (bgs) 40-50 38-53 f. Well Volume (gal) 6.75 gallons  
 Well Volume (gal) = Water Column Height [ft] (d - e) x 0.1632  
 (for 2" well)

#### 2. WELL DEVELOPMENT DATA

Well screen surged with surge block? (Yes) No  
 Pump type(s) Super Surger Whisk Pump  
 Turbidity Meter (Make/Model/Serial Number) LaMotte 2080 WE Turbidimeter Pin# 034020

Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)
0800						1017					
	Surge w/ Surge Block						Begin purging/surging w/ whisk pump				
0817						1051					
	Begin purging/surging w/ whisk pump						Purge only				
0849						1100					
	Purge only						Pull pump 2' off bottom				
0924	143	50.6				1118	122	10.53			
0932	160	50.3				1125	136	6.97			
	* pull pump 2' off bottom										
0940	177	79.6									
0945	188	51.5									
	* See note in back.										

Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added

Total Volume Added N/A Total Volume Removed 12/7 188 gallons 12/8 136 gallons Final Turbidity 12/7 51.5 \* >10 NTU

Total Volume Removed >110% of Total Volume Added? Yes (NA) No Final Turbidity <10 NTU? (Yes) No 12/8 6.97

Comments Manually surge well screen with surge block from 0800-0815.  
Use whisk pump to manually surge well screen. Develop/purge until clear, recover -  
see discharge (<10 NTU)

2/7 5 gals → 2 min @ 30 sec 140 seconds = 2.14 gals/minute  
 2/8 5 gals → 2 min @ 30 sec 150 seconds = 2 gals/minute

Signature Daniel Thibaut Date 12/7/10  
12/8/10



Well ID: MW-3A

### Monitoring Well Development Record

Client: Pepco Date: 12/7/16 Time: Start 1030  
 Project Name: Benning Road RI/FS Finish 1145  
 Project Number: 60340344  
 Developer(s): B Daniels

#### 1. WELL CONSTRUCTION DATA

a. Casing Diameter/Material 2" PVC d. Measured Total Well Depth (TOC) 25.12'  
 b. Given Total Well Depth (TOC) 25.08 e. Measured Depth to Water (TOC) 11.55'  
 c. Given Screen Interval (bgs) 10-25 f. Well Volume (gal) 2.21

Well Volume (gal) = Water Column Height [ft] (d - e) x 0.1632  
 (for 2" well)

#### 2. WELL DEVELOPMENT DATA

Well screen surged with surge block?  Yes /  No  
 Pump type(s) Super surger whale  
 Turbidity Meter (Make/Model/Serial Number) La Motte 2020 we SN: 916

Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)
1030	Start surge										
1055	Start purge										
11	2 gal										
1120	50 gal	25.2									
1130	70 gal	30.5									
1145	105	9.4									

Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added

Total Volume Added \_\_\_\_\_ Total Volume Removed 105 Final Turbidity 9.4

Total Volume Removed >110% of Total Volume Added? Yes / No NA Final Turbidity <10 NTU? Yes / No

Comments Pump rate: 2 gal/min

Signature B Daniels Date 12/7/16

## Monitoring Well Development Record

Client: Pepeco Date: 12/7/16 Time: Start 0925  
 Project Name: Benning Road RI/FS Finish 1055  
 Project Number: 60340344  
 Developer(s): B. Daniels

### 1. WELL CONSTRUCTION DATA

a. Casing Diameter/Material 2" PVC d. Measured Total Well Depth (TOC) 49.76  
 b. Given Total Well Depth (TOC) 49.76 e. Measured Depth to Water (TOC) 11.87  
 c. Given Screen Interval (bgs) 40-50 f. Well Volume (gal) 6.18  
 Well Volume (gal) = Water Column Height [ft] (d - e) x 0.1632  
 (for 2" well)

### 2. WELL DEVELOPMENT DATA

Well screen surged with surge block?  Yes / No  
 Pump type(s) Whak  
 Turbidity Meter (Make/Model/Serial Number) La Motte 2020we SN: 916

Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)
0925	Start surge										
0940	Stop surge										
	2 gal										
0950	Start pump										
1020	50 gal										
1030	75	66.2									
1040	90	48.2									
1045	100	23.1									
1050	110	17.8									
1055	120	8.71									

Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added

Total Volume Added \_\_\_\_\_ Total Volume Removed 120 Final Turbidity 8.71

Total Volume Removed >110% of Total Volume Added?  Yes / No Final Turbidity <10 NTU?  Yes / No

Comments Pump rate is 2 gal/min

Signature B. Daniels Date 12/7/16

## Monitoring Well Development Record

Client: Peppo Date: 12/9/16 Time: Start 1125  
 Project Name: Benning Road RI/FS Finish 1230  
 Project Number: 60340344  
 Developer(s): B. Daniels, N. Barrett

### 1. WELL CONSTRUCTION DATA

a. Casing Diameter/Material 2" PVC d. Measured Total Well Depth (TOC) 25.93  
 b. Given Total Well Depth (TOC) 25.93 e. Measured Depth to Water (TOC) 11.11  
 c. Given Screen Interval (bgs) 6-26 f. Well Volume (gal) 2.42  
 Well Volume (gal) = Water Column Height [ft] (d - e) x 0.1632  
 (for 2" well)

### 2. WELL DEVELOPMENT DATA

Well screen surged with surge block? Yes / No  
 Pump type(s) Whale pump  
 Turbidity Meter (Make/Model/Serial Number) LaMotte 2020we SN: 916

Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)
1125	Start surge										
	2.0 gal										
1140	Start pump										
1215	60 gal	70.5									
1225	85 gal	26.9									
1230	110	8.67									

Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added

Total Volume Added — Total Volume Removed 110 Final Turbidity 8.67

Total Volume Removed >110% of Total Volume Added? Yes / No Final Turbidity <10 NTU? Yes / No

Comments \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Signature B. Daniels Date 12/9/16





Well ID: MW-4B

### Monitoring Well Development Record

Client: Pepco Date: 12/9/16 Time: Start 1105  
 Project Name: Benning Road RI/FS Finish 1235  
 Project Number: 60340344  
 Developer(s): B. Daniels, N. Barrett

#### 1. WELL CONSTRUCTION DATA

- a. Casing Diameter/Material 2" PVC
  - b. Given Total Well Depth (TOC) 44.61
  - c. Given Screen Interval (bgs) 34-44
  - d. Measured Total Well Depth (TOC) 10.99 ↗
  - e. Measured Depth to Water (TOC) 44.60 ↖
  - f. Well Volume (gal) 5.49
- Well Volume (gal) = Water Column Height [ft] (d - e) x 0.1632  
(for 2" well)

#### 2. WELL DEVELOPMENT DATA

Well screen surged with surge block? Yes No

Pump type(s) Whale pump

Turbidity Meter (Make/Model/Serial Number) LaMotte 2020we SN: 916

Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)
1105	Start surge										
120	2 gal	Start pump									
1210	30 gal	36.7									
1225	45	15.8									
1235	55	5.11									

Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added

Total Volume Added    Total Volume Removed 55 Final Turbidity 5.11

Total Volume Removed >110% of Total Volume Added? Yes Final Turbidity <10 NTU? Yes / No

Comments Ran dry multiple times

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Signature B. Daniels Date 12/9/16

## Monitoring Well Development Record

Client: Pepco Date: 12/8/16 Time: Start 0850  
 Project Name: Benning Road RI/FS Finish 055  
 Project Number: 60340344  
 Developer(s): B. Daniels

### 1. WELL CONSTRUCTION DATA

- a. Casing Diameter/Material 2" PVC
  - b. Given Total Well Depth (TOC) 19.68
  - c. Given Screen Interval (bgs) 10-20
  - d. Measured Total Well Depth (TOC) 19.68
  - e. Measured Depth to Water (TOC) 15.08
  - f. Well Volume (gal) 0.75
- Well Volume (gal) = Water Column Height [ft] (d - e) x 0.1632  
(for 2" well)

### 2. WELL DEVELOPMENT DATA

Well screen surged with surge block?  Yes / No

Pump type(s) Whale

Turbidity Meter (Make/Model/Serial Number) La Motte 2020wrc SN: 916

Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)
0850	Start surge										
	0.5 gal										
0920	Start pump										
0945	8	48.8									
0955	10	36.7									
1010	12	25.5									
1020	15	19.8									
1035	18	15.0									
1045	20	12.2									
1055	24	8.9									

Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added
0930	1	1025	1						
0941	1	1040	1						
1015	1	1050	1						

Total Volume Added 6 Total Volume Removed 24 Final Turbidity 8.9

Total Volume Removed >110% of Total Volume Added?  Yes / No Final Turbidity <10 NTU?  Yes / No

Comments Ran dry multiple times.

Signature B. Daniels Date 12/8/16

## Monitoring Well Development Record

Client: Peppo Date: 12/8/16 Time: Start 1100  
 Project Name: Benning Road RI/FS Finish 1140  
 Project Number: 60340344  
 Developer(s): B. Daniels

### 1. WELL CONSTRUCTION DATA

a. Casing Diameter/Material 2" PVC d. Measured Total Well Depth (TOC) 57.71  
 b. Given Total Well Depth (TOC) 57.72 e. Measured Depth to Water (TOC) 17.24  
 c. Given Screen Interval (bgs) 41-56 f. Well Volume (gal) 6.6  
 Well Volume (gal) = Water Column Height [ft] (d - e) x 0.1632  
 (for 2" well)

### 2. WELL DEVELOPMENT DATA

Well screen surged with surge block? (Yes) No  
 Pump type(s) Supersurger whale  
 Turbidity Meter (Make/Model/Serial Number) La Motte 2020mc SN: 916

Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)
1100	Start surge										
1110	2 gal. Start pump										
1130	30 gal	55.3									
1136		18.3									
1140	60	7.2									

Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added

Total Volume Added 0 Total Volume Removed 60 Final Turbidity 7.2  
 Total Volume Removed >110% of Total Volume Added? Yes / No (NA) Final Turbidity <10 NTU? (Yes) No  
 Comments Pump rate ≈ 2 gal/min

Signature [Signature] Date 12/8/16

## Monitoring Well Development Record

Client: Pepco Date: 12/8/10 Time: Start 1145  
 Project Name: Benning Road RI/FS Finish 1335  
 Project Number: 60340344  
 Developer(s): David Hubert

### 1. WELL CONSTRUCTION DATA

a. Casing Diameter/Material <u>2" PVC</u>	d. Measured Total Well Depth (TOC) <u>28.09</u> <u>28.09</u>
b. Given Total Well Depth (TOC) <u>28.11</u>	e. Measured Depth to Water (TOC) <u>16.69</u>
c. Given Screen Interval (bgs) <u>8-28</u>	f. Well Volume (gal) <u>1.86 gallons</u>

Well Volume (gal) = Water Column Height [ft] (d - e) x 0.1632  
 (for 2" well)

### 2. WELL DEVELOPMENT DATA

Well screen surged with surge block? Yes / No

Pump type(s) Super Surger White Pump

Turbidity Meter (Make/Model/Serial Number) LaMotte 2020 w/ turbidimeter Pin # 034026

Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)
1150											
1205											
1240											
1250											
1301	120	60.6									
1312	135	10.74									
1319	159	7.65									

Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added

Total Volume Added NA Total Volume Removed 159 gallons Final Turbidity 7.65

Total Volume Removed >110% of Total Volume Added? NA Yes/No Final Turbidity <10 NTU? Yes / No

Comments Manually surge well screen with surge block from 1150-1205. Use white pump to manually surge well screen. Develop/purge until clear sediment-free discharge achieved (< 10 NTU)

5 gallons - 2 mins 20 seconds = 2.14 gals/minute

Signature [Signature] Date 12/8/10



Well ID: MW-6B

### Monitoring Well Development Record

Client: Pepco Date: 12/7/16 Time: Start 1315  
 Project Name: Benning Road RI/FS Finish 1530  
 Project Number: 60340344  
 Developer(s): Daniel Hubert

#### 1. WELL CONSTRUCTION DATA

- a. Casing Diameter/Material 2" PVC
  - b. Given Total Well Depth (TOC) 55.88
  - c. Given Screen Interval (bgs) 41-56
  - d. Measured Total Well Depth (TOC) 55.86
  - e. Measured Depth to Water (TOC) 16.26
  - f. Well Volume (gal) 6.46 gallons
- Well Volume (gal) = Water Column Height [ft] (d - e) x 0.1632  
(for 2" well)

#### 2. WELL DEVELOPMENT DATA

Well screen surged with surge block?  Yes / No

Pump type(s) Super Surge White Pump

Turbidity Meter (Make/Model/Serial Number) LaMotte Jazo WE Turbidimeter Part #: 034026

Time Volume Turbidity Time Volume Turbidity Time Volume Turbidity Time Volume Turbidity  
 (24 hr) Removed (NTU) (24 hr) Removed (NTU) (24 hr) Removed (NTU) (24 hr) Removed (NTU)

1330	Surge w/ surge block										
1347	Begin surging/surging w/ white pump										
1435	Purge end										
1442	Pull pipe 2' off bottom										
1454	134	31.2									
1505	156	20.3									
1510	160	9.60									

Time Volume Time Volume Time Volume Time Volume Time Volume Time Volume  
 (24 hr) Added (24 hr) Added (24 hr) Added (24 hr) Added (24 hr) Added (24 hr) Added


Total Volume Added N/A Total Volume Removed 166 gallons Final Turbidity 9.60

Total Volume Removed >110% of Total Volume Added?  Yes / No Final Turbidity <10 NTU?  Yes / No

Comments Manually surge well screen with surge block from 1330-1345  
Use white pump to manually surge well screen. Develop/purge until clear,  
sediment-free discharge achieved (<10 NTU)

5 gals -> 150 seconds 2 gals/min

Signature [Signature] Date 12/7/16

## Monitoring Well Development Record

Client: Pepco Date: 12/12/16 Time: Start 0805  
 Project Name: Benning Road RI/FS Finish 0920  
 Project Number: 60340344  
 Developer(s): B. Daniels, N. Barrett

### 1. WELL CONSTRUCTION DATA

a. Casing Diameter/Material 2" PVC d. Measured Total Well Depth (TOC) 28.00  
 b. Given Total Well Depth (TOC) 28.05 e. Measured Depth to Water (TOC) 13.55  
 c. Given Screen Interval (bgs) 8-28 f. Well Volume (gal) 2.36

Well Volume (gal) = Water Column Height [ft] (d - e) x 0.1632  
 (for 2" well)

### 2. WELL DEVELOPMENT DATA

Well screen surged with surge block?  Yes /  No

Pump type(s) Whale

Turbidity Meter (Make/Model/Serial Number) LaMotte 2020 we S/N: 5995

Time Volume Turbidity Time Volume Turbidity Time Volume Turbidity Time Volume Turbidity  
 (24 hr) Removed (NTU) (24 hr) Removed (NTU) (24 hr) Removed (NTU) (24 hr) Removed (NTU)

Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)
0805	Start surge										
	1 gal										
0820	Pump on										
0855	70 gal										
0905	85 gal	50.7									
0910	95	26.1									
0915	105	15.2									
0920	115	8.77									

Time Volume Time Volume Time Volume Time Volume Time Volume Time Volume  
 (24 hr) Added (24 hr) Added (24 hr) Added (24 hr) Added (24 hr) Added (24 hr) Added (24 hr) Added (24 hr) Added

Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added

Total Volume Added — Total Volume Removed 115 Final Turbidity 8.77

Total Volume Removed >110% of Total Volume Added?  Yes /  No Final Turbidity <10 NTU?  Yes /  No

Comments Pump rate 12 gal/min

Signature [Signature] Date 12/12/16

## Monitoring Well Development Record

Client: Pepco Date: 12/12/16 Time: Start 0825  
 Project Name: Benning Road RI/FS Finish 0955  
 Project Number: 60340344  
 Developer(s): B. Daniels, N. Barrett

### 1. WELL CONSTRUCTION DATA

- a. Casing Diameter/Material 2" PVC
  - b. Given Total Well Depth (TOC) 50.88
  - c. Given Screen Interval (bgs) 36-51
  - d. Measured Total Well Depth (TOC) 50.80
  - e. Measured Depth to Water (TOC) 13.51
  - f. Well Volume (gal) ~~37.69~~ 6.09
- Well Volume (gal) = Water Column Height [ft] (d - e) x 0.1632  
 (for 2" well)

### 2. WELL DEVELOPMENT DATA

Well screen surged with surge block?  Yes  No

Pump type(s) whale

Turbidity Meter (Make/Model/Serial Number) LaMotte 2010 One s/n: 5995

Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)
0825	Start surge										
	add										
0835	Pump on										
0905	2 gal										
0910	70	85.5									
0920	90	33.4									
0935	120	21.1									
0945	140	14.2									
0950	150	11.9									
0955	160	9.25									

Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added

Total Volume Added \_\_\_\_\_ Total Volume Removed 16.0 Final Turbidity 9.25

Total Volume Removed >110% of Total Volume Added?  Yes / No Final Turbidity <10 NTU?  Yes / No

Comments Pump rate: 2 gal/min

Signature B. Daniels Date 12/12/16



Well ID: MW-8A

### Monitoring Well Development Record

Client: Pepco Date: 12/9/16 Time: Start 0745  
 Project Name: Benning Road RI/FS Finish 0930  
 Project Number: 60340344  
 Developer(s): Ben Daniels, Nick Barrett

#### 1. WELL CONSTRUCTION DATA

- a. Casing Diameter/Material 2" PVC
  - b. Given Total Well Depth (TOC) 24.22
  - c. Given Screen Interval (bgs) 10-25
  - d. Measured Total Well Depth (TOC) 23.74
  - e. Measured Depth to Water (TOC) 13.56
  - f. Well Volume (gal) 1.66
- Well Volume (gal) = Water Column Height [ft] (d - e) x 0.1632  
 (for 2" well)

#### 2. WELL DEVELOPMENT DATA

Well screen surged with surge block?  Yes /  No

Pump type(s) Whale

Turbidity Meter (Make/Model/Serial Number) LaMotte 2020 ne S/N: 916

Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)
0745	Start surge										
	1901										
0745	Start whale										
	22										
0805	45	62.5									
0915	60	17.2									
0930	75	9.46									
<del>0945</del>	<del>90</del>										

Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added

Total Volume Added — Total Volume Removed 75 Final Turbidity 9.46

Total Volume Removed >110% of Total Volume Added?  Yes /  No Final Turbidity <10 NTU?  Yes /  No

Comments Riser rebuilt. TOC elevation changed.

Signature [Signature] Date 12/9/16





Well ID: MW-8B

### Monitoring Well Development Record

Client: Pepco Date: 12/9/16 Time: Start 0835  
 Project Name: Benning Road RI/FS Finish 0945  
 Project Number: 60340344  
 Developer(s): Ben Daniels, Nick Barrett

#### 1. WELL CONSTRUCTION DATA

- a. Casing Diameter/Material 2" PVC
- b. Given Total Well Depth (TOC) 60.31
- c. Given Screen Interval (bgs) 50-60
- d. Measured Total Well Depth (TOC) 60.25
- e. Measured Depth to Water (TOC) 14.53
- f. Well Volume (gal) 7.46

Well Volume (gal) = Water Column Height [ft] (d - e) x 0.1632  
 (for 2" well)

#### 2. WELL DEVELOPMENT DATA

Well screen surged with surge block?  Yes /  No

Pump type(s) Whale

Turbidity Meter (Make/Model/Serial Number) \_\_\_\_\_

Time (24 hr) Volume Removed Turbidity (NTU)    Time (24 hr) Volume Removed Turbidity (NTU)    Time (24 hr) Volume Removed Turbidity (NTU)    Time (24 hr) Volume Removed Turbidity (NTU)

0835	Start surge												
	2 gal												
0855	Start pump												
0925	45	31.5											
0940	75	16.2											
0945	85	8.67											

Time (24 hr) Volume Added    Time (24 hr) Volume Added    Time (24 hr) Volume Added    Time (24 hr) Volume Added    Time (24 hr) Volume Added


Total Volume Added \_\_\_\_\_ Total Volume Removed 85 Final Turbidity 8.67

Total Volume Removed >110% of Total Volume Added?  Yes /  No Final Turbidity <10 NTU?  Yes /  No

Comments Riser rebuilt. TOC elevation change d.

Signature [Signature] Date 12/9/16

## Monitoring Well Development Record

Client: Pepco Date: 12/12/16 Time: Start 1300  
 Project Name: Benning Road RI/FS Finish 1520  
 Project Number: 60340344  
 Developer(s): B Daniels, N. Barrett

### 1. WELL CONSTRUCTION DATA

- a. Casing Diameter/Material 2" PVC
  - b. Given Total Well Depth (TOC) 38.90
  - c. Given Screen Interval (bgs) 18-38
  - d. Measured Total Well Depth (TOC) 38.86
  - e. Measured Depth to Water (TOC) 26.35
  - f. Well Volume (gal) 2.04
- Well Volume (gal) = Water Column Height [ft] (d - e) x 0.1632  
(for 2" well)

### 2. WELL DEVELOPMENT DATA

Well screen surged with surge block?  Yes  No

Pump type(s) Whale

Turbidity Meter (Make/Model/Serial Number) LaMotte 2020we S/N: 5995

Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)
1300	Start	Surge									
	2 gal										
1360	Start	Pump									
1415	30										
1500	55	35.4									
1505		18.9									
1510	60	14.0									
1520	65	9.59									

Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added

Total Volume Added 5 Total Volume Removed 65 Final Turbidity 9.59

Total Volume Removed >110% of Total Volume Added?  Yes  No Final Turbidity <10 NTU?  Yes  No

Comments Ran dry multiple times.

Signature [Signature] Date 12/12/16

## Monitoring Well Development Record

Client: Pepco Date: 12/12/16 Time: Start 1320  
 Project Name: Benning Road RI/FS Finish 1430  
 Project Number: 60340344  
 Developer(s): B. Daniels, N. Barrett

### 1. WELL CONSTRUCTION DATA

a. Casing Diameter/Material 2" PVC d. Measured Total Well Depth (TOC) 65.46  
 b. Given Total Well Depth (TOC) 65.52 e. Measured Depth to Water (TOC) 27.85  
 c. Given Screen Interval (bgs) 51-66 f. Well Volume (gal) 6.14

Well Volume (gal) = Water Column Height [ft] (d - e) x 0.1632  
 (for 2" well)

### 2. WELL DEVELOPMENT DATA

Well screen surged with surge block?  Yes /  No  
 Pump type(s) Whale  
 Turbidity Meter (Make/Model/Serial Number) LaMotte 2020wnc S/N: 15995


Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)
1320	Start surge										
	2gal										
1330	Start pump										
1410	50	31.2									
1415	55	19.8									
1420	60	15.2									
1425	70	12.5									
1430	75	6.88									

Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added

Total Volume Added — Total Volume Removed 75 Final Turbidity 6.80

Total Volume Removed >110% of Total Volume Added?  Yes /  No Final Turbidity <10 NTU?  Yes /  No

Comments \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Signature  Date 12/12/16

## Monitoring Well Development Record

Client: Pepco Date: 12/6/16 Time: Start 1000  
 Project Name: Benning Road RI/FS Finish 1300  
 Project Number: 60340344  
 Developer(s): Ben Daniels, Don Hubbard

### 1. WELL CONSTRUCTION DATA

- a. Casing Diameter/Material 2" PVC d. Measured Total Well Depth (TOC) 30.32 ~~30.34~~ *Final DTB: 30.34*  
 b. Given Total Well Depth (TOC) 30.28 e. Measured Depth to Water (TOC) 11.26  
 c. Given Screen Interval (bgs) 10-20 f. Well Volume (gal) 3.11

Well Volume (gal) = Water Column Height [ft] (d - e) x 0.1632  
 (for 2" well)

### 2. WELL DEVELOPMENT DATA

Well screen surged with surge block?  Yes /  No

Pump type(s) super surge water pump

Turbidity Meter (Make/Model/Serial Number) LaMotte 2020 WE Pin ID: 034026

Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)
1000	Start surging										
1020	Complete surging										
1132	Water on										
1214		40.6									
1225		25.0									
1236		17.6									
1241		19.8									
1245	110										

Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added

Total Volume Added NA Total Volume Removed 110 gals Final Turbidity 19.8

Total Volume Removed >110% of Total Volume Added? Yes  No Final Turbidity <10 NTU? Yes  No

Comments pump rate: 2 gals/min  
1144 02  
1146 35  
2 min 33 sec  
153 sec -> 5 gals

Signature [Signature] Date 12/6/16



Well ID: MW-10B

### Monitoring Well Development Record

Client: Peppo Date: 12/6/16 Time: Start 0845  
 Project Name: Benning Road RI/FS Finish 1115  
 Project Number: 60340344  
 Developer(s): Ben Daniels, Dan Hulbert

#### 1. WELL CONSTRUCTION DATA

a. Casing Diameter/Material 2" PVC d. Measured Total Well Depth (TOC) ~~55.90~~ 55.90  
 b. Given Total Well Depth (TOC) 55.90 e. Measured Depth to Water (TOC) 11.73  
 c. Given Screen Interval (bgs) 41-56 f. Well Volume (gal) 717  
 Well Volume (gal) = Water Column Height [ft] (d - e) x 0.1632  
 (for 2" well)

#### 2. WELL DEVELOPMENT DATA

Well screen surged with surge block?  Yes  No  
 Pump type(s) Super Surger whale pump  
 Turbidity Meter (Make/Model/Serial Number) LaMotte 220we : Pine ID: 034026

Time Volume Turbidity Time Volume Turbidity Time Volume Turbidity Time Volume Turbidity  
 (24 hr) Removed (NTU) (24 hr) Removed (NTU) (24 hr) Removed (NTU) (24 hr) Removed (NTU)

0900	Start	Surging										
0930	2gal	Start										
0935	Whale	on										
1040	110	43.2										
1057	↓	15.3										
1105	↓	12.7										
1115	105	9.65										

Time Volume Time Volume Time Volume Time Volume Time Volume Time Volume  
 (24 hr) Added (24 hr) Added (24 hr) Added (24 hr) Added (24 hr) Added (24 hr) Added

--	--	--	--	--	--	--	--	--	--	--	--

Total Volume Added N/A Total Volume Removed ~~105~~ 165 gal Final Turbidity 9.65

Total Volume Removed >110% of Total Volume Added?  Yes  No Final Turbidity <10 NTU?  Yes  No

Comments Pump rate: 2gal/min

Signature [Signature] Date 12/6/16



Well ID: MW-11A

# Monitoring Well Development Record

Client: Pepco Date: 12/9/10 Time: Start 0715  
 Project Name: Benning Road RI/FS Finish 1905  
 Project Number: 60340344  
 Developer(s): Daniel Hubert

### 1. WELL CONSTRUCTION DATA

- a. Casing Diameter/Material 2" PVC
  - b. Given Total Well Depth (TOC) 40.75
  - c. Given Screen Interval (bgs) 27-42
  - d. Measured Total Well Depth (TOC) 40.44 Initial Final
  - e. Measured Depth to Water (TOC) 12.12
  - f. Well Volume (gal) 4.62 gallons
- Well Volume (gal) = Water Column Height [ft] (d - e) x 0.1632  
(for 2" well)

### 2. WELL DEVELOPMENT DATA

Well screen surged with surge block?  Yes / No

Pump type(s) Super Surge Whole Pump

Turbidity Meter (Make/Model/Serial Number) LaMotte 2020 WC turbidimeter Pinet

Time Volume Turbidity Time Volume Turbidity Time Volume Turbidity Time Volume Turbidity  
 (24 hr) Removed (NTU) (24 hr) Removed (NTU) (24 hr) Removed (NTU) (24 hr) Removed (NTU)

0720	Surge well w/ surge block										
0730	Surge/Purge well w/ whole pump										
0813	Purge only										
0820	Pull pump 2' off bottom										
0833	71.25	40.5									
0845	86.25	21.3									
0851	93.75	9.52									

Time Volume Time Volume Time Volume Time Volume Time Volume  
 (24 hr) Added (24 hr) Added (24 hr) Added (24 hr) Added (24 hr) Added


Total Volume Added N/A Total Volume Removed 93.75 gallons Final Turbidity 9.52

Total Volume Removed >110% of Total Volume Added?  Yes / No Final Turbidity <10 NTU?  Yes / No

Comments Manually surge well w/ surge block. Manually surge/purge with whole pump. Develop until clear, sediment-free discharge is achieved.

5 gallons → 4 mins 240 seconds = 1.25 gpm

Signature [Signature] Date 12/9/2010

## Monitoring Well Development Record

Client: Pepeco Date: 12/8/10 Time: Start 1400  
 Project Name: Benning Road RI/FS Finish 1501505  
 Project Number: 60340344  
 Developer(s): David Hubert

### 1. WELL CONSTRUCTION DATA

a. Casing Diameter/Material <u>2" PVC</u>	d. Measured Total Well Depth (TOC) <u>61.67</u> <u>61.69</u>
b. Given Total Well Depth (TOC) <u>61.70</u>	e. Measured Depth to Water (TOC) <u>13.65</u>
c. Given Screen Interval (bgs) <u>50-62</u>	f. Well Volume (gal) <u>7.84 gallons</u>

Well Volume (gal) = Water Column Height [ft] (d - e) x 0.1632  
 (for 2" well)

### 2. WELL DEVELOPMENT DATA

Well screen surged with surge block?  Yes / No

Pump type(s) Super Surger Whale Pump

Turbidity Meter (Make/Model/Serial Number) LaMotte 2020 w/c turbidimeter Pin #: 034020

Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)
1405											
1405											
1445											
1450											
1500	110	31-60									
1515	140	9-11									

Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added

Total Volume Added NA Total Volume Removed 140 gallons Final Turbidity 9.11

Total Volume Removed >110% of Total Volume Added?  Yes / No Final Turbidity <10 NTU?  Yes / No

Comments Manually surge with surge block from 1405-1420. Use whale pump to manually surge well screen. Develop/purge until clear sediment-free discharge is achieved (<10 NTU).

5 gallons - 2 mins 30 seconds = 2 gpm

Signature [Signature] Date 12/8/2010

## Monitoring Well Development Record

Client: Pepco Date: 12/9/16 Time: Start 1330  
 Project Name: Benning Road RI/FS Finish 1435  
 Project Number: 60340344  
 Developer(s): B. Daniels, N. Barrett

### 1. WELL CONSTRUCTION DATA

a. Casing Diameter/Material 2" PVC d. Measured Total Well Depth (TOC) 28.95  
 b. Given Total Well Depth (TOC) 29.00 e. Measured Depth to Water (TOC) 11.66  
 c. Given Screen Interval (bgs) 9-29 f. Well Volume (gal) 2.82  
 Well Volume (gal) = Water Column Height [ft] (d - e) x 0.1632  
 (for 2" well)

### 2. WELL DEVELOPMENT DATA

Well screen surged with surge block?  Yes  No

Pump type(s) Whale

Turbidity Meter (Make/Model/Serial Number) LaMotte TOZOWE S/N: 916

Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)
1330	Start Surge										
	2 gal										
1340	Start pump										
1410	55 gal										
1420	80	27.1									
1430	95	14.4									
1435	105	9.03									

Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added

Total Volume Added \_\_\_\_\_ Total Volume Removed 105 Final Turbidity 9.03

Total Volume Removed >110% of Total Volume Added?  Yes  No Final Turbidity <10 NTU?  Yes  No

Comments \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Signature [Signature] Date 12/9/16





Well ID: MW-2B

### Monitoring Well Development Record

Client: Pepco Date: 12/9/16 Time: Start 1345  
 Project Name: Benning Road RI/FS Finish 1445  
 Project Number: 60340344  
 Developer(s): B. Daniels, N. Barrett

#### 1. WELL CONSTRUCTION DATA

- a. Casing Diameter/Material 2" PVC
  - b. Given Total Well Depth (TOC) 46.09
  - c. Given Screen Interval (bgs) 38-46
  - d. Measured Total Well Depth (TOC) 46.02
  - e. Measured Depth to Water (TOC) 12.04
  - f. Well Volume (gal) 5.55
- Well Volume (gal) = Water Column Height [ft] (d - e) x 0.1632  
(for 2" well)

#### 2. WELL DEVELOPMENT DATA

Well screen surged with surge block?  Yes /  No

Pump type(s) Whisk

Turbidity Meter (Make/Model/Serial Number) LaMotte 2020mc S/N: 916

Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)
1345	Start	Surge									
	3 gal										
1400	Start	pump									
1415	30 gal	37.0									
1435	75	18.1									
1440	87	12.3									
1445	95	7.68									

Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added

Total Volume Added      Total Volume Removed 95 Final Turbidity 7.68

Total Volume Removed >110% of Total Volume Added?  Yes /  No Final Turbidity <10 NTU?  Yes /  No

Comments \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Signature [Signature] Date 12/9/16



Well ID: MW-13A

### Monitoring Well Development Record

Client: Pepco Date: 12/8/16 Time: Start 1230  
 Project Name: Benning Road RI/FS Finish 1440  
 Project Number: 60340344  
 Developer(s): B. Daniels

#### 1. WELL CONSTRUCTION DATA

- a. Casing Diameter/Material 2" PVC
  - b. Given Total Well Depth (TOC) 18.38
  - c. Given Screen Interval (bgs) 8-20
  - d. Measured Total Well Depth (TOC) 18.38
  - e. Measured Depth to Water (TOC) 10.06
  - f. Well Volume (gal) 1.36
- Well Volume (gal) = Water Column Height [ft] (d - e) x 0.1632  
(for 2" well)

#### 2. WELL DEVELOPMENT DATA

Well screen surged with surge block? (Yes) No

Pump type(s) Whale

Turbidity Meter (Make/Model/Serial Number) LaMotte 2020we S/N: 916

Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)
1230	Start surge										
	2 gal										
1300	Start pump										
1350	2.1	5.31									
1400		33.5									
1410		21.0									
1420		16.5									
1440	50	9.87									

Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added

Total Volume Added — Total Volume Removed 50 Final Turbidity 9.87

Total Volume Removed >110% of Total Volume Added? (No) Yes/No Final Turbidity <10 NTU? (Yes) No

Comments well ran dry multiple times

Signature [Signature] Date 12/8/16

## Monitoring Well Development Record

Client: Pepco Date: 12/8/16 Time: Start 1305  
 Project Name: Benning Road RI/FS Finish 1345  
 Project Number: 60340344  
 Developer(s): B. Daniels

### 1. WELL CONSTRUCTION DATA

a. Casing Diameter/Material 2" PVC d. Measured Total Well Depth (TOC) 44.90  
 b. Given Total Well Depth (TOC) 44.92 e. Measured Depth to Water (TOC) 13.61  
 c. Given Screen Interval (bgs) 38-45 f. Well Volume (gal) 5.11  
 Well Volume (gal) = Water Column Height [ft] (d - e) x 0.1632  
 (for 2" well)

### 2. WELL DEVELOPMENT DATA

Well screen surged with surge block? Yes/No  
 Pump type(s) Whale  
 Turbidity Meter (Make/Model/Serial Number) La Motte 2020 w/c S/N: 916

Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)
1305	Surge										
1320	Start pump										
1330		18.6									
1340		8.3									
1345	45 gal	7.41									

Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added

Total Volume Added    Total Volume Removed 45 gal Final Turbidity 7.41  
 Total Volume Removed >110% of Total Volume Added? NA Yes/No Final Turbidity <10 NTU? Yes/No  
 Comments Pump rate ~ 2 gpm

Signature B. Daniels Date 12/8/16



Well ID: MW-14A

### Monitoring Well Development Record

Client: Pepeco Date: 12/9/16 Time: Start 1325  
 Project Name: Benning Road RI/FS Finish 1535  
 Project Number: 60340344  
 Developer(s): Daniel Hubert

#### 1. WELL CONSTRUCTION DATA

a. Casing Diameter/Material <u>2" PVC</u>	d. Measured Total Well Depth (TOC) <u>26.98</u> <u>27.02</u>
b. Given Total Well Depth (TOC) <u>27.03</u>	e. Measured Depth to Water (TOC) <u>10.53</u>
c. Given Screen Interval (bgs) <u>7-27</u>	f. Well Volume (gal) <u>2.68</u>

Well Volume (gal) = Water Column Height [ft] (d - e) x 0.1632  
 (for 2" well)

#### 2. WELL DEVELOPMENT DATA

Well screen surged with surge block?  Yes  No

Pump type(s) whale pump (small)

Turbidity Meter (Make/Model/Serial Number) LaMotte 2020 w/e turbidimeter

Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)
1345	Surge of Surge Block										
1404	Surge of whale pump										
1430	Purge only										
1442	Pull pump 2' off bottom										
1511	20.7										
1530	108.7	9.72									

Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added

Total Volume Added NA Total Volume Removed 108.68 Final Turbidity 9.72

Total Volume Removed >110% of Total Volume Added?  Yes  No Final Turbidity <10 NTU?  Yes  No

Comments Manually surge well screen with surge block from 1345-1400. Purge/purge with whale pump. Drilling until clear, sediment-free discharge is achieved.

5 gals - 3min 30sec 210 seconds = 1.43 gpm

Signature [Signature] Date 12/9/16



Well ID: MW-14B

### Monitoring Well Development Record

Client: Pepco Date: 12/9/10 Time: Start 1325  
 Project Name: Benning Road RI/FS Finish 1535  
 Project Number: 60340344  
 Developer(s): David Hubert

#### 1. WELL CONSTRUCTION DATA

- |  |  |
|--|--|
| a. Casing Diameter/Material <u>2" PVC</u>    | d. Measured Total Well Depth (TOC) <u>56.79</u> <i>Initial</i> <u>56.79</u> <i>Final</i> |
| b. Given Total Well Depth (TOC) <u>56.85</u> | e. Measured Depth to Water (TOC) <u>13.78</u>  |
| c. Given Screen Interval (bgs) <u>39-57</u>  | f. Well Volume (gal) <u>7.02</u>   |
- Well Volume (gal) = Water Column Height [ft] (d - e) x 0.1632  
 (for 2" well)

#### 2. WELL DEVELOPMENT DATA

Well screen surged with surge block? Yes/No

Pump type(s) Sign Surger Whale Pump

Turbidity Meter (Make/Model/Serial Number) LaMotte J220WC turbidimeter Pin ID# 034026

Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)
1325	Surge w/ surge block										
1342	Surge/surge with whale pump										
1425	Surge only										
1435	Pull pump 2' off bottom										
1455		48.6									
1510	150.5	7.05									

Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added

Total Volume Added NA Total Volume Removed 150.5 gallons Final Turbidity 7.05

Total Volume Removed >110% of Total Volume Added? NA Final Turbidity <10 NTU? Yes/No

Comments Manually surge well screen with surge block from 1325-1340. Surge/purge well with whale pump. Develop well until clear, sediment-free discharge is achieved.

1447.20 1450.15 175 seconds = 1.71 gpm

Signature [Signature] Date 12/9/10



Well ID: MW-15A

# Monitoring Well Development Record

Client: Pepco Date: 12/9/16 Time: Start 0935  
 Project Name: Benning Road RI/FS Finish 1300  
 Project Number: 60340344  
 Developer(s): Daniel Hubert

### 1. WELL CONSTRUCTION DATA

- a. Casing Diameter/Material 2" PVC
- b. Given Total Well Depth (TOC) 38.19
- c. Given Screen Interval (bgs) 28-38
- d. Measured Total Well Depth (TOC) 38.13
- e. Measured Depth to Water (TOC) 16.52
- f. Well Volume (gal) 3.53 gallons  

$$\text{Well Volume (gal)} = \text{Water Column Height [ft]} (d - e) \times 0.1632$$
 (for 2" well)

### 2. WELL DEVELOPMENT DATA

Well screen surged with surge block?  Yes  No

Pump type(s) whale pump (small)

Turbidity Meter (Make/Model/Serial Number) LEMANTE 2020 WE turbidimeter P/N 034026

Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)
1005	Surge w/ surge block										
1025	Surge/Purge w/ whale pump										
1120	Purge only										
1140	Fill pump 2' off bottom										
1152	145	134									
1210	175	72.2									
1232	↓	25.2									
1240	225.5	8.75									

Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added

Total Volume Added N/A Total Volume Removed \_\_\_\_\_ Final Turbidity \_\_\_\_\_

Total Volume Removed >110% of Total Volume Added?  Yes  No Final Turbidity <10 NTU? Yes / No

Comments Surge well with surge block from 1005-1020. Surge/purge with whale pump. Develop well until clear sediment - spec discharge (<10 NTU).

5 gallons → 3 minutes, 180 minutes = 1.67 gal

Signature [Signature] Date 12/9/16



Well ID: MW-15B

### Monitoring Well Development Record

Client: Peppo Date: 12/9/16 Time: Start 0935  
 Project Name: Benning Road RI/FS Finish 1300  
 Project Number: 60340344  
 Developer(s): David Hubbard

#### 1. WELL CONSTRUCTION DATA

a. Casing Diameter/Material <u>2" PVC</u>	d. Measured Total Well Depth (TOC) <u>59.93</u> <u>59.95</u>
b. Given Total Well Depth (TOC) <u>60</u>	e. Measured Depth to Water (TOC) <u>18.96</u>
c. Given Screen Interval (bgs) <u>50-60</u>	f. Well Volume (gal) <u>6.69</u>

Well Volume (gal) = Water Column Height [ft] (d - e) x 0.1632  
(for 2" well)

#### 2. WELL DEVELOPMENT DATA

Well screen surged with surge block? (Yes) No

Pump type(s) Super surge whole pump

Turbidity Meter (Make/Model/Serial Number) Lumette 2020 w/ turbidimeter Part# 034020

Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)	Time (24 hr)	Volume Removed	Turbidity (NTU)
0940	Surge with surge block										
1001	Surge Purge w/ whole pump										
1118	Purge only										
1136	Pur pump 2' off bottom										
1138	121.25	23.3									
1149	135	10.5									
1205	155	9.75									

Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added	Time (24 hr)	Volume Added

Total Volume Added N/A Total Volume Removed 155 gallons Final Turbidity 9.75

Total Volume Removed >110% of Total Volume Added? (N/A) Yes Final Turbidity <10 NTU? (Yes) No

Comments Surge well with surge block from 0940 - 0955 surge/purge with whole pump. Develop well until clear sediment-free discharge (410 L/min).

1.25 gpm

Signature [Signature] Date 12/9/16