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July 28, 2015

Mr. Bryan Wong
Environmental Engineer
NYS Department of Environmental Conservation
47-40 21st Street
Long Island City, NY 11101

Subject: **Remedial Action Work Plan Addendum #2**
77th Street Parking Lot Site
Jackson Heights, Queens, New York
VCP Site #V00182
VCA No.: W2-0854-9906

Dear Mr. Wong,

Louis Berger & Associates, P.C. (Louis Berger) hereby submits this Addendum #2 to the New York State Department of Environmental Conservation (NYSDEC)-approved Remedial Action Work Plan (RAWP) dated April 7, 2008. This addendum has been prepared to address semi-volatile organic compound (SVOC) impacts to surficial soils, and it summarizes investigational activities and the planned remedial approach.

INTRODUCTION
On January 10, 2014, surficial soil sampling activities were completed in accordance with the Surface Soil Sampling Work Plan dated December 10, 2013. On May 14, 2015, additional surficial soil sampling activities were completed to characterize soils present within two planters in accordance with Bryan Wong's email dated May 5, 2015. The purpose of this investigation was to characterize the unsaturated surface soils, in order to comply with requirements set forth in the Voluntary Cleanup Agreement (VCA) and to establish the contemplated end-use soil cleanup objectives (SCOs) for the Site. Results of the investigation identified one or more SVOC analyte(s) exceeding the restricted-residential soil cleanup objectives (RRSCOs) within five (5) of the eight (8) locations.

To address these SVOC exceedances, excavation of the surficial soils is proposed.

REMEDIAL INVESTIGATION
As summarized in the Site Usage Soil Sampling Report dated June 22, 2015, a total of ten (10) surficial soil samples (SB-01 through SB-10) were collected from landscaped areas within the Site boundaries to evaluate the applicable contemplated end-use SCOs. At each location, soils were collected from the zero to two (0-2) feet below grade (bg) interval and analyzed for volatile organic compounds (VOCs), SVOCs, pesticides, polychlorinated biphenyls (PCBs), and metals.

Results of the investigation identified the following:

- Surficial soils did not contain any VOC analytes above RRSCOs;
- Surficial soils did not contain any PCB Aroclors above RRSCOs;
- Surficial soils did not contain any pesticide analytes above RRSCOs;
- Surficial soils at five (5) of the ten (10) locations contained one or more SVOC analytes exceeding the applicable RRSCOs. These exceedances included:

- Sampling location SB-02, which exceeded the applicable RRSCO for benzo(a)anthracene, benzo(a)pyrene, benzo(b)flouranthene, benzo(k)flouranthene, chrysene, dibenzo(a,h)anthracene and indeno(1,2,3-cd)pyrene;
- Sampling location SB-04, which exceeded the applicable RRSCO for benzo(a)anthracene, benzo(a)pyrene, benzo(b)flouranthene, chrysene, dibenzo(a,h)anthracene and indeno(1,2,3-cd)pyrene;
- Sampling location SB-05, which exceeded the applicable RRSCO for benzo(a)anthracene, benzo(a)pyrene, benzo(b)flouranthene, chrysene, dibenzo(a,h)anthracene and indeno(1,2,3-cd)pyrene;
- Sampling location SB-07, which exceeded the RRSCO for benzo(a)anthracene only; and
- Sampling location SB-08, which exceeded the applicable RRSCO for benzo(a)anthracene, benzo(a)pyrene, benzo(b)flouranthene, chrysene and indeno(1,2,3-cd)pyrene.

- Surficial soils at two (2) of the ten (10) locations contained metal analytes exceeding the applicable RRSCOs. These exceedances included:
  - Sampling location SB-07, which exceeded the applicable RRSCO for arsenic only; and
  - Sampling location SB-08, which exceeded the applicable RRSCO for cadmium only.

Figure 1 depicts the locations of the surficial soil sampling locations.

REMEDIAL ACTION SELECTION

To address the SVOC and metal impacts, the following remedial options were evaluated:

1. Expansion of the Asphalt/Concrete Cap: The existing asphalt and/or concrete surface would be expanded to cover the Site. This cap would prevent physical exposure to the existing soils; however, this cap would require future maintenance and would also impact the aesthetics of the current Site layout and design. Because of the aesthetic impacts this approach would have on the Site, this approach has not been selected;

2. Excavation of Surface Soils to Meet Commercial Use Criteria: In this excavation scenario, the top one (1) foot of soil would be excavated and backfilled with clean fill. This clean fill would represent a one (1) foot thick soil cap. While this option would keep the aesthetics of the Site intact, it would not allow for modification of the VCA to permit restricted-residential use. Thus, this approach has not been selected; and

3. Excavation of Surface Soils to Meet Restricted-Residential Use Criteria: In this excavation scenario, the top two (2) feet of soil would be excavated and backfilled with clean fill. This clean fill would represent a two-foot thick soil cap. As this option allows for modification of the VCA for restricted-residential use and keeps the current aesthetics of the Site intact, this option has been selected as the best remedial option to address the SVOC and metal impacts to surficial soils.

REMEDIAL ACTION SCOPE OF WORK

Louis Berger has selected excavation as the remedial strategy to address the SVOC and metal impacts identified in surficial soils at the Site.

Removal of contaminated surficial soil will occur from four (4) landscaped areas across the Site, designated as Areas 1 through 4. These areas are depicted in Figure 2. The excavation at Area 1 will involve the removal of approximately 18 cubic yards (yd^3) of soil; at Area 2, approximately 25 yd^3 of soil; at Area 3, approximately 93 yd^3 of soil; and at Area 4, approximately 95 yd^3 of soil.

At each area, soils will be excavated to a depth of two (2) feet using a combination of heavy machinery (i.e., appropriately sized backhoe or excavator) and hand tools (i.e., shovels). After reaching depth at each area, a demarcation layer in the form of orange snow fence will be placed to provide a visual reference to the top of the "Remaining Contamination Zone" in which future disturbance would require adherence to the Site Management Plan (SMP).

Following excavation of the soils, soil endpoint samples will be collected from each sidewall that abuts either native material beneath landscaped areas not being excavated, or the Site boundary. Sidewall samples will not be required for sidewalls that abut existing asphalt or concrete caps. In addition, bottom endpoint samples will not be required as these soils will be present beneath the demarcation layer. Endpoint samples will be analyzed for SVOCs and TAL Metals only. Proposed soil endpoint sampling locations are depicted on Figure 2.

For Area 3, if proposed endpoint sample EP-5 contains any SVOC or metal analytes in exceedance of RRSCO, then Area 3's excavation area will be extended easterly to the Site boundary. For Area 4, if proposed endpoint sample EP-6 contains any SVOC or metal analytes in exceedance of RRSCO, then Area 4's excavation area will be extended westerly up to soil boring SB-03, a known location that meets all RRSCOs.

STOCKPILING

As currently envisioned, soils excavated from Areas 1, 2, and 3 will initially be stockpiled in Area 4. Once stockpiled soils from Areas 1 through 3 have been loaded for transportation off-site, excavation of Area 4 will proceed. Soils from Area 4 will be directly loaded to eliminate the need to stockpile.

Soil stockpiles will be continuously encircled with a berm and/or silt fence. Hay bales will be used as needed near any storm drains. In the event soils need to be stockpiled elsewhere onsite, soils will be placed on polyethylene sheeting.

Stockpiles will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced. The stockpiles will also be inspected following a storm event. Results of inspections will be recorded in a logbook and available for inspection by NYSDEC.

MATERIAL EXCAVATION AND LOAD-OUT

A qualified environmental professional will oversee all invasive work and the excavation and load-out of all excavated material.

The presence of utilities and easements on the site will be investigated by the qualified environmental professional. It will be determined whether a risk or impediment to the planned work is posed by utilities or easements on the site. Any area where utilities or easements are identified will be hand-cleared.

Loaded vehicles leaving the Site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and NYSDOT requirements (and all other applicable transportation requirements).

Locations where vehicles enter or exit the Site shall be inspected daily for evidence of off-site soil tracking.

The qualified environmental professional will be responsible for ensuring that all egress points for truck and equipment transport from the site are clean of dirt and other materials derived from the Site during intrusive excavation activities. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to Site-derived materials.

MATERIAL TRANSPORATION OFF-SITE

Transportation of the excavated material will be completed via tri-axle dump trucks that have a storage capacity of approximately 20 yd^3.

All transport of materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks will be properly placarded.

Trucks will be prohibited from stopping and idling in the neighborhood outside the project Site. Egress points for truck and equipment transport from the Site will be kept clean of dirt and other materials during site remediation and development.

Queuing of trucks will be performed on-site in order to minimize off-site disturbance. Off-site queuing will be prohibited.

MATERIAL DISPOSAL OFF-SITE

The excavated soil material will be manifested as non-hazardous and will be transported to Hazelton Creek Properties, LLC (Hazelton), located in Hazelton, Pennsylvania for disposal. A “contained-in” determination from the NYSDEC allowing for non-hazardous manifesting has been included as Appendix A. A letter from Hazelton accepting the material has been included as Appendix B.

BACKFILL FROM OFF-SITE SOURCES

All materials proposed for import onto the site will be approved by the qualified environmental professional and will be in compliance with provisions of the SMP prior to receipt at the Site.

All imported soils will meet the backfill and cover soil quality standards established in 6NYCRR 375-6.7(d). In considering the land use, protection of groundwater and protection of ecological resources criteria, the resulting soil quality standards are listed in Table 1. Based on the sampling frequency stated in the NYSDEC’s Technical Guidance for Site Investigation and Remediation (DER-10, Table 5.4(e)10) and an estimated quantity of 240 yd^3 of imported material, four (4) grab samples of the imported backfill will

be collected for Target Compound List (TCL) VOCs analysis, along with one (1) composite sample for TCL SVOCs, TCL pesticides, PCBs, arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver and cyanide analyses. In addition, one (1) grab sample and one (1) composite sample of the imported topsoil will be collected. The topsoil samples will be analyzed for TCL VOCs (grab sample), TCL SVOCs, TCL pesticides and PCBs, arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver and cyanide. In lieu of sampling, documentation that the imported material originated from a virgin source (e.g., permitted mine), may be submitted.

Material from industrial sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported to the Site. Soils that meet "exempt" fill requirements under 6NYCRR Part 360, but do not meet backfill or cover soil objectives for this Site, will not be imported onto the Site without prior approval by NYSDEC. Solid waste will not be imported onto the Site.

Trucks entering the site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and will be covered to prevent dust releases.

COMMUNITY AIR MONITORING / DUST AND ODOR CONTROL

During implementation of this program, the Community Air Monitoring Plan (CAMP) will be implemented at all times when soil material (either excavated or imported) is being handled. The CAMP was included as Appendix I of the NYSDEC-approved RAWP. Odor, dust and nuisance controls have been included as part of the CAMP.

NOTIFICATIONS AND SCHEDULE

The anticipated schedule for the proposed remedy is as follows:

Activity		**Timeframe**
Mobilization	-	August 10, 2015
Excavation, sampling & backfill	-	August 10, 2015 to August 21, 2015
Surface Restoration (sod/bushes)	-	TBD (may not occur immediately after backfilling)

If any changes to the above schedule is needed, Louis Berger will notify the NYSDEC. Currently, this notification will be made to:

Bryan Wong
Environmental Engineer
47-40 21st Street, Long Island City, NY 11101
Tel: (718) 482-4905
Email: yukyin.wong@dec.ny.gov

SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

Louis Berger has prepared this addendum to the RAWP for the 77th Street Parking Lot Site located at 75-20 Astoria Boulevard, in Jackson Heights, Queens County, New York.

Erik Gustafson, CHMM
Principal Environmental Scientist

Ajay Kathuria, P.E.
Manager

STATE OF NEW YORK
AJAY KATHURIA
082833-1
LICENSED PROFESSIONAL ENGINEER

List of Attachments

Figures
Figure 1 – Surficial Soil Sampling Locations
Figure 2 – Proposed Excavation Areas

Tables
Table 1 – Soil Quality Standards

Appendices
Appendix A – NYSDEC Contained-In Determination
Appendix B – Hazelton Creek Properties Acceptance Letter

C: Jane H. O'Connell – NYSDEC
Dawn Hettrick – NYSDOH
Robert Webber – Bulova Corporation
Mitchell H. Bernstein – Rapidan Group LLC
Brad Blumenfeld – Blumenfeld Development Group
James Rigano – Rigano LLC
Erik Gustafson – Louis Berger
Ajay Kathuria – Louis Berger

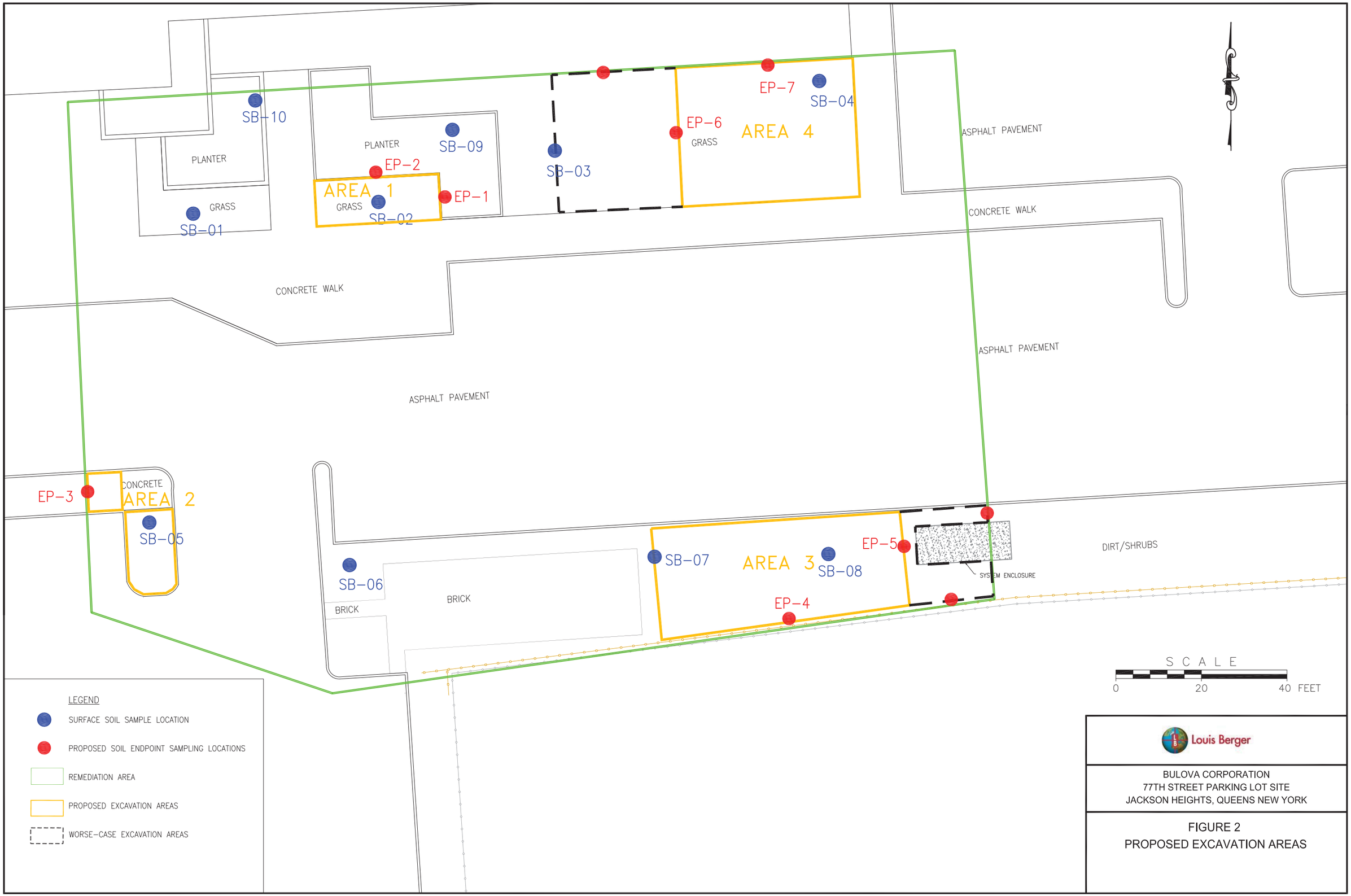
FIGURES

Louis Berger

BULOVA CORPORATION
77TH STREET PARKING LOT SITE
JACKSON HEIGHTS, QUEENS NEW YORK

FIGURE 1
SURFACE SOIL SAMPLING LOCATIONS

File: I:\GIS_SERVICES\NY\Bulova\77th Street Parking Lot Site\RAWP#2 - Figure 1 -Surface Soil Sample Locations - 77th Street- UPDATE.dwg
XREF Files: IMAGE Files: 2014 Louis Berger Logo - Color Red - Horizontal-jpg.jpg
Plot Date/Time: Jun 10, 2015 - 1:34pm
Plotted By: qli



Louis Berger

BULOVA CORPORATION
77TH STREET PARKING LOT SITE
JACKSON HEIGHTS, QUEENS NEW YORK

FIGURE 2
PROPOSED EXCAVATION AREAS

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Plot Date/Time: Aug 23, 2015 - 11:29am
Plotted By: qll

TABLES

TABLE 1
SOIL CLEANUP OBJECTIVES

77th Street Parking Lot Site
Jackson Heights, New York

VOCs	
Analyte	**Restricted-Residential SCO**
1,1,1-Trichloroethane	100
1,1-Dichloroethane	26
1,1-Dichloroethene	100
1,2-Dichlorobenzene	100
1,2-Dichloroethane	3.1
1,3-Dichlorobenzene	49
1,4-Dichlorobenzene	13
1,4-Dioxane	13
2-Butanone	100
Acetone	100
Benzene	4.8
Carbon tetrachloride	2.4
Chlorobenzene	100
Chloroform	49
cis-1,2-Dichloroethene	100
Ethylbenzene	41
Methylene chloride	100
Methyl-t-butyl ether	100
Tetrachloroethene	19
Toluene	100
trans-1,2-Dichloroethene	100
Trichloroethene	21
Vinyl chloride	0.9
SVOCs	
Analyte	**Restricted-Residential SCO**
2-Methylphenol	100
3&4-Methylphenol	100
Acenaphthene	100
Acenaphthylene	100
Anthracene	100
Benzo[a]anthracene	1
Benzo[a]pyrene	1
Benzo[b]fluoranthene	1
Benzo[g,h,i]perylene	100
Benzo[k]fluoranthene	3.9
Chrysene	3.9
Dibenzo[a,h]anthracene	0.33
Fluoranthene	100
Fluorene	100
Hexachlorobenzene	1.2
Indeno[1,2,3-cd]pyrene	0.5
Napthalene	100
Pentachlorophenol	6.7
Phenol	100
Pyrene	100

TABLE 1
SOIL CLEANUP OBJECTIVES

77th Street Parking Lot Site
Jackson Heights, New York

PCBs	
Analyte	**Restricted-Residential SCO**
Aroclor-1016	1
Aroclor-1221	1
Aroclor-1232	1
Aroclor-1242	1
Aroclor-1248	1
Aroclor-1254	1
Aroclor-1260	1
Pesticides	
Analyte	**Restricted-Residential SCO**
4,4'-DDD	13
4,4'-DDE	8.9
4,4'-DDT	7.9
Aldrin	0.097
Alpha-BHC	0.48
alpha-Chlordane	4.2
beta-BHC	0.36
delta-BHC	100
Dieldrin	0.2
Endosulfan I	24
Endosulfan II	24
Endosulfan Sulfate	24
Endrin	11
gamma-BHC	1.3
Heptachlor	2.1
Metals	
Analyte	**Restricted-Residential SCO**
Arsenic	16
Barium	400
Beryllium	72
Cadmium	4.3
Chromium	180
Copper	270
Cyanide	27
Hexavelent Chromium	110
Lead	400
Manganese	2000
Mercury	0.81
Nickel	310
Selenium	180
Silver	180
Zinc	10000

Notes:
All soil cleanup objectives (SCOs) are in parts per million (ppm).

APPENDIX A

NYSDEC Contained-In Determination

New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau A, 12th Floor
625 Broadway, Albany, New York 12233-7015
Phone: (518) 402-9625 • **Fax:** (518) 402-9627
Website: www.dec.ny.gov

Joe Martens
Commissioner

February 9, 2015

Mr. Erik Gustafson, CHMM
Principal Environmental Scientist
Environmental & Disaster Management Services
Louis Berger
48 Wall Street, 16th Floor,
New York, NY 10005

RE: Request for Contained-In Determination
77th Street Parking Lot Site (formerly 75-20 Astoria Blvd Site), Jackson Heights, New York
NYSDEC VCP Site No. V00182

Dear Mr. Gustafson:

We have reviewed the analytical data submitted with your February 6, 2015 request for a "contained-in" determination for soil contaminated by manufacturing operations at the referenced project site.

Concentrations for Tetrachloroethene (PCE), Trichloroethene (TCE), 1,1,1-Tricholorethane were below the soil "contained in" action level were below the soil "contained-in" action level and the Land Disposal Restriction concentration. Therefore, soil excavated within the following sample locations (SB-02, SB-04, SB-05, SB-08), approximately 240 cubic yards, do not have to be managed as hazardous waste when transported to Hazelton Creek Properties, LLC, located in Hazelton, Pennsylvania for disposal.

Should you have any questions regarding the content of this letter, please do not hesitate to contact me at (518) 402-9622 or email me at henry.wilkie@dec.ny.gov.

Sincerely,

Henry Wilkie
Environmental Engineer 1
Remedial Section B

ecc: B. Wong, DER Region 2

APPENDIX B

Hazelton Creek Properties Acceptance Letter

HAZLETON CREEK PROPERTIES, LLC

Friday, February 13, 2015

Innovative Recycling Technologies
690 North Queens Ave.
Lindenhurst, NY 11757
tel: 631.255.3047

Approval Letter

Contract #: SH013015001

RE: Bulova - 77th Street Parking Lot Site (formerly 75-20 Astoria Blvd Site), Jackson Heights, New York

This letter is intended to inform you that Hazleton Creek Properties (HCP) will accept up to 1000 yd3 of material for beneficial use and placement at our Hazleton, PA facility originating from the Bulova - 77th Street Parking Lot Site (formerly 75-20 Astoria Blvd Site), Jackson Heights, New York location.

HCP will accept this material based on the environmental due diligence, profile information, and analytical data provided to date.

HCP has concluded, and the PADEP has reviewed and found, that acceptable confirmation sampling has been done and that it is in accordance with the PADEP Management of Fill Policy and the results meet the acceptance criteria of our operating permit (WMGR096NE001) and the associated parameters found in Tables GP-1A and GP-1B.

HCP reserves the right to re-sample and analyze material that is received at the Hazleton facility. Any material that does not meet the acceptance criteria and specifications of PADEP Management of Fill Policy and the above mentioned tables, will be rejected/reloaded and returned to site of origin. All associated transportation fees and facility handling costs that may be incurred due to non-acceptance of material will be client's responsibility.

Should you have any questions, please do not hesitate to call, 570-207-2000 ext 117.

Thank you for your business.

Very truly yours,

HAZLETON CREEK PROPERTIES, LLC

Steve Hoats, Operations and Admin.,

S:400

4000 4th Street, Moosic, PA 18507
Phone: 570-207-2000 Fax: 570-457-3910