LANGAN

SITE OBSERVATION REPORT

PROJECT NO.	170384501	**CLIENT:** 550 Clinton Partners LLC/539 Vanderbilt Partners LLC	**DATE:**	Tuesday. Oct. 1, 2019
PROJECT:	805-825 Atlantic Avenue		**WEATHER:**	Sunny, 70s Wind: SE 5 mph
LOCATION:	805-825 Atlantic Avenue, Brooklyn, NY		**TIME:**	7:00am to 2:30 pm
CONTRACTOR:	AARCO Environmental Services, Inc. (AARCO)		**LANGAN REP. :**	Tyler Goodnough Colin Anderson

CONTRACTOR'S EQUIPMENT: Geoprobe 8140 LC Sonic rig	**PRESENT AT SITE:** **Day 1** Tyler Goodnough and Colin Anderson - Langan Tom Seickel - AARCO

OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:

Langan was present to implement the August 20, 2019 Remedial Design – In-Situ Groundwater Remediation Technical Memorandum (Tech Memo) for the for BCP site C224228 at 805-825 Atlantic Avenue (Block 2010, Lots 1 and 59). Observed activities were as follows:

Site Activities

- AARCO mobilized equipment to the site.
- Drilling Activity:
  - AARCO used a Geoprobe 8140 LC sonic rig to advance boring MW-202 to 80 feet below grade surface (bgs). Groundwater was observed at about 65 feet below grade surface (bgs). Petroleum-like odors, staining and photoionization (PID) readings up to 1,665 parts per million (ppm) were observed from about 68.5 to 70 feet bgs. Petroleum-like odors and PID readings up to 1.6 ppm were observed from about 71.5 to 74 feet bgs.

Sampling:

- Langan collected soil sample MW202_68-69 for analysis of target analyte list and target compound list (TAL/TCL) volatile organic compounds (VOCs), TAL/TCL semivolatile organic compounds (SVOCs), total organic carbon (TOC), and total petroleum hydrocarbons (TPH) gasoline range organics (GRO).

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough **LANGAN**

SITE OBSERVATION REPORT

CAMP Activities

- Langan performed on-site air monitoring during site activities. Particulate and VOC concentrations were below their respective action levels. Upwind VOC concentrations were not recorded throughout the day because of a battery malfunction. The unit will be charged overnight for use the following work day.

Particulate Monitoring (mg/m^3)			**Organic Vapor Monitoring (ppm)**		
Averaging Period	Upwind	Downwind	Averaging Period	Upwind	Downwind
High Intervals "exceedances" (15min >1.5 + Upwind level)	N/A	0	High Intervals "exceedances" (15min >5+Upwind level)	NA	0
Maximum 15-min Average	0.017	.008	Maximum 15-min Average	N/A	0.2
Minimum 1-min Instant Reading	0.005	0.007	Minimum 1-min Instant Reading	NA	0.0
Maximum 1-min Instant Reading	0.025	0.080	Maximum 1-min Instant Reading	NA	0.2

mg/m^3 = micrograms per cubic meter ppm = parts per million
NA = Not Available

Anticipated Activities

- Installation of monitoring well in MW-202.
- Advancement and installation of injection wells in the southeastern part of the site.

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough
			LANGAN

SITE OBSERVATION REPORT

FIGURE 1: REMEDIAL DESIGN

Legend:

Work area

CAMP station locations

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough
			LANGAN

SITE OBSERVATION REPORT

SITE PHOTOGRAPHS

Photo 1: AARCO drilling MW-202 (facing north).

Photo 2: Sample collection at MW-202 (facing north).

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough
			LANGAN

LANGAN

SITE OBSERVATION REPORT

PROJECT NO.	170384501	**CLIENT:** 550 Clinton Partners LLC/539 Vanderbilt Partners LLC	**DATE:**	Wednesday. Oct. 2, 2019
PROJECT:	805-825 Atlantic Avenue		**WEATHER:**	Sunny, 80s Wind: SE 10 mph
LOCATION:	805-825 Atlantic Avenue, Brooklyn, NY		**TIME:**	7:00am to 2:00 pm
CONTRACTOR:	AARCO Environmental Services, Inc. (AARCO)		**LANGAN REP. :**	Tyler Goodnough
CONTRACTOR'S EQUIPMENT: Geoprobe 8140 LC Sonic rig		**PRESENT AT SITE** **Day 2** Tyler Goodnough - Langan Tom Seickel - AARCO		

OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:

Langan was present to implement the August 20, 2019 Remedial Design – In-Situ Groundwater Remediation Technical Memorandum (Tech Memo) for the for BCP site C224228 at 805-825 Atlantic Avenue (Block 2010, Lots 1 and 59). Observed activities were as follows:

Site Activities

- AARCO installed monitoring well MW-202. The monitoring well was constructed of 65 feet of 2-inch diameter schedule-40 polyvinyl chloride (PVC) riser pipe connected to 15 feet of 2-inch diameter No. 2 slotted PVC well screen. The screen was set from 65 to 80 feet below grade surfaces (bgs). The annulus was backfilled with No. 1 sand from 64 to 80 feet bgs, a bentonite seal from 63 to 64 feet bgs, and the remainder of the annulus was backfilled via tremie pipe with a bentonite-grout slurry to grade.

- Drilling Activity:
    - AARCO used a Geoprobe 8140 LC sonic rig to advance boring IP-11 to 65 feet bgs. Evidence of impacts (odor, staining, organic vapors via photoionization detector [PID]) were not observed.

Sampling:

- None

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough **LANGAN**

SITE OBSERVATION REPORT

CAMP Activities

- Langan performed community air monitoring at one upwind and one downwind station. No volatile organic compound (VOC) or particulate concentrations exceeded the action levels established in the site Community Air Monitoring Plan (CAMP).

Particulate Monitoring (mg/m^3)			**Organic Vapor Monitoring (ppm)**		
Averaging Period	Upwind	Downwind	Averaging Period	Upwind	Downwind
High Intervals "exceedances" (15min >1.5 + Upwind level)	NA	0	High Intervals "exceedances" (15min >5+Upwind level)	NA	0
Maximum 15-min Average	0.053	0.036	Maximum 15-min Average	0.7	0.2
Minimum 1-min Instant Reading	0.030	0.024	Minimum 1-min Instant Reading	0.0	0.0
Maximum 1-min Instant Reading	0.073	0.073	Maximum 1-min Instant Reading	1.8	0.2

mg/m^3 = micrograms per cubic meter ppm = parts per million

NA = Not Available

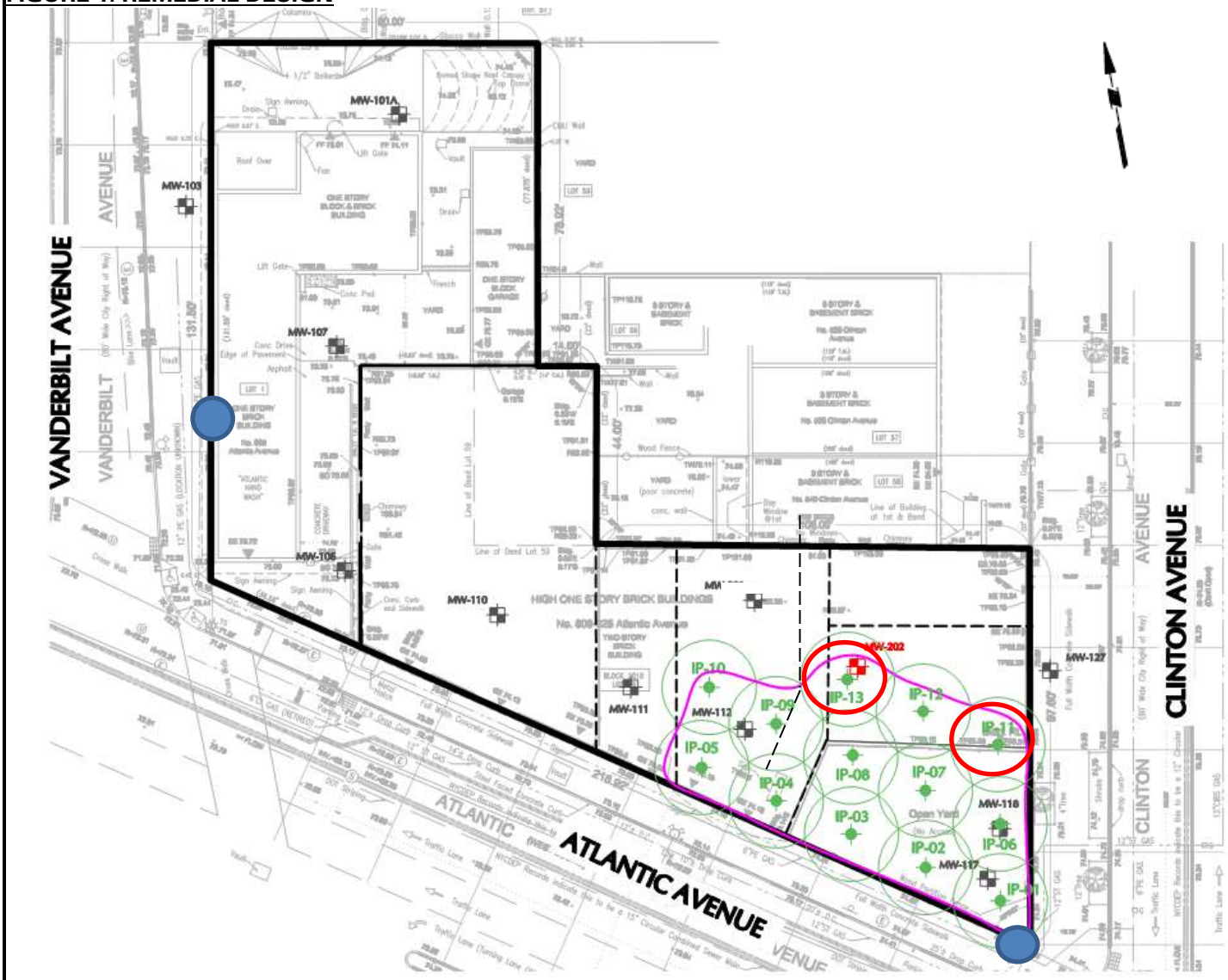
Anticipated Activities

- Complete drilling and installation of injection well IP-11.
- Begin drilling and installation of IP-06.

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough
			LANGAN

SITE OBSERVATION REPORT

FIGURE 1: REMEDIAL DESIGN



Legend:

Work area

CAMP station locations

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough
			LANGAN

SITE OBSERVATION REPORT

SITE PHOTOGRAPHS

Photo 1: AARCO installing monitoring well MW202 (facing northeast).

Photo 2: AARCO mixing grout prior to backfilling the annulus of MW-202 (facing northeast).

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough
			LANGAN

SITE OBSERVATION REPORT

PROJECT NO.	170384501	**CLIENT:** 550 Clinton Partners LLC/539 Vanderbilt Partners LLC	**DATE:**	Thursday. Oct. 3, 2019	
PROJECT:	805-825 Atlantic Avenue		**WEATHER:**	Rain, 50s Wind: E 15 mph	
LOCATION:	805-825 Atlantic Avenue, Brooklyn, NY		**TIME:**	7:00am to 2:15 pm	
CONTRACTOR:	AARCO Environmental Services, Inc. (AARCO)		**LANGAN REP. :**	Tyler Goodnough Matt Wenrick	
CONTRACTOR'S EQUIPMENT: Geoprobe 8140 LC Sonic rig		**PRESENT AT SITE:** **Day 3** Tyler Goodnough and Matt Wenrick - Langan Tom Seickel - AARCO			

OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:

Langan was present to implement the August 20, 2019 Remedial Design – In-Situ Groundwater Remediation Technical Memorandum (Tech Memo) for the for BCP site C224228 at 805-825 Atlantic Avenue (Block 2010, Lots 1 and 59). Observed activities were as follows:

Site Activities

- Drilling Activity:
  - AARCO used a Geoprobe 8140C to complete injection point IP-11 to 85 feet below grade surface (bgs). Groundwater was observed at about 67 feet bgs. Evidence of odor, staining or organic vapors via photoionization detector (PID) were not observed.
  - AARCO used a Geoprobe 8140C to advance injection point IP-06 to 80 feet bgs. Groundwater was observed at about 70 feet bgs. Petroleum-like odors, staining and PID readings up to 15,000 parts per million (ppm) were observed from 14 to 49 feet bgs (max. PID readings from 33 to 34 feet bgs). Petroleum-like odors, staining and PID readings up to 187 ppm were also identified from 71 to 73 feet bgs.

- Injection well IP-11 was constructed with about 68 feet of 2-inch diameter schedule-40 polyvinyl chloride (PVC) piping connected to 15 feet of 2-inch diameter No. 2 slotted PVC well screen. The screen interval was set from 68 to 83 feet bgs. The annulus was backfilled with No. 1 sand from 67 to 83 feet bgs, a bentonite seal from 66 to 65 feet bgs, and the remainder of the annulus was backfilled via tremie pipe with a bentonite-grout slurry to grade.

Sampling:

- No samples were collected.

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough **LANGAN**

SITE OBSERVATION REPORT

CAMP Activities

- The Community Air monitoring Program (CAMP) was not implemented on October 3, 2019 due to inclement weather.

Anticipated Activities

- Installation of injection point IP-06.
- Advance and install injection point IP-01.

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough
			LANGAN

SITE OBSERVATION REPORT

FIGURE 1: REMEDIAL DESIGN

Legend:

Work areas

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough
			LANGAN

SITE OBSERVATION REPORT

SITE PHOTOGRAPHS

Photo 1: Advancement of injection point IP-11 (facing north).

Photo 2: AARCO using a tremi pipe to backfill the annulus of IP-11 with a bentonite-grout slurry.

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough
			LANGAN

SITE OBSERVATION REPORT

PROJECT NO.	170384501	**CLIENT:** 550 Clinton Partners LLC/539 Vanderbilt Partners LLC	**DATE:**	Friday. Oct. 4, 2019
PROJECT:	805-825 Atlantic Avenue		**WEATHER:**	Sunny, 80s Wind: SE 10 mph
LOCATION:	805-825 Atlantic Avenue, Brooklyn, NY		**TIME:**	7:00am to 2:00 pm
CONTRACTOR:	AARCO Environmental Services, Inc. (AARCO)		**LANGAN REP. :**	Tyler Goodnough
CONTRACTOR'S EQUIPMENT: Geoprobe 8140 LC Sonic rig		**PRESENT AT SITE:** Tyler Goodnough - Langan Tom Seickel - AARCO		**Day 4**

OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:

Langan was present to implement the August 20, 2019 Remedial Design – In-Situ Groundwater Remediation Technical Memorandum (Tech Memo) for the for BCP site C224228 at 805-825 Atlantic Avenue (Block 2010, Lots 1 and 59). Observed activities were as follows:

Site Activities

- Drilling activity:
  - AARCO utilized a Geoprobe 8140 LC sonic rig to advance boring IP-01 to 80 feet belo grade surface (bgs). Groundwater was observed at about 65 feet bgs. Evidence of odors or staining were not observed; however, a maximum photoionization detector (PID) reading of 38.6 parts per million (ppm) was recorded at about 30 feet bgs.
- Injection well IP-06 was constructed with about 65 feet of 2-inch diameter schedule-40 polyvinyl chloride (PVC) riser piping connected to 15 feet of No. 2 slotted PVC well screen. The screen interval was set at 65 to 80 feet bgs. The annulus was backfilled with No. 1 sand from 64 to 80 feet bgs, bentonite, from 63 to 64 feet bgs, and the remainder of the boring was backfilled via tremie pipe with a bentonite-grout slurry to grade.

- AARCO developed monitoring well MW-202. Approximately 40 gallons of purge water was collected in a DOT-approved 55-gallon drum.

Sampling:

- No samples were collected.

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough **LANGAN**

SITE OBSERVATION REPORT

CAMP Activities

- Langan performed community air monitoring at one upwind and one downwind station. No volatile organic compound (VOC) or particulate concentrations exceeded the action levels established in the site Community Air Monitoring Plan (CAMP).

Particulate Monitoring (mg/m^3)			**Organic Vapor Monitoring (ppm)**		
Averaging Period	Upwind	Downwind	Averaging Period	Upwind	Downwind
High Intervals "exceedances" (15min >1.5 + Upwind level)	NA	0	High Intervals "exceedances" (15min >5+Upwind level)	NA	0
Maximum 15-min Average	0.011	0.000	Maximum 15-min Average	0.0	0.0
Minimum 1-min Instant Reading	0.006	0.000	Minimum 1-min Instant Reading	0.0	0.0
Maximum 1-min Instant Reading	0.057	0.027	Maximum 1-min Instant Reading	0.0	0.0

mg/m^3 = micrograms per cubic meter ppm = parts per million
NA = Not Available

Anticipated Activities

- AARCO will install injection well IP-01.

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough
			LANGAN

SITE OBSERVATION REPORT

FIGURE 1: REMEDIAL DESIGN

Legend:

Work area

CAMP station locations

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough
			LANGAN

SITE OBSERVATION REPORT

SITE PHOTOGRAPHS

Photo 1: AARCO developing monitoring well MW-202 (facing south).

Photo 2: AARCO installing injection well IP-06 (facing southeast).

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough
			LANGAN

LANGAN

SITE OBSERVATION REPORT

PROJECT NO.	170384501	**CLIENT:** 550 Clinton Partners LLC/539 Vanderbilt Partners LLC	**DATE:**	Monday. Oct. 7, 2019
PROJECT:	805-825 Atlantic Avenue		**WEATHER:**	Light rain, 70s Wind: SE 10 mph
LOCATION:	805-825 Atlantic Avenue, Brooklyn, NY		**TIME:**	6:45am to 4:00 pm
CONTRACTOR:	AARCO Environmental Services, Inc. (AARCO)		**LANGAN REP. :**	Tyler Goodnough Tomas Monti
CONTRACTOR'S EQUIPMENT: Geoprobe 8140 LC Sonic rig		**PRESENT AT SITE:** **Day 5** Tyler Goodnough and Tomas Monti - Langan Tom Seickel - AARCO		

OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:

Langan was present to implement the August 20, 2019 Remedial Design – In-Situ Groundwater Remediation Technical Memorandum (Tech Memo) for the for BCP site C224228 at 805-825 Atlantic Avenue (Block 2010, Lots 1 and 59). Langan was also present to perform lead delineation sampling as part of waste characterization. Observed activities were as follows:

Site Activities

- linjection well IP-01was constructed with about 65 feet of 2-inch diameter schedule-40 polyvinyl chloride (PVC) riser piping connected to 15 feet of 2-inch diameter No. 2 slotted PVC well screen. The screen interval was set from 65 to 80 feet bgs. The annulus was backfilled with No. 1 sand from 64 to 80 feet bgs, bentonite, from 63 to 64 feet bgs, and the remainder of the boring was backfilled via tremie pipe with a bentonite-grout slurry to grade.

- Langan collected a groundwater sample from monitoring well MW-202. Prior to sampling, the monitoring well was purged until physical and chemical parameters (e.g., temperature, dissolved oxygen, oxygen reduction potential, and turbidity) stabilized to within ranges specified in United States Environmental Protection Agency (USEPA) Low Stress Purging and Sampling Procedure for the Collection of Groundwater Samples From Monitoring Wells, Dated July 30, 1996 and Revised January 19, 2010.

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough **LANGAN**

SITE OBSERVATION REPORT

Sampling

- Langan collected groundwater sample MW202_100719 for analysis of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), total organic carbon (TOC), total petroleum hydrocarbons (TPH) gasoline range organics (GRO), total and dissolved iron, total and dissolved manganese, sulfate, nitrate, total eubacteria, sulfate reducing bacteria, phenol hydroxylase, ethylbenzene dioxygenase, and xylene monooxygenase:

CAMP Activities

- The Community Air monitoring Program (CAMP) was not implemented on October 7, 2019 due to inclement weather.

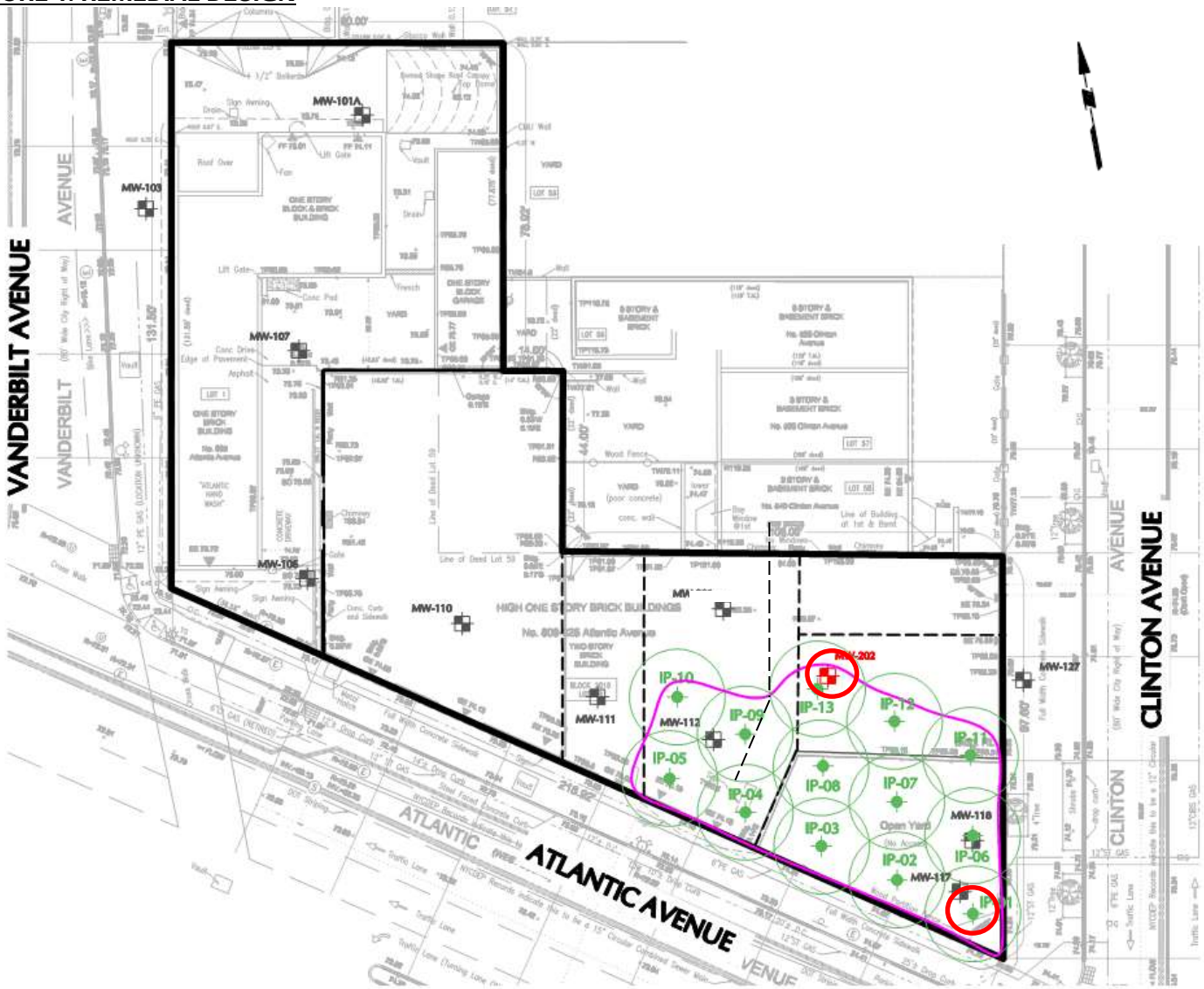
Anticipated Activities

- Advance boring IP-02.
- Install injection well IP-02.
- Develop injection wells IP-11, IP-06, and IP–01.
- Begin construction of well boxes.

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough
			LANGAN

SITE OBSERVATION REPORT

FIGURE 1: REMEDIAL DESIGN



Legend:

Work areas

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough
			LANGAN

SITE OBSERVATION REPORT

SITE PHOTOGRAPHS

Photo 1: View of groundwater sampling at monitoring well MW-202 (facing east).

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough
			LANGAN

	LOCATION				**MW202_100719**
	SAMPLING DATE				**10/7/2019**
	LAB SAMPLE ID				**L1947059-01**
	SAMPLE TYPE				**WATER**
	SAMPLE DEPTH (ft.)				
		CasNum	**NY-TOGS**	**Units**	**Results**
General Chemistry					
	Nitrogen, Nitrate	14797-55-8	20000	ug/l	2780
Semivolatile Organics by GC/MS					
	1,2,4-Trichlorobenzene	120-82-1	5	ug/l	5
	Bis(2-chloroethyl)ether	111-44-4	1	ug/l	2
	1,2-Dichlorobenzene	95-50-1	3	ug/l	2
	1,3-Dichlorobenzene	541-73-1	3	ug/l	2
	1,4-Dichlorobenzene	106-46-7	3	ug/l	2
	3,3'-Dichlorobenzidine	91-94-1	5	ug/l	5
	2,4-Dinitrotoluene	121-14-2	5	ug/l	5
	2,6-Dinitrotoluene	606-20-2	5	ug/l	5
	4-Chlorophenyl phenyl ether	7005-72-3		ug/l	2
	4-Bromophenyl phenyl ether	101-55-3		ug/l	2
	Bis(2-chloroisopropyl)ether	108-60-1	5	ug/l	2
	Bis(2-chloroethoxy)methane	111-91-1	5	ug/l	5
	Hexachlorocyclopentadiene	77-47-4	5	ug/l	20
	Isophorone	78-59-1	50	ug/l	5
	Nitrobenzene	98-95-3	0.4	ug/l	2
	NDPA/DPA	86-30-6	50	ug/l	2
	n-Nitrosodi-n-propylamine	621-64-7		ug/l	5
	Bis(2-ethylhexyl)phthalate	117-81-7	5	ug/l	1.8
	Butyl benzyl phthalate	85-68-7	50	ug/l	5
	Di-n-butylphthalate	84-74-2	50	ug/l	5
	Di-n-octylphthalate	117-84-0	50	ug/l	5
	Diethyl phthalate	84-66-2	50	ug/l	5
	Dimethyl phthalate	131-11-3	50	ug/l	5
	Biphenyl	92-52-4		ug/l	2
	4-Chloroaniline	106-47-8	5	ug/l	5
	2-Nitroaniline	88-74-4	5	ug/l	5
	3-Nitroaniline	99-09-2	5	ug/l	5
	4-Nitroaniline	100-01-6	5	ug/l	5
	Dibenzofuran	132-64-9		ug/l	2
	1,2,4,5-Tetrachlorobenzene	95-94-3	5	ug/l	10
	Acetophenone	98-86-2		ug/l	5
	2,4,6-Trichlorophenol	88-06-2		ug/l	5
	p-Chloro-m-cresol	59-50-7		ug/l	2
	2-Chlorophenol	95-57-8		ug/l	2
	2,4-Dichlorophenol	120-83-2	2	ug/l	5
	2,4-Dimethylphenol	105-67-9	2	ug/l	5
	2-Nitrophenol	88-75-5		ug/l	10
	4-Nitrophenol	100-02-7		ug/l	10
	2,4-Dinitrophenol	51-28-5	2	ug/l	20
	4,6-Dinitro-o-cresol	534-52-1		ug/l	10
	Phenol	108-95-2	2	ug/l	5
	2-Methylphenol	95-48-7		ug/l	5
	3-Methylphenol/4-Methylphenol	108-39-4/106-44-5		ug/l	5

	2,4,5-Trichlorophenol	95-95-4		ug/l	5
	Benzoic Acid	65-85-0		ug/l	50
	Benzyl Alcohol	100-51-6		ug/l	2
	Carbazole	86-74-8		ug/l	2
Semivolatile Organics by GC/MS-SIM					
	Acenaphthene	83-32-9	20	ug/l	0.1
	2-Chloronaphthalene	91-58-7	10	ug/l	0.2
	Fluoranthene	206-44-0	50	ug/l	0.02
	Hexachlorobutadiene	87-68-3	0.5	ug/l	0.5
	Naphthalene	91-20-3	10	ug/l	1.6
	Benzo(a)anthracene	56-55-3	0.002	ug/l	0.03
	Benzo(a)pyrene	50-32-8	0	ug/l	0.1
	Benzo(b)fluoranthene	205-99-2	0.002	ug/l	0.1
	Benzo(k)fluoranthene	207-08-9	0.002	ug/l	0.1
	Chrysene	218-01-9	0.002	ug/l	0.1
	Acenaphthylene	208-96-8		ug/l	0.1
	Anthracene	120-12-7	50	ug/l	0.1
	Benzo(ghi)perylene	191-24-2		ug/l	0.1
	Fluorene	86-73-7	50	ug/l	0.1
	Phenanthrene	85-01-8	50	ug/l	0.05
	Dibenzo(a,h)anthracene	53-70-3		ug/l	0.1
	Indeno(1,2,3-cd)pyrene	193-39-5	0.002	ug/l	0.1
	Pyrene	129-00-0	50	ug/l	0.02
	2-Methylnaphthalene	91-57-6		ug/l	0.38
	Pentachlorophenol	87-86-5	2	ug/l	0.8
	Hexachlorobenzene	118-74-1	0.04	ug/l	0.8
	Hexachloroethane	67-72-1	5	ug/l	0.8
Volatile Organics by GC/MS					
	Methylene chloride	75-09-2	5	ug/l	10
	1,1-Dichloroethane	75-34-3	5	ug/l	10
	Chloroform	67-66-3	7	ug/l	10
	Carbon tetrachloride	56-23-5	5	ug/l	2
	1,2-Dichloropropane	78-87-5	1	ug/l	4
	Dibromochloromethane	124-48-1	50	ug/l	2
	1,1,2-Trichloroethane	79-00-5	1	ug/l	6
	Tetrachloroethene	127-18-4	5	ug/l	2
	Chlorobenzene	108-90-7	5	ug/l	10
	Trichlorofluoromethane	75-69-4	5	ug/l	10
	1,2-Dichloroethane	107-06-2	0.6	ug/l	2
	1,1,1-Trichloroethane	71-55-6	5	ug/l	10
	Bromodichloromethane	75-27-4	50	ug/l	2
	trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	2
	cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	2
	1,3-Dichloropropene, Total	542-75-6		ug/l	2
	1,1-Dichloropropene	563-58-6	5	ug/l	10
	Bromoform	75-25-2	50	ug/l	8
	1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	2
	Benzene	71-43-2	1	ug/l	2
	Toluene	108-88-3	5	ug/l	10
	Ethylbenzene	100-41-4	5	ug/l	10
	Chloromethane	74-87-3		ug/l	10
	Bromomethane	74-83-9	5	ug/l	10

	Vinyl chloride	75-01-4	2	ug/l	4
	Chloroethane	75-00-3	5	ug/l	10
	1,1-Dichloroethene	75-35-4	5	ug/l	2
	trans-1,2-Dichloroethene	156-60-5	5	ug/l	10
	Trichloroethene	79-01-6	5	ug/l	3.6
	1,2-Dichlorobenzene	95-50-1	3	ug/l	10
	1,3-Dichlorobenzene	541-73-1	3	ug/l	10
	1,4-Dichlorobenzene	106-46-7	3	ug/l	10
	Methyl tert butyl ether	1634-04-4	10	ug/l	10
	p/m-Xylene	179601-23-1	5	ug/l	4.5
	o-Xylene	95-47-6	5	ug/l	10
	Xylenes, Total	1330-20-7		ug/l	4.5
	cis-1,2-Dichloroethene	156-59-2	5	ug/l	10
	1,2-Dichloroethene, Total	540-59-0		ug/l	10
	Dibromomethane	74-95-3	5	ug/l	20
	1,2,3-Trichloropropane	96-18-4	0.04	ug/l	10
	Acrylonitrile	107-13-1	5	ug/l	20
	Styrene	100-42-5	930	ug/l	10
	Dichlorodifluoromethane	75-71-8	5	ug/l	20
	Acetone	67-64-1	50	ug/l	80
	Carbon disulfide	75-15-0	60	ug/l	20
	2-Butanone	78-93-3	50	ug/l	720
	Vinyl acetate	108-05-4		ug/l	20
	4-Methyl-2-pentanone	108-10-1		ug/l	20
	2-Hexanone	591-78-6	50	ug/l	20
	Bromochloromethane	74-97-5	5	ug/l	10
	2,2-Dichloropropane	594-20-7	5	ug/l	10
	1,2-Dibromoethane	106-93-4	0.0006	ug/l	8
	1,3-Dichloropropane	142-28-9	5	ug/l	10
	1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	10
	Bromobenzene	108-86-1	5	ug/l	10
	n-Butylbenzene	104-51-8	5	ug/l	10
	sec-Butylbenzene	135-98-8	5	ug/l	2.8
	tert-Butylbenzene	98-06-6	5	ug/l	10
	o-Chlorotoluene	95-49-8	5	ug/l	10
	p-Chlorotoluene	106-43-4	5	ug/l	10
	1,2-Dibromo-3-chloropropane	96-12-8	0.04	ug/l	10
	Hexachlorobutadiene	87-68-3	0.5	ug/l	10
	Isopropylbenzene	98-82-8	5	ug/l	10
	p-Isopropyltoluene	99-87-6	5	ug/l	10
	Naphthalene	91-20-3	10	ug/l	10
	n-Propylbenzene	103-65-1	5	ug/l	3.6
	1,2,3-Trichlorobenzene	87-61-6	5	ug/l	10
	1,2,4-Trichlorobenzene	120-82-1	5	ug/l	10
	1,3,5-Trimethylbenzene	108-67-8	5	ug/l	8.9
	1,2,4-Trimethylbenzene	95-63-6	5	ug/l	21
	1,4-Dioxane	123-91-1		ug/l	1000
	p-Diethylbenzene	105-05-5		ug/l	3.1
	p-Ethyltoluene	622-96-8		ug/l	9
	1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	8
	Ethyl ether	60-29-7		ug/l	10
	trans-1,4-Dichloro-2-butene	110-57-6	5	ug/l	10

LANGAN

SITE OBSERVATION REPORT

PROJECT NO.	170384501	**CLIENT:** 550 Clinton Partners LLC/539 Vanderbilt Partners LLC	**DATE:**	Tuesday. Oct. 8, 2019
PROJECT:	805-825 Atlantic Avenue		**WEATHER:**	Cloudy, 70s Wind: SE 15 mph
LOCATION:	805-825 Atlantic Avenue, Brooklyn, NY		**TIME:**	7:00am to 2:00 pm
CONTRACTOR:	AARCO Environmental Services, Inc. (AARCO)		**LANGAN REP. :**	Tyler Goodnough
CONTRACTOR'S EQUIPMENT: Geoprobe 8140 LC Sonic rig		**PRESENT AT SITE:** Tyler Goodnough - Langan Tom Seickel - AARCO		**Day 6**

OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:

Langan was present to implement the August 20, 2019 Remedial Design – In-Situ Groundwater Remediation Technical Memorandum (Tech Memo) for the for BCP site C224228 at 805-825 Atlantic Avenue (Block 2010, Lots 1 and 59). Observed activities were as follows:

Site Activities

- Drilling Activity:
  - AARCO used a Geoprobe 8140 LC sonic rig to advance boring IP-02 to 80 feet below grade surface (bgs). Groundwater was observed at about 65 feet bgs. Petroleum-like odors, staining and photoionization detector (PID) readings up to 15,000 parts per million (ppm) were observed from 17 to 45 feet bgs (max. PID readings at about 28 and 36 feet bgs). Petroleum-like odors, staining and PID readings up to 15,000 parts per million (ppm) were also observed from 67 to 77 feet bgs.

- AARCO developed injection points IP-02 and IP-06 using a submersible pump. Approximately 12 gallons of purge water was collected from each injection point. Purge water was placed into a DOT-approved 55-gallon drum for future disposal.

- AARCO constructed concrete well boxes around 8" steel drive-over covers on monitoring well MW-202 and injection points IP-06, and IP-01.

Sampling:

- None.

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough **LANGAN**

SITE OBSERVATION REPORT

CAMP Activities

- Langan performed community air monitoring at one upwind and one downwind station. No volatile organic compound (VOC) or particulate concentrations exceeded the action levels established in the site Community Air Monitoring Plan (CAMP).

Particulate Monitoring (mg/m^3)			**Organic Vapor Monitoring (ppm)**		
Averaging Period	Upwind	Downwind	Averaging Period	Upwind	Downwind
High Intervals "exceedances" (15min >1.5 + Upwind level)	NA	0	High Intervals "exceedances" (15min >5+Upwind level)	NA	0
Maximum 15-min Average	0.342	0.012	Maximum 15-min Average	0.3	1.8
Minimum 1-min Instant Reading	0.006	0.007	Minimum 1-min Instant Reading	0.0	0.0
Maximum 1-min Instant Reading	2.360	0.024	Maximum 1-min Instant Reading	0.3	8.4

mg/m^3 = micrograms per cubic meter ppm = parts per million

NA = Not Available

Anticipated Activities

- Installation of injection well IP-02.
- Advance and install injection point IP-07.

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough
			LANGAN

SITE OBSERVATION REPORT

FIGURE 1: REMEDIAL DESIGN

Legend:

Drilling area

CAMP station locations

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough
			LANGAN

SITE OBSERVATION REPORT

SITE PHOTOGRAPHS

Photo 1: AARCO advancing IP-02 (facing east).

Photo 2: AARCO developing injection point IP-06 (facing southeast).

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough
			LANGAN

SITE OBSERVATION REPORT

PROJECT NO.	170384501	**CLIENT:** 550 Clinton Partners LLC/539 Vanderbilt Partners LLC	**DATE:**	Wednesday. Oct. 9, 2019
PROJECT:	805-825 Atlantic Avenue		**WEATHER:**	Cloudy/rain, 50s Wind: SE 15 mph
LOCATION:	805-825 Atlantic Avenue, Brooklyn, NY		**TIME:**	7:00am to 2:00 pm
CONTRACTOR:	AARCO Environmental Services, Inc. (AARCO)		**LANGAN REP. :**	Tyler Goodnough
CONTRACTOR'S EQUIPMENT: Geoprobe 8140 LC Sonic rig		**PRESENT AT SITE:** Tyler Goodnough - Langan Tom Seickel - AARCO		**Day 7**

OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:

Langan was present to implement the August 20, 2019 Remedial Design – In-Situ Groundwater Remediation Technical Memorandum (Tech Memo) for the for BCP site C224228 at 805-825 Atlantic Avenue (Block 2010, Lots 1 and 59). Observed activities were as follows:

Site Activities

- Drilling Activity:
  - AARCO used a Geoprobe 8140 LC sonic rig to advance boring IP-07 to 55 feet below grade surface (bgs). Evidence of impacts (odor, staining, organic vapors via photoionization detector [PID]) were not observed.

- Injection well IP-02 was constructed with about 65 feet of 2-inch diameter schedule-40 polyvinyl chloride (PVC) riser piping connected to 15 feet of 2-inch diameter No. 2 slotted PVC well screen. The screen interval was set from 65 to 80 feet bgs. The annulus was backfilled with No. 1 sand from 64 to 80 feet bgs, bentonite, from 63 to 64 feet bgs, and the remainder of the boring was backfilled via tremie pipe with a bentonite-grout slurry to grade

Sampling:

- None.

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough **LANGAN**

SITE OBSERVATION REPORT

CAMP Activities

- Langan performed community air monitoring at one upwind and one downwind station. Air monitoring was discontinued around 10:20 am due to rain. No volatile organic compound (VOC) or particulate concentrations exceeded the action levels established in the site Community Air Monitoring Plan (CAMP).

Particulate Monitoring (mg/m^3)			**Organic Vapor Monitoring (ppm)**		
Averaging Period	Upwind	Downwind	Averaging Period	Upwind	Downwind
High Intervals "exceedances" (15min >1.5 + Upwind level)	NA	0	High Intervals "exceedances" (15min >5+Upwind level)	NA	0
Maximum 15-min Average	0.028	0.008	Maximum 15-min Average	0.8	1.2
Minimum 1-min Instant Reading	0.008	0.006	Minimum 1-min Instant Reading	0.0	0.0
Maximum 1-min Instant Reading	0.048	0.009	Maximum 1-min Instant Reading	0.9	10.1

mg/m^3 = micrograms per cubic meter ppm = parts per million

NA = Not Available

Anticipated Activities

- Complete drilling and installation of injection well IP-07.
- Begin advancing boring IP-12.

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough
			LANGAN

SITE OBSERVATION REPORT

FIGURE 1: REMEDIAL DESIGN

Legend:

Drilling area

CAMP station locations

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough
			LANGAN

SITE OBSERVATION REPORT

SITE PHOTOGRAPHS

Photo 1: AARCO Installing injection well IP-02 (facing east).

Photo 2: AARCO advancing boring IP-07 (facing southeast).

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough
			LANGAN

LANGAN

SITE OBSERVATION REPORT

PROJECT NO.	170384501	**CLIENT:** 550 Clinton Partners LLC/539 Vanderbilt Partners LLC	**DATE:**	Thursday. Oct. 10, 2019
PROJECT:	805-825 Atlantic Avenue		**WEATHER:**	Sunny, 70s Wind: SE 5 mph
LOCATION:	805-825 Atlantic Avenue, Brooklyn, NY		**TIME:**	7:00am to 2:00 pm
CONTRACTOR:	AARCO Environmental Services, Inc. (AARCO)		**LANGAN REP. :**	Tyler Goodnough Meghan Aronica
CONTRACTOR'S EQUIPMENT: Geoprobe 8140 LC Sonic rig		**PRESENT AT SITE:** **Day 8** Tyler Goodnough and Meghan Aronica - Langan Tom Seickel - AARCO		

OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:

Langan was present to implement the August 20, 2019 Remedial Design – In-Situ Groundwater Remediation Technical Memorandum (Tech Memo) for the for BCP site C224228 at 805-825 Atlantic Avenue (Block 2010, Lots 1 and 59). Observed activities were as follows:

Site Activities

- Drilling Activity:
  - AARCO used a Geoprobe 8140 LC sonic rig to advance boring IP-07 from 55 to 80 feet below grade surface (bgs). Groundwater was observed at about 65 feet bgs. Petroleum-like odors, staining and photoionization detector (PID) readings up to 8,890 parts per million (ppm) were observed from 67 to 75 feet bgs (max. PID reading at about 68 feet bgs).
  - AARCO used a Geoprobe 8140 LC sonic rig to advance boring IP-12 from 0 to 55 feet bgs. Evidence of impacts (odor, staining, organic vapors via PID) were not observed.
- Injection well IP-07 was constructed with about 65 feet of 2-inch diameter schedule-40 polyvinyl chloride (PVC) riser piping connected to 15 feet of 2-inch diameter No. 2 slotted PVC well screen. The screen interval was set from 65 to 80 feet bgs. The annulus was backfilled with No. 1 sand from 64 to 80 feet bgs, bentonite, from 63 to 64 feet bgs, and the remainder of the boring was backfilled via tremie pipe with a bentonite-grout slurry to grade.

Sampling:

- None.

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough **LANGAN**

SITE OBSERVATION REPORT

CAMP Activities

- Langan performed community air monitoring at one upwind and one downwind station. No volatile organic compound (VOC) or particulate concentrations exceeded the action levels established in the site Community Air Monitoring Plan (CAMP).

Particulate Monitoring (mg/m^3)			**Organic Vapor Monitoring (ppm)**		
Averaging Period	Upwind	Downwind	Averaging Period	Upwind	Downwind
High Intervals "exceedances" (15min >1.5 + Upwind level)	NA	0	High Intervals "exceedances" (15min >5+Upwind level)	NA	0
Maximum 15-min Average	0.027	0.008	Maximum 15-min Average	0.1	0.2
Minimum 1-min Instant Reading	0.007	0.004	Minimum 1-min Instant Reading	0.0	0.0
Maximum 1-min Instant Reading	0.180	0.031	Maximum 1-min Instant Reading	0.2	0.5

mg/m^3 = micrograms per cubic meter ppm = parts per million

NA = Not Available

Anticipated Activities

- Complete advancement of IP-12 to 80 feet bgs
- Installation of injection well IP-12
- Begin advancing boring IP-03.

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough
			LANGAN

SITE OBSERVATION REPORT

FIGURE 1: REMEDIAL DESIGN

Legend:

Drilling area

CAMP station locations

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough
			LANGAN

SITE OBSERVATION REPORT

SITE PHOTOGRAPHS

Photo 1: AARCO installing injection well IP-07 (facing south).

Photo 2: AARCO advancing IP-12 (facing west).

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough
			LANGAN

LANGAN

SITE OBSERVATION REPORT

PROJECT NO.	170384501	**CLIENT:** 550 Clinton Partners LLC/539 Vanderbilt Partners LLC	**DATE:**	Friday. Oct. 11, 2019
PROJECT:	805-825 Atlantic Avenue		**WEATHER:**	Sunny, 70s Wind: SE 5 mph
LOCATION:	805-825 Atlantic Avenue, Brooklyn, NY		**TIME:**	7:00am to 2:00 pm
CONTRACTOR:	AARCO Environmental Services, Inc. (AARCO)		**LANGAN REP. :**	Tyler Goodnough Meghan Aronica
CONTRACTOR'S EQUIPMENT: Geoprobe 8140 LC Sonic rig		**PRESENT AT SITE:** **Day 9** Tyler Goodnough and Meghan Aronica - Langan Tom Seickel - AARCO		

OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:

Langan was present to implement the August 20, 2019 Remedial Design – In-Situ Groundwater Remediation Technical Memorandum (Tech Memo) for the for BCP site C224228 at 805-825 Atlantic Avenue (Block 2010, Lots 1 and 59). Observed activities were as follows:

Site Activities

- Drilling Activity:
  - AARCO used a Geoprobe 8140 LC sonic rig to advance boring IP-12 from 55 to 80 feet below grade surface (bgs). Groundwater was observed at about 65 feet bgs. Petroleum-like odors and photoionization detector (PID) readings up to 56 parts per million (ppm) were observed from 68 to 75 feet bgs (max. PID reading at about 73 feet bgs).
  - AARCO used a Geoprobe 8140 LC sonic rig to advance boring IP-03 from 0 to 45 feet bgs. Groundwater was not observed. Evidence of contamination was not observed.
- Injection well IP-12 was constructed with about 65 feet of 2-inch diameter schedule-40 polyvinyl chloride (PVC) riser piping connected to 15 feet of 2-inch diameter No. 2 slotted PVC well screen. The screen interval was set from 65 to 80 feet bgs. The annulus was backfilled with No. 1 sand from 64 to 80 feet bgs, bentonite from 63 to 64 feet bgs, and the remainder of the boring was backfilled via tremie pipe with a bentonite-grout slurry to grade.

Sampling:

- None.

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough **LANGAN**

SITE OBSERVATION REPORT

CAMP Activities

- Langan performed community air monitoring at one upwind and one downwind station. No volatile organic compound (VOC) or particulate concentrations exceeded the action levels established in the site Community Air Monitoring Plan (CAMP).

Particulate Monitoring (mg/m^3)			**Organic Vapor Monitoring (ppm)**		
Averaging Period	Upwind	Downwind	Averaging Period	Upwind	Downwind
High Intervals "exceedances" (15min >1.5 + Upwind level)	NA	0	High Intervals "exceedances" (15min >5+Upwind level)	NA	0
Maximum 15-min Average	0.032	0.007	Maximum 15-min Average	0.3	0.2
Minimum 1-min Instant Reading	0.005	0.004	Minimum 1-min Instant Reading	0.0	0.0
Maximum 1-min Instant Reading	0.070	0.010	Maximum 1-min Instant Reading	0.4	0.4

mg/m^3 = micrograms per cubic meter ppm = parts per million

NA = Not Available

Anticipated Activities

- Complete advancement of IP-03 to 80 feet bgs
- Installation of injection well IP-03
- Begin advancing boring IP-08.

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough
			LANGAN

SITE OBSERVATION REPORT

FIGURE 1: REMEDIAL DESIGN

Legend:

Drilling area

CAMP station locations

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough
			LANGAN

SITE OBSERVATION REPORT

SITE PHOTOGRAPHS

Photo 1: AARCO installing injection well IP-12 (facing south).

Photo 2: AARCO advancing boring IP-03 (facing east).

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough
			LANGAN