

MEMORANDUM

TO: Billy Meyer

FROM: Laura Powers, P.E.
C. Chan Bryant, P.E.

DATE: October 18, 2012

PROJECT: BB&T Site, DSCA ID32-0013
1103 W Club Blvd
Durham, NC

SUBJECT: Bi-Weekly Update

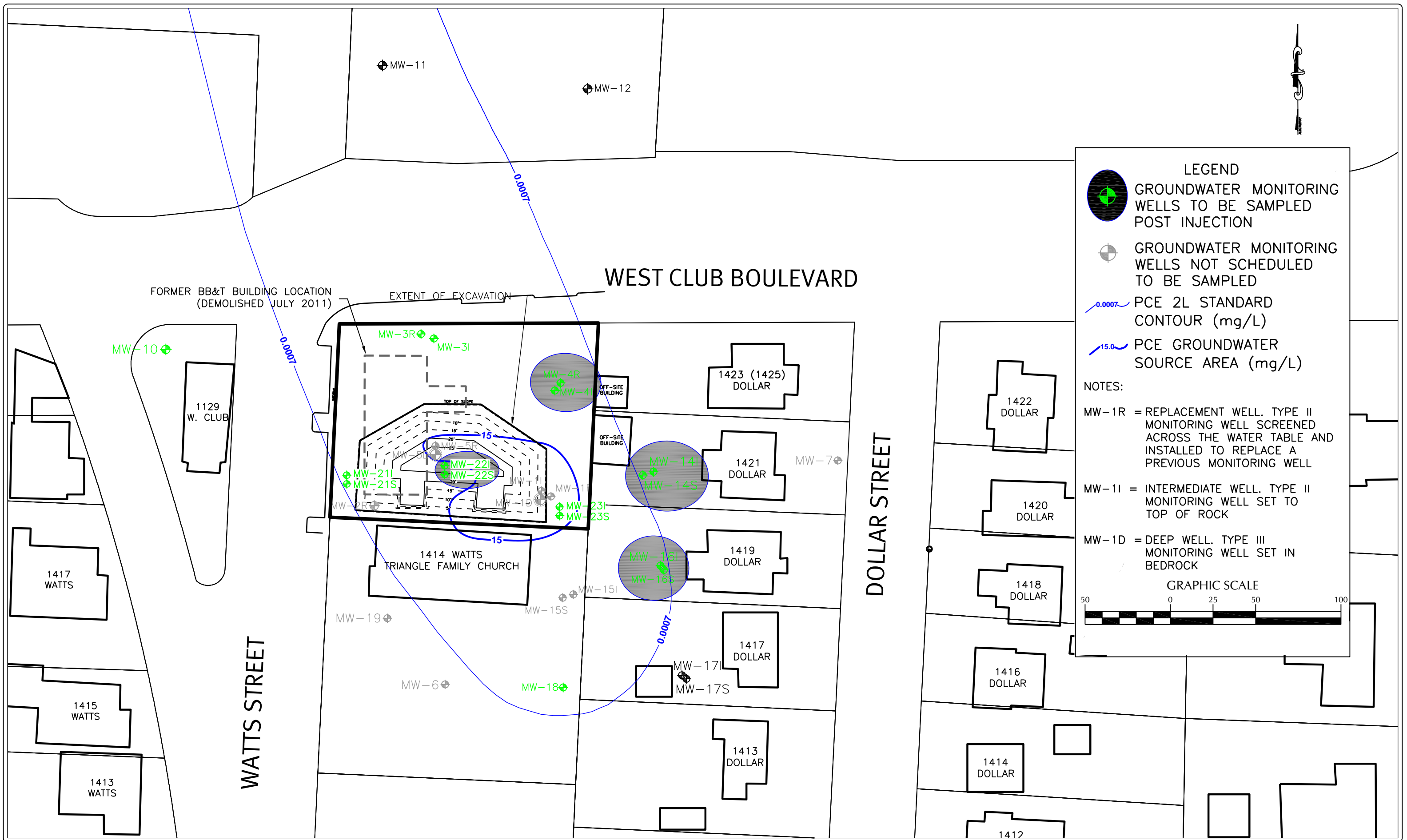
Withers & Ravenel (W&R) has commenced backfill activities at the BB&T site. Completion of the backfill activities and installation of the soil vapor vents are scheduled to be completed by November 6th, 2012. A final ambient air sample will be collected on November 7th, 2012, and the site will be paved on November 8th and 9th, 2012. The revised schedule is provided in **Attachment A**. All proposed dates for completion and sampling are subject to minor delays from wet weather preventing optimum compaction of fill.

Due to the added cost characterizing and disposing of the soil under the NCDENR Hazardous Waste Section's "Contained-In" Policy, the costs to implement the remainder of the RAP with injection and specified soil vapor, groundwater and indoor air monitoring is expected to exceed the DSCA Program's statutory limit of \$500,000 per fiscal year. Therefore, injection activities will be postponed until July 8th 2013. W&R has developed the following amended sampling and analyses plan, and associated budgeting for completion of a reduced scope of soil vapor, groundwater and indoor air monitoring until the end of FY2012-2013.

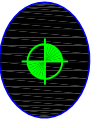



- Groundwater Monitoring: Sampling of 6 monitoring wells (MW-22I, MW-22S, MW-4R, MW-4I, MW-14S, and MW-16S) to be completed in January 2013, and June 2013 (**Figure 1**).
- Soil Vapor Monitoring: Sampling of 8 soil vapor probes (SV-55s, SV55i, SV-8s, SV-8i, SV-18s, SV-19s, SV-20s, and SV-29s) to be completed in November 2012, January 2013, and June 2013 (**Figure 2**). Screening of the probes and 4 vapor vents for total volatile organics and methane will be completed in November 2012, December 2012, and January 2013. Screening of the probes will be continued subject to the results obtained from the field monitoring obtained during the initial 3 months of screening.
- Indoor Air Monitoring: Monthly Radiello indoor air samples from 1419 & 1421 Dollar Ave and 3-hour summa canister indoor air samples from 1414 Watts St to be collected in November 2012, January 2013, and June 2013.

Project updates with sampling results will be provided to the public after each sampling event. The proposed post-injection groundwater, soil vapor, and indoor air sampling schedules from the RAP will be implemented after injection activities are completed in July 2013.

FIGURES



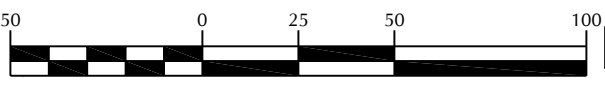
LEGEND

-  GROUNDWATER MONITORING WELLS TO BE SAMPLED POST INJECTION
-  GROUNDWATER MONITORING WELLS NOT SCHEDULED TO BE SAMPLED
-  PCE 2L STANDARD CONTOUR (mg/L)
-  PCE GROUNDWATER SOURCE AREA (mg/L)

NOTES:

- MW-1R = REPLACEMENT WELL. TYPE II MONITORING WELL SCREENED ACROSS THE WATER TABLE AND INSTALLED TO REPLACE A PREVIOUS MONITORING WELL
- MW-1I = INTERMEDIATE WELL. TYPE II MONITORING WELL SET TO TOP OF ROCK
- MW-1D = DEEP WELL. TYPE III MONITORING WELL SET IN BEDROCK

GRAPHIC SCALE



Revisions			
No.	Description	Date	By







WEST CLUB BOULEVARD

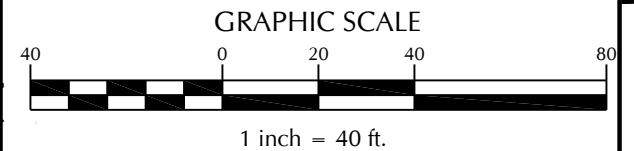
FORMER BB&T BUILDING LOCATION
(DEMOLISHED JULY 2011)

EXTENT OF EXCAVATION



LEGEND

-  SOIL VAPOR SAMPLE LOCATIONS TO BE SCREENED BY PPB-RAE. ANALYTICAL SAMPLES TO BE COLLECTED BASED ON HIGHEST VOC MEASUREMENTS POST EHC INJECTION
-  SOIL VAPOR SAMPLE LOCATIONS NOT SCHEDULED TO BE SAMPLED
-  PCE ISO-CONTOUR LINE SHOWN IN mg/m³
-  FORMER DRY-CLEANING FACILITY (DEMOLISHED JULY 2011)
-  STRUCTURES UNDER MITIGATION AND MONITORING DUE TO INITIAL INDOOR AIR PCE CONCENTRATIONS.
-  STRUCTURES WITH ACCEPTABLE INDOOR AIR PCE CONCENTRATIONS



Revisions			
No.	Description	Date	By

ATTACHMENTS

ATTACHMENT A
Remediation Schedule

~ October 2012 ~

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
	Import, Place & Compact Stone Backfill					
			Bi-weekly Update			
	Outdoor Air Monitoring					
21	22	23	24	25	26	27
	Import, Place & Compact Stone Backfill					
	Outdoor Air Monitoring					
28	29	30	31	Notes: Schedule tentative and subject to change. Please check http://portal.ncdenr.org/web/wm/dsca/bbt_updates regularly for any changes in the schedule.		
	Install Vents, & Vent Laterals to Header Location					
	Outdoor Air Monitoring		Bi-weekly Update			

~ November 2012 ~

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
				1 Month Radiello Indoor Air Sampling at 1419 & 1421		
				Install utility pole riser	Deliver, Place & Compact ABC Stone	
				Outdoor Air Monitoring		
4	5	6	7	8	9	10
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						
3 Hour Summa Canister Indoor Air Sampling at 1414 Watts St	Deliver, Place & Compact ABC Stone		Final Outdoor Air Sampling Event	Replace Asphalt Paving		
	Outdoor Air Monitoring					
11	12	13	14	15	16	17
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						
	Install Groundwater & Soil Vapor Monitoring Wells		Sample Soil Vapor Monitoring Wells & Vapor Vents	Remove Security Fence		
18	19	20	21	22	23	24
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						
				Holiday	Holiday	
25	26	27	28	29	30	Notes: Schedule tentative and subject to change. Please check http://portal.ncdenr.org/web/wm/dsca/bbt_updates regularly for any changes in the schedule.
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						
					Monthly Update	

~ December 2012 ~

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4	5	6	7	8
9	10	11	12	13	14 Sample Vapor Vents	15
16	17	18	19	20	21	22
23	24 Holiday	25 Holiday	26	27	28 Monthly Update	29
30	31	Notes: Schedule tentative and subject to change. Please check http://portal.ncdenr.org/web/wm/dsca/bbt_updates regularly for any changes in the schedule.				

~ January 2013 ~

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday		
		1 Holiday	2	3	4	5		
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave								
			Sample Groundwater Monitoring	Sample Soil Vapor Monitoring Wells & Vapor Vents				
6	7	8	9	10	11	12		
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave								
3 Hour Summa Canister Indoor Air Sampling at 1414 Watts St								
13	14	15	16	17	18	19		
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave								
20	21	22	23	24	25	26		
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave								
27	28	29	30	31	Notes: Schedule tentative and subject to change. Please check http://portal.ncdenr.org/web/wm/dsca/bbt updates regularly for any changes in the schedule.			
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave								
				Monthly Update				

~ June 2013 ~

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4	5	6	7	8
3 Hour Summa Canister Indoor Air Sampling at 1414 Watts St	1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave					
	Sample Groundwater Monitoring		Sample Soil Vapor Monitoring Wells			
9	10	11	12	13	14	15
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						
16	17	18	19	20	21	22
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						
23	24	25	26	27	28	29
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						
					Monthly Update	
30	Notes: Schedule tentative and subject to change. Please check http://portal.ncdenr.org/web/wm/dsca/bbt_updates regularly for any changes in the schedule.					

~ July 2013 ~

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4 Holiday	5	6
7	8	9	10	11	12	13
	Inject Adventus EHC					
14	15	16	17	18	19	20
	Inject Adventus EHC					
21	22	23	24	25	26	27
	Inject Adventus EHC					
28	29	30	31	Notes: Schedule tentative and subject to change. Please check http://portal.ncdenr.org/web/wm/dsca/bbt_updates regularly for any changes in the schedule.		
			Monthly Update			

~ August 2013 ~

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Notes: Schedule tentative and subject to change. Please check http://portal.ncdenr.org/web/wm/dsca/bbt_updates regularly for any changes in the schedule.				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
	Sample Groundwater & Soil Vapor Monitoring Wells					
18	19	20	21	22	23	24
25	26	27	28	29	30	31
					Monthly Update	

~ September 2013 ~

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
1	2 Holiday - Memorial Day	3	4	5	6	7	
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave							
Sample Groundwater & Soil Vapor Monitoring Wells							
8	9	10	11	12	13	14	
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave							
3 Hour Summa Canister Indoor Air Sampling at 1414 Watts St							
15	16	17	18	19	20	21	
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave							
22	23	24	25	26	27	28	
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave							
29	30	Notes: Schedule tentative and subject to change. Please check http://portal.ncdenr.org/web/wm/dsca/bbt_updates regularly for any changes in the schedule.					
	Monthly Update						
30 Day Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave							

~ October 2013 ~

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday		
		1	2	3	4	5		
		Sample Groundwater & Soil Vapor Monitoring Wells						
		30 Day Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						
6	7	8	9	10	11	12		
30 Day Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave								
3 Hour Summa Canister Indoor Air Sampling at 1414 Watts St								
13	14	15	16	17	18	19		
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave								
20	21	22	23	24	25	26		
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave								
27	28	29	30	31	Notes: Schedule tentative and subject to change. Please check http://portal.ncdenr.org/web/wm/dsca/bbt_updates regularly for any changes in the schedule.			
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave								
				Monthly Update				

~ November 2013 ~

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Notes: Schedule tentative and subject to change. Please check http://portal.ncdenr.org/web/wm/dsca/bbt_updates regularly for any changes in the schedule.					1	2
					30 Day Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave	
3	4	5	6	7	8	9
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						
3 Hour Summa Canister Indoor Air Sampling at 1414 Watts St						
10	11	12	13	14	15	16
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						
17	18	19	20	21	22	23
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						
				Holiday		
24	25	26	27	28	29	30
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						
					Monthly Update	