

August 28, 2017

Sondra Martinkat
New York State Department of Environmental Conservation
Division of Environmental Remediation
Hunters Point Plaza
47-40 21st Street
Long Island City, NY 11101
sondra.martinkat@dec.ny.gov

**Re: Supplemental Remedial Investigation Work Plan
ABC Block 27
Long Island City, NY
BCP Site No.: C241175
Langan Project No.: 170340204**

Dear Ms. Martinkat:

Langan Engineering, Environmental, Survey and Landscape Architecture, D.P.C (Langan) presents this supplemental remedial investigation (RI) work plan on behalf of Design Center Realty Sub, LLC for the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) Site No. C241175. The site is located at 5-46 46th Avenue in Long Island City, New York and is identified as New York City Tax Block 27, Lots 2, 4, 5, 15, 17, 23, 25, and 37. As requested by the NYSDEC in our meeting on July 6, 2017, the supplemental remedial investigation will be conducted to fill data gaps identified by the NYSDEC and the New York State Department of Health (NYSDOH) and to supplement the findings of Langan's RI, which was conducted from September to December 2016. The supplemental RI will consist of additional soil and groundwater sampling at the northern, central and eastern parts of the site and additional off-site sub-slab vapor and indoor air sampling in residential building on Lot 3 (pending access).

The supplemental RI will be completed in accordance with the procedures set forth in Langan's Remedial Investigation Work Plan (RIWP), prepared for the site and dated August 25, 2016. The supplemental RI will include the following:

- Completion of three additional soil borings (LB60, LB61, and LB62);
- Installation of five well couplets, consisting of two permanent 2-inch groundwater monitoring wells (screened above and below the meadow mat) to evaluate groundwater impacts at existing borings (including SB09, SB16, LB42, and LB44) and new soil boring LB60.
- Installation of five well couplets, consisting of two permanent 2-inch groundwater monitoring wells (screened above the meadow mat and immediately above top of

bedrock) to evaluate groundwater impacts at existing borings (including SB20, LB43, and LB46) and new soil borings LB61 and LB62.

- Installation of one sub-slab vapor point (SSV12) and indoor air sampling location (IA12) in the cellar of the residential building on Lot 3 (pending access);
- Collection of soil and groundwater samples from new borings and monitoring wells and collection of co-located sub-slab vapor and indoor air samples and an outdoor ambient air sample and analysis for analytical parameters stated in the RIWP;
- Collection of groundwater samples from previously installed monitoring wells (MW26S, MW26D, MW29S, and MW29D) and analysis for fourteen individual per- and polyfluoroalkyl substances (PFAS) (see Table 1) and 1,4-dioxane; and
- Implementation of a Community Air Monitoring Program (CAMP) during field intrusive activities.

The proposed soil boring, groundwater monitoring well, and sub-slab vapor sampling locations are illustrated on Figure 1. As a contingency, if field observations warrant it, additional borings, monitoring wells, and vapor points may be completed and the NYSDEC would be notified accordingly.

Reporting

Langan will revise the draft remedial investigation report (May 30, 2017) to include sampling methodology, observations, boring logs, sampling logs, analytical results, and conclusions for the supplemental RI.

If you have any questions, please call me at 212-479-5441.

Sincerely,

**Langan Engineering, Environmental, Surveying
and Landscape Architecture, D.P.C.**



Mimi S. Raygorodetsky
Senior Associate/Vice President

cc: T. Pfohl, M. Quigley, P. Kirby (Plaxall)
M. Chertok, E. Knauer (SPR)
J. Hayes, M. Burke, G. Wyka, J. Leung (Langan)

Enclosures: Table 1 – PFAS Compound Analyte List for Groundwater Samples
Figure 1 – Proposed Supplemental RI Sample Location Plan

TABLES

Table 1
PFAS Compound Analyte List for Groundwater Samples

ABC - Block 27
BCP Site No. C241175
Long Island City, NY
Langan Project No.: 170340204

Compound Name	Analytical Method
Perfluorohexanoic acid (PFHxA)	USEPA Method 537
Perfluoroheptanoic acid (PFHpA)	
Perfluorooctanoic acid (PFOA)	
Perfluorononanoic acid (PFNA)	
Perfluorodecanoic acid (PFDA)	
Perfluoroundecanoic acid (PFUnA)	
Perfluorododecanoic acid (PFDoA)	
Perfluorotridecanoic acid (PFTriA)	
Perfluorotetradecanoic acid (PFTeA)	
Perfluorobutanesulfonic acid (PFBS)	
Perfluorohexanesulfonic acid (PFHxS)	
Perfluorooctanesulfonic acid (PFOS)	
N-methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)	
N-ethyl perfluorooctanesulfonamidoacetic acid (EtFOSAA)	

Notes:

1. PFAS - per- and polyfluoroalkyl substances

FIGURES

LEGEND

- A C241174_LB06 RI SOIL BORING LOCATION
- A C241174_SB04 PREVIOUS SOIL BORING LOCATION (LANGAN APRIL 2015)
- A C241174_LB03 PREVIOUS SOIL BORING LOCATION (LANGAN DECEMBER 2015)
- A C241174_LB04DMW04D PREVIOUS SOIL BORING/MONITORING LOCATION (LANGAN DECEMBER 2015)
- S = SHALLOW - SCREEN ABOVE MEADOW MAT
- D = DEEP - SCREEN BELOW MEADOW MAT
- D C241174_LB06MW06D RI SOIL BORING/MONITORING WELL (DEEP) LOCATION
- D C241174_MW11S RI SOIL BORING/MONITORING WELL (SHALLOW) LOCATION
- D C241174_SV01 RI SOIL VAPOR POINT LOCATION
- D C241174_SSV03AA03 RI SUB-SLAB SOIL VAPOR POINT/INDOOR AIR LOCATION
- A C241174_AA01 RI AMBIENT AIR SAMPLE LOCATION
- A C241175_MW62DB PROPOSED SOIL BORING/MONITORING WELL (ABOVE BEDROCK BULK SURFACE) LOCATION AND ID
- A C241175_MW60D PROPOSED SOIL BORING/MONITORING WELL (DEEP) LOCATION AND ID
- A C241175_MW60S PROPOSED SOIL BORING/MONITORING WELL (SHALLOW) LOCATION AND ID
- A C241175_SSV12AA12 PROPOSED SUB-SLAB SOIL VAPOR POINT/INDOOR AIR LOCATION
- A C241175_AA02 PROPOSED AMBIENT AIR SAMPLE LOCATION
- APPROXIMATE BCP SITE BOUNDARY
- APPROXIMATE TAX LOT BOUNDARY
- APPROXIMATE LOCATION OF HISTORICAL UNDERGROUND STORAGE TANK (UST) OR ABOVEGROUND STORAGE TANK (AST)
- APPROXIMATE LOCATION OF HISTORICAL UST OR AST ASSOCIATED WITH AOC-1
- AOC 1: HISTORICAL SITE USE AND HISTORICAL PETROLEUM BULK STORAGE, AND OPEN PETROLEUM SPILLS
- AOC 2: HISTORIC FILL AND HAZARDOUS BARIUM AND LEAD MATERIAL
- AOC 3: DISSOLVED ARSENIC IN GROUNDWATER
- AOC 4: CVOCs IN HISTORIC FILL, GROUNDWATER AND SOIL VAPOR
- AOC 5: PETROLEUM SPILL FROM AN OFF-SITE SOURCE
- AOC 6: CVOCs FROM AN OFF-SITE SOURCE
- HISTORICAL SITE USE ASSOCIATED WITH AOC-1

GENERAL NOTES

1. BASE MAP SOURCE: SURVEY BY ALBERT W. TAY DATED SEPTEMBER 6, 2012.
2. ELEVATIONS ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88) AND WERE OBTAINED FROM GROUND SURVEYS BY LANGAN ENGINEERING, ENVIRONMENTAL, SURVEYING AND LANDSCAPE ARCHITECTURE, D.P.C. DURING OCTOBER OF 2016.
3. BCP = BROWNFIELD CLEANUP PROGRAM
4. HISTORICAL TANK LOCATIONS ARE APPROXIMATE AND ARE BASED ON AVAILABLE SANBORN MAPS (1898, 1915, AND 1936) AND 2005 PHASE I ESA PREPARED BY FLEMING LEE SHUE, INC.
5. PBS = PETROLEUM BULK STORAGE
6. RI = REMEDIAL INVESTIGATION
7. CVOCs = CHLORINATED VOLATILE ORGANIC COMPOUNDS

LANGAN

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LANGAN ENGINEERING & ENVIRONMENTAL SERVICES, INC.
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 LANGAN INTERNATIONAL LLC
 Collectively known as Langan

Project
ABC - BLOCK 27
 BLOCK No. 27, LOT No. 2, 4, 5, 15, 17, 23, 25, 37
 LONG ISLAND CITY
 QUEENS NEW YORK

Figure Title
PROPOSED SUPPLEMENTAL RI SAMPLE LOCATION PLAN

Date	8/14/2017	Figure	1
Scale	1" = 25'		
Drawn By	MMK	Submission Date	8/14/2017
170340204		Sheet 1 of 1	

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS ITEM IN ANY WAY.

