NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Region 8
6274 East Avon-Lima Road, Avon, NY 14414-9516
P: (585) 226-5353 I F: (585) 226-8139
www.dec.ny.gov

September 8, 2017

Mr. S. Ram Shrivastava, PE
Lotus Green Development, LLC
700 West Metro Park
Rochester, New York 14623

Dear Mr. Shrivastava;

Re: Luster-Coate, Site #C828113
Remedial Investigation Work Plan Addendum #1:
Perfluorinated Compound Groundwater Sampling, August 10, 2017
Churchville (V), Monroe County

The New York State Departments of Environmental Conservation and Health (collectively "the Departments"), have completed their review of the document entitled *Remedial Investigation Work Plan Addendum #1: Perfluorinated Compound Groundwater Sampling* (the Work Plan) dated August 10, 2017 for the Luster-Coate site located in the Village of Churchville. In accordance with 6 NYCRR Part 375-1.6, the Departments have determined that the Work Plan substantially address the requirements of the Brownfield Cleanup Agreement. The Work Plan is hereby approved.

We look forward to working together to bring this site back into productive use. If you have questions or concerns on this matter, please contact me at 585-226-5357.

Sincerely,

Frank Sowers

Frank Sowers, P.E.
Professional Engineer 1

ec:

Al Spaziano	Melissa Doroski
Megan Denner	Wade Silkworth
Patrick Fitzgerald	Bernette Schilling
Dan Noll	Dudley Loew

LABELLA Associates, D.P.C.
Engineering
Architecture
Environmental
Planning

300 State Street, Suite 201 | Rochester, NY 14614 | p 585.454.6110 | f 585.454.3066 | www.labellapc.com

August 10, 2017

Frank Sowers, P.E.
NYS Department of Environmental Conservation
6274 East Avon-Lima Road
Avon, New York 14414

Re: Remedial Investigation Work Plan Addendum #1
Perfluorinated Compound Groundwater Sampling
Luster Coate BCP #828113
32 E. Main Street, Village of Churchville, NY
LaBella Project No. 2171500

Dear Mr. Sowers:

Pursuant to the request of the New York State Department of Environmental Conservation (NYSDEC), LaBella Associates, D.P.C. ("LaBella") on behalf of Alantic Funding and Real Estate, LLC ("Alantic") has prepared this Remedial Investigation Work Plan (RIWP) Addendum #1 for Perfluorinated Compound ("PFC") groundwater sampling to investigate the potential presence of PFCs and PFC-related analytes in ground water at the Site.

PROJECT BACKGROUND

The Site has been developed since at least the early 1800s and has been utilized for manufacturing and industrial purposes, including but not limited to condiment bottle processing, wooden toy manufacturing, metalizing, painting, and plating operations. Luster Coate Metalizing Corporation, historical tenant of note, occupied the Site from an unknown time to approximately 2007. The Site was purchased by Lotus Green Development, LLC in 2002. Since that time, the Site has remained undeveloped and vacant. Additional details on the history of the Site and previous environmental investigation and remediation work is provided in the RIWP.

The NYSDEC has requested sampling of the groundwater at the Site for PFCs. The following section details the sampling and analytical program to be implemented in response to this request. This sampling plan includes development and sampling of the five wells planned for installation as part of the August 2017 RIWP.

SAMPLING AND ANALYTICAL PLAN

Well Installation

The well installations will be in accordance with the RIWP, with the exception that the well screens and well risers will be installed using HDPE materials rather than PVC.

Monitoring Well Development

Wells will be developed per the RIWP; however, development will be completed using a disposable HDPE bailer for each well and PFC-free string.

Groundwater Sample Collection

As noted in the RIWP, subsequent to development, the wells will be allowed to equilibrate for a minimum of two (2) weeks. Prior to conducting the sampling identified in the RIWP, a disposable HDPE bailer and PFC-free string will be utilized to purge three (3) well volumes. Subsequent to purging, a sample will be collected from each monitoring well. Sample collection will occur as follows:

- Don new/unused powder-free nitrile gloves
- Remove the cap from a clean/unused sample container provided by the laboratory and place water collect from the bailer inside. Fill the container so that water is within 1 inch of the top of the container. Care will be taken not overfill or rinse the sample container to avoid loss of the sample preservative. Samples will be collected into 250 mL HDPE bottles fitted with a HDPE screwcap.
- After the sampled has been collected and cap securely fastened, the bottle will be lightly agitated and inverted to mix the preservative.

Subsequent to PFC sampling collection, LaBella will allow the wells to equilibrate for at least 24-hrs and then groundwater sampling will be completed for the other parameters per the NYSDEC approved Remedial Investigation Work Plan ("RIWP").

Sample Equipment / Bottleware

Samples will be collected in 250 milliliter (mL) high density polyethylene (HDPE) containers with caps that do not include a polytetrafluoroethylene (i.e., Teflon) liner. Sampling equipment / bottleware constructed of aluminum foil, low density polyethylene (LDPE), glass or Teflon will *not* be used and the sampling containers will not come into contact with these materials. The HDPE bottles will include the proper preservative (e.g., Trizma®) to buffer the sample.

Special Sampling Considerations

Because PFCs are found in numerous everyday items, the following special precautions will be taken during all sampling activities:

- No use of Teflon®-containing materials (e.g., Teflon® tubing, bailers, tape, sample jar lid liners, plumbing paste)
- No Tyvek® clothing will be worn onsite
- Clothes treated with stain-resistant or rain-resistant coatings (e.g., Gortex®) will be not be worn on-Site.
- All clothing worn by sampling personnel must have been laundered multiple times. Clothing must not be laundered with fabric softener.
- No Post-It® notes will be brought onsite
- No fast food wrappers, disposable cups or microwave popcorn will be brought on-Site.
- No use of chemical (blue) ice packs will be allowed.
- No use of aluminum foil will be allowed.
- No use of Sharpies®, rather ball point pens will be utilized.

- No use of sunscreen, insect repellants, cosmetic, lotions or moisturizers will be allowed by sampling personnel the day of sampling.
- If any of the above items are handled by the field personnel prior to sampling activities, field personnel will wash their hands thoroughly with soap and water prior to any sampling activities.
- Powder-free nitrile gloves will be worn during all sample collection activities.

Field Quality Control

Field quality control samples will be used to assess sample variability and evaluate potential sources of contamination. The types of quality control samples that will be collected during the proposed sampling event are described in this section. There are five (5) wells proposed for PFC sampling and all these wells will be sampled and shipped in the same day and thus the quality control samples will include:one (1) field duplicate (blind duplicate), one (1) matrix spike / matrix spike duplicates (MS/MSD) and one (1) equipment rinsate sample. The procedures and rationale for collecting these samples are described below.

- Field duplicate – Sample will be used to assess the variability in concentrations of samples from the same well due to the combined effects of sample processing in the field and laboratory as well as chemical analysis. One (1) field duplicate will be collected using laboratory provided bottleware (see above).

- Matrix spike/matrix spike duplicate – Sample will be used to provide information about the effect of the sample matrix on the design and measurement methodology used by the laboratory. One (1) MS/MSD sample will be collected using laboratory provided bottleware (see above).

- Equipment blank – Sample will be collected to help identify possible contamination from sampling equipment (i.e., bailer). One equipment blank will be collected for the project. The equipment blank will be collected by pouring approximately 1 liter of laboratory certified analyte-free deionized water over the HDPE bailer into (1) 250-mL HDPE container or if necessary, a stainless steel bowl. If a stainless steel bowl is utilized, the rinsate collected in the bowl will be poured into (1) 250-mL HDPE container. The stainless steel bowl will be decontaminated with Alconox® detergent and laboratory certified analyte free deionized water prior to and after use.

Sample Packaging and Transport

As mentioned above, sample coolers and packing materials will be supplied by the analytical laboratory. Individual sample jars will be labeled and sealed. Samples will then be packed in a cooler with ice to maintain a temperature of approximately 4°C (±2°C). A chain of custody (COC) will be sent with each shipment. Each cooler will also be sealed with a COC seal. Coolers containing samples for chemical analyses will be transported to the laboratory by courier or overnight shipping service.

Laboratory Analyses

All samples will be submitted to Test America's laboratory in Sacramento, California (an Environmental Laboratory Accreditation Program (ELAP) certified laboratory) via a modified USEPA Method 537. The following seventeen (17) PFCs listed below will be analyzed for by the laboratory.

Analyte	CAS #
PFOA Perfluorooctanoic acid ($C_8HF_{15}O_2$)	335-67-1
PFOS: Perfluorooctanesulfonic acid ($C_8HF_{17}O_3S$)	1763-23-1
PFNA: Perfluorononanoic acid ($C_9HF_{17}O_2$)	375-95-1
PFHxS: Perfluorohexane sulfonate ($C_6HF_{13}O_3S$)	355-46-4
PFHpA: Perfluoroheptanoic acid ($C_7HF_{13}O_2$)	375-85-9
PFBS: Perfluorobutanesulfonic acid ($C_4HF_9O_3S$)	375-73-5
PFBA: Perfluorobutanoic acid ($C_4HF_7O_2$)	375-22-4
PFPeA: Perfluoropentanoic acid ($C_5HF_9O_{2)}$	2706-90-3
PFHxA: Perfluorohexanoic acid ($C_6HF_{11}O_2$)	307-24-4
PFDA: Perfluorodecanoic acid ($C_{10}HF_{19}O_2$)	335-76-2
PFUnA: Perfluoroundecanoic acid ($C_{11}HF_{21}O_2$)	2058-94-8
PFDoA: Perfluorododecanoic acid ($C_{12}HF_{23}$)	307-55-1
PFTriA: Perfluorotridecanoic acid ($C_{13}HF_{25}O_2$)	72629-94-8
PFTeA: Perfluorotetradecanoic acid ($C_{14}HF_{27}O_2$)	376-06-7
PFHps: Perfluoroheptanesulfonic acid ($C_7HF_{15}O_3S$)	375-92-8
PFDS: Perfluoroheptanesulfonic ($C_{10}HF_{21}O_3S$)	335-77-3
PFOSA: Perfluorooctanesulfonamide ($C_8H_2F_{17}NO_2S$)	754-91-6

The laboratory detection limits will be a minimum of 0.002 µg/L (i.e., 2 ng/L).

The laboratory will provide an Analytical Services Protocol (ASP) Category B data package and a Data Usability Summary Report (DUSR) will be completed by a third party. Electronic data deliverables (EDDs) will also be generated by the laboratory in EQUIS™ format for submission to the NYSDEC.

The work completed and sample results will be included in the Remedial Investigation Report.

Certification

"I Daniel Noll certify that I am currently a NYS registered professional engineer and that this Remedial Investigation Work Plan Addendum #1 was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10)"

If you have any questions please do not hesitate to contact me at (585) 295-6611.

Respectfully submitted,

LABELLA ASSOCIATES, D.P.C.

Daniel P. Noll, P.E.

Project Manager

cc: Ram Shrivastava, P.E. – Larsen (e-copy only)
Melissa Doroski – NYSDOH (e-copy only)
Al Spaziano – Alantic Funding (e-copy only)
Patrick Fitzgerald – Phillips Lytle (e-copy only)