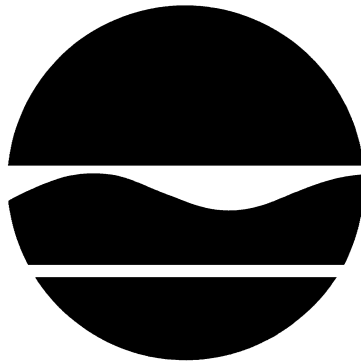


**Site Characterization
Report**

**Fulton
Former Manufactured Gas Plant**



**Brooklyn (II), Kings County, N.Y.
Site No. 2-24-051
September, 2007**

Prepared by:
Remedial Bureau C
Division of Environmental Remediation

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Purpose of a Site Characterization

A Site Characterization is undertaken to identify and investigate any potentially contaminated areas of concern at a site. The site characterization is the initial process to determine whether or not a site requires remediation

The field characterization is intended to determine whether:

1. The applicable standards, criteria and guidelines (SCGs), are contravened;
2. An adverse impact to fish and wildlife resources exists or potentially exists;
3. A public health exposure exists or potentially exists;
4. The identified contamination extends beyond the property boundary of the site being characterized; and
5. Consequential hazardous waste disposal has taken place at the site, which represents a significant threat to public health or the environment.

A field characterization is undertaken to determine if any contaminants are present at the site at levels that indicate the need for a remedial investigation. If no such contaminants are present at the site, then the NYSDEC may determine that no further investigation is required.

Based upon a review of the site characterization report, the NYSDEC will determine whether:

1. No further investigation is required at the site, because no potentially contaminated areas of concern were identified, or no area of concern is determined to require a remedial investigation; or
2. A remedial investigation will be required due to the presence of contamination identified by the site characterization; or
3. A decision regarding remediation for the site can be made based upon the presence of the contamination identified, where the nature and extent was sufficiently defined by the site characterization to determine an appropriate remedy.

Background:

The site is located in the Gowanus neighborhood of Brooklyn, N.Y., approximately one city block east of the Gowanus Canal. The location is shown in Figure 1. Part of the site is occupied by the Thomas Greene Park, the rest is private property. The surrounding neighborhood contains a dense urban mixture of commercial, industrial and residential land uses.

Historical maps included in Appendix A show two manufactured gas plants (MGPs) operating on adjacent city blocks on either side of Degraw St. between Third Ave. and Nevins St. from approximately 1886 to 1933. These plants used coal and petroleum to produce a combustible gas, which was used for lighting, heating and cooking in the community. The historical relationship of these two plants to one another is unclear. Current aerial photos of the site overlain by the outlines of the principal MGP structures and the current real estate parcels are shown in Figure 2.

On April 17, 2007 the New York State Department of Environmental Conservation (NYSDEC) began a Site Characterization Investigation. Since access to private property was not available, the investigation was conducted in the Thomas Greene Park and in the streets surrounding the two former plants.

The principal contamination targeted by the investigation was coal tar, which is the primary byproduct associated with MGP sites. Coal tar, which condensed from the hot gas produced by the plant is a brownish to black liquid with an odor similar to driveway sealer. It contains a variety of environmental contaminants including polycyclic aromatic hydrocarbons (PAHs) and benzene, toluene, ethylbenzene, and xylene (BTEX).

Field Characterization Activities

A Site Characterization investigation was conducted from April 17 to June 7, 2007 including the following activities:

1. Twenty nine (29) soil borings were completed.
The boring locations are shown in Figure 3. Boring logs detailing the visual observations from each boring are included in Appendix C.
Continuous soil samples were collected and headspace screening was conducted with a calibrated PID. The results of the screening are presented in Table 1.
2. Thirteen (13) subsurface soil samples were collected.
 - a. These samples were collected to characterize the limits and nature of the contamination.
 - b. No samples of gross contamination were collected.
 - c. The samples were analyzed for volatile organic compounds (VOCs) and semi volatile organic compounds (SVOCs) by the NYSDEC Analytical Facility in Rensselaer, N.Y.
 - d. Analytical results of these samples are summarized in Tables 2 and 3. The laboratory data sheets are included in Appendix D.
3. Seven (7) borings were completed as groundwater monitoring wells and the groundwater

was sampled. Analytical results of the groundwater samples are summarized in Tables 4 and 5 and appended to this report as Appendix D. The locations of the monitoring wells are shown in Figure 4.

Findings of the Investigation:

Geological Setting:

The soils underlying the site consist of fill material overlying native soils. Broadly, this reflects the history of this section of Brooklyn, in which fill materials were deposited in tidal wetlands to raise the ground surface for development.

The fill ranges from approximately eight to twenty feet in thickness across the site and contains varying amounts of silt, sand, gravel, cinders, wood, brick and rock fragments. Native soils lying below the fill consist of silt, sand, gravel and clay. A distinctive layer of silty clay and peat was encountered at an approximate depth of twenty feet in the area within and adjacent to the Thomas Greene Park.

Groundwater was encountered at an approximate depth of 6 to 8 feet across the site with the exception of the easternmost portion of the study area, furthest from the canal, where the water table is approximately 14 feet deep.

Groundwater flow cannot be mapped using the current data, because top of casing elevations for the monitoring wells are not available at this time. However, the site topography, which slopes approximately 10 feet downhill from Third Avenue to the Gowanus Canal, as well as the area wide topographic trend strongly suggest a westward direction of groundwater flow, from the Thomas Greene Park toward the Gowanus Canal.

The field investigation yielded eight principal observations:

1. Heavy coal tar contamination was observed at depth beneath the Thomas Greene Park in the area surrounding the swimming pool and at the edge of the basketball courts adjacent to the pool. This is the area where several MGP structures were located, and is the most likely area for large scale releases to the environment. Soil saturated with coal tar was observed in ten of the thirteen borings within the park. The vertical thickness of the tar-saturated soils within the park ranged from 4 feet (KSF-SB-08) to 11.5 feet (KSF-SB-05). Photographs depicting the coal tar saturated soil are included in Appendix B as Photos #,2,4,7,8 and 9. At boring FSF-SB-05, coal tar was observed flowing out of the drill rods prior to retracting the sampler. (See photo #5). Laboratory analytical data from soil samples taken from KSF-SB-01, KSF-SB-04 and KSF-SB-08 exceeded NYSDEC TAGM 4046 soil cleanup objectives for both SVOCs and VOCs.

Within the park, coal tar was not observed in borings KSF-SB-11, KSF-SB-12 and KSF-SB-13, roughly defining the eastern limit of coal tar impact within the park. However KSF-SB-12 and KSF-SB-13 showed significant impact from what appeared to be diesel fuel. Laboratory analytical data from these borings did not exceed the VOC soil cleanup objectives; however, KSF-SB-12 and KSF-SB-13 exceeded the SVOC soil cleanup objectives.

Soil borings could not be advanced at the western end of the park due to the high fence surrounding the handball courts.

2. Coal tar was not observed at or near the ground surface. Consequently, the potential for human exposure to coal tar contaminants by routine users of the park, workers involved in park operations, or people on the surface in the surrounding neighborhood is low. Exposures could take place during intrusive subsurface work such as underground utility construction or repair.
3. Coal tar saturated soils were observed at depth outside the park along both sides of Degraw St. in borings KSF-SB-16, KSF-SB-17, KSF-SB-18, KSF-SB-19, KSF-SB-20, KSF-SB-21, KSF-SB-22 and on Nevins St., across the street from the park in boring KSF-SB-14. The vertical thickness of coal tar saturated soil in these borings ranged from 2.5 feet in KSF-SB-14 and KSF-SB-22 to 8.75 feet in boring KSF-SB-17.

Laboratory analytical data from KSF-SB-14 exceeded the cleanup objectives for VOCs and samples from KSF-SB-20 and KSF-SB-22 exceeded the cleanup objectives for both SVOCs and VOCs.

Representative photographs of these coal tar saturated soils are included as photos 7, 8 and 9 in Appendix B. The soil borings in which coal tar saturated soils were observed are identified in Figure 5.

4. Coal tar saturated soil was not observed in Boring KSF-SB-27, however a sheen and coal tar odor were observed in this boring at depths of 23.5 feet to 26 feet below ground surface (bgs). Laboratory analytical data from this boring exceeded the SVOC cleanup objectives.
5. A clay and peat layer was observed at approximately 20 feet bgs in the Park and on Degraw St. ranging from approximately six inches to four feet in thickness. Where present, it appears to act as a confining layer limiting the downward penetration of coal tar. Photographs of the peat and the attenuation of overlying coal tar impacts by the layer are shown in photos 2 and 3 in Appendix B. Soil samples collected within this layer where it was encountered below visually contaminated soil confirm that this layer appears to limit the downward migration of contamination. (see analytical Tables 2 and 3 (KSF-SB-08, 23'-24')). An aerial photograph showing the approximate area underlain by the peat and clay layer is included as Figure 6.
6. During the development of the monitoring wells, non-aqueous phase liquid (NAPL) exhibiting a strong coal tar odor was observed in monitoring wells MW-6 and MW-7, located in the immediate vicinity of the area of the Thomas Greene Park where coal tar

was observed in subsurface soils.

7. Analytical results from the groundwater in the immediate vicinity of the observed coal tar (MW-2, MW-6 and MW-7) contain site-related contamination at levels above state standards. The groundwater from the well upgradient from the source area (MW-5) does not show evidence of coal tar impact. Groundwater analytical data is summarized in Tables 5 and 6.
8. It is possible that the coal tar contamination observed in this investigation may impact the Gowanus Canal, in which surface sheens and coal tar odors have been observed at low tide. Lateral movement of coal tar at the depths below ground surface observed in this study could intersect the canal. In an area-wide study of the Gowanus Canal by Keyspan Corporation in 2007, a soil boring adjacent to the canal at the end of Degraw Street documented coal tar contamination at depths of 38 to 46 ft. bgs, and sediment cores collected from the canal in this area exhibited coal tar contamination.

Recommendations:

Based on the findings of the Site Characterization, a Remedial Investigation will be required to determine the full nature and extent of contamination at this site, to include at a minimum:

1. Additional subsurface investigation to accurately define:
 - a. the location of the holder foundations and any other subsurface MGP structures which may remain at the site;
 - b. the surface elevation and continuity of the peat and clay layer
 - c. the extent of coal tar contamination, particularly to the south, at the location of the former MGP plant on the block bounded by Degraw, Nevins, and Sackett streets.
 - d. Relationship of the tar contamination to the canal and potential for NAPL migration into canal.
 - e. Impacts to groundwater
2. Investigation of potential for soil vapor intrusion into buildings on site and in surrounding areas.
3. Following completion of the RI, a Feasibility Study will be developed to evaluate remedial alternatives to address the contamination.

TABLES

**TABLE 1 - HEADSPACE SCREENING
KEYSPAN FULTON FORMER MGP, SITE NO. 2-24-051, KINGS COUNTY**

DEPTH(ft.)	KSF-SB-01	KSF-SB-02	KSF-SB-03	KSF-SB-04	KSF-SB-05	KSF-SB-06	KSF-SB-07	KSF-SB-08	KSF-SB-09	KSF-SB-10	KSF-SB-11	KSF-SB-12	KSF-SB-13	KSF-SB-14	KSF-SB-15
0 - 2		3	0	0	0.5	0	1.2	3	0	0	0	0	6.3	1.9	18.7
2 - 4	1.4	2.2	3.9	2	0	0	31.2	6.9	0	0	0	0	4.6	7.2	10.6
4 - 6	1.4	1.9	1	0.7	0	0	16.4	116	0	0	0	0	4.1	30.8	13.6
6 - 8	33.5	1.6	16	0	19.7	1.5	6.3	217	0	0	0	0	3.3	36.2	1.4
8 - 10	14.8	1.3	NS	29.9	48.9	NA	212	102	0	0	0	NA	NA	NA	22.8
10 - 12	211	10.9	NS	NA	379	NA	334	16.5	0	0	0	4.9	3.1	NA	30.4
12 - 14	91	7.5	NS	90.4	406	107	79.1	52.7	68	0	0	1.7	2.5	29.3	29.9
14 - 16	NA	43.5	NS	44.1	214	210	85.4	40.7	414	231	0	83.6	2.5	151	20.1
16 - 18	NA	43.7	NS	NA	334	122	292	16.8	45.2	NA	0	48.3	4.1	NS	38.4
18 - 20	255	22.3	NS	NA	172	425	NS	NA	27.8	143	0	NS	NS	NS	10.2
20 - 22	NS	NS	NS	7.2	962*	NS	NS	37.2	5.6	NA	NA	NS	NS	NS	NS
22 - 24	NS	NS	NS	4.9		NS	NS	12.6	0	47.6	0	NS	NS	NS	NS
24 - 26	NS	NS	NS	NS		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
26 - 28	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	NS	NS	NS	NS

DEPTH(ft.)	KSF-SB-16	KSF-SB-17	KSF-SB-18	KSF-SB-19	KSF-SB-20	KSF-SB-21	KSF-SB-22	KSF-SB-23	KSF-SB-24	KSF-SB-25	KSF-SB-26	KSF-SB-27	KSF-SB-28	KSF-SB-29
0 - 2	0.0	15.3	12.1	55.8	0.0	0.0	0.0	18.6	5.2	NS	16.4	4.2	0.0	0
2 - 4	6.0	19.6	45.2	51.4	0.0	0.0	0.0	2.4	8.4	NS	2.8	0.0	0.0	0
4 - 6	17.2	57.5	79.7	51.1	0.0	19.6	6.2	2.6	6.3	NS	6.2	0.0	0.0	0
6 - 8	59.5	56.3	186.0	15.2	0.0	165.0	41.4	0.6	3.1	NS	2.2	2.6	0.0	0
8 - 10	58.0	58.7	101.0	38.1	5.7	28.1	44.6	NA	2.4	NS	10.5	0.0	0.0	NA
10 - 12	30.0	152.0	194.0	42.8	96.7	53.0	192.0	0.0	23.5	NS	5.2	0.0	0.0	NA
12 - 14	38.8	495.0	NS	26.6	52.7	45.6	NS	10.1	16.8	NS	4.0	1.2	0.0	NA
14 - 16	31.7	71.2	NS	2.1	10.4	8.4	NS	0.8	29.7	NS	33.6	0.0	0.0	NA
16 - 18	20.0	87.7	NS	NS	NS	NS	NS	0.0	23.9	NS	44.0	0.0	0.0	0
18 - 20	22.1	97.6	NS	NS	NS	NS	NS	54.0	13.4	NS	46.7	0.0	NS	0
20 - 22	NS	NS	NS	NS	NS	NS	NS	30.7	12.8	NS	11.2	0.0	NS	NS
22 - 24	NS	NS	NS	NS	NS	NS	NS	43.7	26.9	NS	99.5	0.0	NS	NS
24 - 26	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.5	NS	NS
26 - 28	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

* HIGH READING PROBABLY DUE TO NAPL COATING ON SAMPLE TUBE

NA - Not Available

NS - Not Sampled

Values are in mg/l (ppm)

TABLE 2 - SOIL VOCs
KEYSPAN FULTON FORMER MGP, SITE NO. 2-24-051, KINGS COUNTY

Analyte	RSCO ¹	KSF-SB-01 6'-8'		KSF-SB-01 (18'-19')		KSF-SB-04 (12'-14')		KSF-SB-08 (15'-16')	
Dichlorodifluoromethane	nl	3200	U	3200	U	50	U	65	U
Chloromethane	nl	3200	U	3200	U	50	U	65	U
Vinyl Chloride	200	3200	U	3200	U	50	U	65	U
Bromomethane	nl	3200	U	3200	U	50	U	65	U
Chloroethane	nl	3200	U	3200	U	50	U	65	U
Trichlorofluoromethane	nl	3200	U	3200	U	50	U	65	U
1,1-Dichloroethene	400	3200	U	3200	U	50	U	65	U
Carbon Disulfide	nl	3200	U	3200	U	50	U	65	U
Acetone	200	3200	U	3200	UJ	50	U	45	J
Methylene Chloride	100	3200	U	3200	U	50	U	65	U
trans-1,2-Dichloroethene	300	3200	U	3200	U	50	U	65	U
Methyl tert-butyl ether	nl	3200	U	3200	U	50	U	65	U
1,1-Dichloroethane	200	3200	U	3200	U	50	U	65	U
Vinyl acetate	nl	3200	U	3200	U	50	U	65	U
cis-1,2-Dichloroethene	nl	3200	U	3200	U	50	U	65	U
2-Butanone	nl	3200	U	3200	U	50	U	9	J
Chloroform	300	3200	U	3200	U	50	U	65	U
1,1,1-Trichloroethane	800	3200	U	3200	U	50	U	65	U
Carbon Tetrachloride	600	3200	U	3200	U	50	U	65	U
Benzene	60	1600	J	4400		50	U	130	
1,2-Dichloroethane	100	3200	U	3200		50	U	65	U
Trichloroethene	700	3200	U	3200	U	50	U	65	U
1,2-Dichloropropane	nl	3200	U	3200	U	50	U	65	U
Bromodichloromethane	nl	3200	U	3200	U	50	U	65	U
cis-1,3-Dichloropropene	nl	3200	U	3200	U	50	U	65	U
4-Methyl-2-pentanone	nl	3200	U	3200	U	50	U	65	U
Toluene	1500	8200		3200	U	50	U	10	J
trans-1,3-Dichloropropene	nl	3200	U	3200	U	50	U	65	U
1,1,2-Trichloroethane	nl	3200	U	3200	U	50	U	65	U
Tetrachloroethene	1400	3200	U	3200	U	50	U	65	U
2-Hexanone	nl	3200	U	3200	U	50	U	65	U
Dibromochloromethane	nl	3200	U	3200	U	50	U	65	U
Chlorobenzene	1700	3200	U	3200	U	50	U	65	U
Ethylbenzene	5500	32000		45000		300	U	1100	
m,p-Xylenes	nl	45000		24000		210		230	
o-Xylenes	nl	32000		14000		140		440	
Styrene	nl	10000		3200	U	50	U	65	U
Bromoform	nl	3200	U	3200	U	50	U	65	U
1,1,2,2-Tetrachloroethane	nl	3200	U	3200	U	50	U	65	U
2-Chlorotoluene	nl	3200	U	3200	U	50	U	65	U
4-Chlorotoluene	nl	3200	U	3200	U	50	U	65	U
1,3-Dichlorobenzene	1600	3200	U	3200	U	50	U	65	U
1,4-Dichlorobenzene	8500	3200	U	3200	U	50	U	65	U
1,2-Dichlorobenzene	7900	3200	U	3200	U	50	U	65	U
1,2,4-Trichlorobenzene	nl	3200	U	3200	U	50	U	65	U
1,2,3-Trichlorobenzene	nl	3200	U	3200	U	50	U	65	U

Notes:

All data presented in parts per billion (ppb or ug/kg).

¹ Recommended soil clean-up objective from NYSDEC Technical Administrative Guidance Memorandum (TAGM 4046).

na - Sample not analyzed for that analyte

nl - Compound not listed in TAGM 4046

ns - Compound listed in TAGM 4046 but no RSCO has been established

U - Compound not detected at or above the instrument detection limit (IDL) value shown is the USEPA Contract Required Detection Limit (CRDL).

N - Presumptive evidence of a compound

J - Estimated concentration above the IDL but less than the CRDL, or due to some QC issue determined during validation. Field Duplicate is a generic sample collected simultaneously with another sample at the same location and analyzed by the laboratory. Field Duplicate data demonstrates field sampling and laboratory precision.

BOLD indicates exceedences of RSCO.

TABLE 2 - SOIL VOCs
KEYSPAN FULTON FORMER MGP, SITE NO. 2-24-051, KINGS COUNTY

Analyte	RSCO ¹	KSF-SB-08 (23'-24')		KSF-SB-11 (22'-24')		KSF-SB-12 (16'-18')		KSF-SB-13 (14'-16')	
Dichlorodifluoromethane	nl	55	U	75	U	36	U	65	U
Chloromethane	nl	55	U	75	U	36	U	65	U
Vinyl Chloride	200	55	U	75	U	36	U	65	U
Bromomethane	nl	55	U	75	U	36	U	65	U
Chloroethane	nl	55	U	75	U	36	U	65	U
Trichlorofluoromethane	nl	55	U	75	U	36	U	65	U
1,1-Dichloroethene	400	55	U	75	U	36	U	65	U
Carbon Disulfide	nl	55	U	75	U	36	U	65	U
Acetone	200	13	J	44	J	31	J	65	U
Methylene Chloride	100	55	U	75	U	36	U	65	U
trans-1,2-Dichloroethene	300	55	U	75	U	36	U	65	U
Methyl tert-butyl ether	nl	55	U	75	U	36	U	65	U
1,1-Dichloroethane	200	55	U	75	U	36	U	65	U
Vinyl acetate	nl	55	U	75	U	36	U	65	U
cis-1,2-Dichloroethene	nl	55	55	75	U	36	U	65	U
2-Butanone	nl	55	U	75	U	6	J	65	U
Chloroform	300	55	55	75	U	36	U	65	U
1,1,1-Trichloroethane	800	55	U	75	U	36	U	65	U
Carbon Tetrachloride	600	55	U	75	U	36	U	65	U
Benzene	60	230		75	U	36	U	65	U
1,2-Dichloroethane	100	55	55	75	U	36	U	65	U
Trichloroethene	700	55	U	75	U	36	U	65	U
1,2-Dichloropropane	nl	55	U	75	U	36	U	65	U
Bromodichloromethane	nl	55	U	75	U	36	U	65	U
cis-1,3-Dichloropropene	nl	55	U	75	U	36	U	65	U
4-Methyl-2-pentanone	nl	55	U	75	U	36	U	65	U
Toluene	1500	55	U	75	U	36	U	65	U
trans-1,3-Dichloropropene	nl	55	U	75	U	36	U	65	U
1,1,2-Trichloroethane	nl	55	U	75	U	36	U	65	U
Tetrachloroethene	1400	55	U	75	U	36	U	65	U
2-Hexanone	nl	55	U	75	U	36	U	65	U
Dibromochloromethane	nl	55	U	75	U	36	U	65	U
Chlorobenzene	1700	55	U	75	U	36	U	65	U
Ethylbenzene	5500	210		75	U	36	U	65	U
m,p-Xylenes	nl	130		75	U	36	U	65	U
o-Xylenes	nl	63		75	U	36	U	65	U
Styrene	nl	55	U	75	U	36	U	65	U
Bromoform	nl	55	U	75	U	36	U	65	U
1,1,2,2-Tetrachloroethane	nl	55	U	75	U	36	U	65	U
2-Chlorotoluene	nl	55	U	75	U	36	U	65	U
4-Chlorotoluene	nl	55	U	75	U	36	U	65	U
1,3-Dichlorobenzene	1600	55	U	75	U	36	U	65	U
1,4-Dichlorobenzene	8500	55	U	75	U	36	U	65	U
1,2-Dichlorobenzene	7900	55	U	75	U	36	U	65	U
1,2,4-Trichlorobenzene	nl	55	U	75	U	36	U	65	U
1,2,3-Trichlorobenzene	nl	55	U	75	U	36	U	65	U

Notes:

All data presented in parts per billion (ppb or ug/kg).

¹ Recommended soil clean-up objective from NYSDEC Technical Administrative Guidance Memorandum (TAGM 4046).

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Field Duplicate is a generic sample collected simultaneously with another sample at the same location and analyzed by the laboratory. Field Duplicate data demonstrates field sampling and laboratory precision.

BOLD indicates exceedences of RSCO.

TABLE 2 - SOIL VOCs
KEYSPAN FULTON FORMER MGP, SITE NO. 2-24-051, KINGS COUNTY

Analyte	RSCO ¹	KSF-SB-14 (19')		KSF-SB-20 (14'-16')		KSF-SB-20 (14'-16')		KSF-SB-22 (11'-12')	
Dichlorodifluoromethane	nl	16	U	19	U	70	U	29	U
Chloromethane	nl	16	U	19	U	70	U	29	U
Vinyl Chloride	200	16	U	19	U	70	U	29	U
Bromomethane	nl	16	U	19	U	70	U	29	U
Chloroethane	nl	16	U	19	U	70	U	29	U
Trichlorofluoromethane	nl	16	U	19	U	70	U	29	U
1,1-Dichloroethene	400	16	U	19	U	70	U	29	U
Carbon Disulfide	nl	16	U	19	U	70	U	29	U
Acetone	200	9	JB	27	B	70	U	17	JB
Methylene Chloride	100	16	U	19	U	70	U	29	U
trans-1,2-Dichloroethene	300	16	U	19	U	70	U	29	U
Methyl tert-butyl ether	nl	16	U	7	J	70	U	29	U
1,1-Dichloroethane	200	16	U	19	U	70	U	29	U
Vinyl acetate	nl	16	U	19	U	70	U	29	U
cis-1,2-Dichloroethene	nl	16	U	19	U	70	U	29	U
2-Butanone	nl	16	U	7	J	70	U	7	JB
Chloroform	300	16	U	19	U	70	U	29	U
1,1,1-Trichloroethane	800	16	U	19	U	70	U	29	U
Carbon Tetrachloride	600	16	U	19	U	70	U	29	U
Benzene	60	91		1200	E	1700	E	310	
1,2-Dichloroethane	100	16	U	19	U	70	U	29	U
Trichloroethene	700	16	U	19	U	70	U	29	U
1,2-Dichloropropane	nl	16	U	19	U	70	U	29	U
Bromodichloromethane	nl	16	U	19	U	70	U	29	U
cis-1,3-Dichloropropene	nl	16	U	19	U	70	U	29	U
4-Methyl-2-pentanone	nl	16	U	19	U	70	U	29	U
Toluene	1500	16	U	17	J	70	U	29	U
trans-1,3-Dichloropropene	nl	16	U	19	U	70	U	29	U
1,1,2-Trichloroethane	nl	16	U	19	U	70	U	29	U
Tetrachloroethene	1400	16	U	19	U	70	U	29	U
2-Hexanone	nl	16	U	19	U	70	U	29	U
Dibromochloromethane	nl	16	U	19	U	70	U	29	U
Chlorobenzene	1700	16	U	19	U	70	U	29	U
Ethylbenzene	5500	34		590	E	1100		2500	E
m,p-Xylenes	nl	11	J	260		70	U	410	
o-Xylenes	nl	9	J	190		70	U	570	
Styrene	nl	16	U	19	U	70	U	29	U
Bromoform	nl	16	U	19	U	70	U	29	U
1,1,2,2-Tetrachloroethane	nl	16	U	19	U	70	U	29	U
2-Chlorotoluene	nl	16	U	19	U	70	U	29	U
4-Chlorotoluene	nl	16	U	19	U	70	U	29	U
1,3-Dichlorobenzene	1600	16	U	19	U	70	U	29	U
1,4-Dichlorobenzene	8500	16	U	19	U	70	U	29	U
1,2-Dichlorobenzene	7900	16	U	19	U	70	U	29	U
1,2,4-Trichlorobenzene	nl	16	U	19	U	70	U	29	U
1,2,3-Trichlorobenzene	nl	16	U	19	U	70	U	29	U

Notes:

All data presented in parts per billion (ppb or ug/kg).

¹ Recommended soil clean-up objective from NYSDEC Technical Administrative Guidance Memorandum (TAGM 4046).

na - Sample not analyzed for that analyte

nl - Compound not listed in TAGM 4046

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BOLD indicates exceedences of RSCO.

TABLE 2 - SOIL VOCs
KEYSPAN FULTON FORMER MGP, SITE NO. 2-24-051, KINGS COUNTY

Analyte	RSCO ¹	KSF-SB-22 (11'-12')		KSF-SB-26 (16'-20')		KSF-SB-26 (16'-20')		KSF-SB-26 (24'-26')	
Dichlorodifluoromethane	nl	2900	U	16	U	60	U	14	U
Chloromethane	nl	2900	U	16	U	60	U	14	U
Vinyl Chloride	200	2900	U	16	U	60	U	14	U
Bromomethane	nl	2900	U	16	U	60	U	14	U
Chloroethane	nl	2900	U	16	U	60	U	14	U
Trichlorofluoromethane	nl	2900	U	16	U	60	U	14	U
1,1-Dichloroethene	400	2900	U	16	U	60	U	14	U
Carbon Disulfide	nl	2900	U	2	J	60	U	14	U
Acetone	200	2900	U	18	B	60	U	5	JB
Methylene Chloride	100	2900	U	16	U	60	U	14	U
trans-1,2-Dichloroethene	300	2900	U	16	U	60	U	14	U
Methyl tert-butyl ether	nl	2900	U	16	U	60	U	14	U
1,1-Dichloroethane	200	2900	U	16	U	60	U	14	U
Vinyl acetate	nl	2900	U	16	U	60	U	14	U
cis-1,2-Dichloroethene	nl	2900	U	16	U	60	U	14	U
2-Butanone	nl	2900	U	16	U	60	U	14	U
Chloroform	300	2900	U	16	U	60	U	14	U
1,1,1-Trichloroethane	800	2900	U	16	U	60	U	14	U
Carbon Tetrachloride	600	2900	U	16	U	60	U	14	U
Benzene	60	2900	U	450	E	490		14	U
1,2-Dichloroethane	100	2900	U	16	U	60	U	14	U
Trichloroethene	700	2900	U	16	U	60	U	14	U
1,2-Dichloropropane	nl	2900	U	16	U	60	U	14	U
Bromodichloromethane	nl	2900	U	16	U	60	U	14	U
cis-1,3-Dichloropropene	nl	2900	U	16	U	60	U	14	U
4-Methyl-2-pentanone	nl	2900	U	16	U	60	U	14	U
Toluene	1500	2900	U	15	J	60	U	14	U
trans-1,3-Dichloropropene	nl	2900	U	16	U	60	U	14	U
1,1,2-Trichloroethane	nl	2900	U	16	U	60	U	14	U
Tetrachloroethene	1400	2900	U	16	U	60	U	170	
2-Hexanone	nl	2900	U	16	U	60	U	14	U
Dibromochloromethane	nl	2900	U	16	U	60	U	14	U
Chlorobenzene	1700	2900	U	16	U	60	U	14	U
Ethylbenzene	5500	10000		16	U	60	U	14	U
m,p-Xylenes	nl	2900	U	16	U	60	U	14	U
o-Xylenes	nl	2900	U	110	U	60	U	14	U
Styrene	nl	2900	U	16	U	60	U	14	U
Bromoform	nl	2900	U	16	U	60	U	14	U
1,1,2,2-Tetrachloroethane	nl	2900	U	16	U	60	U	14	U
2-Chlorotoluene	nl	2900	U	16	U	60	U	14	U
4-Chlorotoluene	nl	2900	U	16	U	60	U	14	U
1,3-Dichlorobenzene	1600	2900	U	16	U	60	U	14	U
1,4-Dichlorobenzene	8500	2900	U	16	U	60	U	14	U
1,2-Dichlorobenzene	7900	2900	U	16	U	60	U	14	U
1,2,4-Trichlorobenzene	nl	2900	U	16	U	60	U	14	U
1,2,3-Trichlorobenzene	nl	2900	U	16	U	60	U	14	U

Notes:

All data presented in parts per billion (ppb or ug/kg).

¹ Recommended soil clean-up objective from NYSDEC Technical Administrative Guidance Memorandum (TAGM 4046).

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BOLD indicates exceedences of RSCO.

**TABLE 3
KEYSPAN FULTON FORMER MGP
SITE# 2-24-051, KINGS COUNTY
SOIL: SVOCs**

Analyte	RSCO ¹	KSF-SB-01 6'-8'	KSF-SB-01 (18'-19')	KSF-SB-04 (12'-14')	KSF-SB-08 (15'-16')	KSF-SB-08 (23'-24')	KSF-SB-11 (22'-24')	KSF-SB-12 (16'-18')
Phenol	30 or MDL	42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U
2-Chlorophenol	800	42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U
bis(2-Chloroethyl)Ether	nl	42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U
1,3-Dichlorobenzene	1,600	42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U
1,4-Dichlorobenzene	8,500	42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U
1,2-Dichlorobenzene	7,900	42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U
Benzyl Alcohol		42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U
bis(2-Chloroisopropyl)ether		42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U
2-Methylphenol	100 or MDL	42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U
Hexachloroethane		42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U
N-Nitroso-di-n-propylamine	nl	42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U
4-Methylphenol	900	42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U
Nitrobenzene	200 or MDL	42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U
Isophorone	4,400	42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U
2-Nitrophenol	330 or MDL	42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U
2,4-Dimethylphenol	nl	42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U
bis(2-Chloroethoxy)methane		42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U
2,4-Dichlorophenol	400	42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U
1,2,4-Trichlorobenzene	3,400	42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U
Naphthalene	13,000	1900000 BD	2900000 BD	40000 BD	800000 BD	1500 U	240 JB	1600 U
4-Chloroaniline	220 or MDL	42000 U	87000 U	42000 U	37000 U	1500 U	1900 U	1600 U
Hexachlorobutadiene	nl	42000 U	87000 U	42000 U	37000 U	1500 U	1900 U	1600 U
4-Chloro-3-Methylphenol	240 or MDL	42000 U	87000 U	42000 U	37000 U	1500 U	1900 U	1600 U
2-Methylnaphthalene	36,400	2100000 BD	820000 BD	46000 BD	290000 BD	530 U	1900 U	500 JB
Hexachlorocyclopentadiene	nl	42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	2400 U
2,4,6-Trichlorophenol	nl	42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	2400 U
2,4,5-Trichlorophenol	100	42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	4900 U
2-Chloronaphthalene	nl	42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	2400 U
2-Nitroaniline	430 or MDL	85000 U	170000 U	16000 U	75000 U	3000 U	3900 U	3100 U
Acenaphthylene	41,000	1200000 BD	28000 JD	8200 U	37000 U	120 JB	1900 U	1600 U
Dimethylphthalate	2,000	42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U
2,6-Dinitrotoluene	1,000	42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U
Acenaphthene	50,000	220000 D	410000 D	24000 D	160000 D	1500 U	1900 U	700 J
3-Nitroaniline	500 or MDL	85000 U	170000 U	16000 U	75000 U	3000 U	3900 U	3100 U
2,4-Dinitrophenol	200 or MDL	85000 U	170000 U	16000 U	37000 U	3000 U	3900 U	3100 U
Dibenzofuran	6,200	130000 D	87000 U	8200 U	37000 U	1500 U	1900 U	240 J
4-Nitrophenol	100 or MDL	8500 U	170000 U	16000 U	75000 U	3000 U	3900 U	3100 U
2,4-Dinitrotoluene	1,000	42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U
Fluorene	50,000	1400000 D	130000 D	9200 D	52000 D	1500 U	1900 U	490 J
4-Chlorophenyl-phenyl ether		42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U
Diethylphthalate	7,100	42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U
4-Nitroaniline	nl	85000 U	170000 U	16000 U	75000 U	3000 U	3900 U	3100 U
2-methyl-4,6-dinitrophenol	nl	85000 U	170000 U	16000 U	75000 U	3000 U	3900 U	3100 U
N-Nitrosodiphenylamine (1)	nl	42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U
4-Bromophenyl-phenyl ether	nl	42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U
Hexachlorobenzene	410	42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U
Pentachlorophenol	1000 or MDL	85000 U	170000 U	16000 U	94000 U	3000 U	3900 U	3100 U
Phenanthrene	50,000	1500000 D	430000 D	38000 U	210000 D	210 J	240 J	580 J
Anthracene	50,000	480000 D	100000 D	8200 U	37000 U	1500 U	440 U	590 J
Carbazole	nl	36000 JD	87000 U	8200 U	37000 U	1500 J	440 U	1600 J
Di-n-butylphthalate	8,100	42000 U	87000 U	8200 U	37000 U	1500 U	440 U	1600 U
Fluoranthene	50,000	810000 D	130000 D	13000 D	60000 D	1500 U	220 J	870 J
Pyrene	50,000	810000 D	200000 D	20000 D	100000 D	190 J	200 J	1100 J
Butylbenzylphthalate	50,000	42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U
Benzo(a)anthracene	224 or MDL	510000 D	60000 JD	8200 U	37000 U	1500 U	1900 U	310 J
Chrysene	400	450000 D	87000 U	8200 U	37000 U	1500 U	1900 U	410 J
3,3-Dichlorobenzidine	N/A	42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U
bis(2-Ethylhexyl)phthalate	50,000	42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U
Di-n-octylphthalate	50,000	42000 U	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U
Benzo(b)fluoranthene	1,100	590000 D	35000 JD	8200 U	37000 U	1500 U	1900 U	240 J
Benzo(k)fluoranthene	1,100	170000 D	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U
Benzo(a)pyrene	61 or MDL	390000 D	87000 U	8200 U	37000 U	1500 U	1900 U	190 J
Indeno(1,2,3-cd)pyrene	3,200	300000 D	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U
Dibenzo(a,h)anthracene	14 or MDL	28000 JD	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U
Benzo(g,h,i)perylene	50,000	280000 D	87000 U	8200 U	37000 U	1500 U	1900 U	1600 U

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SITE# 2-24-051, KINGS COUNTY
SOIL: SVOCs**

Analyte	RSCO ¹	KSF-SB-13 (14'-16')		KSF-SB-14 (19')		KSF-SB-20 (14'-16')		KSF-SB-22 (11'-12')		KSF-SB-26 (16'-20')		KSF-SB-27 (24'-26')	
Phenol	30 or MDL	3800	U	1500	U	3700	U	6100	U	1600	U	3000	U
2-Chlorophenol	800	3800	U	1500	U	3700	U	6100	U	1600	U	3000	U
bis(2-Chloroethyl)Ether	nl	3800	U	1500	U	3700	U	6100	U	1600	U	3000	U
1,3-Dichlorobenzene	1,600	3800	U	1500	U	3700	U	6100	U	1600	U	3000	U
1,4-Dichlorobenzene	8,500	3800	U	1500	U	3700	U	6100	U	1600	U	3000	U
1,2-Dichlorobenzene	7,900	3800	U	1500	U	3700	U	6100	U	1600	U	3000	U
Benzyl Alcohol		3800	U	1500	U	3700	U	6100	U	1600	U	3000	U
bis(2-Chloroisopropyl)ether		3800	U	1500	U	3700	U	6100	U	1600	U	3000	U
2-Methylphenol	100 or MDL	3800	U	1500	U	3700	U	6100	U	1600	U	3000	U
Hexachloroethane		3800	U	1500	U	3700	U	6100	U	1600	U	3000	U
N-Nitroso-di-n-propylamine	nl	3800	U	1500	U	3700	U	6100	U	1600	U	3000	U
4-Methylphenol	900	3800	U	1500	U	3700	U	6100	U	1600	U	3000	U
Nitrobenzene	200 or MDL	3800	U	1500	U	3700	U	6100	U	1600	U	3000	U
Isophorone	4,400	3800	U	1500	U	3700	U	6100	U	1600	U	3000	U
2-Nitrophenol	330 or MDL	3800	U	1500	U	3700	U	6100	U	1600	U	3000	U
2,4-Dimethylphenol	nl	3800	U	1500	U	3700	U	6100	U	1600	U	3000	U
bis(2-Chloroethoxy)methane		3800	U	1500	U	3700	U	6100	U	1600	U	3000	U
2,4-Dichlorophenol	400	3800	U	1500	U	3700	U	6100	U	1600	U	3000	U
1,2,4-Trichlorobenzene	3,400	3800	U	1500	U	3700	U	6100	U	1600	U	3000	U
Naphthalene	13,000	3800	U	320	J	24000	D	69000	D	1600	U	3000	U
4-Chloroaniline	220 or MDL	3800	U	1500	U	3700	U	6100	U	1600	U	3000	U
Hexachlorobutadiene	nl	3800	U	1500	U	3700	U	6100	U	1600	U	3000	U
4-Chloro-3-Methylphenol	240 or MDL	3800	U	1500	U	3700	U	6100	U	1600	U	3000	U
2-Methylnaphthalene	36,400	3800	U	740	J	21000	D	110000	D	1600	U	3000	U
Hexachlorocyclopentadiene	nl	3800	U	1500	U	120000	U	6100	U	1600	U	3000	U
2,4,6-Trichlorophenol	nl	3800	U	1500	U	120000	U	6100	U	1600	U	3000	U
2,4,5-Trichlorophenol	100	3800	U	1500	U	240000	U	6100	U	1600	U	3000	U
2-Chloronaphthalene	nl	3800	U	1500	U	120000	U	6100	U	1600	U	3000	U
2-Nitroaniline	430 or MDL	7700	U	3100	U	7300	U	12000	U	3200	U	6000	U
Acenaphthylene	41,000	3800	U	1500	U	690	JD	8500	D	1600	U	1800	JD
Dimethylphthalate	2,000	3800	U	1500	U	3700	U	6100	U	1600	U	3000	U
2,6-Dinitrotoluene	1,000	3800	U	1500	U	3700	U	6100	U	1600	U	3000	U
Acenaphthene	50,000	3800	U	220	U	18000	D	17000	D	2100	U	3000	U
3-Nitroaniline	500 or MDL	7700	U	3100	U	7300	U	12000	U	3200	U	6000	U
2,4-Dinitrophenol	200 or MDL	7700	U	3100	U	7300	U	12000	U	3200	U	6000	U
Dibenzofuran	6,200	3800	J	1500	U	950	JD	3300	JD	1600	U	3000	U
4-Nitrophenol	100 or MDL	7700	U	3100	U	7300	U	12000	U	3200	U	6000	U
2,4-Dinitrotoluene	1,000	3800	U	1500	U	3700	U	6100	U	1600	U	3000	U
Fluorene	50,000	3800	U	1500	U	6800	D	38000	D	690	J	3000	U
4-Chlorophenyl-phenyl ether		3800	U	1500	U	3700	U	6100	U	1600	U	3000	U
Diethylphthalate	7,100	3800	U	1500	U	3700	U	6100	U	1600	U	3000	U
4-Nitroaniline	nl	7700	U	3100	U	7300	U	12000	U	3200	U	6000	U
2-methyl-4,6-dinitrophenol	nl	7700	U	3100	U	7300	U	12000	U	3200	U	6000	U
N-Nitrosodiphenylamine (1)	nl	3800	U	1500	U	3700	U	6100	U	1200	U	3000	U
4-Bromophenyl-phenyl ether	nl	3800	U	1500	U	3700	U	6100	U	1600	U	3000	U
Hexachlorobenzene	410	3800	U	1500	U	3700	U	6100	U	1600	U	3000	U
Pentachlorophenol	1000 or MDL	7700	U	3100	U	7300	U	12000	U	3200	U	6000	U
Phenanthrene	50,000	11000	D	1500	U	24000	D	62000	D	1800	U	3000	U
Anthracene	50,000	3800	U	1500	U	6000	U	15000	D	1300	J	330	JD
Carbazole	nl	3800	U	1500	U	780	JD	700	JD	180	J	3000	U
Di-n-butylphthalate	8,100	3800	U	1500	U	3700	U	6100	U	1600	U	3000	U
Fluoranthene	50,000	23000	D	1500	U	19000	D	38000	D	1300	J	8200	D
Pyrene	50,000	16000	D	1500	U	19000	D	46000	D	3100		19000	D
Butylbenzylphthalate	50,000	3800	U	1500	U	3700	U	6100	U	1600	U	3000	U
Benzo(a)anthracene	224 or MDL	3800	U	1500	U	7500	D	26000	D	800	J	4200	D
Chrysene	400	3800	U	1500	U	7800	D	28000	D	850	J	3900	D
3,3-Dichlorobenzidine	N/A	3800	U	1500	U	56000	J	6100	U	1600	U	3000	U
bis(2-Ethylhexyl)phthalate	50,000	3800	U	1500	U	3700	U	6100	U	1600	U	3000	U
Di-n-octylphthalate	50,000	3800	U	1500	U	3700	U	6100	U	1600	U	3000	U
Benzo(b)fluoranthene	1,100	3800	U	1500	U	7200	D	13000	D	450	J	2400	JD
Benzo(k)fluoranthene	1,100	3800	U	1500	U	2200	JD	3800	JD	1600	U	630	JD
Benzo(a)pyrene	61 or MDL	3800	U	1500	U	6700	D	17000	D	570	J	3300	D
Indeno(1,2,3-cd)pyrene	3,200	3800	U	1500	U	3100	JD	4900	JD	220	J	1200	JD
Dibenzo(a,h)anthracene	14 or MDL	3800	U	1500	U	3700	U	6100	U	1600	U	3000	U
Benzo(g,h,i)perylene	50,000	3800	U	1500	U	3000	JD	5000	JD	300	J	1800	JD

Notes:

All data presented in parts per billion (ppb or ug/kg).

1 Recommended soil clean-up objective from NYSDEC Technical Administrative Guidance Memorandum (TAGM 4046).

na - Sample not analyzed for that analyte

nl - Compound not listed in TAGM 4046

ns - Compound listed in TAGM 4046 but no RSCO has been established

U - Compound not detected at or above the instrument detection limit (IDL) value shown is the USEPA Contract Required Detection Limit (CRDL).

N - Presumptive evidence of a compound

J - Estimated concentration above the IDL but less than the CRDL, or due to some QC issue determined during validation.

Field Duplicate is a generic sample collected simultaneously with another sample at the same location and analyzed by the laboratory. Field Duplicate data demonstrates field sampling and laboratory precision.

BOLD indicates exceedences of RSCO.

**TABLE 4
KEYSPAN FULTON FORMER MGP
SITE # 2-24-051, KINGS COUNTY
WATER: VOCs**

ANALYTE	NYS TOGS 1.1.1 1	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-6	MW-7	MW-7	TRIP BLANK
Dichlorodifluoromethane	5	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U
Chloromethane		10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U
Vinyl Chloride	2	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U
Bromomethane	5	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U
Chloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U
Trichlorofluoromethane	5	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U
1,1-Dichloroethene	0.7	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U
Carbon Disulfide	nl	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U
Acetone	50	30 U	10 U	3 J	10 U	3 J	4 J	20 U	5 J	20 U	10 U
Methylene Chloride	5	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U
trans-1,2-Dichloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U
Methyl tert-Butyl Ether	nl	5 J	10 U	3 J	10 U	10 U	10 U	20 U	10 U	20 U	10 U
1,1-Dichloroethane	0.6	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U
Vinyl acetate	nl	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U
cis-1,2-Dichloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U
2-Butanone	nl	3 J	10 U	10 U	10 U	10 U	2 J	20 U	10 U	20 U	10 U
Chloroform	7	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U
1,1,1-Trichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U
Carbon Tetrachloride	5	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U
Benzene	1	8 J	1100 E	10 U	10 U	10 U	95 U	20 U	230 E	360 D	10 U
1,2-Dichloroethane	0.6	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U
Trichloroethene	5	10 U	10 U	10 U	10 U	3 J	10 U	20 U	10 U	20 U	10 U
1,2-Dichloropropane	5	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U
Bromodichloromethane	50	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U
cis-1,3-Dichloropropene	0.4*	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U
4-Methyl-2-Pentanone	nl	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U
Toluene	5	10 U	110 E	10 U	10 U	10 U	54 U	20 U	2 J	20 U	10 U
trans-1,3-Dichloropropene	0.4*	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U
1,1,2-Trichloroethane	1	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U
Tetrachloroethene	0.7	10 U	10 U	10 U	2 J	10 U	10 U	20 U	10 U	20 U	10 U
2-Hexanone	nl	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U
Dibromochloromethane	5	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U
Chlorobenzene	nl	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U
Ethylbenzene	5	1 J	300 E	10 U	10 U	10 U	290 E	490 D	39 E	20 U	10 U
m,p-Xylene	nl	10 U	270 E	10 U	10 U	10 U	190 U	20 U	8 J	20 U	10 U
o-Xylene	nl	10 U	260 E	10 U	10 U	10 U	170 U	20 U	6 J	20 U	10 U
Styrene	5	10 U	10 U	10 U	10 U	10 U	5 J	20 U	10 U	20 U	10 U
Bromoform	50	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U
1,1,2,2-Tetrachloroethane	0.2	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U
2-Chlorotoluene	5	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U
4-Chlorotoluene	5	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U
1,3-Dichlorobenzene	3	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U
1,4-Dichlorobenzene	3	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U
1,2-Dichlorobenzene	3	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U
1,2,4-Trichlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U
1,2,3-Trichlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U

Notes:

All data presented in parts per billion (ppb or ug/kg).

1 Recommended soil clean-up objective from NYSDEC Technical Administrative Guidance Memorandum (TAGM 4046).

na - Sample not analyzed for that analyte

nl - Compound not listed in TAGM 4046

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Field Duplicate is a generic sample collected simultaneously with another sample at the same location and analyzed by the laboratory. Field Duplicate data demonstrates field sampling and laboratory precision.

BOLD indicates exceedences of RSCO.

**TABLE 5
KEYSPAN FULTON FORMER MGP
SITE # 2-24-051**

SVOCs: WATER

ANALYTE	NYS	MW-1		MW-2		MW-2		MW-3		MW-4	
	TOGS 1.1.1 1										
Phenol	1	43		22	U	220	U	11	U	11	U
2-Chlorophenol	1	15	U	22	U	220	U	11	U	11	U
bis(2-Chloroethyl)Ether	1	15	U	22	U	220	U	11	U	11	U
1,3-Dichlorobenzene	3	15	U	22	U	220	U	11	U	11	U
1,4-Dichlorobenzene	3	15	U	22	U	220	U	11	U	11	U
1,2-Dichlorobenzene	3	15	U	22	U	220	U	11	U	11	U
benzyl alcohol		15	U	22	U	220	U	11	U	11	U
bis(2-chloroisopropyl)ether		15	U	22	U	220	U	11	U	11	U
2-Methylphenol	1	15	U	22	U	220	U	11	U	11	U
Hexachloroethane	5	15	U	22	U	220	U	11	U	11	U
N-Nitroso-di-n-propylamine	nl	15	U	22	U	220	U	11	U	11	U
4-Methylphenol	1	15	U	22	U	220	U	11	U	11	U
Nitrobenzene	0.4	15	U	22	U	220	U	11	U	11	U
Isophorone	50	15	U	22	U	220	U	11	U	11	U
2-Nitrophenol	1	15	U	22	U	220	U	11	U	11	U
2,4-Dimethylphenol	50	15	U	4	JD	220	U	11	U	11	U
bis(2-Chloroethoxy)methane	5	15	U	22	U	220	U	11	U	11	U
2,4-Dichlorophenol	5	15	U	22	U	220	U	11	U	11	U
1,2,4-Trichlorobenzene	5	15	U	22	U	220	U	11	U	11	U
Naphthalene	10	7	JB	490	EBD	4800	BD	5	JB	2	JB
4-Chloroaniline	5	15	U	22	U	220	U	11	U	11	U
Hexachlorobutadiene	0.5	15	U	22	U	220	U	11	U	11	U
4-Chloro-3-Methylphenol	1	15	U	22	U	220	U	11	U	11	U
2-Methylnaphthalene	nl	4	JB	200	D	220	U	11	U	11	U
Hexachlorocyclopentadiene	5	15	U	22	U	220	U	11	U	11	U
2,4,6-Trichlorophenol	1	15	U	22	U	220	U	11	U	11	U
2,4,5-Trichlorophenol	1	15	U	22	U	220	U	11	U	11	U
2-Chloronaphthalene	10	15	U	22	U	220	U	11	U	11	U
2-Nitroaniline	5	30	U	44	U	440	U	22	U	22	U
Acenaphthylene	nl	15	U	9	JD	220	U	2	JB	11	U
Dimethylphthalate	50	15	U	22	U	220	U	11	U	11	U
2,6-Dinitrotoluene	5	15	U	22	U	220	U	11	U	11	U
Acenaphthene	20	6	JB	140	D	220	U	11	U	11	U
3-Nitroaniline	5	30	U	44	U	440	U	22	U	22	U
2,4-Dinitrophenol	10	30	U	44	U	440	U	22	U	22	U
Dibenzofuran	nl	15	U	5	JD	220	U	11	U	11	U
4-Nitrophenol	1	30	U	44	U	440	U	22	U	22	U
2,4-Dinitrotoluene	5	15	U	22	U	220	U	11	U	11	U
Fluorene	50	3	J	33	D	220	U	11	U	11	U
4-Chlorophenyl-phenylether	5	15	U	22	U	220	U	11	U	11	U
Diethylphthalate	50	15	U	22	U	220	U	11	U	11	U
4-Nitroaniline	5	30	U	44	U	440	U	22	U	22	U
2-methyl-4,6-dinitrophenol		30	U	44	U	440	U	22	U	22	U
N-Nitrosodiphenylamine	50	15	U	22	U	220	U	11	U	11	U
4-Bromophenyl-phenylether	5	15	U	22	U	220	U	11	U	11	U
Hexachlorobenzene	0.04	15	U	22	U	220	U	11	U	11	U
Pentachlorophenol	1	30	U	44	U	440	U	22	U	22	U
Phenanthrene	50	4	J	37	D	220	U	11	U	11	U
Anthracene	50	15	U	6	JD	220	U	11	U	11	U
Carbazole	nl	15	U	20	JD	220	U	11	U	11	U
Di-n-butylphthalate	50	15	U	22	U	220	U	1	J	11	U
Fluoranthene	50*	15	U	3	JD	220	U	11	U	11	U
Pyrene	50	15	U	5	JD	220	U	11	U	11	U
Butylbenzylphthalate	50*	15	U	22	U	220	U	11	U	11	U
Benzo(a)anthracene	0.002	15	U	22	U	220	U	11	U	11	U
Chrysene	0.002	15	U	22	U	220	U	11	U	11	U
3,3-Dichlorobenzidine	5	15	U	22	U	220	U	11	U	11	U
bis(2-Ethylhexyl)phthalate	5	15	U	22	U	220	U	11	U	11	U
Di-n-octylphthalate	50	15	U	22	U	220	U	11	U	11	U
Benzo(b)fluoranthene	0.002	15	U	22	U	220	U	11	U	11	U
Benzo(k)fluoranthene	0.002	15	U	22	U	220	U	11	U	11	U
Benzo(a)pyrene	nd	15	U	22	U	220	U	11	U	11	U
Indeno(1,2,3-cd)pyrene	0.002	15	U	22	U	220	U	11	U	11	U
Dibenzo(a,h)anthracene	nl	15	U	22	U	220	U	11	U	11	U
Benzo(g,h,i)perylene	nl	15	U	22	U	220	U	2	J	11	U

Notes:

All data presented in parts per billion (ppb or ug/kg).

¹ Recommended soil clean-up objective from NYSDEC Technical Administrative Guidance Memorandum (TAGM 4046).

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BOLD indicates exceedences of RSCO.

**TABLE 5
KEYSPAN FULTON FORMER MGP
SITE # 2-24-051**

SVOCs: WATER

ANALYTE	NYS	MW-5		MW-6		MW-6		MW-7		MW-7	
	TOGS 1.1.1 1										
Phenol	1	11	U	22	U	110	U	22	U	56	U
2-Chlorophenol	1	11	U	22	U	110	U	22	U	56	U
bis(2-Chloroethyl)Ether	1	11	U	22	U	110	U	22	U	56	U
1,3-Dichlorobenzene	3	11	U	22	U	110	U	22	U	56	U
1,4-Dichlorobenzene	3	11	U	22	U	110	U	22	U	56	U
1,2-Dichlorobenzene	3	11	U	22	U	110	U	22	U	56	U
benzyl alcohol		11	U	22	U	110	U	22	U	56	U
bis(2-chloroisopropyl)ether		11	U	22	U	110	U	22	U	56	U
2-Methylphenol	1	11	U	22	U	110	U	22	U	56	U
Hexachloroethane	5	11	U	22	U	110	U	22	U	56	U
N-Nitroso-di-n-propylamine	nl	11	U	22	U	110	U	22	U	56	U
4-Methylphenol	1	11	U	4	JD	110	U	4	JD	56	U
Nitrobenzene	0.4	11	U	22	U	110	U	22	U	56	U
Isophorone	50	11	U	22	U	110	U	22	U	56	U
2-Nitrophenol	1	11	U	22	U	110	U	22	U	56	U
2,4-Dimethylphenol	50	11	U	22	U	110	U	22	U	56	U
bis(2-Chloroethoxy)methane	5	11	U	22	U	110	U	22	U	56	U
2,4-Dichlorophenol	5	11	U	22	U	110	U	22	U	56	U
1,2,4-Trichlorobenzene	5	11	U	22	U	110	U	22	U	56	U
Naphthalene	10	6	JB	660	EBD	3500	BD	230	EBD	500	BD
4-Chloroaniline	5	11	U	22	U	110	U	22	U	56	U
Hexachlorobutadiene	0.5	11	U	22	U	110	U	22	U	56	U
4-Chloro-3-Methylphenol	1	11	U	22	U	110	U	22	U	56	U
2-Methylnaphthalene	nl	11	U	320	ED	960	D	53	D	56	U
Hexachlorocyclopentadiene	5	11	U	22	U	110	U	22	U	56	U
2,4,6-Trichlorophenol	1	11	U	22	U	110	U	22	U	56	U
2,4,5-Trichlorophenol	1	11	U	22	U	110	U	22	U	56	U
2-Chloronaphthalene	10	11	U	22	U	110	U	22	U	56	U
2-Nitroaniline	5	22	U	44	U	220	U	44	U	110	U
Acenaphthylene	nl	11	U	30	D	110	U	19	JD	56	U
Dimethylphthalate	50	11	U	22	U	110	U	22	U	56	U
2,6-Dinitrotoluene	5	11	U	22	U	110	U	22	U	56	U
Acenaphthene	20	11	U	180	D	110	U	200	D	56	U
3-Nitroaniline	5	22	U	44	U	220	U	44	U	110	U
2,4-Dinitrophenol	10	22	U	44	U	220	U	44	U	110	U
Dibenzofuran	nl	11	U	7	JD	110	U	8	JD	56	U
4-Nitrophenol	1	22	U	44	U	220	U	44	U	110	U
2,4-Dinitrotoluene	5	11	U	22	U	110	U	22	U	56	U
Fluorene	50	11	U	58	D	110	U	110	JD	56	U
4-Chlorophenyl-phenylether	5	11	U	22	U	110	U	22	U	56	U
Diethylphthalate	50	11	U	22	U		U	22	U	56	U
4-Nitroaniline	5	22	U	44	U	220	U	44	U	110	U
2-methyl-4,6-dinitrophenol		22	U	44	U	220	U	44	U	110	U
N-Nitrosodiphenylamine	50	11	U	22	U	110	U	22	U	56	U
4-Bromophenyl-phenylether	5	11	U	22	U	110	U	22	U	56	U
Hexachlorobenzene	0.04	11	U	22	U	110	U	22	U	56	U
Pentachlorophenol	1	22	U	44	U	220	U	44	U	110	U
Phenanthrene	50	11	U	64	D	110	U	170	D	56	U
Anthracene	50	11	U	11	JD	110	U	74	D	56	U
Carbazole	nl	11	U	39	D	110	U	4	JD	56	U
Di-n-butylphthalate	50	11	U	22	U	110	U	22	U	56	U
Fluoranthene	50*	11	U	7	JD	110	U	96	D	56	U
Pyrene	50	11	U	11	JD	110	U	130	D	56	U
Butylbenzylphthalate	50*	11	U	22	U	110	U	22	U	56	U
Benzo(a)anthracene	0.002	11	U	2	JD	110	U	47	D	56	U
Chrysene	0.002	11	U	2	JD	110	U	42	D	56	U
3,3-Dichlorobenzidine	5	11	U	22	U	110	U	22	U	56	U
bis(2-Ethylhexyl)phthalate	5	11	U	22	U	110	U	22	U	56	U
Di-n-octylphthalate	50	11	U	22	U	110	U	22	U	56	U
Benzo(b)fluoranthene	0.002	11	U	22	U	110	U	27	D	56	U
Benzo(k)fluoranthene	0.002	11	U	22	U	110	U	8	JD	56	U
Benzo(a)pyrene	nd	11	U	22	U	110	U	39	D	56	U
Indeno(1,2,3-cd)pyrene	0.002	11	U	22	U	110	U	12	JD	56	U
Dibenzo(a,h)anthracene	nl	11	U	22	U	110	U	3	JD	56	U
Benzo(g,h,i)perylene	nl	11	U	22	U	110	U	12	JD	56	U

Notes:

All data presented in parts per billion (ppb or ug/kg).

¹ Recommended soil clean-up objective from NYSDEC Technical Administrative Guidance Memorandum (TAGM 4046).

na - Sample not analyzed for that analyte

nl - Compound not listed in TAGM 4046

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Field Duplicate is a generic sample collected simultaneously with another sample at the same location and analytical laboratory. Field Duplicate data demonstrates field sampling and laboratory precision.

BOLD indicates exceedences of RSCO.

FIGURES



Historic MGP Structures and Real Estate Parcels

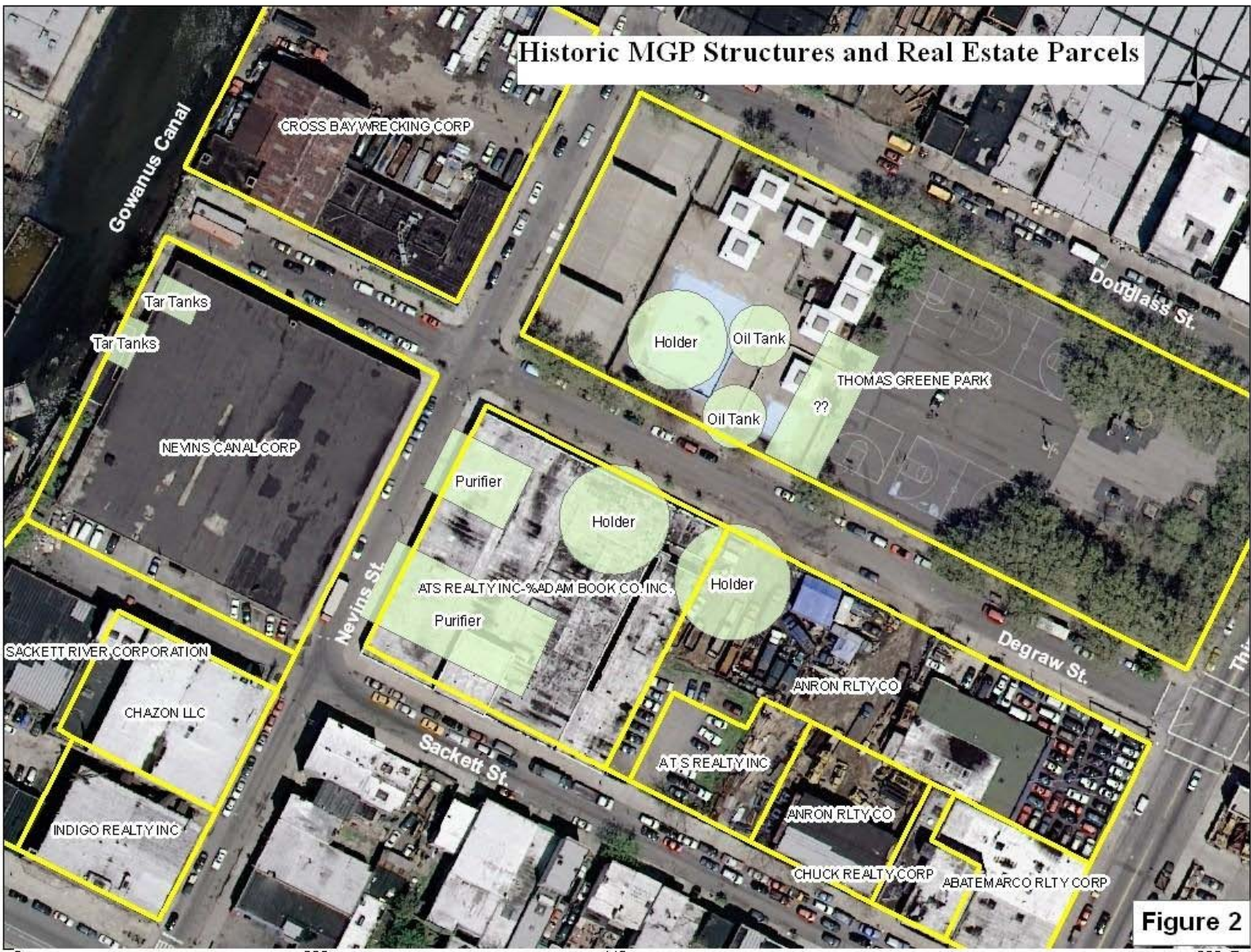


Figure 2

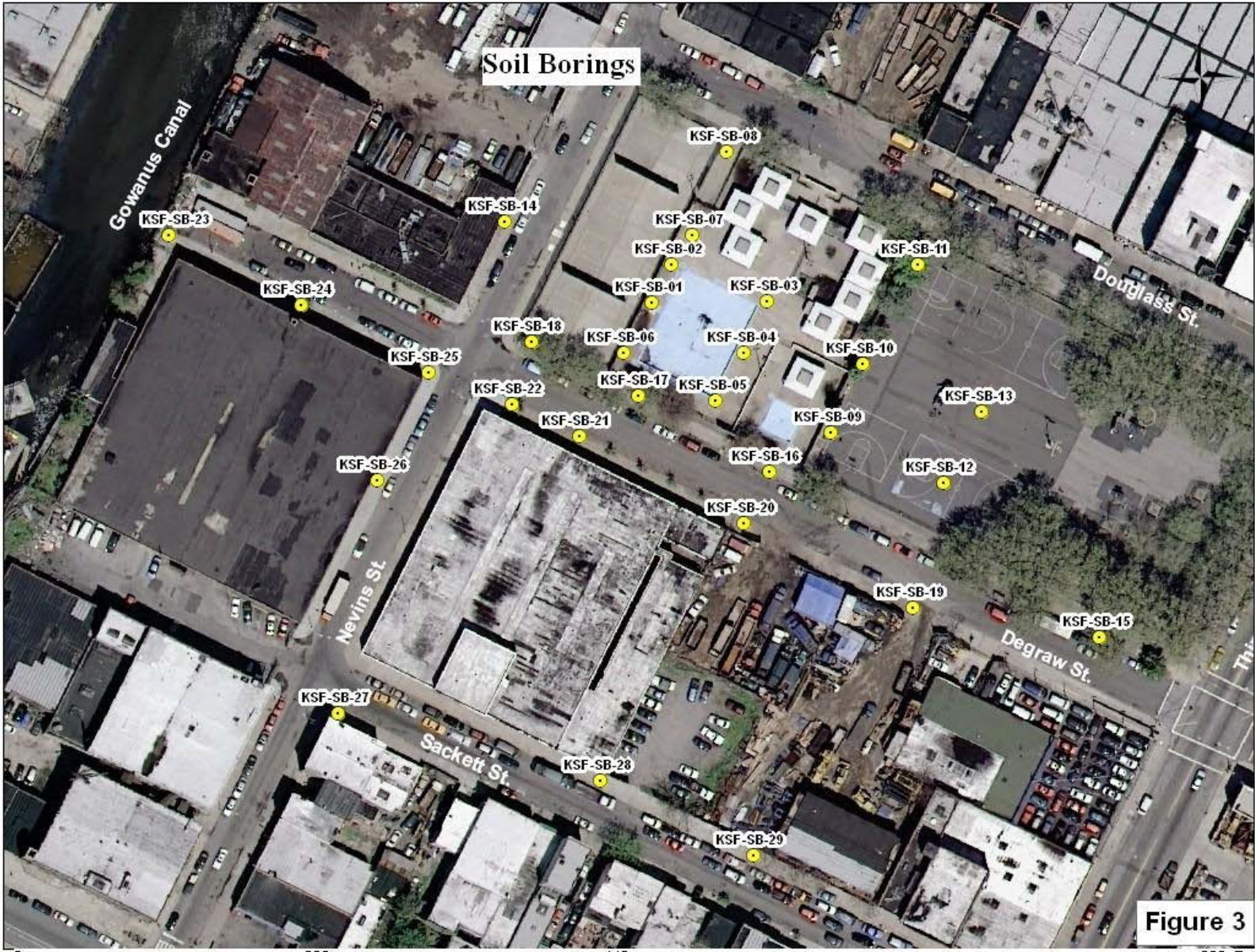


Figure 3



Figure 4



Figure 5

Borings in which the peat layer was observed, and the depths to the peat layer in feet below ground surface



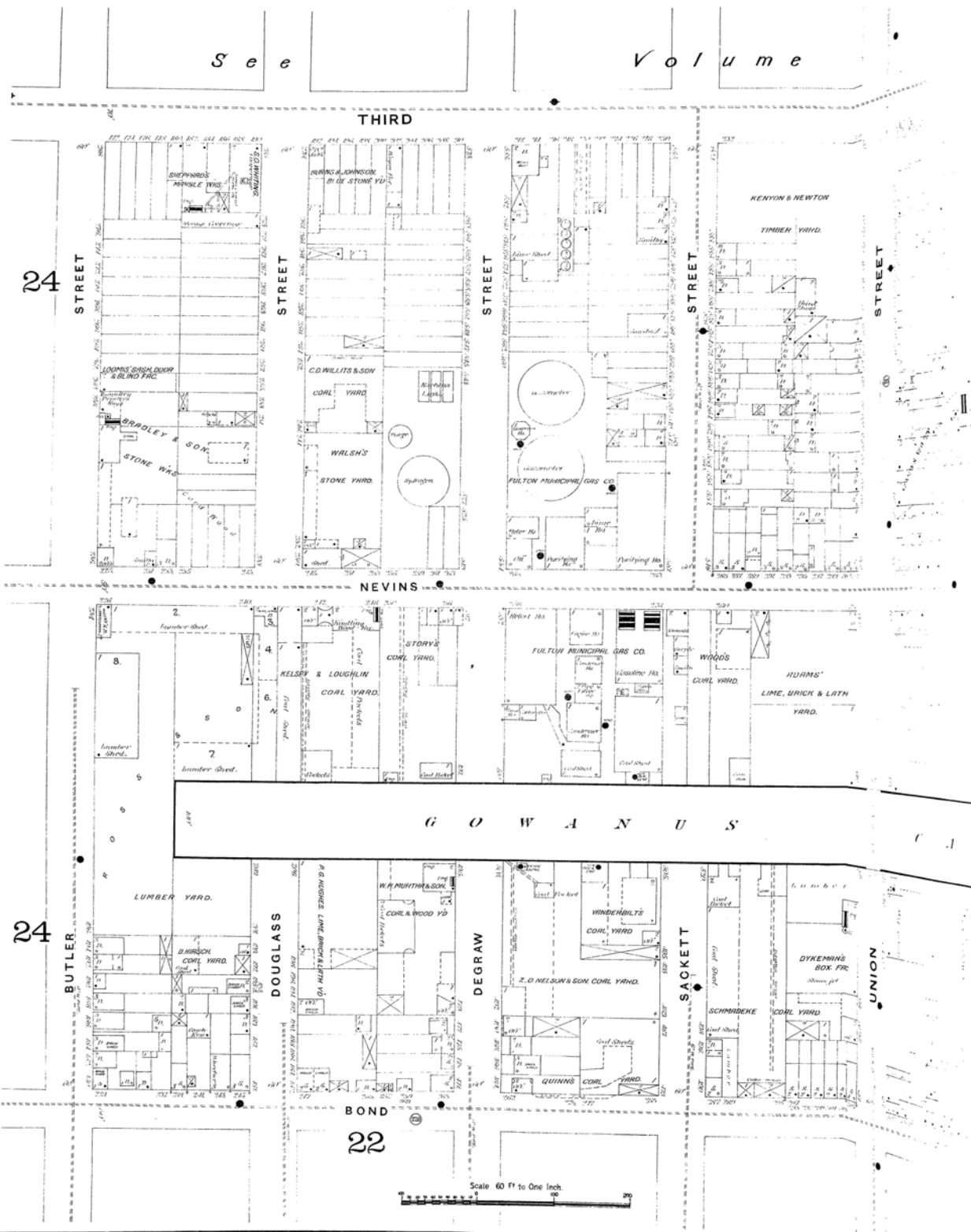
Figure 6

APPENDIX A

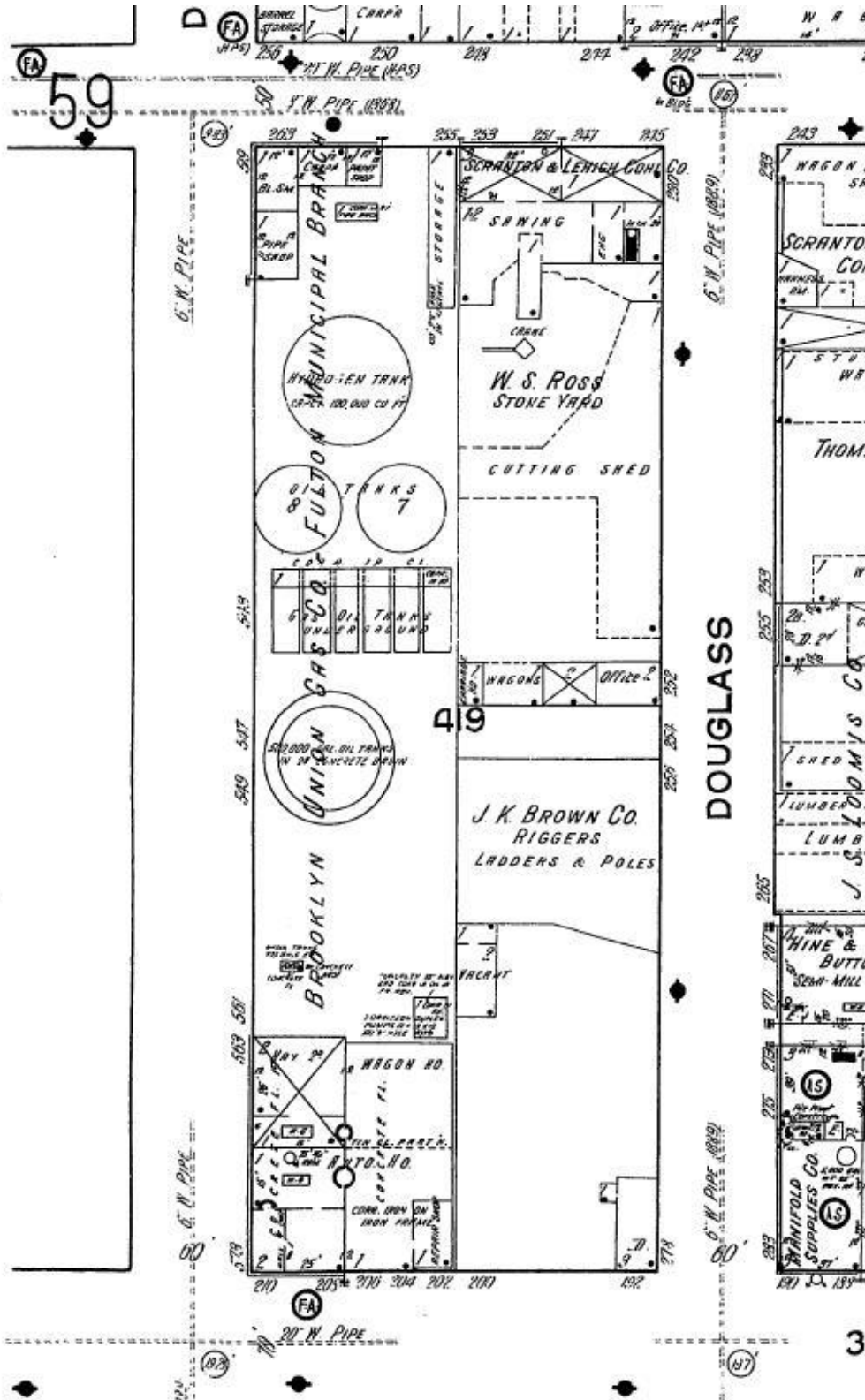
HISTORICAL MAPS

See

Volume

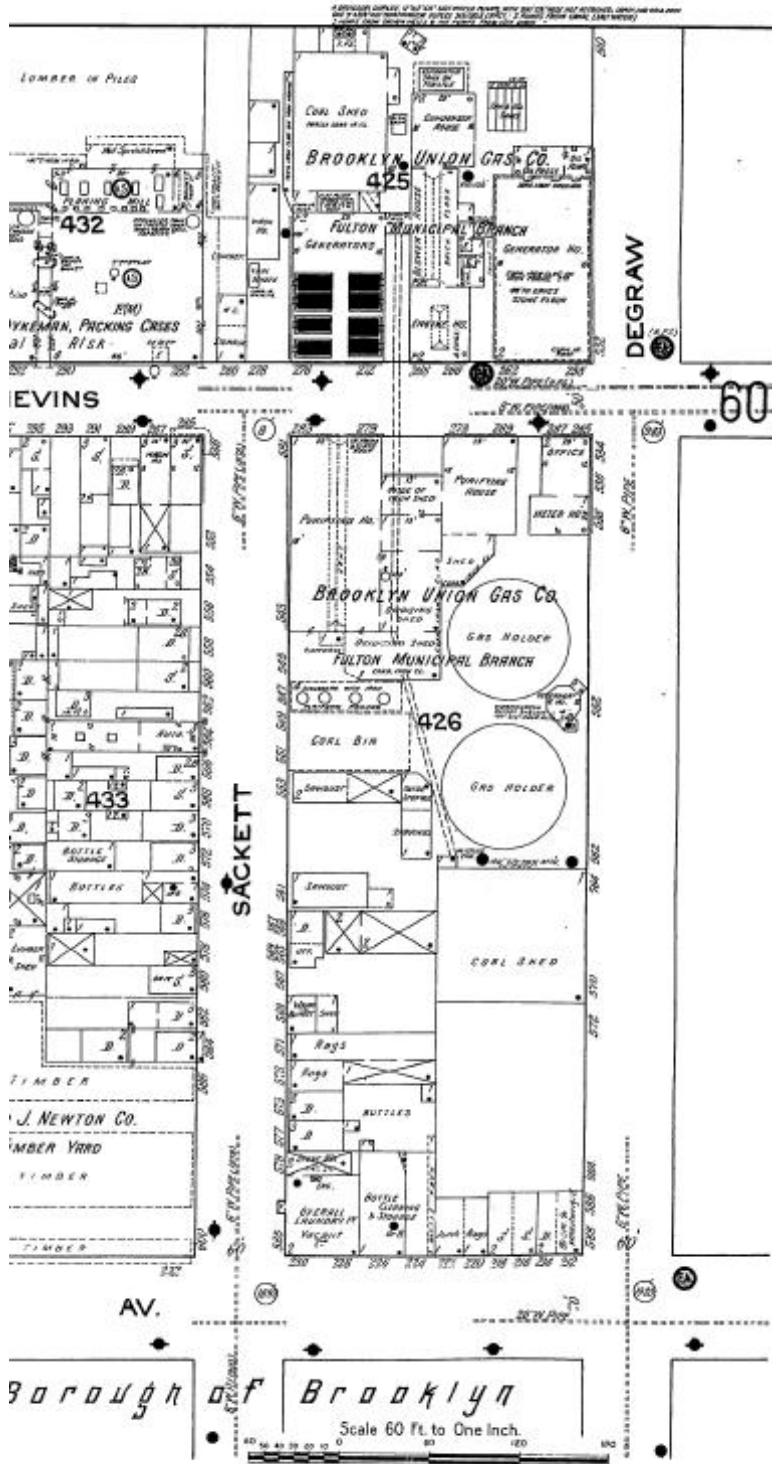


Sanborn Insurance Map 1886 - 1888



Sanborn Insurance Map 1915 - 1933

Canal



Sanborn Insurance Map 1915 - 1933

APPENDIX B
PHOTOGRAPHS



Photo #1 KSF-SB-01, (0-4') Typical fill material



Photo#2 KSF-SB-01, (16-20') Coal Tar saturated sand and gravel overlying peat and clay



Photo#3 KSF-SB-04,(20-24') Clay layer (right) overlying clay and peat layer(left)



Photo#4 KSF-SB-05, (8-12') Coal tar saturated silty sand and gravel



Photo#5 KSF-SB-05 Coal tar flowing out of drill rods



Photo#6 KSF-SB-09 (24-27.5') No recovery, coal tar coated sample tube



Photo#7 KSF-SB-14 (16-20') Coal tar saturated silty sand & gravel, clay layer 18.5-19.5'



Photo #8 KSF-SB-17 (12-16') Coal tar saturated silty sand & gravel



Photo#9 KSF-SB-22 (8-12') Coal tar saturated silty sand & gravel from 9' to 11.5'

APPENDIX C

SOIL BORING LOGS

Date: Start/finish:4/17/07 Drilling Company: Driller:ROB Drilling Method:Direct push Auger Size: Rig type: GEOPROBE Sampling Method:CONTINUOUS	Northing: Easting: Borehole Depth: 20' Surface Elevation: Geologist:HTW	Well/Boring ID KSF-SB-01 Project:FORMER FULTON MGP Location:THOMAS GREENE PARK, BROOKLYN
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Depth	Sample Interval	Recovery	PID (ppm)	NAPL Zone	Stratigraphic Description	Comments
4	0-4	2' 7"	0		brown to black silty SAND, trace gravel and cinders	
6	4-6	3' 2"	0		brown silty SAND, brick fragments, no stain or odor	Lab Sample 6' - 8'
8	6-8				tar stained silty SAND, moist, strong coal tar odor	
10	8-10	1' 8"	39	X	wet brown to black silty SAND w/ gravel and brick fragments, heavy sheen, trace NAPL	
12	10-12		108	X	wet brown to black silty SAND w/ gravel, brick and coal fragments, heavy NAPL, strong odor	
12	12-16	1' 10"	20-146	X	wet silty SAND w/gravel, heavy NAPL throughout, appears to be running out of the soil	
18	16-18	1' 2"		X	16'-18' silty SAND w/gravel, heavy NAPL staining	Lab Sample 16' - 18'
	18-19'6"		125	X	18'-19'6" silty SAND with wood fragments, heavy NAPL staining	
20	19'6"-20'		25		19'6" - 20' silty gray clay w/peat, no NAPL, drilling much harder END OF BORING	

Date: Start/finish:4/17/07 Drilling Company: Driller:ROB Drilling Method:Direct push Auger Size: Rig type: GEOPROBE Sampling Method:CONTINUOUS	Northing: Easting: Borehole Depth: 20' Surface Elevation: Geologist:HTW	Well/Boring ID KSF-SB-02 Project:FORMER FULTON MGP Location:THOMAS GREENE PARK, BROOKLYN
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Depth	Sample Interval	Recovery	PID (ppm)	NAPL Zone	Stratigraphic Description	Comments
4	0-4	2' 10"	6		brown to black SAND, little silt, trace gravel and cinders, no stain or odor	
6	4-6	2' 0"	1.3		brown silty SAND and gravel, rock fragments, no stain or odor	
8	6-8				moist brown to black silty SAND with brick, rock and coal fragments no stain or odor	
10		6"	3		poor sample, wet brown silty SAND, mild odor Good water level reading 7.5' below grade	
12						
16	12-16	1' 7"	95	X	wet silty SAND and gravel, heavy sheen. Blebs of NAPL strong coal tar odor	
18	16-19	1' 6"	134	X	16'-19 SAND and gravel with wood fragments, strong sheen, NAPL blebs, strong coal tar odor	
19	19' - 20'		34		19'-20' dense sandy silt w/gravel, brick fragments, strong coal tar odor, no NAPL,	
20						END OF BORING

Date: Start/finish:4/17/07 Drilling Company: Driller:ROB Drilling Method:Direct push Auger Size: Rig type: GEOPROBE Sampling Method:CONTINUOUS	Northing: Easting: Borehole Depth: 8' Surface Elevation: Geologist:HTW	Well/Boring ID KSF-SB-03 Project:FORMER FULTON MGP Location:THOMAS GREENE PARK, BROOKLYN
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Depth	Sample Interval	Recovery	PID (ppm)	NAPL Zone	Stratigraphic Description	Comments
0 4	0-4	2' 4"	10.5		brown to gray silty SAND w/ rock and brick fragments moderate odor, possibly diesel	
4 6 8	4-7 7-8	2' 0"	6.6	X	brick and rock fragments w/ silty sand becomes wet at 6'6" silty black to gray SAND, strong coal tar odor, trace NAPL from 7'6" to 8' REFUSAL AT 8' END OF BORING	

Date: Start/finish:4/17/07 Drilling Company: Driller:ROB Drilling Method:Direct push Auger Size: Rig type: GEOPROBE Sampling Method:CONTINUOUS	Northing: Easting: Borehole Depth: 24' Surface Elevation: Geologist:HTW	Well/Boring ID KSF-SB-04 Project:FORMER FULTON MGP Location:THOMAS GREENE PARK, BROOKLYN
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Depth	Sample Interval	Recovery	PID (ppm)	NAPL Zone	Stratigraphic Description	Comments
0	0-3	2' 4"	17		brown silty SAND with rock and brick fragments	
4	3-4				dark gray silty SAND and gravel w/ rock and brick fragments, moderate odor-possibly diesel	
4	4-6.5	2' 0"	7.6		gray silty SAND with gravel, rock and brick fragments, no stain or odor	
6	6.5 -8				wet below 6'	
8				X	gray silty SAND w/ gravel, rock and brick fragments	
8					from 7.5 to 8.0 heavy stain and sheen, coal tar odor	
8						
10	8 - 12	8"	111	X	poor sample, wet, dark gray sandy SILT w/ rock fragments and cinders	
12					heavy stain and sheen, coal tar odor	
12	12- 12.5	2' 4"	264	X	sandy SILT w/ trace gravel and rock fragments, black stain, coal tar odor	
16	12.5 - 16				sandy SILT w/ trace gravel and rock fragments, visible yellow NAPL strong diesel odor	Lab Sample 12' - 14'
16						
20	16 - 20	2'	94	X	dark gray to black SILT w/sand, gravel and rock fragments Entire sample showS discrete NAPL phase, staining and pooling of NAPL, strong coal tar odor	

20	20-21			X	gray silty CLAY, strong sheen, NAPL staining, coal tar odor	
	21 - 22				gray silty CLAY, stain and odor much reduced	
	22 - 24	3.75'	7.1		dark brown CLAY and peat, strong organic smell, no coal tar odor	
24					END OF BORING	

Date: Start/finish:4/17/07 Drilling Company: Driller:ROB Drilling Method:Direct push Auger Size: Rig type: GEOPROBE Sampling Method:CONTINUOUS	Northing: Easting: Borehole Depth: 24' Surface Elevation: Geologist:HTW	Well/Boring ID KSF-SB-05 Project:FORMER FULTON MGP Location:THOMAS GREENE PARK, BROOKLYN
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Depth	Sample Interval	Recovery	PID (ppm)	NAPL Zone	Stratigraphic Description	Comments
0 4	0 - 4	2' 4"	11		brown silty SAND with rock fragments moderate staining, mild diesel odor	
4 6	4-7	1' 9"	10.5		brown silty SAND w/rock fragments and gravel, slight diesel odor Wet at 7.5'	
8	7.5 -8.0			X	wet silty SAND w/rock fragments and gravel, heavy stain sheen and coal tar odor, some NAPL	
8 12	8 - 12	1'4"	375	X	wet black silty SAND w/ gravel and rock fragments sandy SILT w/ rock fragments heavy stain, sheen and coal tar odor, free phase TAR present clayey zone at 11.5'	
12 16	12- 14 14 - 15 15 - 16	NA	234	X	sandy SILT w/ rock fragments,full of NAPL/TAR silty CLAY contains NAPL silty SAND and gravel, totally TAR impacted	
16 20	16 - 19 19 - 20	1'6"	100	X	silty SAND and gravel w/ rock fragments, full of TAR brown to gray silty CLAY with peat. No NAPL or staining, strong organic odor	

20					gray to brown silty CLAY with peat No evidence of coal tar contamination	
	20 - 24	3.00'	26		END OF BORING	
24						

Date: Start/finish:4/17/07 Drilling Company: Driller:ROB Drilling Method:Direct push Auger Size: Rig type: GEOPROBE Sampling Method:CONTINUOUS	Northing: Eastng: Borehole Depth: 24' Surface Elevation: Geologist:HTW	Well/Boring ID KSF-SB-06 Project:FORMER FULTON MGP Location:THOMAS GREENE PARK, BROOKLYN
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Depth	Sample Interval	Recovery	PID (ppm)	NAPL Zone	Stratigraphic Description	Comments
0 4	0 - 4	2' 0"	3.4		brown silty SAND with rock and brick fragments	
4 8	4 - 6 6 - 7.5 7.5 - 8	2'6"	2.5		brown silty SAND with rock and brick fragments brown SAND and cinders, wet at 7.5' wet sandy SILT, NAPL stain, moderate coal tar odor	
8 10 12	8 - 10 10 - 11 11 - 12	2' 6"	34		wet brown silty SAND with rock fragments black to gray stained silty SAND, diesel odor yellow/brown stained silty SAND with rock fragments, free phase NAPL, staining, strong odor	
12 16	12 - 16	2' 6"	220	X	gray to black silty, gravelly SAND, heavy sheen, strong staining and coal tar odor, free phase NAPL present throughout the sample silty CLAY layers 2" thick at 14' and 15' TAR from 15 to 16'	
16 20	16 - 18 18 - 19 19 - 20	3'0"	134	X X	silty SAND and gravel heavy TAR medium SAND, heavy TAR contamination silty CLAY and peat, organic odor, no tar present	

20	20 - 23.5			X	alternate 6" layers of gray silty SAND and cinders exhibiting a heavy sheen and dark gray sandy SILT exhibiting no sheen, strong coal tar odor.	
24	23.5 - 24	1'0"	5.3		silty CLAY and peat, organic odor	
END OF BORING						

Date: Start/finish:4/18/07 Drilling Company: Driller:ROB Drilling Method:Direct push Auger Size: Rig type: GEOPROBE Sampling Method:CONTINUOUS	Northing: Easting: Borehole Depth: 17.5' Surface Elevation: Geologist:HTW	Well/Boring ID KSF-SB-07 Project:FORMER FULTON MGP Location:THOMAS GREENE PARK, BROOKLYN
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Depth	Sample Interval	Recovery	PID (ppm)	NAPL Zone	Stratigraphic Description	Comments	
0	0 - 2	3' 4"	43		brown silty SAND with rock and brick fragments		
	2 - 2.7					black silty SAND w/ rock fragments and gravel, stained, diesel odor	
4	2.7 - 4				brown silty SAND and gravel, large brick fragments		
4	4 - 8	3' 8"	14.6		brown silty SAND with rock and brick fragments slight stain and odor		
8	8 - 10	2'4"	523		coarse brown to gray silty SAND and cinders wet from 9'		
10	10 - 11					gray silty SAND, gravel and cinders, diesel odor 10' - 11'	
12	11 - 12			X		11' - 12' visible NAPL, coal tar odor 11.5' - 12'	
12	12 - 14'	3.2'	220	X	gray silty Sand, strong coal tar odor, NAPL bleeding out of soil	Lab Sample 15' - 16'	
	14' - 15.5'			X			dark gray SILT with sand, NAPL present, coal tar odor
16	15.5 - 16'			X			gray SAND and cinders ,wood fragments yellow-brown NAPL, strong coal tar odor
16	16 - 17.0'			X	gray SAND and cinders, heavy NAPL coating on soil		
	17.0 - 17.6			X	silty SAND w/ wood fragments, NAPL coating, coal tar odor		
17.6					refusal at 17.6'		
20					END OF BORING		

Date: Start/finish:4/18/07 Drilling Company: Driller:ROB Drilling Method:Direct push Auger Size: Rig type: GEOPROBE Sampling Method:CONTINUOUS	Northing: Easting: Borehole Depth: 24' Surface Elevation: Geologist:HTW	Well/Boring ID KSF-SB-08 Project:FORMER FULTON MGP Location:THOMAS GREENE PARK, BROOKLYN
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Depth	Sample Interval	Recovery	PID (ppm)	NAPL Zone	Stratigraphic Description	Comments
0 4	0 - 4	2' 2"	4.3		brown TO GRAY silty SAND and gravel with rock fragments, and cinders	
4 8	4 - 5.6 5.6 - 7.7 7.7 - 8	2' 6"	219		gray to black silty SAND and cinders with rock fragments gray to black silty SAND and cinders with rock fragments, heavy sheen, diesel odor gray to black silty SAND and cinders with rock fragments, heavy sheen, coal tar odor	
8 10 12	8 - 10.5 10.5 - 12	2' 6"	111		gray to black silty SAND and cinders black silty SAND w/ cinders, trace organics	
12 16	12 - 14 14 - 15.5 15.5 - 16	2' 2"	38	X	dark gray silty Sand and cinders, diesel odor black silty SAND, organics, no odor gray SAND and cinders little NAPL, coal tar odor	Lab Sample 15' - 16'
16 20	16 - 20			X	black SAND and cinders and wood fragments heavy sheen, NAPL blebs, coal tar odor	

20	20 - 21	2'6"	43	X	gray SAND and cinders, NAPL sheen, coal tar odor.	Lab Sample 23' - 24'
	21 - 22				Brown silty CLAY and peat, organic odor	
	22 - 23				black silty CLAY, organic odor	
24	23 - 24				gray dense sandy SILT, no odor	
					END OF BORING	

Date: Start/finish:4/18/07 Drilling Company: Driller:ROB Drilling Method:Direct push Auger Size: Rig type: GEOPROBE Sampling Method:CONTINUOUS	Northing: Easting: Borehole Depth: 27.5' Surface Elevation: Geologist:HTW	Well/Boring ID KSF-SB-09 Project:FORMER FULTON MGP Location:THOMAS GREENE PARK, BROOKLYN
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Depth	Sample Interval	Recovery	PID (ppm)	NAPL Zone	Stratigraphic Description	Comments
0 4	0 - 4	2' 4"	4.8		brown TO GRAY silty SAND and gravel with rock fragments, and cinders	
4 8	4 - 8	3' 0"	1.4		brown to gray SAND w/ rock fragments and cinders	
8 10 12	8 - 9.5 9.5 - 10.5 10.5 - 12	2' 9"	2.4		brown SAND with gravel and cinders black silty SAND w/ gravel and brick fragments wet brown silty SAND, trace gravel	
12 16	12 - 13 13 - 15.5 15.5 - 16	2' 2"	82.6	X	brown silty Sand gray to black silty SAND, heavy sheen, coal tar odor silty black SAND and cinders coated with TAR, very strong coal tar odor	
16 20	16 - 18 18 - 20	1' 8"	27.8	X X	brown to gray silty SAND and wood fragments heavy sheen, visible TAR brown to gray silty SAND, heavy sheen	

20	20 - 23.5			X	alternate 6" layers of gray silty SAND and cinders exhibiting a heavy sheen and dark gray sandy SILT exhibiting no sheen, strong coal tar odor.	
24	23.5 - 24	2'6"	27.8		black silty CLAY, no odor	
24		0		X	solid/ abrupt refusal indicative of rock or a structure no sample recovered, entire sample sleeve coated with TAR. TAR came up and out the top of the drill rods	
27.5					END OF BORING	

Date: Start/finish:4/18/07 Drilling Company: Driller:ROB Drilling Method:Direct push Auger Size: Rig type: GEOPROBE Sampling Method:CONTINUOUS	Northing: Easting: Borehole Depth: 27.5' Surface Elevation: Geologist:HTW	Well/Boring ID KSF-SB-10 Project:FORMER FULTON MGP Location:THOMAS GREENE PARK, BROOKLYN
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Depth	Sample Interval	Recovery	PID (ppm)	NAPL Zone	Stratigraphic Description	Comments
0 4	0 - 4	1' 6"	3.4		brown silty SAND with gravel, cinders, brick and rock fragments, moist	
4 8	4 - 8	1' 2"	2.3		brown silty SAND w/ brick, rock and wood fragments	
8 12	8 - 12	1' 6"	0		gray to brown silty SAND w/ coal, brick, rock fragments and cinders	
12 16	12 - 14 14 - 16	2' 4"	124	X	wet gray silty Sand with rock and brick fragments and cinders. Moderate diesel odor wet gray silty Sand with rock and brick fragments and cinders Strong coal tar odor, heavy staining, NAPL coating on sample liner	
16 20	16 - 20	1' 0"	66.4	X	gray silty SAND with cinders, wood, metal and oyster shell fragments, heavy sheen, strong coal tar odor, NAPL coating sample liner	

20	20 - 23	2'2"	105	X	gray silty SAND and cinders, heavy sheen, strong coal tar odor, NAPL on sample liner	
	23 - 23.5				black silty CLAY, no sheen or stain	
24	23.5 - 24				gray silty clay with peat, no stain or sheen, organic odor	
24 27.5	24 - 27.5	3"			gray silty CLAY poor sample , solid/ abrupt refusal indicative of rock or a structure similar to that at KSFSB-09	
END OF BORING						

Date: Start/finish:4/18/07 Drilling Company: Driller:ROB Drilling Method:Direct push Auger Size: Rig type: GEOPROBE Sampling Method:CONTINUOUS	Northing: Easting: Borehole Depth: 28' Surface Elevation: Geologist:HTW	Well/Boring ID KSF-SB-11 Project:FORMER FULTON MGP Location:THOMAS GREENE PARK, BROOKLYN
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Depth	Sample Interval	Recovery	PID (ppm)	NAPL Zone	Stratigraphic Description	Comments
0 4	0 - 4	2' 3"	0		brown silty SAND with brick and rock fragments encountered obstruction at 4' offset 3' toward KSFSB-10	
4 8	4 - 5 5- 6.5 6.5 - 8	2' 6"	0		brown SAND and brick fragments brown SAND w/ brick, fragments , 2" thick layer of yellow sand black silty SAND and gravel and cinders. "sweet" possibly diesel odor	
8 12	8 - 11 11 - 12	2' 3"	0		brown silty SAND and gravel with rock and brick fragments brown to gray sandy SILT with cinders and rock fragments, moist	
12 16	12 - 14 14 - 16	2' 4"	0		wet brown silty Sand with rock and cinders. Slight sheen, no odor black SILT with wood, pottery fragments and cinders	
16 20	16 - 20	1' 4"	0		Wet gray to black silty SAND with gravel, wood, pottery and brick fragments	

20 24	20 - 24	1'0"	NA		silty SAND, wood, rock fragments and cinders, Bottom 2" of sample was sandy SILT with clay and peat	Lab Sample 22' - 24'
24 28		1' 5"	6.3		gray CLAY with peat END OF BORING	

Date: Start/finish:4/18/07 Drilling Company: Driller:ROB Drilling Method:Direct push Auger Size: Rig type: GEOPROBE Sampling Method:CONTINUOUS	Northing: Easting: Borehole Depth: 18' Surface Elevation: Geologist:HTW	Well/Boring ID KSF-SB-12 Project:FORMER FULTON MGP Location:THOMAS GREENE PARK, BROOKLYN
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Depth	Sample Interval	Recovery	PID (ppm)	NAPL Zone	Stratigraphic Description	Comments
0 4	0 - 4	2' 6"	0		moist gray silty SAND with wood rock fragments and cinders encountered obstruction at 4' offset 12' toward KSFSB-9	
4 8		2' 3"	0		brown silty SAND and gravel with brick fragments, moist	
8 12	8 - 12	2' 4"	NA		brown silty SAND with brick and rock fragments and cinders wet below 10', mild diesel odor from 10 - 12'	
12 16	12 - 14 14 - 16	2' 0"	NA		wet brown silty Sand with gravel,cinders, rock and brick fragments. Heavy sheen, diesel odor wet brown silty Sand with gravel,cinders, rock and brick fragments. Black NAPL, sheen, diesel odor	
16 18	16 - 18	NA	NA	X	Wet gray SAND and gravel, strong diesel odor Refusal at 18' END OF BORING	Lab Sample 16' - 18'

Date: Start/finish:4/18/07 Drilling Company: Driller:ROB Drilling Method:Direct push Auger Size: Rig type: GEOPROBE Sampling Method:CONTINUOUS	Northing: Easting: Borehole Depth: 19' Surface Elevation: Geologist:HTW	Well/Boring ID KSF-SB-13 Project:FORMER FULTON MGP Location:THOMAS GREENE PARK, BROOKLYN
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Depth	Sample Interval	Recovery	PID (ppm)	NAPL Zone	Stratigraphic Description	Comments
0 4	0 - 4	3'	0		moist brown to gray silty SAND with rock , brick and glass fragments encountered obstruction at 4' offset 3' toward KSFSB-10	
4 8	4 - 8	2' 6"	7.7		gray to black silty SAND with brick, rock fragments and cinders	
8 12	8 - 12	2' 3"	0		wet gray to black SAND with minor brick and rock fragments	
12 16	12 - 16	1' 4"	0		wet gray silty Sand and cinders, brick fragments. Slight sheen, mild diesel odor	Lab Sample 14' - 16'
16 19	16 - 19	3"	NA		poor sample gray silty SAND with rock fragments and cinders, moderate sheen and diesel odor Refusal at 19' END OF BORING	

Date: Start/finish:5/21/07 Drilling Company: Driller:ROB Drilling Method:Direct push Auger Size: Rig type: GEOPROBE Sampling Method:CONTINUOUS	Northing: Easting: Borehole Depth: 20' Surface Elevation: Geologist:SD	Well/Boring ID KSF-SB-14 Project:FORMER FULTON MGP Location: NEVINS ST., BROOKLYN
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Depth	Sample Interval	Recovery (ft.)	PID (ppm)	NAPL Zone	Stratigraphic Description	Comments
0 4	0 - 4'	2.0	0		Brown medium to fine SAND and gravel, black coarse material from 1.7 to 2.0 ft.	
4 8	4 - 8'	1.8	0		Brown medium to fine SAND, little gravel. Wet 7.5 - 8.0'	
8 12	8 - 12'	1.0	8.4	X	Wet brown coarse to fine SAND and gravel Coal tar odor, moderate sheen, trace NAPL	
12 16	12 - 16'	1.5	117	X	Wet brown medium to fine SAND and gravel Coal tar odor, heavy sheen, heavy NAPL 15.5 - 16.0	
16 20	16 - 17' 17 - 19.5' 19.5 - 20'	4.0'	428	X X	Coarse to fine SAND and gravel, coal tar odor, NAPL 16 - 17' Coarse to fine SAND and gravel, coal tar odor, heavier NAPL 17 - 18' Gray silty clay 18.5 - 19.5 Dense medium to fine SAND and gravel END OF BORING	

Date: Start/finish:5/21/07 Drilling Company: Driller:ROB Drilling Method:Direct push Auger Size: Rig type: GEOPROBE Sampling Method:CONTINUOUS	Northing: Easting: Borehole Depth: 20' Surface Elevation: Geologist:SD	Well/Boring ID KSF-SB-15 Project:FORMER FULTON MGP Location: NEVINS ST. , BROOKLYN
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Depth	Sample Interval	Recovery	PID (ppm)	NAPL Zone	Stratigraphic Description	Comments
0 4	0 - 4'	1.6'	0		Coarse to fine SAND and Gravel., wood and brick fragments	
4 8	4 - 8'	2.6'	0		Brown coarse to fine SAND and Gravel., wood and brick fragments, cinders	
8 12	8 - 12'	3'	0		Coarse to medium SAND and gravel with brick. wood and coal fragments and cinders. Wet at 14.3'	
12 16	12 - 14' 14 - 16'	3.6'	0		12 - 14' Wet coarse to medium SAND and gravel with brick. wood and coal fragments and cinders. 14 - 16' Wet black coarse to medium SAND and gravel. 0.3' silty clay layer	
16 20	16 - 20'	3.0'	0		Wet coarse to medium SAND and gravel. 6" of dense medium to fine SAND and gravel END OF BORING	

Date: Start/finish:5/21/07 Drilling Company: Driller:ROB Drilling Method:Direct push Auger Size: Rig type: GEOPROBE Sampling Method:CONTINUOUS	Northing: Easting: Borehole Depth: 20' Surface Elevation: Geologist:SD	Well/Boring ID KSF-SB-16 Project:FORMER FULTON MGP Location: DEGRAW ST., BROOKLYN
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Depth	Sample Interval	Recovery	PID (ppm)	NAPL Zone	Stratigraphic Description	Comments
0	0 - 3'	3.0'	0		0 - 3' Brown coarse to fine SAND and gravel with brick and cinders3 -	
4	3 - 4'				4' Black/gray cinders, coal and brick fragments	
4	4 - 6.5	3.1'			Refusal at 4.5' bgs, moved 5'	
8	6.5 - 8				4 - 6.5' Brown cinders, medium to fine SAND and gravel	
8	8 - 9	3.5'	44.4		8 - 9' Medium to fine SAND, wet, diesel odor	
12	9 - 11				9 - 11' Wet silty clay	
12	11 - 12				11 - 12' peat, silt and clay	
12	12 - 15'	4.0	29.2	X	12 - 15' brown/black coarse to medium wet SAND and gravel	
16	15 - 15.5				15 - 15.5' Same material, coal tar odor, slight sheen	
16	15.5 - 16				15.5 - 16' Same material, coal tar odor, NAPL, slight sheen	
16	16-18.5'	3.5'	15.4		16 - 18.5' Wet coarse to medium SAND and gravel, sheen, trace NAPL	
20	18.5-19.5				18.5 - 19.5' Dense coarse to medium SAND and gravel	
20	19.5 - 20				19.5 - 20' SILT, medium to fine sand	
					END OF BORING	

Date: Start/finish:5/21/07 Drilling Company: Driller:ROB Drilling Method:Direct push Auger Size: Rig type: GEOPROBE Sampling Method:CONTINUOUS	Northing: Easting: Borehole Depth: 20' Surface Elevation: Geologist:SD	Well/Boring ID KSF-SB-17 Project:FORMER FULTON MGP Location: DEGRAW ST., BROOKLYN
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Depth	Sample Interval	Recovery	PID (ppm)	NAPL Zone	Stratigraphic Description	Comments
0 4	0 - 4'	2.9'	0		Brown coarse to fine SAND and gravel with brick fragments and cinders	
4 8	4 - 7' 7 - 8'	1.9'	79.8		4 - 7' Brown coarse to fine SAND and gravel with brick fragments and cinders 7 - 8' Same material, wet, coal tar odor	
8 12	8 - 12'	3.3'	211	X	Wet SILT and fine sand, little clay coal tar odor, sheen, NAPL	
12 16	12 - 16'	3.5'	74.5	X	Coarse to medium wet SAND and gravel, clay, silt Sheen, coal tar odor, NAPL throughout	
16 20	16 - 16.8' 16.8-20'	2.2'	224	X	Wet coarse to medium SAND and gravel, coal tar odor, NAPL, sheen SILT, peat and clay END OF BORING	

Date: Start/finish: 5/21/03 Wet coarse to medium SAND and gravel Drilling Company: Driller: ROB Drilling Method: Direct push Auger Size: Rig type: GEOPROBE Sampling Method: CONTINUOUS	Northing: Easting: Borehole Depth: 12' Surface Elevation: Geologist: SD	Well/Boring ID KSF-SB-18 Project: FORMER FULTON MGP Location: DEGRAW ST., BROOKLYN
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Depth	Sample Interval	Recovery	PID (ppm)	NAPL Zone	Stratigraphic Description	Comments
0 4	0 - 4'	2.0	0		Brown coarse to fine SAND and gravel, brick and coal fragments	
4 8	4 - 7' 7 - 8'	2.6	234	X	4 - 7' SAND and gravel 7 - 8' Wet black SAND and gravel, coal tar odor, NAPL,	
8 12	8 - 8.8' 8.8 - 11.5' 11.5 - 12'	2.7	403	X	8 - 8.8'Coarse to medium SAND and gravel, coal tar odor 8.8 - 11.5' Black stained SAND and gravel, silt, heavy NAPL 11.5 - 12' Clay and peat END OF BORING	

Date: Start/finish: 5/21/07 Drilling Company: Driller:ROB Drilling Method:Direct push Auger Size: Rig type: GEOPROBE Sampling Method:CONTINUOUS	Northing: Easting: Borehole Depth: 16' Surface Elevation: Geologist:SD	Well/Boring ID KSF-SB-19 Project:FORMER FULTON MGP Location: DEGRAW ST. , BROOKLYN
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Depth	Sample Interval	Recovery	PID (ppm)	NAPL Zone	Stratigraphic Description	Comments
0 4	0 - 4'	1.9	15.4		coarse to fine SAND and gravel with coal and cinders	
4 8	4 - 5' 5 - 5.3' 5.3 - 8'	2.3			Coarse to fine SAND and gravel, coal, cinders Fine sand Coarse to medium SAND and gravel, coal, brick	
8 12	8 - 11.5'	2.6	0		8 - 11.5' Coarse to fine SAND and gravel, coal and cinders, wet at 9' 11.5 - 12' SILT, clay, little peat	
12 14 .5	12 - 13.5 13.5 - 14 14 - 14.5	2.0	0		12 - 13.5' Coarse to fine SAND and gravel, brick, cinders, coal 13.5 - 14 Black fine SAND Coarse to medium SAND, rock fragments. Refusal at 14.5' END OF BORING	

Date: Start/finish: 5/21/07 Drilling Company: Driller:ROB Drilling Method:Direct push Auger Size: Rig type: GEOPROBE Sampling Method:CONTINUOUS	Northing: Easting: Borehole Depth: 16' Surface Elevation: Geologist:SD	Well/Boring ID KSF-SB-20 Project:FORMER FULTON MGP Location: DEGRAW ST. , BROOKLYN
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Depth	Sample Interval	Recovery	PID (ppm)	NAPL Zone	Stratigraphic Description	Comments
0	0 - 1'				0-1' Brown organics, medium to fine SAND	
4	1 - 4'	2.1'	0		1 - 4' Brown medium to fine SAND	
4		1.5'	0		Brown medium to fine SAND, brick and concrete fragments	
8						
8	8 - 9.1'	1.5'	38.4		Wet coarse to medium SAND, slight sheen, coal tar odor	
12	9.1 - 12'			X	Wet medium to fine SAND, wood and brick fragments. Coal tar odor, trace NAPL	
12		1.9'	131	X	Wet black stained coarse to fine SAND and gravel Sheen, coal tar odor, NAPL	
16					Refusal at 16' END OF BORING	Lab Sample 14' - 16'

Date: Start/finish: Drilling Company: Driller:ROB Drilling Method:Direct push Auger Size: Rig type: GEOPROBE Sampling Method:CONTINUOUS	Northing: Easting: Borehole Depth: 16 Surface Elevation: Geologist:SD	Well/Boring ID KSF-SB-21 Project:FORMER FULTON MGP Location: DEGRAW ST. ,BROOKLYN
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Depth	Sample Interval	Recovery	PID (ppm)	NAPL Zone	Stratigraphic Description	Comments
0	0 - 1'				0-1' Brown organics, medium to fine SAND	
4	1 - 4'	2.7'	0		1-4' Medium to fine SAND, coal	
4	4 - 7.5'				Medium to fine SAND and gravel, wet at 7.5'	
8		2.2'	61.8		7.5-8. Wet medium to fine SAND and gravel, sheen, diesel odor, trace NAPL (yellow)	
8	8 - 9.1'				8-9.1' Wet coarse to fine SAND and gravel, slight sheen, diesel odor	
12	9.1 - 12'	3.0'	115	X	9.1-12' Wet coarse to fine SAND and gravel, NAPL blebs, coal tar odor, sheen	
12	12 - 13'			X	12-13' Coarse to medium SAND and gravel, NAPL	
16		3.5'	124	X	13-14.8' Medium to fine SAND, NAPL	
					14.8-16' SILT, peat	
END OF BORING						

Date: Start/finish: Drilling Company: Driller:ROB Drilling Method:Direct push Auger Size: Rig type: GEOPROBE Sampling Method:CONTINUOUS	Northing: Easting: Borehole Depth: 16' Surface Elevation: Geologist:SD	Well/Boring ID KSF-SB-22 Project:FORMER FULTON MGP Location: DEGRAW ST. , BROOKLYN
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Depth	Sample Interval	Recovery	PID (ppm)	NAPL Zone	Stratigraphic Description	Comments
0	0 - 0.2'	2.0'	0		0-0.2' Concrete, brick, coal	
4						0.2-4.0' Coarse to medium SAND and gravel, brick, coal
4	4 - 6.5'	3.5'	131.2		4-6.5' Coarse to medium SAND and gravel, brick, slight diesel odor, wet at 6.5'	
8	6.5 - 8'					6.5-8' Wet medium to fine SAND and gravel, brick, diesel odor
8	8 - 9'	2.5	68.7		8-9' Wet coarse to medium SAND and gravel, diesel odor	Lab Sample 11' - 12'
12	9 - 11.5'			X	9-11.5' Medium to fine SAND and gravel, coal tar odor, NAPL	
	11.5 - 12'				Same material, coal tar odor	
12	12 - 16'	0			No Recovery, NAPL and sheen on water Refusal at 16'	
16					END OF BORING	

Date: Start/finish: Drilling Company: Driller:ROB Drilling Method:Direct push Auger Size: Rig type: GEOPROBE Sampling Method:CONTINUOUS	Northing: Easting: Borehole Depth: 23.5' Surface Elevation: Geologist:HTW	Well/Boring ID KSF-SB- 23 Project:FORMER FULTON MGP Location: DEGRAW ST. , BROOKLYN
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Depth	Sample Interval	Recovery	PID (ppm)	NAPL Zone	Stratigraphic Description	Comments
0	0 - .5'	2.0'	1.0		0-.5' concrete	
4	0.5 - 4.0'				0.5-4' Dark brown to black silty SAND with cinders and gravel	
4	4 - 6'	1.2'	0		4-6' Gray SAND and gravel with rock fragments	
8	6 - 8'				6-8' Moist brown silty SAND with brick fragments	
8	8 - 12'	1.5'			Moist brown silty SAND and gravel	
12	12 - 15'				12-15' Wet gray sandy SILT, little clay, slight sheen, diesel odor	
16	15 - 15.5'	4.0'	3		15-15.5' Wet coarse gray SAND, sheen ,diesel odor	
16	15.5 - 16'				15.5 - 16' Wet gray sandy SILT, sheen ,diesel odor	
16	16 - 17'				16-17' Wet gray silty SAND, little clay, diesel odor, sheen on water	
17	17 - 18'				17-18' Wet gray sandy SILT, little clay, diesel odor, sheen on water	
18	18-19'				18-19' Wet gray silty CLAY, little sand, diesel odor, sheen on water	
20	19-20'			4.7	19-20' Wet coarse gray SAND, diesel odor, sheen on water	

20	20-23'		117	<p>Drilled through obstruction at 20'</p> <p>20-23' Wet coarse gray SAND, little gravel, shell fragments, strong diesel odor.</p>	
23.5	23-23.5			<p>23-23.5 Wet sandy dense SILT, strong diesel odor, boring cant be advanced further with this equipment.</p> <p style="text-align: center;">END OF BORING</p>	

Date: Start/finish: 5/22/07 Drilling Company: Driller:ROB Drilling Method:Direct push Auger Size: Rig type: GEOPROBE Sampling Method:CONTINUOUS	Northing: Easting: Borehole Depth: Surface Elevation: Geologist:HTW	Well/Boring ID KSF-SB- 24 Project:FORMER FULTON MGP Location: DEGRAW ST. , BROOKLYN
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Depth	Sample Interval	Recovery	PID (ppm)	NAPL Zone	Stratigraphic Description	Comments
0 4	0 - .5' 0.5 - 3' 3 - 4'	3.2'	0		0-0.5' Dark gray silty GRAVEL 0.5-3' Red CLAY with wood fragments 3-4' Moist brown silty coarse SAND	
4 8	4 - 4.5' 4.5 - 8'	2.0'	0		4-4.5' Moist red CLAY 4.5-8' Moist coarse brown SAND	
8 12	8 - 10' 10 - 12'	4.0'	58.6		8-10' Moist coarse brown SAND 10-12' Wet gray SAND, mild diesel odor	
12 16	12 - 13' 13 - 16'	4.0'	83	X	12-13' Wet brown coarse SAND, moderate diesel odor 13-16' Wet coarse gray SAND, diesel odor, NAPL	
16 20	16 - 17' 17 - 20'	4.0'	45.3		16-17' Wet coarse brown SAND, diesel odor 17-20' Wet gray medium SAND with mica flakes, diesel odor, sheen on water	

20	20 - 21'				20-21' Wet brown SAND, strong diesel odor	
	21 - 24'	4.0'	103		21-24' Wet gray SAND with mica flakes, strong diesel odor.	
24					END OF BORING	

Date: Start/finish: 5/22/07 Drilling Company: Driller:ROB Drilling Method:Direct push Auger Size: Rig type: GEOPROBE Sampling Method:CONTINUOUS	Northing: Easting: Borehole Depth: Surface Elevation: Geologist:HTW	Well/Boring ID KSF-SB- 25 Project:FORMER FULTON MGP Location: NEVINS ST. , BROOKLYN
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Depth	Sample Interval	Recovery	PID (ppm)	NAPL Zone	Stratigraphic Description	Comments
0					Obstruction at 2.0'	
2'	0 - 2'				0-2' Gray silty SAND and gravel REFUSAL AT 2' END OF BORING	Refusal at 2'

Date: Start/finish: 5/22/07 Drilling Company: Driller:ROB Drilling Method:Direct push Auger Size: Rig type: GEOPROBE Sampling Method:CONTINUOUS	Northing: Easting: Borehole Depth: 24' Surface Elevation: Geologist:HTW	Well/Boring ID KSF-SB-26 Project:FORMER FULTON MGP Location; NEVINS ST. , BROOKLYN
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Depth	Sample Interval	Recovery	PID (ppm)	NAPL Zone	Stratigraphic Description	Comments
0	0 - 0.5'	2.5'	0		0-0.5' GRAVEL (crushed stone)	
4	0.5 - 4'				0.5-4' Moist brown to gray sandy SILT, little clay, rock and brick fragments	
4	4 - 6'	2.25	0		4-6' Moist gray sandy SILT with rock fragments	
8	6 - 8'				6-8' Moist brown coarse SAND	
8	8 - 8.5'	4.0'	0		8-8.5' Moist silty SAND with rock fragments	
12	8.5 - 12'				8.5-12' Wet coarse gray SAND, little gravel, very mild diesel odor	
12	12 - 14.5'				12-14.5' Wet coarse gray SAND and gravel with mica flakes, very mild diesel odor	
16	14.5 - 16'		0		14.5-16' Wet dark gray fine silty SAND, mica flakes., moderate diesel odor	

16	16 - 18'		0	16-18' Wet coarse gray SAND, little gravel, moderate diesel odor	Lab Sample 16' - 20'
20	18 - 20'			18-20' Wet fine silty SAND, moderate diesel odor, sheen on sample tube	
20	20 - 22'	4.0'	0	20-22' Wet coarse gray SAND and gravel, moderate diesel odor	
24	22 - 24'			22-24' Wet medium SAND with mica flakes, moderate diesel odor.	
END OF BORING					

Date: Start/finish:5/22/07 Drilling Company: Driller:ROB Drilling Method:Direct push Auger Size: Rig type: GEOPROBE Sampling Method:CONTINUOUS	Northing: Easting: Borehole Depth: Surface Elevation: Geologist: HTW	Well/Boring ID KSF-SB-27 Project:FORMER FULTON MGP Location:SACKETT ST. , BROOKLYN
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Depth	Sample Interval	Recovery	PID (ppm)	NAPL Zone	Stratigraphic Description	Comments
0	0 - 3'				0-3' Brown sandy SILT, moist	
4	3 - 4'	4.0'	0		3-4' Moist brown silty SAND	
4	4 - 5'				4-5' Brown sandy SILT	
8	5 - 8'	3.5'	0		5-8' Moist medium to coarse silty SAND	
8	8 - 8.5'				8-8.5' Moist brown sandy SILT	
12	8.5 - 12'	3,5'	NA		8.5-12' Coarse to medium silty SAND, wet below 9.5'	
12	12 - 16'	4'	0		Wet coarse to medium brown SAND and gravel with mica flakes.	
16	16 - 20'	4'	0		16-20' Wet brown coarse to medium SAND and gravel	
20						

20	20 - 23.5'				20-23.5' Wet brown coarse to medium brown SAND	
24	23.5 - 24'	4'	1.3		23.5-24' Wet brown coarse to medium brown SAND, sheen, moderate coal tar odor	
24	24 - 26'	1	11.1		24-26' Wet gray coarse to medium SAND, heavy sheen, moderate coal tar odor.	Lab Sample 24' - 26'
26					End of boring	

Date: Start/finish: 5/22/07 Drilling Company: Driller:ROB Drilling Method:Direct push Auger Size: Rig type: GEOPROBE Sampling Method:CONTINUOUS	Northing: Easting: Borehole Depth: 20' Surface Elevation: Geologist:HTW	Well/Boring ID KSF-SB-28 Project:FORMER FULTON MGP Location: SACKETT ST. , BROOKLYN
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Depth	Sample Interval	Recovery	PID (ppm)	NAPL Zone	Stratigraphic Description	Comments
0	0 - 3'	2.75	0		0-3' Black sandy SILT with cinders and rock fragments	
4	3 - 4'				3-4' moist brown sandy SILT with brick fragments	
4	4 - 6.5'				4-6.5' Brown sandy SILT, cinders and rock fragments	
8	6.5 - 8'	2.0'	0		6.5-8' Moist gray sandy SILT with gravel	
8	8 - 11'				8-11' Brown sandy SILT, wet below 8.5'	
12	11 - 12'	4.0'	0		11 - 12' Rock fragments and cinders	
12	12 - 15.5'				12-15.5 Wet gray SILT, rock fragments and cinders	
16	15.5 - 16'	2.5'	0		15.5-16' Gray to brown CLAY with peat	
16	16 - 18'				Gray to brown CLAY and peat	
20	18 - 20'	1.0'	0		18-20' Gray sandy SILT	
					End of boring	

Date: Start/finish: Drilling Company: Driller:ROB Drilling Method:Direct push Auger Size: Rig type: GEOPROBE Sampling Method:CONTINUOUS	Northing: Easting: Borehole Depth: Surface Elevation: Geologist:SD	Well/Boring ID KSF-SB-29 Project:FORMER FULTON MGP Location: SACKETT ST. , BROOKLYN
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Depth	Sample Interval	Recovery	PID (ppm)	NAPL Zone	Stratigraphic Description	Comments
0	0 - 4'	2.5'	0		0-4' Brown to gray sandy SILT with brick and rock fragments	
4		2.75	0		Brown silty SAND with brick and rock fragments and cinders	
8		0	NA		No recovery, no sign of sheen or odor on sampler	
12		0	NA		No recovery, no sign of sheen or odor on sampler	
16	16 - 17.5'	2.75'	0		16-17.5' Gray silty SAND and cinders	
20	17.5 - 20'				17.5-20' Peat and CLAY	
					End of boring	

APPENDIX D

LABORATORY ANALYTICAL REPORTS

Available Electronically
Upon Request