

February 13, 2018

Mr. John Miller, P.E. New York State Department of Environmental Conservation 625 Broadway Albany, New York 12233-7017

Re: Phase 3 (Area 8) Soil Boring and Well Installation Plan Phase 2/3 Remedial Investigation Greenpoint Energy Center Former Manufactured Gas Plant 287 Maspeth Avenue, Brooklyn, New York Site No. 224052

Dear Mr. Miller:

The Greenpoint Energy Center Remedial Investigation (RI) is being implemented following the New York State Department of Environmental Conservation (NYSDEC)-approved Phase 2/3 Remedial Investigation Work Plan (RIWP) for the Greenpoint Energy Center Former Manufactured Gas Plant (MGP) site (Site), dated October 31, 2013. Phase 3 of the RI program is currently underway.

GEI Consultants, Inc., P.C. (GEI) is planning to continue Phase 3 of the RI soil boring and well installation program in the Liquefied Natural Gas (LNG) portion (Area 8) of the Site. The RI field investigation program remains as outlined in the RIWP and includes the following approach:

- Identify general areas of concern (AOC) based on review of historical plant drawings/documents (completed for Area 8).
- Refine AOC based on a detailed review of historical equipment operations (completed for Area 8).
- Excavate test pits to the water table to assess NAPL presence or absence in the soil and on the groundwater surface (completed for Area 8).
- Develop a soil boring program to further delineate test pit findings, with NYSDEC approval.

The test pit program in Areas 8 was largely completed in January 2018. Three locations GPEC-TP555, GPEC-TP557 and GPEC-TP558 were not completed due to ongoing LNG process operations and will be completed at a later date, when LNG operations allow access to the area. **Table 1** provides a summary of the findings of the test pit program and provides rationale for the planned soil boring and monitoring well locations. Test pit logs are included as **Attachment 1**.

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Based on the review of the test pit logs, the soil boring and monitoring well plan for Area 8 included in the Phase 2/3 RIWP was updated (**Figure 1**). The updated plan includes soil boring and monitoring well locations previously approved as part of the Phase 2/3 RIWP. Final locations will be determined in the field based on access, surrounding conditions, and the presence of subsurface infrastructure. Additional soil borings and monitoring wells may be added based on observations of subsurface conditions.

The previously planned soil borings will be advanced and the monitoring wells installed using rotary-sonic techniques. The newly added locations will be advanced to a minimum of 30 feet below ground surface (bgs), or at least 10 feet below the deepest identified impacts to delineate impacts observed in nearby test pits. The newly added locations will not be sampled due to their proximity to other planned or previously sampled locations. The soil borings and monitoring wells will be installed in accordance with the approved Phase 2/3 RIWP. Well development, investigative-derived waste (IDW) management and the implementation of a community air monitoring program (CAMP) will also be conducted in accordance with the RIWP.

A series of soil borings (GPEC-SB700 and 800 series) advanced as part of geotechnical projects were previously completed in Area 8. The soil boring logs for these geotechnical soil borings are included as **Attachment 2**. The locations of these geotechnical soil borings are shown on **Figure 1**. As shown on the figure, no impacts were identified in the borings.

If you have any questions or require additional information, please feel free to contact me at 718-608-5102 or by e-mail at bermingham@nationalgrid.com.

Sincerely,

Brian Bermingham, P.E.

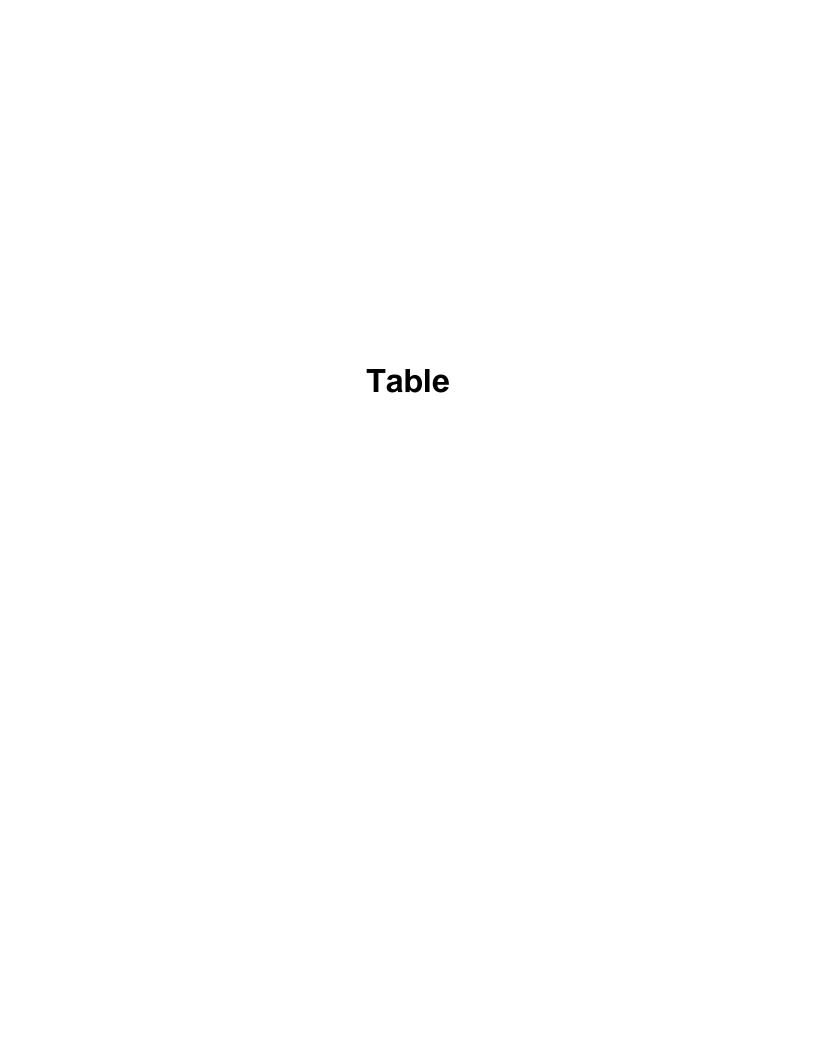
Project Manager

Enclosures

cc: G. Cross (NYSDEC)

D. Hetrick (NYSDOH)

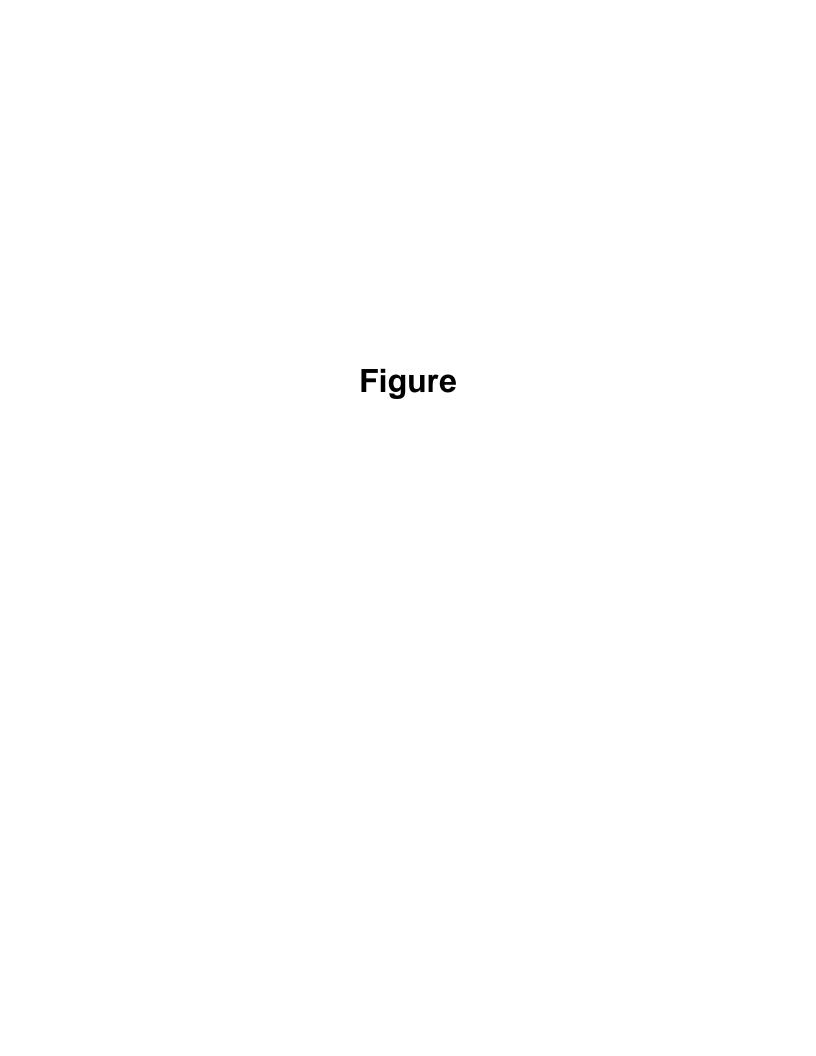
W. Ryan (N. Grid)

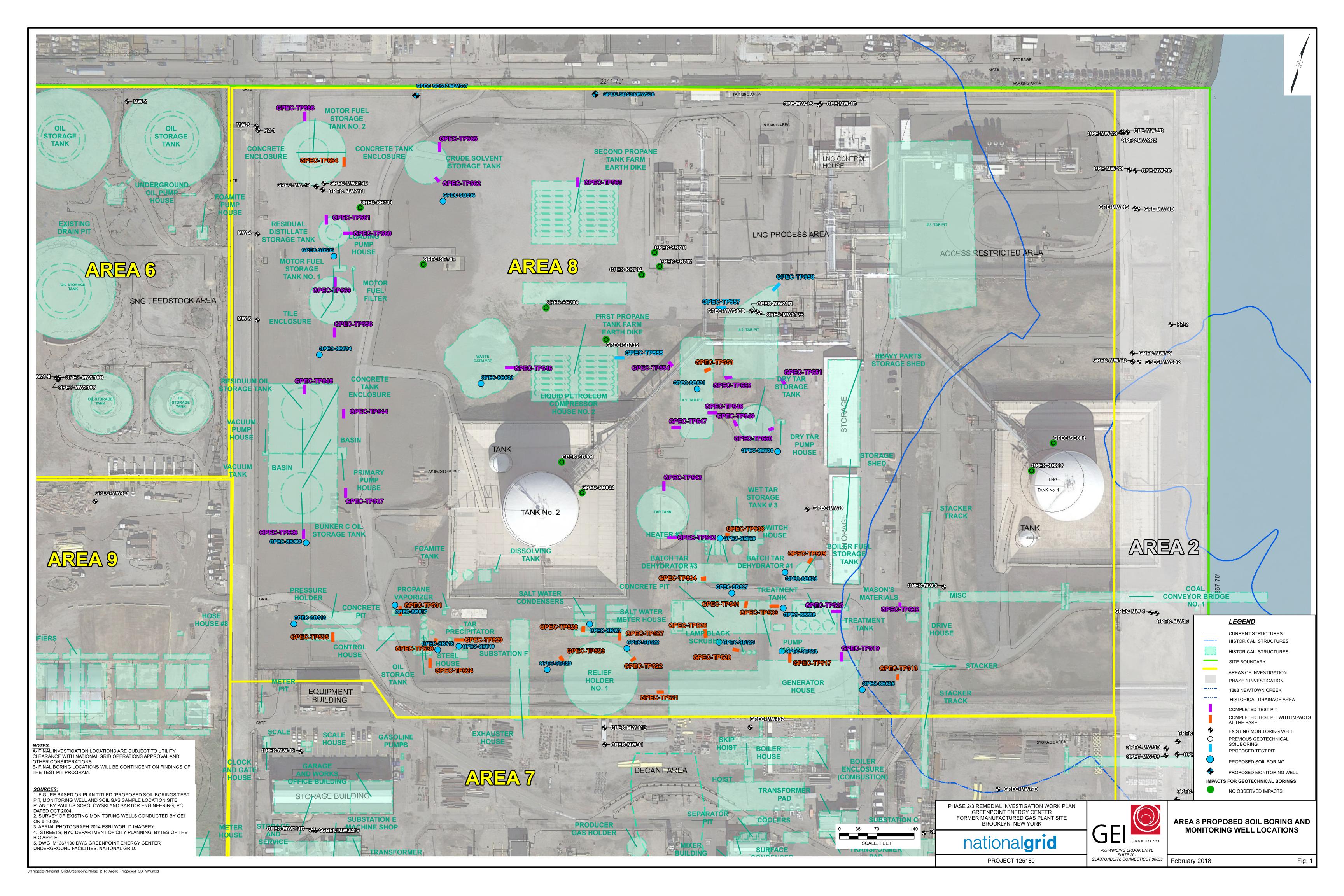


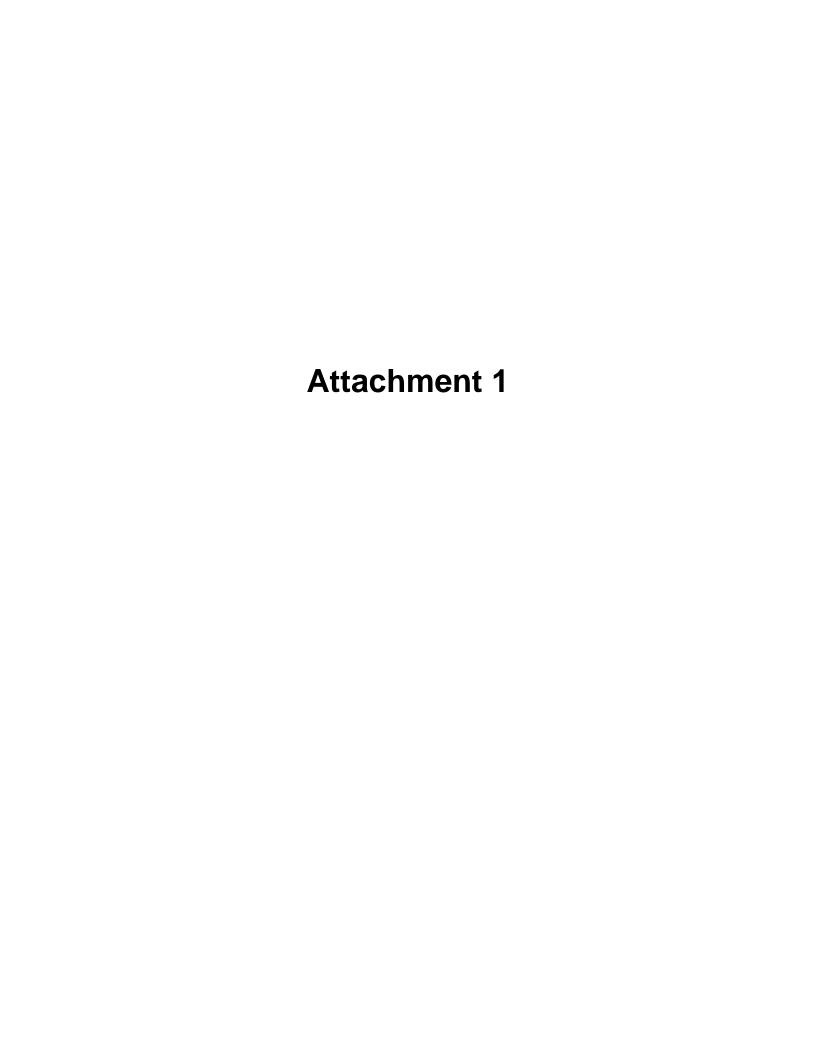
Current Test		Phase 2/3 Remedial Investigation Rationale &	Completion Depth	Zones	Max. PID Readings			
Pit ID	Sample Area	Test Pit Purpose	(ft bgs.)	Sampled (ft)	(ppm)	Notes	Impact Summary	Planned Borings and Wells in Area
GPEC-TP517	Area 8 - SE of Tank #2	Test pit to determine location of former MGP structures - Former Generator House	10	2-3, 8-9	58.7	Fill, concrete foundation wall, and piping encountered. Contains solidified NAPL with a naphthalene-like odor, staining, a petroleum-like odor, fragmented coal, and ash.	Gray soil staining from 1-3' bgs; solidified NAPL fragments with a naphthalene-like odor, gray soil staining, fragmented coal, and ash from 3-7' bgs; gray soil staining and a petroleum-like odor from 7-10' bgs.	GPEC-SB524 (EL60) and GPEC-SB525 (30' bgs) The GPEC-SB524 location was previously approved in the Phase 2/3 Work Plan. The current location was moved slightly to investigate identified impacts.GPEC-SB525 will be performed in the area where GPEC-TP517 was originally proposed, but was moved due to utilities in the area.
GPEC-TP518	Area 8 - SE of Tank #2	Test pit to determine location of underground utilities.	6	3-4	0.0	Fill and concrete foundation wall encountered. Contains solidified NAPL fragments, black staining, a layer of fragmented coal, and clinkers. Encountered groundwater at 6' bgs.	Black soil staining and clinkers from 0-2' bgs; layer of fragmented coal from 2-3' bgs; solidified NAPL fragments, black soil staining and clinkers from 3-6' bgs;	GPEC-SB525 (30' bgs).
GPEC-TP519	Area 8 - SE of Tank #2	Test pit to determine location of former MGP structures - Former Generator House	10	1-2	0.6	Fill and concrete foundation wall encountered. Contains soil staining and a petroleum-like odor.	Soil staining and a slight petroleum-like odor from 0-2' bgs.	None.
GPEC-TP520	Area 8 - SE of Tank #2	Test pit to determine location of former MGP structures - Former Generator House	10	3-4	100.1	Fill and concrete foundation wall encountered. Contains solidified NAPL fragments, black and gray staining, petroleum-like odor, and oxidation staining.	Fragments of hardened solidified NAPL, black soil staining, a moderate to strong petroleum-like odor, and oxidation staining from 3-4' bgs; fragments of solidified NAPL, gray soil staining, a slight petroleum-like odor, and oxidation staining from 4-5' bgs; fragments of slightly pliable solidified NAPL, gray soil staining, and a slight petroleum-like odor from 5-6' bgs; a slight petroleum-like odor from 6-8' bgs; gray soil staining and a moderate petroleum-like odor from 8-10' bgs.	GPEC-SB523 (30' bgs).
		T	10	34	100.1	Fill encountered. No foundation elements were	Dark gray soil staining from 1-2' bgs; dark	01 20 02020 (00 bgs).
GPEC-TP521	Area 8 - SE of Tank #2	Test pit to determine location of former MGP structures - Former Generator House					gray soil staining, ash, fragmented coal, and	
	Talik #2	1 office Generator Flouse	10	1-2	0.6	coal, and clinkers.	clinkers from 5-10' bgs.	None.
GPEC-TP522	Area 8 - SE of Tank #2	Test pit to determine location of former MGP structures - Former Relief Holder #1	10	3-4	134.8	Fill and concrete foundation wall encountered. Contains pieces of solidified NAPL, black and dark gray staining, a petroleum-like odor, and clinkers.	Pieces of slightly pliable to hardened solidified NAPL, black soil staining, a strong petroleum-like odor, and clinkers from 2-3' bgs; dark gray soil staining, a strong petroleum-like odor, and clinkers from 3-10' bgs.	GPEC-SB522 (EL100). The GPEC-SB522 location was previously approved in the Phase 2/3 Work Plan. The current location was moved slightly to investigate identified impacts.
GPEC-TP523	Area 8 - S of Tank #2	Test pit to determine location of former MGP structures - Former Relief Holder #1	10	2-3	67.2	Fill and a brittle concrete-like material encountered. Contains solidified NAPL, dark gray and black staining, and a petroleum-like odor.	Slightly pliable solidified NAPL from 0-2' bgs; slightly pliable solidified NAPL, dark gray to black soil staining, and a strong petroleum-like odor from 2-4' bgs; gray soil staining and a slight petroleum-like odor from 4-6' bgs; black soil staining and a slight petroleum-like odor from 7-10' bgs.	GPEC-SB520 (El60). The GPEC-SB520 location
GPEC-TP524	Area 8 - S of Tank #2	Test pit to determine location of former MGP structures - Former Oil Storage Tank	9	1-2	180.5	Fill, concrete foundation wall, and asphalt encountered. Contains solidified NAPL fragments, black staining, petroleum-like odor, burned wood/timbers, cinders, ash, and charcoal. Groundwater encountered at 9' bgs.	Some solidified NAPL fragments, black soil staining, and a petroleum-like odor from 1-3' bgs; trace black soil staining from 3-5' bgs; burned wood/timbers, cinders, ash, and charcoal from 3.5-5' bgs in southern portion of test pit; some solidified NAPL fragments, black soil staining, and a petroleum-like odor from 5-9' bgs.	GPEC-SB518 (30' bgs) and GPEC-SB519 (El 100). The GPEC-SB519 location was previously approved in the Phase 2/3 Work Plan.
GPEC-TP525	Area 8 - E of Tank #2	Test pit to determine location of former MGP structures - Former Treatment Tank	10	1-2	2.6	Fill, concrete foundation wall, and concrete slab encountered. Contains solidified NAPL fragments, gray staining, and a naphthalene-like odor.	Solidified NAPL fragments, gray soil staining, and naphthalene-like odor from 0-2' bgs.	None.
GPEC-TP526	Area 8 - SE of Tank #2	Test pit to determine location of former MGP structures - Former Tar Separator	9	7-8	399.3	Fill, concrete foundation wall, and piping encountered. Contains solidified NAPL fragments, black staining, a naphthalene-like odor, and a petroleum-like odor.	Solidified NAPL fragments, black soil staining, a moderate petroleum-like odor, and a moderate naphthalene-like odor from 3-6' bgs; black soil staining and a strong petroleum-like odor from 6-9' bgs.	GPEC-SB523 (30' bgs).
GPEC-TP527	Area 8 - S of Tank #2	Test pit to determine location of former MGP structures - Former Salt Water Condensers	10	2-3	16.0	Fill and concrete foundation wall encountered. Contains solidified NAPL layer, black and gray staining, and a petroleum-like odor.	2-3" thick solidified NAPL layer containing gravel and clinkers at 2' bgs; black soil staining and a strong petroleum-like odor from 1-3'; dark gray soil staining and a slight petroleum-like odor from 6-10' bgs.	GPEC-SB522 (EL100). The GPEC-SB522 location was previously approved in the Phase 2/3 Work Plan. The current location was moved slightly to investigate identified impacts.

Current Test		Phase 2/3 Remedial Investigation Rationale &	Completion Depth	Zones	Max. PID Readings			
Pit ID	Sample Area	Test Pit Purpose	(ft bgs.)	Sampled (ft)	(ppm)	Notes	Impact Summary	Planned Borings and Wells in Area
GPEC-TP528	Area 8 - S of Tank #2	Test pit to determine location of former MGP structures - Former Salt Water Condensers	10	6-7	696.8	Fill encountered. No foundation elements encountered. Contains saturated NAPL, black and gray staining, and a petroleum-like odor.	Gray-dark gray soil staining and a slight petroleum-like odor from 1.5-3' bgs; black soil staining and a strong petroleum-like odor from 3-6' bgs; saturated NAPL, black soil staining, and a strong petroleum-like odor from 6-10' bgs.	GPEC-SB521 (30' bgs).
GPEC-TP529	Area 8 - S of Tank #2	Test pit to determine location of former MGP structures - Former Scrubber	9	7-8	394	Fill and concrete foundation wall encountered. Contains NAPL blebs, sheen, black and gray staining, and a petroleum-like odor. Encountered groundwater at 9' bgs with sheen.	Trace black soil staining from 0-2' bgs; NAPL blebs, sheen, black soil staining, and strong petroleum-like odor from 4-6' bgs; trace sheen, black to gray soil staining, and a strong petroleum-like odor from 6-9' bgs.	GPEC-SB518 (30' bgs) and GPEC-SB519 (El 100). The GPEC-SB519 location was previously approved in the Phase 2/3 Work Plan.
GPEC-TP530	Area 8 - S of Tank #2	Test pit to determine location of former MGP structures - Former Gas Mixer	10	2-3	271.6	Fill, vertical steel cylindrical structures, and piping encountered. Contains dark gray staining and a petroleum-like odor.	Petroleum-like odor from 0-1' bgs; dark gray soil staining and a petroleum-like odor from 1-10' bgs.	GPEC-SB518 (30' bgs) and GPEC-SB519 (El 100). The GPEC-SB519 location was previously approved in the Phase 2/3 Work Plan.
GPEC-TP531	Area 8 - S of Tank #2	Test pit to determine location of former MGP structures - Former Spent Oil Tank	8	5-6	22.7	Fill and concrete foundation wall encountered. Groundwater encountered at 8' bgs.	Soil staining and petroleum-like odor from 0-8' bgs.	GPEC-SB517 (30' bgs).
GPEC-TP532	Area 8 - E of Tank #2	Test pit to determine location of underground utilities	7	2-3	0.3	Fill encountered. Contains solidified NAPL fragments, gray and black staining, and clinkers. Groundwater encountered at 7' bgs.	Dark gray-gray soil staining from 0-2' bgs; pliable to hardened solidified NAPL fragments, black soil staining, and clinkers from 2-4' bgs; organic-like odor from 4-7' bgs.	None.
GPEC-TP533	Area 8 - E of Tank #2	Test pit to determine location of former MGP structures - Former Pump House	10	2-3, 8-9	401.6	Fill, concrete foundation wall, and piping encountered. Contains gray/dark gray staining and a petroleum-like odor.	Gray/dark gray soil staining and a petroleum- like odor from 2-3' bgs and 7-10' bgs; trace light gray soil staining and a petroleum-like odor from 3-7' bgs.	GPEC-SB526 (30' bgs).
GPEC-TP534	Area 8 - E of Tank #2	Test pit to determine location of former MGP structures - Former Tar Separator	7	4-5	11.7	Fill encountered. No foundation elements encountered. Contains black staining, a petroleum-like odor, and clinkers. Groundwater encountered at 7' bgs.	Black soil staining, a moderate petroleum like odor, and clinkers from 2-7' bgs.	GPEC-SB527 (El60). The GPEC-SB527 location was previously approved in the Phase 2/3 Work Plan. The current location was moved slightly to investigate identified impacts.
GPEC-TP535	Area 8 - S of Tank #2	Test pit to determine location of former MGP structures - Former Pressure Holder	10	2-3	1.3	Fill encountered. No foundation elements encountered. Contains solidified NAPL fragments, dark gray staining, and a sulfur-like odor.	Solidified NAPL fragments, dark gray staining, and a sulfur-like odor from 0-3' bgs; solidified NAPL fragments from 3-10' bgs.	GPEC-SB516 (El60). The GPEC-SB516 location was previously approved in the Phase 2/3 Work Plan.
GPEC-TP536	Area 8 - W of Tank #2	Test pit to determine location of former MGP structures - Former Bunker C Oil Storage Tank	10	4-5	0.1	Fill and demolished concrete foundation wall encountered. Contains dark gray to black staining.	Dark gray to black soil staining from 4-5' bgs.	GPEC-SB533 (El60). The GPEC-SB533 location was previously approved in the Phase 2/3 Work Plan.
GPEC-TP537	Area 8 - W of Tank #2	Test pit to determine location of former MGP structures - Former Bunker C Oil Storage Tank	10	2-3	323.8	Fill, concrete foundation wall, concrete slab, and piping encountered. Contains solidified NAPL fragments, gray-black staining, petroleum-like odor, and ash.	Solidified NAPL fragments, gray-black soil staining, a petroleum-like odor, and ash from 0-4' bgs.	None.
GPEC-TP538	Area 8 - E of Tank #2	Test pit to determine location of former MGP structures - Former Batch Tar Dehydration Tank	10	2-3	395.7	Fill and concrete slab encountered. Contains solidified NAPL fragments, black and gray staining, petroleum-like odor, asbestos, ash, fragmented coal, and clinkers.		GPEC-SB529 (EI60). The GPEC-SB529 location was previously approved in the Phase 2/3 Work Plan. The current location was moved slightly to investigate identified impacts.
GPEC-TP539	Area 8 - E of Tank #2	Test pit to determine location of former MGP structures - Former Boiler Fuel Storage Tank	7	1-2	25.2	Fill, concrete foundation wall, and concrete slab encountered. Encountered refusal at 7' bgs due to densely packed demolition debris. Contains black and gray staining and a petroleum-like odor.	Black soil staining and a moderate petroleum-like odor from 1-2' bgs; gray soil staining and a slight petroleum-like odor from 3-7' bgs.	GPEC-SB528 (30' bgs).
GPEC-TP540	Area 8 - E of Tank #2 - not on figure	Test pit to determine location of former MGP structures - Former Boiler Fuel Storage Tank	NA	NA	NA	Omitted due to proximity of underground utilities.	NA	GPEC-SB528 (30' bgs) will be performed in the area.
GPEC-TP541	Area 8 - SE of Tank #2	Test pit to determine location of former MGP structures - Former Tar Separator	5	4-5	6.8	Fill encountered. No foundation elements encountered. Encountered refusal at 5' bgs due to densely packed demolition debris. Contains solidified NAPL fragments, gray staining, and a petroleum-like odor.	Hardened solidified NAPL fragments from 3- 4' bgs; hardened solidified NAPL fragments, gray staining, and a slight petroleum-like odor from 4-5' bgs.	GPEC-SB527 (EI60). The GPEC-SB527 location was previously approved in the Phase 2/3 Work Plan. The current location was moved slightly to investigate identified impacts.
GPEC-TP542	Area 8 - E of Tank #2	Test pit to determine location of former MGP structures - Former Tar Tank	10	1-2	5.8	Fill encountered. No foundation elements encountered. Contains black staining and a petroleum-like odor.	Black soil staining and a slight petroleum-like odor from 0-1.5' bgs.	
GPEC-TP543	Area 8 - E of Tank #2	Test pit to determine location of former MGP structures - Former Tar Tank	10	1-2	0.4	Fill encountered. No foundation elements encountered. Contains dark gray staining and a petroleum-like odor.	Dark gray soil staining and a slight petroleum-like odor from 0-2' bgs.	None.
GPEC-TP544	Area 8 - W of Tank #2	Test pit to determine location of former MGP structures - Former Residuum Oil Storage Tank	10	2-3	0.0	Fill, concrete foundation wall, and concrete slab encountered.	No observed impacts.	None.
GPEC-TP545	Area 8 - W of Tank #2	Test pit to determine location of former MGP structures - Former Residuum Oil Storage Tank	10	9-10	0.0	Fill and concrete slab encountered.	No observed impacts	GPEC-SB534 (El60). The GPEC-SB534 location was previously approved in the Phase 2/3 Work Plan.

Current Test		Phase 2/3 Remedial Investigation Rationale &	Completion Depth	Zones	Max. PID Readings			
Pit ID	Sample Area	Test Pit Purpose	(ft bgs.)	Sampled (ft)	(ppm)	Notes	Impact Summary	Planned Borings and Wells in Area
GPEC-TP546	Area 8 - N of Tank #2	Test pit to determine location of former MGP structures - Former Liquid Petroleum Compressor House #2	10	2.5-3	63.1	Fill encountered. No foundation elements were encountered. Contains black staining and a petroleum-like odor.	Black soil staining and petroleum-like odor from 2.5-3' bgs.	GPEC-SB532 (El100). The GPEC-SB532 location was previously approved in the Phase 2/3 Work Plan.
GPEC-TP547	Area 8 - NE of Tank #2	Test pit to determine location of former MGP feature - Former Tar Pond	10	1-2	3.8	Fill encountered. Contains a layer of solidified NAPL, black staining, and a naphthalene-like odor.	Layer of solidified NAPL containing sediments approximately 0.5' bgs and varying in thickness from 1'-3.5' west to east; black soil staining and a slight naphthalene-like odor from 0-4' bgs.	GPEC-SB531 (El60). The GPEC-SB531 location was previously approved in the Phase 2/3 Work Plan. The current location was moved slightly to investigate identified impacts.
GPEC-TP548	Area 8 - NE of Tank #2	Test pit to determine location of former MGP feature - Former Tar Pond	10	2-3	13.1	Fill encountered. Contains a layer of solidified NAPL, black staining, and a naphthalene-like odor.	Layer of solidified NAPL containing sediments, black soil staining, and a naphthalene-like odor from 0-6' bgs.	GPEC-SB531 (El60). The GPEC-SB531 location was previously approved in the Phase 2/3 Work Plan. The current location was moved slightly to investigate identified impacts.
GPEC-TP549	Area 8 - NE of Tank #2	Test pit to determine location of former MGP structures - Former Dry Tar Storage Tank	10	9.5-10	0.0	Fill encountered. No foundation elements encountered.	No observed impacts	None.
GPEC-TP550	Area 8 - NE of Tank #2	Test pit to determine location of former MGP structures - Former Dry Tar Storage Tank	10	1-2	9.1	Fill, concrete foundation wall, and piping encountered. Contains solidified NAPL, black staining, and a naphthalene- like odor.	Fragments and layers of solidified NAPL, black soil staining, and a slight naphthalenelike odor from 0-1.5' bgs.	GPEC-SB530 (El100). The GPEC-SB530 location was previously approved in the Phase 2/3 Work Plan.
GPEC-TP551	Area 8 - NE of Tank #2	Test pit to determine location of former MGP feature - Former Tar Pond	10	9.5-10	0.0	Fill encountered. No former MGP features encountered.	No observed impacts	None.
GPEC-TP552	Area 8 - NE of Tank #2	Test pit to determine location of former MGP feature - Former Tar Pond	8	7.5-8	0.0	Fill encountered. No former MGP features encountered. Groundwater encountered at 8' bgs.	No observed impacts	None.
GPEC-TP553	Area 8 - NE of Tank #2	Test pit to determine location of former MGP feature - Former Tar Pond	7	1-2	46.1	Fill encountered. Contains a solidified NAPL layer, gray and black staining, naphthalene-like odor, and a petroleum-like odor. Groundwater encountered at 7' bgs.	Solidified NAPL layer 5-8" thick, black soil staining, slight naphthalene-like odor, and a moderate petroleum-like odor from 0-1.5' bgs; gray soil staining and a slight petroleum like odor from 1.5-3' bgs and 5-7' bgs.	GPEC-SB531 (El60). The GPEC-SB531 location was previously approved in the Phase 2/3 Work Plan. The current location was moved slightly to investigate identified impacts.
GPEC-TP554	Area 8 - NE of Tank #2	Test pit to determine location of former MGP feature - Former Tar Pond	10	2-3	99.4	Fill encountered. Contains a solidified NAPL layer, graydark gray staining, and a petroleum-like odor.	3-5" thick solidified NAPL layer, gray-dark gray soil staining, and a petroleum-like odor from 1-4' bgs.	GPEC-SB531 (El60). The GPEC-SB531 location was previously approved in the Phase 2/3 Work Plan. The current location was moved slightly to investigate identified impacts.
GPEC-TP555	Area 8 - N of Tank #2	Test pit to determine location of former MGP structures - Former First Propane Storage Farm	NA	NA	NA	Unable to complete at this time due to proximity to a currently active LNG Facility Process Area.	NA	None.
GPEC-TP556	Area 8 - NW of Tank #2	Test pit to determine location of former MGP structures - Former Motor Fuel Storage Tank #1	10	3-4	0.1	Fill, concrete foundation wall, and concrete slab encountered. Contains dark gray-gray staining, burnt odor, ash, fragmented coal, clinkers, and oxidation staining.	Dark gray-gray soil staining increasing 1'-5' thick south to north, burnt odor, ash, fragmented coal, clinkers, and oxidation staining from 0-5' bgs.	GPEC-SB534 (El60). The GPEC-SB534 location was previously approved in the Phase 2/3 Work Plan.
GPEC-TP557	Area 8 - NE of Tank #2	Test pit to determine location of former MGP feature - Former Tar Pond	NA	NA	NA	Unable to complete at this time due to proximity to a currently active LNG Facility Process Area.	NA	None.
GPEC-TP558	Area 8 - NE of Tank #2	Test pit to determine location of former MGP feature - Former Tar Pond	NA	NA	NA	Unable to complete due to proximity to a currently active LNG Facility Process Area.	NA	None.
GPEC-TP559	Area 8 - NW of Tank #2	Test pit to determine location of former MGP structures - Former Motor Fuel Storage Tank #1	10	6-7	11.9	Fill, concrete foundation wall, and concrete slab encountered. Contains gray and black staining, burnt odor, and clinkers.	Gray soil staining and clinkers from 0-3' bgs; soil staining and a burnt odor from 3-7' bgs; black soil staining, burnt odor, and clinkers from 7-8' bgs.	GPEC-SB535 (El60). The GPEC-SB535 location was previously approved in the Phase 2/3 Work Plan.
GPEC-TP560	Area 8 - NW of Tank #2	Test pit to determine location of former MGP structures - Former Residual Distillate Storage Tank	10	4-5	0.2	Fill, concrete foundation wall, concrete slab, and piping encountered. Contains dark gray and bluish green staining and a burnt odor.	Dark gray and bluish-green soil staining from 0-5' bgs; burnt odor from 4-5' bgs.	GPEC-SB535 (El60). The GPEC-SB535 location was previously approved in the Phase 2/3 Work Plan.
GPEC-TP561	Area 8 - NW of Tank #2	Test pit to determine location of former MGP structures - Former Residual Distillate Storage Tank	10	1-2	1.2	Fill, concrete foundation wall, and concrete slab encountered. Contains solidified NAPL fragments, bluishgreen staining, burnt odor, and clinkers.	Fragments of solidified NAPL and clinkers from 0-1' bgs; fragments of solidified NAPL, bluish-green soil staining, and clinkers from 1-3' bgs; solidified NAPL fragments, gray soil staining, burnt odor, and clinkers from 3-5' bgs.	GPEC-SB535 (El60). The GPEC-SB535 location was previously approved in the Phase 2/3 Work Plan. Soil boring GPEC-SB709 was previously completed in this area with no observed impacts.
GPEC-TP562	Area 8 - NW of Tank #2	Test pit to determine location of former MGP structures - Former Crude Solvent Storage Tank	10	0-1	0.0	Fill, concrete foundation wall, and piping encountered. Contains thin pieces of solidified NAPL and some black staining.	Thin pieces of solidified NAPL just below the surface, and black soil staining in NAPL area.	
GPEC-TP563	Area 8 - N of Tank #2	Test pit to determine location of former MGP structures - Former Second Propane Storage Farm	7	2-3	2.1	Fill encountered. No foundation elements encountered.	No visual or olfactory impacts observed.	None.
GPEC-TP564	Area 8 - NW of Tank #2	Test pit to determine location of former MGP structures - Former Motor Fuel Storage Tank #2	10	5-6	140.9	Fill and concrete foundation wall encountered. Contains fragments of solidified NAPL, gray staining, a naphthalene-like odor, and a petroleum-like odor.	Fragmented solidified NAPL and a naphthalene-like odor from 3-5' bgs; fragmented solidified NAPL, gray soil	None. Soil borings GPEC-MW-13, GPEC-MW218I, GPEC-MW218D, and GPEC-SB709 were previously completed in this area with no observed impacts.
GPEC-TP565	Area 8 - NW of Tank #2	Test pit to determine location of former MGP structures - Former Crude Solvent Storage Tank		2-3	1.2	Fill and concrete foundation wall encountered. Contains solidified NAPL fragments, gray staining, sulfur-like odor, and clinkers.	Solidified NAPL fragments and spots of soil staining from 0-1' bgs; solidified NAPL fragments, dark gray soil staining, and a sulfur-like odor from 2-3' bgs.	None.
			10	2-3	1.2			







			TEST PIT LOG	TEST PIT NUMBER				
PROJE	CT		Greenpoint Energy Center Phase 3 RI	GPEC-TP517				
LOCA			287 Maspeth Ave, Brooklyn, NY 11211	1 OF 1				
OBSE	MENT		National Grid Vac Truck (Guzzler CL) and Backhoe (CAT 430) Clear, 75F O'Leary Construction OPERATOR DATE Fergal Troy Rich Crockett DATE 8/30/2017, 8/31/2017 George Holmes DATE 1/31/2018	PROJECT NO. 125180-3-1302 ELEVATION 14.54 LOCATION NORTHING 688232.53 LOCATION EASTING 650329.03 DATE STARTED 8/30/2017 DATE FINISHED 8/31/2017				
Depth Below Ground Surface (ft)	Sample Depth, No., and Type	PID (ppm)	Soil Description and Remark					
		0.0	(0-1') SILTY SAND (SM); ~70% fine to coarse sand, mostly fine, ~20% non-pl					
-	GPEC-TP517 (2-3)	0.2	3", contains fragmented brick and concrete, steel, cobbles and boulders, moist, dark brown-brown, FILL. (1-3') SILTY SAND (SM); ~70% fine to coarse sand, mostly fine, ~20% non-plastic fines, ~10% fine to coarse rounded-subangular 3", contains fragmented brick and concrete, steel, cobbles and boulders, gray staining, dark brown-brown, FILL. Encountered foundation wall 1.2' bgs on northern edge of test pit.					
- - 5	(23)	7.5 3.5	3", contains fragmented brick and concrete, steel, cobbles and boulders, as	SILTY SAND (SM); ~70% fine to coarse sand, mostly fine, ~20% non-plastic fines, ~10% fine to coarse rounded-subangular gravel up to 3", contains fragmented brick and concrete, steel, cobbles and boulders, ash, fragmented coal, hardened solidified NAPL fragments up to 9" with a naphthalene-like odor, gray staining, dark brown-brown, FILL. Base of foundation wall observed at 6' bgs.				
 - -		0.2						
 - -	GPEC-TP517 (8-9)	10.958.741.5	(7-10') SILTY SAND (SM); ~60% fine to coarse sand, mostly fine, ~35% non-pl up to 3", contains fragmented brick, and concrete, wood, steel, cobbles and brown, FILL. Encounter 8" steel pipe running north-south 8' bgs.					
10		34.9	Bottom of Test Pit at ~10.0					
 - -				hotograph 2: Completed test pit looking west.				
- - -								
F				DRAFT				
Datum		Plane N	former MGP structures (former generator house). NAVD 88.	LENGTH 10 ft. WIDTH 5 ft. DEPTH 10 ft.				

			TEST PIT LOG		TEST PIT N	UMBER	
PROJE	CT		Greenpoint Energy Center Phase 3 RI		GPEC-TP518		
LOCA	ΓΙΟΝ		287 Maspeth Ave, Brooklyn, NY 11211		1	OF 1	
CLIEN	T		National Grid		PROJECT NO.	125180-3-1302	
EQUIP	MENT		Vac Truck (Guzzler CL) and Backhoe (CAT 430)		ELEVATION	8.67	
WEAT			Clear, 39F, SW 0-5 mph. Clear, 48F, SW 0-5 mph.		LOCATION NORTHING	688263.83	
	RACTOR			l Troy	LOCATION EASTING	650531.65	
	RVED BY			1/10-1/11/2018	DATE STARTED	1/10/2018	
CHECI	KED BY		George Holmes DATE 1/29/	2018	DATE FINISHED	1/11/2018	
Donath							
Depth Below							
Ground	Sample Depth,	PID	Soil Des	cription and Remark	rs.		
Surface	No., and Type	(ppm)	Son Do.	eription and remain	X.S		
(ft)							
(11)		0.0	CH TV CAND WITH CD AVEL (CM), 500/ fine to or	area and mostly fir	no 200/ non plastic silt 200/	fine to seems around accorded	
		0.0	(0-2') SILTY SAND WITH GRAVEL (SM); ~50% fine to co				
_			to angular up to 3", cobbles up to 6", contains fragment				
		0.0	stones, black staining, moist, tight, dark brown-brown.	FILL. TOP OF TOURGA	titon wall encountered at 1.5 bg	S.	
L							
_		0.0	(2-3') Layer of fragmented coal up to 1", mixed with sand an	d silt (similar to abo	ve).		
	GPEC-TP518	0.0	(3-6') SILTY SAND WITH GRAVEL (SM); ~50% fine to co	arse sand, mostly fir	ne ~30% non-plastic silt, ~20%	fine to coarse gravel	
	(3-4)		rounded to angular up to 3", cobbles up to 6", contains	fragmented and who	le red brick, fragmented concre	te and glass, clinkers and	
-	(3 1)	0.0	spherical stones, fragmented solidified NAPL, black sta				
_		0.0	observed at 6' bgs.				
5			-				
		0.0					
			Groundwater encountered at 6' bgs.				
		0.0	Bottom o	of Test Pit at ~6.0 fee	et.		
<u>_</u>							
-							
F							
10							
10							
				DI.			
_			Photograph 1: Completed test pit looking south.	Pno	otograph 2: Completed test pit l	ooking west.	
_							
						10 10 10	
_				15			
						Contract of the second	
-				85			
ļ.				10	18 P		
_					D	RAFT	
NOTES	S:						
Test pit to determine location of underground utilities.							
Datum:	New York State	Plane l	NAVD 88.		width -	5 ft.	
	elow ground surf				 		
053 - 00	now ground sum	ucc.		GFI	DEPTH -	6 ft.	
				Consultants			

			TEST PIT	LOG	TEST PIT NUMBER		
PROJE	CT		Greenpoint Energy Center Phase 3			GPEC-	TP519
LOCA			287 Maspeth Ave, Brooklyn, NY 1			1	OF 1
CLIEN			National Grid	1211		PROJECT NO.	125180-3-1302
EQUIP			Vac Truck (Guzzler CL) and Backl	noe (CAT 430)		ELEVATION	14.01
WEAT			Cloudy, Rain, 72F			LOCATION NORTHING	688265.87
CONT	RACTOR		O'Leary Construction	OPERATOR	Fergal Troy	LOCATION EASTING	650419.86
	RVED BY		Rich Crockett	DATE	9/6/2017, 9/7/2017	DATE STARTED	9/6/2017
CHECI	KED BY		George Holmes	DATE	1/29/2018	DATE FINISHED	9/7/2017
	Ī		T				
Depth							
Below	Sample Depth,	PID			0.15		
Ground	No., and Type	(ppm)			Soil Description and Remarks		
Surface							
(ft)				700/ 5	1 1 5 200/ 1 5 5	100/ 6 / 1	1 1 1 1 2"
		0.0			d, mostly fine, ~20% non-plastic fine coulder size concrete, steel, wood, co		
L			_	ILL. Top of foundation v		obbies and boulders, moist, star	ned, slight petroleum-like odor,
	GPEC-TP519	0.6	dark blown-blown, 11	ILL. Top of foundation w	van observed at 0.7 bgs.		
L	(1-2)						
		0.0			d, mostly fine, ~30% non-plastic fine		
			3", contains fragment	ted and whole bricks, fra	gmented concrete, steel, cobbles and	boulders, moist, brown, FILL.	
		0.0					
			(3-10') SILTY SAND (SM);	~65% fine to coarse san	d, mostly fine, ~30% non-plastic fine	es, ~5% fine to coarse rounded-	-subangular gravel up to
		0.0	3", contains cobbles	and boulders, moist, brow	wn. Base of foundation wall observe	d at 5' bgs.	
5							
		0.0					
F		0.0					
		0.0					
⊩		0.0					
		0.0					
F		0.0					
		0.0					
F		0.0					
		0.0					
10							
		0.0			Bottom of Test Pit at ~10.0 feet.		
L			Photograph 1: Comple	eted test pit looking east.	Photograpi	h 2: Completed test pit looking	south.
L			And the second second second			1 2 7	*
			and the same of			1000	Base
 							
							5
F			- Superior - Ca				
						<i></i>	NDAET
F						L	PRAFT
NOTES	S:	1	<u> </u>				
		e locatio	on of former MGP structures (former	generator house).		LENGTH	14 ft.
				G			5 ft.
bgs - be	eiow ground surf	ace.			GFI	DEPTH	10 ft.
					Consultants		

			TEST PIT LOG	TEST PIT NUMBER		
PROJE	CT		Greenpoint Energy Center Phase 3 RI	GPEC-TP520		
LOCAT	ΓΙΟΝ		287 Maspeth Ave, Brooklyn, NY 11211	1 OF 1		
CLIEN'	Т		National Grid	PROJECT NO. 125180-3-1302		
EQUIP:	MENT		Vac Truck (Guzzler CL) and Backhoe (CAT 430)	ELEVATION 16.43		
WEAT			Cloudy, Snow, 31F, W 5-10 mph. Cloudy, 52F, SW 10-20 mph.	LOCATION NORTHING 688213.10		
	RACTOR		O'Leary Construction OPERATOR Fergal '			
	EVED BY			2/15-12-19/2017 DATE STARTED 12/15/2017		
CHECK	KED BY		George Holmes DATE 1/31/20	18 DATE FINISHED 12/19/2017		
Depth Below Ground	Sample Depth,	PID	Soil Descr	iption and Remarks		
Surface (ft)	No., and Type	(ppm)				
		0.0	(0-3') SILTY SAND WITH GRAVEL (SM); ~40% fine to coa	se sand, mostly fine ~40% non-plastic fines, ~20% fine to coarse gravel rounded to		
			angular up to 3", cobbles up to 6", contains fragmented to	whole red brick, concrete chunks up to 8", scrap metal, splintered wood, and glass,		
_		0.0	oxidation staining, moist, tight, dark brown-brown. FILL.	Encountered foundation wall at 2.5 bgs.		
_						
		0.0	(3-4') SILTY SAND WITH GRAVEL (SM); ~40% fine to coa	se sand, mostly fine ~40% non-plastic fines, ~20% fine to coarse gravel rounded to		
-	GPEC-TP520	34.7		whole red brick, concrete chunks up to 8", scrap metal, splintered wood, and glass,		
	(3-4) oxidation staining, hardened solidified NAPL fragments, black staining, moderate to strong petroleum-like odor, moist, tight, dark brown. FILL.					
-		100.1		se sand, mostly fine ~40% non-plastic fines, ~20% fine to coarse gravel rounded to		
5		2.7		whole red brick, concrete chunks up to 8", scrap metal, splintered wood, and glass,		
_			oxidation staining, hardened solidified NAPL fragments, §	ray staining, slight petroleum-like odor, moist, tight, dark brown-brown. FILL.		
		0.0	(5-6') SILTY SAND (SM); ~80% fine to coarse sand, mostly fi	ne ~20% non-plastic fines, slightly pliable solidified NAPL fragments, gray staining,		
-		0.0	slight petroleum-like odor, moist, loose, yellow. FILL.	20% ion passe inies, signity place solution (VII 2 inaginetics, gray staining,		
_		10.2	(6-8') SILTY SAND (SM); ~80% fine to coarse sand, mostly fi	ne ~20% non-plastic fines, slight petroleum-like odor, moist, loose, yellow. FILL		
		10.2	(8-10') SILTY SAND (SM); ~60% fine to coarse sand, mostly fi	ne ~30% non-plastic fines, ~10% fine to coarse gravel, rounded to angular up to 3",		
		13.7	cobbles up to 7", gray staining, moderate petroleum-like of	dor, moist, loose, yellow. FILL.		
10		20.9	Pottom o	f Test Pit at ~10.0 feet.		
		20.7	Photograph 1: Completed test pit looking east.	Photograph 2: Completed test pit looking west.		
- -						
_				DRAFT		
NOTES Test pit		ation of	former MGP structures (former generator house).	LENGTH 9 ft.		
	New York State		,			
	elow ground surfa		NA Y D 00.	GEI CONSUITANTS WIDTH 5 ft. 10 ft.		

			TEST PIT LOG		TEST PIT	NUMBER			
PROJE	CT		Greenpoint Energy Center Phase 3 RI		GPEC-T	P521			
LOCA	ΓΙΟΝ		287 Maspeth Ave, Brooklyn, NY 11211			OF 1			
CLIEN	T		National Grid		PROJECT NO.	125180-3-1302			
EQUIP	MENT		Vac Truck (Guzzler CL) and Backhoe (CAT 430)		ELEVATION	15.29			
WEAT	HER		Clear, 38F, NW 5-10 mph.		LOCATION NORTHING	688092.73			
	RACTOR		O'Leary Construction OPERATOR Fergal		LOCATION EASTING	650120.73			
	RVED BY		Rich Crockett DATE	12/21/2017	DATE STARTED	12/21/2017			
CHEC	KED BY		George Holmes DATE 1/29/2	2018	DATE FINISHED	12/21/2017			
Depth Below Ground Surface (ft)	Sample Depth, No., and Type	PID (ppm)	Soil Descri	ption and Remarks					
		0.0	(0-1') SILTY SAND WITH GRAVEL (SM); ~50% fine to corrounded to angular up to 3", cobbles up to 6", contains f moist, tight, dark brown-brown. FILL.	-	•	-			
	GPEC-TP521	0.4							
_	(1-2)	0.6	(1-2') SILTY SAND WITH GRAVEL (SM); ~50% fine to co- rounded to angular up to 3", cobbles up to 6", contains f dark gray staining, moist, tight, dark brown-brown. FILI	ragmented to whole					
_		0.0	(2-3') SILTY SAND (SM); ~50% fine to coarse sand, mostly to angular up to 3", cobbles up to 6", moist, tight, light be		tic to low plasticity fines, ~10%	fine to coarse gravel rounded			
5		0.1	(3-5') NARROWLY GRADED SAND WITH SILT (SW-SM): utility trench backfill.	WLY GRADED SAND WITH SILT (SW-SM); ~90% fine to medium sand, 10% non-plastic fines, moist, light tan. Likely each backfill.					
		0.3	(5-10') SILTY SAND WITH GRAVEL (SM); ~50% fine to corrounded to angular up to 3", cobbles up to 6", contains f	-	•	-			
		0.0	fragmented coal and clinkers, dark gray staining, moist,	tight, dark brown-b	rown. FILL.				
		0.0							
		0.0							
10		0.0							
		0.0	Bottom of	Test Pit at ~10.0 fe	eet.				
_			Photograph 1: Completed test pit looking north.	Pho	otograph 2: Completed test pit l	ooking west.			
- - -									
Nome	3.				D	RAFT			
	NOTES:								
II *	Test pit to determine location of former MGP structures (former generator house). LENGTH 10 ft.								
	Datum: New York State Plane NAVD 88. bgs - below ground surface. WIDTH 5 ft. DEPTH 10 ft.								

			TEST PIT LOG		TEST PI	ΓNUMBER	
PROJE	CT		Greenpoint Energy Center Phase 3 RI		GPEC-	ГР522	
LOCA	ΓΙΟΝ		287 Maspeth Ave, Brooklyn, NY 11211		1	OF 1	
CLIEN	T		National Grid		PROJECT NO.	125180-3-1302	
EQUIP	MENT		Vac Truck (Guzzler CL) and Backhoe (CAT 430)		ELEVATION	16.11	
WEAT			Cloudy, Rain, 52F, S 10-15 mph. Cloudy, 41F, W 10-15 mph.		LOCATION NORTHING	688133.60	
	RACTOR		O'Leary Construction OPERATOR Fergal		LOCATION EASTING	650052.63	
	RVED BY			2/5-12/8/2017	DATE STARTED	12/5/2017	
CHECI	KED BY		George Holmes DATE 1/29/2	018	DATE FINISHED	12/8/2017	
Depth					'		
Below	Sample Depth,	PID					
Ground	No., and Type	(ppm)	Soil Descrip	tion and Remarks			
Surface	140., and 1 ype	(ррш)					
(ft)							
		0.0	(0-2') SILTY SAND WITH GRAVEL (SM); ~50% fine to coa	rse sand, mostly fi	ne, ~30% non-plastic fines, ~2	0% fine to coarse gravel	
			rounded to angular up to 3", cobbles up to 8", contains fi	-			
		0.0	marble scrap and clinkers up to 8", moist, tight, dark bro	wn to brown. FILL	. Encountered foundation wall	l at 1.5' bgs.	
F		31.9	(2-3') SILTY SAND WITH GRAVEL (SM); ~50% fine to coa	rse sand, mostly fi	ne. ~30% non-plastic fines. ~2	0% fine to coarse gravel	
		31.7	rounded to angular up to 3", cobbles up to 8", contains fi				
H		105.2	marble scrap and clinkers up to 8", black staining, strong	-			
	GPEC-TP522	105.3	NAPL, moist, tight, dark brown to brown. FILL.	, , , , , , , , , , , , , , , , , , , ,	····, · · · · · · · · · · · · · · · · ·	F	
L	(3-4)		-				
		134.8	(3-10') SILTY SAND WITH GRAVEL (SM); ~50% fine to coa	-	-	_	
5			rounded to angular up to 3", cobbles up to 8", contains fi	· ·			
		10.1	marble scrap and clinkers up to 8", timbers, dark gray sta	aining, strong petro	leum-like odor, moist, tight, d	ark brown to brown. FILL. Base	
			of foundation wall observed at 6' bgs.				
l⊢		56.8					
		30.0					
⊩		10.6					
		12.6					
⊩							
		10.8					
L							
		16.5					
10							
		14.4	Bottom of	Test Pit at ~10.0 fe	eet.		
			Photograph 1: Completed test pit looking north.		otograph 2: Completed test pi	t looking south.	
_							
			STORES OF THE STORES	400		LI Year	
⊩							
				5	All Controls		
			20			201	
			The state of the s	3		1 11	
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lt				100		A STATE OF THE STA	
					Γ	NDAET	
					L	PRAFT	
NOTES	S:						
Test pit	to determine lo	cation o	f former MGP structures (former relief holder #1).		LENGTH	10 ft.	
Datum:	Datum: New York State Plane NAVD 88. WIDTH 5 ft.						
hos - ha	· · · · · · · · · · · · · · · · · · ·						
053 - 00	now ground sum	ucc.		GEI Consultants	DEPTH	10 ft.	
				Consultants			

			TEST PIT LOG	TEST PIT NUMBER				
PROJE	СТ		Greenpoint Energy Center Phase 3 RI	GPEC-TP523				
LOCAT			287 Maspeth Ave, Brooklyn, NY 11211	1 OF 1				
CLIEN			National Grid	PROJECT NO. 125180-3-1302				
EQUIP			Vac Truck (Guzzler CL) and Backhoe (CAT 430)	ELEVATION 15.97				
WEAT			Clear, 53F, NW 10-15 mph. Cloudy, Rain, 53F, S 10-15 mph.	LOCATION NORTHING 688091.99				
CONTI	RACTOR		O'Leary Construction OPERATOR Fergal Troy	LOCATION EASTING 649924.21				
OBSER	RVED BY		Rich Crockett DATE 12/1-12/5/2017	DATE STARTED 12/1/2017				
CHECH	KED BY		George Holmes DATE 1/31/2018	DATE FINISHED 12/5/2017				
ļ <u></u>				<u> </u>				
Depth								
Below	Sample Depth,	PID						
Ground	No., and Type	(ppm)	Soil Description and Remarks					
Surface								
(ft)								
		0.0	(0-2') SILTY SAND WITH GRAVEL (SM); ~50% fine to coarse sand, mostly fi	*				
			rounded to angular up to 3", cobbles up to 8", contains fragmented to whole					
Г		14.5	wood, slightly pliable solidified NAPL fragments, moist, tight, dark brown	to brown. FILL.				
_	GPEC-TP523	67.2	(2-4') SILTY SAND WITH GRAVEL (SM); ~50% fine to coarse sand, mostly fi	ne, ~20% non-plastic fines, ~20% fine to coarse gravel,				
	(2-3)		rounded to angular up to 3", cobbles up to 8", contains fragmented to whole	•				
⊩	(2 3)	38.4	wood, slightly pliable solidified NAPL fragments, dark gray-black staining.	, strong petroleum-like odor, moist, tight, dark brown to				
		36.4	brown. FILL.	-				
⊩			CH TRY CAND COAC C	1 C 100/ C				
		11.5	(4-6') SILTY SAND (SM); ~70% fine to medium sand, mostly fine ~20% non-pl					
5			to 3", cobbles up to 6", conatins fragmented to whole red brick, concrete ch					
		5.9	timbers, gray staining, moderate petroleum-like odor, moist, dark brown-br	rown. FILL.				
		0.0	(6-7') Brittle sandy concrete-like material.					
 		0.0	(7-10') SILTY SAND (SM); ~70% fine to medium sand, mostly fine ~20% non-pl	lastic fines ~10% fine to coarse gravel_rounded to				
		0.0	angular up to 3", cobbles up to 6", conatins fragmented to whole red brick,					
H		0.4	wood and timbers, black staining, slight petroleum-like odor, moist, dark b					
		0.4	<i>g, s</i> , ,					
l-								
		0.8						
10								
		1.2	Bottom of Test Pit at ~10.0 fo	eet.				
			Photograph 1: Completed test pit looking east.	notograph 2: Completed test pit looking west.				
I			The Market of the State of the					
				A CONTRACTOR OF THE PARTY OF TH				
⊩			CONTRACTOR OF THE PARTY OF THE					
⊩								
L								
-				DRAFT				
NOTES	NOTES:							
II	Test pit to determine location of former MGP structures (former relief holder #1). LENGTH 10 ft.							
1	N. V. IS. N. MANDO							
	Datum: New York State Plane NAVD 88. WIDTH 5 ft.							
bgs - be	low ground surf	ace.	CEI W	DEPTH 10 ft.				
			GEI Consultants	<u> </u>				

			TEST PIT LOG	TEST PIT NUMBER		
PROJE	CT		Greenpoint Energy Center Phase 3 RI	GPEC-TP524		
LOCAT	ΓΙΟΝ		287 Maspeth Ave, Brooklyn, NY 11211	1 OF 1		
CLIEN			National Grid	PROJECT NO. 125180-3-1302		
EQUIP			Vac Truck (Guzzler CL) and Backhoe (CAT 430)	ELEVATION -		
WEAT	HER RACTOR		Partly Cloudy, 83F/Clear, 78F O'Leary Construction OPERATOR Fergal Troy	LOCATION NORTHING 688003.3 LOCATION EASTING 649694.5		
	RVED BY		George Holmes DATE 9/27-28/2017	DATE STARTED 9/27/2017		
	KED BY		Chris Morris DATE 2/2/2018	DATE FINISHED 9/28/2017		
<u> </u>						
Depth						
Below	Sample Depth,	PID				
Ground	No., and Type	(ppm)	Soil Description an	d Remarks		
Surface	,	(11)				
(ft)						
		0.9		ic fines, ~5% fine to coarse angular-subrounded gravel up to 4", contains red		
L				lation wall encountered approximately 1' bgs along northern boundary of test		
	GPEC-TP524	180.5	pit.			
L	(1-2)			ic fines, ~10% fine to coarse angular-subrounded gravel up to 4", contains		
		117.4	=	timbers, metal scrap, and plastic debris, some solid NAPL fragments, black		
L			staining, petroleum-like odor, black, moist, FILL.			
		0.1				
			(3-5') CLAYEY SAND WITH GRAVEL (SC); ~50% fine to medium sa	nd, ~30% low-plasticity fines, ~20% fine to coarse angular to subrounded		
		0.1		fragments, concrete chunks, and metal scrap, trace black staining, gray to		
_				all extending to the southern boundary of the test pit was asphalt and asphalt		
5			millings from 3-3.5' bgs, and burned wood/timbers, cinders, ash, ar	nd charcoal from 3.5-5' bgs, with a slight burnt odor, loose, and black.		
		5.0				
L			(4.2)	nd, ~30% low-plasticity fines, ~20% fine to coarse angular to subrounded		
		5.2		fragments, concrete chunks, and metal scrap, some solid NAPL fragments,		
L			black staining, petroleum-like odor, gray to black, wet at 6' bgs, FII	LL. Groundwater encountered at 9' bgs, and foundation wall still present.		
		8.1				
L						
		10.4				
L						
		25.4	Bottom of Test P	it at ~9.0 feet.		
10						
L			Photograph 1: Interval of burned wood/cinders/ash.	Photograph 2: Completed test pit looking east.		
				the same and		
I				DRAFT		
				PINALI		
NOTES	S:					
Test pit to determine location of former MGP structures (former oil storage tank). LENGTH 7 ft.						
Datum: New York State Plane NAVD 88. WIDTH 5 ft.						
1 253 00	ground sun		GEI	DEPTH 9 ft.		
11				II II		

			TEST PIT LOG		TEST PIT	NUMBER		
PROJE	CT		Greenpoint Energy Center Phase 3 RI		GPEC-TP525			
LOCA	ΓΙΟΝ		287 Maspeth Ave, Brooklyn, NY 11211			OF 1		
CLIEN	T		National Grid		PROJECT NO.	125180-3-1302		
EQUIP	MENT		Vac Truck (Guzzler CL) and Backhoe (CAT 430)		ELEVATION	15.02		
WEAT			Clear, 84F		LOCATION NORTHING	688342.98		
	RACTOR			ergal Troy	LOCATION EASTING	650382.72		
	RVED BY			/1/2017, 9/5/2017	DATE STARTED	9/1/2017		
CHECI	KED BY		George Holmes DATE 1	/31/2018	DATE FINISHED	9/5/2017		
Donath								
Depth Below								
Ground	Sample Depth,	PID	Soil De	escription and Remarks				
Surface	No., and Type	(ppm)	Soil Do	scription and Kemarks				
(ft)								
(11)		0.0	(0-2') SILTY SAND (SM); ~70% fine to coarse sand, mo	stly fine ~20% non-nl	actic fines ~10% fine to coarse t	ounded-subangular gravel un		
		0.0	to 3", contains fragmented brick-whole brick, up to					
_			staining, naphtalene like odor, moist, dark brown-b					
	GPEC-TP525	2.6	encountered at 1.6' bgs on west side of concrete for	-	iorete roundation wan objerved	at grade. Concrete state		
L	(1-2)		_	SILTY SAND (SM); ~80% fine to coarse sand, mostly fine, ~15% non-plastic fines, ~5% fine to coarse rounded-subangular gravel up				
		0.0	(2-10') SILTY SAND (SM); ~80% fine to coarse sand, mo to 3", contains cobbles and boulders, moist, light bro					
-		0.0	to 5 ,contains coboles and boulders, moist, right blv	JWII-BIOWII. Base of Co	merete roundation wan observed	at o ogs.		
		0.0						
_		0.0						
5								
		0.0						
⊩		0.0						
		0.0						
-		0.0						
		0.0						
		0.0						
		0.0						
10								
		0.0	Botto	m of Test Pit at ~10.0 f	eet.			
L			Photograph 1: Completed test pit looking north.	Pl	hotograph 2: Completed test pit	looking west.		
						2		
						Base		
 			是一点,这种一种的一种。			1		
F			是一种一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一					
			CELLEN		第二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十			
F				11 8				
						DACT		
-					D	RAFT		
NOTES	NOTES:							
Test pit	Test pit to determine location of former MGP structures (former treatment tank). LENGTH 10 ft.							
Datum:	Datum: New York State Plane NAVD 88. WIDTH 5 ft.							
	has below around order							
ugs - De	now ground suri	act.		GEI	DEPTH	10 ft.		
				Consultants				

			TEST PIT LOG	TEST PIT NUMBER
PROJE	CT		Greenpoint Energy Center Phase 3 RI	GPEC-TP526
LOCAT	ΓΙΟΝ		287 Maspeth Ave, Brooklyn, NY 11211	1 OF 1
CLIEN'	Т		National Grid	PROJECT NO. 125180-3-1302
EQUIP:			Vac Truck (Guzzler CL) and Backhoe (CAT 430)	ELEVATION 16.33
WEAT			Clear, 51F, W 10-15 mph. Clear, 58F, W 10-15 mph.	LOCATION NORTHING 688224.72
	RACTOR		O'Leary Construction OPERATOR Fergal Troy Rich Crockett, George Holmes DATE 11/27-11/29/17	LOCATION EASTING 650163.29 DATE STARTED 11/27/2017
	RVED BY KED BY		Rich Crockett, George Holmes DATE 11/27-11/29/17 George Holmes DATE 1/31/2018	DATE STARTED 11/27/2017 DATE FINISHED 11/29/2017
CILECI	LLD D I		Diffe 1731/2010	DATE I INISTIBLE
Depth				
Below	Sample Depth,	DID		
Ground	No., and Type	PID	Soil Description and Remark	xs
Surface	No., and Type	(ppm)		
(ft)				
		0.0	(0-3') SILTY SAND WITH GRAVEL (SM); ~40% fine to medium sand, ~30%	-
			angular up to 3", cobbles up to 6", contains fragmented to whole red and	white bricks, concrete chunks, asphalt, porcelain fragments, scrap
		0.0	metal, and timbers, dry, dark brown to brown. FILL.	
		0.0		
		18.3	(3-6') SILTY SAND WITH GRAVEL (SM); ~40% fine to medium sand, ~30%	6 non-plastic fines, ~30% fine to coarse gravel rounded to
			angular up to 3", cobbles up to 6", contains fragmented to whole red and	-
-		18.8	metal, and timbers, black staining, moderate petroleum-like odor, modera	te naphthalene-like odor, hardened solidified NAPL fragments,
5		10.0	dry, dark brown to brown. FILL. Top of concrete foundation wall encount	ered 3' bgs.
		55.1		
		33.1		
-		00.0	CONTRACTOR OF THE STATE OF THE	
		88.8	(6-9') SILTY SAND (SM); ~70% fine to coarse sand, mostly fine ~20% non-pl 3", cobbles up to 8", contains fragmented red brick and concrete, black st	
 -			steel pipe oriented east-west abutting south side of foundation wall at 6' by	· · · · · · · · · · · · · · · · · · ·
	GPEC-TP526	399.3	steer pipe oriented east west abutting south side of foundation want at 0 0	59.
_	(7-8)			
		343.7		
-			Refusal at 9' bgs due to impass	-
4.0		377.1	Bottom of Test Pit at ~9.0	feet.
10				
				N
_			Photograph 1: Completed test pit looking south.	Photograph 2: Completed test pit looking west.
_				
L				
				Acres de la companya del companya de la companya del companya de la companya de l
				The second of th
 -				DRAFT
NOTES	S:			
Test pit	to determine loc	ation of	f former MGP structures (former tar separator).	LENGTH 14 ft.
Datum:	New York State	Plane N	NAVD 88.	WIDTH 5 ft.
	elow ground surf			<u> </u>
l ogs - be	low ground suri	act.	GFI	DEPTH 9 ft
			O LT Consultan	13

Б

			TEST PIT LOG		TEST PIT N	UMBER
PROJE	CT		Greenpoint Energy Center Phase 3 RI		GPEC-T	P527
LOCA	ΓΙΟΝ		287 Maspeth Ave, Brooklyn, NY 11211			OF 1
CLIEN	T		National Grid	_	PROJECT NO.	125180-3-1302
EQUIP	MENT		Vac Truck (Guzzler CL) and Backhoe (CAT 430)		ELEVATION	-
WEAT			Cloudy, 59F / Clear,63F		LOCATION NORTHING	688167.7
	RACTOR		O'Leary Construction OPERATOR Fergal		LOCATION EASTING	650013.9
H	RVED BY			27/2017	DATE STARTED	10/26/2017
CHECI	KED BY		George Holmes DATE 1/29/20	018	DATE FINISHED	10/27/2017
Depth						
Below						
Ground	Sample Depth,	PID	Soil Descrip	tion and Remarks		
Surface	No., and Type	(ppm)				
(ft)						
		0.0	(0-1') SILTY SAND WITH GRAVEL (SM); ~60% fine to med	dium sand, ~20% fi	ne to coarse gravel rounded to a	angular up to 3", ~20% non-
			plastic fines, cobbles up to 10", contains whole/fragment	ed red brick, concre	ete up to cobble size, metal scra	ap, and fragmented porcelain,
		6.6	tile, and wood, brown, tight, dry, FILL.			
			(1-3') SILTY SAND WITH GRAVEL (SM); ~60% fine to med	dium sand ~20% fi	ne to coarse gravel rounded to	angular up to 3" ~20%
H	CDEC TD527	16.0	non-plastic fines, cobbles up to 10", contains whole/fragi		~	
	GPEC-TP527	10.0	porcelain, tile, and wood, black staining, strong petroleu		•	
I	(2-3)		2' bgs, brown, tight, dry, FILL.	, , , , , , , , , , , , , , , , , , , ,		
		0.0				
			(3-6') NARROWLY GRADED SAND WITH SILT (SP-SM);		•	
		0.0	gravel angular to subrounded up to 3", cobbles up to 9", o	contains whole/frag	gmented red brick, concrete up t	to cobble size, metal
5			scrap and pieces of slate, brown, tight, dry, FILL.			
		0.0				
⊩		0.7	(6-10') NARROWLY GRADED SAND WITH SILT (SP-SM);	75% fine to mediu	m sand ~15% non-plastic fines	~10% fine to coarse
		0.7	gravel angular to subrounded up to 3", cobbles up to 9",		•	
l-			scrap and pieces of slate, dark gray staining, slight petro	-	•	
		0.8	at 6' bgs.	ream me odor, oro	, win, tight, tily, 1122. Base of 10	andaron wan ooserved
L						
		1.1				
		0.9				
10						
		1.2	Bottom of	Test Pit at ~10.0 fe	et.	
L			Photograph 1: Base of foundation wall.	Pho	otograph 2: Completed test pit le	ooking east.
-						
				-0	the state of	
				100	The second second	
⊩						
				No.		
_						
				200		
L						
						RAFT
NOTES						
			f former MGP structures (former salt water condensers).		LENGTH	6 ft.
Datum:	: New York State	Plane I	NAVD 88.		WIDTH	5 ft.
bgs - be	elow ground surf	ace.			DEPTH	10 ft.
	Ş			GEI Consultante	-	1010.

			TEST PIT LOG		TEST PIT N	UMBER
PROJE	CT		Greenpoint Energy Center Phase 3 RI		GPEC-T	TP528
LOCAT	ΓΙΟΝ		287 Maspeth Ave, Brooklyn, NY 11211	-	1	OF 1
CLIEN'	Т		National Grid		PROJECT NO.	125180-3-1302
EQUIP			Vac Truck (Guzzler CL) and Backhoe (CAT 430)		ELEVATION	16.02
WEAT			Cloudy, 38F, SE 5-10 mph.		LOCATION NORTHING	688157.19
	RACTOR			al Troy	LOCATION EASTING	649946.30
	RVED BY			0-12/1/17	DATE STARTED DATE FINISHED	11/30/2017 12/1/2017
CHECK	KED BY		George Holmes DATE 1/30	/2018	DATE FINISHED	12/1/2017
Depth						
Below	Sample Depth,	PID				
Ground	No., and Type	(ppm)	Soil Desc	ription and Remarks		
Surface	rvo., und Type	(ppin)				
(ft)						
		0.0	(0-1.5') SILTY SAND WITH GRAVEL (SM); ~50% fine to c	-	•	_
L			rounded to angular up to 3", cobbles up to 6", contains	-	red brick, concrete chunks up	to 10", clay pipe
		0.0	fragments, scrap metal and glass, moist, tight, tan to b	rown. FILL.		
			(1.5-3') SILTY SAND WITH GRAVEL (SM); ~50% fine to c	oarse sand, mostly fir	ne, ~30% non-plastic fines, ~20	% fine to coarse gravel
		3.5	rounded to angular up to 3", cobbles up to 6", contains	fragmented to whole	red brick, concrete chunks up	to 10", clay pipe
			fragments, scrap metal, and glass, gray-dark gray stain	ing, slight petroleum-	like odor, moist, tight, tan to be	rown. FILL.
I		13.5				
			(3-6') SILTY SAND WITH GRAVEL (SM); ~50% fine to c	oarse sand, mostly fir	ne. ~30% non-plastic fines. ~20	% fine to coarse gravel
 -		78.7	rounded to angular up to 3", cobbles up to 6", contains			
		76.7	fragments, scrap metal, splintered wood, and glass, bla	-	-	
5				8, 81	, , , , , , , , , , , , , , , , , , , ,	,
		423.9				
L I						
	GPEC-TP528	696.8	(6-10') SILTY SAND (SM); ~70% fine to coarse sand, mostl		_	
	(6-7)		3" cobbles up to 6", contains fragmented red brick and	concrete, black stain	ing, strong petroleum-like odor	r, saturated with NAPL, moist,
		426.8	brown. FILL.			
		649.7				
 		658.4				
10						
		588.7	Bottom	of Test Pit at ~10.0 fe	et.	
			Photograph 1: Completed test pit looking south.	Pho	otograph 2: Completed test pit	looking west.
						and the same of th
 					3 20 70	Age - The second
			The second secon			
 -						
			C WAS A STATE OF THE STATE OF T			
l-						The state of the s
L I						
-					D	RAFT
NOTES	3:		1			
Test pit	to determine lo	cation o	of former MGP structures (former salt water condensers).		LENGTH	8 ft.
11 ^	New York State				WIDTH	5 ft.
					<u>-</u>	
ogs - be	low ground surf	ace.		GFI 🐸	DEPTH	10 ft.
				Consultants		

4			TEST PIT LOG	ī		TEST PIT	NUMBER
PROJE	CT		Greenpoint Energy Center Phase 3 RI			GPEC-	TP529
LOCAT			287 Maspeth Ave, Brooklyn, NY 112			1	OF 1
CLIEN'			National Grid			PROJECT NO.	125180-3-1302
EQUIP			Vac Truck (Guzzler CL) and Backhoe	(CAT 430)		ELEVATION	-
WEATI			Clear, 78F / Clear, 66F	(LOCATION NORTHING	688062.44
CONTE	RACTOR		O'Leary Construction	OPERATOR	Fergal Troy	LOCATION EASTING	649732.16
OBSER	RVED BY		George Holmes	DATE	9/28-29/2017	DATE STARTED	9/28/2017
CHECK	KED BY		Chris Morris	DATE	2/2/2018	DATE FINISHED	9/29/2017
<u> </u>	1	1					
Depth							
Below	Sample Depth,	PID					
Ground	No., and Type	(ppm)		5	Soil Description and Remark	ES .	
Surface	J1	41 /					
(ft)							
		0.0	` /			fine to coarse angular-subround	
			-		_	•	trace black staining, brown-darl
_		0.5	brown, dry, FILL. Conc	rete foundation wall e	ncountered at grade along e	astern boundary of test pit.	
_		0.0	(2-4') SILTY SAND WITH GI	RAVEL (SM); ~70%	fine to coarse sand, ~20% f	ne to coarse angular-subrounde	d gravel up to 4", ~20% non-
			` /			_	wn-reddish brown, moist, FILL.
_		0.0	•	,	5, .		, , ,
		0.0					
┝╶╵		0.0	WIDELY CD ADED GA	ND WITH CDAVE	(CW). 750/ fine to co	and 25% fine to accura ser1	ar to subrounded gravel up to 4",
		0.0	(10)				• •
5				_		bers, and metal scrap, some NA bserved at approximately 4' bgs	
		10.5	strong petroleum-nke ou	ioi, wei, Fill. Base o	i concrete foundation wan (oserved at approximately 4 ogs	
_		293.7	(6-9') SANDY CLAY (CL); ~8	80% low to medium-p	lasticity clay, ~20% fine sar	d, contains organics, roots, twig	s, trace sheen, strong petroleum
			like odor, gray to black s	taining, wet. Ground	water encountered at 9' bgs	with a sheen.	
ſ	GPEC-TP529	394					
	(7-8)						
Γ Ι		344					
_		188			Bottom of Test Pit at ~9.0	faat	
10		100			Bottom of Test Fit at ~9.0	icci.	
10							
, ,							
1			Photograph 1: Completed test nit	t looking east		Photograph 2: Impact	ad soil/fill and groundwater
			Photograph 1: Completed test pin	t looking east.		Photograph 2: Impact	ed soil/fill and groundwater.
-			Photograph 1: Completed test pi	t looking east.	× 0	Photograph 2: Impact	ed soil/fill and groundwater.
_ _ _			Photograph 1: Completed test pi	t looking east.		Photograph 2: Impact	ed soil/fill and groundwater.
- -			Photograph 1: Completed test pi	t looking east.		Photograph 2: Impact	ed soil/fill and groundwater.
- -			Photograph 1: Completed test pi	t looking east.		Photograph 2: Impact	ed soil/fill and groundwater.
-			Photograph 1: Completed test pi	t looking east.		Photograph 2: Impact	ed soil/fill and groundwater.
- -			Photograph 1: Completed test pi	t looking east.		Photograph 2: Impact	ed soil/fill and groundwater.
- - -			Photograph 1: Completed test pi	t looking east.		Photograph 2: Impact	ed soil/fill and groundwater.
 - - -			Photograph 1: Completed test pi	t looking east.		Photograph 2: Impact	ed soil/fill and groundwater.
- - - -			Photograph 1: Completed test pi	t looking east.		Photograph 2: Impact	ed soil/fill and groundwater.
			Photograph 1: Completed test pi	t looking east.			
- - - -			Photograph 1: Completed test pi	t looking east.			ed soil/fill and groundwater. ORAFT
- NOTES	3:		Photograph 1: Completed test pi	t looking east.			
		cation of					DRAFT
Test pit	to determine loc		former MGP structures (former scrubb			LENGTH	DRAFT 7 ft.
Test pit Datum:	to determine loc New York State	Plane N	former MGP structures (former scrubb				DRAFT
Test pit Datum:	to determine loc	Plane N	former MGP structures (former scrubb		CI	LENGTH	DRAFT 7 ft.

			TEST PIT LOG			TEST PIT N	NUMBER
PROJE	СТ		Greenpoint Energy Center Phase 3 RI			GPEC-	TP530
LOCA			287 Maspeth Ave, Brooklyn, NY 11211			1	OF 1
CLIEN			National Grid			PROJECT NO.	125180-3-1302
EQUIP			Vac Truck (Guzzler CL) and Backhoe (CA'	Γ 430)		ELEVATION	16.15
WEAT			Clear, 89F	,		LOCATION NORTHING	688045.38
CONTI	RACTOR		O'Leary Construction	OPERATOR	Fergal Troy	LOCATION EASTING	649691.79
OBSER	RVED BY		Rich Crockett	DATE	9/25/2017, 9/26/2017	DATE STARTED 9/25/2017	9/25/2017
CHECI	KED BY		George Holmes	DATE	1/31/2018	DATE FINISHED	9/26/2017
Depth							
Below	Sample Depth,	PID					
Ground	No., and Type	(ppm)		Soi	l Description and Remarks		
Surface	140., and 1 ype	(ppiii)					
(ft)							
		0.0	(0-1') SILTY SAND (SM); ~70% fit	ne to coarse sand,	mostly fine, ~25% non-pla	astic fines, ~5% fine to coarse r	ounded-subangular gravel up to
				, up to cobble size	concrete, cobbles and bou	lders, petroleum-like odor, ligh	ht brown-brown, FILL.
			Encountered 3.7' diameter ver	tical steel cylindri	cal structures cut to 0.5' bg	s and backfilled. Identical struc	cture identified approximately
		7.1	10' south. Structures are conne	cted by a 24" stee	l pipe encountered at 3' bg	s.	
I		102 4	(1.10) SILTY SAND (SM): ~70% fi	ne to coarse sand	mostly fine, ~25% non-nls	astic fines, ~5% fine to coarse r	ounded-subangular gravel up to
1	GPEC-TP530	182.4	(1-10)			llders, dark gray staining, petro	
	(2-3)		brown, FILL.	, -p		, g.u,g, p	,g
r		271.6	,				
		27110					
⊩		<i>5</i> 1					
		5.1					
5							
		6.0					
		6.8					
⊩		66.7					
		00.7					
L							
		87.1					
r		127.2					
⊩		133.9					
10		133.9					
10		145.0					
		145.6			ottom of Test Pit at ~10.0 f		
L			Photograph 1: Vertical cylindr	ical structures and	l pipe. Pl	notograph 2: Completed test pit	looking south.
L		c	Cylindrical 💹 🙀	1			740
			tructures	The state of the s		- AL	
		5	tructures	Dine	7	The state of the s	
I				Fipe			
				HI THE REAL PROPERTY.	9		The second second
⊩				-	1		
F							A STATE OF THE STA
						_	
						L	DRAFT
NOTES	S:						
Test pit	to determine lo	cation of	f former MGP structures (former gas mixer).			LENGTH	10 ft.
-	New York State		· -			WIDTH	5 ft.
			500				
bgs - be	elow ground surf	ace.			GEL	DEPTH	10 ft.
			<u> </u>		ULI Consultants		

		TEST PIT LOG		TEST PIT NU	MBER
ECT		Greenpoint Energy Center Phase 3 RI		GPEC-TI	P531
TION		287 Maspeth Ave, Brooklyn, NY 11211		1 C	OF 1
T		National Grid		PROJECT NO.	125180-3-1302
				ELEVATION	19.35
		Cloudy, 79F			688077.55
					649609.77
					8/28/2017 8/29/2017
KED D I		George Hollies DATE 1/51/29	018	DATE FINISHED	8/29/2017
Sample Depth, No., and Type	PID (ppm)			atio fines 100/ fine to convey as	
	0.0	to 3", contains fragmented-whole brick, up to boulder size	ze concrete, steel, v	vood, cobbles and boulders, stain	
	16.9				
	10.1				
GPEC-TP531 (5-6)	19.9				
	22.7				
	11.1	Groundwater encountered at 8' bgs.			
	12.0	-	Test Pit at ~8.0 fee	et.	
		Photograph 1: Completed test pit looking east.	Ph	otograph 2: Completed test pit lo	ooking west.
					RAFT
S·					/
	cation o	f former MGP structures (former spent oil tank)		LENGTH	10 ft.
				_	
		NAVD 00.	GEI Consultants	WIDTH DEPTH	5 ft. 8 ft.
	SE: t to determine loc: New York State	Sample Depth, PID (ppm)	GTT TION 287 Maspeth Ave, Brooklyn, NY 11211 TI National Grid MENT HER RACTOR RACTOR RACORY RED BY R	Greenpoint Energy Center Phase 3 RI 287 Maspeth Ave, Brooklyn, NY 11211 T National Grid MENT Vac Truck (Guzzler CL) and Backhoe (CAT 430) HER ACTOR AC	GPEC-TI TION Composite Energy Center Phase 3 RI

			TEST PIT LOG		TEST PIT NUM	MBERS	
PROJE	CT		Greenpoint Energy Center Phase 3 RI		GPEC-TF	2532	
LOCAT	TION		287 Maspeth Ave, Brooklyn, NY 11211		1 C	F 1	
CLIEN'	Γ		National Grid		PROJECT NO.	125180-3-1302	
EQUIP.	MENT		Vac Truck (Guzzler CL) and Backhoe (CAT 430)		ELEVATION	6.74	
WEAT	HER		Clear, 25F, W 10-15 mph.		LOCATION NORTHING	688393.12	
II	RACTOR		O'Leary Construction OPERATOR Fergal		LOCATION EASTING	650491.77	
II	VED BY		Rich Crockett DATE	1/2/2018	DATE STARTED	1/2/2018	
CHECK	ED BY		George Holmes DATE 1/31/2	018	DATE FINISHED	1/2/2018	
Depth Below Ground Surface (ft)	Sample Depth, No., and Type	PID (ppm)	Soil Descrip (0-2') SILTY SAND (SM); ~60% fine to coarse sand, mostly f	otion and Remarks	io finos 10% fino to coorce pro-	al rounded to angular up to	
		0.0	3" cobbles up to 6", contains fragmented to whole red bri gray-gray staining, dry, tight, tan-brown. FILL.	-	_		
_	GPEC-TP532 (2-3)	0.1	(2-3') SILTY SAND (SM); ~60% fine to coarse sand, mostly f 3" cobbles up to 6", contains fragmented to whole red bri black staining, slightly pliable to hardened solidified NAI	ck, fragmented con	crete, scrap metal, splintered woo		
	, ,	0.3					
			(3-4') SILTY SAND (SM); ~60% fine to coarse sand, mostly f	ine ~30% non-plast	ic fines, ~10% fine to coarse grav	el rounded to angular up to	
_		0.1	3" cobbles up to 6", contains fragmented to whole red bri	_			
5			oxidation staining, black staining, slightly pliable to hardened solidified NAPL, dry, tight, tan-brown. FILL. Encountered an				
		0.2	1' wide piece of concrete oriented east-west through the center of the test pit from 3'-4' bgs.				
		0.2	(4-7') SILTY SAND WITH GRAVEL (SM); ~70% fine to coarse sand, mostly fine ~20% non-plastic fines, ~20% fine				
 -		0.1	to angular up to 3", cobbles up to 5", contains organic ma		•	ine to coarse graver, rounded	
		0.1	Groundwater encountered at 7' bgs.	,	,		
-		0.2	Č	f Test Pit at ~7.0 fee	et.		
10			Photograph 1: Completed test pit looking east.	Pho	otograph 2: Completed test pit loo		
_					D	RAFT	
NOTES			5 I 1 200		LENGTH	10.6	
•			funderground utilities.		LENGTH	10 ft.	
Datum:	New York State	Plane N	NAVD 88.		WIDTH	5 ft.	
bgs - be	low ground surf	ace.		GEI Consultants	DEPTH	7 ft.	

			TEST PIT L	0G		TEST PIT N	NUMBER
PROJE	CT		Greenpoint Energy Center Phase 3	RI		GPEC-	TP533
LOCAT	ΓΙΟΝ	•	287 Maspeth Ave, Brooklyn, NY	11211		1	OF 1
CLIEN'	Т		National Grid			PROJECT NO.	125180-3-1302
EQUIP:	MENT		Vac Truck (Guzzler CL) and Back	thoe (CAT 430)		ELEVATION	15.9
WEAT	HER	•	Clear 79F			LOCATION NORTHING	688314.53
CONT	RACTOR					LOCATION EASTING	650270.25
					9/15/2017, 9/18/2017	DATE STARTED	9/15/2017
CHECK	KED BY		George Holmes	DATE	1/31/2018	DATE FINISHED	9/18/2017
Depth							
Below							
round	Sample Depth,	PID		Sc	oil Description and Remarks		
urface	No., and Type	(ppm)					
(ft)							
		0.0	(0-2') SILTY SAND (SM)	; ~70% fine to coarse sand	d, mostly fine, ~20% non-pla	stic fines, ~10% fine to coarse	rounded-subangular gravel
			, ,	agmented and whole brick,	up to boulder size concrete	pieces, cobbles and boulders, m	noist, dark brown-brown,
		1.7	_	-	bgs on eastern edge of test pi	•	,
		1./		-			
	GPEC-TP533	68.7	(2-3') SILTY SAND (SM)	· ~70% fine to coarse sand	i mostly fine ~20% non-nla	stic fines, ~10% fine to coarse	rounded-subangular gravel
		00.7	(- /			pieces, cobbles and boulders, st	
	(2-3)		_	moist, dark brown-brown,	-	process, coordes and councers, so	amea, graj, aara graj,
		6.6	•				
						stic fines, ~10% fine to coarse	rounded-subangular gravel
		0.2	up to 3", contains co	bbles and boulders, trace li	ight gray staining, petroleum	-like odor, moist, brown.	
5							
		0.0	(4-7') SILTY SAND (SM)	; ~60% fine to coarse sand	i, mostly fine, ~30% non-pla	stic fines, ~10% fine to coarse	rounded-subangular gravel
				bbles and boulders, trace li	ight gray staining, petroleum	-like odor, moist, brown. Base	e of foundation wall
		0.0	observed at 4' bgs.				
		0.0					
		277.1	(7 10) SH TV SAND (SM)	. 60% fine to coorse send	d mostly fine 200% non ple	stic fines, ~10% fine to coarse	rounded subengular gravel
		3//.1			-	-like odor, moist, brown. Enco	
			running north-south		ark gray stanning, petroleum	-like odor, moist, brown. Enec	runtered (2) 10 steel pipes
	GPEC-TP533	401.6	Tunning north South	, 053.			
ı	(8-9)						
		388.7	4				
10		388.7					
10		388.7 373.2			Bottom of Test Pit at ~10.0 f	eet.	
10			Photograph 1: 10" st	Iteel pipes and staining at de		eet. notograph 2: Completed test pit	looking east.
10			Photograph 1: 10" st				looking east.
10			Photograph 1: 10" st				looking east.
10			Photograph 1: 10" st				looking east.
10			Photograph 1: 10" st				looking east.
10			Photograph 1: 10" st				looking east.
10			Photograph 1: 10" st				looking east.
10			Photograph 1: 10" st				looking east.
10			Photograph 1: 10" st				looking east.
10			Photograph 1: 10" si				looking east.
10			Photograph 1: 10" si			otograph 2: Completed test pit	
10			Photograph 1: 10" si			otograph 2: Completed test pit	
10			Photograph 1: 10" si			otograph 2: Completed test pit	looking east. ORAFT
NOTES		373.2		teel pipes and staining at de		otograph 2: Completed test pit	DRAFT
NOTES		373.2	Photograph 1: 10" st	teel pipes and staining at de		otograph 2: Completed test pit	
NOTES Test pit		373.2	former MGP structures (former pu	teel pipes and staining at de		otograph 2: Completed test pit	DRAFT
NOTES Test pit Datum:	to determine loc	373.2	former MGP structures (former pu	teel pipes and staining at de		LENGTH	DRAFT 10 ft.

			TEST PIT LOG		TEST PIT NU	MBER	
PROJE	CT		Greenpoint Energy Center Phase 3 RI		GPEC-TP534		
LOCA	ΓΙΟΝ		287 Maspeth Ave, Brooklyn, NY 11211		1 (OF 1	
CLIEN	T		National Grid	PR	OJECT NO.	125180-3-1302	
EQUIP	MENT		Vac Truck (Guzzler CL) and Backhoe (CAT 430)		EVATION	16.07	
WEAT			Clear, 32F, W 10-15 mph. Clear, 41F, W 10-15 mph.		CATION NORTHING	688320.00	
	RACTOR				CATION EASTING	650129.07	
	RVED BY		Rich Crockett DATE		ATE STARTED	1/8/2018 1/9/2018	
CHECI	KED BY		George Holmes DATE 1/	DA	ATE FINISHED	1/9/2018	
D 4			T				
Depth Below							
Ground	Sample Depth,	PID	Soil De	scription and Remarks			
Surface	No., and Type	(ppm)	Soil Do	scription and Remarks			
(ft)							
()		0.0	(0-2') SILTY SAND WITH GRAVEL (SM); ~50% fine to	aggree and mostly fine	2004 non plastic fines 2004	fine to course gravel rounded	
		0.0	to angular up to 3", contains fragmented red brick, c			ille to coarse graver rounded	
_			to angular up to 3°, contains tragmented red brick, e	merete, and glass, dry, tight	, tall. FILL.		
		0.0					
_							
		8.6	(2-7') SILTY SAND WITH GRAVEL (SM); ~60% fine to				
_			rounded to angular, up to 3", cobbles up to 6", conta			10", scrap metal, glass,	
		7.9	splintered wood, timbers, and clinkers, black staining	g, moderate petroleum-like o	odor, moist, tight. FILL.		
	GPEC-TP534	11.7					
5	(4-5)						
	(13)	10.4					
		10.4					
_		0.0					
		8.8	C 1				
_		7.0	Groundwater encountered at 7' bgs.				
		7.9	Botto	m of Test Pit at ~7.0 feet.			
_							
_							
10							
			Photograph 1: Completed test pit looking south.	Photog	raph 2: Completed test pit loo	oking west.	
_							
						The state of the s	
_			A STATE OF THE STA			Charles 195	
				5			
_						40 10 10	
						19100	
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					W. Carlotte		
L				Jan 19		16/8	
				The state of the s			
					$oldsymbol{\Gamma}$	RAFT	
						\/\\	
NOTES	S:						
Test pit	to determine loc	cation of	f former MGP structures (former tar separator).	LE	NGTH	9 ft.	
Datum	: New York State	Plane !	NAVD 88.	XX/I	DTH _	5 ft.	
	om build			WI	D111	J 11.	

 $\ensuremath{\mathsf{bgs}}$ - $\ensuremath{\mathsf{below}}$ ground surface.

7 ft.

			TEST PIT LOG	TEST PIT NUMBER
PROJE	СТ		Greenpoint Energy Center Phase 3 RI	GPEC-TP535
LOCA			287 Maspeth Ave, Brooklyn, NY 11211	1 OF 1
CLIEN	Т		National Grid	PROJECT NO. 125180-3-1302
EQUIP			Vac Truck (Guzzler CL) and Backhoe (CAT 430)	ELEVATION 21.2
WEAT			Clear, 79F	LOCATION NORTHING 687990.11
	RACTOR RVED BY		O'Leary Construction OPERATOR Fergal Troy Rich Crockett DATE 8/25/2017, 8/28/2017	LOCATION EASTING 649506.56 DATE STARTED 8/25/2017
	KED BY		George Holmes DATE 1/31/2018	DATE STARTED 8/25/2017 DATE FINISHED 8/28/2017
CILLO			2.112	
Depth				
Below				
Ground	Sample Depth,	PID	Soil Description and Remark	ks
Surface	No., and Type	(ppm)		
(ft)				
		0.0	(0-3') SILTY SAND (SM); ~70% fine to coarse sand, mostly fine, ~20% non-p	lastic fines, ~10% fine to coarse rounded-subangular gravel up
			3", contains fragmented-whole brick, up to boulder size concrete, fragment	nted wood, and glass, steel, solidified NAPL fragments, dark gra
 	GPEC-TP535	0.5	staining, sulfur-like odor, moist. FILL.	
	(2-3)			
⊩	(= =)	1.3		
		1.5		
⊩		0.0	(3-10') SILTY SAND (SM); ~70% fine to coarse sand, mostly fine, ~20% non-p	lastic fines ~10% fine to coarse rounded-subangular gravel
		0.0	up to 3", contains fragmented-whole brick, up to boulder size concrete, fr	
 -		0.0	fragments, moist, brown. FILL.	
_		0.0		
5				
		0.0		
 				
		0.0		
		0.0		
L				
		0.0		
		0.0		
10				
		0.0	Bottom of Test Pit at ~10.0) feet.
			Photograph 1: Completed test pit looking east.	Photograph 2: Completed test pit looking south.
I				
				A LANGE OF THE PARTY OF THE PAR
⊩				
⊩				
⊩				
 				DRAFT
NOTES	S:			
		ation of	former MGP structures (former pressure holder).	LENGTH 10 ft.
1 1	New York State		•	
			M112 00.	WIDTH 5 ft.
bgs - be	elow ground surf	ace.	GFI	DEPTH 10 ft.
			Consultan	ts

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			TEST PIT LO	G		TEST PIT	NUMBER
PROJEC	CT		Greenpoint Energy Center Phase 3 R	d .		GPEC-	TP536
LOCATI	ION	•	287 Maspeth Ave, Brooklyn, NY 11	211		1	OF 1
CLIENT			National Grid			PROJECT NO.	125180-3-1302
EQUIPM			Vac Truck (Guzzler CL) and Backho	De (CAT 430)		ELEVATION	31.4
WEATH			Clear 79F	CDED LECT		LOCATION NORTHING	688155.09
CONTRA OBSERV			O'Leary Construction Rich Crockett	OPERATOR DATE	Fergal Troy 9/13/2017, 9/15/2017	LOCATION EASTING DATE STARTED	649391.97 9/13/2017
CHECKI			George Holmes	DATE	1/31/2018	DATE STAKTED DATE FINISHED	9/15/2017
orizori.	22 21	1	300750 110111105		1/31/2010	BITTE THAIGHED	
Depth							
Below	Sample Depth,	PID					
	No., and Type	(ppm)		Sc	oil Description and Remarks	s	
urface	ivo., and Type	(ppiii)					
(ft)							
		0.0	(0-4') SILTY SAND (SM); ~	70% fine to coarse sand	d, mostly fine, ~20% non-pla	astic fines, ~10% fine to coarse	rounded-subangular gravel
			up to 3", contains fragr	nented-whole brick, frag	gmented glass, steel, cobbles	and boulders, moist, dark brow	wn-brown, FILL. Contains
		0.0	large pieces of concrete	e that appear to be from	a former foundation wall.		
- 1							
- 1		0.0					
		0.0					
- 1		0.0					
		0.0					
		0.1	(4.5b) SH TV SAND (SM).	700/ fine to come comé	l mostly fine 200/ non-nl	actic fines 100/ fine to coope	movin dad authomorphis amorral
	GPEC-TP536	0.1				astic fines, ~10% fine to coarse	
5	(4-5)					s and boulders, dark gray to bla om a former foundation wall.	ck staining, moist, dark
		0.1	brown-brown, FIEL. C	ontains large pieces of co	oncrete that appear to be inc	nii a former foundation wan.	
		0.0	(37)			astic fines, ~10% fine to coarse	0 0
			-	-		s and boulders, moist, dark brow	wn-brown, FILL. Contains
		0.0	large pieces of concrete	e that appear to be from a	a former foundation wall.		
			(7-10') SILTY SAND (SM); ~	60% fine to medium sa	nd, mostly fine, ~35% non-	plastic fines, ~5% fine to coarse	e rounded-subangular gravel
		0.0	up to 3", contains cobb	oles and boulders, moist,	reddish brown-brown.		
1							
		0.0					
10		0.0					
10		0.0			Bottom of Test Pit at ~10.0	feet.	
10			Photograph 1: Comple		Bottom of Test Pit at ~10.0	feet. hotograph 2: Completed test pir	t looking west.
10			Photograph 1: Complet	Ited test pit looking east.			t looking west.
10			Photograph 1: Complet				t looking west.
10			Photograph 1: Complet				t looking west.
10			Photograph 1: Comple				t looking west.
10			Photograph 1: Comple				t looking west.
10			Photograph 1: Comple				t looking west.
10			Photograph 1: Comple				t looking west.
10			Photograph 1: Comple				t looking west.
10			Photograph 1: Comple				t looking west.
10			Photograph 1: Comple			hotograph 2: Completed test pit	
10			Photograph 1: Comple			hotograph 2: Completed test pit	
			Photograph 1: Comple			hotograph 2: Completed test pit	t looking west.
NOTES:		0.0		ted test pit looking east.		hotograph 2: Completed test pit	DRAFT.
NOTES: Test pit t	to determine loc	0.0	former MGP structures (former bunk	ted test pit looking east.		hotograph 2: Completed test pil	DRAFT 10 ft.
NOTES: Test pit t		0.0	former MGP structures (former bunk	ted test pit looking east.		hotograph 2: Completed test pit	DRAFT.
NOTES: Fest pit to Datum: N	to determine loc	0.0 ation of Plane N	former MGP structures (former bunk	ted test pit looking east.		hotograph 2: Completed test pil	DRAFT 10 ft.

			TEST PIT LOG	TEST PIT NUMBER
PROJE	СТ		Greenpoint Energy Center Phase 3 RI	GPEC-TP537
LOCA			287 Maspeth Ave, Brooklyn, NY 11211	1 OF 1
CLIEN	Т		National Grid	PROJECT NO. 125180-3-1302
EQUIP	MENT		Vac Truck (Guzzler CL) and Backhoe (CAT 430)	ELEVATION 34.02
WEAT			Clear, 82F	LOCATION NORTHING 688254.14
	RACTOR		O'Leary Construction OPERATOR John O'L	
	RVED BY		Rich Crockett DATE 8/24/17,	
CHECI	KED BY		George Holmes DATE 1/31/201	8 DATE FINISHED 8/25/2017
Depth				"
Below				
Ground	Sample Depth,	PID	Soil Descripti	on and Remarks
Surface	No., and Type	(ppm)		
(ft)				
		0.0	No. 2	e, ~20% non-plastic fines, ~10% fine to coarse rounded-subangular gravel up to
			=	les, boulders, solidified NAPL fragments, moist, stained gray-black, petroleum-
I	GPEC-TP537	30.4	like odor, FILL. Encountered top of concrete foundation wa	all 1.5' bgs.
	(2-3)			
		323.8		
L				
		83.7	(3-4') SILTY SAND (SM); ~70% fine to coarse sand, mostly fin	e, $\sim\!20\%$ non-plastic fines, $\sim\!10\%$ fine to coarse rounded-subangular gravel up to
			=	es, boulders, ash, solidified NAPL fragments, moist, stained gray-black,
		8.8	petroleum-like odor, FILL. Encountered 6" asbestos-insula	ated steel pipe 3.5' bgs in utility sand on east side of test pit.
5				
		6.2	(4-10') SILTY SAND (SM); ~75% fine to medium sand, mostly f	ine, ~20% non-plastic fines, ~5% fine rounded-subangular gravel up to
				n-brown. Encountered concrete slab approximately 6' bgs extending 4' off
		0.9	of the concrete foundation wall.	
		0.9		
 -		0.6		
		0.0		
 -		0.7		
		0.7		
 				
		0.0		
10				
		0.0		est Pit at ~10.0 feet.
 			Photograph 1: Completed test pit looking north.	Photograph 2: Completed test pit.
L				
L				Alah I
			Pine	
Г				
ĺ				DRAFT
				טואון
NOTES				
1			f former MGP structures (former bunker C oil storage tank).	LENGTH 10 ft.
Datum	New York State	Plane l	NAVD 88.	WIDTH 5 ft.
below s	ground surface (b	ogs)		DEPTH 10 ft.
	,			OEI Consultants
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			TEST PIT	LOG		TEST PIT	NUMBER		
PROJE	СТ		Greenpoint Energy Center Phase		GPEC-TP538 1 OF 1				
LOCA			287 Maspeth Ave, Brooklyn, N						
CLIEN			National Grid			PROJECT NO.	125180-3-1302		
EQUIP	MENT		Vac Truck (Guzzler CL) and Ba	ckhoe (CAT 430)		ELEVATION	16.93		
WEAT			Cloudy, 45F, N 5-7 mph. Cloud		LOCATION NORTHING	688409.35			
	RACTOR		O'Leary Construction	Fergal Troy	LOCATION EASTING	650143.32			
II	RVED BY		Rich Crockett	11/14-11/16/2017	DATE STARTED	11/14/2017			
CHECI	KED BY		George Holmes	1/31/2018	DATE FINISHED	11/16/2017			
Depth									
Below	Sample Depth,	PID							
Ground	No., and Type	(ppm)		Se	oil Description and Remarks				
Surface	No., and Type	(ppiii)							
(ft)									
		0.0	` '		•		ded to angular up to 3", cobbles		
L			7	-	-	p metal, asbestos, ash, fragme			
		10.1	7	-	ng and slight petroleum-like	odor at 0.8' bgs, moist, tight, l	ight, brown, FILL. Encountered		
L			concrete slab at 0.3	o bgs.					
	GPEC-TP538	395.7	` '		•		ded to angular up to 3", cobbles		
	(2-3)		-		-	p metal, ash, fragmented coal,	clinkers, solidified NAPL		
Γ		224.6	fragments containi	ing sediments, black staining	, strong petroleum-like odor,	moist, tight, brown, FILL.			
Γ		16.2	(4-5') SILTY SAND WI	TH GRAVEL (SM); ~60% f	fine to coarse sand, ~20% no	on-plastic fines, ~20% fine to	coarse gravel, rounded to angular		
5			up to 3", cobbles u	oose, tan to brown. FILL.	to brown. FILL.				
		0.0	(5-10') SILTY SAND WI	TH GRAVEL (SM); ~60% f	fine to coarse sand, ~20% no	on-plastic fines, ~20% fine to	coarse gravel, rounded to angular		
				up to 9", gray staining, moist,		•			
-		0.0							
-		0.0							
		0.0							
-		0.0							
		0.0							
F		0.0							
10		0.0							
10		0.0		1	Bottom of Test Pit at ~10.0 f	Cont			
		0.0	Photograph 1: Cor	npleted test pit looking east.		eet. notograph 2: Completed test pi	t looking north		
F			i notograph 1. Col	inpicted test pit looking cast.		iotograpii 2i completea test pi	r rooming morain		
			Annature		W 154 284				
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			CONTRACTOR OF THE PARTY OF THE	企业 经产业的					
F				是一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个	All and a second				
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F						L	DRAFT		
NOTES	S:		<u> </u>						
Test pit	to determine loc	cation of	former MGP structures (former	pressure holder).		LENGTH	10 ft.		
_	New York State		,	- /		WIDTH	5 ft.		
	elow ground surf								
ugs - De	Jow ground suri	act.			GEL	DEPTH	10 ft.		
					✓ L I Consultants				

			TEST PIT LOG		TEST PIT N	UMBER		
PROJE	CT		Greenpoint Energy Center Phase 3 RI	GPEC-TP539				
LOCA'	ΓΙΟΝ		287 Maspeth Ave, Brooklyn, NY 11211	1	OF 1			
CLIEN	T		National Grid		PROJECT NO.	125180-3-1302		
EQUIF	MENT		Vac Truck (Guzzler CL) and Backhoe (CAT 430)		ELEVATION	16.24		
WEAT	HER		Cloudy, 38F, W 20-30 mph. Cloudy, Snow, 31F, W 5-10 mph.		LOCATION NORTHING	688416.17		
	RACTOR			gal Troy	LOCATION EASTING	650305.69		
	RVED BY			12/13-12-15/2017	DATE STARTED	12/13/2017		
CHEC	KED BY		George Holmes DATE 1/31	/2018	DATE FINISHED	12/15/2017		
Depth					/ 			
Below								
Ground	Sample Depth,	PID	Soil Desc	ription and Remarks				
Surface	No., and Type	(ppm)						
(ft)								
		0.0	(0-1') SILTY SAND WITH GRAVEL (SM); ~50% fine to G	coarse sand, mostly fir	ne ~30% non-plastic fines, ~20%	% fine to coarse gravel,		
ı			rounded to angular up to 3", cobbles up to 6", contains	fragmented to whole	e red brick, concrete chunks up t	to 8", scrap metal, splintered		
_	GPEC-TP539	25.2	wood, glass, moist, tight, dark brown-brown. FILL. Er	acountered concrete for	oundation wall and slab at grade	2.		
	(1-2)	23.2						
_	(1 2)	3.9	(1-2') SILTY SAND WITH GRAVEL (SM); ~50% fine to G	coarse sand, mostly fir	ne ~30% non-plastic fines, ~20%	% fine to coarse gravel,		
i			rounded to angular up to 3", cobbles up to 6", contains	s fragmented to whole	e red brick, concrete chunks up t	to 8", scrap metal, splintered		
-		2.2	wood, glass, black staining, moderate petroleum-like	odor, moist, tight, dar	lark brown-brown. FILL. Base of concrete foundation wall			
		2.2	observed at 2' bgs.					
_		0.3	(2-3') SILTY SAND WITH GRAVEL (SM); ~50% fine to G	coarse sand mostly fi	ne ~30% non-plastic fines ~209	% fine to coarse gravel		
-		0.5		•	red brick, concrete chunks up to 8", scrap metal, splintered			
5		2.2	wood, glass, moist, tight, dark brown-brown. FILL.	8		··· · · · · · · · · · · · · · · · · ·		
		2.3		1 .1 .0	2004	v C		
_			(/	3-7') SILTY SAND WITH GRAVEL (SM); ~50% fine to coarse sand, mostly fine				
		1.2	rounded to angular up to 3", cobbles up to 6", contains wood, glass, gray staining, slight petroleum-like odor,	-		aks up to 8, scrap metal, spilittered		
—				-	wii-biowii. Filel.			
		2.5	Refusal at 7' bgs due to densely packed demolition de					
-			Bottom	of Test Pit at ~7.0 fee	et.			
_								
10								
_			Photograph 1: Completed test pit looking south.	Ph	Photograph 2: Completed test pit looking east.			
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						DAET		
-					D	RAFT		
NOTE	S:							
Test pi	t to determine lo	cation o	f former MGP structures (former boiler fuel storage tank).		LENGTH	10 ft.		
Datum	New York State	Plane l	NAVD 88.		WIDTH	5 ft.		
bgs - b	elow ground surf	ace.		<u>(())</u>	DEPTH	7 ft.		
				GEI Consultante	- PEI 111	/ 11.		
				· consentiti][

			TEST PIT LOG		TEST PIT NU	MBER			
PROJE	СТ		Greenpoint Energy Center Phase 3 RI	GPEC-TP541					
LOCAT	TION		287 Maspeth Ave, Brooklyn, NY 11211	1 C)F 1				
CLIEN'	Γ		National Grid	PROJECT NO.	125180-3-1302				
EQUIP			Vac Truck (Guzzler CL) and Backhoe (CAT 430)		ELEVATION	16.26			
WEAT			Cloudy, 43F, NW 10-20 mph.		LOCATION NORTHING	688300.06			
	RACTOR EVED BY		O'Leary Construction OPERATOR Ferga Rich Crockett DATE	12/20/2017	LOCATION EASTING DATE STARTED	650218.69 12/20/2017			
	ED BY		George Holmes DATE 1/31/2		DATE STAKTED DATE FINISHED	12/20/2017			
					_				
Depth									
Below	0 1 5 4	DID							
Ground	Sample Depth, No., and Type	PID	Soil Descri	ption and Remarks					
Surface	No., and Type	(ppm)							
(ft)									
		0.0	(0-3') SILTY SAND WITH GRAVEL (SM); ~50% fine to co.	arse sand, mostly fin	ne ~30% non-plastic fines, ~20%	fine to coarse gravel, rounded			
1			to angular up to 3", cobbles up to 9", contains fragmente	d to whole red brick	, concrete chunks up to 8", scrap	metal, splintered wood, and			
		0.0	glass, moist, tight, dark brown-brown. FILL.						
			(3-4') SILTY SAND WITH GRAVEL (SM); ~50% fine to co	arse sand, mostly fin	ne ~30% non-plastic fines, ~20% i	fine to coarse gravel, rounded			
_		0.0	to angular up to 3", cobbles up to 9", contains fragmente						
			glass, hardened solidified NAPL fragments, moist, tight,	tan-light brown. FI	LL.				
-		2.2	(4-5') SILTY SAND WITH GRAVEL (SM); ~50% fine to co						
		2.2	rounded to angular up to 3", cobbles up to 9", contains f						
-	CDEC TD5 41	3.7	splintered wood, glass, hardened solidified NAPL fragm						
_	GPEC-TP541	3.7	FILL. Refusal at 5' bgs due to densely packed demolitio	n debris.					
5	(4-5)	. 0	7	CT - D' - 50C					
		6.8	Bottom o	of Test Pit at ~5.0 fee	et.				
-									
L									
L									
L									
10									
,									
			Photograph 1: Completed test pit looking north.	Pho	otograph 2: Completed test pit loc	king west.			
				and the same of th		the sales			
_				7.3	The state of the s	Mary II			
					Charles and the second				
-					The state of the s				
			A Latter of			120			
 -					2)				
			The state of the s		A STATE OF THE STA	The state of the s			
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 -					D	RAFT			
NOTES	٠.		<u> </u>						
		ation of	former MGP structures (former tar separator).		LENGTH	10 ft.			
			•		<u> </u>	-			
Datum: New York State Plane NAVD 88. Str. 5 ft.									
bgs - be	low ground surf	ace.		GEL	DEPTH	5 ft.			
				ULI Consultants	_				

			TEST PIT LO)G		TEST PIT	NUMBER			
PROJE	СТ		Greenpoint Energy Center Phase 3	RI	GPEC	-TP542				
LOCA	ΓΙΟΝ		287 Maspeth Ave, Brooklyn, NY 1			1	OF 1			
CLIENT			National Grid			PROJECT NO.	125180-3-1302			
			Vac Truck (Guzzler CL) and Backh	noe (CAT 430)		ELEVATION	16.98			
	WEATHER Cloudy, Rain, 45F / Clear, 50F				F 1.T	LOCATION NORTHING	688374.12			
			O'Leary Construction Rich Crockett	OPERATOR DATE	Fergal Troy 10/30-31/2017	LOCATION EASTING DATE STARTED	650047.16 10/30/2017			
CHECKED BY			George Holmes	DATE	1/31/2018	DATE STAKTED DATE FINISHED	10/31/2017			
		ı				10/31/2017				
Depth										
Below										
Ground	No., and Type	(ppm)		So	oil Description and Remarks	3				
Surface	ivo., and Type	(ppiii)								
(ft)										
		0.0	(0-1.5') SILTY SAND (SM);	~70% fine to coarse sand	d, mostly fine, ~20% non-pla	astic fines, ~10% fine to coarse	gravel, rounded to angular up			
			_		-	ete up to boulder size, and meta	al scrap, black staining, slight			
	GPEC-TP542	5.8	petroleum-like odor,	dark brown-brown, tight,	moist. FILL.					
	(1-2)	4.5	(1.5-5') SILTY SAND (SM);	~70% fine to coarse sand	d, mostly fine, ~20% non-pla	astic fines, ~10% fine to coarse	gravel, rounded to angular up			
	, ,	0.0	3", cobbles up to 8", h	boulders, reddish brown-b	brown, tight, moist. FILL.					
	0.0									
•		0.0								
•		0.0								
5										
		0.0	(5-7') SANDY SILT (MLS); ~60% non-plastic to low plasticity silt, ~35% fine to medium sand, ~5% fine to coarse gravel, rounded-							
		0.0	subangular up to 1", o	anse graven, rounded						
•		0.0		•	,					
		0.0								
•		0.0	(7-10') SANDY CLAY (CLS	S): ~70% medium plastici	ty clay ~25% fine to mediu	m sand, mostly fine, ~5% fine	to coarse gravel up to 1"			
		0.0	cobbles up to 5", brow		ty ciay, -25% fine to media	in said, mostly fine, -5 % fine	to coarse graver up to 1,			
-		0.0		, , , , , , , , , , , , , , , , , , , ,						
		0.0								
•		0.0								
10		0.0								
10		0.0			D (T . D) 10.0	c .				
		0.0	Dhotograph 1, Compl		Bottom of Test Pit at ~10.0		t looking south			
•			Photograph 1: Compi	leted test pit looking north	i, ri	hotograph 2: Completed test pi	t looking south.			
					A11111323		***************************************			
-			The same of the sa	The state of the s						
			A STATE OF THE PARTY OF	A CONTRACTOR OF THE PARTY OF TH						
				Contract Con			- A			
			BOOLS CARCAGO AND	Take and the same of the same						
-						ſ	DRAFT			
i										
<u>.</u>										
NOTES										
		ation of	former MGP structures (former tar	tank).		LENGTH	6 ft.			
Test pit				tank).						
Test pit	to determine loc	Plane N		tank).		LENGTH	6 ft.			

			7	TEST PIT LOG			TEST F	TT NUMBER		
PROJE	CT			y Center Phase 3 RI			GPEC	GPEC-TP543		
LOCA'				Brooklyn, NY 1121	1	1 OF 1				
CLIEN			National Grid	, , , , , , , , , , , , , , , , , , , ,			PROJECT NO.	125180-3-1302		
EQUIP	MENT		Vac Truck (Guzzle	er CL) and Backhoe	(CAT 430)		ELEVATION	16.66		
WEAT			Clear, 55F / Cloud				LOCATION NORTHING	688460.29		
	CONTRACTOR O'Leary Construction OPERATOR Fergal Troy						LOCATION EASTING	650000.56		
OBSERVED BY Rich Crockett					DATE DATE	10/31, 11/6/2017 1/31/2018	DATE STARTED	10/31/2017		
CHEC	KED BY	•	George Holmes	DATE FINISHED	11/6/2017					
Depth							<u> </u>			
Below	Sample Depth	ample Depth, PID								
Ground	No., and Type	(ppm)			Sc	oil Description and Rema	arks			
Surface	rvo., und Type	(ppiii)								
(ft)										
		0.0					-plastic fines, ~10% fine to coarse			
				obbies up to 6", boui , dark brown-brown,		ragmemeu reu brick, coi	ncrete chunks up to 8", dark gray	stanning, singint petroleum-like		
	GPEC-TP543	0.4	odor	, uaik diowii-diowii,	ugut, moist. FILL.					
	(1-2)									
		0.0					se sand, ~10% non-plastic fines, ~			
			roun	rounded to angular up to 3", cobbles up to 12", contains fragmented red brick and concrete, brown, tight, moist, FILL.						
		0.0								
			(3-5') WID	DELY GRADED SAN	ND WITH SILT AND	GRAVEL (SW-SM); ~6	50% fine to coarse sand, ~25% fir	e to coarse gravel, rounded		
		0.0		3-5') WIDELY GRADED SAND WITH SILT AND GRAVEL (SW-SM); ~60% fine to coarse sand, ~25% fine to coarse gravel, rounde to angular, up to 3", ~15% non-plastic fines, cobbles up to 8", brown, moist, tight.						
5			(5-10') SILTY SAND (SM); ~70% fine to medium sand, ~20% non-plastic fines, ~10% fine to coarse gravel, rounded to angular up to 3",							
3		0.0								
		0.0	cooles up to 0 orown, ugm, most.							
•		0.0								
		0.0								
•		0.0								
		0.0								
		0.0								
		0.0								
10										
		0.0				Bottom of Test Pit at ~10		an an		
•			Phot	ograph 1: Completed	test pit looking north.		Photograph 2: Completed test p	it looking south.		
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				10000000000000000000000000000000000000						
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				SOLESPE SHERES, THE PARTY OF	The second second			10000000000000000000000000000000000000		
<u>-</u>					District Control of the Control of t	- 5.70 Ac.		Carlot Library		
-					Discourant Styles (A.	- Frolid		Consultation .		
						- Troiled	A CONTRACTOR OF THE PARTY OF TH	DRAFT		
NOTE	<i>S</i> :					ооб у ваа		DRAFT		
NOTE:		eation of	former MGP strate	tures (former tar tank	2)	costruction				
Test pi	to determine loc			tures (former tar tank	x).	costs weblied	LENGTH	10 ft.		
Test pi	to determine loc New York State	Plane N		tures (former tar tank	s).	ootshealad	LENGTH WIDTH			
Test pi	to determine loc	Plane N		tures (former tar tank	x).	GEL	LENGTH	10 ft.		

			TEST PIT I	LOG		TEST PIT N	NUMBER
PROJE	СТ		Greenpoint Energy Center Phase		GPEC-TP544		
LOCA			287 Maspeth Ave, Brooklyn, NY		1 OF 1		
CLIEN			National Grid	11211		PROJECT NO.	125180-3-1302
EQUIP			Vac Truck (Guzzler CL) and Bac	ckhoe (CAT 430)		ELEVATION	39.91
WEATHER			Cloudy, 82F	()		LOCATION NORTHING	688393.10
CONT	RACTOR		O'Leary Construction	OPERATOR	John O'Leary	LOCATION EASTING	649389.32
OBSERVED BY			Rich Crockett	DATE	8/23/17, 8/24/17	DATE STARTED	8/23/2017
CHECKED BY			George Holmes	DATE	1/31/2018	DATE FINISHED	8/24/2017
					<u> </u>		
Depth							
Below	C1- D41-	PID					
Ground	Sample Depth,			Se	oil Description and Remarks		
Surface	No., and Type	(ppm)					
(ft)							
		0.0	(0-3') WIDELY GRADE	D SAND WITH SILT AND	GRAVEL (SW-SM): ~75%	fine to coarse sand, mostly fin	e, ~15% fine to coarse rounded-
		0.0	(/		, , , , , , , , , , , , , , , , , , , ,	d whole brick, up to boulder siz	
F		0.0		noist, FILL. Top of concrete	-	, .p	_F
		0.0	g,,	,r			
L							
	GPEC-TP544	0.0					
	(2-3)						
		0.0	(3-5') SILTY SAND (SM	l); ~75% fine to medium sar	nd, mostly fine, ~20% non-p	lastic fines, ~5% fine rounded-s	subangular gravel up to 1",
			moist, reddish broy	vn.			
_		0.0					
5		0.0					
		0.0	(5 10b CH T WITH CANE	(MI). (00/	14 200/ fine to medium on	- 1 100/ fine many ded and and	lan annual ann ta 1 25" ann iat
		0.0				nd, ~10% fine rounded-subangu	
_			gray, contains cobb	oles and boulders. Concrete	siab observed at / bgs exten	ding 3' off of the concrete found	dation wall.
		0.0					
		0.0					
_		0.0					
		0.0					
_		0.0					
		0.0					
10							
L		0.0]	Bottom of Test Pit at ~10.0 f	eet.	
			Photograph 1: Com	pleted test pit looking south	•	Photograph 2: Base of founda	tion wall.
				Vot (September 1997)	SO CONTRACTOR OF THE PARTY OF T	STATE OF A STATE OF THE STATE O	1400
				A STATE OF THE STA		(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	
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						The second second	
_					7	Acres and	
L			The Control of the Co	No. of the last of			6
				A A A			
							DRAFT
						L	//\/\/\
NOTES	S:						
		e locatio	n of fromer MGP structures (form	er residuum oil storage tank).	LENGTH	10 ft.
1	: New York State		,	er residuam on storage talik	<i>,</i> ·		
Datum	new fork State	: Piane I	NA VD 88.			WIDTH	5 ft.
bgs - be	elow ground surf	ace.			GEI W	DEPTH	10 ft.
					UEI Consultants		
						1	

			TEST PIT LOG		TEST PIT N	UMBER
PROJE	т		Greenpoint Energy Center Phase 3 RI		GPEC-T	
LOCAT			287 Maspeth Ave, Brooklyn, NY 11211			OF 1
CLIEN			National Grid		PROJECT NO.	125180-3-1302
EQUIP			Vac Truck (Guzzler CL) and Backhoe (CAT 430)		ELEVATION	43.44
WEATI			Clear, 89F		LOCATION NORTHING	688412.31
	ACTOR			l Troy	LOCATION EASTING	649304.77
	VED BY			2017, 9/25/2017	DATE STARTED	9/22/2017
CHECK	ED BY		George Holmes DATE 1/31/2	2018	DATE FINISHED	9/25/2017
Depth						
Below	Sample Depth,	PID				
Ground	No., and Type	(ppm)	Soil Descr	ription and Remarks		
Surface	No., and Type	(ppiii)				
(ft)						
		0.0	(0-10') SILTY SAND (SM); ~70% fine to coarse sand, mostly	fine, ~20% non-plas	stic fines, ~10% fine to coarse ro	unded-subangular gravel
			up to 3", contains fragmented and whole brick, up to be			
		0.0	brown, FILL. Concrete slab observed at 8' bgs.	•	•	
		0.0				
		0.0				
		0.0				
1		0.0				
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		0.0				
•	GPEC-TP545	0.0				
10	(9-10)					
	(> 10)	0.0	Rottom o	of Test Pit at ~10.0 fe	aat	
		0.0	Photograph 1: Completed test pit looking north.		otograph 2: Completed test pit lo	ooking east
0			Thotograph 1. Completed test ph looking north.		otograph 2. completed test pit is	oung out
						2
					W8.5	
			A Company of the Comp		A Vandaria	
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				3.00		
•					All the second	
						DACT
-					L	RAFT
NOTES	•		n of former MGP structures (former residuum oil storage tank).		LENGTH	10 ft.
	to determine the					
Test pit						
	to determine the New York State				WIDTH	5 ft.
Test pit Datum:		Plane I		GEI Consultants		

			TEST PI	T LOG		TEST P	IT NUMBER
PROJE	CT		Greenpoint Energy Center P	hase 3 RI		GPEC	-TP546
LOCAT	ΓΙΟΝ		287 Maspeth Ave, Brooklyn	, NY 11211		1	OF 1
CLIEN'			National Grid			PROJECT NO.	125180-3-1302
EQUIP			Vac Truck (Guzzler CL) and			ELEVATION	17.05
WEAT	HER RACTOR		Cloudy, 67F, NW 5-10 mph. O'Leary Construction	OPERATOR	Fergal Troy	LOCATION FASTING	688576.03 649655.54
	RVED BY		George Holmes	DATE	10/25/2017	LOCATION EASTING DATE STARTED	10/25/2017
	KED BY		Chris Morris	DATE	2/2/2018	DATE FINISHED	10/25/2017
Depth							
Below	Sample Depth,	PID					
Ground	No., and Type	(ppm)		S	oil Description and Remark	S	
Surface							
(ft)			ON THE CANE	NUMBER OF THE OWN TOWN	C 1 200/ 1 1	C 200/ C	
		0.0	` '	WITH GRAVEL (SM); ~50%	•		
				ntains fragmented to whole red l s/roots, brown, tight, dry. FILL.	orick, coodie sized chuliks (on concrete, metai scrap, wood i	iraginents, piastic debris, ciou
		0.0	debris, organic	5/100ts, brown, tight, tify. I iEE.			
	GPEC-TP546	0.0	` '	EL WITH SAND (GM); ~50% f	•		•
	(2.5-3)	63.1	sand, contains	fragmented to whole red brick,	cobbie sized chunks of conc	rete, brown to orangey-tan, tigi	nt, ary. FILL
		0.0					
			` ,	WITH GRAVEL (SM); ~50%	-		
		0.0	3", cobbles, co	ntains fragmented to whole red l	brick, black staining, petrole	eum-like odor, dry, tight. FILL.	
5							
		0.0	(3 1)	WITH GRAVEL (SM); ~50%	1	,	vel, rounded to subangular up
			3", cobbles, co	ntains fragmented to whole red l	brick, brown, dry, tight. FIL	L	
		0.0	` '	ADED GRAVEL WITH SAND	(GW); ~70% fine to coarse	gravel, rounded to subangular t	up to 3", ~30% fine to coarse
			sand, cobbles,	tan, loose, dry.			
		0.0					
		0.0					
Į.							
		0.0	(> 10)	ADED SAND (SW); ~90% fine	to coarse sand, ~10% fine to	o coarse gravel, subrounded to	subangular up to 1.5", tan, dry
10			loose.				
		0.0			Bottom of Test Pit at ~10.0		
			Photograph 1:	Completed test pit looking east.	P	hotograph 2: Completed test pi	t looking west.
			120000				
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						L	DRAFT
NOTES	S:						
		cation of	former MGP structures (form	ner liquid petroleum compressor	house #2).	LENGTH	7 ft.
-	New York State			1 7		WIDTH	5 ft.
ogs - be	elow ground surf	ace.			GEL	DEPTH	10 ft.
					ULI Consultants	·	

			TEST PIT LOG	T T		TEST PIT	NUMBER
PROJEC	СТ		Greenpoint Energy Center Phase 3 RI			GPEC-	TP547
LOCAT			287 Maspeth Ave, Brooklyn, NY 112			1	OF 1
CLIENT			National Grid			PROJECT NO.	125180-3-1302
EQUIP!	MENT		Vac Truck (Guzzler CL) and Backhoe	e (CAT 430)		ELEVATION	16.16
WEATI			Cloudy, Rain, 53F			LOCATION NORTHING	688571.83
	RACTOR		O'Leary Construction	OPERATOR	Fergal Troy	LOCATION EASTING	649986.85
	RVED BY KED BY		Rich Crockett George Holmes	DATE DATE	11/7/2017 2/1/2018	DATE STARTED DATE FINISHED	11/7/2017 11/7/2017
CHECK	CED D1		George Hollines	DATE	2/1/2016	DATETINISHED	11/7/2017
Depth							
Below	Sample Depth,	PID	I				
Ground	No., and Type	(ppm)	I	So	oil Description and Remark	ks	
Surface	51	41 /	I				
(ft)							
		0.0	` '			% fine to coarse sand ~20% fine to 14", contains fragmented red by	•
-	CDEC EDS 15	2.2				approximately 0.5' bgs and vary	
	GPEC-TP547	2.2			like odor, tan-brown, tight		
.	(1-2)	2.0	I	-	· ·		
		3.8					
-		1.1	I				
		1.1					
		1.2	(4 10b WIDELY CRADED CA	AND WITH CILT AND	CDAVEL (CW CM). 70	10/ fine to seems send 200/ fin	o to occurs amorral marriadad
~		1.3	` '			% fine to coarse sand ~20% fine to 14", light tan-tan, tight, moi	
5		0.0	lo angular up to 5 , 10	70 Hon-plastic Tines, coc	ooles up to 12, bounders u	p to 14, fight tan-tan, fight, mor	St.
		0.0	I				
			I				
		0.0	I				
-							
		0.0					
-		0.0	I				
		0.0	I				
-							
10		0.0					
10		0.0		1	Bottom of Test Pit at ~10.0) fact	
		0.0	Photograph 1: Complete			Photograph 2: Completed test pi	t looking south.
-				F 8			<i>g</i>
							4
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				No service of the ser	P Code	老	4
			· .	4	A CONTRACTOR OF THE PARTY OF TH		1
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·						7.4	
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- -						MAN	
- -							
- - -							DRAFT
NOTES	3:						DRAFT
		ation of	former MGP feature (former tar pond)).		LENGTH	DRAFT 10 ft.
Test pit).		LENGTH	10 ft.
Test pit Datum:	to determine loc	Plane N).	GEL		

			TEST PIT I	LOG		TEST PIT	NUMBER
PROJE	CT		Greenpoint Energy Center Phase			=	-TP548
LOCAT			287 Maspeth Ave, Brooklyn, NY			1	OF 1
CLIEN			National Grid			PROJECT NO.	125180-3-1302
EQUIP	MENT		Vac Truck (Guzzler CL) and Bac	khoe (CAT 430)		ELEVATION	16.44
WEAT			Cloudy, Rain, 53F			LOCATION NORTHING	688620.08
	RACTOR		O'Leary Construction	OPERATOR	Fergal Troy	LOCATION EASTING	650041.95
	RVED BY KED BY		Rich Crockett George Holmes	DATE DATE	11/8-11/9/2017 2/1/2018	DATE STARTED DATE FINISHED	11/8/2017 11/9/2017
СПЕСІ	XED D I		George Holliles	DATE	2/1/2018	DATE FINISHED	11/9/2017
Depth						'	
Below	Sample Depth,	PID					
Ground	No., and Type	(ppm)		So	oil Description and Remarks	S	
Surface	ivo., and Type	(ppiii)					
(ft)							
		0.0	` '			fine to coarse sand ~30% fin	•
<u></u>						nented red brick, concrete, hard	dened solidified NAPL
		4.2	containing sedimen	ts from 0-6' bgs, black stain	ing, naphthalene-like odor, l	brown, tight, moist, FILL.	
_							
	GPEC-TP548	13.1					
	(2-3)						
_		8.5					
_		3.7					
5							
		2.1					
		2					
-		1.6	(6-10') WIDELY GRADE	D SAND WITH SII T (SW.	SM): ~80% fine to coarse s	and ~10% fine to coarse grave	1 rounded to angular up to 1"
		1.0	` /	ines, light brown-brown, mo		sand -10% fine to coarse grave	i, rounded to angular up to 1 ,
_		0.0	1	, 8	,		
		0.0					
_		0.0					
		0.0					
_		0.0					
		0.0					
10		0.0			D CT D' 10.0	С .	
		0.0	Photograph 1: Com	ipleted test pit looking east.	Bottom of Test Pit at ~10.0	reet. hotograph 2: Completed test pi	t looking west
_			r notograph 1. Com	picted test pit looking cast.	•	notograph 2. Completed test pr	rioding west
				Walter Walter			The National Control of the Control
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_						<u> </u>	DRAFT
NOTES	S:						
Test pit	to determine loc	cation of	former MGP feature (former tar p	oond).		LENGTH	12 ft.
Datum:	New York State	Plane N	NAVD 88.			WIDTH	5 ft.
bgs - he	elow ground surf	ace.			(())	DEPTH	10 ft.
253 00	Broama suri				GEI Consultants	DEF III	10 II.

RECEPT Greenpoint Energy Center Phase 3 RI GPEC-TP549				TEST PIT LOG			TEST PIT N	NUMBER
DOCATION 297 Masgeth Ave, Brooklyn, NY 11211	PROJEC	T					GPEC-	ГР549
SQUPMENT National Grid Professional Control Cont					1		1	
SOUTHERN Vac Truck (Guzzler CL) and Buckhoe (CAT 430)							PROJECT NO.	
Count					(CAT 430)			
CONTENT ACTOR OBSERVED BY CHECKED BY Record from DATE DATE 119-11702017 DATE STREET 119-2017 DATE STREET	_							688614.90
Depth Below Sample Depth Coronal Surface Depth Below Surface Sample Depth Coronal Surface Surf	CONTR	RACTOR				Fergal Troy	LOCATIONEASTING	650088.89
Depth Below Ground No., and Type (ppm) Soil Description and Remarks Soil Description and Soil	OBSER	VED BY			DATE		DATE STARTED	
Below Surface (ft) Sample Depth, Solid Description and Remarks Solid Petrophysis Associated these, -5% fine to coarse gravel, rounded to angular up to 3", cobble to 12", and timbers, moist, loose, brown. FILL. October 19	CHECK	ED BY		George Holmes	DATE	2/1/2018	DATE FINISHED	11/10/2017
Below Surface (ft) Sample Depth, Solid Description and Remarks Solid Petrophysis Associated these, -5% fine to coarse gravel, rounded to angular up to 3", cobble to 12", and timbers, moist, loose, brown. FILL. October 19								
Soil Description and Remarks Soil Description and Remarks No., and Type O. (0-2) SILTY SAND (SM); -75% fine to coarse sand -20% non-plastic fines, -5% fine to coarse gravel, rounded to angular up to 3", cobblet to 12", contains concrete fragments to 15", and timbers, moist, loose, brown. FILL. O. (2-4') SILTY SAND (SM); -75% fine to coarse sand -20% non-plastic fines, -5% fine to coarse gravel, rounded to angular up to 3", cobblet to 5", contains concrete fragments to 15", and timbers, moist, loose, brown. FILL. O. (4-10) WIDELY GRADED SAND WITH SILT (SW/SM); -80% fine to coarse sand, -15% non-plastic fines, -5% fine to coarse gravel, rounded to angular up to 1", moist, loose, brown. O. (5-10) O. (9-5-10) O. (9-5-10) DRAFT NOTES:	Depth							
Soil Description and Remarks No., and Type (ppm) Oo. (0-2) SILTY SAND (SM); -75% fine to coarse sand -20% non-plastic fines, -5% fine to coarse gravel, rounded to angular up to 3", cobble to 12", contains concrete fragments to 15", and timbers, moist, loose, brown. FILL. Oo. (2-4) SILTY SAND (SM); -75% fine to coarse sand -20% non-plastic fines, -5% fine to coarse gravel, rounded to angular up to 3", cobble to 5", contains concrete fragments to 15", and timbers, moist, loose, brown. FILL. Oo. (4-10) WIDELY GRADED SAND WITH SILT (SW-SM); -80% fine to coarse sand , -15% non-plastic fines, -5% fine to coarse gravel, rounded to angular up to 1", moist, loose, brown. Oo.	Below	C1- D41-	DID					
(ft)	Ground				S	oil Description and Remark	s	
0.0 (0-2) SiLTY SAND (SM): -75% fine to coarse sand -20% non-plastic fines, -5% fine to coarse gravel, rounded to angular up to 3", cobble to 12", contains concrete fragments to 15", and timbers, moist, loose, brown. FILL. 0.0 (2-4) SiLTY SAND (SM): -75% fine to coarse sand -20% non-plastic fines, -5% fine to coarse gravel, rounded to angular up to 3", cobble to 5", contains concrete fragments to 15", and timbers, moist, loose, brown. FILL. 0.0 (4-10) WIDELY GRADED SAND WITH SILT (SW-SM); -80% fine to coarse sand, -15% non-plastic fines, -5% fine to coarse gravel, rounded to angular up to 1", moist, loose, brown. 0.0	Surface	No., and Type	(ppm)					
to 12", contains concrete fragments to 15", and timbers, moist, loose, brown. FILL. 0.0	(ft)							
to 12", contains concrete fragments to 15", and timbers, moist, loose, brown. FILL. 0.0			0.0	(0.2') SILTY SAND (SM): ~7'	5% fine to coarse sand	1~20% non-plastic fines ~5	% fine to coarse gravel rounded	to angular up to 3" cobbles up
0.0 (2-4) SILTY SAND (SM); -75% fine to coarse sand -20% non-plastic fines, -5% fine to coarse gravel, rounded to angular up to 3", cobble to 5", contains concrete fragments to 15", and timbers, moist, loose, brown. FILL. 0.0 (4-10) WIDELY GRADED SAND WITH SILT (SW-SM); -80% fine to coarse sand , -15% non-plastic fines, -5% fine to coarse gravel, rounded to angular up to 1", moist, loose, brown. GPEC:TP549 (9.5-10) 0.0 Bottom of Test Pit at -10.0 feet. Photograph 1: Completed test pit looking west. Photograph 2: Completed test pit looking west.			0.0					to angular up to 5°, coopies up
O.0 (2-4) SILTY SAND (SM): ~75% fine to coarse sand ~20% non-plastic fines, ~5% fine to coarse gravel, rounded to angular up to 3", cobbles to 5", contains concrete fragments to 15", and timbers, moist, loose, brown. FILL. O.0 (4-10') WIDELY GRADED SAND WITH SILT (SW-SM); ~80% fine to coarse sand , ~15% non-plastic fines, ~5% fine to coarse gravel, rounded to angular up to 1", moist, loose, brown. GPEC-TP549 (9.5-10) O.0 Bottom of Test Pit at ~10.0 feet. Photograph 1: Completed test pit looking east. Photograph 2: Completed test pit looking west.	-			to 12 , contains concrete	ruginento to 10 , una	umoers, moist, roose, ero v		
to 5", contains concrete fragments to 15", and timbers, moist, loose, brown. FILL. 0.0 0.0 (4-10) WIDELY GRADED SAND WITH SILT (SW-SM): -80% fine to coarse sand, -15% non-plastic fines, -5% fine to coarse gravel, rounded to angular up to 1", moist, loose, brown. 0.0 0.0 0.0 0.0 0.0 OO OO OO			0.0					
to 5", contains concrete fragments to 15", and timbers, moist, loose, brown. FILL. 0.0 0.0 (4-10) WIDELY GRADED SAND WITH SILT (SW-SM): -80% fine to coarse sand, -15% non-plastic fines, -5% fine to coarse gravel, rounded to angular up to 1", moist, loose, brown. 0.0 0.0 0.0 0.0 0.0 OO OO OO	_							
O.0 (4-10) WIDELY GRADED SAND WITH SILT (SW-SM); ~80% fine to coarse sand , ~15% non-plastic fines, ~5% fine to coarse gravel, rounded to angular up to 1", moist, loose, brown. GPEC-TPS49 (9.5-10) 0.0 Bottom of Test Pit at ~10.0 feet. Photograph 1: Completed test pit looking east. Photograph 2: Completed test pit looking west.			0.0					d to angular up to 3", cobbles up
WIDELY GRADED SAND WITH SILT (SW-SM); ~80% fine to coarse sand , ~15% non-plastic fines, ~5% fine to coarse gravel, rounded to angular up to 1", moist, loose, brown. GPEC-TPS49 10 GPEC-TPS49 (9.5-10) 0.0 Bottom of Test Pit at ~10.0 feet. Photograph 1: Completed test pit looking east. Photograph 2: Completed test pit looking west. DRAFT NOTES:				to 5", contains concrete f	ragments to 15", and t	imbers, moist, loose, brown	. FILL.	
WIDELY GRADED SAND WITH SILT (SW-SM); ~80% fine to coarse sand , ~15% non-plastic fines, ~5% fine to coarse gravel, rounded to angular up to 1", moist, loose, brown. GPEC-TPS49 10 GPEC-TPS49 (9.5-10) 0.0 Bottom of Test Pit at ~10.0 feet. Photograph 1: Completed test pit looking east. Photograph 2: Completed test pit looking west. DRAFT NOTES:			0.0					
rounded to angular up to 1", moist, loose, brown. Oo								
S	-		0.0	(4 10') WIDELY GRADED SA	ND WITH SII T (SW.	SM): ~80% fine to coarse s	eand ~15% non-plastic fines ~	5% fine to coarse gravel
0.0	_		0.0				said, 13% non plastic inies,	7,0 Thie to course graver,
0.0			0.0	rounded to unguiar up to	1 , 1110154, 10050, 010 11			
GPEC-TP549 (9.5-10) On On On On On On On On On O			0.0					
GPEC-TP549 (9.5-10) 0.0 Photograph 1: Completed test pit looking east. Photograph 2: Completed test pit looking west. DRAFT NOTES:	L							
GPEC-TP549 0.0 (9.5-10) 0.0 Bottom of Test Pit at ~10.0 feet. Photograph 1: Completed test pit looking east. Photograph 2: Completed test pit looking west.			0.0					
GPEC-TP549 0.0 (9.5-10) 0.0 Bottom of Test Pit at ~10.0 feet. Photograph 1: Completed test pit looking east. Photograph 2: Completed test pit looking west.								
GPEC-TP549 (9.5-10) 0.0 Bottom of Test Pit at ~10.0 feet. Photograph 1: Completed test pit looking east. Photograph 2: Completed test pit looking west. DRAFT NOTES:			0.0					
GPEC-TP549 (9.5-10) 0.0 Bottom of Test Pit at ~10.0 feet. Photograph 1: Completed test pit looking east. Photograph 2: Completed test pit looking west. NOTES:								
GPEC-TP549 (9.5-10) 0.0 Bottom of Test Pit at ~10.0 feet. Photograph 1: Completed test pit looking east. Photograph 2: Completed test pit looking west. NOTES:	_		0.0					
10 (9.5-10) O.0 Bottom of Test Pit at ~10.0 feet. Photograph 1: Completed test pit looking east. Photograph 2: Completed test pit looking west. DRAFT NOTES:								
O.0 Bottom of Test Pit at ~10.0 feet. Photograph 2: Completed test pit looking west. Photograph 2: Completed test pit looking west. Photograph 2: Completed test pit looking west. DRAFT	- I	CDEC TD540	0.0					
Bottom of Test Pit at ~10.0 feet. Photograph 1: Completed test pit looking east. Photograph 2: Completed test pit looking west. DRAFT NOTES:			0.0					
Photograph 1: Completed test pit looking east. Photograph 2: Completed test pit looking west. DRAFT NOTES:	10	(9.5-10)						
DRAFT NOTES:			0.0					
NOTES:	_			Photograph 1: Complete	d test pit looking east.	P	hotograph 2: Completed test pit	looking west.
NOTES:								
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To take to determine location of farmer MCD structures (former day to storage tents)	NOTES	:						
Test pit to determine location of former MGP structures (former dry tar storage tank). LENGTH 12 ft.	Test pit	to determine loc	ation of	former MGP structures (former drv tar	storage tank).		LENGTH	12 ft.
	_			· · · · · · · · · · · · · · · · · · ·				
	Datuiii.							
bgs - below ground surface. DEPTH 10 ft.		low ground curf	ace				DEPTH	10 ft.
OLI Consultants	bgs - be	iow ground surr	acc.			(

			TEST PIT LOG		TEST PIT NU	JMBER
PROJE	CT		Greenpoint Energy Center Phase 3 RI		GPEC-T	P550
LOCA	ΓΙΟΝ		287 Maspeth Ave, Brooklyn, NY 11211	_		OF 1
CLIEN	Т		National Grid		PROJECT NO.	125180-3-1302
EQUIP	MENT		Vac Truck (Guzzler CL) and Backhoe (CAT 430)		ELEVATION	18.88
WEAT			Clear, 38F, W 10-15 mph.		LOCATION NORTHING	688627.27
	RACTOR			gal Troy	LOCATION EASTING	650156.16
II	RVED BY		Rich Crockett DATE		DATE STARTED	12/7/2017
CHECI	KED BY		George Holmes DATE 2/1	/2018	DATE FINISHED	12/7/2017
- a						
Depth						
Below	Sample Depth,	PID	0.110	: .: 1D 1		
Ground Surface	No., and Type	(ppm)	Son Des	cription and Remarks		
(ft)						
(11)		0.0	LO 1 50 CH TN CAND COAD TOOL 5	1 6 200/ 1 /	. C 100/ C /	1 11 1
		0.0	(0-1.5') SILTY SAND (SM); ~70% fine to coarse sand, most 3", cobbles up to 8", contains fragmented to whole re			
_			solidified NAPL slightly pliable to hardened, black sta			-
	GPEC-TP550	9.1	Concrete foundation wall encountered at 0.4' bgs.	uning, sugnt naphtnater	iie-iike odor, moist, tigitt, dark b	Town to brown. There.
L	(1-2)					
		2.9	(2-6') SILTY SAND (SM); ~70% fine to coarse sand, most		_	
L			3", cobbles up to 8", contains fragmented to whole re			noist, tight, dark brown to
		0.0	brown. FILL. Encounter 4" steel pipe 3' bgs. Base of	concrete foundation wal	ll observed at 5' bgs.	
		0.0				
5						
		0.0				
H		0.0	(6-10') SILTY SAND (SM); ~70% fine to medium sand, mo	estly fine ~25% non-nla	stic fines ~5% fine to coarse or	avel rounded to angular up to
		0.0	1", loose, moist, light tan-tan.	stry fine -23% non-pia	stie imes, -5 % ime to course gr	avei, rounded to angular up to
⊩		0.0	- ,,g			
		0.0				
⊩						
		0.0				
⊩						
		0.0				
10						
		0.0	Botton	of Test Pit at ~10.0 fee	et.	
L			Photograph 1: Completed test pit looking south.		Photograph 2: Completed te	st pit, pipe and wall base.
				*		
				14.3		1000
					See all cetains	
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H						15
						417743
L					STATE OF THE STATE	
						DACT
l-						<i>RAFT</i>
			1			- 17 17
NOTES			MGD			10.0
•			f former MGP structures (former dry tar storage tank).		LENGTH -	10 ft.
Datum:	New York State	Plane N	NAVD 88.		WIDTH	5 ft.
bgs - be	elow ground surf	ace.		C E 1	DEPTH -	10 ft.
				UE Consultants	-	

			TEST PIT LOG		TEST PIT NU	JMBER
PROJE	СТ		Greenpoint Energy Center Phase 3 RI		GPEC-T	P551
LOCA	TION		287 Maspeth Ave, Brooklyn, NY 11211			OF 1
CLIEN	Г		National Grid		PROJECT NO.	125180-3-1302
EQUIP	MENT		Vac Truck (Guzzler CL) and Backhoe (CAT 430)		ELEVATION	19.45
WEAT	HER		Cloudy, Snow, 37F, W 10-15 mph. Cloudy, Rain, 45F, SW 10-15 mph.	_	LOCATION NORTHING	688719.01
	RACTOR		O'Leary Construction OPERATOR Fergal Tree		LOCATION EASTING	650148.94
	VED BY				DATE STARTED	12/11/2017
CHECH	ED BY		George Holmes DATE 2/1/2018		DATE FINISHED	12/12/2017
Depth				<u>.</u>		
Below						
Ground	Sample Depth,	PID	Soil Description	on and Remarks		
Surface	No., and Type	(ppm)	Son Bescriptic	ni ana Kemarks		
(ft)						
(11)		0.0	LO 1D CH TY CAND (CM), 500/ E	400/1	:- f: 100/ f:	1 4- 4 41 4-
		0.0	(0-1') SILTY SAND (SM); ~50% fine to coarse sand, mostly fine 3", cobbles up to 7", contains fragmented red brick and con-			avel, rounded to angular up to
⊩		0.0	b , coooles up to / , commiss magnitude red offer and con-	erete, moist, ugne	, dans of own Tibbs	
		0.0	(1-10') SILTY SAND (SM); ~75% fine to coarse sand, mostly fine	20% non nloce	ic fines -5% fine to coorse are	val rounded to angular up to
⊩		0.0	(1-10') SILTY SAND (SM); ~75% fine to coarse sand, mostly fine 3", cobbles up to 9", contains fragmented red brick and con-			
		0.0	5, coooles up to 9, contains fragmented fed offek and cont	crete, oxidation st	anning, moist, tight, brown. Fil.	aL.
		0.0				
		0.0				
⊩		0.0				
5		0.0				
		0.0				
		0.0				
⊩		0.0				
		0.0				
⊩		0.0				
		0.0				
⊩		0.0				
		0.0				
⊩	CDEC TREE 1	0.0				
10	GPEC-TP551 (9.5-10)	0.0				
10	(9.3-10)	0.0	Pottom of To	est Pit at 10.0 for	nt .	
		0.0	Photograph 1: Completed test pit looking north.	est Pit at ~10.0 fee Pho	et. tograph 2: Completed test pit lo	ooking south
H			r notograph 1. Completed test pit looking north.	1110	tograph 2. Completed test pit to	oking soun.
				5000		
F			The state of the s		是一个人的一个人的一个人的	The second second
⊩					5 2	
				100		3 7 1 1 1
			ATT TO SERVICE THE PARTY OF THE	1		
				to		No.
l-						The second second
						DACT
-					D	RAFT
NOTES	:		<u> </u>			
Test pit	to determine loc	ation of	former MGP feature (former tar pond).		LENGTH	10 ft.
1	New York State		• •		WIDTH -	5 ft.
II				$((\bigcirc))$	-	
ogs - be	low ground surf	ace.	(GFI 🥌 🛚	DEPTH -	10 ft.
			`	Consultants		

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			TEST PIT LO)G		TEST PIT	NUMBER
PROJE	CT		Greenpoint Energy Center Phase 3	RI		GPEC-	TP552
LOCAT	ΓΙΟΝ		287 Maspeth Ave, Brooklyn, NY 1	1211		1	OF 1
CLIEN'	T		National Grid			PROJECT NO.	125180-3-1302
EQUIP			Vac Truck (Guzzler CL) and Backl			ELEVATION	16.44
WEAT			Partly Cloudy, 38F, NW 15-20 mpl		F 17	LOCATION NORTHING	688691.84
	RACTOR RVED BY		O'Leary Construction Rich Crockett	OPERATOR DATE	Fergal Troy 11/10-11/14/2017	LOCATION EASTING DATE STARTED	650048.84 11/10/2017
	KED BY		George Holmes	DATE	2/1/2018	DATE STAKTED DATE FINISHED	11/14/2017
CILCI					2/1/2010	BITTE THANKS	
Depth							
Below	Sample Depth,	PID					
Ground	No., and Type	(ppm)		So	oil Description and Remark	S	
Surface	- · · · · · · · · · · · · · · · · · · ·	(FF)					
(ft)							
		0.0				plasticity fines, ~10% fine to co agmented concrete, moist, tight,	_
			up to 3, coobles up to	o 11, contains fragmente	d to whole red brick and fra	gmemed concrete, moist, tight,	DIOWII. FILL.
		0.0					
		0.0		st, tight, light tan to tan.	es, ~25% fine to medium sa	nd, ~5% fine to coarse gravel, r	ounded to angular up to 1",
			cobbles up to 9, mor	st, tight, fight tall to tall.			
		0.0					
		0.0				ion-plastic fines, ~20% fine to o	coarse gravel, rounded to angu
5			up to 3", moist, loose	, oxidation staining, tan-li	ght brown.		
		0.0	` /		fine to coarse sand, ~20% r	on-plastic fines, ~20% fine to o	coarse gravel, rounded to
			angular up to 3", moi	st, loose, tan-light brown.			
		0.0			fine to coarse sand, ~20% r	on-plastic fines, ~20% fine to o	coarse gravel, rounded to angu
			up to 1", moist, loose	, tan-light brown.			
	GPEC-TP552	0.0					
_	(7.5-8)		Groundwater encoun	tered at 8' bgs.			
		0.0			Bottom of Test Pit at ~8.0 f	eet.	
4.0							
10							
			Photograph 1: Compl	eted test pit looking east.	р	hotograph 2: Completed test pi	t looking west
,			Photograph 1: Compi	eted test pit looking east.	1	notograph 2. Completed test pr	HOOKING WEST.
-			*			J. M.	
			3/4			A X X	
			Sim at the	The state of the s		No. of the state o	
							ALCOHOL:
							1200
					Contract of the second	建筑设置	1/2
			19 N	新大型 (A)	The same of		Charles The Control of the Control o
-						L	DRAFT
NOTES	<u>.</u>		<u> </u>				
		cation of	Former MGP feature (former tar po	nd).		LENGTH	14 ft.
	New York State			iiu).			
			12110 00.			WIDTH	5 ft.
bgs - be	elow ground surf	ace.			GFI	DEPTH	8 ft.
					ULI Consultants		

			TEST PIT LOG	TEST PIT NUMBER
PROJE	CT		Greenpoint Energy Center Phase 3 RI	GPEC-TP553
LOCAT			287 Maspeth Ave, Brooklyn, NY 11211	1 OF 1
CLIEN			National Grid	PROJECT NO. 125180-3-1302
EQUIP			Vac Truck (Guzzler CL) and Backhoe (CAT 430)	ELEVATION 16.54
WEATI			Partly Cloudy, 37F, W 10-15 mph.	LOCATION NORTHING 688692.99
	RACTOR		O'Leary Construction OPERATOR Fergal Troy	
	RVED BY			0/2017 DATE STARTED 11/20/2017 DATE FINISHED 11/20/2017
CHECK	KED BY		George Holmes DATE 2/1/2018	DATE FINISHED11/20/2017
Depth				
Below	Sample Depth,	PID		
Ground	No., and Type	(ppm)	Soil Description a	and Remarks
Surface	ivo., and Type	(ppiii)		
(ft)				
		0.0	•	astic fines, ~10% fine to coarse gravel, rounded to angular up to 3", cobbles
			· · · · · · · · · · · · · · · · · · ·	aining, slight naphthalene-like odor, moderate petroleum-like odor, moist,
Ī	GPEC-TP553	46.1	tight, brown. FILL	
	(1-2)		(1.5-3') SANDY SILT (MLS); ~60% non-plastic to low plasticity fines	s, ~30% fine to medium sand, ~10% fine to coarse gravel, rounded to
r	(- - /	1.6	angular up to 3", cobbles up to 7", gray staining, slight petrolet	_
i I		1.0	5 1 , F , 8 9 6,	
⊢ I		0.4	(2.4b) WIDELV CDADED CAND WITH OUT (CW CM). 700/ E	te to coarse sand, ~15% non-plastic fines, 15% fine to coarse gravel, rounded
i		0.4	(3-4) WIDELY GRADED SAND WITH SILT (SW-SM); ~70% fine to angular up to 3", cobbles up to 5", oxidation staining, moist,	
⊢				-
i I		0.0		e to coarse sand, ~15% non-plastic fines, 15% fine to coarse gravel,
5			rounded to angular up to 3", cobbles up to 5", moist, moderate	ely tight, tan.
		6.1	(5-7') WIDELY GRADED SAND WITH SILT (SW-SM); ~70% fine	e to coarse sand, ~15% non-plastic fines, 15% fine to coarse gravel, rounded
i I			to angular up to 3", cobbles up to 5", gray staining, slight petro	bleum-like odor, moist, moderately tight, tan.
r I		10.2		• •
i		10.2	Commitment of the Albert	
⊢ l			Groundwater encountered at 7' bgs.	
i I		8.8	Bottom of Test	Pit at ~7.0 feet.
L				
i I				
i I				
Г				
10				
10				
i			Distance 1. Completed test with a big a sect	Photograph 2: Completed test nit leaking west
⊢ I			Photograph 1: Completed test pit looking east.	Photograph 2: Completed test pit looking west.
i				
L				- Carried Carried
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F			The state of the s	
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L I			The second secon	
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i I				DDAET
				DRAFT
NOTES	S:			
NOTES		ation of	former MGP feature (former tar pond).	LENGTH 10 ft.
	to determine loc			
Test pit	New York State		AVD 88.	WIDTH 5 ft
Test pit Datum:	New York State	Plane N	AVD 88.	WIDTH 5 ft.
Test pit Datum:		Plane N	AVD 88.	WIDTH 5 ft. 7 ft.

			TEST PIT LOG	TEST PIT NUMBER
PROJE	СТ		Greenpoint Energy Center Phase 3 RI	GPEC-TP554
LOCA	ΓΙΟΝ		287 Maspeth Ave, Brooklyn, NY 11211	1 OF 1
CLIEN	Т		National Grid	PROJECT NO. 125180-3-1302
EQUIP	MENT		Vac Truck (Guzzler CL) and Backhoe (CAT 430)	ELEVATION 16.45
WEAT	HER		Cloudy, Rain, 55F, W 10-15 mph. Clear, 48F, NW 10-15 mph.	LOCATION NORTHING 688680.81
CONTI	RACTOR		O'Leary Construction OPERATOR Fergal Troy	LOCATION EASTING 649937.83
	RVED BY			1/17/2017 DATE STARTED 11/16/2017
CHECH	KED BY		George Holmes DATE 2/1/2018	DATE FINISHED 11/17/2017
Depth				<u> </u>
Below				
Ground	Sample Depth,	PID	Soil Description a	and Remarks
Surface	No., and Type	(ppm)	5511 Bescription	10110110
(ft)				
(11)		0.0	(0-1') SILTY SAND (SM); ~60% fine to coarse sand, ~30% non-pla	stic fines, ~10% fine to coarse gravel, rounded to angular up to 3", cobbles
		0.0	up to 9", moist, tight, dark brown to brown. FILL.	suc times, ~10% time to coarse graver, founded to angular up to 3, coobies
		0.0		stic fines, ~10% fine to coarse gravel, rounded to angular up to 3", cobbles
L			up to 9", 3-5" layer of slightly plible solidified NAPL dipping to tight, dark brown to brown. FILL.	o the north to 4' bgs, gray-dark gray staining, petroleum-like odor, moist,
	GPEC-TP554	12.2	tight, tark brown to brown. I iEE.	
L	(2-3)			
		99.4		
		0.6	(4-10') SILTY SAND (SM); ~75% fine to coarse sand, ~20% non-pl	astic fines, ~5% fine to coarse gravel, rounded to angular up to 3", cobbles
5			up to 12" moist, tight, brown. FILL	
		0.0		
 		0.0		
		0.0		
⊩		0.0		
		0.0		
⊩				
		0.0		
⊩				
		0.0		
10				
		0.0	Bottom of Test	Pit at ~10.0 feet.
L			Photograph 1: Completed test pit looking east.	Photograph 2: Completed test pit looking west.
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I				
			A STATE OF THE STA	
⊩				
⊩				
⊩			New semanting	
-				DRAFT
NOTES	S:		<u> </u>	
		ation of	f former MGP feature (former tar pond).	LENGTH 10 ft.
	New York State		• •	
			MIT D 00.	(<u>(</u>)
bgs - be	elow ground surf	ace.	G	DEPTH 10 ft.
			Ü	L Consultants

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			TEST PIT LOG		TEST PIT NU	JMBER
PROJE	CT		Greenpoint Energy Center Phase 3 RI		GPEC-T	
LOCAT			287 Maspeth Ave, Brooklyn, NY 11211			OF 1
CLIEN'			National Grid		PROJECT NO.	125180-3-1302
EQUIP	MENT		Vac Truck (Guzzler CL) and Backhoe (CAT 430)		ELEVATION	47.33
WEAT	HER		Cloudy, 82F		LOCATION NORTHING	688531.93
	RACTOR		O'Leary Construction OPERATOR	John O'Leary	LOCATION EASTING	649323.32
	VED BY		Rich Crockett DATE	8/22/17, 8/23/17	DATE STARTED	8/22/2017
CHECK	ED BY		George Holmes DATE	2/1/2018	DATE FINISHED	8/23/2017
Depth Below Ground Surface (ft)	Sample Depth, No., and Type	PID (ppm)	(0-5') SILTY SAND (SM); ~70% fine to coarse sar		astic fines, ~10% fine to coarse ro	
_		0.0	3", contains fragments of brick, tile and conc increasing from 1-5' thick south to north, burn northern edge of test pit.			
		0.0				
_	GPEC-TP556 (3-4)	0.0				
5		0.1	(5-10') WIDELY GRADED SAND WITH SILT (SW	7-SM); ~80% fine to coarse s	and, mostly fine, ~15% non-plast	ic fines, ~5% fine to coarse
_		0.0	rounded-subangular gravel up to 3" moist, cor enclosure wall. Base of concrete foundation v	ntains cobbles and boulders, r	-	
_		0.0				
-		0.0				
10		0.0		Bottom of Test Pit at ~10.0	Front	
_		0.0	Photograph 1: Completed test pit looking wes		Photograph 2: Base of foundation	on wall.
- - -						RAFT
Datum:		Plane N	former MGP structures (former motor fuel storage tank #1) NAVD 88.	GEI CONSULTANIS	LENGTH WIDTH DEPTH	10 ft. 5 ft. 10 ft.

PROJE			TEST PIT	LOG		TEST PIT	NUMBER
LIVOIE	СТ		Greenpoint Energy Center Phas	se 3 RI		GPEC-	-TP559
LOCAT	ΓΙΟΝ		287 Maspeth Ave, Brooklyn, N	Y 11211		1	OF 1
CLIEN'	T		National Grid			PROJECT NO.	125180-3-1302
EQUIP			Vac Truck (Guzzler CL) and Ba	ackhoe (CAT 430)		ELEVATION	49.29
WEAT			Clear, 82F	OPERATOR	T.1. OF	LOCATION NORTHING	688621.76
	RACTOR RVED BY		O'Leary Construction Rich Crockett	OPERATOR DATE	John O'Leary 8/21/2017	LOCATION EASTING DATE STARTED	649293.53 8/21/2017
	KED BY		George Holmes	DATE	2/1/2018	DATE STARTED DATE FINISHED	8/21/2017
Depth							
Below	Sample Depth,	PID					
Ground	No., and Type	(ppm)		So	oil Description and Remarks		
Surface	J1	41 /					
(ft)							
		1.2				stic fines, ~5% fine to coarse r	
ļ			_	-		and boulders, gray staining, d	ark brown- brown, moist, FIL
		1.1	Encountered top of	of concrete foundation wall 1.	5 bgs on south edge of test j	oit.	
		9.8	(- /			stic fines, ~5% fine to coarse r	
				ments of brick, up to boulder	sized concrete, steel, clinker	s, cobbles and boulders, gray so	taining, dark brown- brown,
		7.7	moist, FILL.				
			(3-7') SILTY SAND (SI	M); ~65% fine to coarse sand	l, mostly fine, ~30% non-pla	stic fines, ~5% fine to coarse r	ounded-subangular gravel up
		0.6	_	-	sized concrete, steel, clinker	s, cobbles and boulders, stained	d, burnt odor, reddish brown-
5			brown, moist, FIL	L.			
		2.1					
	GPEC-TP559	11.9					
ļ	(6-7)						
		0.2	(7-8') SILTY SAND (SI	M); ~65% fine to coarse sand	l, mostly fine, ~30% non-pla	stic fines, ~5% fine to coarse r	ounded-subangular gravel up
			3", contains fragr	ments of brick, up to boulder	sized concrete, steel, clinker	s, cobbles and boulders, black	staining, burnt odor, reddish
			brown- brown, m	ioist, FILL. Concrete slab obse	erved at 7' bgs extending 4' of	ff foundation wall.	
-		0.0					
•		0.0					
		0.0	(8-10') SILTY SAND (SI	M); ~60% fine to medium sar	nd, mostly fine, ~30% non-p	plastic fines, ~10% fine to coars	se rounded-subangular gravel
10			(0 10)	M); ~60% fine to medium sar bbles, reddish brown- brown,		plastic fines, ~10% fine to coars	se rounded-subangular gravel
10			(0 10)	bbles, reddish brown- brown,			se rounded-subangular gravel
10		0.0	to 3", contains col	bbles, reddish brown- brown,	moist. Bottom of Test Pit at ~10.0 t		
		0.0	to 3", contains col	bbles, reddish brown- brown,	moist. Bottom of Test Pit at ~10.0 t	Seet.	
10		0.0	to 3", contains col	bbles, reddish brown- brown,	moist. Bottom of Test Pit at ~10.0 t	Seet.	
10		0.0	to 3", contains col	bbles, reddish brown- brown,	moist. Bottom of Test Pit at ~10.0 t	Seet.	
10		0.0	to 3", contains col	bbles, reddish brown- brown,	moist. Bottom of Test Pit at ~10.0 t	Seet.	
10		0.0	to 3", contains col	bbles, reddish brown- brown,	moist. Bottom of Test Pit at ~10.0 t	Seet.	
10		0.0	to 3", contains col	bbles, reddish brown- brown,	moist. Bottom of Test Pit at ~10.0 t	Seet.	
10		0.0	to 3", contains col	bbles, reddish brown- brown,	moist. Bottom of Test Pit at ~10.0 t	Seet.	
10		0.0	to 3", contains col	bbles, reddish brown- brown,	moist. Bottom of Test Pit at ~10.0 t	Seet.	
10		0.0	to 3", contains col	bbles, reddish brown- brown,	moist. Bottom of Test Pit at ~10.0 t	Seet.	
10		0.0	to 3", contains col	bbles, reddish brown- brown,	moist. Bottom of Test Pit at ~10.0 t	Photograph 2: Base of found	ation wall.
10		0.0	to 3", contains col	bbles, reddish brown- brown,	moist. Bottom of Test Pit at ~10.0 t	Photograph 2: Base of found	
10	S:	0.0	to 3", contains col	bbles, reddish brown- brown,	moist. Bottom of Test Pit at ~10.0 t	Photograph 2: Base of found	ation wall.
NOTES		0.0	to 3", contains col	bbles, reddish brown- brown, pmpleted test pit lookiung west	moist. Bottom of Test Pit at ~10.0 t	Photograph 2: Base of found	ation wall.
NOTES: Pit		0.0 0.0	to 3", contains col Photograph 1: Co	bbles, reddish brown- brown, pmpleted test pit lookiung west	moist. Bottom of Test Pit at ~10.0 t	reet. Photograph 2: Base of found.	ation wall. ORAFT 10 ft.
NOTES Test pit Datum:	to determine loc	0.0 0.0	to 3", contains col Photograph 1: Co	bbles, reddish brown- brown, pmpleted test pit lookiung west	moist. Bottom of Test Pit at ~10.0 t	Feet. Photograph 2: Base of found.	ation wall. DRAFT

			TEST PIT L	OG		TEST PIT	NUMBER
PROJE	CT		Greenpoint Energy Center Phase			GPEC-	
LOCAT			287 Maspeth Ave, Brooklyn, NY			1	OF 1
CLIEN'			National Grid	11211		PROJECT NO.	125180-3-1302
EQUIP.			Vac Truck (Guzzler CL) and Back	khoe (CAT 430)		ELEVATION	49.97
WEAT			Cloudy, Rain, 80F	KHOC (C/11 +30)		LOCATION NORTHING	688716.02
	RACTOR		O'Leary Construction	OPERATOR	John O'Leary	LOCATION EASTING	649286.83
	VED BY		Rich Crockett	DATE	8/18/2017, 8/21/2017	DATE STARTED	8/18/2017
CHECK	KED BY		George Holmes	DATE	2/1/2018	DATE FINISHED	8/21/2017
Depth							
Below							
Ground	Sample Depth,	PID		So	il Description and Remark	S	
Surface	No., and Type	(ppm)					
(ft)							
()		0.0	(0-5') WIDELY GRADEI	CAND WITH SILT (SW 9	SM) - 20% fine to coarse	sand, mostly fine, ~10% fine to	coarea roundad cubangular
		0.0	` '			•	ish-green staining, dark brown-
_				•	-		-
		0.1		•	•	endge of test pit. Encountered	* *
			east-west going into	foundation wall 5 bgs, and	an 8 diameter steel pipe o	oriented north-south abutting for	indation waii 3 bgs.
_		0.2					
		J.2					
-		0.1					
		0.1					
_							
	GPEC-TP560	0.1	(4-5') WIDELY GRADEI	O SAND WITH SILT (SW-S	SM); ~80% fine to coarse s	sand, mostly fine, ~10% fine to	coarse rounded-subangular
5	(4-5)		gravel up to 3", ~10	% non-plastic fines, contain	s fragments of brick and co	oncrete, steel, dark gray and blu	ish-green staining, burnt odor,
	, ,	0.0	dark brown- brown,	, moist, , FILL			
		0.0	(5-10') SILTY SAND (SM)). 60% fine to medium cor	d mostly fine 25% non-	plastic fines 50% fine to coorse	e rounded-subangular gravel up
_				brown. Concrete slab obser		plastic filles, ~5% fille to coarse	rounded-subangular graver up
		0.0	to 3 moist, reduisii	blowii. Concrete siab obser	ved 5 bgs.		
		0.0					
-		0.0					
		0.0					
_							
		0.0					
10							
		0.0		F	Bottom of Test Pit at ~10.0	feet.	
_			Photograph 1: Blue-	green material encounntered	d.	Photograph 2: Foundation wa	all.
					20 Z. P. Z.	STATE OF THE PARTY	
_				Commence of the Commence of th		The state of the s	177
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			4	100000			
 				A CONTRACTOR OF THE PARTY OF TH			
						<i>r</i>	DAFT
-						L	DRAFT
NOTES	<u> </u>		<u> </u>				
		nation of	f former MGP structures (former re	eidual dietillata etoroga torl	1	LENGTH	10 ft.
•			· · · · · · · · · · · · · · · · · · ·	esiduai distiliate storage tank	.).		
Datum:	New York State	Plane l	NAVD 88.			WIDTH	5 ft.
bgs - be	low ground surf	ace.				DEPTH	10 ft.
	5				GEL		10 16
l							

			TEST PIT LOG			TEST PIT N	UMBER
PROJE	CT		Greenpoint Energy Center Phase 3 RI			GPEC-T	P561
LOCAT	TION		287 Maspeth Ave, Brooklyn, NY 11211		_		OF 1
CLIEN'	Γ		National Grid			PROJECT NO.	125180-3-1302
EQUIP:	MENT		Vac Truck (Guzzler CL) and Backhoe (CA	T 430)		ELEVATION	50.09
WEAT	HER		Clear, 81F			LOCATION NORTHING	688726.84
	RACTOR		O'Leary Construction	OPERATOR	John O'Leary	LOCATION EASTING	649239.97
	VED BY		Rich Crockett	DATE	8/17/2017, 8/18/2017	DATE STARTED	8/17/2017
CHECK	ED BY		George Holmes	DATE	2/1/2018	DATE FINISHED	8/18/2017
Depth							
Below	Commis Donath	PID					
Ground	Sample Depth, No., and Type				Soil Description and Remarks		
Surface	No., and Type	(ppm)					
(ft)							
		0.0			, mostly fine, ~30% non-plastic fin		
				•	concrete, steel, cobbles, boulders,	clinkers, fargmented solidified N	NAPL, dark brown- brown,
	GPEC-TP561	1.2	moist, FILL. Encountered to	of concrete found	dation wall 0.5' bgs.		
	(1-2)						
lh	()	0.6	(1-3') SILTY SAND (SM); ~65%	ine to coarse sand	, mostly fine, ~30% non-plastic fin	nes. ~5% fine to coarse rounded	-subangular gravel up to 3".
		0.0			concrete, steel, cobbles, boulders,		
 -		0.7	dark brown- brown, moist, FI	-	, , , , , , , , , , , , , , , , , , , ,		,
		0.7					
_					, mostly fine, ~30% non-plastic fin		
		1.1	=	-	concrete, steel, cobbles, boulders,	clinkers, fargmented solidified N	NAPL, gray staining, burnt
5			odor, dark brown- brown, mo	ist, FILL			
		0.6	(5-8') SILTY SAND (SM); ~65%	ine to medium sar	nd, mostly fine, ~30% non-plastic	fines, ~5% fine to coarse rounde	d-subangular gravel up to 3",
			moist, reddish brown. Concre	te slab observed 5	bgs extending 3' off of foundation	n wall.	
		0.0					
 -		0.1					
		0.1					
l- I							
		0.0	(0.10)		ine to coarse sand, ~20% non-plas	stic fines, ~20% fine to course ro	ounded-subangular gravel up to
L			3", contains cobbles and boul	ders, brown.			
		0.0					
10							
		0.0			Bottom of Test Pit at ~10.0 feet		
			Photograph 1: Bluish-green st	aining.		Photograph 2: Base of foundati	ion wall.
I				Ü			
					M-08a		
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			4				
IL I			CALL AND				
			の記録が表			-50	
IL I			1 3 miles 40	An I had			
				Part of Salar		A CP A	
				We do had			
					The state of the s	074	
							NDAET
							PRAFI
NOTES	S:						
Test pit	to determine loc	ation of	former MGP structures (former residual dis	tillate storage tank	x).	LENGTH	10 ft.
Datum:	New York State	Plane N	NAVD 88.	-		WIDTH	5 ft.
						 	_
ogs - be	low ground surf	ace.			GFI 🐸	DEPTH	10 ft.
					ULI Consultants		•

LOCATION 287 Maspeth Ave, Brooklyn, NY 11211 1 PROJECT NO. EQUIPMENT Vac Truck (Guzzler CL) and Backhoe (CAT 430) ELEVATION LOCATION NORTH CONTRACTOR OLeary Construction OPERATOR Fergal Troy DATE STARTED DATE 10/2/2017 DATE STARTED DATE FINISHED Depth Below Ground Surface (ft) Sample Depth, No., and Type (ppm)	GPEC-TP562		
CLIENT National Grid PROJECT NO.	GPEC-TP562		
EQUIPMENT WEATHER CONTRACTOR OBSERVED BY CHECKED BY Depth Below Ground Surface (ft) Vac Truck (Guzzler CL) and Backhoe (CAT 430) Cloudy, 73F/Partly Cloudy, 74F OLeary Construction OPERATOR OPERATOR OPERATOR Fergal Troy 977/2017 DATE STARTED DATE 10/2/2017 DATE FINISHED Soil Description and Remarks	OF 1		
WEATHER CONTRACTOR OBSERVED BY CHECKED BY Depth Below Ground Surface (ft) Cloudy, 73F/Partly Cloudy, 74F OLeary Construction OPERATOR OPERATOR OPERATOR OPERATOR Fergal Troy 977/2017 DATE STARTED DATE STARTED DATE FINISHED COCATION NORTH LOCATION NORTH LOCAT	125180-3-1302		
CONTRACTOR OBSERVED BY CHECKED BY Sample Depth, Below Ground Surface (ft) OCLeary Construction ODERATOR ODATE	48.41		
OBSERVED BY CHECKED BY Rich Crockett/George Holmes DATE 9/7/2017 DATE STARTED DATE 10/2/2017 DATE FINISHED DATE STARTED DATE START			
CHECKED BY George Holmes DATE DATE 10/2/2017 DATE FINISHED DATE FINISHED Sample Depth, No., and Type (ppm) Soil Description and Remarks			
Depth Below Ground Surface (ft) Sample Depth, No., and Type (ppm) Soil Description and Remarks	9/7/2017 9/8/2017		
Below Ground Surface (ft) Sample Depth, No., and Type (ppm) Soil Description and Remarks	9/0/2017		
GPEC-TP562 0.0 (0-1.5') SILTY SAND (SM); ~70% fine to coarse sand, ~20% non-plastic fines, ~10% fine to coarse ang			
(0-1) cobbles, fragments and pieces of red brick, concrete fragments, porcelain fragments, pieces of sturthin pieces of solid NAPL (similar to tar applied to LNG tank containment berms) just below the sarea, dark brown, moist, FILL. Concrete foundation wall encountered just below surface along no	surface, some black staining in NAPL		
0.0 (1.5-7') SILTY SAND (SM); ~70% fine to coarse sand, ~20% non-plastic fines, ~10% fine to coarse ang cobbles/boulders, red brick and concrete fragments, brown-reddish brown, moist, FILL. Two stee			
encountered 3' bgs, and a 10"-diameter steel pipe oriented northeast-southwest was encountered 4 was encountered at 5.5' bgs			
5			
0.0			
0.0			
0.0 (7-10') WIDELY GRADED SAND WITH SILT (SW-SM); ~80% fine to coarse sand, ~10% fine to coarse 2.5", ~10% non-plastic fines, contains cobbles/boulders, brown, moist.	se subangular to subrounded gravel up to		
0.0			
10 0.0			
0.0 Bottom of Test Pit at ~10.0 feet.			
Photograph 1: Completed test pit looking northwest. Photograph 2: 0	Completed test pit looking northeast.		
MOTES	DRAFT		
NOTES:	10.0		
Test pit to determine location of former MGP structures (former crude solvent storage tank).	10 ft.		
Datum: New York State Plane NAVD 88.	5 ft.		
bgs - below ground surface. GEI Consultants DEPTH	10 ft.		

			TEST PIT LOG		TEST PIT N	UMBER
PROJE	СТ		Greenpoint Energy Center Phase 3 RI		GPEC-T	TP563
LOCAT			287 Maspeth Ave, Brooklyn, NY 11211		1	OF 1
CLIEN			National Grid		PROJECT NO.	125180-3-1302
EQUIP			Vac Truck (Guzzler CL) and Backhoe (CAT 430)	ELEVATION	42.56	
WEAT			Clear 77F	LOCATION NORTHING	688946.51	
	RACTOR		O'Leary Construction OPERATOR Fergal Troy		LOCATION EASTING	649662.78
OBSER	RVED BY		Rich Crockett DATE	9/12/2017, 9/13.2017	DATE STARTED	9/12/2017
CHECH	KED BY		George Holmes DATE	2/1/2018	DATE FINISHED	9/13/2017
Depth						
Below	Sample Depth,	PID				
Ground	No., and Type			Soil Description and Remark	rks	
Surface	No., and Type	(ppm)				
(ft)						
		0.0	(0-7') WIDELY GRADED SAND WITH SILT (SW-SM): ~75% fine to coarse	e sand, mostly fine, ~15% non-plas	stic fines. ~10% fine to coarse
		0.0	rounded-subangular gravel up to 3", contai			·
F		0.0	debris, cobbles and boulders, moist, dark b			T/ F
		0.0		,		
L						
	GPEC-TP563	0.9				
L	(2-3)					
Γ		2.1				
		0.0				
5		0.0				
		0.0				
		0.0				
_						
		0.0				
			Refusal due to densely packed demolition	lebris at 7 ft. below ground su	rface. (bgs)	
		0.0		Bottom of Test Pit at ~7.0) feet.	
_						
10						
10						
_			Photograph 1: Completed test pit looking e	ast.	Photograph 2: Completed test pit le	ooking south.
			The state of the s	V-10-		
			The state of the s			
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_					A STATE OF THE STA	
						N. Carlotte
L			The state of the s			
			The state of the s		The state of the s	STATE OF THE STATE
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L						PRAFT
						/
NOTES	S:					
Test pit	to further invest	igate im	pacts noted in nearby test pits (former second propane sto	orage farm).	LENGTH	10 ft.
	New York State	-				
			MAYD 00.		WIDTH	5 ft.
bgs - be	elow ground surf	ace		CEI	DEPTH	7 ft.
				UEI Consulta	nts	

			TEST PIT LO	G		TEST PIT	NUMBER
PROJE	СТ		Greenpoint Energy Center Phase 3 R	I.		GPEC	-TP564
LOCAT	ΓΙΟΝ		287 Maspeth Ave, Brooklyn, NY 11			1	OF 1
CLIEN'	T		National Grid			PROJECT NO.	125180-3-1302
EQUIP			Vac Truck (Guzzler CL) and Backho	e (CAT 430)		ELEVATION	50.70
WEATI			Clear, 86F			LOCATION NORTHING	688840.23
	RACTOR		O'Leary Construction	OPERATOR	John O'Leary	LOCATION EASTING	649236.44
	RVED BY KED BY		Rich Crockett George Holmes	DATE DATE	8/16/2017 2/1/2018	DATE STARTED DATE FINISHED	8/16/2017 8/16/2017
CILCI	KLD D I		George Honnes	2.112.010			0/10/2017
Depth							
Below	0 1 5 4	DID					
Ground	Sample Depth,	PID		Sc	oil Description and Remarks		
Surface	No., and Type	(ppm)					
(ft)							
		0.0	(0-3') SILTY SAND (SM); ~	60% fine to coarse sand	, mostly fine, ~30% non-pla	stic fines, ~10% fine to coarse	rounded-subangular gravel up t
			3", contains fragments	of brick and concrete, co	obbles, boulders, grayish bro	wn- brown, moist, FILL. Enc	ountered top of concrete
-		0.1	foundation wall 0.5' bg	S.			
		0.1					
-		0.0					
		0.0					
_				500/ E	1.6 200/ 1		
		0.0					e rounded-subangular gravel up t
_				of brick and concrete, co	obbles, boulders, fragmented	solidified NAPL, naphthalene	e-like odor, reddish brown-
		10.7	brown, moist, FILL.				
5							
	GPEC-TP564	140.9	(5-7') SILTY SAND (SM); ~	60% fine to coarse sand	, mostly fine, ~30% non-pla	stic fines, ~10% fine to coarse	rounded-subangular gravel up
	(5-6)		3", contains fragments	of brick and concrete, co	bbles, boulders, fragmented	solidified NAPL, gray staining	ig, petroleum-like odor, reddish
-	(= = /	47.9	brown-brown, moist, F	TLL. Base of foundation	wall observed at 5' bgs.		
		17.5					
_		26.2	(7.10) SILTY SAND (SM):	70% fine to coarse sand	25% non plactic fines5	% fine to coarse rounded-sub	angular gravel up to 1"
		20.2			ng, petroleum-like odor, redo		angular graver up to 1,
L			contains coopies and b	oulders, light gray stainin	ig, petroleum-nike odor, rede	nish brown-brown, moist.	
		14.7					
_							
		9.9					
10							
_		6.7			Bottom of Test Pit at ~10.0 f	eet.	
			Photograph 1: Excavat	ion looking east.		Photograph 2: Base of found	lation wall.
				No. of the second		THE WAR THE STATE OF THE STATE	
_				THE RESERVE OF THE PARTY.		The second second	
							60
						The same of the sa	
_				10000000000000000000000000000000000000		- Marine of the second	
_			The second second				
			Park State				
-						r	
						L	DRAFT
NOTES	S:		<u> </u>			1	
		ation of	former MGP structures (former moto	or fuel storage tank #2)		LENGTH	10 ft.
•	New York State		,	n ruei storage talik π2).			
			NA V D 00.			WIDTH	5 ft.
bgs - be	elow ground surf	ace.			GEI 🥮	DEPTH	10 ft.
-					GEI Consultants		

			TEST PIT LOG		TEST PIT NUI	MBER
PROJE	СТ		Greenpoint Energy Center Phase 3 RI		GPEC-TP	2565
LOCA			287 Maspeth Ave, Brooklyn, NY 11211		1 0	
CLIEN			National Grid	PRO.	JECT NO.	125180-3-1302
EQUIP	MENT		Vac Truck (Guzzler CL) and Backhoe (CAT 430)	ELEV	VATION	47.45
WEAT	HER		Clear 77F	LOC	ATION NORTHING	688924.87
	RACTOR		O'Leary Construction OPERATOR Ferga		ATION EASTING	649395.94
	RVED BY		Rich Crockett DATE 9/11/		E STARTED	9/11/2017
CHECI	KED BY		George Holmes DATE 2/1/2	DAT	E FINISHED	9/11/2017
Depth				<u> </u>		
Below						
Ground	Sample Depth,	PID	Soil Descr	ption and Remarks		
Surface	No., and Type	(ppm)		-		
(ft)						
		0.0	(0-1') SILTY SAND (SM); ~70% fine to coarse sand, mostly	-		
			3", contains fragmented brick, tile and glass, up to bould		d NAPL fragments, spots of	staining, dark brown-brown,
		0.0	moist, FILL. Top of concrete foundation wall observed	t 0.8' bgs.		
			(1-2') WIDELY GRADED SAND WITH SILT (SW-SM); ~8	% fine to coarse sand, m	ostly fine, ~15% non-plastic	fines, ~5% fine to coarse
l	GPEC-TP565	1.2	rounded-subangular gravel up to 3", contains fragment			
	(2-3)					
⊩	(2 3)	0.7	(2-3') WIDELY GRADED SAND WITH SILT (SW-SM); ~8	0% fine to coarse sand m	ostly fine ~15% non-plastic	fines ~5% fine to coarse
		0.7	rounded-subangular gravel up to 3", contains fragment			· ·
⊩		0.2	dark gray staining, sulfur-like odor, moist, brown, FILL		ores una sourcers, emmers,	sonamea i ii ii 2 magments,
		0.2				
5			(3-10') SILTY SAND (SM); ~60% fine to medium sand, most	•		
		0.0	to 3", contains cobbles and boulders, moist, reddish bro	wn-brown. Base of found	lation wall observed at 6 ft.	bgs.
Г		0.0				
I		0.0				
I -		0.0				
		0.0				
⊩		0.0				
1		0.0				
10						
		0.0		f Test Pit at ~10.0 feet.		
L			Photograph 1: Completed test pit looking west.	Photogra	ph 2: Completed test pit loo	king south.
L					A CONTRACTOR OF THE PARTY OF TH	
			The state of the s		Base	
						24
					No.	
I						W 19/47
⊩				TO THE WAY	STATE AND STATE	100 A
						$D \wedge CT$
F					D.	RAFT
NOTES	S:					
Test pit	to determine loc	cation of	f former MGP structures (former crude solvent storage tank).	LEN	GTH	10 ft.
11 *	New York State		,	WID	_	5 ft.
				$((\bigcirc))$	-	
bgs - be	elow ground surf	ace.		GFI DEP	TH	10 ft.
				Consultants		

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			TEST PIT LOG	1		TEST PIT	NUMBER
PROJE	CT		Greenpoint Energy Center Phase 3 RI			GPEC	-TP566
LOCA			287 Maspeth Ave, Brooklyn, NY 112			1	OF 1
CLIEN	Т		National Grid			PROJECT NO.	125180-3-1302
EQUIP			Vac Truck (Guzzler CL) and Backhoe	(CAT 430)	-	ELEVATION	51.15
WEAT			Cloudy, 79F	OPER LEOR	- I.m	LOCATION NORTHING	688897.05
II	RACTOR RVED BY		O'Leary Construction Rich Crockett	OPERATOR DATE	Fergal Troy 9/20/2017, 9/21/2017	LOCATION EASTING DATE STARTED	649138.96 9/20/2017
II	KED BY		George Holmes	DATE	2/1/2018	DATE STARTED DATE FINISHED	9/21/2017
Depth							
Below	Sample Depth,	PID					
Ground	No., and Type	(ppm)		Sc	oil Description and Remarks		
Surface	J.	41 /					
(ft)							
		0.0				stic fines, ~5% fine to coarse	
L			-	-		l, and cobbles, moist, dark bro	own-brown, FILL.
		0.0	Encountered top of conc	rete foundation wan 1	o ogs.		
L							astic fines, ~5% fine to coarse
	GPEC-TP566	0.0	rounded-subangular gra	vel up to 3", contains co	obbles, boulders, fragmented	I solidified NAPL, moist, redd	ish brown-brown.
L	(2-3)						
		0.0					
		0.0					
5							
		0.0	(5-10') WIDELY GRADED SA	ND WITH SILT (SW-	SM); ~80% fine to coarse sa	and, mostly fine, ~15% non-pl	astic fines, ~5% fine to coarse
			rounded-subangular gra	vel up to 3", contains co	bbles, boulders, moist, redd	ish brown-brown. Base of for	andation wall observed 5 ft. bgs.
┢		0.0					
F		0.0					
-		0.0					
		0.0					
-		0.0					
10		0.0					
- 10		0.0		I	Bottom of Test Pit at ~10.0 f	eet	
			Photograph 1: Complete			otograph 2: Completed test pi	t looking south.
-				F 8			
_						The same of the sa	
					Bas	e N	
┝				1000			Salar Salar
⊢							The same of the sa
F					E THE STATE OF THE	- TO THE TO SERVICE OF THE PARTY OF THE PART	
						<i>-</i>	DAFT
_						L	DRAFT
NOTES	S:						
Test pit	to determine loc	cation of	f former MGP structures (former motor	fuel storage tank #2).		LENGTH	10 ft.
Datum:	New York State	Plane N	NAVD 88.			WIDTH	5 ft.
bgs - be	elow ground surf	ace.				DEPTH	10 ft.
	<i>J</i>				GEI		
						<u>I</u> L	

			TEST PIT LOG	TEST PIT NUMBER				
PROJE	CT		Greenpoint Energy Center Phase 3 RI	GPEC-TP518				
LOCA	ΓΙΟΝ		287 Maspeth Ave, Brooklyn, NY 11211	1 OF 1				
CLIEN	T		National Grid	PROJECT NO. 125180-3-1302				
EQUIP	MENT		Vac Truck (Guzzler CL) and Backhoe (CAT 430)	ELEVATION 8.67				
WEAT			Clear, 39F, SW 0-5 mph. Clear, 48F, SW 0-5 mph.	LOCATION NORTHING 688263.83				
	RACTOR		O'Leary Construction OPERATOR Fergal '					
	RVED BY			10-1/11/2018 DATE STARTED 1/10/2018 018 DATE FINISHED 1/11/2018				
CHECI	KED BY		George Holmes DATE 1/29/2018 DATE FINISHED 1/11/2018					
Donath								
Depth Below								
Ground	Sample Depth,	PID	Soil Descr	ription and Remarks				
Surface	No., and Type	(ppm)						
(ft)								
		0.0	(0-2') SILTY SAND WITH GRAVEL (SM); ~50% fine to coar	rse sand, mostly fine ~30% non-plastic silt, ~20% fine to coarse gravel rounded				
				and whole red brick, fragmented concrete and glass, clinkers and spherical				
_		0.0	stones, black staining, moist, tight, dark brown-brown. Fl	ILL. Top of foundation wall encountered at 1.5' bgs.				
		0.0						
⊩		0.0	(2-3') Layer of fragmented coal up to 1", mixed with sand and	silt (similar to above).				
		0.0	(2-5) Edger of fragmented coar up to 1, mixed with said and	sin (similar to above).				
lF	GPEC-TP518	0.0	(3-6') SILTY SAND WITH GRAVEL (SM); ~50% fine to coar	rse sand, mostly fine ~30% non-plastic silt, ~20% fine to coarse gravel				
	(3-4)	0.0		agmented and whole red brick, fragmented concrete and glass, clinkers				
⊩	(3-4)	0.0		staining, moist, tight, dark brown-brown. FILL. Base of foundation wall				
_		0.0	observed at 6' bgs.					
5		0.0						
		0.0	Crown divistor an assumtanced at 4' has					
⊩		0.0	Groundwater encountered at 6' bgs.	Test Pit at ~6.0 feet.				
		0.0	Bottoili of	Test Fit at ~0.0 feet.				
⊩								
⊩								
⊩								
10								
L			Photograph 1: Completed test pit looking south.	Photograph 2: Completed test pit looking west.				
<u> </u>								
IL.			AS TO SERVICE AS					
L								
				DRAFT				
				DIVALI				
NOTES	S:							
Test pit	to determine lo	cation o	f underground utilities.	LENGTH 10 ft.				
Datum:	New York State	Plane 1	NAVD 88.	WIDTH 5 ft.				
bgs - he	elow ground surf	ace.		DEDITH (A)				
-55 60	g. zama sam			GEI Consultants DEPTH - OTC.				

			TEST PIT	LOG		TEST PIT N	NUMBER
PROJE	CT		Greenpoint Energy Center Phase 3			GPEC-	TP519
LOCA			287 Maspeth Ave, Brooklyn, NY 1			1	OF 1
CLIEN			National Grid	1211		PROJECT NO.	125180-3-1302
EQUIP			Vac Truck (Guzzler CL) and Backl	noe (CAT 430)		ELEVATION	14.01
WEAT			Cloudy, Rain, 72F			LOCATION NORTHING	688265.87
CONT	RACTOR		O'Leary Construction	OPERATOR	Fergal Troy	LOCATION EASTING	650419.86
	RVED BY		Rich Crockett DATE 9/6/2017, 9/7/2017			DATE STARTED	9/6/2017
CHECI	KED BY		George Holmes	DATE	1/29/2018	DATE FINISHED	9/7/2017
	Ī		T				
Depth							
Below	Sample Depth,	PID			0.15		
Ground	No., and Type	(ppm)			Soil Description and Remarks		
Surface							
(ft)				700/ 5	1 1 5 200/ 1 5 5	100/ 6 / 1	1 1 1 1 2"
		0.0			d, mostly fine, ~20% non-plastic fine coulder size concrete, steel, wood, co		
L			_	ILL. Top of foundation v		obbies and boulders, moist, star	ned, slight petroleum-like odor,
	GPEC-TP519	0.6	dark blown-blown, 11	ILL. Top of foundation w	van observed at 0.7 bgs.		
L	(1-2)						
		0.0			d, mostly fine, ~30% non-plastic fine		
			3", contains fragment	ted and whole bricks, fra	gmented concrete, steel, cobbles and	boulders, moist, brown, FILL.	
		0.0					
			(3-10') SILTY SAND (SM);	~65% fine to coarse san	d, mostly fine, ~30% non-plastic fine	es, ~5% fine to coarse rounded-	-subangular gravel up to
		0.0	3", contains cobbles	and boulders, moist, brow	wn. Base of foundation wall observe	d at 5' bgs.	
5							
		0.0					
F		0.0					
		0.0					
⊩		0.0					
		0.0					
F		0.0					
		0.0					
F		0.0					
		0.0					
10							
		0.0			Bottom of Test Pit at ~10.0 feet.		
L			Photograph 1: Comple	eted test pit looking east.	Photograpi	h 2: Completed test pit looking	south.
L			And the second second second			1 2 7	*
			and the same of			1000	Base
 							
							5
F			- Superior - Ca				
						<i></i>	NDAET
F						L	PRAFT
NOTES	S:	1	<u> </u>				
		e locatio	on of former MGP structures (former	generator house).		LENGTH	14 ft.
	New York State			G			5 ft.
			11112 00.			WIDTH	
bgs - be	elow ground surf	ace.			GFI	DEPTH	10 ft.
					Consultants		

			TEST PIT LOG	TEST PIT NUMBER
PROJE	CT		Greenpoint Energy Center Phase 3 RI	GPEC-TP520
LOCAT	ΓΙΟΝ		287 Maspeth Ave, Brooklyn, NY 11211	1 OF 1
CLIEN'	Т		National Grid	PROJECT NO. 125180-3-1302
EQUIP:	MENT		Vac Truck (Guzzler CL) and Backhoe (CAT 430)	ELEVATION 16.43
WEAT			Cloudy, Snow, 31F, W 5-10 mph. Cloudy, 52F, SW 10-20 mph.	LOCATION NORTHING 688213.10
	RACTOR		O'Leary Construction OPERATOR Fergal '	
	EVED BY			2/15-12-19/2017 DATE STARTED 12/15/2017
CHECK	KED BY		George Holmes DATE 1/31/20	18 DATE FINISHED 12/19/2017
Depth Below Ground	Sample Depth,	PID	Soil Descr	iption and Remarks
Surface (ft)	No., and Type	(ppm)		
		0.0	(0-3') SILTY SAND WITH GRAVEL (SM); ~40% fine to coa	se sand, mostly fine ~40% non-plastic fines, ~20% fine to coarse gravel rounded to
			angular up to 3", cobbles up to 6", contains fragmented to	whole red brick, concrete chunks up to 8", scrap metal, splintered wood, and glass,
_		0.0	oxidation staining, moist, tight, dark brown-brown. FILL.	Encountered foundation wall at 2.5 bgs.
_				
		0.0	(3-4') SILTY SAND WITH GRAVEL (SM); ~40% fine to coa	se sand, mostly fine ~40% non-plastic fines, ~20% fine to coarse gravel rounded to
-	GPEC-TP520	34.7		whole red brick, concrete chunks up to 8", scrap metal, splintered wood, and glass,
	(3-4)		oxidation staining, hardened solidified NAPL fragments, t brown. FILL.	lack staining, moderate to strong petroleum-like odor, moist, tight, dark brown-
-		100.1		se sand, mostly fine ~40% non-plastic fines, ~20% fine to coarse gravel rounded to
5		2.7		whole red brick, concrete chunks up to 8", scrap metal, splintered wood, and glass,
_			oxidation staining, hardened solidified NAPL fragments, §	ray staining, slight petroleum-like odor, moist, tight, dark brown-brown. FILL.
		0.0	(5-6') SILTY SAND (SM); ~80% fine to coarse sand, mostly fi	ne ~20% non-plastic fines, slightly pliable solidified NAPL fragments, gray staining,
-		0.0	slight petroleum-like odor, moist, loose, yellow. FILL.	20% ion passe inies, signity plante solution (VII 2 inagineties, gray staining,
_		10.2	(6-8') SILTY SAND (SM); ~80% fine to coarse sand, mostly fi	ne ~20% non-plastic fines, slight petroleum-like odor, moist, loose, yellow. FILL
		10.2	(8-10') SILTY SAND (SM); ~60% fine to coarse sand, mostly fi	ne ~30% non-plastic fines, ~10% fine to coarse gravel, rounded to angular up to 3",
		13.7	cobbles up to 7", gray staining, moderate petroleum-like of	dor, moist, loose, yellow. FILL.
10		20.9	Pottom o	f Test Pit at ~10.0 feet.
		20.7	Photograph 1: Completed test pit looking east.	Photograph 2: Completed test pit looking west.
- - -				
_				DRAFT
NOTES Test pit		ation of	former MGP structures (former generator house).	LENGTH 9 ft.
	New York State		,	
	elow ground surfa		NA Y D 00.	GEI CONSUITANTS WIDTH 5 ft. 10 ft.

			TEST PIT LOG		TEST PIT	NUMBER	
PROJE	CT		Greenpoint Energy Center Phase 3 RI		GPEC-T	P521	
LOCA	ΓΙΟΝ		287 Maspeth Ave, Brooklyn, NY 11211			OF 1	
CLIEN	T		National Grid		PROJECT NO.	125180-3-1302	
EQUIP	MENT		Vac Truck (Guzzler CL) and Backhoe (CAT 430)		ELEVATION	15.29	
WEAT	HER		Clear, 38F, NW 5-10 mph.		LOCATION NORTHING	688092.73	
	RACTOR		O'Leary Construction OPERATOR Fergal		LOCATION EASTING	650120.73	
	RVED BY		Rich Crockett DATE	12/21/2017	DATE STARTED	12/21/2017	
CHEC	KED BY		George Holmes DATE 1/29/2	2018	DATE FINISHED	12/21/2017	
Depth Below Ground Surface (ft)	Sample Depth, No., and Type	PID (ppm)	Soil Descri	ption and Remarks			
		0.0	(0-1') SILTY SAND WITH GRAVEL (SM); ~50% fine to corrounded to angular up to 3", cobbles up to 6", contains f moist, tight, dark brown-brown. FILL.	-	•	-	
	GPEC-TP521	0.4					
-	(1-2)	0.6	rounded to angular up to 3", cobbles up to 6", contains f	SILTY SAND WITH GRAVEL (SM); ~50% fine to coarse sand, mostly fine ~30% non-plastic fines, ~20% fine to coarse gravel rounded to angular up to 3", cobbles up to 6", contains fragmented to whole red brick, concrete chunks up to 6", scrap metal and glass, dark gray staining, moist, tight, dark brown-brown. FILL.			
_		0.0	(2-3') SILTY SAND (SM); ~50% fine to coarse sand, mostly to angular up to 3", cobbles up to 6", moist, tight, light be		tic to low plasticity fines, ~10%	fine to coarse gravel rounded	
5		0.1	(3-5') NARROWLY GRADED SAND WITH SILT (SW-SM): utility trench backfill.	; ~90% fine to medi	um sand, 10% non-plastic fines	, moist, light tan. Likely	
		0.3	(5-10') SILTY SAND WITH GRAVEL (SM); ~50% fine to corrounded to angular up to 3", cobbles up to 6", contains f	-	•	-	
		0.0	fragmented coal and clinkers, dark gray staining, moist,	tight, dark brown-b	rown. FILL.		
		0.0					
		0.0					
10		0.0					
		0.0	Bottom of	Test Pit at ~10.0 fe	eet.		
_			Photograph 1: Completed test pit looking north.	Pho	otograph 2: Completed test pit l	ooking west.	
- - -							
Nome	3.				D	RAFT	
NOTE:		notic	f forman MCD atmatrings (forman acressed bessel)		LENCTH	10 ft	
II *			f former MGP structures (former generator house).		LENGTH -	10 ft.	
	: New York State		NAVD 88.	GEI Consultants	WIDTH DEPTH -	5 ft. 10 ft.	

			TEST PIT LOG		TEST PI	ΓNUMBER	
PROJE	CT		Greenpoint Energy Center Phase 3 RI		GPEC-	ГР522	
LOCA	ΓΙΟΝ		287 Maspeth Ave, Brooklyn, NY 11211		1	OF 1	
CLIEN	T		National Grid		PROJECT NO.	125180-3-1302	
EQUIP	MENT		Vac Truck (Guzzler CL) and Backhoe (CAT 430)		ELEVATION	16.11	
WEAT			Cloudy, Rain, 52F, S 10-15 mph. Cloudy, 41F, W 10-15 mph.		LOCATION NORTHING	688133.60	
	RACTOR		O'Leary Construction OPERATOR Fergal		LOCATION EASTING	650052.63	
	RVED BY			2/5-12/8/2017	DATE STARTED	12/5/2017	
CHECI	KED BY		George Holmes DATE 1/29/2	<u>leorge Holmes</u> DATE <u>1/29/2018</u> DATE FINISHED <u>12/8/2017</u>			
Depth					'		
Below	Sample Depth,	PID					
Ground	No., and Type	(ppm)	Soil Descrip	tion and Remarks			
Surface	140., and 1 ype	(ррш)					
(ft)							
		0.0	(0-2') SILTY SAND WITH GRAVEL (SM); ~50% fine to coa	rse sand, mostly fi	ne, ~30% non-plastic fines, ~2	0% fine to coarse gravel	
			rounded to angular up to 3", cobbles up to 8", contains fi	-			
		0.0	marble scrap and clinkers up to 8", moist, tight, dark bro	wn to brown. FILL	. Encountered foundation wall	l at 1.5' bgs.	
F		31.9	(2-3') SILTY SAND WITH GRAVEL (SM); ~50% fine to coa	rse sand, mostly fi	ne. ~30% non-plastic fines. ~2	0% fine to coarse gravel	
		31.7	rounded to angular up to 3", cobbles up to 8", contains fi				
H		105.2	marble scrap and clinkers up to 8", black staining, strong	-			
	GPEC-TP522	105.3	NAPL, moist, tight, dark brown to brown. FILL.	, , , , , , , , , , , , , , , , , , , ,	···, · · · · · · · · · · · · · · · · ·	F	
L	(3-4)		-				
		134.8	(3-10') SILTY SAND WITH GRAVEL (SM); ~50% fine to coa	-	-	_	
5			rounded to angular up to 3", cobbles up to 8", contains fi	-			
		10.1	marble scrap and clinkers up to 8", timbers, dark gray sta	aining, strong petro	leum-like odor, moist, tight, d	ark brown to brown. FILL. Base	
			of foundation wall observed at 6' bgs.				
l⊢		56.8					
		30.0					
⊩		10.6					
		12.6					
⊩							
		10.8					
L							
		16.5					
10							
		14.4	Bottom of	Test Pit at ~10.0 fe	eet.		
			Photograph 1: Completed test pit looking north.		otograph 2: Completed test pi	t looking south.	
_							
			STORES OF THE STORES	400		LI Year	
⊩							
				5	All Controls		
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			The state of the s	3		1 11	
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lt				100		The state of the s	
					Γ	NDAET	
					L	PRAFT	
NOTES	S:						
Test pit	to determine lo	cation o	f former MGP structures (former relief holder #1).		LENGTH	10 ft.	
Datum:	New York State	Plane l	NAVD 88.		WIDTH	5 ft.	
hos - ha	elow ground surf	ace					
053 - 00	now ground surr	ucc.		GEI Consultants	DEPTH	10 ft.	
				Consultants			

			TEST PIT LOG	TEST PIT NUMBER
PROJE	СТ		Greenpoint Energy Center Phase 3 RI	GPEC-TP523
LOCAT			287 Maspeth Ave, Brooklyn, NY 11211	1 OF 1
CLIEN			National Grid	PROJECT NO. 125180-3-1302
EQUIP			Vac Truck (Guzzler CL) and Backhoe (CAT 430)	ELEVATION 15.97
WEATI			Clear, 53F, NW 10-15 mph. Cloudy, Rain, 53F, S 10-15 mph.	LOCATION NORTHING 688091.99
	RACTOR		O'Leary Construction OPERATOR Fergal Troy	LOCATION EASTING 649924.21
	VED BY		Rich Crockett DATE 12/1-12/5/2017	DATE STARTED 12/1/2017
CHECK	ED BY		George Holmes DATE 1/31/2018	DATE FINISHED 12/5/2017
<u> </u>				
Depth				
Below	Sample Depth,	PID		
Ground	1 /		Soil Description and Remarks	
Surface	No., and Type	(ppm)		
(ft)				
		0.0	(0-2') SILTY SAND WITH GRAVEL (SM); ~50% fine to coarse sand, mostly fi	ine, ~20% non-plastic fines, ~20% fine to coarse gravel,
			rounded to angular up to 3", cobbles up to 8", contains fragmented to whol	-
-		145	wood, slightly pliable solidified NAPL fragments, moist, tight, dark brown	* * *
		14.5		
 -				
	GPEC-TP523	67.2	(2-4') SILTY SAND WITH GRAVEL (SM); ~50% fine to coarse sand, mostly fi	
L I	(2-3)		rounded to angular up to 3", cobbles up to 8", contains fragmented to whol	* * *
		38.4	wood, slightly pliable solidified NAPL fragments, dark gray-black staining	s, strong petroleum-like odor, moist, tight, dark brown to
			brown. FILL.	
		11.5	(4-6') SILTY SAND (SM); ~70% fine to medium sand, mostly fine ~20% non-p	lastic fines, ~10% fine to coarse gravel, rounded to angular up
5			to 3", cobbles up to 6", conatins fragmented to whole red brick, concrete cl	hunks up to 10", scrap metal, glass, splintered wood and
		5.9	timbers, gray staining, moderate petroleum-like odor, moist, dark brown-br	rown. FILL.
		3.9		
⊩ ∣			70 Vol. 1 (17)	
		0.0	(6-7') Brittle sandy concrete-like material.	
IL I				
		0.0	(7-10') SILTY SAND (SM); ~70% fine to medium sand, mostly fine ~20% non-p	=
			angular up to 3", cobbles up to 6", conatins fragmented to whole red brick,	
		0.4	wood and timbers, black staining, slight petroleum-like odor, moist, dark b	orown-brown. FILL.
		0.8		
10				
		1.2	Bottom of Test Pit at ~10.0 f	inat
		1.2		notograph 2: Completed test pit looking west.
 -			Photograph 1: Completed test pit looking east. Pl	lotograph 2. Completed test pit looking west.
IL ∣				A STATE OF THE STA
			The second secon	
				AND THE RESIDENCE OF THE PARTY
⊩ ∣				
⊩				
-				DRAFT
NOTES	b:			
Test pit	to determine lo	cation o	f former MGP structures (former relief holder #1).	LENGTH 10 ft.
1	New York State		·	
			(A117 D 00.	WIDTH 5 ft.
bgs - be	low ground surf	ace.	GEL	DEPTH 10 ft.
II			Consultants	

			TEST PIT LOG	TEST PIT NUMBER
PROJE	CT		Greenpoint Energy Center Phase 3 RI	GPEC-TP524
LOCAT	ΓΙΟN		287 Maspeth Ave, Brooklyn, NY 11211	1 OF 1
CLIEN			National Grid	PROJECT NO. 125180-3-1302
EQUIP			Vac Truck (Guzzler CL) and Backhoe (CAT 430)	ELEVATION -
WEAT	HER RACTOR		Partly Cloudy, 83F/Clear, 78F O'Leary Construction OPERATOR Fergal Troy	LOCATION NORTHING 688003.3 LOCATION EASTING 649694.5
	RVED BY		George Holmes DATE 9/27-28/2017	DATE STARTED 9/27/2017
	KED BY		Chris Morris DATE 2/2/2018	DATE FINISHED 9/28/2017
<u> </u>				
Depth				
Below	Sample Depth,	PID		
Ground	No., and Type	(ppm)	Soil Description an	d Remarks
Surface	,	(11)		
(ft)				
		0.9		ic fines, ~5% fine to coarse angular-subrounded gravel up to 4", contains red
L				lation wall encountered approximately 1' bgs along northern boundary of test
	GPEC-TP524	180.5	pit.	
L	(1-2)			ic fines, ~10% fine to coarse angular-subrounded gravel up to 4", contains
		117.4	=	timbers, metal scrap, and plastic debris, some solid NAPL fragments, black
L			staining, petroleum-like odor, black, moist, FILL.	
		0.1		
			(3-5') CLAYEY SAND WITH GRAVEL (SC); ~50% fine to medium sa	nd, ~30% low-plasticity fines, ~20% fine to coarse angular to subrounded
		0.1		fragments, concrete chunks, and metal scrap, trace black staining, gray to
_				all extending to the southern boundary of the test pit was asphalt and asphalt
5			millings from 3-3.5' bgs, and burned wood/timbers, cinders, ash, ar	nd charcoal from 3.5-5' bgs, with a slight burnt odor, loose, and black.
		5.0		
L			(4.2)	nd, ~30% low-plasticity fines, ~20% fine to coarse angular to subrounded
		5.2		fragments, concrete chunks, and metal scrap, some solid NAPL fragments,
L			black staining, petroleum-like odor, gray to black, wet at 6' bgs, FII	LL. Groundwater encountered at 9' bgs, and foundation wall still present.
		8.1		
L				
		10.4		
L				
		25.4	Bottom of Test P	it at ~9.0 feet.
10				
L			Photograph 1: Interval of burned wood/cinders/ash.	Photograph 2: Completed test pit looking east.
				the same and
I				DRAFT
				PINALI
NOTES	S:			
Test pit	to determine loc	cation of	f former MGP structures (former oil storage tank).	LENGTH 7 ft.
Datum:	New York State	Plane N	NAVD 88.	WIDTH 5 ft.
	elow ground surf			DEPTH 9 ft.
1 253 00	ground sun		GEI	Consultants 9 IL.
11				II II

			TEST PIT LOG		TEST PIT	NUMBER
PROJE	CT		Greenpoint Energy Center Phase 3 RI		GPEC-T	P525
LOCA	ΓΙΟΝ		287 Maspeth Ave, Brooklyn, NY 11211		1 (OF 1
CLIEN	T		National Grid		PROJECT NO.	125180-3-1302
EQUIP	MENT		Vac Truck (Guzzler CL) and Backhoe (CAT 430)		ELEVATION	15.02
WEAT			Clear, 84F			688342.98
	RACTOR			Fergal Troy	LOCATION EASTING 650382.72	
	RVED BY			9/1/2017, 9/5/2017	DATE STARTED	9/1/2017
CHEC	KED BY		George Holmes DATE	1/31/2018	DATE FINISHED	9/5/2017
Depth						
Below	Sample Depth,	PID				
Ground	No., and Type	(ppm)	Soil I	Description and Remarks	s	
Surface	No., and Type	(ppiii)				
(ft)						
		0.0	(0-2') SILTY SAND (SM); ~70% fine to coarse sand, n			
			to 3", contains fragmented brick-whole brick, up to			
	GPEC-TP525	2.6	staining, naphtalene like odor, moist, dark brown-	•	ncrete foundation wall observed a	t grade. Concrete slab
	(1-2)		encountered at 1.6' bgs on west side of concrete for	oundation wall.		
		0.0	(2-10') SILTY SAND (SM); ~80% fine to coarse sand, n to 3", contains cobbles and boulders, moist, light b			
F		0.0	to 3 , contains coopies and bounders, moist, right t	nown-blown. Base of ec	oncrete foundation wan observed	at o ogs.
		0.0				
5		0.0				
		0.0				
<u> </u>		0.0				
L						
		0.0				
		0.0				
F		0.0				
10		0.0				
		0.0		tom of Test Pit at ~10.0		
-			Photograph 1: Completed test pit looking north.	P	hotograph 2: Completed test pit lo	ooking west.
_					STATE OF THE PARTY	
						Base
l-			and the second second	3.3		60
				No.		
F			《杂》、《多》(2)			
					建筑	
 -				1/1/8		
F					D	RAFT
NOTES			•			
_ ^			of former MGP structures (former treatment tank).		LENGTH	10 ft.
Datum	: New York State	Plane l	NAVD 88.		WIDTH	5 ft.
bgs - be	elow ground surf	ace.		C E I	DEPTH -	10 ft.
	-			GEL	-	

			TEST PIT LOG	TEST PIT NUMBER		
PROJE	CT		Greenpoint Energy Center Phase 3 RI	GPEC-TP526		
LOCAT	ΓΙΟΝ		287 Maspeth Ave, Brooklyn, NY 11211	1 OF 1		
CLIEN'	Т		National Grid	PROJECT NO. 125180-3-1302		
EQUIP:			Vac Truck (Guzzler CL) and Backhoe (CAT 430)	ELEVATION 16.33		
WEAT			Clear, 51F, W 10-15 mph. Clear, 58F, W 10-15 mph.	LOCATION NORTHING 688224.72		
	RACTOR		O'Leary Construction OPERATOR Fergal Troy Rich Crockett, George Holmes DATE 11/27-11/29/17	LOCATION EASTING 650163.29 DATE STARTED 11/27/2017		
	RVED BY KED BY		Rich Crockett, George Holmes DATE 11/27-11/29/17 George Holmes DATE 1/31/2018	DATE STARTED 11/27/2017 DATE FINISHED 11/29/2017		
CILECI	LLD D I		Diffe 1731/2010	DATE I INISTIBLE		
Depth						
Below	Sample Depth,	DID				
Ground	No., and Type	PID	Soil Description and Remark	xs		
Surface	No., and Type	(ppm)				
(ft)						
		0.0	(0-3') SILTY SAND WITH GRAVEL (SM); ~40% fine to medium sand, ~30%	-		
			angular up to 3", cobbles up to 6", contains fragmented to whole red and	white bricks, concrete chunks, asphalt, porcelain fragments, scrap		
		0.0	metal, and timbers, dry, dark brown to brown. FILL.			
		0.0				
		18.3	(3-6') SILTY SAND WITH GRAVEL (SM); ~40% fine to medium sand, ~30%	6 non-plastic fines, ~30% fine to coarse gravel rounded to		
			angular up to 3", cobbles up to 6", contains fragmented to whole red and	-		
-		18.8	metal, and timbers, black staining, moderate petroleum-like odor, modera	te naphthalene-like odor, hardened solidified NAPL fragments,		
5		10.0	dry, dark brown to brown. FILL. Top of concrete foundation wall encount	ered 3' bgs.		
		55.1				
		33.1				
-		00.0	CONTRACTOR OF THE STATE OF THE			
		88.8	(6-9') SILTY SAND (SM); ~70% fine to coarse sand, mostly fine ~20% non-pl 3", cobbles up to 8", contains fragmented red brick and concrete, black st			
 -			steel pipe oriented east-west abutting south side of foundation wall at 6' by	· · · · · · · · · · · · · · · · · · ·		
	GPEC-TP526	399.3	steer pipe oriented east west abutting south side of foundation want at 0 0	59.		
_	(7-8)					
		343.7				
-			Refusal at 9' bgs due to impass	-		
4.0		377.1	Bottom of Test Pit at ~9.0	feet.		
10						
_			Photograph 1: Completed test pit looking south.	Photograph 2: Completed test pit looking west.		
_						
L						
				Acres de la companya del companya de la companya del companya de la companya de l		
				The second of th		
 -				DRAFT		
NOTES	S:					
Test pit	to determine loc	ation of	f former MGP structures (former tar separator).	LENGTH 14 ft.		
Datum:	New York State	Plane N	NAVD 88.	WIDTH 5 ft.		
	elow ground surf			<u> </u>		
l ogs - be	low ground suri	act.	GFI	DEPTH 9 ft		
			O LT Consultan	13		

Б

			TEST PIT LOG		TEST PIT N	UMBER
PROJE	CT		Greenpoint Energy Center Phase 3 RI		GPEC-T	P527
LOCA	ΓΙΟΝ		287 Maspeth Ave, Brooklyn, NY 11211			OF 1
CLIEN	T		National Grid	_	PROJECT NO.	125180-3-1302
EQUIP	MENT		Vac Truck (Guzzler CL) and Backhoe (CAT 430)		ELEVATION	-
WEAT			Cloudy, 59F / Clear,63F		LOCATION NORTHING	688167.7
	RACTOR		O'Leary Construction OPERATOR Fergal		LOCATION EASTING	650013.9
H	RVED BY			27/2017	DATE STARTED	10/26/2017
CHECI	KED BY		George Holmes DATE 1/29/20	018	DATE FINISHED	10/27/2017
Depth						
Below						
Ground	Sample Depth,	PID	Soil Descrip	tion and Remarks		
Surface	No., and Type	(ppm)				
(ft)						
		0.0	(0-1') SILTY SAND WITH GRAVEL (SM); ~60% fine to med	dium sand, ~20% fi	ne to coarse gravel rounded to a	angular up to 3", ~20% non-
			plastic fines, cobbles up to 10", contains whole/fragment	ed red brick, concre	ete up to cobble size, metal scra	ap, and fragmented porcelain,
		6.6	tile, and wood, brown, tight, dry, FILL.			
			(1-3') SILTY SAND WITH GRAVEL (SM); ~60% fine to med	dium sand ~20% fi	ne to coarse gravel rounded to	angular up to 3" ~20%
H	CDEC TD527	16.0	non-plastic fines, cobbles up to 10", contains whole/fragi		~	
	GPEC-TP527	10.0	porcelain, tile, and wood, black staining, strong petroleu		•	
I	(2-3)		2' bgs, brown, tight, dry, FILL.	, , , , , , , , , , , , , , , , , , , ,		
		0.0				
			(3-6') NARROWLY GRADED SAND WITH SILT (SP-SM);		•	
		0.0	gravel angular to subrounded up to 3", cobbles up to 9", o	contains whole/frag	gmented red brick, concrete up t	to cobble size, metal
5			scrap and pieces of slate, brown, tight, dry, FILL.			
		0.0				
⊩		0.7	(6-10') NARROWLY GRADED SAND WITH SILT (SP-SM);	75% fine to mediu	m sand ~15% non-plastic fines	~10% fine to coarse
		0.7	gravel angular to subrounded up to 3", cobbles up to 9",		•	
l-			scrap and pieces of slate, dark gray staining, slight petro	-	•	
		0.8	at 6' bgs.	ream me odor, oro	, win, tight, tily, 1122. Base of 10	andaron wan ooserved
L						
		1.1				
		0.9				
10						
		1.2	Bottom of	Test Pit at ~10.0 fe	et.	
L			Photograph 1: Base of foundation wall.	Pho	otograph 2: Completed test pit le	ooking east.
				-0	the state of	
				100	The second second	
⊩						
				No.		
_						
				200		
L						
						RAFT
NOTES						
			f former MGP structures (former salt water condensers).		LENGTH	6 ft.
Datum:	: New York State	Plane I	NAVD 88.		WIDTH	5 ft.
bgs - be	elow ground surf	ace.			DEPTH	10 ft.
	Ş			GEI Consultants	-	1010.

			TEST PIT LOG		TEST PIT N	UMBER
PROJE	CT		Greenpoint Energy Center Phase 3 RI		GPEC-T	TP528
LOCAT	ΓΙΟΝ		287 Maspeth Ave, Brooklyn, NY 11211	-	1	OF 1
CLIEN'	Т		National Grid		PROJECT NO.	125180-3-1302
EQUIP			Vac Truck (Guzzler CL) and Backhoe (CAT 430)		ELEVATION	16.02
WEAT			Cloudy, 38F, SE 5-10 mph.		LOCATION NORTHING	688157.19
	RACTOR			al Troy	LOCATION EASTING	649946.30
	RVED BY			0-12/1/17	DATE STARTED DATE FINISHED	11/30/2017 12/1/2017
CHECK	KED BY		George Holmes DATE 1/30	/2018	DATE FINISHED	12/1/2017
Depth						
Below	Sample Depth,	PID				
Ground	No., and Type	(ppm)	Soil Desc	ription and Remarks		
Surface	rvo., und Type	(ppin)				
(ft)						
		0.0	(0-1.5') SILTY SAND WITH GRAVEL (SM); ~50% fine to c	-	•	_
L			rounded to angular up to 3", cobbles up to 6", contains	-	red brick, concrete chunks up	to 10", clay pipe
		0.0	fragments, scrap metal and glass, moist, tight, tan to b	rown. FILL.		
			(1.5-3') SILTY SAND WITH GRAVEL (SM); ~50% fine to c	oarse sand, mostly fir	ne, ~30% non-plastic fines, ~20	% fine to coarse gravel
		3.5	rounded to angular up to 3", cobbles up to 6", contains	fragmented to whole	red brick, concrete chunks up	to 10", clay pipe
			fragments, scrap metal, and glass, gray-dark gray stain	ing, slight petroleum-	like odor, moist, tight, tan to be	rown. FILL.
I		13.5				
			(3-6') SILTY SAND WITH GRAVEL (SM); ~50% fine to c	oarse sand, mostly fir	ne. ~30% non-plastic fines. ~20	% fine to coarse gravel
 -		78.7	rounded to angular up to 3", cobbles up to 6", contains			
		76.7	fragments, scrap metal, splintered wood, and glass, bla	-	-	
5				8, 81	, , , , , , , , , , , , , , , , , , , ,	,
		423.9				
L I						
	GPEC-TP528	696.8	(6-10') SILTY SAND (SM); ~70% fine to coarse sand, mostl		_	
	(6-7)		3" cobbles up to 6", contains fragmented red brick and	concrete, black stain	ing, strong petroleum-like odor	r, saturated with NAPL, moist,
		426.8	brown. FILL.			
		649.7				
 		658.4				
10						
		588.7	Bottom	of Test Pit at ~10.0 fe	et.	
			Photograph 1: Completed test pit looking south.	Pho	otograph 2: Completed test pit	looking west.
						and the same of th
 					3 10 70	Age - The second
			The second secon			
 -						
			C. Washington St. Co.			
l-						The state of the s
L I						
-					D	RAFT
NOTES	3:		1			
Test pit	to determine lo	cation o	of former MGP structures (former salt water condensers).		LENGTH	8 ft.
11 ^	New York State				WIDTH	5 ft.
					<u>-</u>	
ogs - be	low ground surf	ace.		GFI 🐸	DEPTH	10 ft.
				Consultants		

4			TEST PIT LOG	ī		TEST PIT	NUMBER	
PROJE	CT		Greenpoint Energy Center Phase 3 RI			GPEC-	TP529	
LOCAT			287 Maspeth Ave, Brooklyn, NY 112			1	OF 1	
CLIEN'			National Grid			PROJECT NO.	125180-3-1302	
EQUIP			Vac Truck (Guzzler CL) and Backhoe	(CAT 430)		ELEVATION	-	
WEATI			Clear, 78F / Clear, 66F		LOCATION NORTHING	688062.44		
CONTE	RACTOR		O'Leary Construction	OPERATOR	Fergal Troy	LOCATION EASTING	649732.16	
OBSER	RVED BY		George Holmes	DATE	9/28-29/2017	DATE STARTED	9/28/2017	
CHECK	KED BY		Chris Morris	DATE	2/2/2018	DATE FINISHED 9/29/2017		
<u> </u>	1	1						
Depth								
Below	Sample Depth,	PID						
Ground	No., and Type	(ppm)	Soil Description and Remarks					
Surface	J1	41 /						
(ft)								
		0.0	` /			fine to coarse angular-subround		
			-		_	•	trace black staining, brown-darl	
_		0.5	brown, dry, FILL. Conc	rete foundation wall e	ncountered at grade along e	astern boundary of test pit.		
_		0.0	(2-4') SILTY SAND WITH GI	RAVEL (SM); ~70%	fine to coarse sand, ~20% f	ne to coarse angular-subrounde	d gravel up to 4", ~20% non-	
			` /			_	wn-reddish brown, moist, FILL.	
_		0.0	•	,	5, .		, , ,	
		0.0						
┝╶╵		0.0	WIDELY CD ADED GA	ND WITH CDAVE	(CW). 750/ fine to co	and 25% fine to accura ser1	ar to subrounded gravel up to 4",	
		0.0	(10)				• •	
5				_		bers, and metal scrap, some NA bserved at approximately 4' bgs		
		10.5	strong petroleum-nke ou	ioi, wei, Fill. Base o	i concrete foundation wan (oserved at approximately 4 ogs		
_		293.7	(6-9') SANDY CLAY (CL); ~8	80% low to medium-p	lasticity clay, ~20% fine sar	d, contains organics, roots, twig	s, trace sheen, strong petroleum	
			like odor, gray to black s	taining, wet. Ground	water encountered at 9' bgs	with a sheen.		
ſ	GPEC-TP529	394						
	(7-8)							
Γ Ι		344						
_		188			Bottom of Test Pit at ~9.0	faat		
10		100			Bottom of Test Fit at ~9.0	icci.		
10								
, ,								
1			Photograph 1: Completed test nit	t looking east		Photograph 2: Impact	ad soil/fill and groundwater	
			Photograph 1: Completed test pin	t looking east.		Photograph 2: Impact	ed soil/fill and groundwater.	
-			Photograph 1: Completed test pi	t looking east.	× 0	Photograph 2: Impact	ed soil/fill and groundwater.	
 - -			Photograph 1: Completed test pi	t looking east.		Photograph 2: Impact	ed soil/fill and groundwater.	
- -			Photograph 1: Completed test pi	t looking east.		Photograph 2: Impact	ed soil/fill and groundwater.	
- -			Photograph 1: Completed test pi	t looking east.		Photograph 2: Impact	ed soil/fill and groundwater.	
-			Photograph 1: Completed test pi	t looking east.		Photograph 2: Impact	ed soil/fill and groundwater.	
- -			Photograph 1: Completed test pi	t looking east.		Photograph 2: Impact	ed soil/fill and groundwater.	
- - -			Photograph 1: Completed test pi	t looking east.		Photograph 2: Impact	ed soil/fill and groundwater.	
- - -			Photograph 1: Completed test pi	t looking east.		Photograph 2: Impact	ed soil/fill and groundwater.	
- - - -			Photograph 1: Completed test pi	t looking east.		Photograph 2: Impact	ed soil/fill and groundwater.	
			Photograph 1: Completed test pi	t looking east.				
- - - -			Photograph 1: Completed test pi	t looking east.			ed soil/fill and groundwater. ORAFT	
- NOTES	3:		Photograph 1: Completed test pi	t looking east.				
		cation of					DRAFT	
Test pit	to determine loc		former MGP structures (former scrubb			LENGTH	DRAFT 7 ft.	
Test pit Datum:	to determine loc New York State	Plane N	former MGP structures (former scrubb				DRAFT	
Test pit Datum:	to determine loc	Plane N	former MGP structures (former scrubb		CI	LENGTH	DRAFT 7 ft.	

			TEST PIT LOG		TEST PIT N	IUMBER
PROJE	CT		Greenpoint Energy Center Phase 3 RI		GPEC-	ГР530
LOCAT			287 Maspeth Ave, Brooklyn, NY 11211		1	OF 1
CLIEN			National Grid		PROJECT NO.	125180-3-1302
EQUIP			Vac Truck (Guzzler CL) and Backhoe (CAT 430)		ELEVATION	16.15
WEAT			Clear, 89F		LOCATION NORTHING	688045.38
CONTI	RACTOR		O'Leary Construction OPERATOR	Fergal Troy	LOCATION EASTING	649691.79
OBSER				9/25/2017, 9/26/2017	DATE STARTED	9/25/2017
CHECH	KED BY		George Holmes DATE	1/31/2018	DATE FINISHED	9/26/2017
Depth						
Below	Sample Depth,	PID				
Ground	No., and Type	(ppm)		Soil Description and Remark	cs	
Surface	140., and 1 ypc	(ppin)				
(ft)						
		0.0	(0-1') SILTY SAND (SM); ~70% fine to coarse sa	and, mostly fine, ~25% non-p	plastic fines, ~5% fine to coarse r	ounded-subangular gravel up to
			3", contains fragmented brick, up to cobble			
			Encountered 3.7' diameter vertical steel cyli	ndrical structures cut to 0.5' b	ogs and backfilled. Identical struc	ture identified approximately
		7.1	10' south. Structures are connected by a 24"	steel pipe encountered at 3' b	ogs.	• •
⊩		102 4	SILTY SAND (SM); ~70% fine to coarse so	and, mostly fine ~25% non-r	plastic fines. ~5% fine to coarse r	ounded-subangular gravel up to
	GPEC-TP530	182.4	(1-10') SILTY SAND (SM); ~70% fine to coarse so 3", contains fragmented brick, up to cobble			
	(2-3)		brown, FILL.	one concrete, coobies and be	Januaro, dank gray stamming, petroi	cam nac odor, ngnt brown-
I		271.6	010, 1122.			
		2/1.0				
 -						
		5.1				
5						
		- 0				
		6.8				
 -						
		66.7				
		87.1				
 -		127.2				
		127.2				
 -						
		133.9				
10						
		145.6		Bottom of Test Pit at ~10.0) feet.	
			Photograph 1: Vertical cylindrical structures	and pipe.	Photograph 2: Completed test pit	looking south.
Г						
			Cylindrical		The state of the s	The second second
		S	tructures			The second second
 -			Pip	5		
IL .						
I						1 2 1 2
L						
Γ			The state of the s	1800		
					Γ	PRAFT
					L	//\/\/\
NOTES	S:					
Test pit	to determine lo	cation o	f former MGP structures (former gas mixer).		LENGTH	10 ft.
	New York State					
			1112 00.		WIDTH	5 ft.
bgs - be	low ground surf	ace.		GEI Consultan	DEPTH	10 ft.
				ULI Consultan	ts	

		TEST PIT LOG		TEST PIT NU	MBER
ECT		Greenpoint Energy Center Phase 3 RI		GPEC-TI	P531
TION		287 Maspeth Ave, Brooklyn, NY 11211		1 C	OF 1
T		National Grid		PROJECT NO.	125180-3-1302
				ELEVATION	19.35
		Cloudy, 79F			688077.55
					649609.77
				41 <u></u>	8/28/2017 8/29/2017
KED D I		George Hollies DATE 1/51/29	018	DATE FINISHED	8/29/2017
Sample Depth, No., and Type	PID (ppm)			atio fines 100/ fine to convey as	
	0.0	to 3", contains fragmented-whole brick, up to boulder size	ze concrete, steel, v	vood, cobbles and boulders, stain	
	16.9				
	10.1				
GPEC-TP531 (5-6)	19.9				
	22.7				
	11.1	Groundwater encountered at 8' bgs.			
	12.0	-	Test Pit at ~8.0 fee	et.	
		Photograph 1: Completed test pit looking east.	Ph	otograph 2: Completed test pit lo	ooking west.
					RAFT
S·					/
	cation o	f former MGP structures (former spent oil tank)		LENGTH	10 ft.
				_	
		NAVD 00.	GEI Consultants	WIDTH DEPTH	5 ft. 8 ft.
	SE: t to determine loc: New York State	Sample Depth, PID (ppm)	GTT TION 287 Maspeth Ave, Brooklyn, NY 11211 TI National Grid MENT HER RACTOR RACTOR RACORY RED BY R	Greenpoint Energy Center Phase 3 RI 287 Maspeth Ave, Brooklyn, NY 11211 T National Grid MENT Vac Truck (Guzzler CL) and Backhoe (CAT 430) HER ACTOR AC	GPEC-TI TION Composite Energy Center Phase 3 RI

			TEST PIT LOG		TEST PIT NUM	MBERS	
PROJE	СТ		Greenpoint Energy Center Phase 3 RI		GPEC-TP532		
LOCAT	TION		287 Maspeth Ave, Brooklyn, NY 11211		1 C	F 1	
CLIEN'	Γ		National Grid		PROJECT NO.	125180-3-1302	
EQUIP.	MENT		Vac Truck (Guzzler CL) and Backhoe (CAT 430)		ELEVATION	6.74	
WEAT	HER		Clear, 25F, W 10-15 mph.		LOCATION NORTHING	688393.12	
II	RACTOR		O'Leary Construction OPERATOR Fergal		LOCATION EASTING	650491.77	
II	VED BY		Rich Crockett DATE	1/2/2018	DATE STARTED	1/2/2018	
CHECK	ED BY		George Holmes DATE 1/31/2	018	DATE FINISHED	1/2/2018	
Depth Below Ground Surface (ft)	Sample Depth, No., and Type	PID (ppm)	Soil Descrip (0-2') SILTY SAND (SM); ~60% fine to coarse sand, mostly f	otion and Remarks	io finos 10% fino to coorce pro-	al rounded to angular up to	
		0.0	3" cobbles up to 6", contains fragmented to whole red bri gray-gray staining, dry, tight, tan-brown. FILL.	-	_		
_	GPEC-TP532 (2-3)	0.1	3" cobbles up to 6", contains fragmented to whole red bri	2-3') SILTY SAND (SM); ~60% fine to coarse sand, mostly fine ~30% non-plasti 3" cobbles up to 6", contains fragmented to whole red brick, fragmented cond black staining, slightly pliable to hardened solidified NAPL fragments, dry, ti			
	, ,	0.3					
			(3-4') SILTY SAND (SM); ~60% fine to coarse sand, mostly f	ine ~30% non-plast	ic fines, ~10% fine to coarse grav	el rounded to angular up to	
_		0.1		-	d concrete, scrap metal, splintered wood, timbers, glass, clinkers,		
5			oxidation staining, black staining, slightly pliable to hard	ened solidified NAF	PL, dry, tight, tan-brown. FILL. E	ncountered an approximately	
		0.2	1' wide piece of concrete oriented east-west through the of	enter of the test pit	from 3'-4' bgs.		
		0.2	(4-7') SILTY SAND WITH GRAVEL (SM); ~70% fine to coa	ree cand mostly fin	e ~20% non-plastic fines ~20% t	ine to coarse gravel, rounded	
 -		0.1	to angular up to 3", cobbles up to 5", contains organic ma		•	ine to coarse graver, rounded	
		0.1	Groundwater encountered at 7' bgs.	,	,		
-		0.2	Č	f Test Pit at ~7.0 fee	et.		
10			Photograph 1: Completed test pit looking east.	Pho	otograph 2: Completed test pit loo		
_					D	RAFT	
NOTES			5 I 1 200		LENGTH	10.6	
•			funderground utilities.		LENGTH	10 ft.	
Datum:	New York State	Plane N	NAVD 88.		WIDTH	5 ft.	
bgs - be	low ground surf	ace.		GEI Consultants	DEPTH	7 ft.	

			TEST PIT L	0G		TEST PIT N	NUMBER	
PROJECT G			Greenpoint Energy Center Phase 3	RI		GPEC-	TP533	
LOCAT	ΓΙΟΝ	•	287 Maspeth Ave, Brooklyn, NY	11211		1	1 OF 1	
CLIEN'	Т		National Grid			PROJECT NO.	125180-3-1302	
EQUIP:	MENT		Vac Truck (Guzzler CL) and Back	thoe (CAT 430)		ELEVATION	15.9	
WEAT	HER	•	Clear 79F			LOCATION NORTHING	688314.53	
CONT	RACTOR	'-	O'Leary Construction	OPERATOR	Fergal Troy	LOCATION EASTING	650270.25	
	RVED BY		Rich Crockett	DATE	9/15/2017, 9/18/2017	DATE STARTED	9/15/2017	
CHECK	ED BY George Holmes DATE 1/31/2018				1/31/2018	DATE FINISHED	9/18/2017	
Depth								
Below	Soil Description and Rema							
round					oil Description and Remarks			
urface	No., and Type	(ppm)						
(ft)								
		0.0	(0-2') SILTY SAND (SM)	; ~70% fine to coarse sand	d, mostly fine, ~20% non-pla	stic fines, ~10% fine to coarse	rounded-subangular gravel	
			, ,	agmented and whole brick,	up to boulder size concrete	pieces, cobbles and boulders, m	noist, dark brown-brown,	
		1.7	_	-	bgs on eastern edge of test pi	•	,	
		1./		-				
	GPEC-TP533	68.7	(2-3') SILTY SAND (SM)	· ~70% fine to coarse sand	i mostly fine ~20% non-nla	stic fines, ~10% fine to coarse	rounded-subangular gravel	
		00.7	(- /			pieces, cobbles and boulders, st		
	(2-3)		_	moist, dark brown-brown,	-	process, coordes and councers, so	amea, graj, aan graj,	
		6.6	•					
						stic fines, ~10% fine to coarse	rounded-subangular gravel	
		0.2	up to 3", contains co	bbles and boulders, trace li	ight gray staining, petroleum	-like odor, moist, brown.		
5								
		0.0	(4-7') SILTY SAND (SM)	; ~60% fine to coarse sand	i, mostly fine, ~30% non-pla	stic fines, ~10% fine to coarse	rounded-subangular gravel	
				bbles and boulders, trace li	ight gray staining, petroleum	m-like odor, moist, brown. Base of foundation wall		
		0.0	observed at 4' bgs.					
		0.0						
		277.1	(7 10) SH TV SAND (SM)	. 60% fine to coorse send	d mostly fine 200% non ple	stic fines, ~10% fine to coarse	rounded subengular gravel	
		3//.1			-	-like odor, moist, brown. Enco		
			running north-south		ark gray stanning, petroleum	-like odor, moist, brown. Enec	runtered (2) 10 steel pipes	
	GPEC-TP533	401.6	Tunning north South	, 053.				
ı	(8-9)							
		388.7	4					
10		388.7						
10		388.7 373.2			Bottom of Test Pit at ~10.0 f	eet.		
10			Photograph 1: 10" st	Iteel pipes and staining at de		eet. notograph 2: Completed test pit	looking east.	
10			Photograph 1: 10" st				looking east.	
10			Photograph 1: 10" st				looking east.	
10			Photograph 1: 10" st				looking east.	
10			Photograph 1: 10" st				looking east.	
10			Photograph 1: 10" st				looking east.	
10			Photograph 1: 10" st				looking east.	
10			Photograph 1: 10" st				looking east.	
10			Photograph 1: 10" st				looking east.	
10			Photograph 1: 10" si				looking east.	
10			Photograph 1: 10" si			otograph 2: Completed test pit		
10			Photograph 1: 10" si			otograph 2: Completed test pit		
10			Photograph 1: 10" si			otograph 2: Completed test pit	looking east. ORAFT	
NOTES		373.2		teel pipes and staining at de		otograph 2: Completed test pit	DRAFT	
NOTES		373.2	Photograph 1: 10" st	teel pipes and staining at de		otograph 2: Completed test pit		
NOTES Test pit		373.2	former MGP structures (former pu	teel pipes and staining at de		otograph 2: Completed test pit	DRAFT	
NOTES Test pit Datum:	to determine loc	373.2	former MGP structures (former pu	teel pipes and staining at de		LENGTH	DRAFT 10 ft.	

			TEST PIT LOG		TEST PIT NU	MBER
PROJE	CT		Greenpoint Energy Center Phase 3 RI		GPEC-TF	P534
LOCA	ΓΙΟΝ		287 Maspeth Ave, Brooklyn, NY 11211		1 (OF 1
CLIEN	T		National Grid	PR	OJECT NO.	125180-3-1302
EQUIP	MENT		Vac Truck (Guzzler CL) and Backhoe (CAT 430)		EVATION	16.07
WEAT			Clear, 32F, W 10-15 mph. Clear, 41F, W 10-15 mph.		CATION NORTHING	688320.00
	RACTOR				CATION EASTING	650129.07
	RVED BY		Rich Crockett DATE		ATE STARTED	1/8/2018 1/9/2018
CHECI	KED BY		George Holmes DATE 1/	DA	ATE FINISHED	1/9/2018
D 4			T			
Depth Below						
Ground	Sample Depth,	PID	Soil De	scription and Remarks		
Surface	No., and Type	(ppm)	Soil Do	scription and Remarks		
(ft)						
()		0.0	(0-2') SILTY SAND WITH GRAVEL (SM); ~50% fine to	aggree and mostly fine	2004 non plastic fines 2004	fine to course gravel rounded
		0.0	to angular up to 3", contains fragmented red brick, c			ille to coarse graver rounded
_			to angular up to 3°, contains tragmented red brick, e	merete, and glass, dry, tight	, tall. FILL.	
		0.0				
_						
		8.6	(2-7') SILTY SAND WITH GRAVEL (SM); ~60% fine to			
_			rounded to angular, up to 3", cobbles up to 6", conta			10", scrap metal, glass,
		7.9	splintered wood, timbers, and clinkers, black staining	g, moderate petroleum-like o	odor, moist, tight. FILL.	
	GPEC-TP534	11.7				
5	(4-5)					
	(13)	10.4				
		10.4				
_		0.0				
		8.8	C 1			
_		7.0	Groundwater encountered at 7' bgs.			
		7.9	Botto	m of Test Pit at ~7.0 feet.		
_						
_						
10						
			Photograph 1: Completed test pit looking south.	Photog	raph 2: Completed test pit loo	oking west.
_						
						The state of the s
_			A STATE OF THE STA			Charles 195
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						19100
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					W. Carlotte	
L				Jan 19		16/8
				The state of the s		
					$oldsymbol{\Gamma}$	RAFT
						\/\\
NOTES	S:					
Test pit	to determine loc	cation of	f former MGP structures (former tar separator).	LE	NGTH	9 ft.
Datum	: New York State	Plane !	NAVD 88.	XX/I	DTH _	5 ft.
	orn build			WI	D111	J 11.

 $\ensuremath{\mathsf{bgs}}$ - $\ensuremath{\mathsf{below}}$ ground surface.

7 ft.

			TEST PIT LOG	TEST PIT NUMBER
PROJE	СТ		Greenpoint Energy Center Phase 3 RI	GPEC-TP535
LOCA			287 Maspeth Ave, Brooklyn, NY 11211	1 OF 1
CLIEN	Т		National Grid	PROJECT NO. 125180-3-1302
EQUIP			Vac Truck (Guzzler CL) and Backhoe (CAT 430)	ELEVATION 21.2
WEAT			Clear, 79F	LOCATION NORTHING 687990.11
	RACTOR RVED BY		O'Leary Construction OPERATOR Fergal Troy Rich Crockett DATE 8/25/2017, 8/28/2017	LOCATION EASTING 649506.56 DATE STARTED 8/25/2017
	KED BY		George Holmes DATE 1/31/2018	DATE STARTED 8/25/2017 DATE FINISHED 8/28/2017
CILECI			2.112	
Depth				
Below				
Ground	Sample Depth,	PID	Soil Description and Remark	ks
Surface	No., and Type	(ppm)		
(ft)				
		0.0	(0-3') SILTY SAND (SM); ~70% fine to coarse sand, mostly fine, ~20% non-p	lastic fines, ~10% fine to coarse rounded-subangular gravel up
			3", contains fragmented-whole brick, up to boulder size concrete, fragment	nted wood, and glass, steel, solidified NAPL fragments, dark gra
 	GPEC-TP535	0.5	staining, sulfur-like odor, moist. FILL.	
	(2-3)			
⊩	(= =)	1.3		
		1.5		
⊩		0.0	(3-10') SILTY SAND (SM); ~70% fine to coarse sand, mostly fine, ~20% non-p	lastic fines ~10% fine to coarse rounded-subangular gravel
		0.0	up to 3", contains fragmented-whole brick, up to boulder size concrete, fr	
 -		0.0	fragments, moist, brown. FILL.	
_		0.0		
5				
		0.0		
-				
		0.0		
		0.0		
L				
		0.0		
		0.0		
10				
		0.0	Bottom of Test Pit at ~10.0) feet.
			Photograph 1: Completed test pit looking east.	Photograph 2: Completed test pit looking south.
I				
				A LANGE OF THE PARTY OF THE PAR
⊩				
⊩				
⊩				
 				DRAFT
NOTES	S:			
		ation of	former MGP structures (former pressure holder).	LENGTH 10 ft.
1 1	New York State		•	
			M112 00.	WIDTH 5 ft.
bgs - be	elow ground surf	ace.	GFI	DEPTH 10 ft.
			Consultan	ts

			TEST PIT LO	G		TEST PIT	NUMBER
PROJEC	CT		Greenpoint Energy Center Phase 3 R	d .		GPEC-	TP536
LOCATI	ION	•	287 Maspeth Ave, Brooklyn, NY 11	211		1	OF 1
CLIENT			National Grid			PROJECT NO.	125180-3-1302
EQUIPM			Vac Truck (Guzzler CL) and Backho	De (CAT 430)		ELEVATION	31.4
WEATH			Clear 79F	CDED LECT		LOCATION NORTHING	688155.09
CONTRA OBSERV			O'Leary Construction Rich Crockett	OPERATOR DATE	Fergal Troy 9/13/2017, 9/15/2017	LOCATION EASTING DATE STARTED	649391.97 9/13/2017
CHECKI			George Holmes	DATE	1/31/2018	DATE STAKTED DATE FINISHED	9/15/2017
orizori.	22 21	1	300750 110111105		1/31/2010	BITTE THAIGHED	
Depth							
Below	Sample Depth,	PID					
	No., and Type	(ppm)		Sc	oil Description and Remarks	s	
urface	ivo., and Type	(ppiii)					
(ft)							
		0.0	(0-4') SILTY SAND (SM); ~	70% fine to coarse sand	d, mostly fine, ~20% non-pla	astic fines, ~10% fine to coarse	rounded-subangular gravel
			up to 3", contains fragr	nented-whole brick, frag	gmented glass, steel, cobbles	and boulders, moist, dark brow	wn-brown, FILL. Contains
		0.0	large pieces of concrete	e that appear to be from	a former foundation wall.		
- 1							
- 1		0.0					
		0.0					
- 1		0.0					
		0.0					
		0.1	(4.5b) SH TV SAND (SM).	700/ fine to come comé	l mostly fine 200/ non-nl	actic fines 100/ fine to coope	movin dad auhamanilan anarral
	GPEC-TP536	0.1				astic fines, ~10% fine to coarse	
5	(4-5)					s and boulders, dark gray to bla om a former foundation wall.	ck staining, moist, dark
		0.1	brown-brown, FIEL. C	ontains large pieces of co	oncrete that appear to be inc	nii a former foundation wan.	
		0.0	(37)			astic fines, ~10% fine to coarse	0 0
			-	-		s and boulders, moist, dark brow	wn-brown, FILL. Contains
		0.0	large pieces of concrete	e that appear to be from a	a former foundation wall.		
			(7-10') SILTY SAND (SM); ~	60% fine to medium sar	nd, mostly fine, ~35% non-	plastic fines, ~5% fine to coarse	e rounded-subangular gravel
		0.0	up to 3", contains cobb	oles and boulders, moist,	reddish brown-brown.		
1							
		0.0					
10		0.0					
10		0.0			Bottom of Test Pit at ~10.0	feet.	
10			Photograph 1: Comple		Bottom of Test Pit at ~10.0	feet. hotograph 2: Completed test pir	t looking west.
10			Photograph 1: Complet	Ited test pit looking east.			t looking west.
10			Photograph 1: Complet				t looking west.
10			Photograph 1: Complet				t looking west.
10			Photograph 1: Comple				t looking west.
10			Photograph 1: Comple				t looking west.
10			Photograph 1: Comple				t looking west.
10			Photograph 1: Comple				t looking west.
10			Photograph 1: Comple				t looking west.
10			Photograph 1: Comple				t looking west.
10			Photograph 1: Comple			hotograph 2: Completed test pit	
10			Photograph 1: Comple			hotograph 2: Completed test pit	
			Photograph 1: Comple			hotograph 2: Completed test pit	t looking west.
NOTES:		0.0		ted test pit looking east.		hotograph 2: Completed test pit	DRAFT.
NOTES: Test pit t	to determine loc	0.0	former MGP structures (former bunk	ted test pit looking east.		hotograph 2: Completed test pil	DRAFT 10 ft.
NOTES: Test pit t		0.0	former MGP structures (former bunk	ted test pit looking east.		hotograph 2: Completed test pit	DRAFT.
NOTES: Fest pit to Datum: N	to determine loc	0.0 ation of Plane N	former MGP structures (former bunk	ted test pit looking east.		hotograph 2: Completed test pil	DRAFT 10 ft.

			TEST PIT LOG	TEST PIT NUMBER
PROJE	СТ		Greenpoint Energy Center Phase 3 RI	GPEC-TP537
LOCA			287 Maspeth Ave, Brooklyn, NY 11211	1 OF 1
CLIEN	Т		National Grid	PROJECT NO. 125180-3-1302
EQUIP	MENT		Vac Truck (Guzzler CL) and Backhoe (CAT 430)	ELEVATION 34.02
WEAT			Clear, 82F	LOCATION NORTHING 688254.14
	RACTOR		O'Leary Construction OPERATOR John O'L	
	RVED BY		Rich Crockett DATE 8/24/17,	
CHECI	KED BY		George Holmes DATE 1/31/201	8 DATE FINISHED 8/25/2017
Depth				"
Below				
Ground	Sample Depth,	PID	Soil Descripti	on and Remarks
Surface	No., and Type	(ppm)		
(ft)				
		0.0	No. 2	e, ~20% non-plastic fines, ~10% fine to coarse rounded-subangular gravel up to
			=	les, boulders, solidified NAPL fragments, moist, stained gray-black, petroleum-
I	GPEC-TP537	30.4	like odor, FILL. Encountered top of concrete foundation wa	all 1.5' bgs.
	(2-3)			
		323.8		
L				
		83.7	(3-4') SILTY SAND (SM); ~70% fine to coarse sand, mostly fin	e, $\sim\!20\%$ non-plastic fines, $\sim\!10\%$ fine to coarse rounded-subangular gravel up to
			=	es, boulders, ash, solidified NAPL fragments, moist, stained gray-black,
		8.8	petroleum-like odor, FILL. Encountered 6" asbestos-insula	ated steel pipe 3.5' bgs in utility sand on east side of test pit.
5				
		6.2	(4-10') SILTY SAND (SM); ~75% fine to medium sand, mostly f	ine, ~20% non-plastic fines, ~5% fine rounded-subangular gravel up to
				n-brown. Encountered concrete slab approximately 6' bgs extending 4' off
		0.9	of the concrete foundation wall.	
		0.9		
 -		0.6		
		0.0		
 -		0.7		
		0.7		
 				
		0.0		
10				
		0.0		est Pit at ~10.0 feet.
 			Photograph 1: Completed test pit looking north.	Photograph 2: Completed test pit.
L				
L				Alah I
			Pine	
Г				
ĺ				DRAFT
				טואו ו
NOTES				
1			f former MGP structures (former bunker C oil storage tank).	LENGTH 10 ft.
Datum	New York State	Plane l	NAVD 88.	WIDTH 5 ft.
below s	ground surface (b	ogs)		DEPTH 10 ft.
	,			OEI Consultants
1				

			TEST PIT	LOG		TEST PIT	NUMBER
PROJE	СТ		Greenpoint Energy Center Phas			-	-TP538
LOCA			287 Maspeth Ave, Brooklyn, N			1	OF 1
CLIEN			National Grid			PROJECT NO.	125180-3-1302
EQUIP	MENT		Vac Truck (Guzzler CL) and Ba	nckhoe (CAT 430)		ELEVATION	16.93
WEAT			Cloudy, 45F, N 5-7 mph. Cloud			LOCATION NORTHING	688409.35
	RACTOR		O'Leary Construction	OPERATOR	Fergal Troy	LOCATION EASTING	650143.32
II	RVED BY		Rich Crockett	DATE	11/14-11/16/2017	DATE STARTED	11/14/2017
CHECI	KED BY		George Holmes	DATE	1/31/2018	DATE FINISHED	11/16/2017
Depth							
Below	Sample Depth,	PID					
Ground	No., and Type	(ppm)		Se	oil Description and Remarks		
Surface	ivo., and Type	(ppiii)					
(ft)							
		0.0	` '		•		ded to angular up to 3", cobbles
			· · · · · · · · · · · · · · · · · · ·	-	-	p metal, asbestos, ash, fragme	
Γ		10.1	7	-	ng and slight petroleum-like	odor at 0.8' bgs, moist, tight, l	orown, FILL. Encountered
L			concrete slab at 0.	5 bgs.			
	GPEC-TP538	395.7	` '		•		ded to angular up to 3", cobbles
	(2-3)		-		-	p metal, ash, fragmented coal,	clinkers, solidified NAPL
Γ		224.6	fragments contain	ing sediments, black staining	, strong petroleum-like odor,	moist, tight, brown, FILL.	
		16.2	(4-5') SILTY SAND WI	TH GRAVEL (SM); ~60% f	ine to coarse sand, ~20% no	on-plastic fines, ~20% fine to	coarse gravel, rounded to angular
5			up to 3", cobbles to	up to 9", gray staining, slight	petroleum-like odor, moist, l	oose, tan to brown. FILL.	
		0.0	(5-10') SILTY SAND WI	TH GRAVEL (SM); ~60% f	ine to coarse sand, ~20% no	on-plastic fines, ~20% fine to	coarse gravel, rounded to angular
			*	up to 9", gray staining, moist,		•	
-		0.0					
-		0.0					
		0.0					
F		0.0					
		0.0					
H		0.0					
10		0.0					
10		0.0		1	Bottom of Test Pit at ~10.0 f	Coat	
		0.0	Photograph 1: Cor	mpleted test pit looking east.		eet. notograph 2: Completed test pi	t looking north
F			i notograph 1. Con	inpicted test pit looking east.		iotograpii 2i completea test pi	r rooming morain
			of the American		W 25 20		
F			The same				
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-						L	DRAFT
NOTES	S:		•				
Test pit	to determine loc	cation of	former MGP structures (former	pressure holder).		LENGTH	10 ft.
Datum:	New York State	Plane N	NAVD 88.	•		WIDTH	5 ft.
	elow ground surf						
ugs - De	now ground sum	acc.			GEL	DEPTH	10 ft.
					✓ L Consultants	<u> </u>	

			TEST PIT LOG		TEST PIT N	UMBER
PROJE	CT		Greenpoint Energy Center Phase 3 RI		GPEC-T	TP539
LOCA'	TION		287 Maspeth Ave, Brooklyn, NY 11211		1	OF 1
CLIEN	T		National Grid	-	PROJECT NO.	125180-3-1302
EQUIF	MENT		Vac Truck (Guzzler CL) and Backhoe (CAT 430)		ELEVATION	16.24
WEAT	HER		Cloudy, 38F, W 20-30 mph. Cloudy, Snow, 31F, W 5-10 mph.		LOCATION NORTHING	688416.17
	RACTOR			gal Troy	LOCATION EASTING	650305.69
	RVED BY		Rich Crockett DATE	12/13-12-15/2017	DATE STARTED	12/13/2017
CHEC	KED BY		George Holmes DATE 1/3	1/2018	DATE FINISHED	12/15/2017
Depth					<u> </u>	
Below						
Ground	Sample Depth,	PID	Soil Des	cription and Remarks		
Surface	No., and Type	(ppm)		•		
(ft)						
		0.0	(0-1') SILTY SAND WITH GRAVEL (SM); ~50% fine to	coarse sand, mostly fir	ne ~30% non-plastic fines, ~209	% fine to coarse gravel,
i.			rounded to angular up to 3", cobbles up to 6", contain	s fragmented to whole	red brick, concrete chunks up	to 8", scrap metal, splintered
_	GPEC-TP539	25.2	wood, glass, moist, tight, dark brown-brown. FILL. E	ncountered concrete for	oundation wall and slab at grade	e.
	(1-2)	2.0.2				
-	(1.2)	3.9	(1-2') SILTY SAND WITH GRAVEL (SM); ~50% fine to	coarse sand, mostly fir	ne ~30% non-plastic fines, ~209	% fine to coarse gravel,
i			rounded to angular up to 3", cobbles up to 6", contain	-	•	-
_		2.2	wood, glass, black staining, moderate petroleum-like	odor, moist, tight, dar	k brown-brown. FILL. Base of	concrete foundation wall
		2.2	observed at 2' bgs.			
_		0.3	(2-3') SILTY SAND WITH GRAVEL (SM); ~50% fine to	coarse sand, mostly fir	ne ~30% non-plastic fines. ~209	% fine to coarse gravel.
5		0.5	rounded to angular up to 3", cobbles up to 6", contain	-	•	-
		2.2	wood, glass, moist, tight, dark brown-brown. FILL.		, , , , , , , , , , , , , , , , , , , ,	, , , , , , , , , , , , , , , , , , ,
		2.3			200/lti-fi 200	n/ f: t1
_			(3-7') SILTY SAND WITH GRAVEL (SM); ~50% fine to			•
		1.2	rounded to angular up to 3", cobbles up to 6", contain wood, glass, gray staining, slight petroleum-like odor	-		to 8, scrap metal, spinitered
-		2.5		-	wir brown. Tibe.	
		2.5	Refusal at 7' bgs due to densely packed demolition d	of Test Pit at ~7.0 fee	nt .	
-			Botton	101 Test Fit at ~7.0 Tes	zi.	
_						
10						
			Photograph 1: Completed test pit looking south.	Pho	otograph 2: Completed test pit l	looking east.
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_				0.	To the Control of the Control	
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					2000	KINE
L						16 A C
						DACT
-					D	RAFT
NOTE	S:					
Test pi	t to determine lo	cation o	f former MGP structures (former boiler fuel storage tank).		LENGTH	10 ft.
Datum	: New York State	Plane l	NAVD 88.		WIDTH	5 ft.
bgs - b	elow ground surf	ace.			DEPTH	7 ft.
				GEL	PEI 111	/ 11.

			TEST PIT LOG		TEST PIT NU	MBER		
PROJE	СТ		Greenpoint Energy Center Phase 3 RI		GPEC-TP	2541		
LOCAT	ΓΙΟΝ		287 Maspeth Ave, Brooklyn, NY 11211		1 O	F 1		
CLIEN'	Т		National Grid		PROJECT NO.	125180-3-1302		
EQUIP			Vac Truck (Guzzler CL) and Backhoe (CAT 430)		ELEVATION	16.26		
WEAT			Cloudy, 43F, NW 10-20 mph.		LOCATION NORTHING	688300.06		
	RACTOR RVED BY		O'Leary Construction OPERATOR Fergal Rich Crockett DATE	12/20/2017	LOCATION EASTING DATE STARTED	650218.69 12/20/2017		
	KED BY		George Holmes DATE 1/31/2		DATE STAKTED DATE FINISHED	12/20/2017		
				_	_			
Depth								
Below	Sample Depth,	PID						
Ground	No., and Type	(ppm)	Soil Descri	ption and Remarks				
Surface	No., and Type	(ppiii)						
(ft)								
		0.0	(0-3') SILTY SAND WITH GRAVEL (SM); ~50% fine to coa	arse sand, mostly fin	e ~30% non-plastic fines, ~20% f	fine to coarse gravel, rounded		
1			to angular up to 3", cobbles up to 9", contains fragmente	d to whole red brick	, concrete chunks up to 8", scrap	metal, splintered wood, and		
		0.0	glass, moist, tight, dark brown-brown. FILL.					
			(3-4') SILTY SAND WITH GRAVEL (SM); ~50% fine to coa	arse sand, mostly fin	e ~30% non-plastic fines, ~20% f	fine to coarse gravel, rounded		
		0.0	to angular up to 3", cobbles up to 9", contains fragmente	d to whole red brick	, concrete chunks up to 8", scrap	metal, splintered wood,		
			glass, hardened solidified NAPL fragments, moist, tight,	tan-light brown. FII	LL.			
_		2.2	(4-5') SILTY SAND WITH GRAVEL (SM); ~50% fine to coa	arse sand, mostly fin	e ~30% non-plastic fines, ~20% f	fine to coarse gravel,		
			rounded to angular up to 3", cobbles up to 9", contains for					
 	GPEC-TP541	3.7	splintered wood, glass, hardened solidified NAPL fragments, gray staining, slight petroleum-like odor, moist, tight,					
5	(4-5)		FILL. Refusal at 5' bgs due to densely packed demolition	n debris.				
	(13)	6.8	Rottom c	f Test Pit at ~5.0 fee	at .			
		0.0	Bottom C	1 10st 1 it at ~3.0 icc				
-								
-								
-								
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10								
			Photograph 1: Completed test pit looking north.	Pho	otograph 2: Completed test pit loo	king west.		
L			1977	22		200		
				52	10000000000000000000000000000000000000	Maria de la companya		
			The same of the sa		《尼尼斯》			
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 -					D.	RAFT		
NOTES	S:		1	1				
		ation of	former MGP structures (former tar separator).		LENGTH	10 ft.		
1	New York State		• • •		WIDTH	5 ft.		
			·		_			
ogs - be	elow ground surf	ace.		GFI 🐸	DEPTH	5 ft.		
				Consultants				

			TEST PIT	LOG		TEST PIT	NUMBER	
PROJE	СТ		Greenpoint Energy Center Pha	se 3 RI		GPEC	-TP542	
LOCA	ΓΙΟΝ		287 Maspeth Ave, Brooklyn, N			1	OF 1	
CLIEN			National Grid			PROJECT NO.	125180-3-1302	
EQUIP			Vac Truck (Guzzler CL) and B	ackhoe (CAT 430)		ELEVATION	16.98	
WEAT			Cloudy, Rain, 45F / Clear, 50F	ODED A TOD	F 1/F	LOCATION NORTHING	688374.12	
	RACTOR RVED BY		O'Leary Construction Rich Crockett	OPERATOR DATE	Fergal Troy 10/30-31/2017	LOCATION EASTING DATE STARTED	650047.16 10/30/2017	
	KED BY		George Holmes	DATE	1/31/2018	DATE STAKTED DATE FINISHED	10/31/2017	
		ı						
Depth								
Below	Sample Depth,	PID						
Ground	No., and Type	(ppm)		Sc	il Description and Remarks	3		
Surface	ivo., and Type	(ppiii)						
(ft)								
		0.0	(0-1.5') SILTY SAND (S	M); ~70% fine to coarse sand	, mostly fine, ~20% non-pla	astic fines, ~10% fine to coarse	gravel, rounded to angular up	
			-		-	ete up to boulder size, and meta	al scrap, black staining, slight	
	GPEC-TP542	5.8	petroleum-like oc	lor, dark brown-brown, tight, 1	noist. FILL.			
		4.5	(1.5-5') SILTY SAND (S	M); ~70% fine to coarse sand	, mostly fine, ~20% non-pla	astic fines, ~10% fine to coarse	gravel, rounded to angular up	
	, ,	0.0	3", cobbles up to	8", boulders, reddish brown-b	rown, tight, moist. FILL.			
•		0.0						
•		0.0						
5		0.0						
3		0.0	(5-7') SANDY SILT (M	(I S):60% non plactic to low	placticity cilt - 35% fine to	madium cand5% fine to co	area araval roundad	
		0.0	(5-7') SANDY SILT (MLS); ~60% non-plastic to low plasticity silt, ~35% fine to medium sand, ~5% fine to coarse gravel, rounded-subangular up to 1", cobbles up to 5", brown, tight, moist.					
•		0.0	subungular up to	r, coooles up to 5, brown, u	siit, moist.			
		0.0						
-			(TARK CLAY)	GT G) FOOT II I I I I I	1 250/5	1 1 6 50 6		
		0.0	, ,	CLS); ~/0% medium plasticit brown, tight, moist.	y clay, ~25% fine to mediui	m sand, mostly fine, ~5% fine	to coarse gravel up to 1",	
-			coories up to 3,	brown, ugin, moist.				
		0.0						
		0.0						
10								
		0.0			Bottom of Test Pit at ~10.0 i			
1			Photograph 1: Co	impleted test pit looking north.	PI	hotograph 2: Completed test pi	t looking south.	
				The construction between				
-							Res .	
			Contract of the Contract of th					
				The second second	6.			
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				NT AND				
•							FINAN	
						<i>[</i>	DRAFT	
•						L	ノハハー	
NOTE	S:							
		ation of	former MGP structures (former	tar tank).		LENGTH	6 ft.	
	New York State			,		WIDTH	5 ft.	
- atuill								
1						HIS EDITIE	10.6	
bgs - b	elow ground surf	ace.			GFI	DEPTH	10 ft.	

			TEST PIT LO	G		TEST P	IT NUMBER
PROJE	CT		Greenpoint Energy Center Phase 3 R			GPEC-	-TP543
LOCA'			287 Maspeth Ave, Brooklyn, NY 11			1	OF 1
CLIEN			National Grid			PROJECT NO.	125180-3-1302
EQUIP	MENT		Vac Truck (Guzzler CL) and Backho	pe (CAT 430)		ELEVATION	16.66
WEAT			Clear, 55F / Cloudy, Rain, 65F			LOCATION NORTHING	688460.29
	RACTOR		O'Leary Construction	OPERATOR	Fergal Troy	LOCATION EASTING	650000.56
	RVED BY		Rich Crockett	DATE	10/31, 11/6/2017	DATE STARTED	10/31/2017
CHECI	KED BY		George Holmes	DATE	1/31/2018	DATE FINISHED	11/6/2017
Depth							
Below	Sample Depth,	PID					
Ground	No., and Type	(ppm)		Sc	il Description and Remark	as .	
Surface	110., und Type	(ррш)					
(ft)							
		0.0				lastic fines, ~10% fine to coarse	
			odor, dark brown-brow		ragmemed red brick, conci	ete chunks up to 8", dark gray s	stanning, stignt petroleum-like
	GPEC-TP543	0.4	odor, dark brown-brow	n, ugiii, moist. FILL.			
	(1-2)						
		0.0				sand, ~10% non-plastic fines, ~	
			rounded to angular up	to 3", cobbles up to 12",	contains fragmented red br	rick and concrete, brown, tight,	moist, FILL.
•		0.0					
			(3-5') WIDELY GRADED S	AND WITH SILT AND	GRAVEL (SW-SM); ~609	% fine to coarse sand, ~25% fine	e to coarse gravel, rounded
		0.0		5% non-plastic fines, col	obles up to 8", brown, moi	st, tight.	
5			(5-10') SILTY SAND (SM); ~	70% fine to medium sar	nd. ~20% non-plastic fines.	, ~10% fine to coarse gravel, ro	unded to angular up to 3".
		0.0	cobbles up to 6"brown		, F	,	
		0.0	•	, ,			
•		0.0					
		0.0					
•		0.0					
		0.0					
		0.0					
		0.0					
10							
		0.0	District to the second		Bottom of Test Pit at ~10.0		4 la alain a canala
•			Photograph 1: Comple	ted test pit looking north.	r	Photograph 2: Completed test pi	t looking south.
					190105° b.		
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					A A S		
•				The Later St.			
-						L	DRAFT
NOTES	<u>I</u> S:						
		ation of	f former MGP structures (former tar ta	ank).		LENGTH	10 ft.
•	: New York State		,	··,·			
			NA V D 00.			WIDTH	5 ft.
bgs - be	elow ground surf	ace.			GEI	DEPTH	10 ft.
					UEI Consultant		

			TEST PIT L	.OG		TEST PIT N	NUMBER
PROJE	СТ		Greenpoint Energy Center Phase			GPEC-	TP544
LOCA			287 Maspeth Ave, Brooklyn, NY			1	OF 1
CLIEN			National Grid			PROJECT NO.	125180-3-1302
EQUIP			Vac Truck (Guzzler CL) and Bac	khoe (CAT 430)		ELEVATION	39.91
WEAT			Cloudy, 82F			LOCATION NORTHING	688393.10
CONTI	RACTOR		O'Leary Construction	OPERATOR	John O'Leary	LOCATION EASTING	649389.32
OBSEF	RVED BY		Rich Crockett	DATE	8/23/17, 8/24/17	DATE STARTED	8/23/2017
CHECI	KED BY		George Holmes	DATE	1/31/2018	DATE FINISHED	8/24/2017
Depth							
Below	g 1 D 4	DID					
Ground	Sample Depth,	PID		Se	oil Description and Remarks	S	
Surface	No., and Type	(ppm)			•		
(ft)							
		0.0	(0-3') WIDELY GRADEI	D SAND WITH SILT AND	GRAVEL (SW-SM): ~75%	fine to coarse sand mostly fin	e, ~15% fine to coarse rounded-
		0.0	(/			d whole brick, up to boulder siz	
L				noist, FILL. Top of concrete	_	•	sea concrete preces, and seed,
		0.0	gray aan orown, n	loist, Filler Top of concrete	Touridation wanta 210 ogs.		
L							
	GPEC-TP544	0.0					
	(2-3)						
		0.0	(3-5') SILTY SAND (SM); ~75% fine to medium sar	nd, mostly fine, ~20% non-p	plastic fines, ~5% fine rounded-	subangular gravel up to 1",
			moist, reddish brow	'n.			
_		0.0					
5		0.0					
		0.0	(5 10) CH T WITH CAND	(MI). (00/1+::	14 200/ 5 4 1:	. d 100/ fine	-l
		0.0				nd, ~10% fine rounded-subangu	
_			gray, contains cobb	ies and boulders. Concrete	sian observed at / bgs exter	nding 3' off of the concrete found	dation wall.
		0.0					
		0.0					
_		0.0					
-		0.0					
10		0.0					
10							
_		0.0			Bottom of Test Pit at ~10.0		
			Photograph 1: Com	pleted test pit looking south		Photograph 2: Base of founda	tion wall.
						1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
				No. of the last of		5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
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						<i>I</i>	DRAFT
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NOTES	S:						
Test pit	to determine the	locatio	n of fromer MGP structures (form	er residuum oil storage tank).	LENGTH	10 ft.
Datum	: New York State	Plane N	NAVD 88.	•		WIDTH	5 ft.
			***			1	
bgs - be	elow ground surf	ace.			GFI	DEPTH	10 ft.
I					ULI Consultants	II	-

			TEST PIT LOG		TEST PIT N	UMBER
PROJE	т		Greenpoint Energy Center Phase 3 RI		GPEC-T	
LOCAT			287 Maspeth Ave, Brooklyn, NY 11211			OF 1
CLIEN			National Grid		PROJECT NO.	125180-3-1302
EQUIP			Vac Truck (Guzzler CL) and Backhoe (CAT 430)		ELEVATION	43.44
WEATI			Clear, 89F		LOCATION NORTHING	688412.31
	ACTOR			l Troy	LOCATION EASTING	649304.77
	VED BY			2017, 9/25/2017	DATE STARTED	9/22/2017
CHECK	ED BY		George Holmes DATE 1/31/2	2018	DATE FINISHED	9/25/2017
Depth						
Below	Sample Depth,	PID				
Ground	No., and Type	(ppm)	Soil Descr	ription and Remarks		
Surface	No., and Type	(ppiii)				
(ft)						
		0.0	(0-10') SILTY SAND (SM); ~70% fine to coarse sand, mostly	fine, ~20% non-plas	stic fines, ~10% fine to coarse ro	unded-subangular gravel
			up to 3", contains fragmented and whole brick, up to be			
		0.0	brown, FILL. Concrete slab observed at 8' bgs.	•	•	
		0.0				
		0.0				
		0.0				
1		0.0				
5						
		0.0				
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		0.0				
•	GPEC-TP545	0.0				
10	(9-10)					
	(> 10)	0.0	Rottom o	of Test Pit at ~10.0 fe	aat	
		0.0	Photograph 1: Completed test pit looking north.		otograph 2: Completed test pit lo	ooking east
0			Thotograph 1. Completed test ph looking north.		otograph 2. completed test pit is	oung out
						2
					W8.5	
			A Company of the Comp		A Vandaria	
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				3.00		
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						DACT
-					L	RAFT
NOTES	•		n of former MGP structures (former residuum oil storage tank).		LENGTH	10 ft.
	to determine the					
Test pit						
	to determine the New York State				WIDTH	5 ft.
Test pit Datum:		Plane I		GEI Consultants		

			TEST PI	T LOG		TEST P	IT NUMBER				
PROJE	CT		Greenpoint Energy Center P	hase 3 RI		GPEC	-TP546				
LOCAT	ΓΙΟΝ		287 Maspeth Ave, Brooklyn	, NY 11211		1	OF 1				
CLIEN'			National Grid			PROJECT NO.	125180-3-1302				
EQUIP			Vac Truck (Guzzler CL) and			ELEVATION	17.05				
WEAT	HER RACTOR		Cloudy, 67F, NW 5-10 mph. O'Leary Construction	OPERATOR	Fergal Troy	LOCATION FASTING	688576.03 649655.54				
	RVED BY		George Holmes	DATE	10/25/2017	LOCATION EASTING DATE STARTED	10/25/2017				
	KED BY		Chris Morris	DATE	2/2/2018	DATE FINISHED	10/25/2017				
Depth											
Below	Sample Depth,	PID									
Ground	No., and Type	(ppm)		S	oil Description and Remark	S					
Surface											
(ft)			ON THE CANE	NUMBER OF THE OWN TOWN	C 1 200/ 1 1	C 200/ C					
		0.0	` '	WITH GRAVEL (SM); ~50%	•						
				ntains fragmented to whole red l	orick, coodie sized chuliks (on concrete, metai scrap, wood i	iraginents, piastic debris, ciou				
		0.0	debris, organic	debris, organics/roots, brown, tight, dry. FILL.							
	GPEC-TP546	0.0	` '	EL WITH SAND (GM); ~50% f	•		•				
	(2.5-3)	63.1	sand, contains	fragmented to whole red brick,	cobbie sized chunks of conc	rete, brown to orangey-tan, tigi	nt, ary. FILL				
		0.0									
			2.5-3') SILTY SAND WITH GRAVEL (SM); ~50% fine sand ~30% non-plastic fines, ~20% fine to coarse gravel, rounded to suba								
		0.0	3", cobbles, contains fragmented to whole red brick, black staining, petroleum-like odor, dry, tight. FILL.								
5											
		0.0	(3 1)	WITH GRAVEL (SM); ~50%	1	,	vel, rounded to subangular up				
			3", cobbles, co	3", cobbles, contains fragmented to whole red brick, brown, dry, tight. FILL 4-9) WIDELY GRADED GRAVEL WITH SAND (GW); ~70% fine to coarse gravel, rounded to subangular up to 3", ~30% fine to coarse							
		0.0	` '		(GW); ~70% fine to coarse	gravel, rounded to subangular t	up to 3", ~30% fine to coarse				
			sand, cobbles,	tan, loose, dry.							
		0.0									
		0.0									
Į.											
		0.0	(> 10)	ADED SAND (SW); ~90% fine	to coarse sand, ~10% fine to	o coarse gravel, subrounded to	subangular up to 1.5", tan, dry				
10			loose.								
		0.0			Bottom of Test Pit at ~10.0						
			Photograph 1:	Completed test pit looking east.	P	hotograph 2: Completed test pi	t looking west.				
			120000								
				The Management of the Control of the							
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						L	DRAFT				
NOTES	S:										
		cation of	former MGP structures (form	ner liquid petroleum compressor	house #2).	LENGTH	7 ft.				
-	New York State			1 7		WIDTH	5 ft.				
ogs - be	elow ground surf	ace.			GEL	DEPTH	10 ft.				
					ULI Consultants	·					

			TEST PIT LOG	T T		TEST PIT	NUMBER
PROJEC	СТ		Greenpoint Energy Center Phase 3 RI			GPEC-	TP547
LOCAT			287 Maspeth Ave, Brooklyn, NY 112			1	OF 1
CLIENT			National Grid			PROJECT NO.	125180-3-1302
EQUIP!	MENT		Vac Truck (Guzzler CL) and Backhoe	e (CAT 430)		ELEVATION	16.16
WEATI			Cloudy, Rain, 53F			LOCATION NORTHING	688571.83
	RACTOR		O'Leary Construction	OPERATOR	Fergal Troy	LOCATION EASTING	649986.85
	RVED BY KED BY		Rich Crockett George Holmes	DATE DATE	11/7/2017 2/1/2018	DATE STARTED DATE FINISHED	11/7/2017 11/7/2017
CHECK	CED D1		George Hollines	DATE	2/1/2016	DATETINISHED	11/7/2017
Depth							
Below	Sample Depth,	PID	I				
Ground	No., and Type	(ppm)	I	So	oil Description and Remark	ks	
Surface	51	41 /	I				
(ft)							
		0.0	` '			% fine to coarse sand ~20% fine to 14", contains fragmented red by	•
-	CDEC EDS 15	2.2				approximately 0.5' bgs and vary	
	GPEC-TP547	2.2			like odor, tan-brown, tight		
.	(1-2)	2.0	I	-	· ·		
		3.8					
-		1.1	I				
		1.1					
		1.2	(4 10b WIDELY CRADED CA	AND WITH CILT AND	CDAVEL (CW CM). 70	10/ fine to seems send 200/ fin	o to occurs amorral marriadad
~		1.3	` '			% fine to coarse sand ~20% fine to 14", light tan-tan, tight, moi	
5		0.0	lo angular up to 5 , 10	70 Hon-plastic Tines, coc	ooles up to 12, bounders u	p to 14 , fight tan-tan, fight, mor	St.
		0.0	I				
			I				
		0.0	I				
-							
		0.0					
-		0.0	I				
		0.0	I				
-							
10		0.0					
10		0.0		7	Bottom of Test Pit at ~10.0) fact	
		0.0	Photograph 1: Complete			Photograph 2: Completed test pi	t looking south.
-				F 8			<i>g</i>
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				No service of the ser	P Code	老	4
			· .	4	A CONTRACTOR OF THE PARTY OF TH		1
•					24		
·						7.4	
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- -						MAN	
- -							
- - -							DRAFT
NOTES	3:						DRAFT
		ation of	former MGP feature (former tar pond)).		LENGTH	DRAFT 10 ft.
Test pit).		LENGTH	10 ft.
Test pit Datum:	to determine loc	Plane N).	GEL		

			TEST PIT I	LOG		TEST PIT	NUMBER
PROJE	CT		Greenpoint Energy Center Phase				-TP548
LOCAT			287 Maspeth Ave, Brooklyn, NY		1	OF 1	
CLIEN			National Grid			PROJECT NO.	125180-3-1302
EQUIP	MENT		Vac Truck (Guzzler CL) and Bac	khoe (CAT 430)		ELEVATION	16.44
WEAT			Cloudy, Rain, 53F			LOCATION NORTHING	688620.08
	RACTOR		O'Leary Construction	OPERATOR	Fergal Troy	LOCATION EASTING	650041.95
	RVED BY		Rich Crockett	DATE	11/8-11/9/2017	DATE STARTED DATE FINISHED	11/8/2017 11/9/2017
СПЕСІ	ECKED BY George Holmes DATE 2/1/2018					DATE FINISHED	11/9/2017
Depth						'	
Below	Sample Depth,	PID					
Ground	No., and Type	(ppm)		So	oil Description and Remarks	S	
Surface	ivo., and Type	(ppiii)					
(ft)							
		0.0	` '			fine to coarse sand ~30% fin	•
<u></u>						nented red brick, concrete, hard	dened solidified NAPL
		4.2	containing sedimen	ts from 0-6' bgs, black stain	ing, naphthalene-like odor, l	brown, tight, moist, FILL.	
_							
	GPEC-TP548	13.1					
	(2-3)						
_		8.5					
_		3.7					
5							
		2.1					
		2					
-		1.6	(6-10') WIDELY GRADE	D SAND WITH SII T (SW.	SM): ~80% fine to coarse s	and ~10% fine to coarse grave	1 rounded to angular up to 1"
		1.0	` /	ines, light brown-brown, mo		sand -10% fine to coarse grave	i, rounded to angular up to 1 ,
_		0.0	1	, 8			
		0.0					
_		0.0					
		0.0					
_		0.0					
		0.0					
10		0.0			D	С .	
		0.0	Photograph 1: Com	ipleted test pit looking east.	Bottom of Test Pit at ~10.0	reet. hotograph 2: Completed test pi	t looking west
_			r notograph 1. Com	picted test pit looking cast.	•	notograph 2. Completed test pr	rioding west
				Walter Walter			The National Control of the Control
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_			Carrie				
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_				L. C. C.		-	
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_						<u> </u>	DRAFT
NOTES	S:						
Test pit	to determine loc	cation of	former MGP feature (former tar p	oond).		LENGTH	12 ft.
Datum:	New York State	Plane N	NAVD 88.			WIDTH	5 ft.
bgs - he	elow ground surf	ace.			(())	DEPTH	10 ft.
253 00	Broama suri				GEI Consultants	DEF III	10 II.

RECEPT Greenpoint Energy Center Phase 3 RI GPEC-TP549				TEST PIT LOG			TEST PIT N	NUMBER
DOCATION 297 Masgeth Ave, Brooklyn, NY 11211	PROJEC	T					GPEC-	ГР549
SQUPMENT National Grid Professional Control Cont					1		1	
SOUTHERN Vac Truck (Guzzler CL) and Buckhoe (CAT 430)							PROJECT NO.	
Count					(CAT 430)			
CONTENT ACTOR OBSERVED BY CHECKED BY Record from DATE DATE 119-11702017 DATE STREET 119-2017 DATE STREET	_							688614.90
Depth Below Sample Depth Coronal Surface Depth Below Surface Sample Depth Coronal Surface Surf	CONTR	RACTOR				Fergal Troy	LOCATIONEASTING	650088.89
Depth Below Ground No., and Type (ppm) Soil Description and Remarks Soil Description and Soil	OBSER	VED BY			DATE		DATE STARTED	
Below Surface (ft) Sample Depth, Solid Description and Remarks Solid Petrophysis and Remarks	CHECK	ED BY		George Holmes	DATE	2/1/2018	DATE FINISHED	11/10/2017
Below Surface (ft) Sample Depth, Solid Description and Remarks Solid Petrophysis and Remarks								
Soil Description and Remarks Soil Description and Remarks No., and Type O. (0-2) SILTY SAND (SM); -75% fine to coarse sand -20% non-plastic fines, -5% fine to coarse gravel, rounded to angular up to 3", cobblet to 12", contains concrete fragments to 15", and timbers, moist, loose, brown. FILL. O. (2-4') SILTY SAND (SM); -75% fine to coarse sand -20% non-plastic fines, -5% fine to coarse gravel, rounded to angular up to 3", cobblet to 5", contains concrete fragments to 15", and timbers, moist, loose, brown. FILL. O. (4-10) WIDELY GRADED SAND WITH SILT (SW/SM); -80% fine to coarse sand, -15% non-plastic fines, -5% fine to coarse gravel, rounded to angular up to 1", moist, loose, brown. O. (4-10) O. (4-10) WIDELY GRADED SAND WITH SILT (SW/SM); -80% fine to coarse sand, -15% non-plastic fines, -5% fine to coarse gravel, rounded to angular up to 1", moist, loose, brown. O. (9.5-10) O. (9.5-10) DRAFT NOTES:	Depth							
Soil Description and Remarks No., and Type (ppm) Oo. (0-2) SILTY SAND (SM); -75% fine to coarse sand -20% non-plastic fines, -5% fine to coarse gravel, rounded to angular up to 3", cobble to 12", contains concrete fragments to 15", and timbers, moist, loose, brown. FILL. Oo. (2-4) SILTY SAND (SM); -75% fine to coarse sand -20% non-plastic fines, -5% fine to coarse gravel, rounded to angular up to 3", cobble to 5", contains concrete fragments to 15", and timbers, moist, loose, brown. FILL. Oo. (4-10) WIDELY GRADED SAND WITH SILT (SW-SM); -80% fine to coarse sand , -15% non-plastic fines, -5% fine to coarse gravel, rounded to angular up to 1", moist, loose, brown. Oo.	Below	C1- D41-	DID					
(ft)	Ground				S	oil Description and Remark	s	
0.0 (0-2) SiLTY SAND (SM): -75% fine to coarse sand -20% non-plastic fines, -5% fine to coarse gravel, rounded to angular up to 3", cobble to 12", contains concrete fragments to 15", and timbers, moist, loose, brown. FILL. 0.0 (2-4) SiLTY SAND (SM): -75% fine to coarse sand -20% non-plastic fines, -5% fine to coarse gravel, rounded to angular up to 3", cobble to 5", contains concrete fragments to 15", and timbers, moist, loose, brown. FILL. 0.0 (4-10) WIDELY GRADED SAND WITH SILT (SW-SM); -80% fine to coarse sand, -15% non-plastic fines, -5% fine to coarse gravel, rounded to angular up to 1", moist, loose, brown. 0.0	Surface	No., and Type	(ppm)					
to 12", contains concrete fragments to 15", and timbers, moist, loose, brown. FILL. 0.0	(ft)							
to 12", contains concrete fragments to 15", and timbers, moist, loose, brown. FILL. 0.0			0.0	(0.2') SILTY SAND (SM): ~7'	5% fine to coarse sand	1~20% non-plastic fines ~5	% fine to coarse gravel rounded	to angular up to 3" cobbles up
0.0 (2-4) SILTY SAND (SM); -75% fine to coarse sand -20% non-plastic fines, -5% fine to coarse gravel, rounded to angular up to 3", cobble to 5", contains concrete fragments to 15", and timbers, moist, loose, brown. FILL. 0.0 (4-10) WIDELY GRADED SAND WITH SILT (SW-SM); -80% fine to coarse sand , -15% non-plastic fines, -5% fine to coarse gravel, rounded to angular up to 1", moist, loose, brown. GPEC:TP549 (9.5-10) 0.0 Bottom of Test Pit at -10.0 feet. Photograph 1: Completed test pit looking west. Photograph 2: Completed test pit looking west.			0.0					to angular up to 5°, coopies up
O.0 (2-4) SILTY SAND (SM): ~75% fine to coarse sand ~20% non-plastic fines, ~5% fine to coarse gravel, rounded to angular up to 3", cobbles to 5", contains concrete fragments to 15", and timbers, moist, loose, brown. FILL. O.0 (4-10') WIDELY GRADED SAND WITH SILT (SW-SM); ~80% fine to coarse sand , ~15% non-plastic fines, ~5% fine to coarse gravel, rounded to angular up to 1", moist, loose, brown. GPEC-TP549 (9.5-10) O.0 Bottom of Test Pit at ~10.0 feet. Photograph 1: Completed test pit looking east. Photograph 2: Completed test pit looking west.	-			to 12 , contains concrete	ruginento to 10 , una	umoers, moist, roose, ero v		
to 5", contains concrete fragments to 15", and timbers, moist, loose, brown. FILL. 0.0 0.0 (4-10) WIDELY GRADED SAND WITH SILT (SW-SM): -80% fine to coarse sand, -15% non-plastic fines, -5% fine to coarse gravel, rounded to angular up to 1", moist, loose, brown. 0.0 0.0 0.0 0.0 0.0 OO OO OO			0.0					
to 5", contains concrete fragments to 15", and timbers, moist, loose, brown. FILL. 0.0 0.0 (4-10) WIDELY GRADED SAND WITH SILT (SW-SM): -80% fine to coarse sand, -15% non-plastic fines, -5% fine to coarse gravel, rounded to angular up to 1", moist, loose, brown. 0.0 0.0 0.0 0.0 0.0 OO OO OO	_							
O.0 (4-10) WIDELY GRADED SAND WITH SILT (SW-SM); ~80% fine to coarse sand , ~15% non-plastic fines, ~5% fine to coarse gravel, rounded to angular up to 1", moist, loose, brown. GPEC-TPS49 (9.5-10) 0.0 Bottom of Test Pit at ~10.0 feet. Photograph 1: Completed test pit looking east. Photograph 2: Completed test pit looking west.			0.0					d to angular up to 3", cobbles up
WIDELY GRADED SAND WITH SILT (SW-SM); ~80% fine to coarse sand , ~15% non-plastic fines, ~5% fine to coarse gravel, rounded to angular up to 1", moist, loose, brown. GPEC-TPS49 10 GPEC-TPS49 (9.5-10) 0.0 Bottom of Test Pit at ~10.0 feet. Photograph 1: Completed test pit looking east. Photograph 2: Completed test pit looking west. DRAFT NOTES:				to 5", contains concrete f	ragments to 15", and t	imbers, moist, loose, brown	. FILL.	
WIDELY GRADED SAND WITH SILT (SW-SM); ~80% fine to coarse sand , ~15% non-plastic fines, ~5% fine to coarse gravel, rounded to angular up to 1", moist, loose, brown. GPEC-TPS49 10 GPEC-TPS49 (9.5-10) 0.0 Bottom of Test Pit at ~10.0 feet. Photograph 1: Completed test pit looking east. Photograph 2: Completed test pit looking west. DRAFT NOTES:			0.0					
rounded to angular up to 1", moist, loose, brown. Oo								
S	-		0.0	(4 10') WIDELY GRADED SA	ND WITH SII T (SW.	SM): ~80% fine to coarse s	eand ~15% non-plastic fines ~	5% fine to coarse gravel
0.0	_		0.0				said, 13% non plastic inies,	7,0 Thie to course graver,
0.0			0.0	rounded to unguiar up to	1 , 1110154, 10050, 010 11			
GPEC-TP549 (9.5-10) On On On On On On On On On O			0.0					
GPEC-TP549 (9.5-10) 0.0 Photograph 1: Completed test pit looking east. Photograph 2: Completed test pit looking west. DRAFT NOTES:	L							
GPEC-TP549 0.0 (9.5-10) 0.0 Bottom of Test Pit at ~10.0 feet. Photograph 1: Completed test pit looking east. Photograph 2: Completed test pit looking west.			0.0					
GPEC-TP549 0.0 (9.5-10) 0.0 Bottom of Test Pit at ~10.0 feet. Photograph 1: Completed test pit looking east. Photograph 2: Completed test pit looking west.								
GPEC-TP549 (9.5-10) 0.0 Bottom of Test Pit at ~10.0 feet. Photograph 1: Completed test pit looking east. Photograph 2: Completed test pit looking west. DRAFT NOTES:			0.0					
GPEC-TP549 (9.5-10) 0.0 Bottom of Test Pit at ~10.0 feet. Photograph 1: Completed test pit looking east. Photograph 2: Completed test pit looking west. NOTES:								
GPEC-TP549 (9.5-10) 0.0 Bottom of Test Pit at ~10.0 feet. Photograph 1: Completed test pit looking east. Photograph 2: Completed test pit looking west. NOTES:	_		0.0					
10 (9.5-10) O.0 Bottom of Test Pit at ~10.0 feet. Photograph 1: Completed test pit looking east. Photograph 2: Completed test pit looking west. DRAFT NOTES:								
O.0 Bottom of Test Pit at ~10.0 feet. Photograph 2: Completed test pit looking west. Photograph 2: Completed test pit looking west. Photograph 2: Completed test pit looking west. DRAFT NOTES:	- I	CDEC TD540	0.0					
Bottom of Test Pit at ~10.0 feet. Photograph 1: Completed test pit looking east. Photograph 2: Completed test pit looking west. DRAFT NOTES:			0.0					
Photograph 1: Completed test pit looking east. Photograph 2: Completed test pit looking west. DRAFT NOTES:	10	(9.5-10)						
DRAFT NOTES:			0.0					
NOTES:	_			Photograph 1: Complete	d test pit looking east.	P	hotograph 2: Completed test pit	looking west.
NOTES:								
NOTES:					A A A A A A A A A A A A A A A A A A A		The state of the s	
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							L	
To take to determine location of farmer MCD structures (former day to storage tents)	NOTES	:						
Test pit to determine location of former MGP structures (former dry tar storage tank). LENGTH 12 ft.	Test pit	to determine loc	ation of	former MGP structures (former drv tar	storage tank).		LENGTH	12 ft.
	_			· · · · · · · · · · · · · · · · · · ·				
	Datuiii.							
bgs - below ground surface. DEPTH 10 ft.		low ground curf	ace				DEPTH	10 ft.
OLI Consultants	bgs - be	iow ground surr	acc.			(

			TEST PIT LOG	TEST PIT NUMBER				
PROJE	CT		Greenpoint Energy Center Phase 3 RI		GPEC-T	P550		
LOCA	ΓΙΟΝ		287 Maspeth Ave, Brooklyn, NY 11211	_		OF 1		
CLIEN	Т		National Grid		PROJECT NO.	125180-3-1302		
EQUIP	MENT		Vac Truck (Guzzler CL) and Backhoe (CAT 430)		ELEVATION	18.88		
WEAT			Clear, 38F, W 10-15 mph.		LOCATION NORTHING	688627.27		
	RACTOR			gal Troy	LOCATION EASTING	650156.16		
II	RVED BY		Rich Crockett DATE		DATE STARTED	12/7/2017		
CHECI	KED BY		George Holmes DATE 2/1	/2018	DATE FINISHED	12/7/2017		
- a								
Depth								
Below	Sample Depth,	PID	0.110	: .: 1D 1				
Ground Surface	No., and Type	(ppm)	Son Des	cription and Remarks				
(ft)								
(11)		0.0	LO 1 50 CH TN CAND COAD TOOL 5	1 6 200/ 1 /	. C 100/ C /	1 11 1		
		0.0	(0-1.5') SILTY SAND (SM); ~70% fine to coarse sand, most 3", cobbles up to 8", contains fragmented to whole re					
_			-			-		
	GPEC-TP550	9.1	solidified NAPL slightly pliable to hardened, black staining, slight naphthalene-like odor, moist, tight, dark brown to brown. FILL. Concrete foundation wall encountered at 0.4' bgs.					
L	(1-2)							
		2.9	(2-6') SILTY SAND (SM); ~70% fine to coarse sand, most		_			
L			3", cobbles up to 8", contains fragmented to whole red brick, concrete chunks up to 15", metal scrap, glass, moist, tight, d					
		0.0	brown. FILL. Encounter 4" steel pipe 3' bgs. Base of	concrete foundation wal	ll observed at 5' bgs.			
		0.0						
5								
		0.0						
H		0.0	(6-10') SILTY SAND (SM); ~70% fine to medium sand, mostly fine ~25% non-plastic fines, ~5% fine to coarse gravel, roun					
		0.0	1", loose, moist, light tan-tan.	stry fine -23% non-pia	stie imes, -5 % ime to coarse gr	avei, rounded to angular up to		
⊩		0.0	- ,,g					
		0.0						
⊩								
		0.0						
⊩								
		0.0						
10								
		0.0	Botton	of Test Pit at ~10.0 fee	et.			
L			Photograph 1: Completed test pit looking south.		Photograph 2: Completed te	st pit, pipe and wall base.		
				*				
				14.3		1000		
					See all cetains			
⊩								
H						15		
						417743		
L					STATE OF THE STATE			
						DACT		
l-						<i>RAFT</i>		
			1			- 17 17		
NOTES			MGD			10.0		
•			f former MGP structures (former dry tar storage tank).		LENGTH -	10 ft.		
Datum:	New York State	Plane N	NAVD 88.		WIDTH	5 ft.		
bgs - be	elow ground surf	ace.		C E 1	DEPTH	10 ft.		
				UE Consultants	-			

			TEST PIT LOG	TEST PIT NUMBER		
PROJE	СТ		Greenpoint Energy Center Phase 3 RI		GPEC-T	P551
LOCA	TION		287 Maspeth Ave, Brooklyn, NY 11211			OF 1
CLIEN	Г		National Grid		PROJECT NO.	125180-3-1302
EQUIP	MENT		Vac Truck (Guzzler CL) and Backhoe (CAT 430)		ELEVATION	19.45
WEAT	HER		Cloudy, Snow, 37F, W 10-15 mph. Cloudy, Rain, 45F, SW 10-15 mph.	_	LOCATION NORTHING	688719.01
	RACTOR		O'Leary Construction OPERATOR Fergal Tree		LOCATION EASTING	650148.94
	VED BY				DATE STARTED	12/11/2017
CHECH	ED BY		George Holmes DATE 2/1/2018		DATE FINISHED	12/12/2017
Depth				<u>.</u>		
Below						
Ground	Sample Depth,	PID	Soil Description	on and Remarks		
Surface	No., and Type	(ppm)	Son Bescriptic	ni ana Kemarks		
(ft)						
(11)		0.0	LO 1D CH TY CAND (CM), 500/ E	400/1	:- f: 100/ f:	1 4- 4 4 4-
		0.0	(0-1') SILTY SAND (SM); ~50% fine to coarse sand, mostly fine 3", cobbles up to 7", contains fragmented red brick and con-			avel, rounded to angular up to
⊩		0.0	b , coooles up to / , commiss magnitude red offer and con-	erete, moist, ugne	, dana orowin rizza	
		0.0	(1-10') SILTY SAND (SM); ~75% fine to coarse sand, mostly fine	20% non nloce	ic fines -5% fine to coorse are	val rounded to angular up to
⊩		0.0	(1-10') SILTY SAND (SM); ~75% fine to coarse sand, mostly fine 3", cobbles up to 9", contains fragmented red brick and con-			
		0.0	5, coooles up to 9, contains tragmented ted offer and cont	crete, oxidation st	anning, moist, tight, brown. Fil.	d
		0.0				
		0.0				
⊩		0.0				
5		0.0				
		0.0				
		0.0				
⊩		0.0				
		0.0				
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		0.0				
⊩		0.0				
		0.0				
⊩	CDEC TREE 1	0.0				
10	GPEC-TP551 (9.5-10)	0.0				
10	(9.5-10)	0.0	Pottom of To	est Pit at 10.0 for	nt .	
		0.0	Photograph 1: Completed test pit looking north.	est Pit at ~10.0 fee Pho	et. tograph 2: Completed test pit lo	ooking south
H			r notograph 1. Completed test pit looking north.	1110	tograph 2. Completed test pit to	oking soun.
				5000		
F			The state of the s		是一个人的一个人的一个人的	Section 1
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				100		3 7 7 7
			ATT TO SERVICE THE PARTY OF THE	1		
				to		No.
l-						The second second
						DACT
-					D	RAFT
NOTES	:		<u> </u>			
Test pit	to determine loc	ation of	former MGP feature (former tar pond).		LENGTH	10 ft.
1	New York State		• •		width -	5 ft.
II				$((\bigcirc))$	-	
ogs - be	low ground surf	ace.	(GFI 🥌 🛮	DEPTH -	10 ft.
			`	Consultants		

			TEST PIT LO)G		TEST PIT	NUMBER	
PROJE	CT		Greenpoint Energy Center Phase 3	RI		GPEC-TP552		
LOCAT	ΓΙΟΝ		287 Maspeth Ave, Brooklyn, NY 1	1211		1	OF 1	
CLIEN'	JENT National Grid					PROJECT NO.	125180-3-1302	
-	EQUIPMENT Vac Truck (Guzzler CL) and Backhoe (CAT 430)					ELEVATION	16.44	
WEAT			Partly Cloudy, 38F, NW 15-20 mpl		F 17	LOCATION NORTHING	688691.84	
	RACTOR RVED BY		O'Leary Construction Rich Crockett	OPERATOR DATE	Fergal Troy 11/10-11/14/2017	LOCATION EASTING DATE STARTED	650048.84 11/10/2017	
	KED BY		George Holmes	DATE	2/1/2018	DATE STAKTED DATE FINISHED	11/14/2017	
CILCI					2/1/2010	BITTE THANKS		
Depth								
Below	Sample Depth,	PID						
Ground	No., and Type	(ppm)		So	oil Description and Remark	S		
Surface	ce							
(ft)								
		0.0				plasticity fines, ~10% fine to co agmented concrete, moist, tight,	_	
			up to 3, coobles up to	o 11, contains fragmente	d to whole red brick and ira	gmemed concrete, moist, tight,	DIOWII. FILL.	
		0.0						
		0.0		st, tight, light tan to tan.	es, ~25% fine to medium sa	nd, ~5% fine to coarse gravel, r	ounded to angular up to 1",	
			cobbles up to 9, mor	st, tight, fight tall to tall.				
		0.0						
		0.0				ion-plastic fines, ~20% fine to o	coarse gravel, rounded to angu	
5			up to 3", moist, loose	, oxidation staining, tan-lig	ght brown.			
		0.0	` /		fine to coarse sand, ~20% r	on-plastic fines, ~20% fine to o	coarse gravel, rounded to	
			angular up to 3", moi	st, loose, tan-light brown.				
		0.0			fine to coarse sand, ~20% r	on-plastic fines, ~20% fine to o	coarse gravel, rounded to angu	
			up to 1", moist, loose	, tan-light brown.				
	GPEC-TP552	0.0						
_	(7.5-8)		Groundwater encoun	tered at 8' bgs.				
		0.0			Bottom of Test Pit at ~8.0 f	eet.		
4.0								
10								
			Photograph 1: Compl	eted test pit looking east.	р	hotograph 2: Completed test pi	t looking west	
,			Photograph 1: Compi	eted test pit looking east.	1	notograph 2. Completed test pr	HOOKING WEST.	
-			*			J. M.		
			3/4			A X X		
				The state of the s		No. of the state o		
							ALCOHOL:	
							1200	
					Contract of the second	建筑设置	1/2	
			19 N	新元 大 新 二	The same of the sa		Charles The Control of the Control o	
-						L	DRAFT	
NOTES	<u>.</u>		<u> </u>					
		cation of	Former MGP feature (former tar po	nd).		LENGTH	14 ft.	
	New York State			iiu).				
			12110 00.			WIDTH	5 ft.	
bgs - be	elow ground surf	ace.			GFI	DEPTH	8 ft.	
					ULI Consultants			

			TEST PIT LOG	TEST PIT NUMBER
PROJE	CT		Greenpoint Energy Center Phase 3 RI	GPEC-TP553
LOCAT			287 Maspeth Ave, Brooklyn, NY 11211	1 OF 1
CLIEN			National Grid	PROJECT NO. 125180-3-1302
EQUIP			Vac Truck (Guzzler CL) and Backhoe (CAT 430)	ELEVATION 16.54
WEATI			Partly Cloudy, 37F, W 10-15 mph.	LOCATION NORTHING 688692.99
	RACTOR		O'Leary Construction OPERATOR Fergal Troy	
	RVED BY			0/2017 DATE STARTED 11/20/2017 DATE FINISHED 11/20/2017
CHECK	KED BY		George Holmes DATE 2/1/2018	DATE FINISHED11/20/2017
Depth				
Below	Sample Depth,	PID		
Ground	No., and Type	(ppm)	Soil Description a	and Remarks
Surface	ivo., and Type	(ppiii)		
(ft)				
		0.0	•	astic fines, ~10% fine to coarse gravel, rounded to angular up to 3", cobbles
			· · · · · · · · · · · · · · · · · · ·	aining, slight naphthalene-like odor, moderate petroleum-like odor, moist,
Ī	GPEC-TP553	46.1	tight, brown. FILL	
	(1-2)		(1.5-3') SANDY SILT (MLS); ~60% non-plastic to low plasticity fines	s, ~30% fine to medium sand, ~10% fine to coarse gravel, rounded to
r 1	(- - /	1.6	angular up to 3", cobbles up to 7", gray staining, slight petrolet	_
i I		1.0	5 1 , F , 8 9 6,	
⊢ I		0.4	(2.4b) WIDELV CDADED CAND WITH OUT (CW CM). 700/ E	te to coarse sand, ~15% non-plastic fines, 15% fine to coarse gravel, rounded
i		0.4	(3-4) WIDELY GRADED SAND WITH SILT (SW-SM); ~70% fine to angular up to 3", cobbles up to 5", oxidation staining, moist,	
⊢				-
i I		0.0		e to coarse sand, ~15% non-plastic fines, 15% fine to coarse gravel,
5			rounded to angular up to 3", cobbles up to 5", moist, moderate	ely tight, tan.
		6.1	(5-7') WIDELY GRADED SAND WITH SILT (SW-SM); ~70% fine	e to coarse sand, ~15% non-plastic fines, 15% fine to coarse gravel, rounded
i I			to angular up to 3", cobbles up to 5", gray staining, slight petro	bleum-like odor, moist, moderately tight, tan.
r I		10.2		• •
i		10.2	Commitment of the Alline	
⊢ l			Groundwater encountered at 7' bgs.	
i I		8.8	Bottom of Test	Pit at ~7.0 feet.
L				
i I				
i I				
Г				
10				
10				
i			Distance 1. Completed test six looking and	Photograph 2: Completed test nit leaking west
⊢ I			Photograph 1: Completed test pit looking east.	Photograph 2: Completed test pit looking west.
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L				- Carried Carried
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i I				DDAET
				DRAFT
NOTES	S:			
NOTES		ation of	former MGP feature (former tar pond).	LENGTH 10 ft.
	to determine loc			
Test pit	New York State		AVD 88.	WIDTH 5 ft
Test pit Datum:	New York State	Plane N	AVD 88.	WIDTH 5 ft.
Test pit Datum:		Plane N	AVD 88.	WIDTH 5 ft. 7 ft.

			TEST PIT LOG	TEST PIT NUMBER
PROJE	СТ		Greenpoint Energy Center Phase 3 RI	GPEC-TP554
LOCA	ΓΙΟΝ		287 Maspeth Ave, Brooklyn, NY 11211	1 OF 1
CLIEN	Т		National Grid	PROJECT NO. 125180-3-1302
EQUIP	MENT		Vac Truck (Guzzler CL) and Backhoe (CAT 430)	ELEVATION 16.45
WEAT	HER		Cloudy, Rain, 55F, W 10-15 mph. Clear, 48F, NW 10-15 mph.	LOCATION NORTHING 688680.81
CONTI	RACTOR		O'Leary Construction OPERATOR Fergal Troy	LOCATION EASTING 649937.83
	RVED BY			1/17/2017 DATE STARTED 11/16/2017
CHECH	KED BY		George Holmes DATE 2/1/2018	DATE FINISHED 11/17/2017
Depth				<u> </u>
Below				
Ground	Sample Depth,	PID	Soil Description a	and Remarks
Surface	No., and Type	(ppm)	5511 Bescription	10110110
(ft)				
(11)		0.0	(0-1') SILTY SAND (SM); ~60% fine to coarse sand, ~30% non-pla	stic fines, ~10% fine to coarse gravel, rounded to angular up to 3", cobbles
		0.0	up to 9", moist, tight, dark brown to brown. FILL.	suc times, ~10% time to coarse graver, founded to angular up to 3, coobies
		0.0		stic fines, ~10% fine to coarse gravel, rounded to angular up to 3", cobbles
L			up to 9", 3-5" layer of slightly plible solidified NAPL dipping to tight, dark brown to brown. FILL.	o the north to 4' bgs, gray-dark gray staining, petroleum-like odor, moist,
	GPEC-TP554	12.2	tight, tark brown to brown. I iEE.	
L	(2-3)			
		99.4		
		0.6	(4-10') SILTY SAND (SM); ~75% fine to coarse sand, ~20% non-pl	astic fines, ~5% fine to coarse gravel, rounded to angular up to 3", cobbles
5			up to 12" moist, tight, brown. FILL	
		0.0		
 		0.0		
		0.0		
⊩		0.0		
		0.0		
⊩				
		0.0		
L				
		0.0		
10				
		0.0	Bottom of Test	Pit at ~10.0 feet.
L			Photograph 1: Completed test pit looking east.	Photograph 2: Completed test pit looking west.
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I				
			A STATE OF THE STA	
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⊩				
⊩			New semanting	
-				DRAFT
NOTES	S:		<u> </u>	
		ation of	f former MGP feature (former tar pond).	LENGTH 10 ft.
	New York State		• •	
			MIT D 00.	(<u>(</u>)
bgs - be	elow ground surf	ace.	G	DEPTH 10 ft.
			Ü	L Consultants

			TEST PIT LOG		TEST PIT NU	JMBER				
PROJE	CT		Greenpoint Energy Center Phase 3 RI		GPEC-T					
LOCAT			287 Maspeth Ave, Brooklyn, NY 11211			OF 1				
CLIEN'			National Grid		PROJECT NO.	125180-3-1302				
EQUIP	MENT		Vac Truck (Guzzler CL) and Backhoe (CAT 430)		ELEVATION	47.33				
WEAT	HER		Cloudy, 82F		LOCATION NORTHING	688531.93				
CONTRACTOR			O'Leary Construction OPERATOR	John O'Leary	LOCATION EASTING	649323.32				
	OBSERVED BY		Rich Crockett DATE	8/22/17, 8/23/17	DATE STARTED	8/22/2017				
CHECKED BY			George Holmes DATE	2/1/2018	DATE FINISHED	8/23/2017				
Depth Below Ground Surface (ft)	Sample Depth, No., and Type	PID (ppm)	(0-5') SILTY SAND (SM); ~70% fine to coarse sar		astic fines, ~10% fine to coarse ro					
_		0.0	3", contains fragments of brick, tile and conc increasing from 1-5' thick south to north, burn northern edge of test pit.							
		0.0								
_	GPEC-TP556 (3-4)	0.0								
5		0.1	(5-10') WIDELY GRADED SAND WITH SILT (SW-SM); ~80% fine to coarse sand, mostly fine, ~15% non-plastic fines, ~							
_		0.0	rounded-subangular gravel up to 3" moist, contains cobbles and boulders, reddish brown. Concrete slab observed 5' bgs and extends 4' off enclosure wall. Base of concrete foundation wall observed at 6' bgs.							
_		0.0								
-		0.0								
10		0.0		Bottom of Test Pit at ~10.0	Front					
_		0.0	Photograph 1: Completed test pit looking wes		Photograph 2: Base of foundation	on wall.				
- - -						RAFT				
Datum:		Plane N	former MGP structures (former motor fuel storage tank #1) NAVD 88.	GEI CONSULTANIS	LENGTH WIDTH DEPTH	10 ft. 5 ft. 10 ft.				

PROJE			TEST PIT	LOG		TEST PIT	NUMBER
LIVOIE	CT		Greenpoint Energy Center Phas	se 3 RI		GPEC-	-TP559
LOCAT	ΓΙΟΝ		287 Maspeth Ave, Brooklyn, N	Y 11211		1	OF 1
CLIEN'	T		National Grid			PROJECT NO.	125180-3-1302
EQUIP			Vac Truck (Guzzler CL) and Backhoe (CAT 430)			ELEVATION	49.29
WEAT			Clear, 82F	OPERATOR	T.1. OF	LOCATION NORTHING	688621.76
	RACTOR RVED BY		O'Leary Construction Rich Crockett	OPERATOR DATE	John O'Leary 8/21/2017	LOCATION EASTING DATE STARTED	649293.53 8/21/2017
	KED BY		George Holmes	DATE	2/1/2018	DATE STARTED DATE FINISHED	8/21/2017
Depth							
Below	Sample Depth,	PID					
Ground	No., and Type	(ppm)		So	oil Description and Remarks		
Surface	J1	41 /					
(ft)							
		1.2				stic fines, ~5% fine to coarse r	
ļ			_	-		and boulders, gray staining, d	ark brown- brown, moist, FIL
		1.1	Encountered top of	of concrete foundation wall 1.	5 bgs on south edge of test j	oit.	
		9.8	(- /			stic fines, ~5% fine to coarse r	
				ments of brick, up to boulder	sized concrete, steel, clinker	s, cobbles and boulders, gray st	taining, dark brown- brown,
		7.7	moist, FILL.				
			(3-7') SILTY SAND (SI	M); ~65% fine to coarse sand	l, mostly fine, ~30% non-pla	stic fines, ~5% fine to coarse r	ounded-subangular gravel up
		0.6	_	-	sized concrete, steel, clinker	s, cobbles and boulders, stained	d, burnt odor, reddish brown-
5			brown, moist, FIL	L.			
		2.1					
	GPEC-TP559	11.9					
ļ	(6-7)						
		0.2	(7-8') SILTY SAND (SI	M); ~65% fine to coarse sand	l, mostly fine, ~30% non-pla	stic fines, ~5% fine to coarse r	ounded-subangular gravel up
			3", contains fragr	ments of brick, up to boulder	sized concrete, steel, clinker	s, cobbles and boulders, black	staining, burnt odor, reddish
			brown- brown, m	ioist, FILL. Concrete slab obse	erved at 7' bgs extending 4' of	ff foundation wall.	
-		0.0					
•		0.0					
		0.0	(8-10') SILTY SAND (SI	M); ~60% fine to medium sar	nd, mostly fine, ~30% non-p	plastic fines, ~10% fine to coars	se rounded-subangular gravel
10			(0 10)	M); ~60% fine to medium sar bbles, reddish brown- brown,		plastic fines, ~10% fine to coars	se rounded-subangular gravel
10			(0 10)	bbles, reddish brown- brown,			se rounded-subangular gravel
10		0.0	to 3", contains col	bbles, reddish brown- brown,	moist. Bottom of Test Pit at ~10.0 t		
		0.0	to 3", contains col	bbles, reddish brown- brown,	moist. Bottom of Test Pit at ~10.0 t	Seet.	
10		0.0	to 3", contains col	bbles, reddish brown- brown,	moist. Bottom of Test Pit at ~10.0 t	Seet.	
10		0.0	to 3", contains col	bbles, reddish brown- brown,	moist. Bottom of Test Pit at ~10.0 t	Seet.	
10		0.0	to 3", contains col	bbles, reddish brown- brown,	moist. Bottom of Test Pit at ~10.0 t	Seet.	
10		0.0	to 3", contains col	bbles, reddish brown- brown,	moist. Bottom of Test Pit at ~10.0 t	Seet.	
10		0.0	to 3", contains col	bbles, reddish brown- brown,	moist. Bottom of Test Pit at ~10.0 t	Seet.	
10		0.0	to 3", contains col	bbles, reddish brown- brown,	moist. Bottom of Test Pit at ~10.0 t	Seet.	
10		0.0	to 3", contains col	bbles, reddish brown- brown,	moist. Bottom of Test Pit at ~10.0 t	Seet.	
10		0.0	to 3", contains col	bbles, reddish brown- brown,	moist. Bottom of Test Pit at ~10.0 t	Seet.	
10		0.0	to 3", contains col	bbles, reddish brown- brown,	moist. Bottom of Test Pit at ~10.0 t	Photograph 2: Base of found	ation wall.
10		0.0	to 3", contains col	bbles, reddish brown- brown,	moist. Bottom of Test Pit at ~10.0 t	Photograph 2: Base of found	
10	S:	0.0	to 3", contains col	bbles, reddish brown- brown,	moist. Bottom of Test Pit at ~10.0 t	Photograph 2: Base of found	ation wall.
NOTES		0.0	to 3", contains col	bbles, reddish brown- brown, pmpleted test pit lookiung west	moist. Bottom of Test Pit at ~10.0 t	Photograph 2: Base of found	ation wall.
NOTES: Pit		0.0 0.0	to 3", contains col Photograph 1: Co	bbles, reddish brown- brown, pmpleted test pit lookiung west	moist. Bottom of Test Pit at ~10.0 t	reet. Photograph 2: Base of found.	ation wall. ORAFT 10 ft.
NOTES Test pit Datum:	to determine loc	0.0 0.0	to 3", contains col Photograph 1: Co	bbles, reddish brown- brown, pmpleted test pit lookiung west	moist. Bottom of Test Pit at ~10.0 t	Feet. Photograph 2: Base of found.	ation wall. DRAFT

			TEST PIT L	OG		TEST PIT	NUMBER
PROJE	CT		Greenpoint Energy Center Phase			GPEC-	
LOCAT						1 OF 1	
CLIEN'			287 Maspeth Ave, Brooklyn, NY 11211 National Grid			PROJECT NO.	125180-3-1302
EQUIPMENT			Vac Truck (Guzzler CL) and Back	khoe (CAT 430)		ELEVATION	49.97
WEATHER CONTRACTOR			Cloudy, Rain, 80F	KHOC (C/11 +30)		LOCATION NORTHING	688716.02
			O'Leary Construction	OPERATOR	John O'Leary	LOCATION EASTING	649286.83
	VED BY		Rich Crockett	DATE	8/18/2017, 8/21/2017	DATE STARTED	8/18/2017
CHECK	KED BY		George Holmes	DATE	2/1/2018	DATE FINISHED	8/21/2017
Depth							
Below							
Ground	Sample Depth,	PID		So	il Description and Remark	S	
Surface	No., and Type	(ppm)					
(ft)							
()		0.0	(0-5') WIDELY GRADEI	CAND WITH SILT (SW 9	SM) - 20% fine to coarse	sand, mostly fine, ~10% fine to	coarea roundad cubangular
		0.0	` '			•	ish-green staining, dark brown-
_				•	-		-
		0.1		•	•	endge of test pit. Encountered	* *
			east-west going into	foundation wait 5 bgs, and	an 8 diameter steel pipe o	oriented north-south abutting for	indation waii 3 bgs.
_		0.2					
		J.2					
-		0.1					
		0.1					
_							
	GPEC-TP560	0.1	(4-5') WIDELY GRADEI	O SAND WITH SILT (SW-S	SM); ~80% fine to coarse s	sand, mostly fine, ~10% fine to	coarse rounded-subangular
5	(4-5)		gravel up to 3", ~10	% non-plastic fines, contain	s fragments of brick and co	oncrete, steel, dark gray and blu	ish-green staining, burnt odor,
	, ,	0.0	dark brown- brown,	, moist, , FILL			
		0.0	(5-10') SILTY SAND (SM)). 60% fine to medium cor	d mostly fine 25% non-	plastic fines 50% fine to coorse	e rounded-subangular gravel up
_				brown. Concrete slab obser		plastic filles, ~5% fille to coarse	rounded-subangular graver up
		0.0	to 3 moist, reduisii	blowii. Concrete siab obser	ved 5 bgs.		
		0.0					
-		0.0					
		0.0					
_							
		0.0					
10							
		0.0		F	Bottom of Test Pit at ~10.0	feet.	
_			Photograph 1: Blue-	green material encounntered	d.	Photograph 2: Foundation wa	all.
					20 Z. P. Z.	STATE OF THE PARTY	
_				Commence of the Commence of th		The state of the s	177
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			4	100000			
 				A CONTRACTOR OF THE PARTY OF TH			
						<i>r</i>	DAFT
-						L	DRAFT
NOTES	<u> </u>		<u> </u>				
		nation of	f former MGP structures (former re	eidual dietillata etoroga torl	1	LENGTH	10 ft.
•			· · · · · · · · · · · · · · · · · · ·	esiduai distiliate storage tank	.).		
Datum:	New York State	Plane l	NAVD 88.			WIDTH	5 ft.
bgs - be	low ground surf	ace.				DEPTH	10 ft.
	5				GEL		10 16
l							

			TEST PIT LOG			TEST PIT N	UMBER
PROJE	CT		Greenpoint Energy Center Phase 3 RI			GPEC-T	P561
LOCAT	TION		287 Maspeth Ave, Brooklyn, NY 11211		_		OF 1
CLIEN'	Γ		National Grid			PROJECT NO.	125180-3-1302
EQUIP:	MENT		Vac Truck (Guzzler CL) and Backhoe (CA	T 430)		ELEVATION	50.09
WEAT	HER		Clear, 81F			LOCATION NORTHING	688726.84
	RACTOR		O'Leary Construction	OPERATOR	John O'Leary	LOCATION EASTING	649239.97
	VED BY		Rich Crockett	DATE DATE	8/17/2017, 8/18/2017	DATE STARTED	8/17/2017
CHECK	ED BY		George Holmes	2/1/2018	DATE FINISHED	8/18/2017	
Depth							
Below	Commis Donath	PID					
Ground	Sample Depth, No., and Type				Soil Description and Remarks		
Surface	No., and Type	(ppm)					
(ft)							
		0.0			, mostly fine, ~30% non-plastic fin		
				•	concrete, steel, cobbles, boulders,	clinkers, fargmented solidified N	NAPL, dark brown- brown,
	GPEC-TP561	1.2	moist, FILL. Encountered to	of concrete found	dation wall 0.5' bgs.		
	(1-2)						
lh	()	0.6	(1-3') SILTY SAND (SM); ~65%	ine to coarse sand	, mostly fine, ~30% non-plastic fin	nes. ~5% fine to coarse rounded	-subangular gravel up to 3".
		0.0			concrete, steel, cobbles, boulders,		
 -		0.7	dark brown- brown, moist, FI	-	, , , , , , , , , , , , , , , , , , , ,		,
		0.7					
_					, mostly fine, ~30% non-plastic fin		
		1.1	=	-	concrete, steel, cobbles, boulders,	clinkers, fargmented solidified N	NAPL, gray staining, burnt
5			odor, dark brown- brown, mo	ist, FILL			
		0.6	(5-8') SILTY SAND (SM); ~65%	ine to medium sar	nd, mostly fine, ~30% non-plastic	fines, ~5% fine to coarse rounde	d-subangular gravel up to 3",
			moist, reddish brown. Concre	te slab observed 5	bgs extending 3' off of foundation	n wall.	
		0.0					
 -		0.1					
		0.1					
l- I							
		0.0	(0.10)		ine to coarse sand, ~20% non-plas	stic fines, ~20% fine to course ro	ounded-subangular gravel up to
L			3", contains cobbles and boul	ders, brown.			
		0.0					
10							
		0.0			Bottom of Test Pit at ~10.0 feet		
			Photograph 1: Bluish-green st	aining.		Photograph 2: Base of foundati	ion wall.
I				Ü			
					M-08a		
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IL I			CALL AND				
			の記録が表			-50	
IL I			1 3 miles 40	An I had			
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							NDAET
							PRAFI
NOTES	S:						
Test pit	to determine loc	ation of	former MGP structures (former residual dis	tillate storage tank	x).	LENGTH	10 ft.
Datum:	New York State	Plane N	NAVD 88.	-		WIDTH	5 ft.
						 	_
ogs - be	low ground surf	ace.			GFI 🐸	DEPTH	10 ft.
					ULI Consultants		•

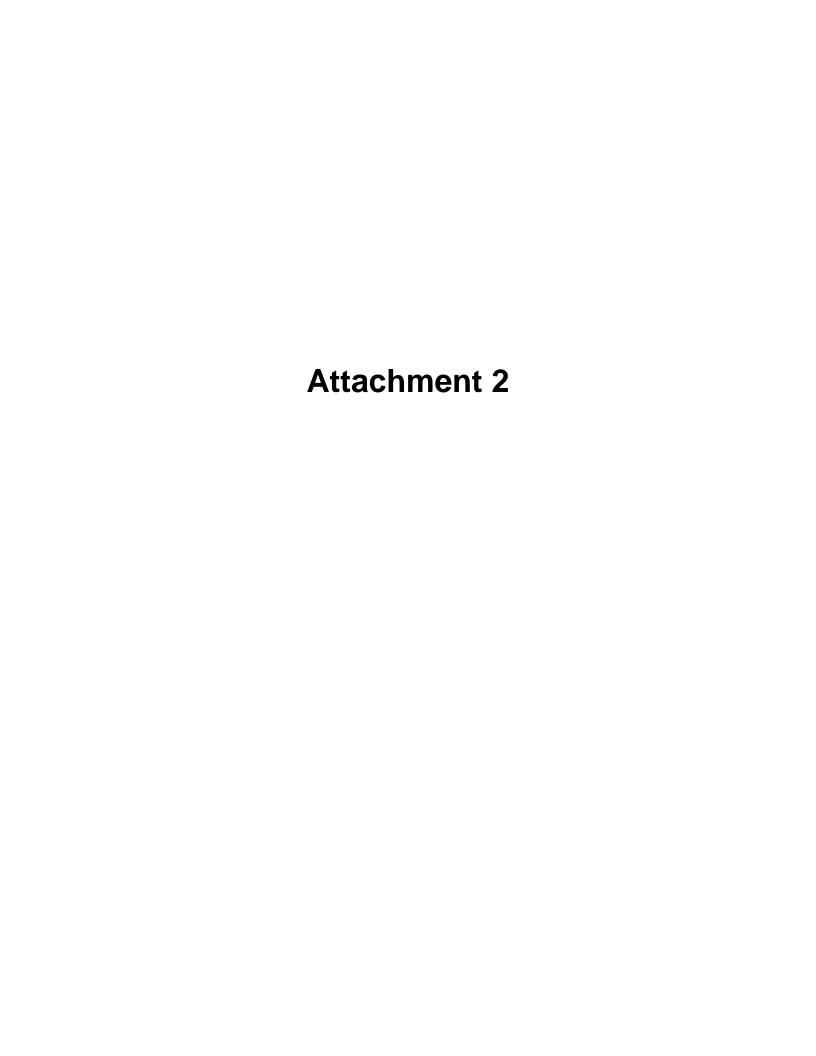
LOCATION 287 Maspeth Ave, Brooklyn, NY 11211 1 PROJECT NO. EQUIPMENT Vac Truck (Guzzler CL) and Backhoe (CAT 430) ELEVATION LOCATION NORTH CONTRACTOR OLeary Construction OPERATOR Fergal Troy DATE STARTED DATE 10/2/2017 DATE STARTED DATE FINISHED Depth Below Ground Surface (ft) Sample Depth, No., and Type (ppm)	GPEC-TP562
CLIENT National Grid PROJECT NO.	
EQUIPMENT WEATHER CONTRACTOR OBSERVED BY CHECKED BY Depth Below Ground Surface (ft) Vac Truck (Guzzler CL) and Backhoe (CAT 430) Cloudy, 73F/Partly Cloudy, 74F OLeary Construction OPERATOR OPERATOR OPERATOR Fergal Troy 977/2017 DATE STARTED DATE 10/2/2017 DATE FINISHED Soil Description and Remarks	OF 1
WEATHER CONTRACTOR OBSERVED BY CHECKED BY Depth Below Ground Surface (ft) Cloudy, 73F/Partly Cloudy, 74F OLeary Construction OPERATOR OPERATOR OPERATOR OPERATOR Fergal Troy 977/2017 DATE STARTED DATE FINISHED DATE FINISHED Soil Description and Remarks	125180-3-1302
CONTRACTOR OBSERVED BY CHECKED BY Sample Depth, Below Ground Surface (ft) OCLeary Construction ODERATOR ODATE	48.41
OBSERVED BY CHECKED BY Rich Crockett/George Holmes DATE 9/7/2017 DATE STARTED DATE 10/2/2017 DATE FINISHED DATE STARTED DATE FINISHED Sample Depth, No., and Type (ppm) Soil Description and Remarks	
CHECKED BY George Holmes DATE DATE 10/2/2017 DATE FINISHED DATE FINISHED Sample Depth, No., and Type (ppm) Soil Description and Remarks	
Depth Below Ground Surface (ft) Sample Depth, No., and Type (ppm) Soil Description and Remarks	9/7/2017 9/8/2017
Below Ground Surface (ft) Sample Depth, No., and Type (ppm) Soil Description and Remarks	9/0/2017
GPEC-TP562 0.0 (0-1.5') SILTY SAND (SM); ~70% fine to coarse sand, ~20% non-plastic fines, ~10% fine to coarse ang	
(0-1) cobbles, fragments and pieces of red brick, concrete fragments, porcelain fragments, pieces of sturthin pieces of solid NAPL (similar to tar applied to LNG tank containment berms) just below the sarea, dark brown, moist, FILL. Concrete foundation wall encountered just below surface along no	surface, some black staining in NAPL
0.0 (1.5-7') SILTY SAND (SM); ~70% fine to coarse sand, ~20% non-plastic fines, ~10% fine to coarse ang cobbles/boulders, red brick and concrete fragments, brown-reddish brown, moist, FILL. Two stee	
encountered 3' bgs, and a 10"-diameter steel pipe oriented northeast-southwest was encountered 4 was encountered at 5.5' bgs	
5	
0.0	
0.0	
0.0 (7-10') WIDELY GRADED SAND WITH SILT (SW-SM); ~80% fine to coarse sand, ~10% fine to coarse 2.5", ~10% non-plastic fines, contains cobbles/boulders, brown, moist.	se subangular to subrounded gravel up to
0.0	
10 0.0	
0.0 Bottom of Test Pit at ~10.0 feet.	
Photograph 1: Completed test pit looking northwest. Photograph 2: 0	Completed test pit looking northeast.
MOTES	DRAFT
NOTES:	10.0
Test pit to determine location of former MGP structures (former crude solvent storage tank).	10 ft.
Datum: New York State Plane NAVD 88.	5 ft.
bgs - below ground surface. GEI Consultants DEPTH	10 ft.

			TEST PIT LOG		TEST PIT N	UMBER	
PROJE	СТ		Greenpoint Energy Center Phase 3 RI		GPEC-T	TP563	
LOCAT			287 Maspeth Ave, Brooklyn, NY 11211	1 OF 1			
CLIEN			National Grid		PROJECT NO.	125180-3-1302	
EQUIP			Vac Truck (Guzzler CL) and Backhoe (CAT 430)		ELEVATION	42.56	
WEAT			Clear 77F		LOCATION NORTHING	688946.51	
	RACTOR		O'Leary Construction OPERATO	R Fergal Troy	LOCATION EASTING	649662.78	
OBSER	RVED BY		Rich Crockett DATE	9/12/2017, 9/13.2017	DATE STARTED	9/12/2017	
CHECH	KED BY		George Holmes DATE	2/1/2018	DATE FINISHED	9/13/2017	
Depth							
Below	Sample Depth,	PID					
Ground	No., and Type			Soil Description and Remark	rks		
Surface	No., and Type	(ppm)					
(ft)							
		0.0	(0-7') WIDELY GRADED SAND WITH SILT (SW-SM): ~75% fine to coarse	e sand, mostly fine, ~15% non-plas	stic fines. ~10% fine to coarse	
		0.0	rounded-subangular gravel up to 3", contai			·	
F		0.0	debris, cobbles and boulders, moist, dark b			T/ F	
		0.0		,			
L							
	GPEC-TP563	0.9					
L	(2-3)						
Γ		2.1					
		0.0					
5		0.0					
		0.0					
		0.0					
_							
		0.0					
			Refusal due to densely packed demolition	lebris at 7 ft. below ground su	rface. (bgs)		
		0.0		Bottom of Test Pit at ~7.0) feet.		
_							
10							
10							
_			Photograph 1: Completed test pit looking e	ast.	Photograph 2: Completed test pit le	ooking south.	
			The state of the s	V-10-			
			The state of the s				
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_					A STATE OF THE STA		
						N. Carlotte	
L			The state of the s				
			The state of the s		The state of the s	STATE OF THE STATE	
L) and the second	\$5 a \$5	
L						PRAFT	
						/	
NOTES	S:						
Test pit	to further invest	igate im	pacts noted in nearby test pits (former second propane sto	orage farm).	LENGTH	10 ft.	
	New York State	-					
			MAYD 00.		WIDTH	5 ft.	
bgs - be	elow ground surf	ace		CEI	DEPTH	7 ft.	
				UEI Consulta	nts		

			TEST PIT LO	G		TEST PIT	NUMBER					
PROJE	CT		Greenpoint Energy Center Phase 3 R	I		GPEC-	-TP564					
LOCAT	ΓΙΟΝ		287 Maspeth Ave, Brooklyn, NY 112		1	OF 1						
CLIEN'	T		National Grid			PROJECT NO.	125180-3-1302					
EQUIP			Vac Truck (Guzzler CL) and Backho	e (CAT 430)		ELEVATION	50.70					
WEATI			Clear, 86F			LOCATION NORTHING	688840.23					
	RACTOR		O'Leary Construction	OPERATOR	John O'Leary	LOCATION EASTING	649236.44					
	RVED BY KED BY		Rich Crockett George Holmes	DATE DATE	8/16/2017 2/1/2018	DATE STARTED DATE FINISHED	8/16/2017 8/16/2017					
CILCI	CLD D1		George Fronties	DATE	2/1/2010	DATETINISHED	0/10/2017					
Depth												
Below	0 1 5 4	DID										
Ground	Sample Depth,	PID		Sc	il Description and Remarks							
Surface	No., and Type	(ppm)										
(ft)												
		0.0	(0-3') SILTY SAND (SM); ~	60% fine to coarse sand	, mostly fine, ~30% non-pla	stic fines, ~10% fine to coarse	rounded-subangular gravel up t					
			3", contains fragments	of brick and concrete, co	bbles, boulders, grayish bro	wn- brown, moist, FILL. Enc	ountered top of concrete					
-		0.1	foundation wall 0.5' bg	S.								
		0.1										
-		0.0										
		0.0										
_				500/ E	1 6 200/ 1							
		0.0					rounded-subangular gravel up t					
_			_	of brick and concrete, co	obbles, boulders, fragmented	I solidified NAPL, naphthalene	e-like odor, reddish brown-					
		10.7	brown, moist, FILL.									
5												
	GPEC-TP564	140.9	(5-7') SILTY SAND (SM); ~	60% fine to coarse sand	, mostly fine, ~30% non-pla	stic fines, ~10% fine to coarse	rounded-subangular gravel up					
	(5-6)		3", contains fragments	contains fragments of brick and concrete, cobbles, boulders, fragmented solidified NAPL, gray staining, petroleum-like odor, reddish								
-	(/	47.9	brown-brown, moist, F	ILL. Base of foundation	wall observed at 5' bgs.							
		17.5										
_		26.2	(7.10) SILTY SAND (SM):	70% fine to coarse sand	25% non plactic fines5	5% fine to coarse rounded-sub	angular gravel up to 1"					
		20.2			ng, petroleum-like odor, redo		angular graver up to 1,					
L			contains cobbies and bo	outders, light gray stainin	ig, petroleum-nke odor, rede	aisii biown-biown, moist.						
		14.7										
_												
		9.9										
10												
_		6.7			Bottom of Test Pit at ~10.0 f	eet.						
			Photograph 1: Excavati	ion looking east.		Photograph 2: Base of found	lation wall.					
						のできたと						
_				The state of the s								
							60					
_			10 10			- Lawrench Control						
_						100	10-11					
			Park State									
_												
						L	DRAFT					
NOTES	S:					1						
		ation of	former MGP structures (former moto	or fuel storage tank #2)		LENGTH	10 ft.					
•	New York State		,	n raci storage talik π2).								
Datum:			MAYD 00.			WIDTH	5 ft.					
	elow ground surf	ace				DEPTH	10 ft.					
bgs - be	now ground surr				(_ L _							

			TEST PIT LOG		TEST PIT NUMBER
PROJE	СТ		Greenpoint Energy Center Phase 3 RI		GPEC-TP565
LOCA			287 Maspeth Ave, Brooklyn, NY 11211	1	OF 1
CLIEN			National Grid	PROJECT NO.	125180-3-1302
EQUIP	PMENT		Vac Truck (Guzzler CL) and Backhoe (CAT 430)	ELEVATION	47.45
WEAT	HER		Clear 77F	LOCATION NO	ORTHING 688924.87
CONT	RACTOR		O'Leary Construction OPERATOR Ferga	Troy LOCATION EA	STING 649395.94
OBSE	RVED BY		Rich Crockett DATE 9/11/	DATE STARTE	
CHECI	KED BY		George Holmes DATE 2/1/2	DATE FINISHE	ED 9/11/2017
Donth				<u> </u>	
Depth Below					
Ground	Sample Depth,	PID	Soil Descri	tion and Remarks	
Surface	No., and Type	(ppm)	Son Descr	tion and Remarks	
(ft)					
(11)		0.0	(0-1') SILTY SAND (SM); ~70% fine to coarse sand, mostly	ne ~25% non-plastic fines ~5% fin	ne to coarse rounded-subangular gravel un to
		0.0	3", contains fragmented brick, tile and glass, up to boul	-	
⊩			moist, FILL. Top of concrete foundation wall observed		ginenes, spots of standing, dark brown brown,
		0.0		_	
L			(1-2') WIDELY GRADED SAND WITH SILT (SW-SM); ~8		-
	GPEC-TP565	1.2	rounded-subangular gravel up to 3", contains fragment	brick and concrete, cobbles and bot	ulders, moist, brown, FILL.
	(2-3)				
		0.7	(2-3') WIDELY GRADED SAND WITH SILT (SW-SM); ~8	6 fine to coarse sand, mostly fine, ~	-15% non-plastic fines, ~5% fine to coarse
			rounded-subangular gravel up to 3", contains fragment	brick and concrete, cobbles and both	ulders, clinkers, solidified NAPL fragments,
⊩		0.2	dark gray staining, sulfur-like odor, moist, brown, FILL		
		0.2		C 250/ 1 .: C 50/	S
5			(3-10') SILTY SAND (SM); ~60% fine to medium sand, most	-	
		0.0	to 3", contains cobbles and boulders, moist, reddish bro	n-brown. Base of foundation wall of	observed at 6 ft. bgs.
Γ		0.0			
I		0.0			
		0.0			
 -		0.0			
		0.0			
L					
		0.0			
10					
		0.0	Bottom o	Test Pit at ~10.0 feet.	
			Photograph 1: Completed test pit looking west.	Photograph 2: Comp	pleted test pit looking south.
I					
			NEW CONTROL OF THE PARTY OF THE		
 -					Base
L			THE RESERVE THE PARTY OF THE PA		
			AND THE RESERVE OF THE PERSON		
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l					DRAFT
NOTES	S:		•		
Test pit	t to determine loc	ation of	f former MGP structures (former crude solvent storage tank).	LENGTH	10 ft.
11 *	: New York State		,	WIDTH	5 ft.
bgs - be	elow ground surf	ace.		GEI DEPTH	10 ft.
				Consultants	

			TEST PIT LOG	1		TEST PIT	NUMBER		
PROJE	CT		Greenpoint Energy Center Phase 3 RI			GPEC	-TP566		
LOCA			287 Maspeth Ave, Brooklyn, NY 112		1 OF 1				
CLIEN	Т		National Grid			PROJECT NO.	125180-3-1302		
EQUIP			Vac Truck (Guzzler CL) and Backhoe	(CAT 430)		ELEVATION	51.15		
WEAT			Cloudy, 79F	OPER LEOR	F 1.00	LOCATION NORTHING	688897.05		
II	RACTOR RVED BY		O'Leary Construction Rich Crockett	OPERATOR DATE	Fergal Troy 9/20/2017, 9/21/2017	LOCATION EASTING DATE STARTED	649138.96 9/20/2017		
II	KED BY		George Holmes	DATE	2/1/2018	DATE STARTED DATE FINISHED	9/21/2017		
Depth									
Below	Sample Depth,	PID							
Ground	No., and Type	(ppm)		Sc	oil Description and Remarks				
Surface	J.	41 /							
(ft)									
		0.0				stic fines, ~5% fine to coarse			
L			-	-		l, and cobbles, moist, dark bro	own-brown, FILL.		
		0.0	Encountered top of conc	rete foundation wan 1	o ogs.				
L							astic fines, ~5% fine to coarse		
	GPEC-TP566	0.0	rounded-subangular gra	vel up to 3", contains co	obbles, boulders, fragmented	I solidified NAPL, moist, redd	ish brown-brown.		
L	(2-3)								
		0.0							
		0.0							
5									
		0.0	(5-10') WIDELY GRADED SA	ND WITH SILT (SW-	SM); ~80% fine to coarse s	and, mostly fine, ~15% non-pl	astic fines, ~5% fine to coarse		
			rounded-subangular gra	vel up to 3", contains co	bbles, boulders, moist, redd	ish brown-brown. Base of for	andation wall observed 5 ft. bgs.		
┢		0.0							
F		0.0							
-		0.0							
		0.0							
-		0.0							
10		0.0							
- 10		0.0		I	Bottom of Test Pit at ~10.0 f	eet			
			Photograph 1: Complete			otograph 2: Completed test pi	t looking south.		
-				F 8					
_						The same of the sa			
					Bas	e N			
┝				1000			Salar Salar		
⊢							The same of the sa		
F					E S	- TO THE TO SERVICE OF THE PARTY OF THE PART			
						<i>-</i>	DAFT		
_						L	DRAFT		
NOTES	S:								
Test pit	to determine loc	cation of	f former MGP structures (former motor	fuel storage tank #2).		LENGTH	10 ft.		
Datum:	New York State	Plane N	NAVD 88.			WIDTH	5 ft.		
bgs - be	elow ground surf	ace.				DEPTH	10 ft.		
	<i>J</i>				GEL				
						<u>I</u> L			



BORING INFORMATION BORING NORTHING (ft): 688858.4 **EASTING (ft):** 649846.2 GROUND SURFACE EL. (ft): **DATE START/END:** 10/11/2016 25.4 GPEC-SB701 VERT./HORIZ. DATUMS: NAVD88/NAD83 NY Zone 3101 **DRILLING COMPANY:** New England Boring Contractors TOTAL DEPTH (ft): 102.0 DRILLER NAME: Mike St. John LOGGED BY: M. Potros RIG TYPE: Mobile B-53 Truck Rig PAGE 1 of 4 DRILLING INFORMATION HAMMER TYPE: Safety Hammer - spooling winch **CASING I.D./O.D.:** 4.5 inch/ 4.75 inch CORE BARREL TYPE: NA AUGER I.D./O.D.: NA / NA DRILL ROD O.D.: 2.5 inch CORE BARREL I.D./O.D.: NA / NA DRILLING METHOD: Mud Rotary with Casing WATER LEVEL DEPTHS (ft):
▼ 24.1 10/12/2016 8:00 am Allowed groundwater to recharge overnight before measuring ABBREVIATIONS: Pen. = Penetration Length S = Split Spoon Sample Qp = Pocket Penetrometer Strength NA. NM = Not Applicable. Not Measured Rec. = Recovery Length C = Core Sample Sv = Pocket Torvane Shear Strength Blows per 6 in.: 140-lb hammer falling RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen.,% U = Undisturbed Sample LL = Liquid Limit 30 inches to drive a 2-inch-O.D. SC = Sonic Core PI = Plasticity Index split spoon sampler. WOR = Weight of Rods DP = Direct Push Sample PID = Photoionization Detector WOH = Weight of Hammer HSA = Hollow-Stem Auger I.D./O.D. = Inside Diameter/Outside Diameter Sample Information Drilling Remarks/ Elev. Depth Graphic Pen./ Blows Soil and Rock Description (ft) Sample Depth Field Test Data (ft) Rec. per 6 in. Nο (ft) (in) or RQD 0- 3" Asphalt pavement. Vacuum excavated to 9'. 3-11" Asphaltic Subbase 0.7 G1 10/10 FILL (CLASS 7) at ~1 ft / El. 24.4 to 1.5 DCP_{SB701-1}@ D=1.6'; DPI=5 G1: SILT WITH SAND (ML); ~60% nonplastic, slow dilatancy fines, low dry strength; ~40% fine sand; brown, dry. PID = 0.0 ppm. $DCP_{SB701-2}$ @ D=4.0'; DPI=2 5 20 DCP_{SB701-3}@ D=6.7'; DPI=20 Advance Casing to 8.0'. DCP_{SB701-4}@ D=8.9'; S1: SILT WITH SAND (ML); ~80% nonplastic, slow dilatancy S1 24/22 7-7-8-6 fines, low dry strength; ~20% fine sand; brown, dry. PID = DPI=15 to 10 0.0 ppm. Advance Casing to 10.0'. 10 10 S2 24/12 9-11-12to 12 S2: SILT WITH SAND (ML); ~65% nonplastic, slow dilatancy 14 fines, low dry strength; ~25% fine sand; ~10% crushed gravel fragments up to 2"; brown, dry. PID = 0.0 ppm. GLACIAL OUTWASH (CLASS 3B) at ~13 ft / El. 12.4 Advance Casing to 15.0'. 15 S3: SILTY SAND (SM); ~80% fine to medium sand; ~20% 10 S3 24/10 8-12-13nonplastic to low plasticity, slow dilatancy fines, low dry to 17 19 strength; brown, dry. PID = 0.0 ppm. Advance Casing to 20.0'. 20 S4: No Recovery. 20 **S4** 24/0 28-26to 22

NOTES: 2nd attempt at SB701. Refusal at 2.5 ft at 1st attempt. Dynamic Cone Penetrometer (DCP) Test.

31-32

DCP_{Index} (DPI) provided above in mm/blow over test interval.

12/19/16

GEI DATA TEMPLATE 2013.GDT

GPEC LNG VAPORIZER.GPJ

1610397 CHI ENG-

WOBURN STD 6-NORTH-EAST-GRAPHIC LOG

GEI

PROJECT NAME: CHI Eng|NG - GPEC LNG Vaporizer



NORTHING (ft): 688858.4

GROUND SURFACE EL. (ft): 25.4

VERT./HORIZ. DATUMS: NAVD88/NAD83 NY Zone 3101

EASTING (ft): 649846.2

DATE START/END: 10/11/2016

DRILLING COMPANY: New England Boring Contractors

BORING GPEC-SB701

PAGE 2 of 4

		S	ample Inf	ormation			g	
Elev. De (ft) (f		Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Graphic Log	Soil and Rock Description
0	25	S5	25 to 27	24/7	8-8-9-10	Advance Casing to 25.0'.		S5: NARROWLY GRADED SAND WITH GRAVEL (SP); ~70% medium to coarse sand, ~25% rounded to subangular gravup to 1.5" fragments; <5% nonplastic fines; brown, wet. PID 0.0 ppm.
-	30	S6	30 to 32	24/4	13-8-12- 5	Advance Casing to 30.0'.		S6: NARROWLY GRADED SAND WITH GRAVEL (SP); ~659 medium to coarse sand, ~30% subrounded to angular gravup to 1.5" fragments; <5% nonplastic fines; brown, wet. PID 0.0 ppm.
-10	35	S7	35 to 37	24/9	5-7-8-6	Advance Casing to 35.0'.		1/8" to 1/4" subangular gravel up to 0.5"; 15% mostly medium sand: brown, wet. PID = 0.0 ppm.
-	40	S8	40 to 42	24/11	7-5-6-6	Advance Casing to 40.0'.		S8: NARROWLY GRADED SAND WITH GRAVEL (SP); ~75% medium to coarse sand, ~20% subrounded to subangular gravel up to 1.5" fragments; <5% nonplastic fines; brown, well PID = 0.0 ppm.
-20	45	\$9	45 to 47	24/1	8-9-9-11	Advance Casing to 45.0'.		S9: NARROWLY GRADED SAND WITH GRAVEL (SP); Simi to S8. PID = 0.0 ppm.
- - - - - - - - - - - - - - -	50	S10	50 to 52	24/10	8-9-10- 11	Advance Casing to 50.0'.		S10: NARROWLY GRADED SAND WITH GRAVEL (SP); ~60 medium to coarse sand, ~35% subrounded to subangu gravel up to 2" fragments; <5% nonplastic fines; brown, w PID = 0.0 ppm.
- - - -	55					Advance Casing to 55.0'.		



NORTHING (ft): 688858.4

GROUND SURFACE EL. (ft): 25.4

VERT./HORIZ. DATUMS: NAVD88/NAD83 NY Zone 3101

EASTING (ft): 649846.2

DATE START/END: 10/11/2016

DRILLING COMPANY: New England Boring Contractors

BORING GPEC-SB701

PAGE 3 of 4

		Sa	ample Inf	ormation			g	·
Elev. Depth (ft)	S	ample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Graphic Log	Soil and Rock Description
_	M	S11	55 to 57	24/6	18-26- 18-17			S11: NARROWLY GRADED SAND (SP); ~95% medium sand; <5% nonplastic fines; brown, wet. PID = 0.0 ppm.
- 60	,	S12	60 to 62	24/8	16-16- 15-16	Advance Casing to 60.0'.		S12: NARROWLY GRADED SAND (SP); Similar to S11. PID = 0.0 ppm.
-40	,	S13	65 to 67	24/5	12-13- 20-24	Advance Casing to 65.0'.		S13: NARROWLY GRADED SAND (SP); Similar to S11. PID = 0.0 ppm.
70	,	S14	70 to 72	24/14	22-24- 24-41	Advance Casing to 70.0'.		S14: NARROWLY GRADED SAND (SP); ~95% fine to mediun sand, medium sand @ 0-6" and fine to medium sand @ 6-14"; <5% nonplastic fines; brown, wet. PID = 0.0 ppm.
_						Advance Casing to 75.0'.		MARINE CLAY (CLASS 4A) at ~73.5 ft / El48.1
-50 - 75		S15	75 to 77	24/19	28-44- 52-63	Qv=4.3; Sv=0.9.		S15: LEAN CLAY (CL); low plasticity, no dilatancy fines, high d strength, mottled black to gray, hard, dry. Gardiners ClaLL=48, PI=28. PID = 0.0 ppm.
) <u> </u>	S16	80 to 81.9	23/23	25-32- 45-100/5	Advance Casing to 80.0'. Qv=1.0, 4.0; Sv=0.2.		S16: LEAN CLAY (CL); low plasticity, no dilatancy fines, high dry strength, gray, hard, dry. Gardiners Clay. PID = 0.0 ppm.
-60 — 85		S17	85 to 86.3	16/3	23-40- 100/4	Advance Casing to 85.0'.		S17: LEAN CLAY (CL); low plasticity, no dilatancy fines, high distrength, mottled black to gray, hard, dry. Gardiners ClatL=31, Pl=9. PID = 0.0 ppm.



NORTHING (ft): 688858.4 GROUND SURFACE EL. (ft): 25.4

VERT./HORIZ. DATUMS: NAVD88/NAD83 NY Zone 3101

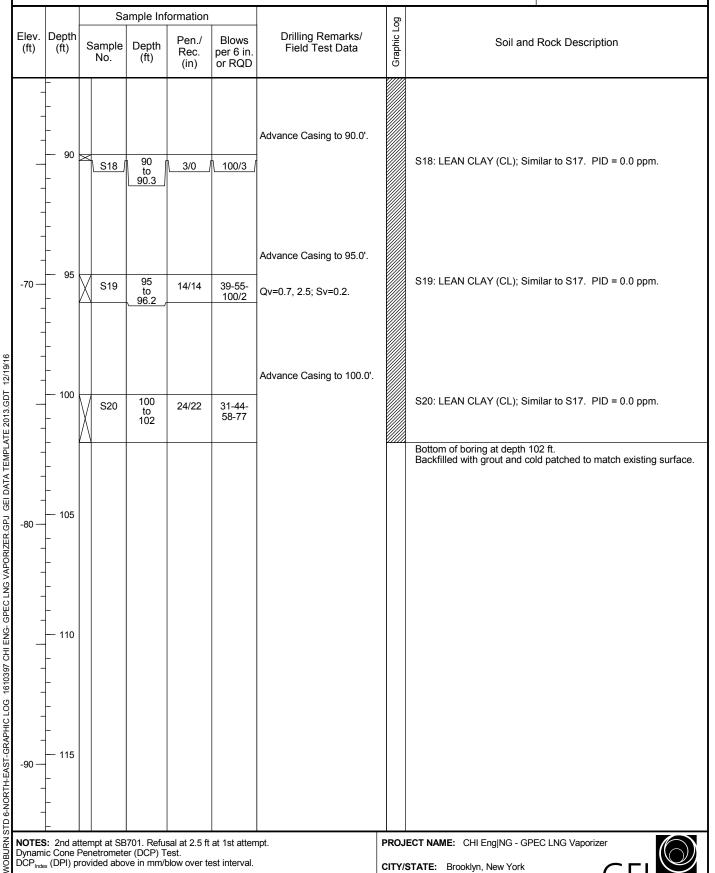
EASTING (ft): 649846.2

DATE START/END: 10/11/2016

DRILLING COMPANY: New England Boring Contractors

BORING GPEC-SB701

PAGE 4 of 4



NOTES: 2nd attempt at SB701. Refusal at 2.5 ft at 1st attempt. Dynamic Cone Penetrometer (DCP) Test.

DCP_{Index} (DPI) provided above in mm/blow over test interval.

GEI

PROJECT NAME: CHI Eng|NG - GPEC LNG Vaporizer



BORING INFORMATION BORING NORTHING (ft): 688850.6 **EASTING (ft):** 649852.6 GROUND SURFACE EL. (ft): **DATE START/END:** 10/12/2016 25.3 GPEC-SB702 VERT./HORIZ. DATUMS: NAVD88/NAD83 NY Zone 3101 **DRILLING COMPANY:** New England Boring Contractors TOTAL DEPTH (ft): 62.0 DRILLER NAME: Mike St. John LOGGED BY: M. Potros RIG TYPE: Mobile B-53 Truck Rig PAGE 1 of 3 DRILLING INFORMATION HAMMER TYPE: Safety Hammer - spooling winch **CASING I.D./O.D.:** 4.5 inch/ 4.75 inch CORE BARREL TYPE: NA AUGER I.D./O.D.: NA / NA DRILL ROD O.D.: 2.5 inch CORE BARREL I.D./O.D.: NA / NA DRILLING METHOD: Mud Rotary with Casing WATER LEVEL DEPTHS (ft): ▼ 33.0 10/12/2016 2:10 pm Measured following mud rotary drilling. ABBREVIATIONS: Pen. = Penetration Length S = Split Spoon Sample Qp = Pocket Penetrometer Strength NA, NM = Not Applicable, Not Measured Rec. = Recovery Length C = Core Sample Sv = Pocket Torvane Shear Strength Blows per 6 in.: 140-lb hammer falling RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen.,% U = Undisturbed Sample LL = Liquid Limit 30 inches to drive a 2-inch-O.D. SC = Sonic Core PI = Plasticity Index WOR = Weight of Rods DP = Direct Push Sample PID = Photoionization Detector split spoon sampler. WOH = Weight of Hammer HSA = Hollow-Stem Auger I.D./O.D. = Inside Diameter/Outside Diameter Sample Information Drilling Remarks/ Elev. Depth Graphic Pen./ Blows Soil and Rock Description (ft) Sample Depth Field Test Data (ft) Rec. per 6 in. Nο (ft) (in) or RQD 0- 3" Asphalt pavement. 3-11" Asphaltic Subbase Vacuum excavated to 8'. G1 12/12 FILL (CLASS 7) at ~0.9 ft / El. 24.4 to 1.5 G1: SANDY SILT (ML); ~60% nonplastic, slow dilatancy DCP_{SB702-1}@ D=1.7'; DPI=7 fines, low dry strength; ~40% fine sand; brown, dry. PID = 5 DCP_{SB702-2}@ D=4.5'; DPI=4 20 DCP_{SB702-3}@ D=5.6'; DPI=26 Advance Casing to 8.0'. S1: SILT WITH SAND (ML); ~80% nonplastic, slow dilatancy S1 24/10 6-9-14fines, low dry strength; ~20% fine sand; brown, dry. PID = to 10 Advance HSA to 10.0'. 0.0 ppm. 10 10 24/18 14-15-S2: SANDY SILT (ML); ~65% nonplastic, slow dilatancy fines, low dry strength; ~25% fine sand; ~10% crushed gravel 16-20 fragments up to 2"; brown, dry. PID = 0.0 ppm. GLACIAL OUTWASH (CLASS 3B) at ~13.5 ft / El. 11.8 Advance HSA to 15.0'. 15 S3: NARROWLY GRADED GRAVEL WITH SAND (GP); ~70% 10 S3 24/1 16-21subrounded to subangular gravel up to 1.5" fragments; ~25% to 17 20-26 medium to coarse sand, <5% nonplastic fines; brown, wet. PID = 0.0 ppm.Advance Casing to 20.0'. 20 S4: NARROWLY GRADED GRAVEL WITH SAND (GP); 59.9% 20 **S4** 24/9 15-10-9to 22 rounded to subangular gravel up to 1.5"; 37.5% fine to coarse sand; 2.6% nonplastic fines; brown, wet. PID = 0.0 ppm.

NOTES: Dynamic Cone Penetrometer (DCP) Test. DCP_{Index} (DPI) provided above in mm/blow over test interval.

GEI DATA TEMPLATE 2013.GDT

GPEC LNG VAPORIZER.GPJ

CHI ENG-

1610397

I STD 6-NORTH-EAST-GRAPHIC LOG

WOBURN

GE

PROJECT NAME: CHI Eng|NG - GPEC LNG Vaporizer



NORTHING (ft): 688850.6

GROUND SURFACE EL. (ft): 25.3

VERT./HORIZ. DATUMS: NAVD88/NAD83 NY Zone 3101

EASTING (ft): 649852.6

DATE START/END: 10/12/2016

DRILLING COMPANY: New England Boring Contractors

BORING GPEC-SB702

PAGE 2 of 3

		Sa	mple Inf	ormation	_		g	
Elev. Dep (ft) (ft)	Sa	mple No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Graphic Log	Soil and Rock Description
0 - 2	25	S5	25 to 27	24/6	7-8-10- 11	Advance Casing to 25.0'.		S5: NARROWLY GRADED SAND WITH GRAVEL (SP); ~70 medium sand, ~25% rounded to subangular gravel up to 1.5 fragments; <5% nonplastic fines; brown, wet. PID = 0.0 ppm
- - - - - - 3	60	S6	30 to 32	24/5	9-9-5-4	Advance Casing to 30.0'.		S6: NARROWLY GRADED SAND WITH GRAVEL (SP); ~70 fine to medium sand, ~25% subrounded to angular gravel to 1.5" fragments; <5% nonplastic fines; brown, wet. PID
-10 —	35	S7	35 to	24/12	5-8-8-8	Advance Casing to 35.0'.		S7: NARROWLY GRADED SAND WITH GRAVEL (SP); 74.5 mostly fine to medium sand, 21.8% subrounded to angular
- 4	.0	\$8	40 to 42	24/3	13-14- 15-11	Advance Casing to 40.0'.		
-20 — 4	.5	S9	45 to 47	24/14	12-10- 12-18	Advance Casing to 45.0'.		S9: NARROWLY GRADED SAND (SP); ~90% medium sand ~5% subrounded to subangular gravel up to 1/4"; <5% nonplastic fines; brown, wet. PID = 0.0 ppm.
- - - - - - -	50	S10	50 to 52	24/15	9-13-14- 16	Advance Casing to 50.0'.		S10: NARROWLY GRADED SAND WITH GRAVEL (SP); ~7 medium sand, ~25% subrounded to subangular gravel up to <5% nonplastic fines; brown, wet. PID = 0.0 ppm.
- - - - - -	55					Advance Casing to 55.0'.		



NORTHING (ft): 688850.6

GROUND SURFACE EL. (ft): 25.3

VERT./HORIZ. DATUMS: NAVD88/NAD83 NY Zone 3101

EASTING (ft): 649852.6

DATE START/END: 10/12/2016

DRILLING COMPANY: New England Boring Contractors

BORING GPEC-SB702

PAGE 3 of 3

										PAGE 3 of 3
			Sa	ample Inf	ormation			gC		
Elev. (ft)	Depth (ft)	S	ample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Graphic Log	Soil and	Rock Description
_	-	X	S11	55 to 57	24/17	12-15- 18-21			S11: NARROWLY GRADE mostly medium sand, 16.79 to 1.5"; 1.5% nonplastic fine	D SAND WITH GRAVEL (SP); 81.8' % subrounded to angular gravel up es; brown, wet. PID = 0.0 ppm.
-	-									
_	- - 60		040	60	24/11	40.05	Advance Casing to 60.0'.		S12: NARROWLY GRADE	D SAND WITH GRAVEL (SP);
_	_	\bigvee	S12	to 62	24/11	12-25- 27-34			Similar to S11. PID = 0.0 p	ppm.
_	-								Bottom of boring at depth 6. Backfilled with grout and co	2 ft. Id patched to match existing surface
-40	_ 65									
=	<u>_</u> -									
_	_									
-	70									
_	_									
_	_									
-50 —	— 75									
-	- -									
_	-									
_	- 80									
-	<u>-</u>									
_	_									
-60 —	85									
_	_									
NOTES DCP _{Index}	3: Dyna _x (DPI)	mic provi	Cone Pe ided abo	enetromete ve in mm/t	er (DCP) Te olow over t	est. est interval.		CITY	JECT NAME: CHI Eng NG - GPI STATE: Brooklyn, New York PROJECT NUMBER: 1610397	EC LNG Vaporizer



BORING INFORMATION NORTHING (ft): 688821.5 GROUND SURFACE EL. (ft): 24.1 VERT./HORIZ. DATUMS: NAVD88/NAD83 NY Zone 3101 TOTAL DEPTH (ft): 32.0 LOGGED BY: M. Potros DRILLING INFORMATION HAMMER TYPE: Safety Hammer - spooling winch AUGER I.D./O.D.: 3.25 inch / 6 inch DRILLING METHOD: Hollow Stem Auger **WATER LEVEL DEPTHS (ft): ▼** 23.6 10/16/2016 5:00 pm

EASTING (ft): 649832.7

DATE START/END: 10/12/2016 DRILLING COMPANY: New England Boring Contractors

DRILLER NAME: Mike St. John RIG TYPE: Mobile B-53 Truck Rig

BORING GPEC-SB704

PAGE 1 of 2

CASING I.D./O.D.: NA/ NA CORE BARREL TYPE: NA DRILL ROD O.D.: 2.5 inch CORE BARREL I.D./O.D.: NA / NA

ABBREVIATIONS: Pen. = Penetration Length Rec. = Recovery Length

RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen.,%

WOR = Weight of Rods WOH = Weight of Hammer S = Split Spoon Sample C = Core Sample

U = Undisturbed Sample SC = Sonic Core DP = Direct Push Sample Qp = Pocket Penetrometer Strength Sv = Pocket Torvane Shear Strength

LL = Liquid Limit PI = Plasticity Index PID = Photoionization Detector NA. NM = Not Applicable. Not Measured Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

HSA = Hollow-Stem Auger I.D./O.D. = Inside Diameter/Outside Diameter

				I = Weight o			HSA = Hollow-Stem Auger	T	I.D./O.D. = Inside Diameter/Outside Diameter
Elev. (ft)	Depth (ft)	S	ample No.	Depth	Pen./ Rec. (in)	Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Graphic Log	Soil and Rock Description
- - - 20 —		8	G1	0.5 to \ 1.5	12/12		Vacuum excavated to 8.0'. DCP _{SB704-1} @ D=3.2'; DPI=16	5)	0- 3" Clean 3/4" Gravel. FILL (CLASS 7) at ~0.3 ft / El. 23.8 G1: SANDY SILT (ML); ~60% nonplastic, slow dilatancy fines, low dry strength; ~40% fine sand; brown, dry. PID = 0.0 ppm.
- - - - -	- 5 - 10		S1 S2	8 to 10 10 to 12	24/21	41-10-9- 10 14-16- 16-21	DCP _{SB704-2} @ D=5.9'; DPI=10 Advance HSA to 8.0'. Advance HSA to 10.0'.		S1(0-9"): SANDY SILT (ML); ~60% nonplastic, slow dilatancy fines, low dry strength; ~40% fine sand; brown, dry. PID = 0.0 ppm. S1(9-21"): SANDY SILT (ML); ~70% nonplastic, slow dilatancy fines, low dry strength; ~30% fine sand; brown, dry. PID = 0.0 ppm. GLACIAL OUTWASH (CLASS 3B) at ~10 ft / EI. 14.1 S2: NARROWLY GRADED SAND (SP): ~95% fine sand, <5% nonplastic fines, brown dry. PID = 0.0 ppm.
10 —	15 15	X	S3	15 to 17	24/11	5-8-8-13	Advance HSA to 15.0'.		S3: NARROWLY GRADED SAND (SP): ~85% medium sand; ~10% rounded to subrounded gravel up to 0.5"; <5% nonplastic fines, brown dry. PID = 0.0 ppm.
- - - -	20		S4	20 to 22	24/5	6-20-16-	Advance HSA to 20.0'.		S4: NARROWLY GRADED SAND WITH GRAVEL (SP); ~70% medium to coarse sand, ~25% rounded to subangular gravel up to 2" fragments; <5% low plasticity fines; brown, wet. PID = 0.0 ppm.
NOTES DCP _{Inde}	S: Dyna ₃x (DPI) ¡	mic (Cone Pe	netromete ve in mm/t	r (DCP) Te blow over te	st. est interval.		CITY	JECT NAME: CHI Eng NG - GPEC LNG Vaporizer //STATE: Brooklyn, New York PROJECT NUMBER: 1610397



NORTHING (ft): 688821.5

GROUND SURFACE EL. (ft): 24.1

VERT./HORIZ. DATUMS: NAVD88/NAD83 NY Zone 3101

EASTING (ft): 649832.7

DATE START/END: 10/12/2016

DRILLING COMPANY: New England Boring Contractors

BORING GPEC-SB704

PAGE 2 of 2

			Sa	ample Inf	ormation			бc		
Elev. (ft)	Dept (ft)	h	Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Graphic Log	Soil and	Rock Description
-	28	5	S5	25 to 27	24/5	3-4-5-8	Advance HSA to 25.0'.		S5: NARROWLY GRADED coarse sand, ~5% rounded 0.25"; <5% nonplastic fines	SAND (SP); ~90% medium to to subrounded gravel up to ; brown, wet. PID = 0.0 ppm.
-	- 30		S6	30	24/19	14-20-	Advance HSA to 30.0'.		S6: NARROWLY GRADED	SAND (SP); ~90% medium to
-	 - -	X	00	to 32	24/13	22-31			0.25"; <5% nonplastic fines Bottom of boring at depth 32	to subrounded gravel up to ; brown, wet. PID = 0.0 ppm. 2 ft. Id patched to match existing surfac
-10 — -	- - - 35	5								
- - -	- - - 40									
- -20 — -	 45	5								
- - -		D								
-30 — 	_ _ _ _ 55									
NOTES DCP _{Inde}	B: Dyna (DPI)	amic prov	Cone Pe	enetromete ve in mm/t	r (DCP) Te blow over to	est. est interval.		CITY	JECT NAME: CHI Eng NG - GPE STATE: Brooklyn, New York PROJECT NUMBER: 1610397	EC LNG Vaporizer GEI Consulta



BORING INFORMATION BORING NORTHING (ft): 688684.7 EASTING (ft): 649809.1 GROUND SURFACE EL. (ft): **DATE START/END:** 10/13/2016 16.5 GPEC-SB705 VERT./HORIZ. DATUMS: NAVD88/NAD83 NY Zone 3101 **DRILLING COMPANY:** New England Boring Contractors TOTAL DEPTH (ft): 30.0 DRILLER NAME: Mike St. John LOGGED BY: M. Potros RIG TYPE: Mobile B-53 Truck Rig PAGE 1 of 2 DRILLING INFORMATION HAMMER TYPE: Safety Hammer - spooling winch CASING I.D./O.D.: NA/ NA CORE BARREL TYPE: NA AUGER I.D./O.D.: 3.25 inch / 6 inch DRILL ROD O.D.: 2.5 inch CORE BARREL I.D./O.D.: NA / NA DRILLING METHOD: Hollow Stem Auger WATER LEVEL DEPTHS (ft): ▼ 19.1 10/13/2016 4:40 pm ABBREVIATIONS: Pen. = Penetration Length S = Split Spoon Sample Qp = Pocket Penetrometer Strength NA, NM = Not Applicable, Not Measured Rec. = Recovery Length C = Core Sample Sv = Pocket Torvane Shear Strength Blows per 6 in.: 140-lb hammer falling RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen.,% U = Undisturbed Sample LL = Liquid Limit 30 inches to drive a 2-inch-O.D. SC = Sonic Core PI = Plasticity Index WOR = Weight of Rods DP = Direct Push Sample PID = Photoionization Detector split spoon sampler. WOH = Weight of Hammer HSA = Hollow-Stem Auger I.D./O.D. = Inside Diameter/Outside Diameter Sample Information g Drilling Remarks/ Elev. Depth Graphic Pen./ Blows Soil and Rock Description (ft) Sample Depth Field Test Data (ft) Rec. per 6 in. Nο (ft) (in) or RQD FILL (CLASS 7) at ~0 ft / El. 16.5 Vacuum excavated to 8.0'. G1: SILTY SAND (SM); 80.0% mostly fine to medium sand; 14.0% nonplastic, slow dilatancy fines, low dry strength; 6.0%2 to 4 G1 24/24 subrounded gravel up to 3/4"; brown, dry. PID = 0.0 ppm. G2: SILTY SAND (SM); ~80% mostly fine to medium sand; ~20% nonplastic, slow dilatancy fines, low dry strength; 12/19/16 brown, dry. PID = 0.0 ppm. 24/24 G2 to 7 GEI DATA TEMPLATE 2013.GDT 10 Advance HSA to 8.0'. S1: SILTY SAND (SM); ~80% mostly fine sand; ~20% nonplastic, slow dilatancy fines, low dry strength; brown, dry. S1 24/18 7-8-8-9 PID = 0.0 ppm. to 10 Advance HSA to 10.0'. 10 S2: SILTY SAND (SM); ~80% mostly fine sand; ~20% low 10 S2 24/14 8-10-13plasticity, slow dilatancy fines, low dry strength; brown, dry. 11 GPEC LNG VAPORIZER.GPJ PID = 0.0 ppm.Advance HSA to 15.0'. 15 15 S3 4/0 100/4 CHI ENG-S3: No Recovery. GLACIAL OUTWASH (CLASS 3B) at ~16 ft / El. 0.5 1610397 STD 6-NORTH-EAST-GRAPHIC LOG Advance HSA to 20.0'. 20 S4: NARROWLY GRADED SAND WITH GRAVEL (SP); ~80% 20 S4 24/14 10-9-9-9 to 22 medium to coarse sand, ~15% rounded to subangular gravel up to 3/4"; <5% low plasticity fines; brown, wet. PID = 0.0

NOTES:

WOBU

GEI

PROJECT NAME: CHI Eng|NG - GPEC LNG Vaporizer



NORTHING (ft): 688684.7 GROUND SURFACE EL. (ft): 16.5

VERT./HORIZ. DATUMS: NAVD88/NAD83 NY Zone 3101

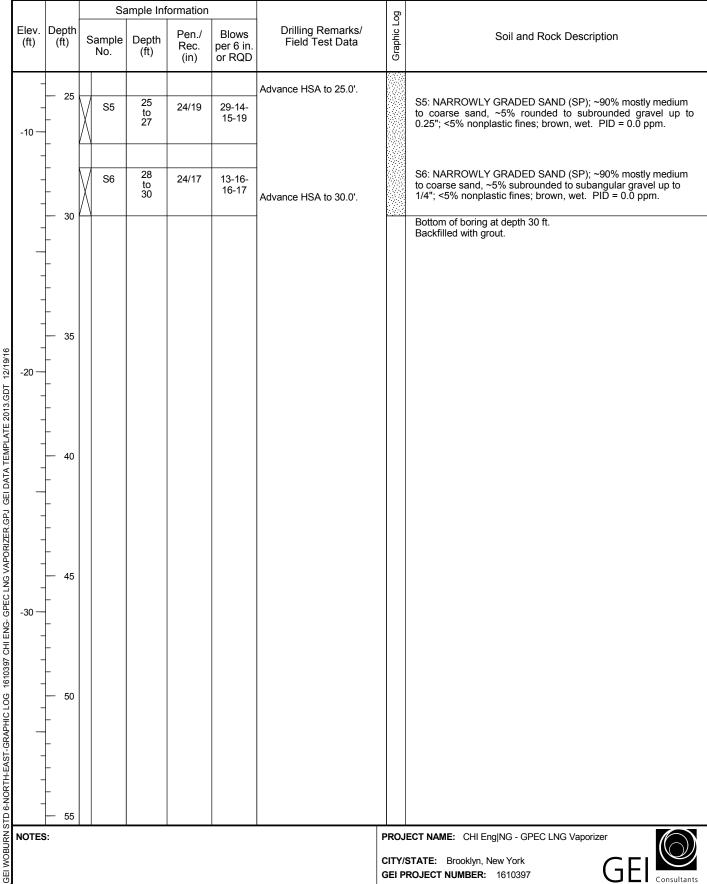
EASTING (ft): 649809.1

DATE START/END: 10/13/2016

DRILLING COMPANY: New England Boring Contractors

BORING GPEC-SB705

PAGE 2 of 2





BORING INFORMATION BORING NORTHING (ft): 688704.4 **EASTING (ft):** 649683.4 GROUND SURFACE EL. (ft): DATE START/END: 10/13/2016 23.8 GPEC-SB706 VERT./HORIZ. DATUMS: NAVD88/NAD83 NY Zone 3101 **DRILLING COMPANY:** New England Boring Contractors TOTAL DEPTH (ft): 30.0 DRILLER NAME: Mike St. John LOGGED BY: M. Potros RIG TYPE: Mobile B-53 Truck Rig PAGE 1 of 2 DRILLING INFORMATION HAMMER TYPE: Safety Hammer - spooling winch CASING I.D./O.D.: NA/ NA CORE BARREL TYPE: NA AUGER I.D./O.D.: 3.25 inch / 6 inch DRILL ROD O.D.: 2.5 inch CORE BARREL I.D./O.D.: NA / NA DRILLING METHOD: Hollow Stem Auger WATER LEVEL DEPTHS (ft): Not measured ABBREVIATIONS: Pen. = Penetration Length S = Split Spoon Sample Qp = Pocket Penetrometer Strength NA. NM = Not Applicable. Not Measured Rec. = Recovery Length C = Core Sample Sv = Pocket Torvane Shear Strength Blows per 6 in.: 140-lb hammer falling RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen.,% U = Undisturbed Sample LL = Liquid Limit 30 inches to drive a 2-inch-O.D. SC = Sonic Core PI = Plasticity Index WOR = Weight of Rods DP = Direct Push Sample PID = Photoionization Detector split spoon sampler. WOH = Weight of Hammer HSA = Hollow-Stem Auger I.D./O.D. = Inside Diameter/Outside Diameter Sample Information g Drilling Remarks/ Elev. Depth Graphic Pen./ Blows Soil and Rock Description (ft) Sample Depth Field Test Data (ft) per 6 in. Rec. Nο (ft) (in) or RQD FILL (CLASS 7) at ~0 ft / El. 23.8 Vacuum excavated to 8.0'. G1: SILTY SAND (SM); ~70% mostly fine sand; ~30% nonplastic to 4 G1 24/24 to low plasticity, slow dilatancy fines, low dry strength; brown, dry. PID = 0.0 ppm. 20 12/19/16 G2: NARROWLY GRADED GRAVEL WITH SILT AND SAND 24/24 G2 (GP-GM); 46.1% subrounded gravel up to 1.5"; 44.9% fine to to 7 GEI DATA TEMPLATE 2013.GDT medium sand; 9.0% low plasticity, slow dilatancy fines, low dry strength; brown, dry. PID = 0.0 ppm. Advance HSA to 8.0'. S1: SILTY SAND (SM); ~70% mostly fine sand; ~30% low S1 24/7 4-5-7-7 plasticity, slow dilatancy fines, low dry strength; 2.5" angularly fragmented crushed stone at 3"; brown, dry. PID = 0.0 ppm. to 10 Advance HSA to 10.0'. 10 S2: SILTY SAND (SM); ~60% mostly fine sand; ~30% low 10 S2 24/16 8-7-7-6 to 12 plasticity, slow dilatancy fines, low dry strength; ~10% GPEC LNG VAPORIZER.GPJ subrounded gravel up to 1.5"; brown, dry. PID = 0.0 ppm. GLACIAL OUTWASH (CLASS 3B) at ~13.5 ft / El. 10.3 10 Advance HSA to 15.0'. 15 S3: NARROWLY GRADED SAND (SP): ~95% mostly fine to S3 24/12 3-3-4-6 1610397 CHI ENGmedium sand; <5% nonplastic fines; brown, dry. PID = 0.0 to 17 STD 6-NORTH-EAST-GRAPHIC LOG Advance HSA to 20.0'. 20 S4: NARROWLY GRADED SAND (SP); ~95% mostly fine to 20 **S4** 24/15 3-3-4-5 to 22 medium sand; <5% nonplastic fines; brown, wet. PID = 0.0

NOTES:

WOBU

GEI

PROJECT NAME: CHI Eng|NG - GPEC LNG Vaporizer



NORTHING (ft): 688704.4 GROUND SURFACE EL. (ft): 23.8

VERT./HORIZ. DATUMS: NAVD88/NAD83 NY Zone 3101

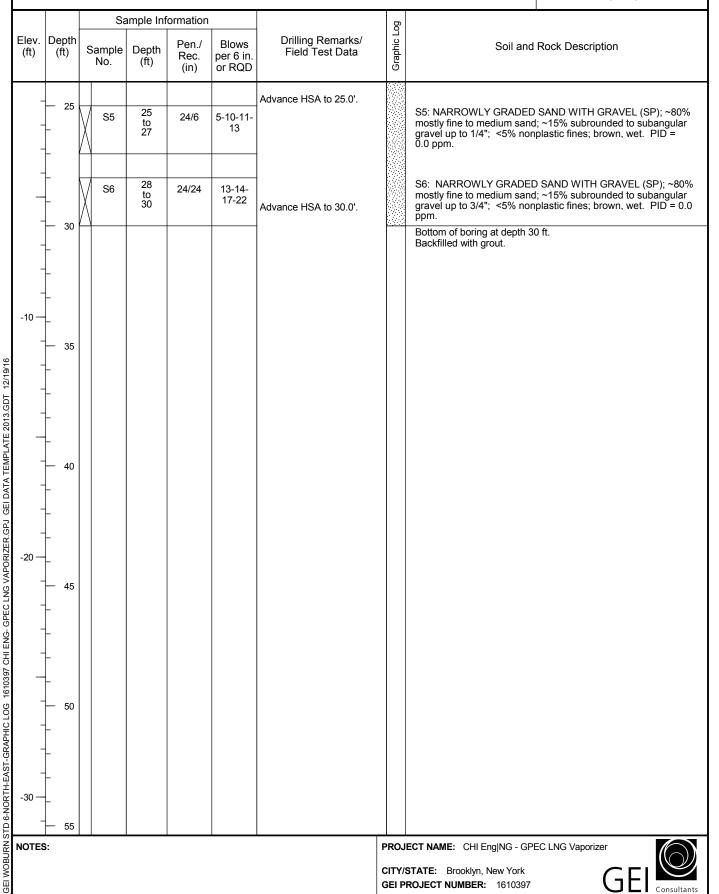
EASTING (ft): 649683.4

DATE START/END: 10/13/2016

DRILLING COMPANY: New England Boring Contractors

BORING GPEC-SB706

PAGE 2 of 2



BORING INFORMATION NORTHING (ft): 688706.5 GROUND SURFACE EL. (ft): 49.3

VERT./HORIZ. DATUMS: NAVD88/NAD83 NY Zone 3101

TOTAL DEPTH (ft): 30.0 LOGGED BY: M. Potros

EASTING (ft): 649439.2

DATE START/END: 10/13/2016

DRILLING COMPANY: New England Boring Contractors

DRILLER NAME: Mike St. John RIG TYPE: Mobile B-53 Truck Rig **BORING**

GPEC-SB708

PAGE 1 of 2

DRILLING INFORMATION

CASING I.D./O.D.: NA/ NA HAMMER TYPE: Safety Hammer - spooling winch CORE BARREL TYPE: NA DRILL ROD O.D.: 2.5 inch CORE BARREL I.D./O.D.: NA / NA AUGER I.D./O.D.: 3.25 inch / 6 inch

DRILLING METHOD: Hollow Stem Auger WATER LEVEL DEPTHS (ft): Not measured

ABBREVIATIONS: Pen. = Penetration Length

Rec. = Recovery Length RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen.,%

WOR = Weight of Rods WOH = Weight of Hammer S = Split Spoon Sample C = Core Sample

U = Undisturbed Sample SC = Sonic Core DP = Direct Push Sample HSA = Hollow-Stem Auger Qp = Pocket Penetrometer Strength Sv = Pocket Torvane Shear Strength

LL = Liquid Limit PI = Plasticity Index

PID = Photoionization Detector

NA. NM = Not Applicable. Not Measured Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D.

split spoon sampler.

I.D./O.D. = Inside Diameter/Outside Diameter

		WOI	H = Weight o	of Hammer		HSA = Hollow-Stem Auger		I.D./O.D. = Inside Diameter/Outside Diameter
		S	ample Inf	ormation			go	
Elev. (ft)	Depth (ft)	Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Graphic Log	Soil and Rock Description
_						Vacuum excavated to 8.0'.	:00	0- 6.5" Clean 3/4" Gravel.
-	_	m G1	0.7 to 2	16/16		DCP _{SB708-1} @ D=0.6'; DPI=12		FILL (CLASS 7) at ~0.5 ft / El. 48.8 G1: SILTY SAND (SM); ~70% mostly fine sand; ~30% nonplastic, slow dilatancy fines, low dry strength; brown, dry. PID = 0.0 ppm.
-	_ - -					DCP _{SB708-2} @ D=2.0'; -DPI=24		G2: SILTY SAND (SM); 83.3% mostly fine sand; 15.0% nonplastic, slow dilatancy fines, low dry strength; 1.7%
-	5	G2	to 6	24/24		DCP _{SB708-3} @ D=4.6'; DPI=43		subrounded gravel up to 3/8"; brown, dry. PID = 0.0 ppm.
-	-					DCP _{SB708-4} @ D=6.5'; DPI=4		S1: SILTY SAND WITH GRAVEL (SM); ~55% mostly fine sand;
40 —	-	S1	8 to 10	24/19	23-24- 26-30	Advance HSA to 8.0'. Advance HSA to 10.0'.		~30% nonplastic, slow dilatancy fines, low dry strength; ~15% angularly fragmented gravel up to 1.5"; brown, dry. PID = 0.0 ppm.
-	<u> </u>	S2	10 to 12	24/14	29-39- 44-47			S2: SILTY SAND WITH GRAVEL (SM); ~60% mostly fine sand; ~25% nonplastic, slow dilatancy fines, low dry strength; ~15%angularly fragmented gravel up to 1.5"; brown with gray and black, dry. PID = 0.0 ppm.
-	-					Advance HSA to 15.0'.		↑MORAINE DEPOSIT (CLASS 3A/3B) at ~13.5 ft / El. 35.8
-	— 15 —	S3	15 to 17	24/21	57-48- 27-25			S3: SILTY SAND WITH GRAVEL (SM); ~55% mostly fine sand; ~25% angularly fragmented and rounded gravel up to 1.5"; ~20% nonplastic, slow dilatancy fines, low dry strength; brown with multicolored gravel; dry. PID = 0.0 ppm.
30 —	_					Advance HSA to 20.0'.		\ GLACIAL OUTWASH (CLASS 3B) at ~18.5 ft / El. 30.8 ∫
-	_ 20	S4	20 to 22	24/21	10-10- 16-22			S4: NARROWLY GRADED SAND WITH SILT AND GRAVEL (SP-SM); ~65% mostly fine sand; ~25% angularly fragmented gravel up to 2.5"; ~10% nonplastic, slow dilatancy fines, low dry strength; brown, dry. PID = 0.0 ppm.
-	-							

NOTES: Dynamic Cone Penetrometer (DCP) Test. DCP_{Index} (DPI) provided above in mm/blow over test interval.

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG 1610397 CHI ENG- GPEC LNG VAPORIZER.GPJ GEI DATA TEMPLATE 2013.GDT 12/19/16

PROJECT NAME: CHI Eng|NG - GPEC LNG Vaporizer



NORTHING (ft): 688706.5

GROUND SURFACE EL. (ft): 49.3

VERT./HORIZ. DATUMS: NAVD88/NAD83 NY Zone 3101

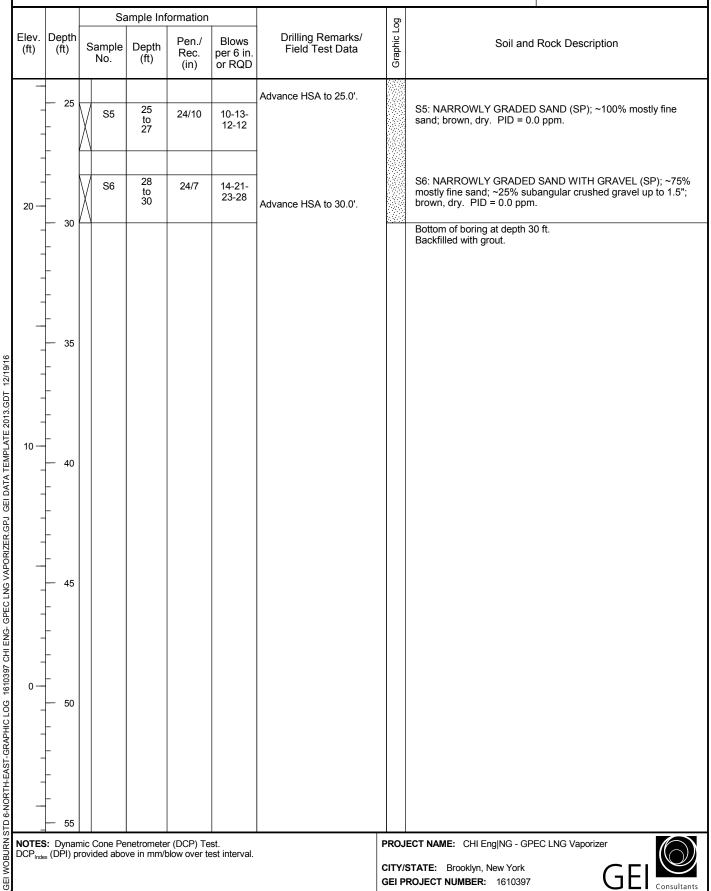
EASTING (ft): 649439.2

DATE START/END: 10/13/2016

DRILLING COMPANY: New England Boring Contractors

BORING GPEC-SB708

PAGE 2 of 2



NOTES: Dynamic Cone Penetrometer (DCP) Test. DCP_{Index} (DPI) provided above in mm/blow over test interval. PROJECT NAME: CHI Eng|NG - GPEC LNG Vaporizer



BORING INFORMATION BORING NORTHING (ft): 688768.6 **EASTING (ft):** 649292.8 GROUND SURFACE EL. (ft): **DATE START/END:** 10/13/2016 50.2 GPEC-SB709 VERT./HORIZ. DATUMS: NAVD88/NAD83 NY Zone 3101 **DRILLING COMPANY:** New England Boring Contractors TOTAL DEPTH (ft): 30.0 DRILLER NAME: Mike St. John LOGGED BY: M. Potros RIG TYPE: Mobile B-53 Truck Rig PAGE 1 of 2 DRILLING INFORMATION HAMMER TYPE: Safety Hammer - spooling winch CASING I.D./O.D.: NA/ NA CORE BARREL TYPE: NA AUGER I.D./O.D.: 3.25 inch / 6 inch DRILL ROD O.D.: 2.5 inch CORE BARREL I.D./O.D.: NA / NA DRILLING METHOD: Hollow Stem Auger WATER LEVEL DEPTHS (ft): Not measured ABBREVIATIONS: Pen. = Penetration Length S = Split Spoon Sample Qp = Pocket Penetrometer Strength NA. NM = Not Applicable. Not Measured Rec. = Recovery Length C = Core Sample Sv = Pocket Torvane Shear Strength Blows per 6 in.: 140-lb hammer falling RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen.,% U = Undisturbed Sample LL = Liquid Limit 30 inches to drive a 2-inch-O.D. SC = Sonic Core PI = Plasticity Index WOR = Weight of Rods DP = Direct Push Sample PID = Photoionization Detector split spoon sampler. WOH = Weight of Hammer HSA = Hollow-Stem Auger I.D./O.D. = Inside Diameter/Outside Diameter Sample Information Drilling Remarks/ Elev. Depth Graphic Pen./ Blows Soil and Rock Description (ft) Sample Depth Field Test Data (ft) per 6 in. Rec. Nο (ft) or RQD (in) 50 0- 4" Clean 3/4" Gravel. Vacuum excavated to 8.0'. FILL (CLASS 7) at ~0.3 ft / El. 49.9 $DCP_{SB709-1}$ @ D=0.6'; DPI=16 DCP_{SB709-2}@ D=2.0'; G1: SILTY SAND (SM); 80.4% mostly fine sand; 14.2% DPI=27 G1 24/24 to 5 nonplastic, slow dilatancy fines, low dry strength; 5.4% subrounded gravel up to 3/4"; brown, dry. PID = 0.0 5 Advance HSA to 8.0'. S1: SILTY SAND (SM); ~80% mostly fine sand; ~15% nonplastic, slow dilatancy fines, low dry strength; ~5% angularly fragmented gravel up to 1/4"; brown, dry. PID = 0.0 S1 24/11 4-6-6-9 to 10 Advance HSA to 10.0'. MORAINE DEPOSIT (CLASS 3A/3B) at ~10 ft / El. 40.2 10 GEI 40 10 S2 24/15 8-13-15-S2: SILTY SAND (SM); 77.9% mostly fine sand; 15.7% to 12 17 nonplastic, slow dilatancy fines, low dry strength; 6.4% angularly fragmented gravel up to 3/4"; brown, dry. PID = 0.0 GPEC LNG VAPORIZER.GPJ ppm. GLACIAL OUTWASH (CLASS 3B) at ~13.5 ft / El. 36.7 Advance HSA to 15.0'. 15 S3: NARROWLY GRADED SAND WITH SILT (SP-SM); ~85% S3 24/19 7-9-8-9 mostly fine sand; ~10% nonplastic to low plasticity fines; <5% to 17 subangular gravel up to 0.5"; brown with red tint; dry. PID = 0.0 ppm. 1610397 90 Advance HSA to 20.0'. 20 30 S4: SILTY SAND (SM); ~60% mostly fine sand; ~40% 20 **S4** 24/22 7-8-8-11 to 22 nonplastic to low plasticity fines; reddish-brown; dry. PID = 0.0

NOTES: Dynamic Cone Penetrometer (DCP) Test. DCP_{Index} (DPI) provided above in mm/blow over test interval.

DATA TEMPLATE 2013,GDT

CHI ENG-

STD 6-NORTH-EAST-GRAPHIC I

WOBURN

GEI

PROJECT NAME: CHI Eng|NG - GPEC LNG Vaporizer



NORTHING (ft): 688768.6

GROUND SURFACE EL. (ft): 50.2

VERT./HORIZ. DATUMS: NAVD88/NAD83 NY Zone 3101

EASTING (ft): 649292.8

DATE START/END: 10/13/2016

DRILLING COMPANY: New England Boring Contractors

BORING GPEC-SB709

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										PAGE 2 of 2
			Sa	mple Inf	ormation			go.		
Elev. (ft)	Depth (ft)	San No	nple o.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Graphic Log	Soil and	Rock Description
_	25		S5	25 to 27	24/23	19-15- 20-19	Advance HSA to 25.0'.		S5: SILT WITH SAND (ML) dilatancy, fines; ~15% fine	; ~85% nonplastic, slow sand; brown; dry. PID = 0.0 ppm.
-	30		S6	28 to 30	24/15	22-27- 25-30	Advance HSA to 30.0'.			; ~85% nonplastic, slow sand; brown; dry. PID = 0.0 ppm.
20 —	- "								Bottom of boring at depth 30 Backfilled with grout.	0 ft.
-										
-	_ 									
10 —	40									
-	-									
-	45									
-	 - - -									
0 —	50									
-	<u>-</u> -									
-	55									
IOTES ICP _{Inde}	S: Dynai _{ex} (DPI) p	nic Coi rovided	ne Pe d abov	netromete /e in mm/t	r (DCP) Te blow over te	st. est interval.		CITY	STATE: Brooklyn, New York ROJECT NUMBER: 1610397	EC LNG Vaporizer GEI Consultar



BORING INFORMATION

NORTHING (ft): 688440.3

GROUND SURFACE EL. (ft): 10.6

VERT./HORIZ. DATUMS: NAVD 88/NAD 83

TOTAL DEPTH (ft): 61.0

LOGGED BY: M. Hernandez-Cabal

EASTING (ft): 649805.4

DATE START/END: 4/21/2017 - 4/24/2017

DRILLING COMPANY: New England Boring

DRILLER NAME: T. Roe

RIG TYPE: Mobile B-53 Truck

BORING

GPEC-SB801

PAGE 1 of 3

DRILLING INFORMATION

HAMMER TYPE: Automatic

AUGER I.D./O.D.: NA / NA

DRILL ROD O.D.: 2.5 inch DRILLING METHOD: Rollerbit Drilling with Casing

CASING I.D./O.D.: 4 inch/ 5 inch

CORE BARREL TYPE: NA

CORE BARREL I.D./O.D.: NA / NA

WATER LEVEL DEPTHS (ft): <u>▼</u> 7.6 4/21/2017

ABBREVIATIONS:

Pen. = Penetration Length Rec. = Recovery Length

RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen.,%

WOR = Weight of Rods

WOH = Weight of Hammer

S = Split Spoon Sample C = Core Sample

U = Undisturbed Sample SC = Sonic Core DP = Direct Push Sample Sv = Pocket Torvane Shear Strength LL = Liquid Limit

Qp = Pocket Penetrometer Strength

PI = Plasticity Index PID = Photoionization Detector NA. NM = Not Applicable. Not Measured Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D.

split spoon sampler.

HSA = Hollow-Stem Auger I.D./O.D. = Inside Diameter/Outside Diameter

	WOH = Weight of Hammer					HSA = Hollow-Stem Auger I.		I.D./O.D. = Inside Diameter/Outside Diameter
		Sa	ample Inf	ormation			go	
Elev. (ft)	Depth (ft)	Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Graphic Log	Soil and Rock Description
10 —						VacEx to 8'		0-7": CONCRETE with welded wire mesh reinforcing. FILL (CLASS 7) at ~0.6 ft / El. 10
-	_	G1	0.6 to 8	89		PID=0.0 ppm DCP01 @ D=0.6' ; DPI=17		G1: SILTY SAND (SM); ~80% mostly medium to coarse sand; ~20% low plasticity fines; brown.
-	-					DCP02 @ D=2.4' ; DPI=12		
_	- - - 5	E				DCP03 @ D=4.6'; DPI=19		
-	-	\	8	24/0	2226	PID=0.0 ppm		S1: SILTY SAND (SM); ~70% mostly medium to coarse sand;
_	-	S1	to 10	24/9	2-3-2-6			~20% low plasticity fines; ~10% subangular gravel up to 1"; brown.
0 —	— 10 —	S2	10 to 12	24/17	10-13- 16-15	PID=0.0 ppm		S2: SILTY SAND (SM); Similar to S1, except gravel is up to 1.5".
-	_ _ _ _ _ 15					Gravel on drill return. Brown drill return throughout test boring.		
_	13 - -	S3	15 to 17	24/9	3-4-5-7	PID=0.0 ppm		S3: SILTY SAND (SM); Similar to S1; brick fragments observed.
-	-					Gravel and coarse sand on		GLACIAL OUTWASH SAND (CLASS 3B) at ~18.5 ft / El7.9 _ ,
_						drill return		
-10 —	— 20 –	S4	20 to 22	24/5	4-5-5-6	PID=0.0 ppm		S4: NARROWLY GRADED SAND WITH SILT AND GRAVEL (SP-SM); ~80% mostly coarse sand; ~10% low plasticity fines; ~10% subangular gravel up to 1"; brown.
_								
_	-					Gravel on drill return		

WOBURN STD 6-NORTH-EAST-GRAPHIC LOG. LNG TANKS ICE SHIELDS BORING LOGS SB801 TO SB804.GPJ. GEI DATA TEMPLATE 2013.GDT. 6/28/17

NOTES: Dynamic Cone Penetrometer (DCP) Test.

 ${\sf DCP}_{\sf Index}$ (DPI) provided above in mm/blow over test interval. Background PID = 0.0 ppm.

Casing advanced to sampling depth and cleaned out using rollerbit drill before sampling.

PROJECT NAME: NG-GPEC LNG Tanks Ice Shields



NORTHING (ft): 688440.3 GROUND SURFACE EL. (ft): 10.6

VERT./HORIZ. DATUMS: NAVD 88/NAD 83

EASTING (ft): 649805.4

DATE START/END: 4/21/2017 - 4/24/2017 **DRILLING COMPANY:** New England Boring

BORING GPEC-SB801

PAGE 2 of 3

				Sa	mple Inf	ormation			g	
Elev. (ft)	Dept (ft)			ample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Graphic Log	Soil and Rock Description
-		_								
-	_ 2	5 /	$\sqrt{}$	S5	25 to 27	24/0	3-4-5-7			S5: No recovery. 1.25" rock on sampler shoe.
-	- - - -	1	\langle	S6	27 to 29	24/16	5-6-8-13	Sample advanced through previous interval		S6: NARROWLY GRADED SAND (SP); 90.5% mostly medium to coarse sand, coarser towards top; 4.8% nonplastic fines; 4.7% subangular gravel up to 1"; brown. [GRAIN SIZE TEST PERFORMED]
-20 —	- - 3	0	$\sqrt{}$	S7	30 to 32	24/0	7-7-8-10	Gravel and coarse sand on drill return		S7: No recovery. 2" rock in spoon.
11/8/1/	- - - -	1		S8	32 to 34	24/20	7-11-14- 10	PID=0.0 ppm		S8: SILTY SAND (SM); ~80% mostly medium to coarse sand; ~20%low plasticity fines; brown.
	3	5			25			Gravel and coarse sand on		CO. No recovery 4.5" seek is appear
AIE 2013.	-	/	$\langle $	S9	35 to 37	24/0	4-4-7-9	drill return		S9: No recovery. 1.5" rock in spoon.
GELDATA TEMPLATE 2013: GDT	- - - -	<u> </u>	$\sqrt{}$	S10	37 to 39	24/0	9-11-13- 17	Sample advanced through previous interval		S10: No recovery.
-30 House -30 Ho	- - 4 -	0 \	$\sqrt{}$	S11	40 to 42	24/0	3-4-8-10	Gravel and coarse sand on drill return		S11: No recovery.
-30 —	- - -	1	\langle	S12	42 to 44	24/0	8-11-15- 16	Sample advanced through previous interval		S12: No recovery.
0	4	5	$\sqrt{}$	S13	45 to 47	24/0	5-7-9-14	Gravel and coarse sand on drill return		S13: No recovery. 1" round gravel in spoon.
-	- - - -	1		S14	47 to 49	24/14	11-15- 13-20	Sample advanced through previous interval		S14: NARROWLY GRADED SAND WITH SILT (SP-SM); ~93.6% mostly medium to coarse sand, finer towards bottom; 6.4% nonplastic fines; brown. [GRAIN SIZE TEST PERFORMED]
-40 —	- - 5 -	0		S15	50 to 52	24/0	4-5-8-13	Gravel on drill return		S15. No recovery.
	- - -	1	\bigvee	S16	52 to 54	24/0	8-13-16- 21	Sample advanced through previous interval		S16: No recovery.
- - -	_ _ 5	5 <						Gravel on drill return		
NOTES DCP _{Inde} Backgr	S: Dyn (DPI) Tound F	am) pro	ovic = 0	led abov .0 ppm.	/e in mm/b		est interval.	ollerbit drill before sampling.	CITY	STATE: Brooklyn, New York PROJECT NUMBER: 1701736



NORTHING (ft): 688440.3 GROUND SURFACE EL. (ft): 10.6 VERT./HORIZ. DATUMS: NAVD 88/NAD 83

EASTING (ft): 649805.4

DATE START/END: 4/21/2017 - 4/24/2017 DRILLING COMPANY: New England Boring

BORING GPEC-SB801

PAGE 3 of 3

										PAGE 3 of 3
			Sa	ample Inf	ormation			go		
Elev. (ft)	Depth (ft)	s	ample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Graphic Log	Soil and	Rock Description
_	_	M	S17	55 to 57	24/4	8-9-11- 14	Sample advanced through		S17: WIDELY GRADED GF gravel up to 2"; gray, brown material.	RAVEL (GW); 100% subangular , white, yellow. Possible soil wash
_	- - -		S18	57 to 59	24/0	5-10-15- 22	previous interval Gravel on drill return		S18: No recovery; Soil wasl	n material.
-50 —	- - - 60		S19	59 to 61	24/9	6-11-17- 22	Sample advanced through previous interval Gravel on drill return PID=0.0 ppm		S19: SILTY SAND (SM); ~6 ~40% low to meidum plastic	60% mostly medium to coarse sand; city, mostly silty fines; brown.
-	_							e Rolle	Bottom of boring at depth 6 Grouted to surface.	1 ft.
-	- - -									
-	65									
-	_									
-	_									
-60 —	70									
-	_									
_	_									
_	75									
-										
_	_ _									
-70 —	- 80									
_	_									
_	- - -									
_	85									
			_							
DCP _{Inde:} Backgro	_» (DPI) լ ound PI	orovi D = (ded abo 0.0 ppm.	ve in mm/b	r (DCP) Te blow over to nd cleaned	est interval.	ollerbit drill before sampling.	CITY/	ECT NAME: NG-GPEC LNG TO STATE: Brooklyn, New York ROJECT NUMBER: 1701736	anks Ice Shields



BORING INFORMATION

NORTHING (ft): 688398.3

GROUND SURFACE EL. (ft): 10.3

VERT./HORIZ. DATUMS: NAVD 88/NAD 83 TOTAL DEPTH (ft): 62.0

LOGGED BY: M. Hernandez-Cabal

EASTING (ft): 649860.2

DATE START/END: 4/24/2017 - 4/25/2017

DRILLING COMPANY: New England Boring

Graphic Log

DRILLER NAME: T. Roe

RIG TYPE: Mobile B-53 Truck

CASING I.D./O.D.: 4 inch/ 5 inch

DRILL ROD O.D.: 2.5 inch

BORING

GPEC-SB802

PAGE 1 of 3

NA

DRILLING INFORMATION

HAMMER TYPE: Automatic

S1

S2

S3

S4

10

15

20

-10

to 10

10

to 12

15

to 17

20

to 22

AUGER I.D./O.D.: NA / NA

DRILLING METHOD: Rollerbit Drilling with Casing WATER LEVEL DEPTHS (ft): ▼ 7.7 4/21/2017

ABBREVIATIONS: Pen. = Penetration Length Rec. = Recovery Length

RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen.,%

WOR = Weight of Rods WOH = Weight of Hammer S = Split Spoon Sample C = Core Sample

U = Undisturbed Sample SC = Sonic Core DP = Direct Push Sample HSA = Hollow-Stem Auger Qp = Pocket Penetrometer Strength Sv = Pocket Torvane Shear Strength LL = Liquid Limit PI = Plasticity Index

PID = Photoionization Detector

NA, NM = Not Applicable, Not Measured Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

I.D./O.D. = Inside Diameter/Outside Diameter

			Sa	ample Inf	ormation			
Elev. (ft)	Depth (ft)	Sample No. Depth (ft) Pen./ Rec. per 6 in. or RQD				Drilling Remarks/ Field Test Data		
10 —							VacEx to 8'	
-	_		G1	0.8 to 8	86		DCP04 @ D=0.7' ; DPI=7 PID=0.0 ppm	
-	_						DCP05 @ D=2.5' ; DPI=17	
_	_ 5	m ₂					DCP06 @ D=4.5' ; DPI=19	
-	_							

24/12

24/19

24/6

24/9

15-19-

20-21

9-14-17

18

0-8": CONCRETE with welded wire mesh reinforcing. FILL (CLASS 7) at ~0.7 ft / El. 9.6

CORE BARREL TYPE:

CORE BARREL I.D./O.D.: NA / NA

G1: SILTY SAND (SM); ~80% mostly medium to coarse sand; ~20% low plasticity fines; brown.

Soil and Rock Description

Gravel and concrete fragments on drill return. 2-3-6-7 Brown drill resturn throughout test boring. PID=0.0 ppm PID=0.0 ppm 6-7-9-12 Gravel on drill return

PID=0.0 ppm

Gravel on drill return

Gravel on drill return

PID=0.0 ppm

S1: SILTY SAND (SM); ~60% mostly medium to coarse sand; ~30% low plasticity fines; ~10% subangular gravel up to 1"; brown

S2: SILTY SAND (SM); Similar to S1; finer towards top of sample; one 1.5" rock on top of sample.

S3: SILTY SAND WITH GRAVEL (SM); ~60% mostly medium to coarse sand; ~25% low plasticity fines; ~15% subangular gravel up to 0.75"; brown; one 1.5" rock on top of sample.

S4: SILTY SAND WITH GRAVEL (SM); ~60% mostly medium to coarse sand; ~20% low plasticity fines; ~20% subangular gravel up to 1"; brown; rock fragment at 7".

GLACIAL OUTWASH SAND (CLASS 3A) at ~23.5 ft / El. -13.2

NOTES: Dynamic Cone Penetrometer (DCP) Test. DCP_{Index} (DPI) provided above in mm/blow over test interval. Background PID = 0.0 ppm.

Casing advanced to sampling depth and cleaned out using rollerbit drill before sampling

PROJECT NAME: NG-GPEC LNG Tanks Ice Shields

CITY/STATE: Brooklyn, New York GEI PROJECT NUMBER: 1701736



WOBURN STD 6-NORTH-EAST-GRAPHIC LOG

GEI DATA TEMPLATE 2013.GDT

LNG TANKS ICE SHIELDS BORING LOGS SB801 TO SB804.GPJ

NORTHING (ft): 688398.3 GROUND SURFACE EL. (ft): 10.3

VERT./HORIZ. DATUMS: NAVD 88/NAD 83

EASTING (ft): 649860.2

DATE START/END: 4/24/2017 - 4/25/2017 DRILLING COMPANY: New England Boring

BORING GPEC-SB802

PAGE 2 of 3

	Т				manla lii f	io nos atta				
Elev.		epth	F			formation Pen./	Blows	Drilling Remarks/	Graphic Log	Soil and Rock Description
(ft)	(ft)	S	ample No.	Depth (ft)	Rec. (in)	per 6 in. or RQD	Field Test Data	Graph	Soli and Rock Description
		05								
-	ſ	25	\bigvee	S5	25 to 27	24/9	3-6-10- 13			S5: NARROWLY GRADED SAND (SP); 92% mostly medium to fine sand; 4.6% subangular gravel up to 0.5"; 3.4% nonplastic
	_		Δ		21					fines; brown. [GRAIN ŠIZE ŤEST PĖRFORMED]
	-									
	-							Gravel on drill return		
-20 -	+	30	M	S6	30 to 32	24/6	5-7-10- 14	PID=0.0 ppm		S6: NARROWLY GRADED SAND (SP); Similar to S5, except gravel is up to 1".
	[Δ		32					
	-									
	-							Gravel on drill return		
-	\vdash	35	M	S7	35 to	24/3	4-5-10- 14	PID=0.0 ppm		S7: NARROWLY GRADED SAND (SP); Similar to S5.
			\triangle		37		14	PID=0.0 ppm		
	-		M	S8	37 to 39	24/24	11-12- 13-18	11 15-0.0 ррш		S8: NARROWLY GRADED SAND (SP); Similar to S5, except gravel is up to 1"; sand is finer towards bottom of sample.
- 30	+		A					-		
-30 -	_	40	\bigvee	S9	40 to	24/0	6-7-10-	Gravel on drill return		S9: No recovery. 1.75" rock in spoon.
			\bigwedge		42		13	DID=0.0 nnm		
	-		M	S10	42 to 44	24/24	11-12- 19-21	PID=0.0 ppm		S10: SILTY SAND (SM); ~60% mostly medium to coarse sand; ~40% low plasticity fines; brown; sand is finer towards bottom of sample; Mica noted on 0-12".
	-		A							
_	F	45		S11	45 to	24/14		Gravel on drill return. Mica observed on return. PID=		S11: NARROWLY GRADED SAND (SP); Similar to S5; except sand is finer towards bottom of sample; mica noted.
	+		\mathbb{N}		to 47		18	0.0 ppm		sand is fine towards bottom of sample, finea noted.
	[
	}							Gravel on drill return		
-40 -	F	50	$\left \cdot \right $	S12	50 to	24/0	4-8-12-			S12: No recovery.
	+		X		to 52		13			
-40 – NOTE	-		M	S13	52 to 54	24/11	12-14- 16-32	PID=0.0 ppm		S13: SILTY SAND (SM); ~80% mostly coarse sand; ~20% low plasticity fines; ~10% subangular gravel up to 1"; brown; mica
	-		\mathbb{A}		57					noted.
_	L	55	\times					Gravel on drill return		
NOTE	S : [)vnai	nic	Cone Pe	netromete	er (DCP) Te	est.		PROJ	IECT NAME: NG-GPEC LNG Tanks Ice Shields

NOTES: Dynamic Cone Penetrometer (DCP) Test.
DCP_{Index} (DPI) provided above in mm/blow over test interval.
Background PID = 0.0 ppm.
Casing advanced to sampling depth and cleaned out using rollerbit drill before sampling.

PROJECT NAME: NG-GPEC LNG Tanks Ice Shields



NORTHING (ft): 688398.3 GROUND SURFACE EL. (ft): 10.3 VERT./HORIZ. DATUMS: NAVD 88/NAD 83

EASTING (ft): 649860.2

DATE START/END: 4/24/2017 - 4/25/2017

DRILLING COMPANY: New England Boring

BORING GPEC-SB802

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Depth		- 36	ample Inf	umation				
- - - -						Drilling Remarks/	c Log	0 " 15 15 1"
(ft)	S	ample No.	(ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	Field Test Data	Graphic Log	Soil and Rock Description
	M	S14	55 to 57	24/0	4-7-10- 12			S14: No recovery.
		S15	57 to 59	24/17	8-9-12- 16	Sample advanced through previous interval		S15: WIDELY GRADED SAND WITH SILT (SW-SM); 91.3% mostly medium to fine sand; 8.6% nonplastic fines; 0.1% subrounded gravel up to 1"; brown; mica noted. [GRAIN SIZE TEST PERFORMED]
- 60	M	S16	60 to 62	24/12	6-10-13- 16	Gravel on drill return PID=0.0 ppm	• 1 · 1	S16: SILTY SAND (SM); ~70% mostly medium to coarse sand ~20% low plasticity fines; ~10% subrounded gravel up to 1"; brown; mica noted.
							. 1.1.	Bottom of boring at depth 62 ft. Grouted to surface.
- 65								
- 70								
75								
- 75								
- 80								
- 85								
(DPI) p and PIE	rovio) = 0	ded abov).0 ppm.	ve in mm/l	olow over to	est interval.			JECT NAME: NG-GPEC LNG Tanks Ice Shields STATE: Brooklyn, New York
	- 65 - 70 - 75 - 80	- 60 V	S14 S15 S15 S16 S16 S16 S16 S16 S16 S16 S16 S17	S14 55 to 57	S14 55 24/0 57 S15 57 S16 60 S16 60 C 24/12 62 - 65 - 70 DPI) provided above in mm/blow over tend PID = 0.0 ppm.	S14 55 24/0 4-7-10-12 S15 57 24/17 8-9-12-16 S16 60 24/12 6-10-13-16 S16 62 88 Dynamic Cone Penetrometer (DCP) Test. DP1) provided above in mm/blow over test interval. nd PID = 0.0 ppm.	S14 55 24/0 4-7-10-12 Sample advanced through previous interval S15 57 24/17 8-9-12-16 Sample advanced through previous interval S16 60 24/12 6-10-13-16 Sravel on drill return PID=0.0 ppm - 65 - 75 - 75 - 75 - 75 - 75 - 75 - 75	S14 55 24/0 4-7-10-12 Sample advanced through previous interval S15 57 24/17 8-9-12-16 Sample advanced through previous interval S16 60 24/12 6-10-13-16 Sample advanced through previous interval S16 60 24/12 6-10-13-16 Sample advanced through previous interval PID=0.0 ppm PID=0.0



BORING INFORMATION NORTHING (ft): 688701.9 GROUND SURFACE EL. (ft): 10.3

VERT./HORIZ. DATUMS: NAVD 88/NAD 83

TOTAL DEPTH (ft): 62.0 LOGGED BY: M. Hernandez-Cabal **EASTING (ft): 650629.9**

DATE START/END: 4/18/2017 - 4/19/2017 DRILLING COMPANY: New England Boring

DRILLER NAME: T. Roe RIG TYPE: Mobile B-53 Truck

CASING I.D./O.D.: 4 inch/ 5 inch

DRILL ROD O.D.: 2.5 inch

BORING

GPEC-SB803

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NA

DRILLING INFORMATION

HAMMER TYPE: Automatic AUGER I.D./O.D.: NA / NA

DRILLING METHOD: Rollerbit Drilling with Casing

ABBREVIATIONS: Pen. = Penetration Length Rec. = Recovery Length

RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen.,%

WOR = Weight of Rods WOH = Weight of Hammer S = Split Spoon Sample C = Core Sample

U = Undisturbed Sample SC = Sonic Core DP = Direct Push Sample HSA = Hollow-Stem Auger Qp = Pocket Penetrometer Strength Sv = Pocket Torvane Shear Strength

LL = Liquid Limit PI = Plasticity Index PID = Photoionization Detector NA. NM = Not Applicable. Not Measured Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

I.D./O.D. = Inside Diameter/Outside Diameter

			Sa	ample Inf	ormation			g
Elev. (ft)	Depth (ft)	5	Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Graphic Log
10 —	-						VacEx to 6'	
-		en,	G1	1.2 to 2.5	16		DCP07 @ D=1.3'; DPI=11	
_	_	m	G2	2.5 to 4	18		DCP08 @ D=2.5' ; DPI=9	
- -	5	m	G3	4 to 6	24		DCP09 @ D=4.1'; DPI=4	
- -	_	X	S1	6 to 8	24/16	10-12-9- 11	PID=0.0 ppm	
-	_						Rocks in casing	
-	10						Gravel and concrete fragments on drill return.	
0 —	_	X	S2	10 to 12	24/0	2-1-2-1	Gray drill retun throughout the test boring.	
- -	-						Gravel on drill return	
_	<u> </u>	M	S3	15 to 17	24/0	4-1-0-1		
_	_	\bigvee	S4	17 to 19	24/3	2-1-1-0	PID=0.0 ppm	
-	20						Gravel on drill return	
-10 — -		\mathbb{N}	S5	20 to 22	24/0	4-2-1-2		
-	_	M	S6	22 to 24	24/12	2-2-2-2	PID=0.0 ppm	

0-14" CONCRETE with welded wire mesh reinforcing.

CORE BARREL TYPE:

CORE BARREL I.D./O.D.: NA / NA

FILL (CLASS 7) at ~1.2 ft / El. 9.1

Soil and Rock Description

G1: SILTY SAND (SM); ~60% mostly medium to coarse sand; ~30% low plasticity fines; ~10% subangular gravel up to 1"; dark brown; brick fragments observed. G2: SILTY SAND (SM); Similar to G1.

G3: SILTY SAND (SM); Similar to G1.

S1: SILTY SAND (SM); ~60% mostly medium to coarse sand; ~30% low to medium plasticity fines; ~10% subrounded gravel up to 1"; brown and some black material; debris noted.

S2: No recovery.

S3: No recovery. One 2" gravel in spoon.

S4: SILTY SAND (SM); ~80% mostly coarse sand; ~20% low plasticity fines; brown.

S5: No recovery. Subangular gravel pieces up to 0.75" in spoon.

S6: SILTY SAND (SM); 71.9% mostly medium to fine sand; 21.7% nonplastic fines; 6.4% subangular gravel up to 0.5"; brown. [GRAIN SIZE TEST PERFORMED]

NOTES: Dynamic Cone Penetrometer (DCP) Test. DCP_{Index} (DPI) provided above in mm/blow over test interval.

Background PID = 0.0 ppm.

WOBURN STD 6-NORTH-EAST-GRAPHIC LOG LNG TANKS ICE SHIELDS BORING LOGS SB801 TO SB804.GPJ GEI DATA TEMPLATE 2013.GDT 6/28/17

Casing advanced to sampling depth and cleaned out using rollerbit drill before sampling.

PROJECT NAME: NG-GPEC LNG Tanks Ice Shields



NORTHING (ft): 688701.9 GROUND SURFACE EL. (ft): 10.3

VERT./HORIZ. DATUMS: NAVD 88/NAD 83

EASTING (ft): 650629.9

DATE START/END: 4/18/2017 - 4/19/2017

DRILLING COMPANY: New England Boring

BORING GPEC-SB803

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				S	ample Inf	ormation			Ď	
Elev (ft)		Dept (ft)		Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Graphic Log	Soil and Rock Description
	-	- 2 - -	5	S7	25 to 27	24/11	5-1-1-3	Gravel on drill return PID=0.0 ppm		S7: SILTY SAND (SM); ~70% mostly medium to coarse sand; ~20% low plasticity fines; ~10% subrounded gravel up to 1"; brown; 2" dark brown silty material from 0 to 2".
-20		- - - 3	0 -	S8	30 to	24/14	5-2-1-2	Gravel and brick fragments on drill return PID=0.0 ppm		S8(0-7"): SILTY SAND (SM); Similar to S6; dark gray. GLACIAL OUTWASH CLAY (CLASS 4B) at ~30.6 ft / EI20.3 /
		-			32			Gravel on drill return		S8(7-14"): FAT CLAY (CH); ~90% medium to high plasticity clayey fines, LL=50, Pl=26; ~10% fine sand; one 1.5" gravel; black; 4.2% organic content.
-30	-	- - 3 -	5	S9	35 to 37	24/4	6-6-5-6	PID=0.0 ppm		S9: LEAN CLAY (CL); ~90% medium plasticity clayey fines; ~10% subangular gravel up to 0.5"; gray.
		-		S10	38 to 40	24/15	5-5-7-9	Gravel on drill return PID=0.0 ppm		S10: LEAN CLAY (CL); 96.8% medium plasticity clayey fines; 3.2% mostly fine sand; gray. [GRAIN SIZE TEST PERFORMED]
-30	-	- 4 - -		S11	40 to 42	24/4	3-4-3-5	PID=0.0 ppm		S11: LEAN CLAY WITH SAND (CL); 92.5% medium plasticity clayey fines, LL=38, Pl=17; 7.5% mostly fine sand; one 1.5" gravel; gray. [GRAIN SIZE TEST PERFORMED]
0	-	-						Gravel on drill return. Mica observed on return.		
		- 4 - -	5	S12	45 to 47	24/9	2-1-7-8	PID=0.0 ppm		S12(0-5"): LEAN CLAY (CL); ~90% low to medium plasticity fines, LL=44, Pl=22; ~10% fine sand; gray. GLACIAL OUTWASH SAND (CLASS 3B) at ~46.1 ft / El35.8 S12(5-9"): SILTY SAND (SM); ~70% mostly medium to coarse sand; ~30% low plasticity fines; gray.
	-	-						Gravel on drill return		
-40 NOT	-	— 5 - -	0	S13	50 to 52	24/5	6-5-4-4	PID=0.0 ppm		S13: WIDELY GRADED SAND WITH GRAVEL (SW); ~80% mostly medium to coarse sand; ~20% subangular gravel up to 1.25"; gray. Possible soil wash material.
	-	-						Gravel on drill return		
NOT	ES:	- 5		Cone P	enetromete	r (DCP) Te	est	PID=0.0 ppm	PRO	DECT NAME: NG-GPEC LNG Tanks Ice Shields

DCP_{Index} (DPI) provided above in mm/blow over test interval.

Background PID = 0.0 ppm.

Casing advanced to sampling depth and cleaned out using rollerbit drill before sampling.



NORTHING (ft): 688701.9 GROUND SURFACE EL. (ft): 10.3 VERT./HORIZ. DATUMS: NAVD 88/NAD 83 EASTING (ft): 650629.9

DATE START/END: 4/18/2017 - 4/19/2017 DRILLING COMPANY: New England Boring

BORING GPEC-SB803

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		Т	0-							
	Depth	-	Sa	ample Inf	ormation		5	Log		
Elev. (ft)	(ft)	S	ample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Graphic Log	Soil and Rock Description	Description
_	-	M	S14	55 to 57	24/9	4-5-5-5			S14: WIDELY GRADED SAND W (SW-SM); ~70% mostly fine to me gravel up to 0.5"; ~10% low plasti multicolored particles; mica noted	dium sand; ~15% subangular city fines; gray with
-	-		S15	58 to 60	24/5	6-4-6-6	Gravel on drill return		S15: SILTY SAND (SM); ~60% m-30% low plasticity fines; ~10% sugray.	ostly medium to coarse sand:
-50 -	— 60 -		S16	60 to 62	24/21	7-6-7-7	PID=0.0 ppm		S16: SILTY SAND (SM); ~80% mplasticity fines; ~5% subrounded g	ostly coarse sand; ~15% low gravel up to 1.5"; gray.
-	_	/ \							Bottom of boring at depth 62 ft. Grouted to surface.	
	_ 65									
=	_									
-	_									
-60 —	- - 70									
-	_									
=	_ -									
	— 75									
-	_									
-	<u>-</u> -									
-70 —	80 									
-	_									
-	_									
-	— 85 -									
DCP _{Index} Backgro	_» (DPI) բ ound PII	orovi D = (ided abo 0.0 ppm.	ve in mm/l	er (DCP) Te plow over t	est interval.	l bllerbit drill before sampling.		ECT NAME: NG-GPEC LNG Tanks Ic	e Shields



BORING INFORMATION

NORTHING (ft): 688774.0

GROUND SURFACE EL. (ft): 9.4

VERT./HORIZ. DATUMS: NAVD 88/NAD 83

TOTAL DEPTH (ft): 60.0

LOGGED BY: M. Hernandez-Cabal

EASTING (ft): 650664.9

DATE START/END: 4/19/2017 - 4/21/2017

DRILLING COMPANY: New England Boring

DRILLER NAME: T. Roe

RIG TYPE: Mobile B-53 Truck

BORING

GPEC-SB804

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DRILLING INFORMATION

ABBREVIATIONS:

HAMMER TYPE: Automatic CASING I.D./O.D.: 4 inch/ 5 inch DRILL ROD O.D.: 2.5 inch AUGER I.D./O.D.: NA / NA

DRILLING METHOD: Rollerbit Drilling with Casing

WATER LEVEL DEPTHS (ft): <u>₹ 5.7 4/19/2017</u>

Pen. = Penetration Length

Rec. = Recovery Length

RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen.,% WOR = Weight of Rods

WOH = Weight of Hammer

S = Split Spoon Sample C = Core Sample

U = Undisturbed Sample SC = Sonic Core

DP = Direct Push Sample HSA = Hollow-Stem Auger Qp = Pocket Penetrometer Strength Sv = Pocket Torvane Shear Strength

LL = Liquid Limit PI = Plasticity Index PID = Photoionization Detector NA. NM = Not Applicable. Not Measured Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D.

split spoon sampler.

CORE BARREL TYPE: NA

CORE BARREL I.D./O.D.: NA / NA

I.D./O.D. = Inside Diameter/Outside Diameter

				ample Inf	ormation		noA - nollow-stell Augel		Soil and Rock Description	
Elev. (ft)	Depth (ft)	5	Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Graphic Log		
- - - -	- - - - - - - - - - - - - - - - - - -	£.	G1	0.8 to 8	86		VacEx to 8' DCP10 @ D=0.8'; DPI=6 DCP11 @ D=2.5'; DPI=5 DCP12 @ D=4'; DPI=6		0-11": CONCRETE with welded wire mesh reinforcing. FILL (CLASS 7) at ~0.8 ft / El. 8.6 G1: SILTY SAND WITH GRAVEL (SM); ~60% mostly fine to medium sand; ~25% low plasticity fines; ~15% subangular gravel up to 1"; dark gray; brick fragments observed.	
- 0 — -	- - - - - 10		S1 S2	8 to 10 10 to 12	24/6	18-27- 19-10 15-11-7- 5	HSA to bypass wood Sample advanced through previous interval		S1: Wood. S2: Wood.	
- - -	- - - - - - - -		S3	15 to 17	24/12	1/12"-2/12"	Gravel on drill return. Gray drill retun throughout the test boring. PID=0.0 ppm		S3: SILTY SAND (SM); ~70% mostly medium to coarse sand; ~30% low plasticity fines; gray; finer towards bottom.	
-10	20		S4	20 to	24/0	6-5-2-2	Gravel on drill return		S4: No recovery.	
	_ - -		S5	22 to 24	24/13	5-6-4-5	PID=0.0 ppm		S5: SILTY SAND (SM); ~60% mostly medium to coarse sand; ~30% low plasticity fines; ~10% subrounded gravel up to 1"; brick fragments observed; gray; slight organic odor.	
DCP _{Inde} Backgro	, (DÝI) ¡ ound Pl	prov D =	ided abo 0.0 ppm.	ve in mm/l		est interval.	ollerbit drill before sampling.	CITY	JECT NAME: NG-GPEC LNG Tanks Ice Shields VISTATE: Brooklyn, New York PROJECT NUMBER: 1701736 GEI Consultar	



NORTHING (ft): 688774.0 GROUND SURFACE EL. (ft): 9.4

VERT./HORIZ. DATUMS: NAVD 88/NAD 83

EASTING (ft): 650664.9

DATE START/END: 4/19/2017 - 4/21/2017

DRILLING COMPANY: New England Boring

BORING GPEC-SB804

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			Sa	mple Inf	ormation					
Elev. (ft)	Depth (ft)	Sample No.		Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Graphic Log	Soil and Rock Description	
-	— 25 –		S6	25 to 27	24/8	8-7-5-2	Gravel and brick fragments on drill return PID=0.0 ppm		S6: SILTY SAND (SM); ~70% mostly medium to coarse sa ~30% low plasticity fines; gray; one 1.5" subrounded gravel top of sample.	
-20 —	_ _ _ _ 30						Gravel, brick fragments, wood, glass on drill return. Organic odor			
- -	_	M	S7	30 to 32	24/0	14-15- 12-11			S7: No recovery.	
-	_		S8	32 to 34	24/19	9-11-11- 5	PID=0.0 ppm Sample advanced through previous interval		S8: SILTY SAND WITH GRAVEL (SM); ~60% mostly medi coarse sand; ~20% low plasticity fines; ~20% subrounded up to 1"; brick fragments observed; gray; 1" rock fragment 1.7% organic content.	grav
-							Gravel and brick fragments		MARSH DEPOSITS (CLASS 6) at ~34.5 ft / El25.1	
-	— 35 -	M	S9	35 to 37	24/0	WOH/24"	on drill return. Organic odor.		S9: No recovery. Spoon covered in black material with organ odor.	anic
-	<u>-</u>		S10	37 to 39	24/24	WOH/18"- 4	PID=0.0 ppm PID=0.0 ppm Sample advanced through previous interval		S10(0-16"): ORGANIC SOIL (OL/OH); soft organic materia plasticity; black; wood observed; 7.2% organic content. GLACIAL OUTWASH CLAY (CLASS 4C) at ~38.3 ft / El. S10 (16-24"): FAT CLAY (CH); ~90% medium to high plast	-28.
-30 —			U1	39 to	9/9	P-U-S-H	Thin-walled tube sample at 39'.		high dry strength clayey fines, LL=54, PI=31; ~10% fine sai gray; varved.	
-	— 40 –		S11	39.8 f 40 to 42	24/24	1-3-4-6	Qp=0.5 tsf, 1 tsf; Sv= 0.25 tsf PID=0.0 ppm PID=0.0 ppm PID=0.0 ppm		U1: SANDY LEAN CLAY (CL); ~80% medium to hight plas clayey fines, LL=41, Pl=19; ~20% fine to medium sand; no dilatancy; gray; varved; C_c =0.147, C_R =0.021 S11: LEAN CLAY WITH SAND (CL); 88.3% medium plasti clayey fines, LL=30, Pl=11; 10.9% mostly fine sand; 0.8% subangular gravel up to 1/4"; varved; gray with some black top of sample. [GRAIN SIZE TEST PERFORMED]	city
-	_						Gravel and brick fragments on drill return. Mica observed on return.		GLACIAL OUTWASH SAND (CLASS 3A) at ~43.5 ft / EI.	<u>-34.</u>
-	— 45 - -	X	S12	45 to 47	24/13	8-17-25- 26	PID=0.0 ppm		S12: WIDELY GRADED SAND WITH SILT AND GRAVEL (SW-SM); 74.5% mostly medium to fine sand; 17.6% subal gravel up to 1"; 7.9% nonplastic fines; gray; slight organic of [GRAIN SIZE TEST PERFORMED]	
40 -	_ _ _						Gravel on drill return		GLACIAL OUTWASH CLAY (CLASS 4C) at ~48.5 ft / El.	-39.
-40	50 		S13	50 to 52	24/24	3-1-2-7	PID=0.0ppm PID=0.0ppm PID=0.0 ppm		S13: SANDY LEAN CLAY (CL); ~50% medium to high plast clayey fines, LL=40, PI=18; ~20% medium to coarse sand; low plasticity fines; ~10% subangular gravel up to 0.25"; sto dilatancy; gray; varved.	~20
-	<u>-</u>						Gravel on drill return			
	— 55	\times					PID=0.0 ppm			



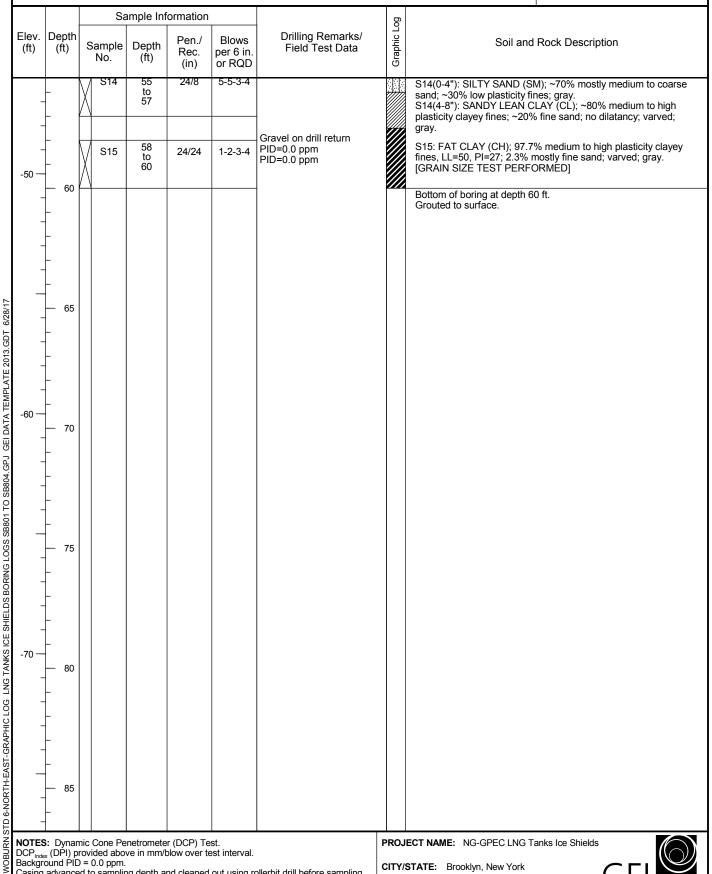
NORTHING (ft): 688774.0 GROUND SURFACE EL. (ft): 9.4 VERT./HORIZ. DATUMS: NAVD 88/NAD 83

EASTING (ft): 650664.9

DATE START/END: 4/19/2017 - 4/21/2017 DRILLING COMPANY: New England Boring

BORING GPEC-SB804

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NOTES: Dynamic Cone Penetrometer (DCP) Test. DCP_{Index} (DPI) provided above in mm/blow over test interval. Background PID = 0.0 ppm.

Casing advanced to sampling depth and cleaned out using rollerbit drill before sampling.

PROJECT NAME: NG-GPEC LNG Tanks Ice Shields

