INTERIM REPORT
FOR THE FORMER
CONSOLIDATED EDISON COMPANY OF N.Y., INC.
MASPETH SUBSTATION
QUEENS, NY

Prepared for
Con Edison of New York
New York, New York

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Northeastern US and Worldwide

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1.0 INTRODUCTION

Jacques Whitford Company, Inc. (JWC) has prepared the following Draft Interim Report on hydrogeological investigations for the former Consolidated Edison Company of N.Y., Inc. (Con Edison) Maspeth Substation located at 57-77 Rust Street, Queens, N.Y. The purpose of this study was to assess the extent of residual PCB and other possible contaminant impacts to soil and groundwater, and to investigate interim remedial actions at the site. The site is presently occupied by Enviro-Tire, an automotive tire recapping company. A previous owner was also a tire recapping company doing business as Encore Tire.

Structures on-site include a brick building, which is used as the manufacturing facility, and a fenced and gated parking lot comprised of concrete pads and bluestone. Figure 1 shows the site location. The Maspeth Substation historically utilized PCB-oils for the cooling of transformers located at the site. The transformers were formerly situated on the concrete pads identified as Vaults 1 through 6 on Figure 2 (1996 Site Plan). Over the lifetime of the substation, there were reportedly discharges of dielectric oils containing PCBs. Transformers, and/or PCB oils, may also have been stored in the area designated "Concrete Storage Area" on Figure 2 as well as in an above ground storage tank on the pads labeled Vault 6 and Vault 5 on Figure 2.

As part of a site remediation effort, which began in 1990, Con Edison excavated soils on-site in those areas determined to have been impacted by PCBs. Soils found to be contaminated with PCBs were excavated and removed from unpaved areas of the site (reference the area of cross-hatched patterns on Figure 2). The sampling locations depicted on Figure 2 (e.g. F3, B1, C13) represent confirmatory sample locations at the bottom of the excavations. All confirmatory samples met cleanup objectives for PCBs (i.e. 2 ppm or 10 ppm dependent upon soil depth) based on laboratory analysis. No sidewall samples were collected. The sampling at the concrete pads (e.g. V4) were shallow (less than 3 inches) concrete chips. The most heavily PCB-impacted soils were located in areas designated E, F and G on Figure 2.

During remedial activities, the excavation and sampling depths ranged from 3 feet to 10 feet below land surface (bls). The deepest excavation occurred in areas designated F and G. Excavations to depths greater than ten feet occurred in the area of the 58th Street entrance. The areas of excavated soil were then backfilled with clean fill.

Upon completion of the soil excavation, the New York State Department of Health, in an April 8, 1996 letter, found the site "remediated appropriately for the intended use of the property". The New York State Department of Environmental Conservation (NYSDEC) recommended, in a March 4, 1996 letter to Con Edison, that groundwater monitoring wells be installed at the site as a means of collecting groundwater quality samples to complete the Site Assessment. In 1996 JWC (then doing business as Caswell, Eichler & Hill) was awarded the contract to install three monitoring wells. In December 1996, the three wells, designated as MW-101, MW-102, and MW-103, were installed, developed and sampled for PCBs. The results are described in the attached March 1997 report "Results of Monitoring Well Installation and Groundwater Sampling, Maspeth Substation, Queens, New York" (Appendix A). Samples collected from MW-101 and MW-102 indicated that no regulatory limit was met or exceeded in either of these two wells.

Samples were not collected from MW-103 due to the presence of free product. A sample of the oil from MW-103 was collected and found to contain approximately 300 parts per million (ppm) of PCBs. Groundwater flow directions were determined to be generally to the south based upon water levels measured in these completed wells.

Based on the above findings and discussions with Con Edison, JWC proposed to conduct additional subsurface investigations at this site. The goals of these additional investigations were to evaluate the presence of free product in soils and groundwater in the vicinity of MW-103, to identify the source and transport mechanisms of the free product observed at MW-103, and to identify whether an Interim Remedial Action (IRA) is warranted for the site and to identify the most appropriate IRA.

A site specific health and safety plan (HASP) and workplan, were prepared. Con Edison submitted the workplan to DEC for their approval The workplan is attached as Appendix B.

2.0 WORK PERFORMED

2.1 Ground Penetrating Radar Survey

Due to the possibility of encountering undocumented underground utilities at the Maspeth site during the soil boring program, JWC conducted a Ground Penetrating Radar (GPR) Survey to delineate the presence or absence of utilities. The GPR survey was conducted on March 1 and 2, 1999, by a JWC geophysicist, equipped with a Sensors and Software Pulse EKKO IV ™ GPR unit.

The field survey focused on three areas: 1) the area surrounding the previously-installed well MW-103, 2) the areas of the site covered with concrete pads which were the foundations for transformers, and 3) previously excavated areas of the site. GPR survey locations are located on Figure 3.

No characteristic inverted "**U**" patterns were detected in the areas of anticipated buried utilities. Therefore, based upon the JWC GPR survey data, there are no underground utilities near the delineated boring locations. The proposed boring locations were subsequently noted in the field with spray paint.

2.2 Soil Boring and Sampling

One possible on-site source of PCBs was identified as the unexcavated materials beneath the six existing vault slabs. Therefore, nineteen four-inch diameter soil borings were advanced through, or adjacent to, the vault slabs. This work was conducted from March 30 to April 2, 1999. These boring locations were identified by Con Edison personnel as SB-1 through SB-19 (see Figure 3). At three of the boring locations, SB-13, SB-7, and SB-19, monitoring wells were constructed within the boreholes. These wells are identified as MW-201, MW-202 and MW-203.

Drilling through the concrete vaults was conducted with hollow stem augers. The thickness of the concrete at the various vaults varied from 1.5 to 2.5 feet with different sizes and amounts of steel re-bar. Once through the concrete, the boreholes were hand dug to depths of 2 or 3 feet to further explore for underground utilities. At boring locations SB-8, SB-14, SB-15, and SB-16 underground utilities were encountered at depths ranging from 2.5 to 5 feet. Due to access difficulties along with underground utilities encountered, SB-15 was not drilled. Several attempts were made to advance SB-14. Due to a concrete lined drainage pipe in the vicinity of SB-14, this boring was advanced to only 9 feet.

Each soil boring was then continuously sampled using a standard split-spoon sampler from 2 or 3 feet bls to the water table or to 24 feet bls, whichever came first. Each soil sample was characterized by the JWC hydrogeologist for grain size, odor, presence of free product, etc. The split-spoon samplers were decontaminated between samples with an Alconox ® wash, clean water, Isopropyl Alcohol, and deionized water rinse. Soil samples were placed in labeled, sealed, plastic bags for field screening which was conducted with a photo-ionization detector (PID) to measure the headspace for total volatile organic compounds. The headspace data is presented in Table 1. Boring logs are attached (Appendix C).

Two samples in each boring were selected for PCBs, one from at or just above the water table and one from the zone of highest contamination based on visual, PID or olfactory evidence. Samples were placed in laboratory supplied bottles and delivered to Con Edison's contract laboratory. Prior to delivery to the laboratory, the on-site Con Edison representative requested that the samples be submitted for analysis of PCBs by Method 8081, as well as VOCs by Method 8260 and SVOCs by Method 8270. Detection limits for PCBs were the contract lab's normal practical quantitation limit (PQL) of 17 ug/kg for each Arochlor. Proper chain-of-custody documentation was maintained throughout the sampling and analysis process for additional QA/QC purposes.

2.3 Monitoring Well Installation

Monitoring wells were subsequently constructed in three of the boreholes. These wells, identified as MW-201, MW-202, and MW-203, were advanced to 24 feet bls. Once the completion depth of the borings was reached, 2-inch ID Schedule 40 PVC wells with a 15 to 20-foot screen section (screened across the water table), and flush-threaded joints were installed. MW-201 was constructed with a 15-foot screen section, from 24 to 9 feet bls, due to unusually saturated, or perched conditions. These saturated conditions are believed to be from the concrete lined drainage pipe and drainage system encountered just to the south of MW-201 where numerous tries to advance SB-14 were unsuccessful. MW-202 and MW-203 were installed with 20-foot screen sections from 24 to 4 feet bls. A sand filter pack was emplaced around the screened portion of each well followed by a 1- to 2-foot thick bentonite seal. The remainder of the borehole annulus was filled with appropriate material (cement grout, bentonite, or other) to a depth of 1-2 feet below ground surface. Each well was finished flush at the surface and protected with a grouted metal casing. As noted above, boring logs and well construction details are attached as Appendix C. Table 2 presents a summary of the well construction details. Monitoring well locations are shown on Figure 4, "Site Plan".

After construction, each well was developed to remove any fines from the wells utilizing a slow-purge technique. This technique used a 0.5 L/min peristaltic pump attached to dedicated Waterra ® inertial pumps and tubing. The Waterra ® pumps and tubing were then left in each well for future sampling events. By dedicating the Waterra ® equipment, the potential for cross-contamination and the cost for expendable sampling equipment are eliminated. All purge water was placed in labeled 55-gallon drums for off-site disposal by Con Edison.

2.4 Groundwater Sampling

Groundwater samples were collected by JWC on April 26, 1999. Prior to collection, depths to free product and to the water table were measured in each well. Free product was observed in MW-103, MW-201, MW-202, and MW-203. These data are presented in Table 3. An interpretation of groundwater flow is presented as Figure 5.

Due to the presence of free product in the above-noted wells, water samples were, therefore, collected only from MW-101, MW-102 and were submitted to Con Ed's contract laboratory for analysis of PCBs (Method 8081), VOCs (Method 95-1), and SVOCs (Method 95-2).

Finally, samples of free product were collected, from those monitoring wells where free product was observed, and analyzed for PCBs by EPA Method 8081 and GC Fingerprint by Method 310.14.

3.0 RESULTS

The laboratory analytical results for soil VOC, soil SVOC, and soil PCBs data are presented in Tables 4, 5, and 6 respectively. Free product samples results are presented in Table 7. Groundwater SVOC and PCB results are presented in Tables 8 and 9 respectively. Laboratory analytical reports are presented in Appendix D.

3.1 Soil Samples Analyses

PCBs were reported above its respective Method Detection Limit (MDL) in 26 of the individual samples. Reported concentrations ranged from 14 ug/L (0.014 ppm) at SB-14 5'-7' to 10,200 ug/L (10.2 ppm) at SB-4 14'-16'. The residential standard for PCBs in soil is 10,000ug/L (10 ppm)(EPA Code of Federal Regulations, Title 40, Subchapter R; *Toxic Substances Control Act, Part 761*). The industrial standard is 25,000 ug/L (25 ppm). The only sample to exceed one of these standards is the 10,200 ug/L (10.2 ppm) reported at SB-4 14'-16' which exceeded the residential standard. 10 ppm is also the NYSDEC *Technical and Administrative Guidance Memorandum* (TAGM) 4046 soil cleanup objective. An interpretation of PCBs in soils, based upon the laboratory results, is presented as Figure 6. Note that the posted value for each boring location is an average value for the two samples collected per boring. This method of determining an average value per boring was also used in the preparation of interpreted VOC and SVOC concentrations in soil. Additionally, four cross-sections through the most impacted area of the site (Figures 10-13) which show the vertical distribution of contaminants.

VOCs were reported in all soil samples. However, only two compounds were reported at or above concentrations which exceed regulatory limits based upon TAGM HWR-94-4046, *Recommended Soil Cleanup Objectives*. Methylene chloride was reported at SB-12 13'-15' at a concentration of 1,800 ppb (1.8 ppm). The Soil Cleanup Objective for methylene chloride in soils is 100 ppb. Acetone was reported in 34 of the 39 soil samples. In 9 of the samples, acetone was reported in the method blank for the analysis. However, in 24 of these samples, reported acetone concentration exceeded the Soil Cleanup Objective of 200 ppb (0.2 ppm). Excedences ranged from 297 ppb (0.297 ppm) at SB-6 9'-11' to 140,000 ppb (140 ppm) at SB-8 11'-13'.

Figure 7 is an interpretation of total VOCs in soil based upon the reported analytical data. Because of acetone presence in laboratory blanks for some, but not all analyses, the laboratory was requested to verify the reported acetone data. In an e-mail dated May 27,1999, Ms. Patty Werner of Environmental Testing Laboratories (Farmingdale, NY), confirmed the reported analyses for VOCs. In addition, JWC obtained a review of the QA/QC data from an independent lab auditor. The auditor indicated that although he may have applied a "B" flag (for blank contamination) on a few additional samples, the data did indicate the presence of acetone in the field sample for those values of 3 ppm or more. It is also important to note that, since the decision to analyze the samples for

VOCs came at the end of the field program, no field equipment blank or trip blank were analyzed for VOCs.

Finally, all soil samples were analyzed for SVOCs by Method 8270. Only one compound, benzo(a) pyrene, was reported at a concentration which exceeded its TCLP Alternative Guidance Value Standard of 61 ppb (0.061 ppm). Benzo(a) pyrene was reported at SB-10 5'-7' at a concentration of 91.9 ppb (0.0919 ppm) and SB-14 5'-7' at a concentration of 143 ppb (0.143 ppm). Figure 8 is an interpretation of total SVOCs in soil, based upon the reported analytical data.

3.2 Product Analysis

At the request of Mr. Bharat Mukhi of Con Edison, samples of product were collected from those wells where free-product was measured and were analyzed for PCBs (Method 8081) and GC Fingerprint (Method 310.14). The case narrative for GC Fingerprint samples state, "Samples 3 and 4 contain organic compound in the DRO range , but they do not belong to any of the target standards." There was insufficient sample from MW-202 to perform an analysis. At the request of Mr. Mukhi, the samples were subsequently reanalyzed and compared to specific dielectric fluids used by Con Edison. A match to one of these standards was made and the free product was identified as a Suntrans dielectric fluid. As noted above, GC Fingerprint free-product results are presented as Table 7.

The free-product samples were also analyzed for PCBs. PCB 1260 was reported in the three samples , where analysis was possible (MW-103, MW-201, and MW-203) at 328 ppm, 1.1 ppm, and 163 ppm respectively.

3.3 Groundwater Samples Analyses

No VOC was reported at or above its individual detection limit at either of the two sampled locations (MW-101 and MW-102). PCB 1260 was reported at both locations at 0.179 ppb and 0.0615 ppb respectively (Table 9). Finally, one SVOC, bis (2-Ethylhexyl) phthalate was reported at 1.7 ppb and 2.4 ppb (Table 8) respectively.

4.0 CONCLUSIONS AND RECOMMENDATIONS

This phase of the investigation of the former Maspeth substation suggests that further work might be performed. There are two primary environmental areas of concern, based upon results to date.

Free product containing PCBs on the groundwater underlying the site was confirmed but not fully delineated with this field work. Determination of the extent and magnitude of

the free-product should be performed in order to devise an appropriate strategy for its recovery.

High levels of acetone detected in soil samples taken during the most recent on-site soil boring activities should be confirmed and delineated. This is a new concern, based upon results of the February - April, 1999 on-site activities. Although not found in the groundwater samples analyzed for VOCs, wells where the acetone would most likely be found (based on reported soil concentrations) were not sampled for VOCs due to the presence of free-product. Acetone is not a compound typically found at a Con Edison substation.

Review of the data appears to show a correlation between the presence of acetone and other contaminants at the site. This is shown best in the cross-sections (Figures 10-13). Acetone concentration matches well with PID headspace readings as well as with PCB readings. The acetone distribution also matches with the visual oil observations in the areas beneath the vault pads (areas not previously excavated). These observations serve to confirm the existence of this atypical substation contaminant.

The decision to analyze for VOCs came after the completion of the field program, therefore, proper QA/QC field samples (i.e. trip or field blanks) were not included in the sampling program to confirm that this contaminant is associated with the site and not a lab contaminant. Based on the estimated volume of the potentially impacted soils (2000 yds), JWC recommends resampling the soils immediately adjacent to the four highest reported acetone concentrations. These include:

- SB-8, 11-13 ft
- SB-2, 15-17 ft
- SB-14, 7-9 ft
- SB-1, 15-17 ft

To further refine the extent and magnitude of the acetone and free product distribution, JWC recommends the completion of five new soil borings and two to five additional monitoring wells. Proposed boring locations are based upon the most recent interpreted groundwater flow and are shown on Figure 9. Regardless of the observations during soil boring, wells will be built at the MW-303 and MW-304 locations. Should soil conditions indicating free product be observed at the remaining three locations, similar wells will be constructed or additional borings and wells will be completed to ensure adequate delineation of the impacted groundwater.

Three of the proposed borings/wells would be located approximately equidistantly spaced along 58th Street between the northeast corner of the facility and 58th Avenue as shown on Figure 9. A fourth boring/well is proposed along the 58th Avenue side of the facility, approximately centered between 58th Street and Rust Street. The fifth boring/well is proposed along the Rust Street side of the facility. As was the case with the 200 series wells, the proposed wells will be continuously sampled to approximately 24 feet bls.

Samples will be field screened with a PID. Those two samples per boring exhibiting the highest PID readings or other sensory based criteria (olfactory, visual, etc.) will be sent to a NYSDEC laboratory for analyses for PCBs by Method 8081, VOCs by Method 8260 and SVOCs by Method 8270. Monitoring wells will be constructed, developed, and sampled in a manner consistent with the 200 series wells. The wells will be allowed to equilibrate for a minimum period of two weeks. All on-site wells will then be sampled in a manner consistent with the April, 26, 1999 sampling event (PCBs, VOCs, SVOCs).

As the principal goal of this investigation is to fully delineate the impacted area, JWC feels it is prudent to plan supplemental "step-out" borings and/or wells should any of the newly proposed (Figure 9) borings encounter evidence of significant environmental impacts. The level of environmental impact will be evaluated in the field based on free product evidence as well as PID readings. The step-out borings will be planned to be placed in the apparent downgradient direction at the nearest practical location (no less than 20 feet). JWC will pre-clear the utilities at these step-out locations as well as those locations shown on Figure 9 prior to field mobilization. Only one field mobilization is intended for the proposed borings and a single phase of step-out borings, if required.

If acetone is still a contaminant of concern at the site at that time, JWC recommends sampling the groundwater even if free phase product exists on the water table. This can be accomplished through low-flow purge/sample techniques and dedicated tubing.

Results will be reported and a strategy on how to proceed will be recommended.

TABLE 1
FIELD SCREENING RESULTS SUMMARY

Sample Loc	Depth Interval (ft bls)	Head Space (ppm)	Comments	
SB-1	3 - 5	1.7		
	5 - 7	23		
	7 - 9	7.0		
	9 - 11	25	Petroleum Odor	
	11 - 13	31	Petroleum Odor	Sent to Lab
	13 - 15	33	Petroleum Odor	
	15 - 17	65		Sent to Lab
SB-2	3 - 5	28		
	5 - 7	24		
	7 - 9	45		
	9 - 11	23		
	11 - 13	28	Visible Sheen	Sent to Lab
	13 - 15	43		
	15 - 17	44		Sent to Lab
SB-3	3 - 5	37		
	5 - 7	36		
	7 - 9	50		
	9 - 11	64		Sent to Lab
	11 - 13	52		
	13 - 15	55		Sent to Lab
SB-4	0 - 2	4.0		
	2 - 4	6.0		
	4 - 6	6.0	Petroleum Odor	
	6 - 8	8.1		
	8 - 10	9.2		
	10 - 12	8.2		
	12 - 14	19		Sent to Lab
	14 - 16	20		Sent to Lab
SB-5	3 - 5	34	Petroleum Odor	Sent to Lab
	5 - 7	26		
	7 - 9	8.0		
	9 - 11	16	Petroleum Odor	
	11 - 13	18	Petroleum Odor	
	13 - 15	21		
	15 - 17	20		Sent to Lab
	17 - 19	26		

TABLE 1
FIELD SCREENING RESULTS SUMMARY

Sample Loc	Depth Interval (ft bls)	Head Space (ppm)	Comments
SB-6	3 - 5	30	
	5 - 7	33	
	7 - 9	26	Petroleum Odor
	9 - 11	32	Sent to Lab
	11 - 13	11	
	13 - 15	10	
	15 - 17	21	Sent to Lab
	17 - 19	24	
SB-7/MW-202	0 - 2	7.7	
	2 - 4	37	
	4 - 6	21	
	6 - 8	26	
	8 - 10	16	Petroleum Odor
	10 - 12	29	
	12 - 14	24	
	14 - 16	18	
	16 - 18	18	Sent to Lab
	18 - 20	19	
	20 - 22	24	Sent to Lab
	22 - 24	14	
SB-8	3 - 5	88	
	5 - 7	67	
	7 - 9	25	
	9 - 11	73	Petroleum Odor
	11 - 13	150	Petroleum Odor Sent to Lab
	13 - 15	63	Petroleum Odor
	15 - 17	65	Petroleum Odor Sent to Lab
	17 - 19	32	
SB-9	3 - 5	6	
	5 - 7	4	
	7 - 9	15	Petroleum Odor Sent to Lab
	9 - 11	80	
	11 - 13	110	Petroleum Odor
	13 - 15	45	Sent to Lab
SB-10	3 - 5	115	
	5 - 7	180	Sent to Lab
	7 - 9	57	
	9 - 11	84	
	11 - 13	67	
	13 - 15	118	
	15 - 17	87	Sent to Lab
	17 - 19	87	

TABLE 1
FIELD SCREENING RESULTS SUMMARY

Sample Loc	Depth Interval (ft bls)	Head Space (ppm)	Comments	
SB-11	3 - 5	45		
	5 - 7	42	Petroleum Odor	
	7 - 9	57	Petroleum Odor	Sent to Lab
	9 - 11	45	Petroleum Odor	
	11 - 13	36	Petroleum Odor	
	13 - 15	45		Sent to Lab
	15 - 17	22		
	17 - 19	37		
SB-12	3 - 5	7.6		
	5 - 7	3		
	7 - 9	6.1		
	9 - 11	29	Petroleum Odor	Sent to Lab
	11 - 13	21		
	13 - 15	15		Sent to Lab
	15 - 17	46		
	17 - 19	5.5		
	19 - 21	13		
SB-13/MW-201	3 - 5	4.3		
	5 - 7	18		
	7 - 9	23		Sent to Lab
	9 - 11	25		Sent to Lab
	11 - 13	19		
	13 - 15			
	15 - 17	26		Sent to Lab
	17 - 19	11		
	19 - 21	15		
	21 - 23	15		Sent to Lab
SB-14 & 14A	0 - 2	10		
	2 - 4			
	5 - 7	26		Sent to Lab
	7 - 9	47		Sent to Lab
SB-16	3 - 5	16		
	5 - 7	14		
	7 - 9	15		
	9 - 11	36	Petroleum Odor	Sent to Lab
	11 - 13	26		
	13 - 15	11		
	15 - 17	12		
	17 - 19	10		Sent to Lab

TABLE 1
FIELD SCREENING RESULTS SUMMARY

Sample Loc	Depth Interval (ft bls)	Head Space (ppm)	Comments
SB-17	2 - 4	65	
	4 - 6	7.5	
	6 - 8	47	Petroleum Odor Sent to Lab
	8 - 10	31	
	10 - 12	45	Sent to Lab
SB-18	2 - 4	19	
	4 - 6	14	
	6 - 8	26	Sent to Lab
	8 - 10	27	Sent to Lab
	10 - 12	18	
SB-19/MW-203	4 - 6	55	
	6 - 8	31	
	8 - 10	49	Sent to Lab
	10 - 12	45	
	12 - 14	62	
	14 - 16	66	Sent to Lab
	16 - 18	20	
	18 - 20	15	
	20 - 22	13	
	22 - 24	11	Sent to Lab

NOTES:

ft bls = feet below land surface

ppm = parts per million

TABLE 2

Well Construction Details
Consolidated Edison of New York: Former Maspeth Substation

Well Number	Date Installed	Bottom of Boring (ft bls) [1]	Screen Interval (ft bls)
MW-1	12/5/96	32	26 - 6
MW-2	12/5/96	32	26 - 6
MW-3	12/6/96	32	17 - 5
MW-201	4/2/99	24	24 - 9
MW-202	3/31/99	24	24 - 4
MW-203	4/2/99	24	24 - 4

[1] feet below land surface

DRAFT

Table 3

Product and Groundwater Level Measurements
Consolidated Edison of New York: Former Maspeth Substation

Well	Date	Depth to Product (feet TOPVC) [1]	Depth to Water (feet TOPVC) [1]	Measuring Point Elevation (feet AD [2])	Product Elevation (feet AD [2])	Groundwater Elevation (feet AD [2])	Product Thickness (feet)	Corrected Groundwater Elevation (feet AD [2])
MW-101	26-Apr-99	ND	18.21	99.78	N/A	81.57	N/A	81.57
MW-101	06-Apr-99	ND	18.26	99.78	N/A	81.52	N/A	81.52
MW-101	12-Mar-97	ND	18.44	99.78	N/A	81.34	N/A	81.34
MW-101	17-Dec-96	ND	18.45	99.78	N/A	81.33	N/A	81.33
MW-102	26-Apr-99	ND	15.63	99.57	N/A	83.94	N/A	83.94
MW-102	06-Apr-99	ND	15.95	99.57	N/A	83.62	N/A	83.62
MW-102	12-Mar-97	ND	15.09	99.57	N/A	84.48	N/A	84.48
MW-102	17-Dec-96	ND	13.23	99.57	N/A	86.34	N/A	86.34
MW-103	26-Apr-99	15.40	16.29	99.49	84.09	83.20	0.89	83.97
MW-103	06-Apr-99	15.72	16.26	99.49	83.77	83.23	0.54	83.70
MW-103	12-Mar-97	NM	13.29	99.49	N/A	86.20	N/A	86.20
MW-201	26-Apr-99	15.75	16.33	99.68	83.93	83.35	0.58	83.85
MW-201	06-Apr-99	*	15.88	99.68	N/A	83.80	N/A	83.80
MW-202	26-Apr-99	15.71	15.74	99.30	83.59	83.56	0.03	83.59
MW-202	06-Apr-99	ND	15.74	99.30	N/A	83.56	N/A	83.56
MW-203	26-Apr-99	15.82	17.59	99.79	83.97	82.20	1.77	83.74
MW-203	06-Apr-99	15.79	16.29	99.79	84.00	83.50	0.50	83.94

ND: indicates not detected
NM: Product detected but not measured, no interface probe
*: indicates a sheen but no measurable product

[1] Top of PVC riser pipe

[2] Assumed Datum: Paint spot on facilty assumed to be 100.00 feet

Corrected Groundwater Elevation = Measuring Point Elevation - [DTW - PT(PD)], where
DTW is depth to water, PT is product thickness and PD is product density (assumed to be 0.87)

Table 4

VOC Soil Boring Soil Samples Results
Former Maspeth Substation
Custody Documents I9477, I9478, I9479, and I9482
March 30-April 2, 1999

All results reported in parts per million (ppm)

Sample Location		SB-1 11-13	SB-1 15-17	SB-2 11-13	SB-2 15-17	SB-3 9-11
VOCs (Method 8260) Analyte	Regulatory Limit (ppm)					
chloromethane						
bromomethane						
1,1,2 trichlorotrifluoroethene						
acetone	.2 [1]	**3.56 E**	**8.96**	**6.08**	**15**	**4.86**
carbon disulfide	2.7 [1]					
methylene chloride	.1 [1]	0.0039 B	0.0037 B	0.0053 B	0.0056 B	0.0136 B
methyl t-butyl ether		0.0029 B	0.0030 B	0.0050 B	0.0067 B	0.0108 B
2-butanone						
toluene	1.5 [1]	0.0065	0.0033		0.0073	
tetrachloroethene	1.4 [1]			0.0106		
2-hexanone						
chlorobenzene	1.7 [1]					
ethylbenzene	5.5 [1]					
m, p-xylene	1.2 [2]	0.0039	0.0018		0.0031	
o-xylene	1.2 [2]	0.0023	0.0012			
Isopropylbenzene						
n-propylybenzene		0.0025	0.0014			
p-ethyltoluene		0.0071	0.0027			
1,3,5 tri-methylbenzene		0.0043	0.0014			
tert butylbenzene						
1,2,4 tri-methyl benzene		0.0059	0.0021			
sec-butylbenzene		0.0022	0.0012			
4-Isopropyltolune		0.0029	0.0019			
1,3 dichlorobenzene	1.6 [1]	0.0069	0.0032			
1,4 dichlorobenzene	8.5 [1]	0.0209	0.0102		0.0019	
1,2 dichlorobenzene	7.9 [1]	0.0012				
p-diethylbenzene			0.0032			
n-Butylbenzene		0.0029	0.0015			
1,2,4,5 tetramethylbenzene						
1,2,4 trichlorobenzene	3.4 [1]	0.0126	0.0095	0.0019	0.0045	
napthalene			0.0012			
Total VOCs		3.6421	9.0058	6.0925	15.0168	4.8600

[1] Based upon TAGM HWR-94-4046, Appendix A, Table 1; *Recommended Soil Cleanup Objectives*

[2] Based upon TAGM HWR-94-4046, Appendix A, Table 1; *Recommended Soil Cleanup Objectives* for total xylenes

B: Detected in method blank

E: Estimated above calibration limit

J: Estimated value below calibrated Method Detection Limit

Total VOCs do not include values reported as present in blanks

Blank Space: Indicates not present at its respective MDL

Bold: Indicates compound reported above Recommended Cleanup Objective

Table 4

VOC Soil Boring Soil Samples Results
Former Maspeth Substation
Custody Documents I9477, I9478, I9479, and I9482
March 30-April 2, 1999

All results reported in parts per million (ppm)

Sample Location		SB-3 13-15	SB-4 12-14	SB-4 14-16	SB-5 3-5	SB-5 17-19
VOCs (Method 8260) Analyte	Regulatory Limit (ppm)					
chloromethane						
bromomethane						0.0023 B
1,1,2 trichlorotrifluoroethene					0.0021	0.00097
acetone	.2 [1]	**3.51**	0.079		0.274 B	0.0348 B
carbon disulfide	2.7 [1]				0.0194	
methylene chloride	.1 [1]	0.0135 B	0.0057		0.0158	0.0079
methyl t-butyl ether		0.0105 B	2.00 B		0.0033 B	0.0035 B
2-butanone					0.0321	
toluene	1.5 [1]		0.0047		0.0073	0.0068
tetrachloroethene	1.4 [1]					
2-hexanone					0.0241	
chlorobenzene	1.7 [1]			0.0173	0.0173	
ethylbenzene	5.5 [1]				0.0018	
m, p-xylene	1.2 [2]		0.0027	0.0179	0.0081	0.0042
o-xylene	1.2 [2]		0.0021	0.0153	0.0059	0.0027
Isopropylbenzene			0.00099	0.0061		0.0011
n-propylybenzene			0.0041	0.0172	0.0087	0.0045
p-ethyltoluene			0.0054	0.0308	0.015	0.0066
1,3,5 tri-methylbenzene			0.0026	0.0174	0.0098	0.0023
tert butylbenzene						
1,2,4 tri-methyl benzene			0.0081	0.0482	0.0219	0.0094
sec-butylbenzene			0.0031	0.0124	0.0024	0.0019
4-Isopropyltolune			0.0031	0.012	0.0603	0.0023
1,3 dichlorobenzene	1.6 [1]		0.0045	0.128	0.0323	0.0063
1,4 dichlorobenzene	8.5 [1]		0.0402	0.862	0.134	0.0658
1,2 dichlorobenzene	7.9 [1]		0.0018	0.723	0.0077	0.0026
p-diethylbenzene			0.0052	0.26		
n-Butylbenzene			0.0033	0.144	0.0142	0.0013
1,2,4,5 tetramethylbenzene			0.0015		0.0088	
1,2,4 trichlorobenzene	3.4 [1]		0.0081	0.0463	0.155	0.0077
napthalene			0.0016		0.0244	
Total VOCs		3.5100	0.1878	1.3436	0.6284	0.1344

[1] Based upon TAGM HWR-94-4046, Appendix A, Table 1; *Recommended Soil Cleanup Objectives*

[2] Based upon TAGM HWR-94-4046, Appendix A, Table 1; *Recommended Soil Cleanup Objectives* **for total** xylenes

B: Detected in method blank

E: Estimated above calibration limit

J: Estimated value below calibrated Method Detection Limit

Total VOCs do not include values reported as present in blanks

Blank Space: Indicates not present at its respective MDL

Bold: Indicates compound reported above Recommended Cleanup Objective

Table 4

VOC Soil Boring Soil Samples Results
Former Maspeth Substation
Custody Documents I9477, I9478, I9479, and I9482
March 30-April 2, 1999

All results reported in parts per million (ppm)

Sample Location		SB-6 9-11	SB-6 15-17	SB-7 16-18	SB-7 20-22	SB-8 11-13
VOCs (Method 8260) Analyte	Regulatory Limit (ppm)					
chloromethane						
bromomethane			0.0013 B			
1,1,2 trichlorotrifluoroethene		0.0013				
acetone	.2 [1]	**0.297 E**	0.194 B	**3.4**	**0.53**	**140**
carbon disulfide	2.7 [1]	0.0017				
methylene chloride	.1 [1]	0.0093	0.0051			
methyl t-butyl ether		0.0042 B	0.0028 B			
2-butanone		0.0164				
toluene	1.5 [1]	0.0074	0.0013			
tetrachloroethene	1.4 [1]					
2-hexanone						
chlorobenzene	1.7 [1]					
ethylbenzene	5.5 [1]					
m, p-xylene	1.2 [2]	0.0042				
o-xylene	1.2 [2]	0.0023				
Isopropylbenzene			0.0011			
n-propylybenzene		0.0037				
p-ethyltoluene		0.0034				
1,3,5 tri-methylbenzene		0.0017				
tert butylbenzene		0.0013				
1,2,4 tri-methyl benzene		0.0068				
sec-butylbenzene		0.0015				
4-Isopropyltolune		0.0014				
1,3 dichlorobenzene	1.6 [1]	0.0109	0.0015			
1,4 dichlorobenzene	8.5 [1]	0.0774	0.0113			
1,2 dichlorobenzene	7.9 [1]	0.0023				
p-diethylbenzene						
n-Butylbenzene		0.0051				
1,2,4,5 tetramethylbenzene		0.0032	0.0015			
1,2,4 trichlorobenzene	3.4 [1]	0.0026				
napthalene						
Total VOCs		0.1639	0.0218	3.4	0.53	140

[1] Based upon TAGM HWR-94-4046, Appendix A, Table 1; *Recommended Soil Cleanup Objectives*

[2] Based upon TAGM HWR-94-4046, Appendix A, Table 1; *Recommended Soil Cleanup Objectives* **for total** xylenes

B: Detected in method blank

E: Estimated above calibration limit

J: Estimated value below calibrated Method Detection Limit

Total VOCs do not include values reported as present in blanks

Blank Space: Indicates not present at its respective MDL

Bold: Indicates compound reported above Recommended Cleanup Objective

Table 4

VOC Soil Boring Soil Samples Results
Former Maspeth Substation
Custody Documents I9477, I9478, I9479, and I9482
March 30-April 2, 1999

All results reported in parts per million (ppm)

Sample Location		SB-8 15-17	SB-9 7-9	SB-9 13-15	SB-10 5-7	SB-10 15-17
VOCs (Method 8260) Analyte	Regulatory Limit (ppm)					
chloromethane						
bromomethane						
1,1,2 trichlorotrifluoroethene						
acetone	.2 [1]	**4.4**	**2.5**	**3.2**	**3.2**	**3.4**
carbon disulfide	2.7 [1]					
methylene chloride	.1 [1]					
methyl t-butyl ether						
2-butanone						
toluene	1.5 [1]					
tetrachloroethene	1.4 [1]					
2-hexanone						
chlorobenzene	1.7 [1]					
ethylbenzene	5.5 [1]					
m, p-xylene	1.2 [2]					
o-xylene	1.2 [2]					
Isopropylbenzene						
n-propylybenzene						
p-ethyltoluene						
1,3,5 tri-methylbenzene						
tert butylbenzene						
1,2,4 tri-methyl benzene				0.016		
sec-butylbenzene				0.020		
4-Isopropyltolune						
1,3 dichlorobenzene	1.6 [1]					
1,4 dichlorobenzene	8.5 [1]	0.100		0.066		
1,2 dichlorobenzene	7.9 [1]					
p-diethylbenzene						
n-Butylbenzene						
1,2,4,5 tetramethylbenzene						
1,2,4 trichlorobenzene	3.4 [1]					
napthalene						
Total VOCs		4.5	2.5	3.302	3.2	3.4

[1] Based upon TAGM HWR-94-4046, Appendix A, Table 1; *Recommended Soil Cleanup Objectives*

[2] Based upon TAGM HWR-94-4046, Appendix A, Table 1; *Recommended Soil Cleanup Objectives* **for total** xylenes

B: Detected in method blank

E: Estimated above calibration limit

J: Estimated value below calibrated Method Detection Limit

Total VOCs do not include values reported as present in blanks

Blank Space: Indicates not present at its respective MDL

Bold: Indicates compound reported above Recommended Cleanup Objective

Table 4

VOC Soil Boring Soil Samples Results
Former Maspeth Substation
Custody Documents I9477, I9478, I9479, and I9482
March 30-April 2, 1999

All results reported in parts per million (ppm)

Sample Location		SB-11 7-9	SB-11 13-15	SB-12 9-11	SB-12 13-15	SB-13 7-9
VOCs (Method 8260) Analyte	Regulatory Limit (ppm)					
chloromethane						0.0066 B
bromomethane						0.0116 B
1,1,2 trichlorotrifluoroethene						
acetone	.2 [1]	**1.5**	**1.5**			0.222 B
carbon disulfide	2.7 [1]					
methylene chloride	.1 [1]				**1.8**	0.0241
methyl t-butyl ether						0.0053 B
2-butanone						
toluene	1.5 [1]					
tetrachloroethene	1.4 [1]					
2-hexanone						
chlorobenzene	1.7 [1]					
ethylbenzene	5.5 [1]					
m, p-xylene	1.2 [2]					
o-xylene	1.2 [2]					
Isopropylbenzene						
n-propylybenzene						
p-ethyltoluene						
1,3,5 tri-methylbenzene						
tert butylbenzene						
1,2,4 tri-methyl benzene		0.020				
sec-butylbenzene						
4-Isopropyltolune						
1,3 dichlorobenzene	1.6 [1]					
1,4 dichlorobenzene	8.5 [1]					
1,2 dichlorobenzene	7.9 [1]					
p-diethylbenzene						
n-Butylbenzene						
1,2,4,5 tetramethylbenzene						
1,2,4 trichlorobenzene	3.4 [1]					
napthalene				0.019	0.019	0.0072
Total VOCs		1.520	1.5	0.019	1.819	0.0313

[1] Based upon TAGM HWR-94-4046, Appendix A, Table 1; *Recommended Soil Cleanup Objectives*

[2] Based upon TAGM HWR-94-4046, Appendix A, Table 1; *Recommended Soil Cleanup Objectives* **for total** xylenes

B: Detected in method blank

E: Estimated above calibration limit

J: Estimated value below calibrated Method Detection Limit

Total VOCs do not include values reported as present in blanks

Blank Space: Indicates not present at its respective MDL

Bold: Indicates compound reported above Recommended Cleanup Objective

Table 4

VOC Soil Boring Soil Samples Results
Former Maspeth Substation
Custody Documents I9477, I9478, I9479, and I9482
March 30-April 2, 1999

All results reported in parts per million (ppm)

Sample Location		SB-13 9-11	SB-13 15-17	SB-13 21-23	SB-14 5-7	SB-14 7-9
VOCs (Method 8260) Analyte	Regulatory Limit (ppm)					
chloromethane						
bromomethane		0.0136 B				
1,1,2 trichlorotrifluoroethene						
acetone	.2 [1]	0.414 B	**1.71 E**	**2.72 E**	**5.02**	**8.6**
carbon disulfide	2.7 [1]					
methylene chloride	.1 [1]	0.0321	0.0345	0.0195 B	0.0535 B	0.0123 B
methyl t-butyl ether		0.0091 B		0.013 B	0.0127 B	0.0112 B
2-butanone						
toluene	1.5 [1]	0.0094	0.0201			0.0059
tetrachloroethene	1.4 [1]					
2-hexanone						
chlorobenzene	1.7 [1]					
ethylbenzene	5.5 [1]					
m, p-xylene	1.2 [2]	0.0097	0.012			0.0047
o-xylene	1.2 [2]	0.0054	0.0053			
Isopropylbenzene						
n-propylybenzene		0.0087				
p-ethyltoluene		0.0124	0.009			0.0045
1,3,5 tri-methylbenzene		0.0065				
tert butylbenzene						
1,2,4 tri-methyl benzene		0.0207	0.0126			0.0065
sec-butylbenzene						
4-Isopropyltolune		0.0061				
1,3 dichlorobenzene	1.6 [1]					
1,4 dichlorobenzene	8.5 [1]	0.0087				
1,2 dichlorobenzene	7.9 [1]					
p-diethylbenzene						
n-Butylbenzene						
1,2,4,5 tetramethylbenzene		0.0202				
1,2,4 trichlorobenzene	3.4 [1]	0.0058				
napthalene		0.0184				0.0076
Total VOCs		0.1641	1.8035	2.72	5.020	8.6292

[1] Based upon TAGM HWR-94-4046, Appendix A, Table 1; *Recommended Soil Cleanup Objectives*

[2] Based upon TAGM HWR-94-4046, Appendix A, Table 1; *Recommended Soil Cleanup Objectives* for total xylenes

B: Detected in method blank

E: Estimated above calibration limit

J: Estimated value below calibrated Method Detection Limit

Total VOCs do not include values reported as present in blanks

Blank Space: Indicates not present at its respective MDL

Bold: Indicates compound reported above Recommended Cleanup Objective

Table 4

VOC Soil Boring Soil Samples Results
Former Maspeth Substation
Custody Documents I9477, I9478, I9479, and I9482
March 30-April 2, 1999

All results reported in parts per million (ppm)

Sample Location		SB-16 9-11	SB-16 17-19	SB-17 6-8	SB-17 10-12	SB-18 6-8
VOCs (Method 8260) Analyte	Regulatory Limit (ppm)					
chloromethane				0.0012 B		
bromomethane				0.0019 B		0.0015 B
1,1,2 trichlorotrifluoroethene						
acetone	.2 [1]	**3.41**	**7.16 E**	0.0214 B		
carbon disulfide	2.7 [1]					
methylene chloride	.1 [1]	0.169 B		0.0047	0.0027 B	0.0063
methyl t-butyl ether		0.0087 B		0.0027 B	0.0056 B	0.0023 B
2-butanone						
toluene	1.5 [1]	0.0115	0.0126 B	0.0038	0.0036	
tetrachloroethene	1.4 [1]					
2-hexanone						
chlorobenzene	1.7 [1]					
ethylbenzene	5.5 [1]					
m, p-xylene	1.2 [2]	0.051	0.0091	0.0018	0.0068	
o-xylene	1.2 [2]			0.0011	0.0029	
Isopropylbenzene				0.0014		0.0012
n-propylybenzene				0.0016		
p-ethyltoluene		0.0046	0.0095	0.0013	0.0046	0.0011
1,3,5 tri-methylbenzene					0.002	
tert butylbenzene		0.0048		0.0014		
1,2,4 tri-methyl benzene			0.0107	0.0013	0.0042	
sec-butylbenzene						
4-Isopropyltolune		0.0075				
1,3 dichlorobenzene	1.6 [1]					
1,4 dichlorobenzene	8.5 [1]	0.005	0.0174	0.0014	0.0043	
1,2 dichlorobenzene	7.9 [1]					
p-diethylbenzene		0.0047				
n-Butylbenzene				0.0017		0.0013
1,2,4,5 tetramethylbenzene				0.0013		0.0029
1,2,4 trichlorobenzene	3.4 [1]	0.0133	0.0057		0.0026	
napthalene						
Total VOCs		3.4665	0.0524	0.0228	0.031	0.0128

[1] Based upon TAGM HWR-94-4046, Appendix A, Table 1; *Recommended Soil Cleanup Objectives*

[2] Based upon TAGM HWR-94-4046, Appendix A, Table 1; *Recommended Soil Cleanup Objectives* **for total** xylenes

B: Detected in method blank

E: Estimated above calibration limit

J: Estimated value below calibrated Method Detection Limit

Total VOCs do not include values reported as present in blanks

Blank Space: Indicates not present at its respective MDL

Bold: Indicates compound reported above Recommended Cleanup Objective

Table 4

VOC Soil Boring Soil Samples Results
Former Maspeth Substation
Custody Documents I9477, I9478, I9479, and I9482
March 30-April 2, 1999

All results reported in parts per million (ppm)

Sample Location		SB-18 8-10	SB-19 8-10	SB-19 14-16	SB-19 22-24
VOCs (Method 8260) Analyte	Regulatory Limit (ppm)				
chloromethane					
bromomethane		0.0016 B			
1,1,2 trichlorotrifluoroethene					
acetone	.2 [1]	0.0182 B	0.457 B	0.210 B	**1.81**
carbon disulfide	2.7 [1]				
methylene chloride	.1 [1]	0.004	0.0066 B	0.0055 B	0.0301 B
methyl t-butyl ether		0.0044 B	0.0028 B	0.0043 B	0.0121 B
2-butanone					
toluene	1.5 [1]		0.00094	0.0013	0.0049
tetrachloroethene	1.4 [1]				
2-hexanone					
chlorobenzene	1.7 [1]				0.0118
ethylbenzene	5.5 [1]				
m, p-xylene	1.2 [2]	0.0012		0.0011	
o-xylene	1.2 [2]				0.0054
Isopropylbenzene					
n-propylybenzene			0.00099		0.0055
p-ethyltoluene				0.0011	
1,3,5 tri-methylbenzene					
tert butylbenzene					
1,2,4 tri-methyl benzene				0.0015	0.0051
sec-butylbenzene			0.0016		0.0075
4-Isopropyltolune					
1,3 dichlorobenzene	1.6 [1]				0.0373
1,4 dichlorobenzene	8.5 [1]		0.0055	0.0014	0.48
1,2 dichlorobenzene	7.9 [1]				0.0196
p-diethylbenzene					0.0459
n-Butylbenzene			0.0014		0.0169
1,2,4,5 tetramethylbenzene			0.0022		0.0335
1,2,4 trichlorobenzene	3.4 [1]		0.0022		0.0243
napthalene					
Total VOCs		0.0052	0.0148	0.0064	2.5077

[1] Based upon TAGM HWR-94-4046, Appendix A, Table 1; *Recommended Soil Cleanup Objectives*

[2] Based upon TAGM HWR-94-4046, Appendix A, Table 1; *Recommended Soil Cleanup Objectives* **for total** xylenes

B: Detected in method blank

E: Estimated above calibration limit

J: Estimated value below calibrated Method Detection Limit

Total VOCs do not include values reported as present in blanks

Blank Space: Indicates not present at its respective MDL

Bold: Indicates compound reported above Recommended Cleanup Objective

Table 5

SVOC Soil Boring Soil Samples Results
Former Maspeth Substation
Custody Documents I9477, I9478 and I9482
March 30-April 2, 1999

All results reported in parts per million (ppm)

Sample Location		SB-1 11-13	SB-1 15-17	SB-2 11-13	SB-2 15-17
SVOCs (Method 8270) Analyte	Regulatory Limit (ppm)				
1,3 dichlorobenzene					
1,4 dichlorobenzene					
3,4 Methylphenol					
1,2,4 trichlorobenzene			0.0447 J		
Napthalene	13. [1]				
2-Methyl napthalene	36.4 [1]				
Dimethyl phthalate	2 [1]				
Acenapthene	50 [1]				
Diethylphthalate	7.1 [1]				
Flourene	50 [1]				
Phenanthrene	50 [1]				
Anthracene	50 [1]				
Fluoranthene	50 [1]				
Pyrene	50 [1]				
Benzo (a) anthracene	0.226 [1]				
Chrysene	0.4 [1]				
bis(2-Ethylhexyl)phthalate	50 [1]				
Benzo(b) fluoranthene	1.1 [1]				
Benzo(k) fluoranthene	1.1 [1]				
Benzo(a) pyrene	0.061 [1]				
Indeno(1,2,3-cd) pyrene	3.2 [1]				
Benzo(g,h,I) perylene	50 [1]				
Total SVOCs			0.0447		

[1] Based upon TAGM HWR-94-4046, Appendix A, Table 2; *Recommended Soil Cleanup Objectives;* no individual compound above 50 ppm, total SVOCs <500 ppm

B: Detected in method blank

E: Estimated above calibration limit

J: Estimated value below MDL

Total SVOCs do not include values reported as present in blanks

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Table 5

SVOC Soil Boring Soil Samples Results
Former Maspeth Substation
Custody Documents I9477, I9478 and I9482
March 30-April 2, 1999

All results reported in parts per million (ppm)

Sample Location		SB-3 9-11	SB-3 13-15	SB-4 12-14	SB-4 14-16
SVOCs (Method 8270) Analyte	Regulatory Limit (ppm)				
1,3 dichlorobenzene					0.0374 J
1,4 dichlorobenzene				0.0433	0.544
3,4 Methylphenol					
1,2,4 trichlorobenzene					0.0389 J
Napthalene	13.[1]				
2-Methyl napthalene	36.4[1]				
Dimethyl phthalate	2[1]				
Acenapthene	50[1]				
Diethylphthalate	7.1[1]				
Flourene	50[1]				
Phenanthrene	50[1]		0.0661		
Anthracene	50[1]				
Fluoranthene	50[1]		0.144		
Pyrene	50[1]		0.0915		
Benzo (a) anthracene	0.226[1]		0.0574 J		
Chrysene	0.4[1]		0.0642 J		
bis(2-Ethylhexyl)phthalate	50[1]	0.070 B	0.117 B		
Benzo(b) fluoranthene	1.1[1]		0.059 J		
Benzo(k) fluoranthene	1.1[1]				
Benzo(a) pyrene	0.061[1]		0.0476 J		
Indeno(1,2,3-cd) pyrene	3.2[1]				
Benzo(g,h,I) perylene	50[1]				
Total SVOCs			0.5298	0.0433	0.6203

[1] Based upon TAGM HWR-94-4046, Appendix A, Table 2; *Recommended Soil Cleanup Objectives;* no individual compound above 50 ppm, total SVOCs <500 ppm

B: Detected in method blank

E: Estimated above calibration limit

J: Estimated value below MDL

Total SVOCs do not include values reported as present in blanks

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Table 5

SVOC Soil Boring Soil Samples Results
Former Maspeth Substation
Custody Documents I9477, I9478 and I9482
March 30-April 2, 1999

All results reported in parts per million (ppm)

Sample Location		SB-5 3-5	SB-5 17-19	SB-6 9-11	SB-6 15-17
SVOCs (Method 8270) Analyte	Regulatory Limit (ppm)				
1,3 dichlorobenzene		0.0781			
1,4 dichlorobenzene		0.459		0.079	
3,4 Methylphenol		0.0499 J			
1,2,4 trichlorobenzene		0.746			
Napthalene	13. [1]	0.0629 J			
2-Methyl napthalene	36.4 [1]	0.113 J			
Dimethyl phthalate	2 [1]		0.038 J		
Acenapthene	50 [1]				
Diethylphthalate	7.1 [1]				
Flourene	50 [1]		0.05		
Phenanthrene	50 [1]	2.2			
Anthracene	50 [1]				
Fluoranthene	50 [1]				
Pyrene	50 [1]				
Benzo (a) anthracene	0.226 [1]				
Chrysene	0.4 [1]				
bis(2-Ethylhexyl)phthalate	50 [1]		0.0377 JB	3.73 B	0.257 B
Benzo(b) fluoranthene	1.1 [1]				
Benzo(k) fluoranthene	1.1 [1]				
Benzo(a) pyrene	0.061 [1]				
Indeno(1,2,3-cd) pyrene	3.2 [1]				
Benzo(g,h,I) perylene	50 [1]				
Total SVOCs		3.4831	0.088	0.079	

[1] Based upon TAGM HWR-94-4046, Appendix A, Table 2; *Recommended Soil Cleanup Objectives;* no individual compound above 50 ppm, total SVOCs <500 ppm

B: Detected in method blank

E: Estimated above calibration limit

J: Estimated value below MDL

Total SVOCs do not include values reported as present in blanks

DRAFT

Table 5

SVOC Soil Boring Soil Samples Results
Former Maspeth Substation
Custody Documents I9477, I9478 and I9482
March 30-April 2, 1999

All results reported in parts per million (ppm)

Sample Location		SB-7 16-18	SB-7 20-22	SB-8 11-13	SB-8 15-17
SVOCs (Method 8270) Analyte	Regulatory Limit (ppm)				
1,3 dichlorobenzene					
1,4 dichlorobenzene					0.216
3,4 Methylphenol					
1,2,4 trichlorobenzene					
Napthalene	13.[1]				
2-Methyl napthalene	36.4[1]				
Dimethyl phthalate	2[1]				
Acenapthene	50[1]				
Diethylphthalate	7.1[1]				
Flourene	50[1]				
Phenanthrene	50[1]				
Anthracene	50[1]				
Fluoranthene	50[1]				
Pyrene	50[1]				
Benzo (a) anthracene	0.226[1]				
Chrysene	0.4[1]				
bis(2-Ethylhexyl)phthalate	50[1]	0.0487	0.0492	0.0678	
Benzo(b) fluoranthene	1.1[1]				
Benzo(k) fluoranthene	1.1[1]				
Benzo(a) pyrene	0.061[1]				
Indeno(1,2,3-cd) pyrene	3.2[1]				
Benzo(g,h,I) perylene	50[1]				
Total SVOCs		0.0487	0.0492	0.068	0.216

[1] Based upon TAGM HWR-94-4046, Appendix A, Table 2; *Recommended Soil Cleanup Objectives;* no individual compound above 50 ppm, total SVOCs <500 ppm

B: Detected in method blank

E: Estimated above calibration limit

J: Estimated value below MDL

Total SVOCs do not include values reported as present in blanks

DRAFT

Table 5

SVOC Soil Boring Soil Samples Results
Former Maspeth Substation
Custody Documents I9477, I9478 and I9482
March 30-April 2, 1999

All results reported in parts per million (ppm)

Sample Location		SB-9 7-9	SB-9 13-15	SB-10 5-7	SB-10 15-17
SVOCs (Method 8270) Analyte	Regulatory Limit (ppm)				
1,3 dichlorobenzene					
1,4 dichlorobenzene			0.0864		
3,4 Methylphenol					
1,2,4 trichlorobenzene					
Napthalene	13. [1]				
2-Methyl napthalene	36.4 [1]				
Dimethyl phthalate	2 [1]				
Acenapthene	50 [1]				
Diethylphthalate	7.1 [1]				
Flourene	50 [1]				
Phenanthrene	50 [1]				
Anthracene	50 [1]				
Fluoranthene	50 [1]				
Pyrene	50 [1]				
Benzo (a) anthracene	0.226 [1]				
Chrysene	0.4 [1]				
bis(2-Ethylhexyl)phthalate	50 [1]				
Benzo(b) fluoranthene	1.1 [1]			0.113	
Benzo(k) fluoranthene	1.1 [1]			0.0449 J	
Benzo(a) pyrene	0.061 [1]			**0.0919**	
Indeno(1,2,3-cd) pyrene	3.2 [1]			0.0686 J	
Benzo(g,h,I) perylene	50 [1]			0.0800 J	
Total SVOCs			0.0864	0.3984	

[1] Based upon TAGM HWR-94-4046, Appendix A, Table 2; *Recommended Soil Cleanup Objectives;* no individual compound above 50 ppm, total SVOCs <500 ppm

B: Detected in method blank

E: Estimated above calibration limit

J: Estimated value below MDL

Total SVOCs do not include values reported as present in blanks

DRAFT

Table 5

SVOC Soil Boring Soil Samples Results
Former Maspeth Substation
Custody Documents I9477, I9478 and I9482
March 30-April 2, 1999

All results reported in parts per million (ppm)

Sample Location		SB-11 7-9	SB-11 13-15	SB-12 9-11	SB-12 13-15
SVOCs (Method 8270) Analyte	Regulatory Limit (ppm)				
1,3 dichlorobenzene					
1,4 dichlorobenzene					
3,4 Methylphenol					
1,2,4 trichlorobenzene					
Napthalene	13. [1]				
2-Methyl napthalene	36.4 [1]				
Dimethyl phthalate	2 [1]				
Acenapthene	50 [1]				
Diethylphthalate	7.1 [1]				
Flourene	50 [1]				
Phenanthrene	50 [1]				
Anthracene	50 [1]				
Fluoranthene	50 [1]				
Pyrene	50 [1]				
Benzo (a) anthracene	0.226 [1]				
Chrysene	0.4 [1]	0.0403 J			
bis(2-Ethylhexyl)phthalate	50 [1]	0.0947			
Benzo(b) fluoranthene	1.1 [1]				
Benzo(k) fluoranthene	1.1 [1]				
Benzo(a) pyrene	0.061 [1]				
Indeno(1,2,3-cd) pyrene	3.2 [1]				
Benzo(g,h,I) perylene	50 [1]				
Total SVOCs		0.135			

[1] Based upon TAGM HWR-94-4046, Appendix A, Table 2; *Recommended Soil Cleanup Objectives;* no individual compound above 50 ppm, total SVOCs <500 ppm

B: Detected in method blank

E: Estimated above calibration limit

J: Estimated value below MDL

Total SVOCs do not include values reported as present in blanks

DRAFT

Table 5

SVOC Soil Boring Soil Samples Results
Former Maspeth Substation
Custody Documents I9477, I9478 and I9482
March 30-April 2, 1999

All results reported in parts per million (ppm)

Sample Location		SB-13 7-9	SB-13 9-11	SB-14 5-7	SB-14 7-9
SVOCs (Method 8270) Analyte	Regulatory Limit (ppm)				
1,3 dichlorobenzene					
1,4 dichlorobenzene .					
3,4 Methylphenol					
1,2,4 trichlorobenzene					
Napthalene	13. [1]				
2-Methyl napthalene	36.4 [1]				
Dimethyl phthalate	2 [1]				
Acenapthene	50 [1]				
Diethylphthalate	7.1 [1]				
Flourene	50 [1]				
Phenanthrene	50 [1]		0.862 J		
Anthracene	50 [1]				
Fluoranthene	50 [1]			0.410 J	
Pyrene	50 [1]			0.158	
Benzo (a) anthracene	0.226 [1]			0.138	
Chrysene	0.4 [1]			0.122	
bis(2-Ethylhexyl)phthalate	50 [1]	0.0551 J	0.1	0.0776	0.0489 J
Benzo(b) fluoranthene	1.1 [1]			0.15	
Benzo(k) fluoranthene	1.1 [1]			0.0579 J	
Benzo(a) pyrene	0.061 [1]			**0.143**	
Indeno(1,2,3-cd) pyrene	3.2 [1]			0.0796 J	
Benzo(g,h,I) perylene	50 [1]			0.0889	
Total SVOCs		0.0551	0.962	1.425	0.0489

[1] Based upon TAGM HWR-94-4046, Appendix A, Table 2; *Recommended Soil Cleanup Objectives;* no individual compound above 50 ppm, total SVOCs <500 ppm

B: Detected in method blank

E: Estimated above calibration limit

J: Estimated value below MDL

Total SVOCs do not include values reported as present in blanks

DRAFT

Table 5

SVOC Soil Boring Soil Samples Results
Former Maspeth Substation
Custody Documents I9477, I9478 and I9482
March 30-April 2, 1999

All results reported in parts per million (ppm)

Sample Location		SB-16 9-11	SB-16 17-19	SB-17 6-8	SB-17 10-12
SVOCs (Method 8270) Analyte	Regulatory Limit (ppm)				
1,3 dichlorobenzene					
1,4 dichlorobenzene					
3,4 Methylphenol					
1,2,4 trichlorobenzene					
Napthalene	13. [1]				
2-Methyl napthalene	36.4 [1]				
Dimethyl phthalate	2 [1]			0.0417 J	
Acenapthene	50 [1]				
Diethylphthalate	7.1 [1]				
Flourene	50 [1]				
Phenanthrene	50 [1]				
Anthracene	50 [1]				
Fluoranthene	50 [1]				
Pyrene	50 [1]				
Benzo (a) anthracene	0.226 [1]				
Chrysene	0.4 [1]				
bis(2-Ethylhexyl)phthalate	50 [1]			0.0619 J	0.0584
Benzo(b) fluoranthene	1.1 [1]				
Benzo(k) fluoranthene	1.1 [1]				
Benzo(a) pyrene	0.061 [1]				
Indeno(1,2,3-cd) pyrene	3.2 [1]				
Benzo(g,h,I) perylene	50 [1]				
Total SVOCs				0.1036	0.0584

[1] Based upon TAGM HWR-94-4046, Appendix A, Table 2; *Recommended Soil Cleanup Objectives;* no individual compound above 50 ppm, total SVOCs <500 ppm

B: Detected in method blank

E: Estimated above calibration limit

J: Estimated value below MDL

Total SVOCs do not include values reported as present in blanks

DRAFT

Table 5

SVOC Soil Boring Soil Samples Results
Former Maspeth Substation
Custody Documents I9477, I9478 and I9482
March 30-April 2, 1999

All results reported in parts per million (ppm)

Sample Location		SB-18 6-8	SB-18 8-10	SB-19 8-10	SB-19 14-16
SVOCs (Method 8270) Analyte	Regulatory Limit (ppm)				
1,3 dichlorobenzene					
1,4 dichlorobenzene					
3,4 Methylphenol					
1,2,4 trichlorobenzene					
Napthalene	13. [1]				
2-Methyl napthalene	36.4 [1]				
Dimethyl phthalate	2 [1]				
Acenapthene	50 [1]				
Diethylphthalate	7.1 [1]				
Flourene	50 [1]				
Phenanthrene	50 [1]				
Anthracene	50 [1]				
Fluoranthene	50 [1]				
Pyrene	50 [1]				
Benzo (a) anthracene	0.226 [1]				
Chrysene	0.4 [1]				
bis(2-Ethylhexyl)phthalate	50 [1]	0.0548 JB	0.0580 JB	1.12 B	1.030 B
Benzo(b) fluoranthene	1.1 [1]				
Benzo(k) fluoranthene	1.1 [1]				
Benzo(a) pyrene	0.061 [1]				
Indeno(1,2,3-cd) pyrene	3.2 [1]				
Benzo(g,h,I) perylene	50 [1]				
Total SVOCs					

[1] Based upon TAGM HWR-94-4046, Appendix A, Table 2; *Recommended Soil Cleanup Objectives;* no individual compound above 50 ppm, total SVOCs <500 ppm

B: Detected in method blank

E: Estimated above calibration limit

J: Estimated value below MDL

Total SVOCs do not include values reported as present in blanks

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Table 5

SVOC Soil Boring Soil Samples Results
Former Maspeth Substation
Custody Documents I9477, I9478 and I9482
March 30-April 2, 1999

All results reported in parts per million (ppm)

Sample Location		SB-19 22-24
SVOCs (Method 8270) Analyte	Regulatory Limit (ppm)	
1,3 dichlorobenzene		
1,4 dichlorobenzene		0.171
3,4 Methylphenol		
1,2,4 trichlorobenzene		
Napthalene	13. [1]	
2-Methyl napthalene	36.4 [1]	
Dimethyl phthalate	2 [1]	
Acenapthene	50 [1]	
Diethylphthalate	7.1 [1]	
Flourene	50 [1]	
Phenanthrene	50 [1]	
Anthracene	50 [1]	
Fluoranthene	50 [1]	
Pyrene	50 [1]	
Benzo (a) anthracene	0.226 [1]	
Chrysene	0.4 [1]	
bis(2-Ethylhexyl)phthalate	50 [1]	15 B
Benzo(b) fluoranthene	1.1 [1]	
Benzo(k) fluoranthene	1.1 [1]	
Benzo(a) pyrene	0.061 [1]	
Indeno(1,2,3-cd) pyrene	3.2 [1]	
Benzo(g,h,I) perylene	50 [1]	
Total SVOCs		0.171

[1] Based upon TAGM HWR-94-4046, Appendix A, Table 2; *Recommended Soil Cleanup Objectives;* no individual compound above 50 ppm, total SVOCs <500 ppm

B: Detected in method blank

E: Estimated above calibration limit

J: Estimated value below MDL

Total SVOCs do not include values reported as present in blanks

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PCB Soil Boring Soil Samples Results
Former Maspeth Substation
Custody Documents I9477, I9478,I9479, and I9482
March 30-April 2, 1999

All results reported in parts per million (ppm)

Sample Location		SB-1 11-13	SB-1 15-17	SB-2 11-13	SB-2 15-17	SB-3 9-11	SB-3 13-15	SB-4 12-14	SB-4 14-16
	Regulatory Limit (ppm)								
PCBs (Method 8081)	10 (Residential) [1]	0.433	2.68	1.52	1.9	0.224	0.0443	2.08	10.2
	25 (Industrial) [1]								

Sample Location		SB-5 3-5	SB-5 17-19	SB-6 9-11	SB-6 15-17	SB-7 16-18	SB-7 20-22	SB-8 11-13	SB-8 15-17
	Regulatory Limit (ppm)								
PCBs (Method 8081)	10 (Residential) [1]	9.37	0.442	0.977	0.0722	0.456	0.059	0.205	1.37
	25 (Industrial) [1]								

Sample Location		SB-9 7-9	SB-9 13-15	SB-10 5-7	SB-10 15-17	SB-11 7-9	SB-11 13-15	SB-12 9-11	SB-12 13-15
	Regulatory Limit (ppm)								
PCBs (Method 8081)	10 (Residential) [1]	0.513	0.967	0.266	0.141	0.171			
	25 (Industrial) [1]								

Sample Location		SB-13 7-9	SB-13 9-11	SB-13 15-17	SB-13 21-23	SB-14 5-7	SB-14 7-9	SB-16 9-11	SB-16 17-19
	Regulatory Limit (ppm)								
PCBs (Method 8081)	10 (Residential) [1]					0.014		0.171	
	25 (Industrial) [1]								

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PCB Soil Boring Soil Samples Results
Former Maspeth Substation
Custody Documents I9477, I9478,I9479, and I9482
March 30-April 2, 1999

All results reported in parts per million (ppm)

Sample Location		SB-17 6-8	SB-17 10-12	SB-18 6-8	SB-18 8-10	SB-19 8-10	SB-19 14-16	SB-19 22-24
	Regulatory Limit (ppm)							
PCBs (Method 8081)	10 (Residential) [1]				0.0955	0.0244		0.352
	25 (Industrial) [1]							

Blank Space: Indicates not present at its respective MDL

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TABLE 7

Consolidated Edison of New York: Former Maspeth Substation
Product Fingerprint Laboratory Analyses
Method 310.14
Custody Documents I 9479 and I 1101

Well	Date	Gasoline	Lubricating Oils	Kerosene Jet Fuel	#2 Fuel Oil Diesel	#4 Fuel Oil	#6 Fuel Oil	Dielectric Fluid
MW-103	4/1/99	ND	ND	ND	ND	ND	ND	ND
MW-201	4/26/99	ND	ND	ND	ND	ND	ND	ND
MW-203	4/26/99	ND	ND	ND	ND	ND	ND	ND

ND: Not Detected

PCBs in Product Laboratory Analyses
Method 8081
Custody Documents I 9479 and I 1101

Well	Date	PCB 1016	PCB 1221	PCB 1232	PCB 1242	PCB 1248	PCB 1254	PCB 1260
MW-103	4/1/99	< 0.0064	< 0.0088	< 0.0067	< 0.0058	< 0.0021	< 0.0049	328
MW-201	4/26/99	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	1.1
MW-203	4/26/99	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	163

All units are parts per million (ppm)

TABLE 8

Semi-Volatile Compounds in Groundwater Laboratory Analyses
Method 95-2
Consolidated Edison Of N.Y.: Maspeth Substation

Well	Date	Diethyphthalate	bis (2-Ethylhexyl)phthalate
MW-1	4/26/99	1.70 JB	1.70 J
MW-2	4/26/99	2.40 JB	2.40 J

All compound concentrations reported as parts per billion (ppb)

J: Estimated value lower than the Method Detection Limit

B: Compound present in Method Blank

All other compounds reported as below respective Method Detection Limit for each compound on the Method 95-2 target list

TABLE 9

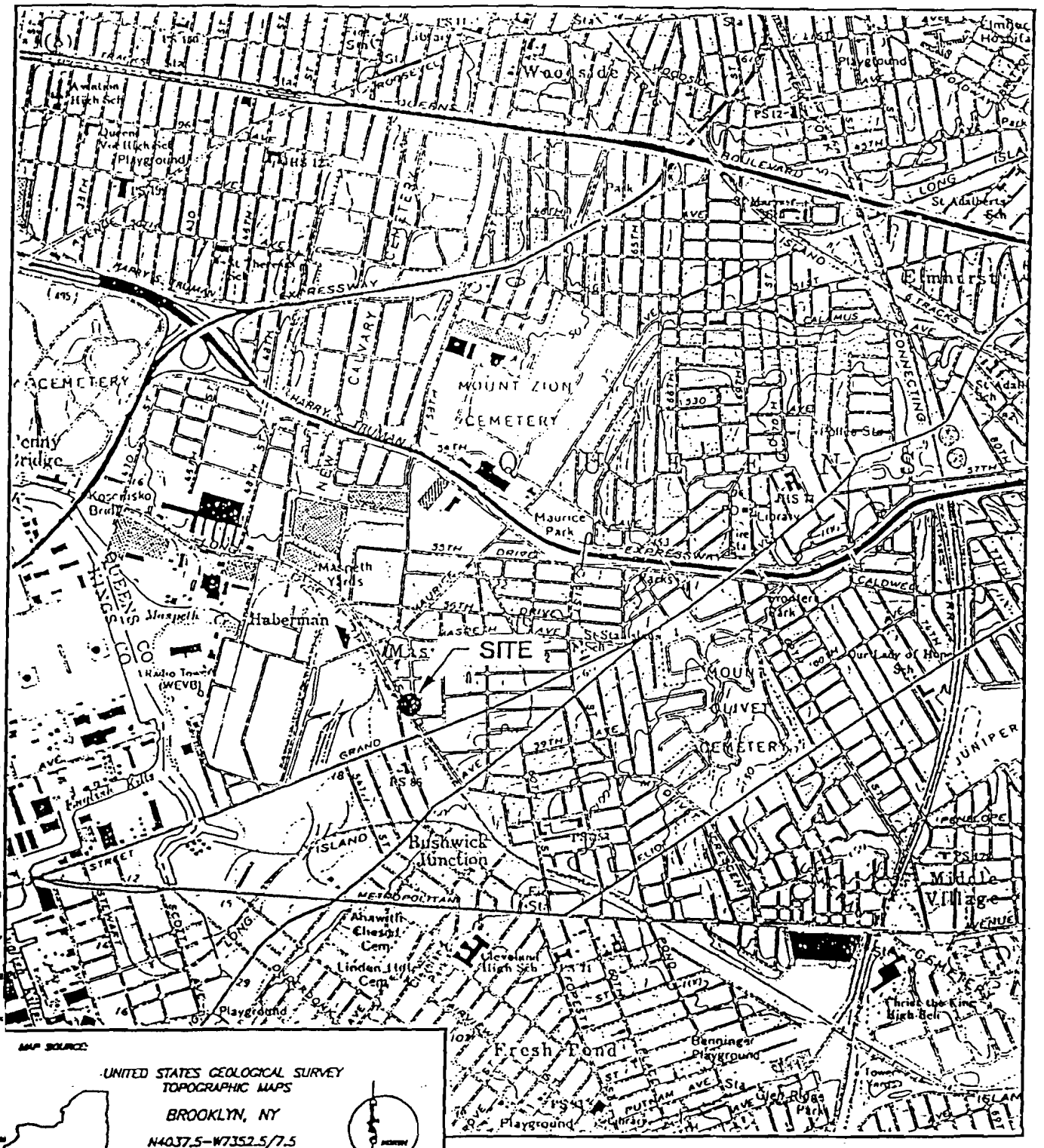
PCBs in Groundwater Laboratory Analyses
Consolidated Edison Of N.Y.:Former Maspeth Substation
Custody Document I1101

Well	Date	PCB 1016	PCB 1221	PCB 1232	PCB 1242	PCB 1248	PCB 1254	PCB 1260
NYSDEC Discharge Standard		0.065	0.065	0.065	0.065	0.065	0.065	0.065
MW-101	3/12/97	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
MW-101F	3/12/97	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
MW-101	4/26/99	< 0.01	< 0.02	< 0.01	< 0.01	< 0.01	< 0.01	**0.179**
MW-102	3/12/97	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
MW-102F	3/12/97	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
MW-102	4/26/99	< 0.01	< 0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.0615

All units are ug/L (parts per billion)

NYSDEC discharge standards were obtained from Brian Mitchell NYSDEC Region II via telephone conversation on 1/13/97.

The March 1997 samples for MW-101 and MW-102 are total (unfiltered) samples, the samples MW-101F and MW-102F were filtered in the field with 0.45 micron filter.



MAP SOURCE:

UNITED STATES GEOLOGICAL SURVEY
TOPOGRAPHIC MAPS

BROOKLYN, NY

N4037.5–W7352.5/7.5

1967

PHOTOREVISED 1979

Caswell, Eichler & Hill, Inc.

a Jacques Whitford Company

DATE PREPARED:	DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
3-25-97	BPB	BSB	BPB	DBH
REVISION DATE:	REVISION NO:	DRAWN BY:	CHECKED BY:	REVIEWED BY:

DRAWING TITLE:

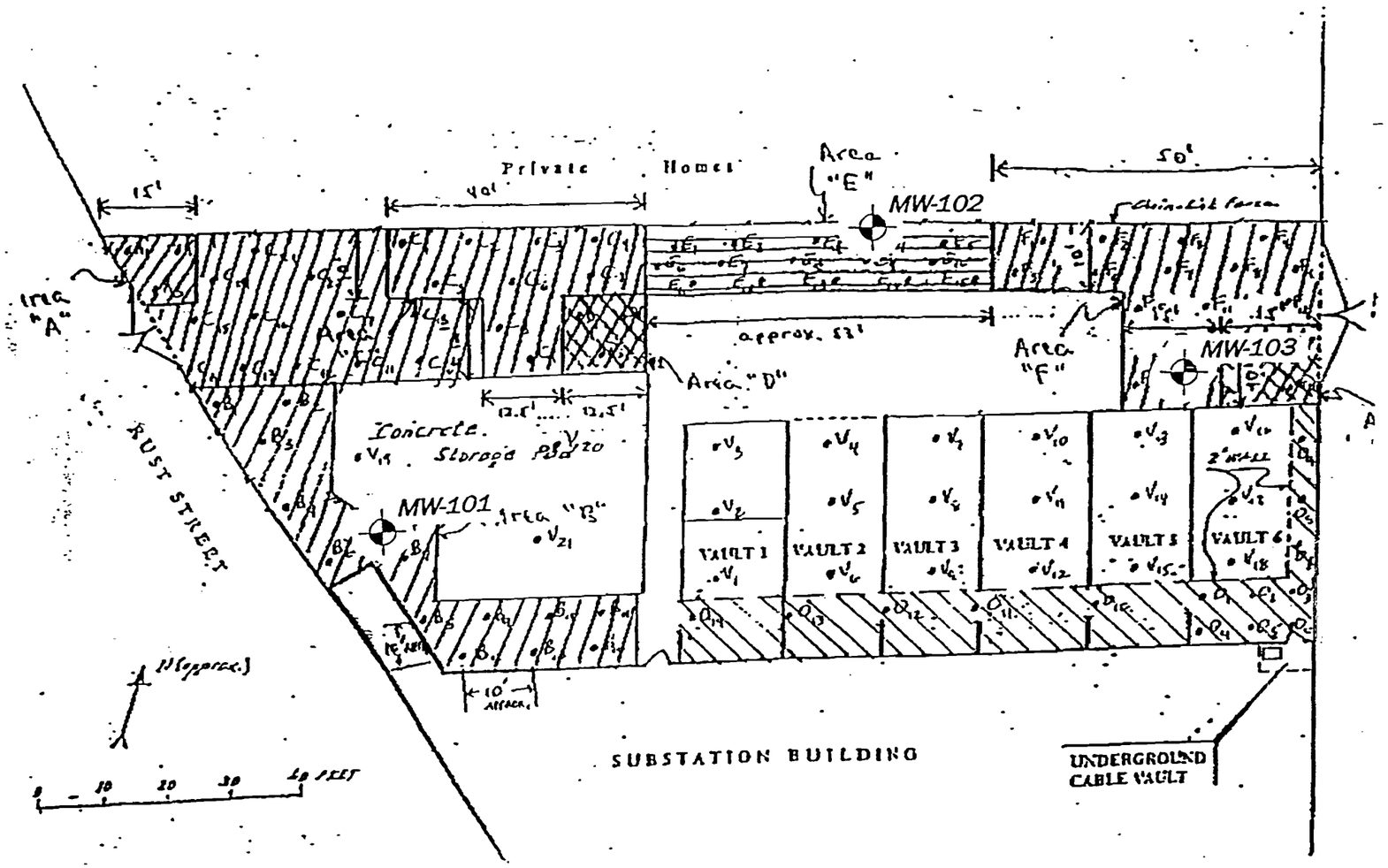
SITE LOCATION MAP

CONED MASPETH SUBSTATION

PROJECT NAME/FILE NAME:	PROJECT NUMBER/PHASE:	SCALE:	PREPARED FOR:
MASPETH/ALOCUS1	6096280/1200	1:24000	CON EDISON OF NY

FIGURE NO. 1

MASPETH SUBSTATION



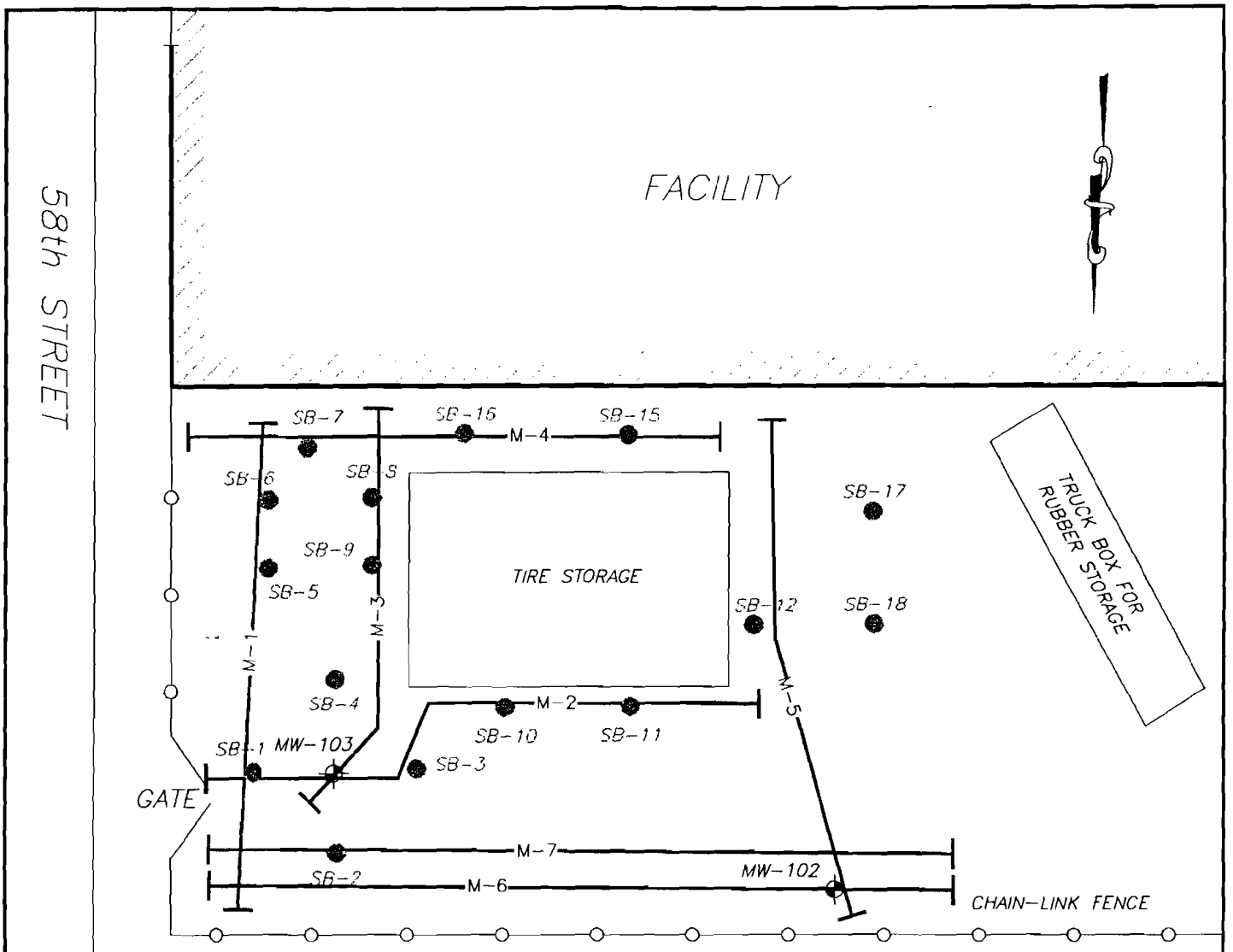
Legend

MW-101 — MONITORING WELL LOCATION

Caswell, Eichler & Hill, Inc.

a Jacques Whitford Company

DATE PREPARED: 3-25-97	DESIGNED BY: BRT	DRAWN BY:	CHECKED BY:	REVIEWED BY:	DRAWING TITLE: SITE PLAN
REVISION DATE:	REVISION NO:	DRAWN BY:	CHECKED BY:	REVIEWED BY:	CONED MASPETH SUBSTATION
PROJECT NAME/FILE NAME: MASPETH/BSITEPLAN	PROJECT NUMBER/PHASE: 6096280/1200	SCALE: AS SHOWN	PREPARED FOR: CON EDISON OF NY		FIGURE NO.



Legend

M-7 — GPR SURVEY LINE LOCATION

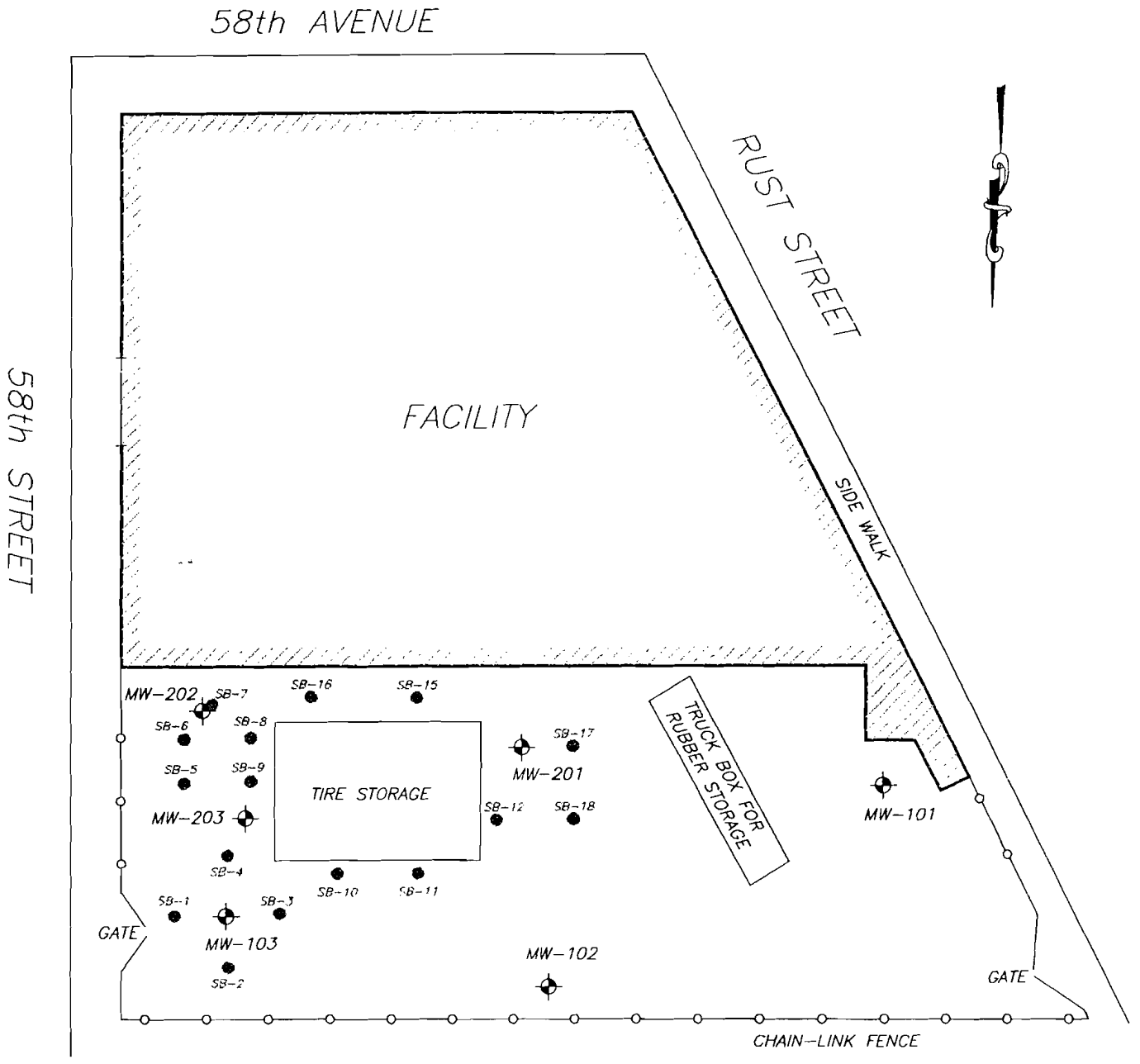
SB-2 — EXISTING SOIL BORING LOCATION

20 0 20

scale in feet

Jacques Whitford Company, Inc.

JACQUES WHITFORD LOCATION: PORTSMOUTH, NEW HAMPSHIRE					DRAWING TITLE: GPR SURVEY LINES FORMER MASPETH FACILITY 57-77 RUST STREET MASPETH, QUEENS, NY
DATE PREPARED: 6-2-99	DESIGNED BY: BPB	DRAWN BY: BSB	CHECKED BY: BPB	REVIEWED BY: DBH	
REVISION DATE:	REVISION NO:	DRAWN BY:	CHECKED BY:	REVIEWED BY:	
PROJECT NAME/FILE NAME: MASPETH/6-2-99DWGS	PROJECT NUMBER/PHASE: 6096280/129	SCALE: 1"=20'	PREPARED FOR: CON EDISON		FIGURE NO. 3



Legend

MW-1 – EXISTING MONITORING WELL LOCATION

SB-2 – EXISTING SOIL BORING LOCATION

30 0 30

SCALE IN FEET

Jacques Whitford Company, Inc.

JACQUES WHITFORD LOCATION: PORTSMOUTH, NEW HAMPSHIRE				
DATE PREPARED: 6-2-99	DESIGNED BY: BPB	DRAWN BY: LDS	CHECKED BY: BPB	REVIEWED BY: CRG
REVISION DATE:	REVISION NO:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
PROJECT NAME/FILE NAME: MASPETH/6-2-99DWGS		PROJECT NUMBER/PHASE: 6096280/129	SCALE: 1"=30'	

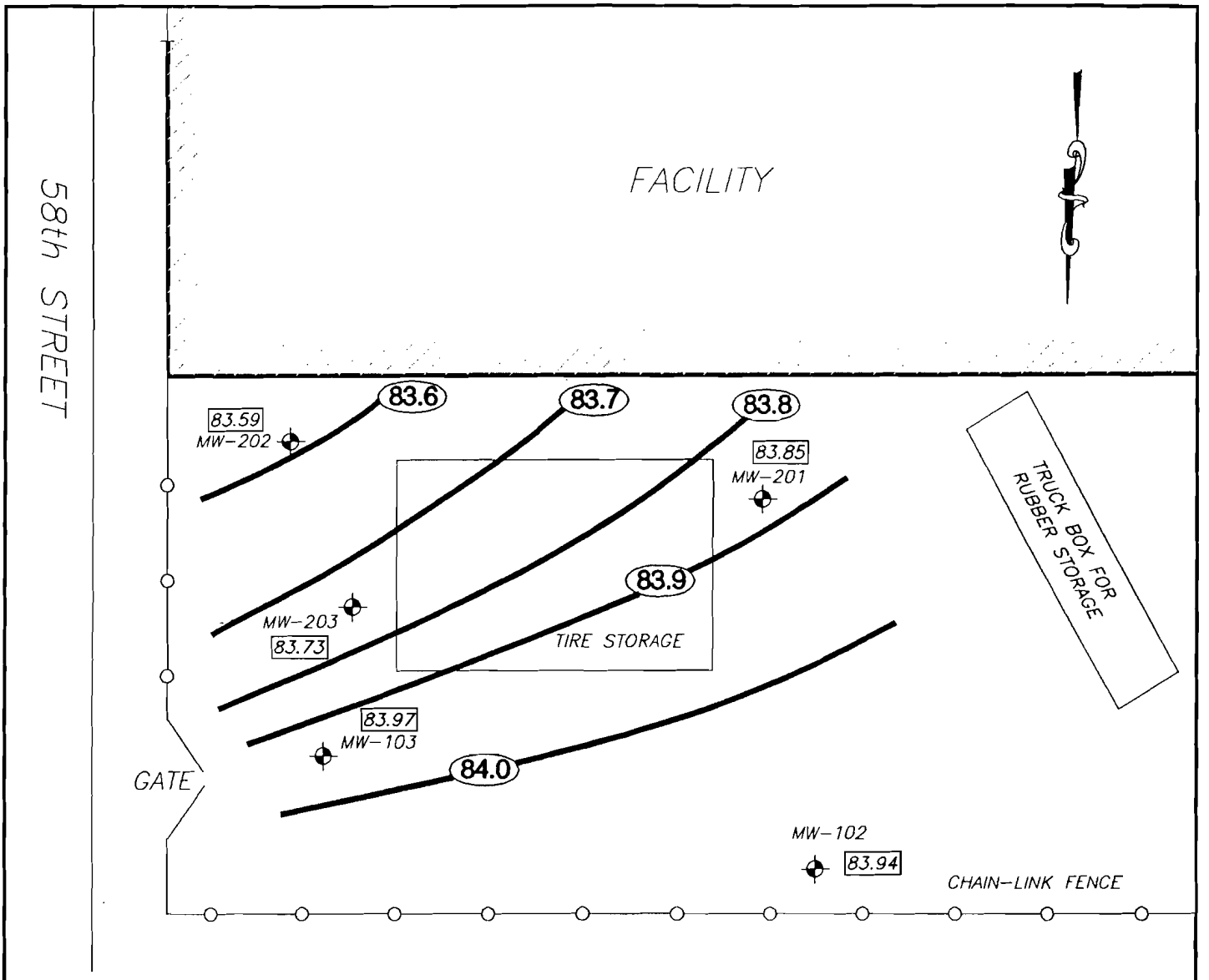
DRAWING TITLE:

SITE PLAN

FORMER MASPETH SUBSTATION
57-77 RUST STREET
MASPETH, QUEENS, NY

PREPARED FOR: CON EDISON

FIGURE NO. 4



Legend

83.59 / MW-1 – EXISTING MONITORING WELL WITH WATER LEVELS (CORRECTED FOR PRODUCT) FT. (A.D.) 4/26/99

83.6 – GROUNDWATER CONTOUR

20 0 20

scale in feet

Jacques Whitford Company, Inc.

JACQUES WHITFORD LOCATION: PORTSMOUTH, NEW HAMPSHIRE				
DATE PREPARED: 6-2-99	DESIGNED BY: BPB	DRAWN BY: LDS	CHECKED BY: BPB	REVIEWED BY: DBH
REVISION DATE:	REVISION NO:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
PROJECT NAME/FILE NAME: MASPETH/6-2-99DWGS		PROJECT NUMBER/PHASE: 6096280/129	SCALE: 1"=20'	

DRAWING TITLE:

CORRECTED GROUNDWATER ELEVATIONS

FORMER MASPETH FACILITY
57-77 RUST STREET
MASPETH, QUEENS, NY

PREPARED FOR: CON EDISON

FIGURE NO. 5

FACILITY

58th STREET

TIRE STORAGE

TRUCK BOX FOR RUBBER STORAGE

0.258 MW-202 (SB-7)
0.525 SB-6
0.788 SB-8
0.740 SB-9
SB-5 4.906
3.00
0.125 MW-203 (SB-19)
6.140 SB-4
1.557 SB-1
MW-103
0.134 SB-3
SB-2 1.710
0.086 SB-16
SB-15
0.007 SB-14A
0.013 MW-201 (SB-13)
0.000 SB-17
SB-12 0.000
0.048 SB-18
0.03
SB-10 0.204
SB-11 0.086
0.10
0.03
0.10
0.30
1.00
0.30
1.00
GATE
MW-102
CHAIN-LINK FENCE

10 0 10
SCALE IN FEET

Legend

MW-202 – MONITORING WELL

SB-2 – SOIL BORING

0.081 – UNITS IN ppm AROCHLOR 1260 (TOTAL PCBs) (AVERAGE CONC. PER BORING) – MARCH 1999

1.00 – LINE OF EQUAL TOTAL PCB CONCENTRATION IN SOIL DASHED WHERE INFERRED

Jacques Whitford Company, Inc.

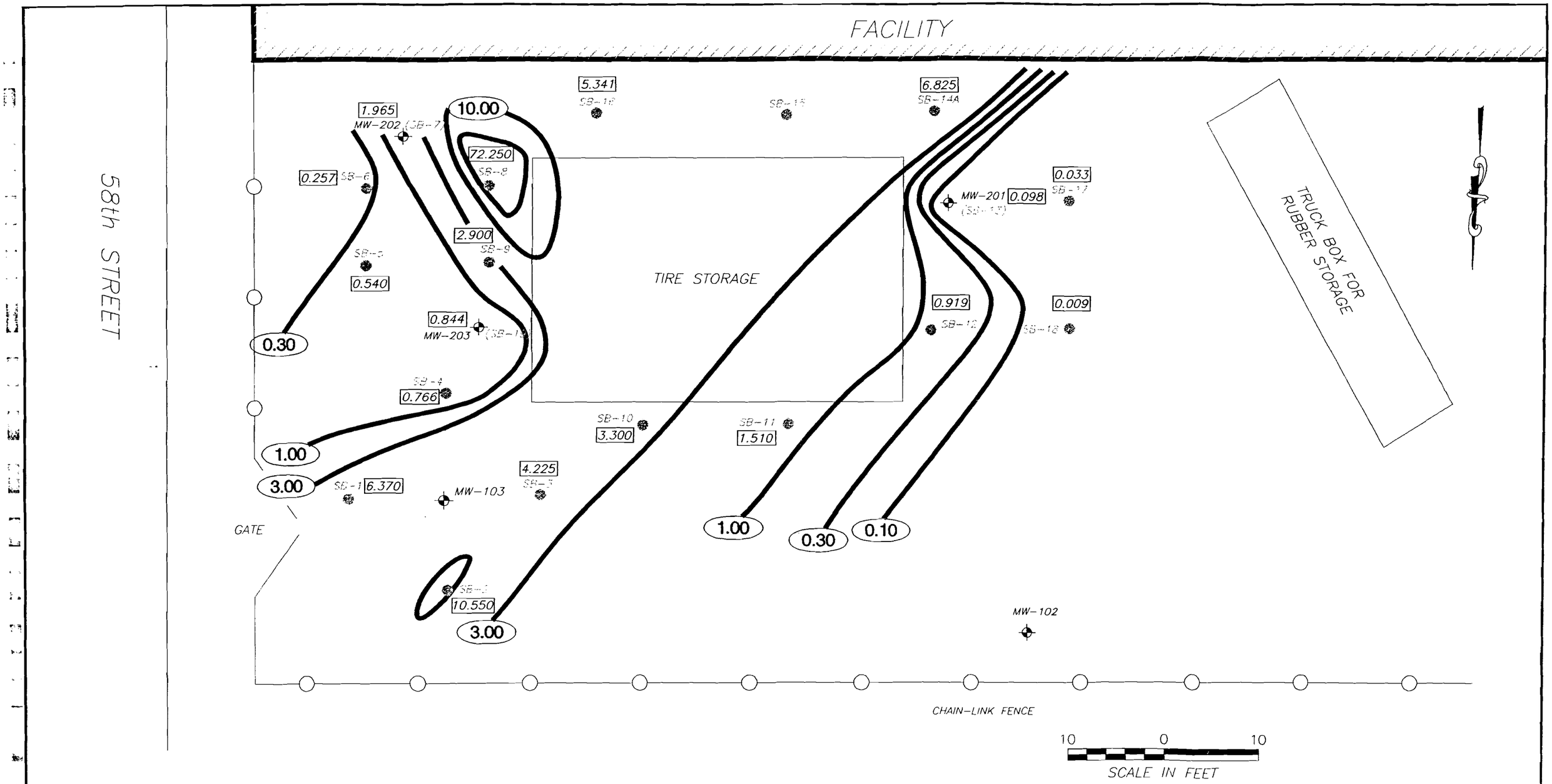
JACQUES WHITFORD LOCATION: PORTSMOUTH, NEW HAMPSHIRE

DATE PREPARED:	DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
6-2-99	BPB	LDS	BPB	DBH
REVISION DATE:	REVISION NO:	DRAWN BY:	CHECKED BY:	REVIEWED BY:

PROJECT NAME/FILE NAME: MASPETH/6-2-99DWGS
PROJECT NUMBER/PHASE: 6096280/129
SCALE: 1"=10'
PREPARED FOR: CON EDISON

DRAWING TITLE: PCBs IN SOIL
FORMER MASPETH FACILITY
57-77 RUST STREET
MASPETH, QUEENS, NY

FIGURE NO. 6



Legend

MW–202 – MONITORING WELL

SB–2 – SOIL BORING

4.225 – TOTAL VOCs (ppm) IN SOIL – AVERAGE CONC. PER BORING (MARCH 1999)

10.00 – LINE OF EQUAL VOC CONCENTRATION IN SOIL

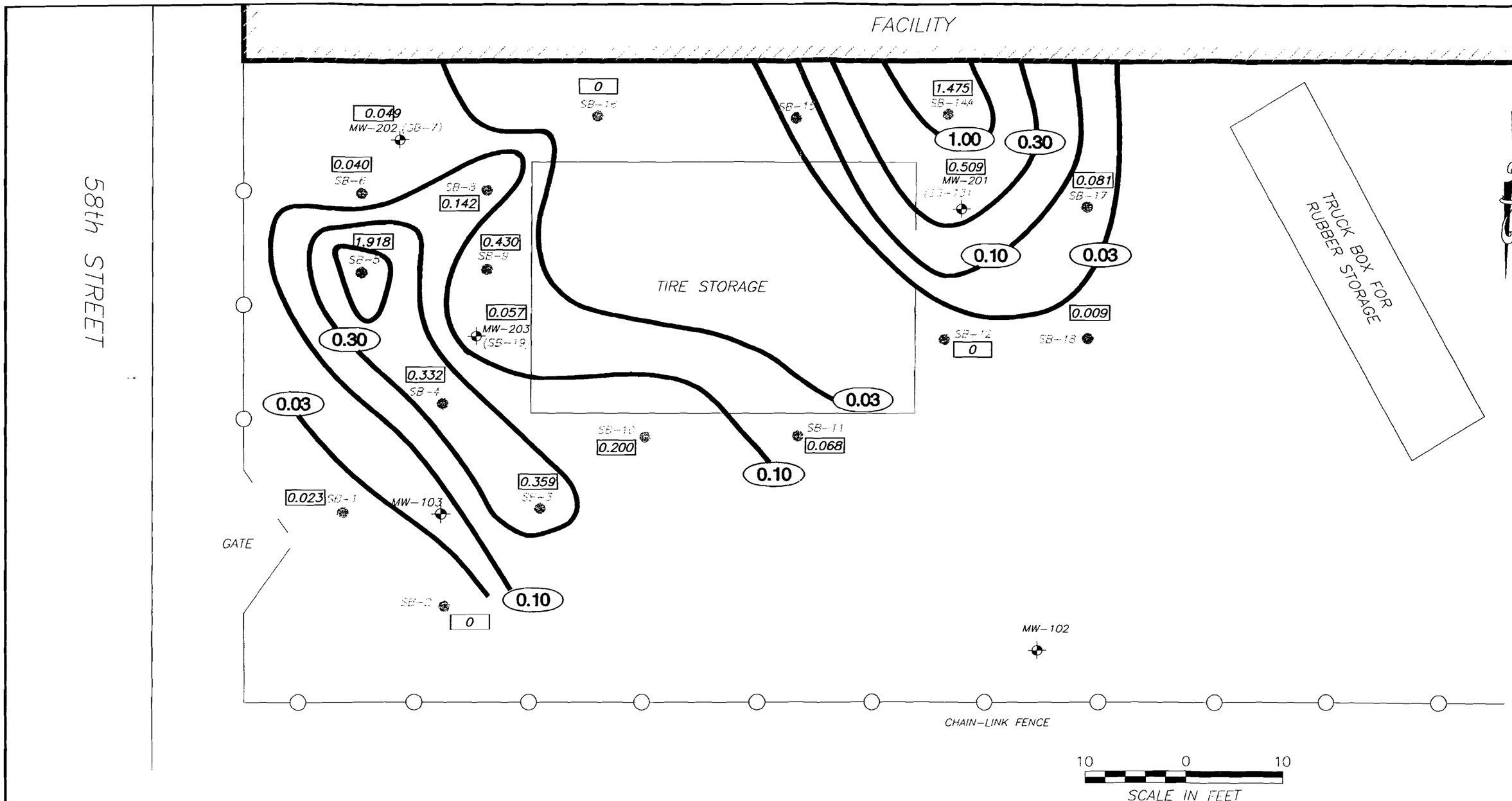
Jacques Whitford Company, Inc.

PORTSMOUTH, NEW HAMPSHIRE

DATE PREPARED:	DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
6–2–99	BPB	LDS	BPB	DBH
REVISION DATE:	REVISION NO:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
PROJECT NAME/FILE NAME:	PROJECT NUMBER/PHASE:	SCALE:	PREPARED FOR:	
MASPETH/6–2–99DWGS	6096280/128	1"=10'	CON EDISON	

VOCs IN SOIL
FORMER MASPETH FACILITY
57–77 RUST STREET
MASPETH, QUEENS, NY

FIGURE NO. 7



Legend

MW–202 – MONITORING WELL

SB–2 – SOIL BORING

0.081 – TOTAL SVOCs (ppm) IN SOIL (AVERAGE CONC. PER BORING) – MARCH 1999

1.00 – LINE OF EQUAL SVOC CONCENTRATION IN SOIL

Jacques Whitford Company, Inc.

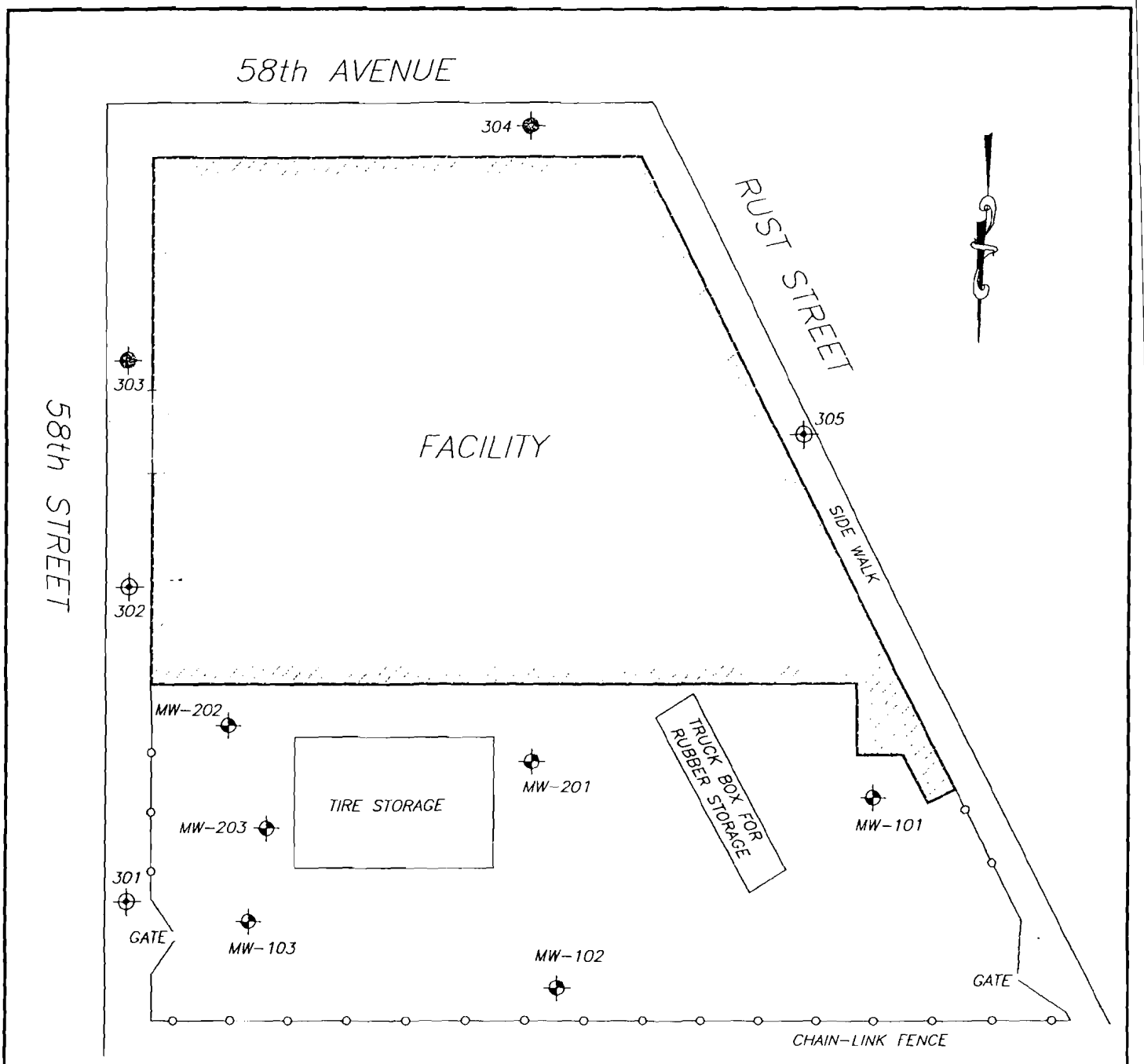
JACQUES WHITFORD COMPANY
PORTSMOUTH, NEW HAMPSHIRE

DATE PREPARED:	DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
6–2–99	BPB	LDS	BPB	DSH
REVISION DATE:	REVISION NO:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
PROJECT NAME/FILE NAME:		PROJECT NUMBER/PHASE:	SCALE:	
MASPETH/6–2–99DWGS		6096280/128	1"=10'	

SVOCs IN SOIL
FORMER MASPETH FACILITY
57–77 RUST STREET
MASPETH, QUEENS, NY

PREPARED FOR: CON EDISON

FIGURE NO. **8**



Legend

MW-1 – EXISTING MONITORING WELL LOCATION

303 PROPOSED BORING/MONITORING WELL LOCATION

301 PROPOSED BORING/POTENTIAL MONITORING WELL LOCATION

30 0 30

SCALE IN FEET

Jacques Whitford Company, Inc.

JACQUES WHITFORD LOCATION: PORTSMOUTH, NEW HAMPSHIRE				
DATE PREPARED: 5-3-99	DESIGNED BY: BPB	DRAWN BY: LDS	CHECKED BY: BPB	REVIEWED BY: DBH
REVISION DATE: 6-2-99	REVISION NO: 03	DRAWN BY: BSB	CHECKED BY: DBH	REVIEWED BY: DBH
PROJECT NAME/FILE NAME: MASPETH/6-2-99DWGS		PROJECT NUMBER/PHASE: 6096280/129	SCALE: 1"=30'	

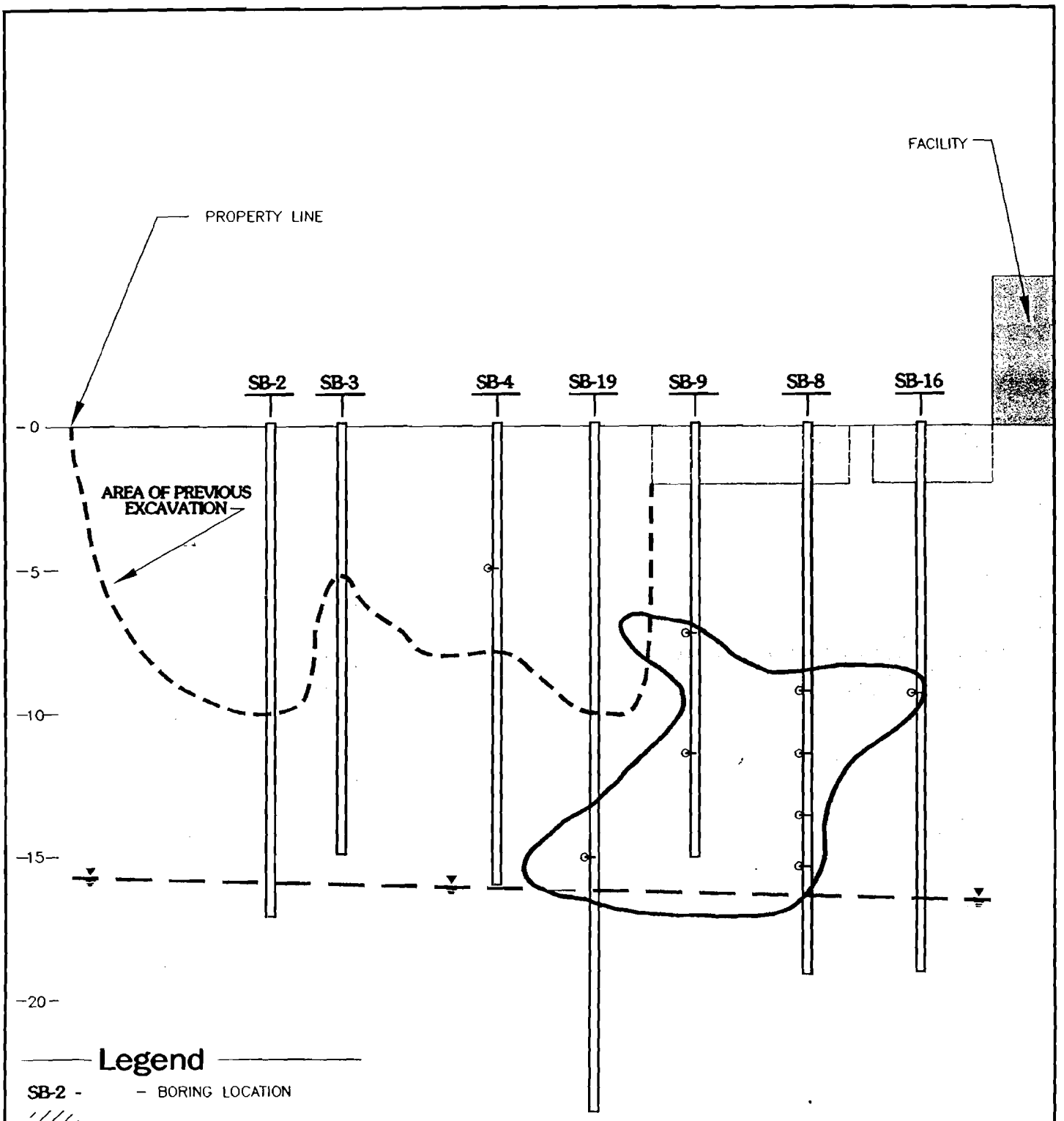
DRAWING TITLE:

PROPOSED MONITORING WELL LOCATIONS

FORMER MASPETH SUBSTATION
57-77 RUST STREET
MASPETH, QUEENS, NY

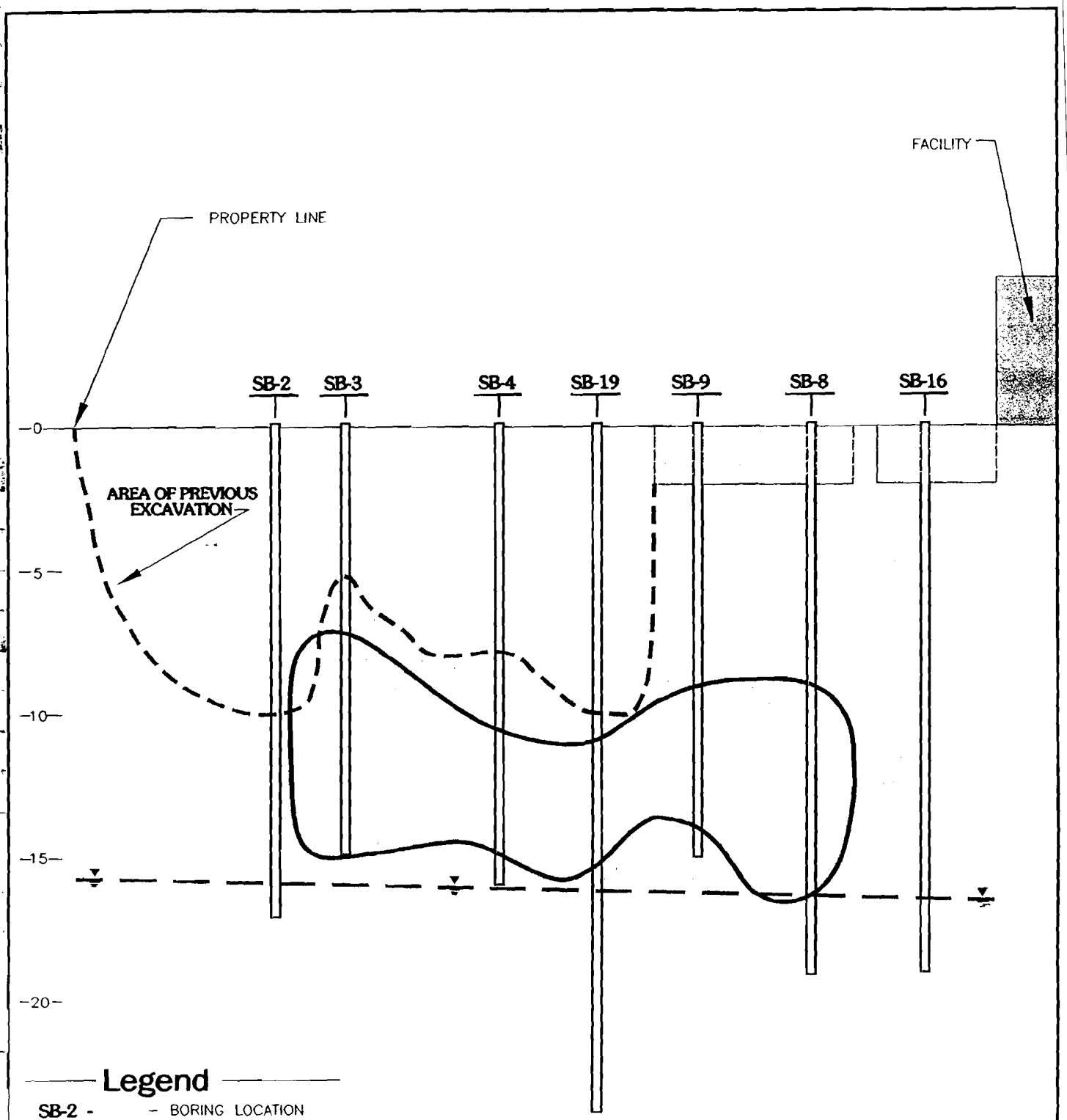
PREPARED FOR: CON EDISON

FIGURE NO. 9



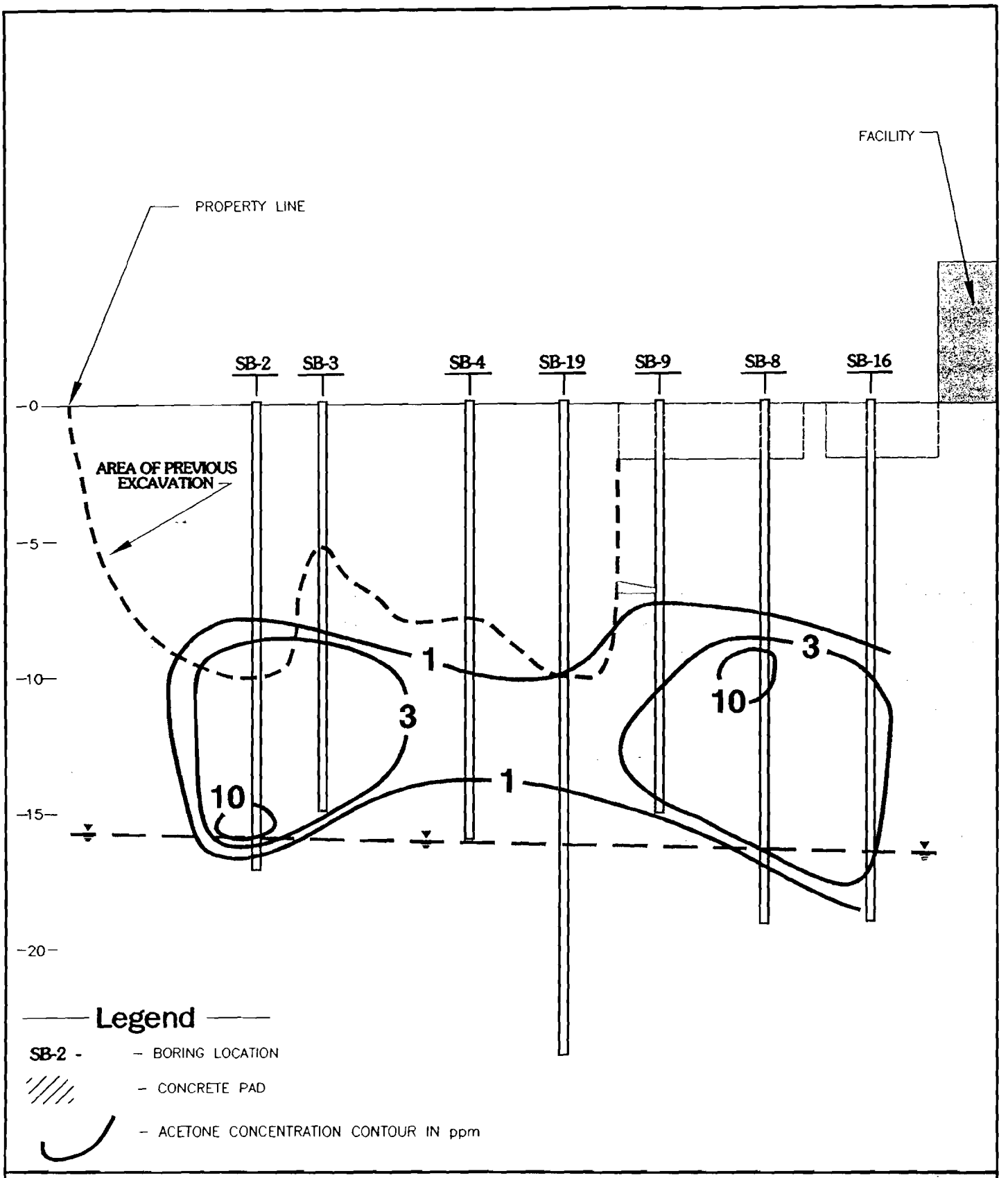
Jacques Whitford Company, Inc.

JACQUES WHITFORD LOCATION: PORTSMOUTH, NEW HAMPSHIRE				DRAWING TITLE: VISUAL/OLFACTORY EVIDENCE OF OIL IN SOIL
DATE PREPARED: 6-30-99	DESIGNED BY: BPB	DRAWN BY: PD	CHECKED BY: BSB	REVIEWED BY: CRG
REVISION DATE:	REVISION NO:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
PROJECT NAME/FILE NAME: MASPETH/XSECTIONS	PROJECT NUMBER/PHASE: NHP96258/128	SCALE: AS SHOWN	PREPARED FOR: CON EDISON OF NEW YORK	FIGURE NO. 10



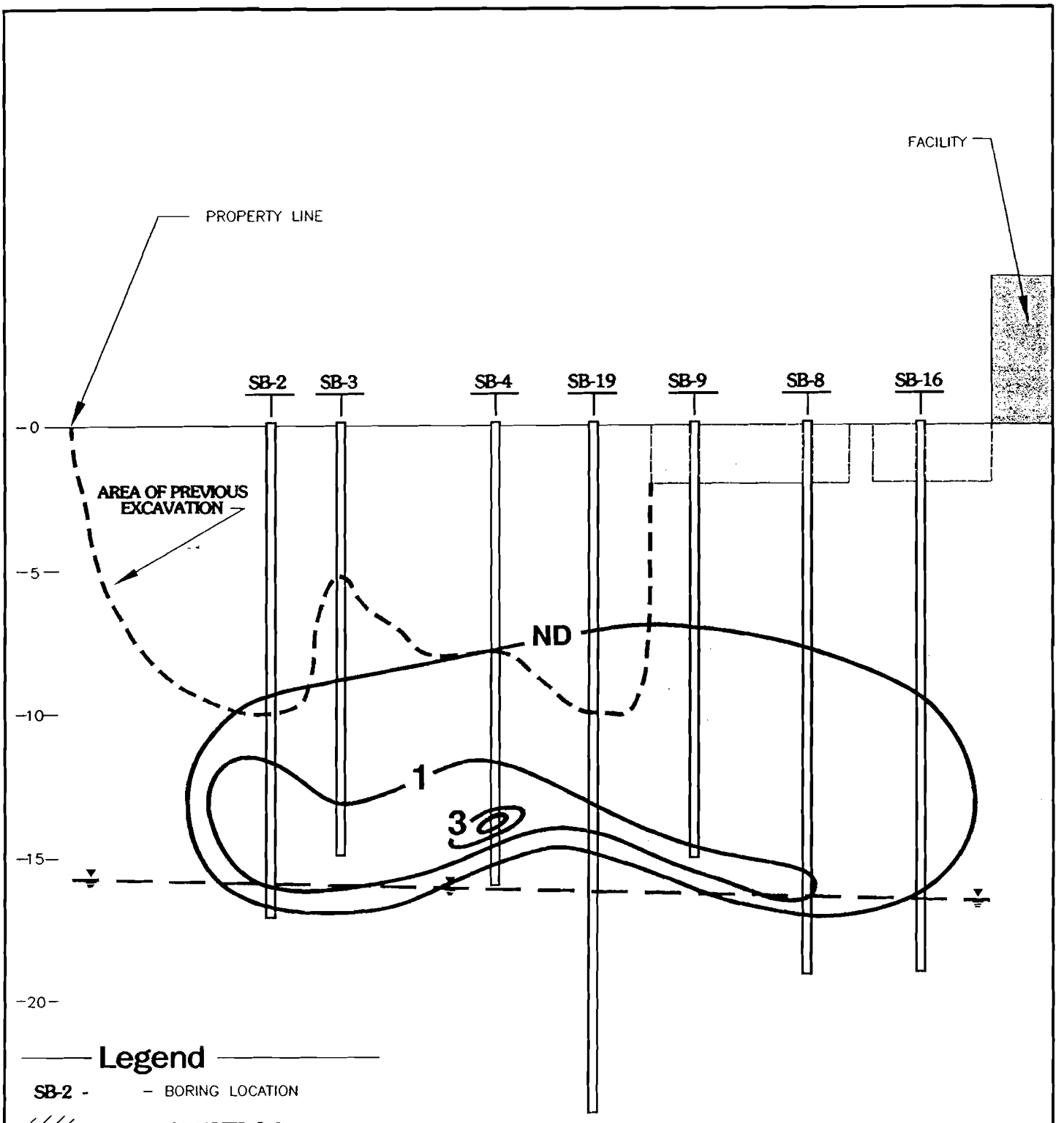
Jacques Whitford Company, Inc.

JACQUES WHITFORD LOCATION: PORTSMOUTH, NEW HAMPSHIRE					DRAWING TITLE: HEADSPACE IN SOIL BORING SAMPLES CROSS-SECTION
DATE PREPARED: 6-30-99	DESIGNED BY: BPB	DRAWN BY: PD	CHECKED BY: BSB	REVIEWED BY: CRG	
REVISION DATE:	REVISION NO:	DRAWN BY:	CHECKED BY:	REVIEWED BY:	
PROJECT NAME/FILE NAME: MASPETH/XSECTIONS	PROJECT NUMBER/PHASE: NHP96258/128	SCALE: AS SHOWN	PREPARED FOR: CON EDISON OF NEW YORK		FIGURE NO. 11



Jacques Whitford Company, Inc.

JACQUES WHITFORD LOCATION: PORTSMOUTH, NEW HAMPSHIRE					DRAWING TITLE: ACETONE IN SOIL BORING SAMPLES CROSS-SECTION
DATE PREPARED: 6-30-99	DESIGNED BY: BPB	DRAWN BY: PD	CHECKED BY: BSB	REVIEWED BY: CRG	
REVISION DATE:	REVISION NO:	DRAWN BY:	CHECKED BY:	REVIEWED BY:	
PROJECT NAME/FILE NAME: MASPETH/XSECTIONS		PROJECT NUMBER/PHASE: NHP96258/128	SCALE: AS SHOWN	PREPARED FOR: CON EDISON OF NEW YORK	FIGURE NO. 12



Legend

SB-2 - – BORING LOCATION

– CONCRETE PAD

3 – PCB CONCENTRATION CONTOUR IN ppm

Jacques Whitford Company, Inc.

JACQUES WHITFORD LOCATION: PORTSMOUTH, NEW HAMPSHIRE					DRAWING TITLE: PCBs IN SOIL BORING SAMPLES CROSS-SECTION
DATE PREPARED: 6-30-99	DESIGNED BY: BPB	DRAWN BY: PD	CHECKED BY: BSB	REVIEWED BY: CRG	
REVISION DATE:	REVISION NO:	DRAWN BY:	CHECKED BY:	REVIEWED BY:	
PROJECT NAME/FILE NAME: MASPETH/XSECTIONS	PROJECT NUMBER/PHASE: NHP96258/128	SCALE: AS SHOWN	PREPARED FOR: CON EDISON OF NEW YORK		FIGURE NO. 13

CASWELL, EICHLER & HILL, INC.

27 CONGRESS STREET
POST OFFICE BOX 4696
PORTSMOUTH, NEW HAMPSHIRE 03802-4696

TEL: (603) 431-4899 FAX: (603) 431-5982

E-mail: cehinc@nh.ultranet.com
compuserv: 74461,574

March 25, 1997

Mr. Barry H. Cohen
Astoria T&S 136
31-01 20th Avenue
L.I.C., NY 111055

Re: Monitoring Well Installation and Sampling
Maspeth Substation, Queens, NY
CEH Project Reference: CONED MASPETH/6096280

Dear Mr. Cohen:

Attached please find a copy of our report on the above referenced subject. CEH-Jacques Whitford (CEH-JW)) completed the monitoring well installation and sampling at the site on March 12, 1997. A total of four individual samples, (one filtered with a 0.45 micron filter and one unfiltered per well) were collected from wells MW-101 and MW-102. In addition, a duplicate sample was collected from MW-101 (unfiltered) and an unfiltered field equipment blank was collected. As you are aware, no groundwater sample was collected from MW-103.

All samples collected were analyzed for PCBs in groundwater at a detection limit of 0.05 ug/L. PCBs were not detected in any of the samples.

We hope this report meets your needs. Should you have any questions or comments, please do not hesitate to call.

Sincerely,

CEH_JACQUES-WHITFORD

David B. Hill
Area Manager

Attachments

DBH/BPB:bpb

cc: Bharat Mukhi
Dean Scari

RESULTS OF MONITORING WELL INSTALLATION
and
GROUNDWATER SAMPLING
MASPETH SUBSTATION
QUEENS, NEW YORK

Prepared for

Consolidated Edison of New York
New York, New York

Prepared by

CASWELL, EICHLER & HILL,INC.
Parsippany, New Jersey

March 1997

RESULTS OF MONITORING WELL INSTALLATION
and
GROUNDWATER SAMPLING
MASPETH SUBSTATION
QUEENS, NEW YORK

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APPENDICES

1.0 INTRODUCTION

The former Maspeth substation is located at 57-77 Rust Street in Queens, N.Y. The site is currently occupied by Encore Tire, an automotive tire recapping company. Structures on-site include a brick building which is the current manufacturing facility and a fenced and gated parking lot consisting of concrete pads and bluestone. Figure 1 shows the site location. The pads underlie the former locations of transformers that were on-site during the period of time that the facility was a substation. Over the lifetime of the substation, there were discharges of PCB containing oils. As part of the remediation process, Con Ed excavated soil on-site in those areas determined to have been impacted by PCBs to depths ranging from several feet in the area near Rust Street to greater than ten feet in the area of the 58th Street entrance. The areas of excavated soil were then backfilled with clean fill. The purpose of this study was to address concerns of the New York State Department of Environmental Conservation (NYSDEC) of possible residual PCB impact to groundwater. Three monitoring wells were to be drilled to a depth of twenty feet below land surface (bls) taking continuous two foot split spoon samples from 10 feet to 20 feet bls to characterize subsurface soil characteristics. The wells would be developed by a slow-purge method, and then sampled for PCBs in groundwater (detection limit of 0.065 ug/L) utilizing a low-flow sampling method. Finally, groundwater flow direction would be determined based upon water levels measured in the completed wells.

2.0 WORK PERFORMED

Monitoring Well Installation

The work was performed under Purchase Order No. 615464. On December 3, 1996, CEH-JW met on-site with representatives of Aquifer Drilling and Testing (ADT), the drilling company contracted to do the monitoring well drilling and installation. Drilling began utilizing 4 ¼ inch hollow stem augers (HSAs). The result of this was:

- Borings were augered to refusal at ten feet bls twice at the MW-101 location (see Figure 2). Teeth were broken off the lead auger requiring bit replacement,
- An attempt was made to collect a split spoon from the 10 foot-12 foot interval bls resulting in a 0.25 foot advance for 100 blows,
- Borings were augered to refusal twice at ten feet bls at the MW-102 location.

At this point, it was apparent that the proposed drilling method (HSA) would not be suitable at the Maspeth site. In conversation between CEH-JW and Con Ed, it was determined that the drilling method would be changed to an air hammer method. No split spoon samples would be possible with this method but it was determined that monitoring well installation and groundwater sampling were more important than subsurface soil characterization. Work was halted for the day.

On December 5, 1996, CEH-JW and ADT returned to the site. Drilling began at MW-101 utilizing air hammer technique. The drill bit was advanced to 20 feet bls as was specified in the Project Scope of Work (SOW). The drill cuttings in the boring were cleared as much as possible with the air hammer and a 2 inch PVC well was installed. It was noted that these drill cuttings were relatively dry, suggesting that the water table may not have been encountered. The process was repeated at MW-102 with similar results although there was water in the returns at MW-102 Water levels were measured in MW-101 and MW-102 approximately 1 hour after completion of MW-102. Water level at MW-101 was measured at approximately 19.2 feet below the top of the pvc riser pipe (TOPVC). MW-102 was dry.

After discussion between CEH-JW and Con Ed, it was decided to pull the wells and redrill the borings to a depth of 28 feet to 30 feet bls and then install the wells. During this process, it became evident that there was a transition zone at approximately 25 feet to 26 feet bls from the dense bouldery till, encountered below the newly placed fill to a saturated sand. Exact depths and soil characteristics were impossible to determine due to the drilling technique. MW-101 and MW-102 were each drilled to 32 feet bls. This was due to the nature of the saturated sandy material in the bottom of the borings. When the drill head was removed, sand flowed upward into the borings. The bottom of the well screens in MW-101 and MW-102 were installed at 26 feet bls. Well construction logs are included as Appendix A. Upon completion of MW-101 and MW-102 work was halted for the day. CEH-JW and ADT returned to the site on December 12, 1996 to drill MW-103. Drilling was completed in a manner similar to the drilling of MW-101 and MW-102. The drill bit was advanced to 32 feet bls and then quickly pulled from the boring to allow installation of the well materials. After several attempts, the deepest that the well screen could be set was 18 feet bls. The well construction log is included in Appendix A. Road box installations werecompleted at all three monitoring wells and locking plugs were installed. Drill cuttings were left on-site in appropriately labeled 55 gallon drums.

Well Development

Well development was performed over a period of a period of six mobilizations. This number of mobilizations was necessary because two of the three monitoring wells, MW-102 and MW-103, could not be properly developed.

Well development was begun on MW-101 using a Grundfos brand Redi-Flo pump, a type of pump specified in the SOW. Well development at MW-101 was relatively successful. Initial turbidity (as measured with a turbidity meter calibrated to a 0.02 NTU factory prepared standard) was greater than 200 NTUs (full scale). Final turbidity was 2.59 NTUs. At MW-102 and MW-103, development was not as successful. At both locations, particulate matter drawn into the pump intake caused repeated pump failure requiring frequent disassembly and wear plate replacement. Little water could be removed from the wells due to constant down-time. After discussion with Con-Ed, it was decided to develop the wells using Isco brand peristaltic pumps. These pumps pump at a

rate of one half gallon per minute (gpm) or less and are unaffected by particulates. Initial turbidity in MW-102 and MW-103 were greater than 200 NTUs. The lowest turbidity achieved at MW-102 during the development process was 88 NTUs. The value could not be duplicated on mobilizations subsequent to the one during which this reading was obtained. The water in MW-103 was never developed to a turbidity value below 200 NTUs. There is only approximately 2.5 feet of water in MW-103. This may be a contributing factor in the inability to develop MW-103. In addition, both MW-102 and MW-103 appear to have low hydraulic conductivities. The evidence is strictly empirical. No slug tests were performed on the wells on-site. However, it was observed during well development that MW-101 could pump one half gpm with only about two feet of drawdown. MW-102 and MW-103 went dry at the same pumping rate. This inability for water to move through the formation may have affected the effectiveness of well development. Purge water was left on-site in appropriately labeled 55 gallon drums.

Water Quality Sampling

The groundwater samples were analyzed for PCBs only. As per the SOW, both filtered and unfiltered samples were submitted for laboratory analysis. The field blank and duplicate sample were not filtered prior to laboratory analysis. The samples collected from MW-101 and MW-102 were submitted to laboratory as filtered and unfiltered samples. A 0.45-micron filter was used to filter the samples in the field. Laboratory results of the groundwater samples and the field equipment blank are presented in Table 1.

As noted above, Only wells MW-101 and MW-102 were sampled as part of the SOW. The reason for this is that oil was found in MW-103 when it was measured for water level. Upon discovery of the oil, Con Ed was notified. Con Ed representatives Mr. Bharat Mukhi and Mr. Dean Scari came to the site. An attempt was made to measure the oil/water level in the well but was unsuccessful due to "blinding" of the probe by the oil. A sample of the oil/water mixture was collected using a Waterra brand inertial pump. Mr. Scari submitted this sample for analysis under separate chain of custody (COC).

Decon water was left on-site in 55 gallon drums. The containers were appropriately labeled and stored on-site. CEH delivered the samples to the laboratory on the day of sampling.

3.0 RESULTS

The results of the laboratory analyses are presented in Table 1. PCBs were not detected in any of the groundwater samples. All results were reported as ND less than 0.05 ppb. Note that this reporting limit is below the Con Ed required detection limit of 0.065 ppb.

For QA/QC purposes, a field equipment blank and a duplicate sample were collected and analyzed. Both samples were analyzed for PCBs and the results were below the MDLs. The ND results for the field equipment blank indicate that the field decon procedure was

adequate for this sampling event. The ND results for the duplicate sample indicate that laboratory precision in the analysis of PCBs was adequate in this sampling event.

In summary, no regulatory limit was met or exceeded in either of the groundwater samples .

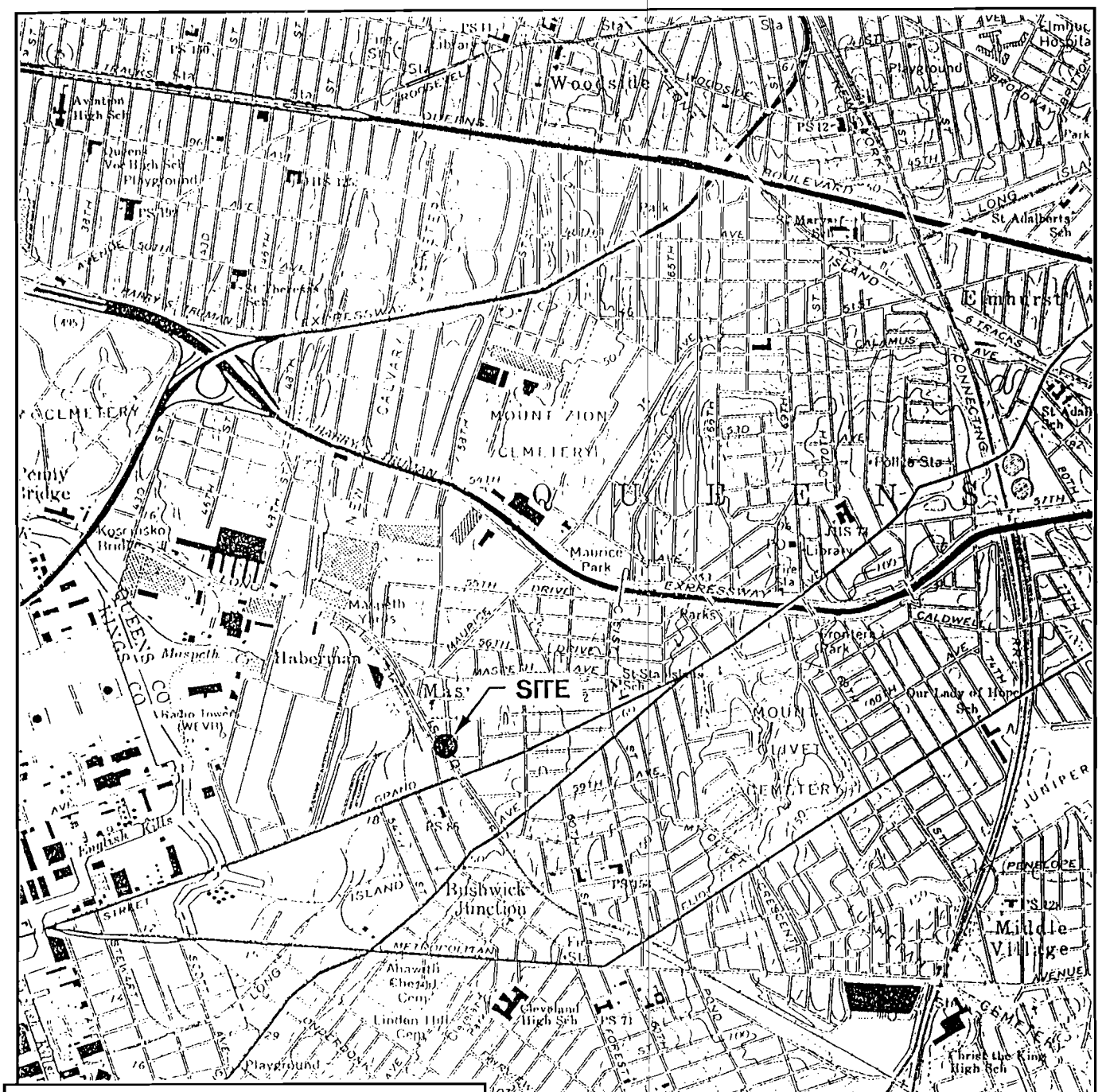
TABLE 1

Groundwater Samples Laboratory Analyses
Consolidated Edison: Maspeth
Sample Collection Date: 12-March-97

Sample Location	PCBs (ug/L)
NYSDEC Discharge Standard	0.065
MW-101	<0.05
MW-101F	<0.05
MW-102	<0.05
MW-102F	<0.05
Dupe	<0.05
Field Equipment Blank	<0.05

NA: No analysis performed
NYSDEC discharge standards were obtained from Brian Mitchell NYSDEC Region II via telephone conversation on 1/13/97.

Field Equipment Blank, MW-101, MW-102, and Dupe are total (unfiltered) samples. MW-101F and MW-102F were filtered in the field with 0.45 micron filter.



MAP SOURCE:

UNITED STATES GEOLOGICAL SURVEY
TOPOGRAPHIC MAPS

BROOKLYN, NY

N4037.5–W7352.5/7.5
1967
PHOTOREVISED 1979

2000 0 2000

Scale in feet

Caswell, Eichler & Hill, Inc.

a Jacques Whitford Company

DATE PREPARED:	DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
3–25–97	BPB	BSB	BPB	DBH
REVISION DATE:	REVISION NO:	DRAWN BY:	CHECKED BY:	REVIEWED BY:

DRAWING TITLE:

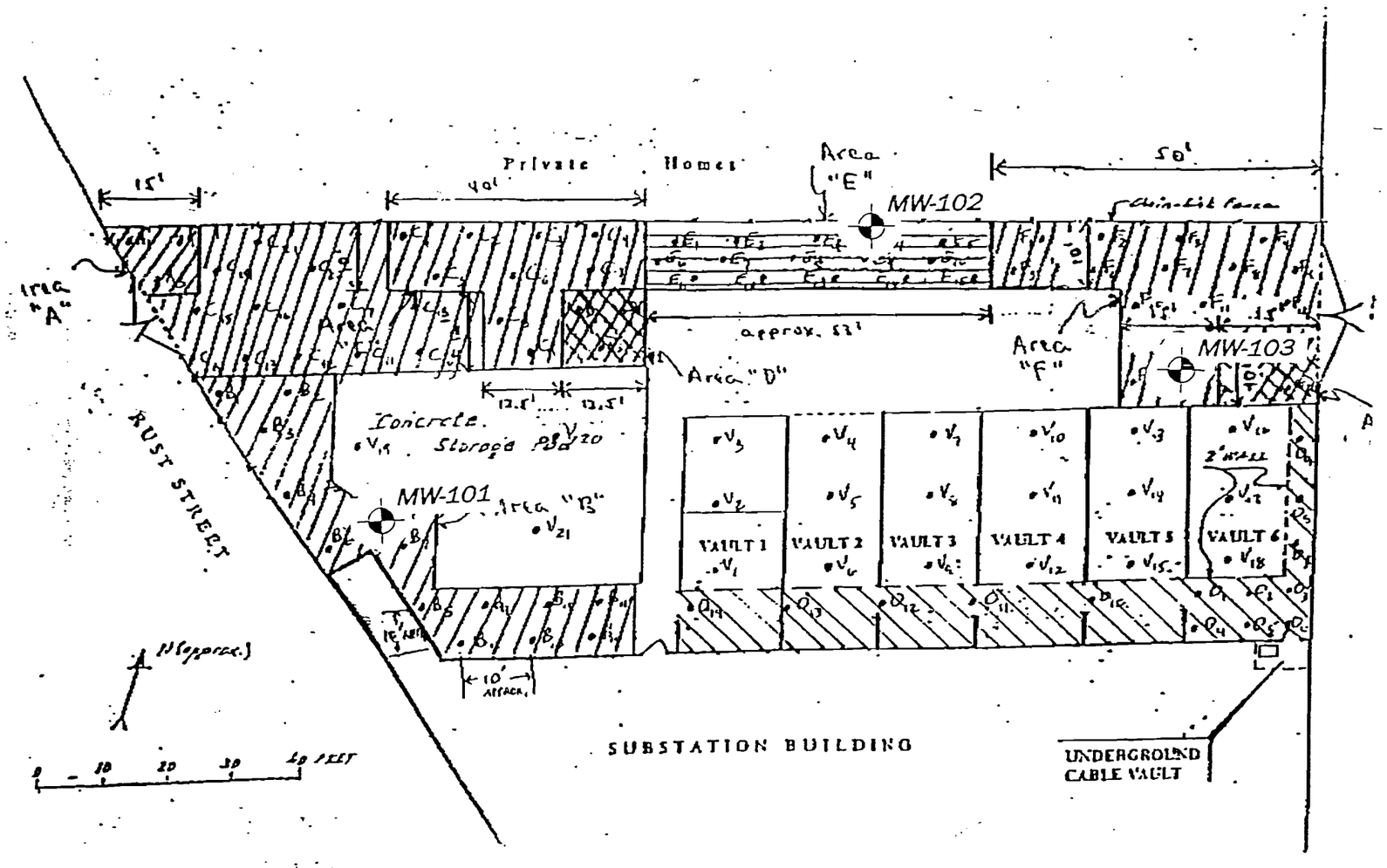
SITE LOCATION MAP

CONED MASPETH SUBSTATION

PROJECT NAME/FILE NAME:	PROJECT NUMBER/PHASE:	SCALE:	PREPARED FOR:
MASPETH/ALOCUS1	6096280/1200	1:24000	CON EDISON OF NY

FIGURE NO. 1

MASPETH SUBSTATION



Legend

MW-101 — MONITORING WELL LOCATION

Caswell, Eichler & Hill, Inc.

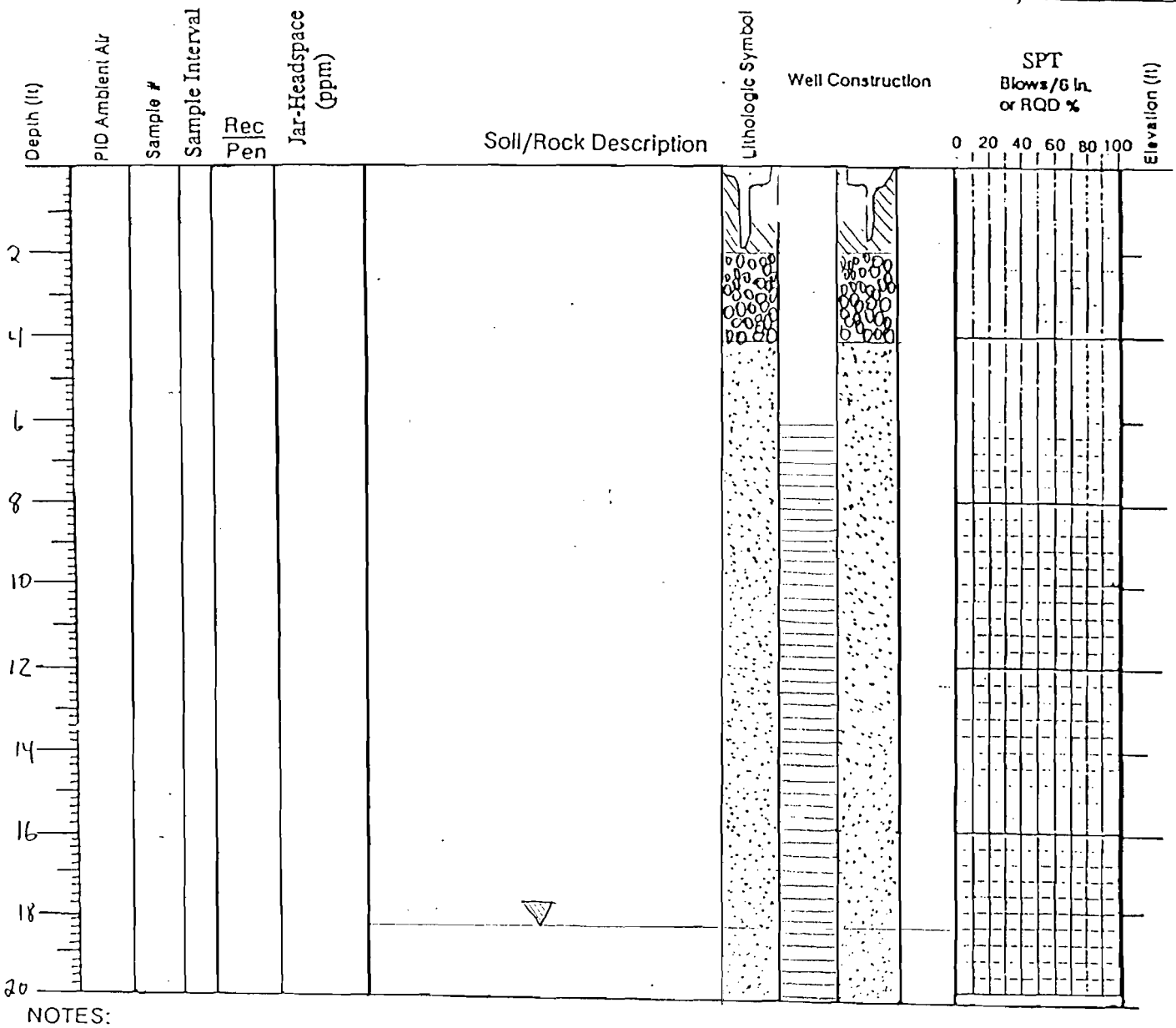
a Jacques Whitford Company

DATE PREPARED: 3-25-97	DESIGNED BY: BPB	DRAWN BY: BSB	CHECKED BY: BPB	REVIEWED BY: DBH
REVISION DATE:	REVISION NO:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
PROJECT NAME/FILE NAME: MASPETH/BSITEPLAN		PROJECT NUMBER/PHASE: 6096280/1200	SCALE: AS SHOWN	PREPARED FOR: CON EDISON OF NY

DRAWING TITLE: SITE PLAN
CONED MASPETH SUBSTATION

FIGURE NO. 2

Project CON ED MASPETH			Boring # MW-101
Client Consolidated Edison of N.Y.			Sheet 1 of 2
Contractor ADT		Date Begun 12/5/96	Overburden Drilled 32'
Method AIR HAMMER	Casing Size	Completed 12/5/96	Rock Drilled
Ground Elevation	PID	Protection Level D	▽ Below Ground
Logged By B. BLINE	Checked By	Date	Site MASPETH, QUEENS



NOTES:

WELL CONSTRUCTED WITH 20' LONG 2" DIAMETER 10 SLOT PVC WELL SCREEN AND SOLID 2" PVC RISER

FILTER SAND 26.0' BLS TO 4.0' BLS

BENTONITE SEAL 4.0' BLS TO 2.0' BLS

CEMENT GROUT 2.0' BLS TO SURFACE

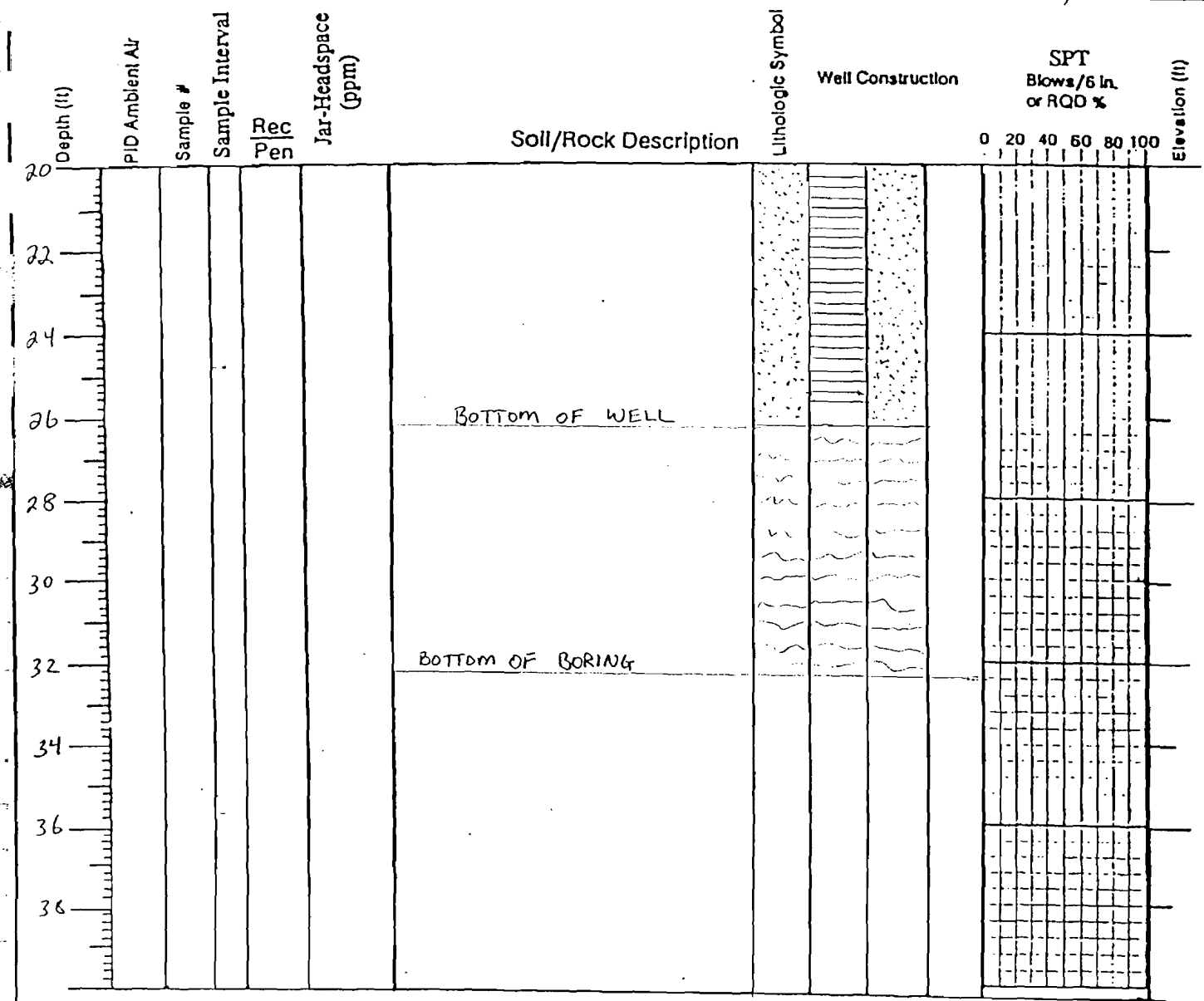
FLUSH MOUNT ROAD BOX CEMENT GROUTED IN PLACE AT SURFACE

CEH

CASWELL, EICHLER & HILL, INC.

GEOLOGY HYDROGEOLOGY GEOPHYSICS ENGINEERING

Project CONED MASPETH				Boring # MW-101
Client CONSOLIDATED EDISON OF NY				Sheet 2 of 2
Contractor ATD			Date Begun 12/5/96	Overburden Drilled 32'
Method AIR HAMMER	Casing Size		Completed 12/5/96	Rock Drilled
Ground Elevation	PID		Protection Level D	▽ Below Ground
Logged By B. BLINE	Checked By		Date	Site MASPETH, QUEENS



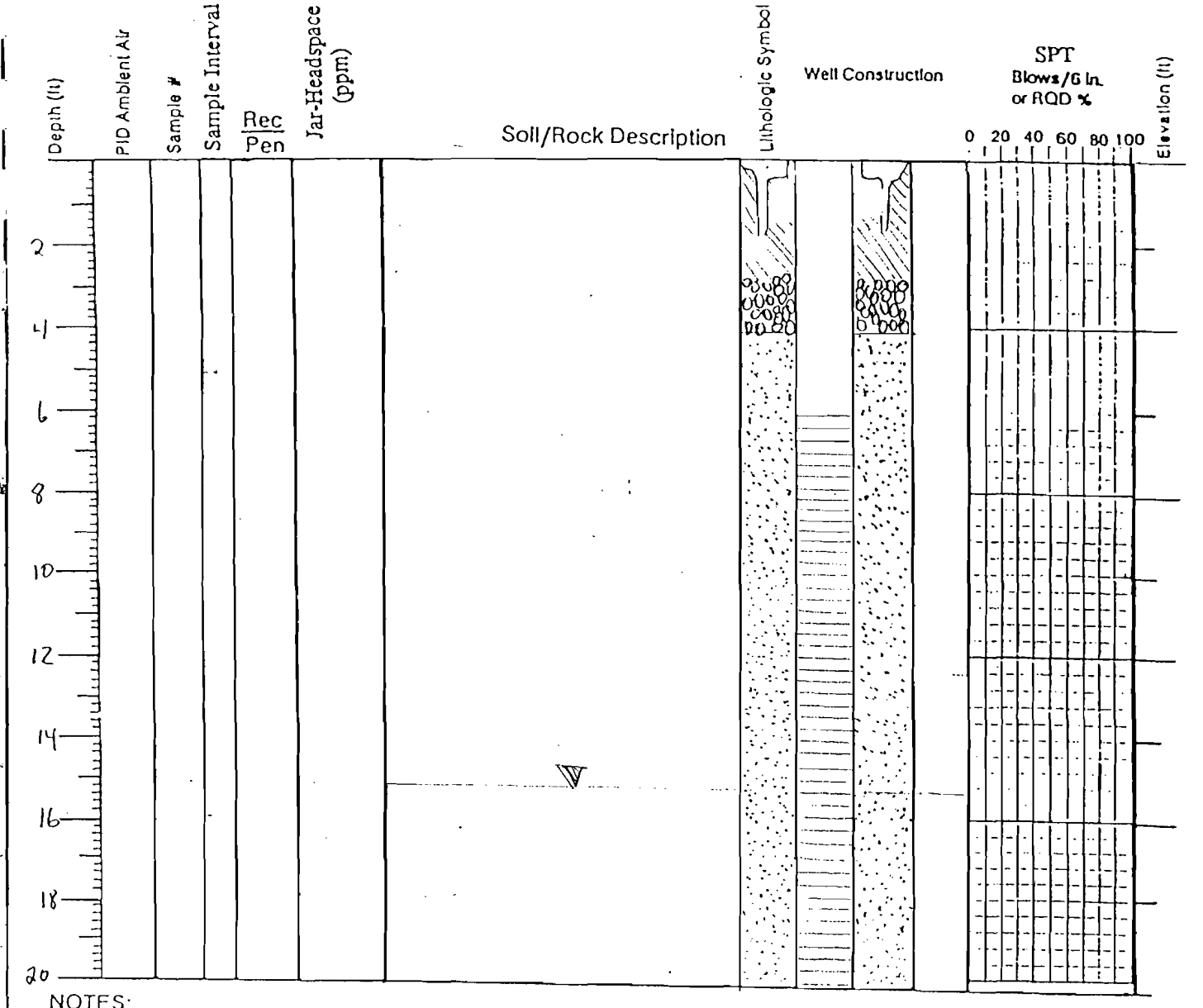
NOTES:

CEH

CASWELL, EICHLER & HILL, INC.

GEOLOGY HYDROGEOLOGY GEOPHYSICS ENGINEERING

Project CON ED MASPETH			Boring # MW-102
Client Consolidated Edison of N.Y.			Sheet 1 of 2
Contractor ADT		Date Begun 12/5/96	Overburden Drilled 32'
Method AIR HAMMER	Casing Size	Completed 12/5/96	Rock Drilled
Ground Elevation	PID	Protection Level D	▽ Below Ground
Logged By B. BLINE	Checked By	Date	Site MASPETH, QUEENS



NOTES:

WELL CONSTRUCTED WITH 20' LONG 2" DIAMETER 10 SLOT PVC WELL SCREEN AND SOLID 2" PVC RISER

FILTER SAND 26.0' BLS TO 4.0' BLS

BENTONITE SEAL 4.0' BLS TO 3.0' BLS

CEMENT GROUT 3.0' BLS TO SURFACE

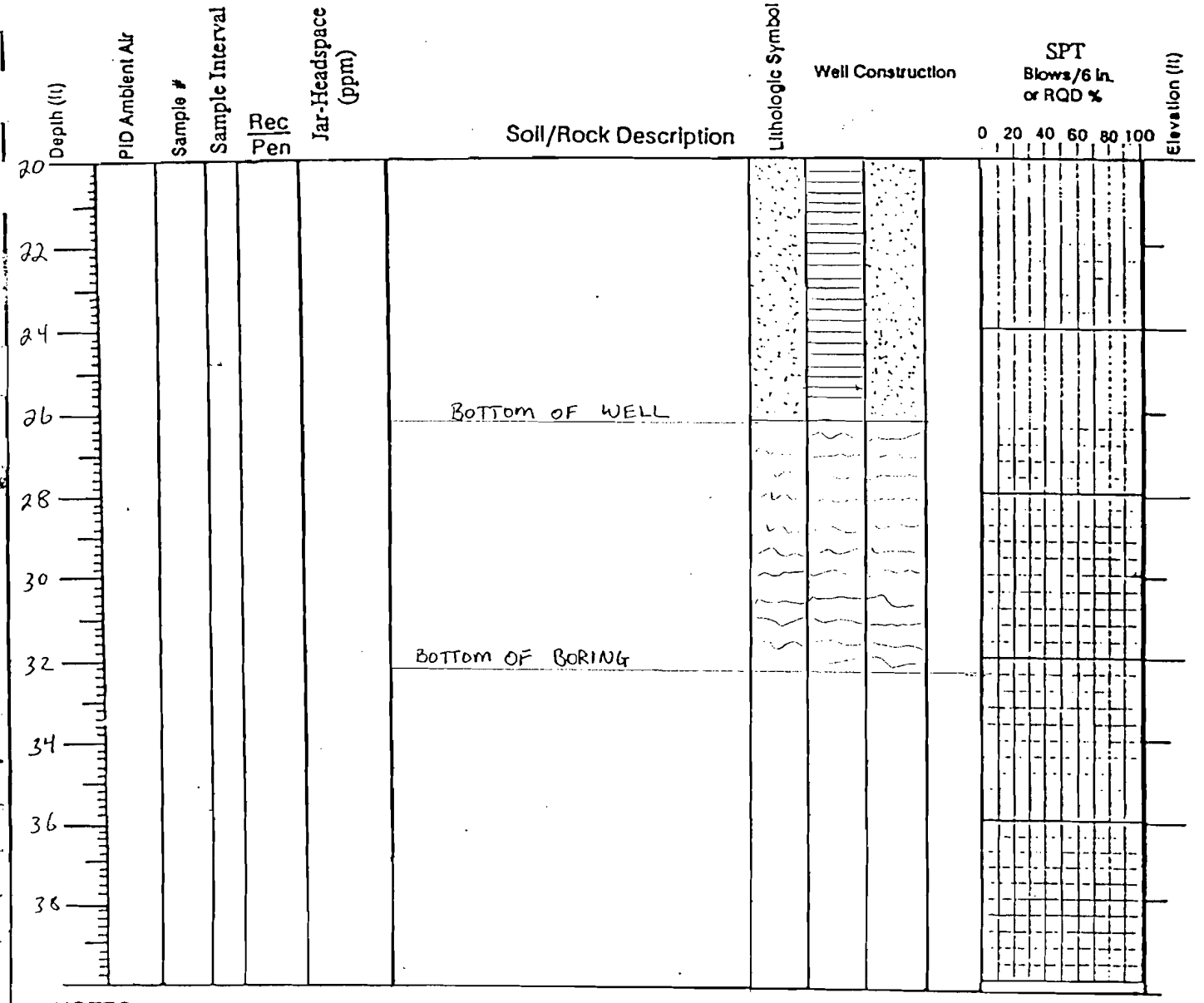
FLUSH MOUNT ROAD BOX CEMENT GROUTED IN PLACE AT SURFACE

CEH

CASWELL, EICHLER & HILL, INC.

GEOLOGY HYDROGEOLOGY GEOPHYSICS ENGINEERING

Project CONED MASPETH			Boring # MW-102
Client CONSOLIDATED EDISON OF NY			Sheet 2 of 2
Contractor ATD		Date Begun 12/5/96	Overburden Drilled 32'
Method AIR HAMMER	Casing Size	Completed 12/5/96	Rock Drilled
Ground Elevation	PID	Protection Level D	▽ Below Ground
Logged By B. BLINE	Checked By	Date	Site MASPETH, QUEENS



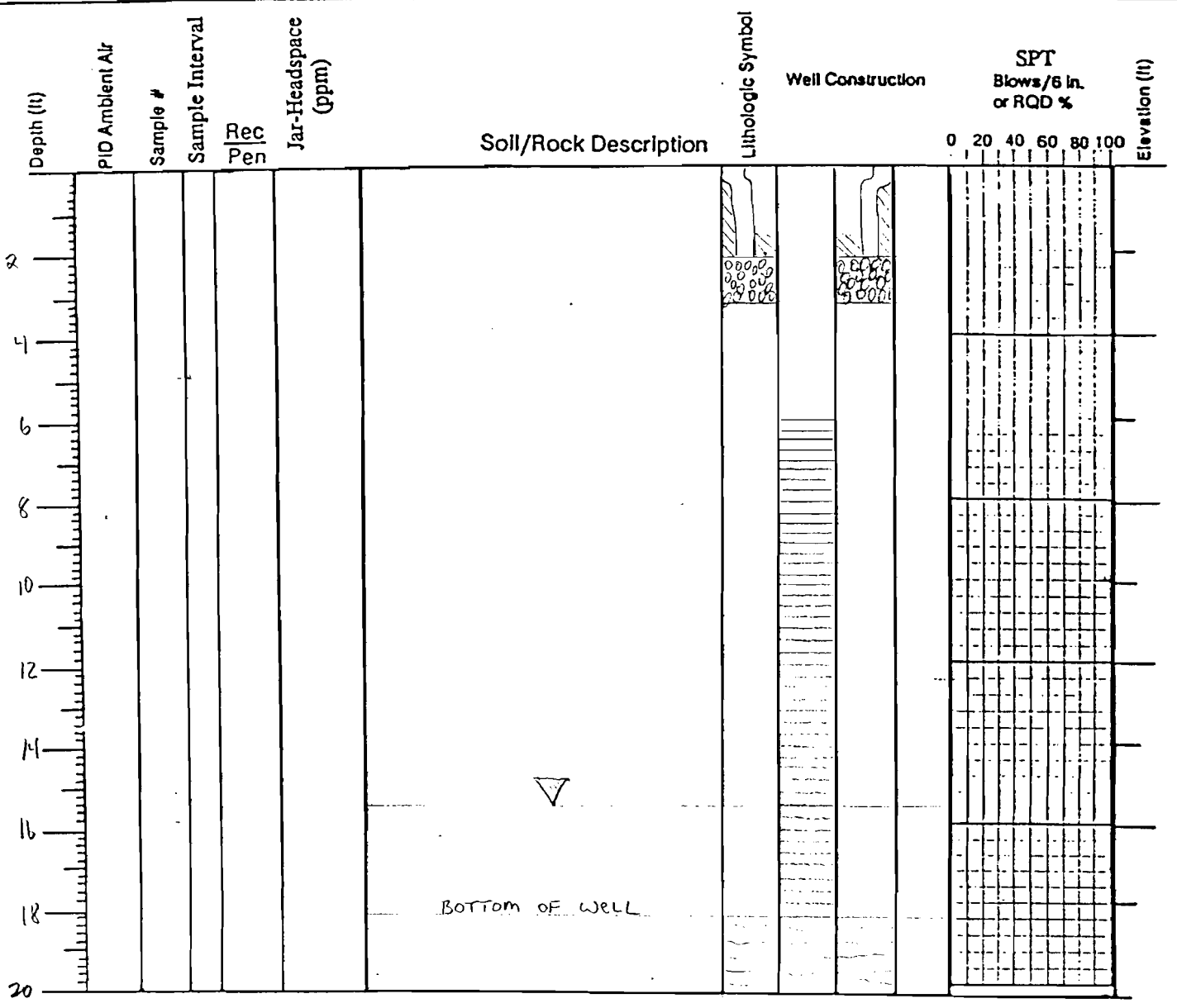
NOTES:

CEH

CASWELL, EICHLER & HILL, INC.

GEOLOGY HYDROGEOLOGY GEOPHYSICS ENGINEERING

Project CON ED MASPETH			Boring # MW-103
Client CONSOLIDATED EDISON OF NY			Sheet 1 of 2
Contractor ADT		Date Begun 12/6/96	Overburden Drilled
Method AIR HAMMER	Casing Size	Completed 12/6/96	Rock Drilled
Ground Elevation	PID	Protection Level D	▽ Below Ground
Logged By B.BLINE	Checked By	Date	Site



NOTES:

WELL CONSTRUCTED WITH 12' LONG 2" DIAMETER 10 SLOT PVC WELL SCREEN WITH SOLID 2" PVC RISER

FILTER SAND 18.0' BLS TO 3.0' BLS

BENTONITE SEAL 3.0' BLS TO 2.0' BLS

CEMENT GROUT 2.0' BLS TO SURFACE

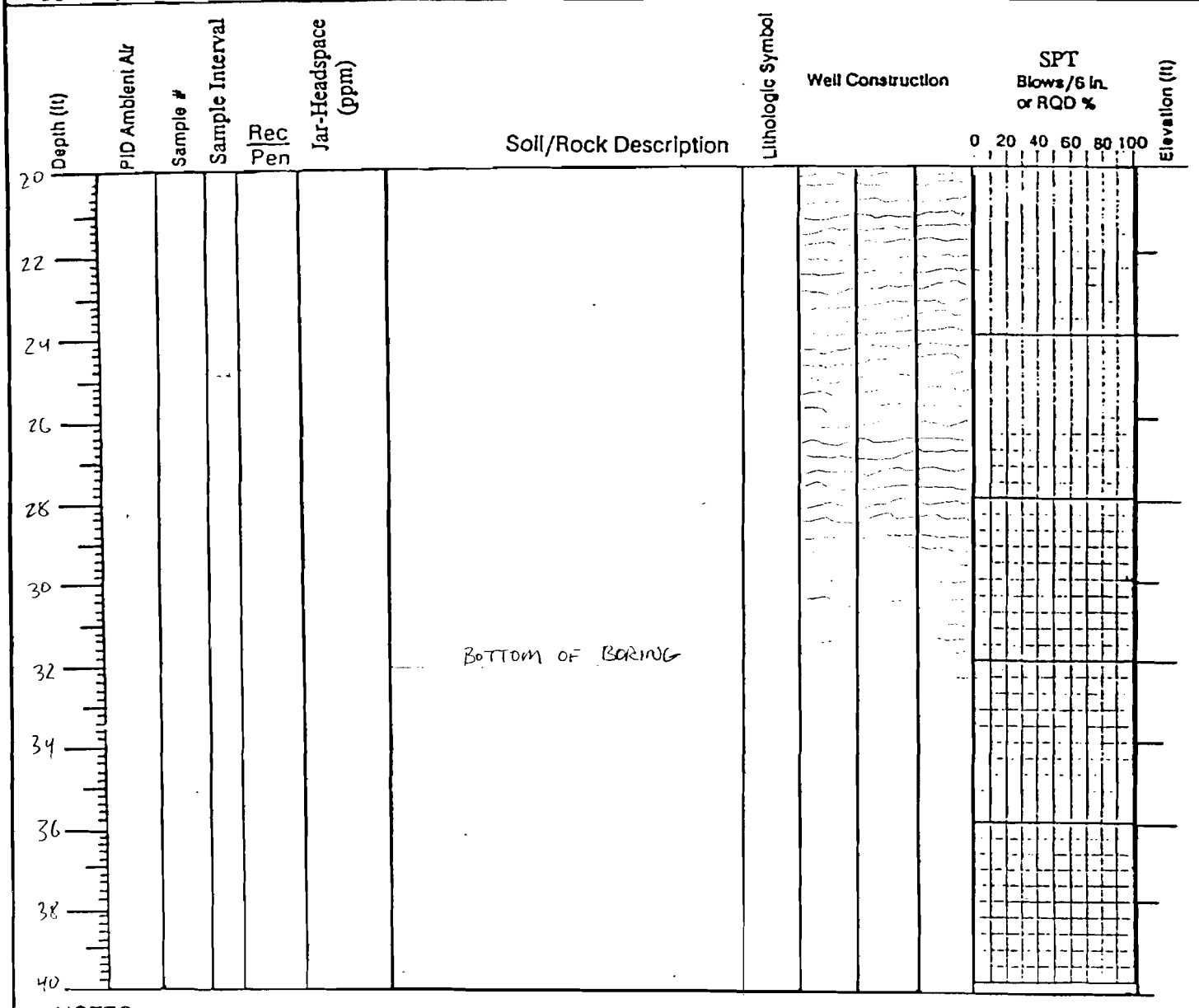
FLUSH MOUNT ROAD BOX CEMENT GROUTED IN PLACE AT SURFACE

CEH

CASWELL, EICHLER & HILL, INC.

GEOLOGY HYDROGEOLOGY GEOPHYSICS ENGINEERING

Project CON ED MASPETH				Boring # MW-103
Client CONSOLIDATED EDISON OF NY				Sheet 2 of 2
Contractor ADT			Date Begun 12/6/96	Overburden Drilled 32'
Method AIR HAMMER	Casing Size		Completed 12/6/96	Rock Drilled
Ground Elevation	PID		Protection Level D	▽ Below Ground
Logged By B. BLINE	Checked By		Date	Site



NOTES:

CEH

CASWELL, EICHLER & HILL, INC.

GEOLOGY HYDROGEOLOGY GEOPHYSICS ENGINEERING

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837, Tel: (908) 225-4111, Fax: (908) 225-4110

MARCH 20, 1997

CEH
27 CONGRESS STREET
PORTSMOUTH, NH 03802
Attn: DAVID HILL

Analytical Report: 97-03-0224 Project: CON ED MASPETH

This technical report contains the analytical results of six (6) samples submitted to Analab on March 13, 1997. The following analyses were requested:

PCB (6)

Respectfully submitted,

Robert Hulit
Manager of Laboratory Services

Elizabeth A. Panico
VP of Laboratory Operations

RH/mv

ANA Lab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837, Tel: (908) 225-4111, Fax: (908) 225-4110

LABORATORY DELIVERABLES CHECKLIST

91-03-224

THIS FORM HAS BEEN COMPLETED BY THE LABORATORY AND IS AVAILABLE TO THE ENVIRONMENTAL CONSULTANT TO ACCOMPANY ALL DATA SUBMISSIONS

The following laboratory deliverables are included in this Analytica Report. Any deviations from the accepted methodology and procedures or performance values outside acceptable ranges are summarized in th Non-Conformance Summary.

I.	Report Cover Page, Laboratory Certification and Field Sample to Lab Sample ID Cross Reference	✓
II.	Table of Contents	✓
III.	Chain of Custody Documents	✓
IV.	Methodology Summaries	✓
V.	Laboratory Chronicle and Hold Time Checks	✓
VI.	Non-Conformance Summary	✓
VII.	Tabulated Analytical Results	✓
VIII.	Initial and Continuing Calibration Information	N/A
IX.	Tune and Internal Standard Area Summaries (GC/MS)	N/A
X.	Quality Control Summary Reports	✓
XI.	Surrogate Recovery Summary	✓
XII.	Raw Data Chromatograms, Blank, QCs and Samples	N/A
XIII.	Subsidiary Information (Subcontract if applicable)	N/A

Laboratory Manager or QA/QC Coordinator — Date: 3/20/91

A:\QCCLST
1/93

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ANALYTICAL DATA REPORT PACKAGE

CEH
27 CONGRESS STREET
PORTSMOUTH,NH 03802

CLIENT PROJECT:CON ED MASPETH
SAMPLE(s) RECEIVED DATE:03/13/97 **PROJECT:N/A**

SAMPLE ID	SAMPLE DESCRIPTION/LOCATION	SAMPLE DATE/TIME
97-03-0224-001	FIELD EQUIPMENT BLANK	3/12/97 ; 09:30
97-03-0224-002	MW-101	3/12/97 ; 13:50
97-03-0224-003	MW-101F	3/12/97 ; 13:50
97-03-0224-004	MW-102	3/12/97 ; 1800
97-03-0224-005	MW-102F	3/12/97 ; 18:00
97-03-0224-006	DUPE	3/12/97 ; N/A

LABORATORY CERTIFICATION NUMBERS
NJDEP ID:12531 MADEQE ID:NJ302 VADGS ID:00007 NYDOH:11104
NHDES ID:250492-A,B CTDHS ID:PH-0649 MDDHMH ID:186
RIDHHL ID:NJ12531 PADER ID:68-368

J.JABLONSKI, F.KHALIL, K. KENSELLA
QUALITY CONTROL COORDINATOR

ROBERT HULIT
MANAGER OF LABORATORY SERVICES

ELIZABETH A. PANICO
VP OF LABORATORY OPERATIONS

COMMENTS:
NA = NOT AVAILABLE FROM CHAIN OF CUSTODY / NOT APPLICABLE

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TABLE OF CONTENTS

PROJECT NUMBER: 97-03-0224

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837, Tel: (908) 225-4111, Fax: (908) 225-4110

CHAIN OF CUSTODY

ANALab INC.

205 Campus Plaza 1, Raritan Center, Edison, New Jersey 08837 (908) 225-4111
ENVIRONMENTAL ANALYTICAL LABORATORY SERVICES FAX (908) 225-4110

CHAIN-OF-CUSTODY RECORD and Work Authorization

LAB SDG NO.: (FOR LAB USE ONLY) 97-03-224

Company	CEH
Address	BOX 4696
City	PORTSMOUTH
State	NH ZIP 03802 Phone 603 431 4899
Project Manager	DAVID HILL Fax
Project name	CON ED MASPETH Purchase Order No.

ANALYSIS REQUESTED

PCB's

PRINT ANALYSIS REQUESTS CLEARLY, LEGIBLY AND COMPLETELY.

Page 1 of 1

	SAMPLE DESCRIPTION	TYPE GRB	TYPE COMP	MATRIX TYPE	DATE SAMPLED	TIME	PRES	NO. CONT	PCB's	REMARKS
1	FIELD EQUIPMENT BLANK	✓		WATER	3/12/97	930		4	✓	4-1lt
2	MW-101	✓		WATER	3/12/97	1350		4	✓	"
3	MW-101 F	✓		WATER	3/12/97	1350		4	✓	"
4	MW-102	✓		WATER	3/12/97	1800		4	✓	"
5	MW-102 F	✓		WATER	3/12/97	1800		4	✓	"
6	DUPE	✓		WATER	3/12/97			4	✓	"

FAILURE TO PRINT CLEARLY, LEGIBLY AND COMPLETELY MAY RESULT IN DELAYS. ANY ANALYSIS REQUEST NOT ENTERED COMPLETELY, CLEARLY AND LEGIBLY OR WHICH IS CONFUSING OR AMBIGUOUS MAY RESULT IN DELAYS. SAMPLES CAN NOT BE LOGGED IN AND THE TURNAROUND TIME CLOCK WILL NOT START UNTIL ANY AMBIGUITIES ARE RESOLVED. TO AVOID THIS, PRINT CLEARLY, LEGIBLY AND COMPLETELY.

SAMPLER/SUBMITTER'S STATEMENT: I attest that the proper field sampling procedures were used during the collection of these samples and that the information on this Chain of Custody and the analysis(es) requested are true and correct. Name (print): BRUCE P BLINE/CEH Signature: Bruce P Bline

RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:	RELINQUISHED TO LABORATORY BY:	ACCEPTED FOR LAB BY	DATE	TIME
				Bruce P Bline		3/12/97	7:50

Turnaround Time (Faxables)

24Hour____ 5 Day____
48 Hour____ 10 Day____
72 Hour X 14 Day____

If other than 14 day contact your project manager for authorization number.

Auth No: ____

Laboratory Comments:

All Samples Received
Temp 3.5 °C Cool (Yes) No
Samples Intact (Yes) No
Properly Preserved (Yes) No

Data Deliverables (Standard T.A.T. Hard Copy)

Results only____
Results with QC X
RTD-4____
FTD-2____

If other than standard turnaround time for hard copy, please indicate in client remarks.

Client Remarks:

PCB's — 0.065 ppb detection limit

FIELD BLANK, MW-101, MW-102 and DUPE are total (unfiltered) samples

MW-101 F and MW-102F ARE FIELD filtered (0.45µ)

200

ANALAB, INC. 205 Campus Plaza, Edison, New Jersey 08837 (908) 225-4111

TECHNICAL REQUIREMENTS MEMORANDUM

PROJECT: 97-03-224

CLIENT: CEH ENVIRONMENTAL
Client Project: CON EDISON
Parameter: PCB (AQUEOUS) EPA 608 MDL (Low Level)

The following "Special Technical Requirements" for the analysis of PCBs by EPA 608 must be met for this project.

- Sampling Containers: 4 x 1L Amber Glass per sample. (4'C)
- PCB (Aqueous) samples are to be batched independently of other samples.
- Extract @ 1.0 L (1000 mL). Final Extract Volume 2.5 mL
- Surrogate Spike at 1/2 Normal Amount. (To yield 50 ug/l instrumental)
- QC Blank Spike and MS/D Spike @ 1/2 Normal Amount (200 ug/l instrumental concentration) Equalivent to 0.5 ug/L sample concentration.
- MDL all Arochlors 0.05 ug/L

Calculations: ug/L = (Inst Conc ug/L) x (DF) x 0.0025 L / 1.000 L

ig. 20.0 ug/l x (DF=1) x 0.0025L / 1.000L = 0.05 ug/L

Note: Notify Project Management on Receipt of Project.

Attach copy of Tech Memo to COC prior to Distribution.

See VP Operations or QA Manager to characterize Samples on receipt.
cehtrm.doc

ANAlab INC. 205 CAMPUS PLAZA 1, RARITAN CENTER, EDISON, NJ, 08837 (908)225-4111.

RUSH ANALYSIS

FAX T.A.T: 72Hr. H.C. T.A.T. : 8 Day PROJECT# 9703-224

CLIENT NAME: CEH PHONE # _____

FAX # _____

CONTACT PERSON: _____ APPROVAL # 73

CLIENT PROJECT: _____ FAX DUE DATE: 3/18/97

ARRIVAL DATE: 3/13/97 HARD COPY DUE DATE: 3/20/97

SAMPLE #	MATRIX	TEST REQUESTED	APPROVED	NON-APPROVED
1-6	W	EXTRACTION: PCB (0.065 PPb)		
		WET CHEMISTRY:		
		METALS:		
		GC VOA:		
1-6	W	GC EXTRACT: PCB (0.065 PPb)		
		GC/MS VOA:		
		GC/MS EXTRACT:		

004

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837, Tel: (908) 225-4111, Fax: (908) 225-4110

METHOD SUMMARIES

AnaLab, Inc. 205 Campus Plaza, Edison, New Jersey 08837 (908) 225-4111

METHODS SUMMARY

Extractable Organics by GC: Gas Chromatography

__	Priority Pollutant Pesticides (Aqueous)	EPA 608 Ext. ECD		Ref. 1
__	Organo- Chlorine Pesticide Compounds (Aqueous)	EPA 608 Ext. ECD		Ref. 1
__	Priority Pollutant PCB's (Aqueous)	EPA 608 Ext. ECD		Ref. 1
__	Priority Pollutant Pesticides & PCBs (Aqueous)	EPA 608 Ext. ECD		Ref. 1
__	EPA TCL List Pesticides (Aqueous)	SW846 8081 Ext. ECD	Rev 0, 9/94	Ref. 2
__	EPA TCL List Pesticides (Non-Aqueous)	SW846 8081 Ext. ECD	Rev 0, 9/94	Ref. 2
✓	Pesticides Organochlorine (Non-Aqueous)	SW846 8081 Ext. ECD	Rev 0, 9/94	Ref. 2
✓	PCBs (Non-Aqueous, Soils, Wipes)	SW846 8081 Ext. ECD	Rev 0, 9/94	Ref. 2
__	TCLP Pesticides (TCLP Organic Extraction)	SW846 8081 Ext. ECD	Rev 0, 9/94	Ref. 2
__	PAH (Polynuclear Aromatic Hydrocarbons) (Aqueous)	SW846 8100 Ext FID	Rev 0, 9/86	Ref. 2
__	PAH (Polynuclear Aromatic Hydrocarbons) (Non-Aqueous)	SW846 8100 Ext FID	Rev 0, 9/86	Ref. 2
__	Herbicides (Dicamba 2,4-D 2,4,5-T Silvex (WW)	SM 6640B Ext. "BTF" ECD		Ref 3
__	Herbicides (Dicamba 2,4-D 2,4,5-T Silvex (AQ)	SW846 8150B Ext. ECD	Rev 2, 9/94	Ref. 2
__	Herbicides (Dicamba 2,4-D 2,4,5-T Silvex (Soil)	SW846 8150B Ext. ECD	Rev 2, 9/94	Ref. 2
__	TCLP Herbicides (2,4-D 2,4,5-TP{Silvex})	SW846 8150B Ext. ECD	Rev 2, 9/94	Ref. 2
__	Total Petroleum Hydrocarbons (C8-C40) AQ	SW846 8015A Ext FID	Rev 1, 7/92	Ref. 4
__	DRO Diesel Range Organics (C8-C22) AQ	SW846 8015A Ext FID	Rev 1, 7/92	Ref. 4
__	Fuel Type Quantatitive (Fuel# 2,4,6,Diesel) AQ	SW846 8015A Ext FID	Rev 1, 7/92	Ref. 4
__	Total Petroleum Hydrocarbons (C8-C40) (Soil)	SW846 8015A Ext FID	Rev 1, 7/92	Ref. 4
__	DRO Deisel Range Organics (C8-C22) (Soil)	SW846 8015A Ext FID	Rev 1, 7/92	Ref. 4
__	Fuel Type Quantatitive (Fuel# 2,4,6,Diesel) (Soil)	SW846 8015A Ext FID	Rev 1, 7/92	Ref. 4
__	TPH (Total Petroleum Hydrocarbons)	SW846 8100 Ext FID	Rev 0, 9/86	Ref. 2
__	Mass. VPH & EPH Method	Mass. DEP Published	Draft 8/95	
__	Fuel Type Qualative Identification Finger Print	SW846 8015A Mod Ext FID	Rev 1, 7/92	Ref. 4

Sample Preparation for Extractable Organics by GC:

__	Aqueous Matrix	"Separatory Funnel Extraction"	SW846 3510B	Rev 2, 9/94	Ref. 2
__	Soil,Solid,Sludge	"Soxlet Extraction"	SW846 3540B	Rev 2, 9/94	Ref. 2
__	Soil,Solid,Sludge,Wipe	"Ultrasonic Extraction"	SW846 3550	Rev 1, 9/94	Ref. 2
__	Organics	"Waste Dilution"	SW846 3580A	Rev1, 7/92	Ref. 2
__	TCLP Toxicity Characteristic Leaching Procedure		SW846 1311	Rev 0, 7/92	Ref. 2
__	SPLP Synthethic Precipitation Leaching Procedure		SW846 1312	Rev 0, 9/94	Ref. 2

Sample "Cleanup" Procedures for Extractable Organics by GC:

__	Semi-Volatiles	Alumina	SW846 3610A	Rev 2, 9/94	Ref. 2
__	Semi-Volatiles	Florisil Cleanup	SW846 3620A	Rev 1, 7/92	Ref. 2
__	Semi-Volatiles	Silica Gel Cleanup	SW846 3630B	Rev 2, 9/94	Ref. 2
__	Semi-Volatiles	Gel Permeation (GPC) Cleanup	SW846 3640A	Rev 1, 9/94	Ref. 2
__	Acid Cleanup	Acid with KMnO3 Cleanup	SW846 3665	Rev 0, 9/94	Ref. 2

Reference:

1. USEPA. 40CFR136 List of Approved Test Procedures, 1/31/94 w/Revs 4/4/95. Federal Register Vol. 49, No. 209, Oct. 26, 1984.
2. EPA SW846. Test Methods for Evaluating Solid Waste, Physical & Chemical Methods. 3rd Ed. Final Update IIB. January 1995.
3. APHA. 1992. Standard Methods for the Examination of Water & Wastewater, 18th. Ed., 1992
4. NJDEPE OQA. Quantitation of Semivolatile Petroleum Products in Water,Soil,Sediment. OQA QAM-025-10/91

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837. Tel: (908) 225-4111. Fax. (908) 225-4110

LABORATORY CHRONICLE

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837. Tel. (908) 225-4111. Fax. (908) 225-4110

LABORATORY CHRONICLE
PCB (METHOD 608/8080)

CLIENT: CEH
CLIENT PROJECT:CON ED MASPETH
DATE RECEIVED:03/13/97

PROJECT NO:97-03-0224
SAMPLING DATE:3/12/97

LABORATORY SAMPLE ID	SAMPLE DESCRIPTION/LOCATION	EXTRACTION DATE	DATE ANALYZED	ANALYST
97-03-0224-001	FIELD EQUIPMENT BLANK	03/13/97	03/14/97	KW
97-03-0224-002	MW-101	03/13/97	03/14/97	KW
97-03-0224-003	MW-101F	03/13/97	03/14/97	KW
97-03-0224-004	MW-102	03/13/97	03/14/97	KW
97-03-0224-005	MW-102F	03/13/97	03/14/97	KW
97-03-0224-006	DUPE	03/13/97	03/14/97	KW

PCB608

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837. Tel. (908) 225-4111. Fax (908) 225-4110

SAMPLE MANAGEMENT LABORATORY CHRONICLE

CLIENT NAME: CEH @ H.
CLIENT PROJECT: Con Ed Maspeth
RAS # :
SAMPLE DATE(S): 3/12/97
SAMPLE MATRIX: (H2O) SOIL, _____

LAB PROJECT ID: 97-03-2
SAMPLE TEMP ON RECEIPT: 35
SAMPLE RECEIVE DATE: 3/13
ANALAB COOLER ID #: N/A

CONDITION OF SAMPLES RECEIVED BY LAB:	NA	YES	NO	COMMENTS
Cooler Seal Intact	NA	(YES)	NO	
Samples Received Cool (2-6°C)	NA	(YES)	NO	
Samples Received Intact		(YES)	NO	
Sample Labels Match Chain of Custody		(YES)	NO	
VOAs HCL Preserved as per Label or Custody	NA	(YES)	NO	
VOAs w/out Bubbles, Septa TFE Side Down	(NA)	YES	NO	
Samples Delivered via ANALAB PICK UP	(NA)	YES	NO	
Samples Delivered via CLIENT DROP OFF	NA	(YES)	NO	
Airbill # Present, if by Common Carrier	NA	YES	(NO)	
Traffic Reports Present, if applicable	(NA)	YES	NO	
Subcontract Analysis Required (Sub COC)		YES	(NO)	

***PRESERVATION CHECKS PERFORMED FOR AQUEOUS SAMPLES NEEDING PH ADJUSTMEN**

N/A = IF NOT APPLICABLE

LAB SAMPLE	FRACTION	PH MEASURED	OK	COMMENTS BY SM ON RECEIP

093

Note: NA = Not Applicable or Not Available from Chain of Custody
Temprature taken on receipt from Temprature Surrogate Vial

Sample Custodian Signature

3/13/97
Date

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CASE NARRATIVE/NONCONFORMANCE SUMMARY

ANA Lab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837, Tel: (908) 225-4111, Fax: (908) 225-4110

GC ANALYSIS CONFORMANCE / NON-CONFORMANCE SUMMARY

PROJECT ID: 91-03-224

		No	Yes
1.	GC Chromatograms Labeled with Compounds Identified (including Field and Laboratory QC Samples)	___	✓
2.	Initial and Continuing Calibration Summaries	___	✓
3.	Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis.	___	✓
4.	Continuing Calibration Requirements Met see below	___	✓
5.	Retention Time Shift Meets Criteria (if applicable)	✓	X
6.	Blank Free of Contamination; If not, List Compounds and amounts present.	___	✓
	a. GC Voa Fraction ___		
	b. GC Pesticide ___		
	c. GC PCB Fraction ✓		
	d. GC Extractable ___		
	e. GC DAI Voa ___		
7.	Extraction Hold Time Met. Comments: ___	___	✓
8.	Analysis Hold Time Met. Comments: ___	___	✓
9.	Surrogate Recoveries Meet Criteria - (If not, list compounds & their recoveries outside of limits) If not met, calculations were checked, results are qualified.	___	✓
	a. GC Voa Fraction ___		
	b. GC Pesticide ___		
	c. GC PCB Fraction ✓		
	d. GC Extractable ___		
	e. GC DAI Voa ___		
10.	Matrix Spike / Matrix Spike Duplicate Recoveries and % RPD's meet Criteria. If not, list compounds and recoveries outside of QC limits.	___	✓
	a. GC Voa Fraction ___		
	b. GC Pesticide ___		
	c. GC PCB Fraction ✓		
	d. GC Extractable ___		
	e. GC DAI Voa ___		

Additional Comments: 5) Retention time out for sample 91-03-224-1,2,3,4,5,6 011

Lab or QC Coordinator: [signature] Date: 3/20/97

Q&A A:\QCGCNCS

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837, Tel: (908) 225-4111, Fax: (908) 225-4110

TABULATED ANALYTICAL RESULTS

GC EXTRACTABLE ORGANICS

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837, Tel: (908) 225-4111, Fax: (908) 225-4110

ANALYTICAL REPORT

PCB ANALYSIS BY GAS CHROMATOGRAPHY

CLIENT: CEH
CLIENT PROJECT: CON ED MASPETH
REPORT DATE : MAR. 18 1997
PROJECT RECEIPT DATE : 03/13/97

LAB ID:97-03-0224 -001
ANALYST KW
ANALYSIS DATE: 03/14/97
MATRIX : WATER

CLIENT SAMPLE DESIGNATION: FIELD EQUIPMENT BLANK

COMPOUND	RESULTS(UG/L)	MDL(UG/L)
AROCLOR 1016	ND	0.05
AROCLOR 1221	ND	0.05
AROCLOR 1232	ND	0.05
AROCLOR 1242	ND	0.05
AROCLOR 1248	ND	0.05
AROCLOR 1254	ND	0.05
AROCLOR 1260	ND	0.05

COMMENTS:

N.D. = NOT DETECTED AT OR ABOVE THE METHOD DETECTION LIMIT (MDL).
RESULTS ARE REPORTED ON DRY WEIGHT BASIS FOR SOIL ANALYSIS

PCB301S

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837, Tel: (908) 225-4111, Fax: (908) 225-4110

ANALYTICAL REPORT

PCB ANALYSIS BY GAS CHROMATOGRAPHY

CLIENT: CEH
CLIENT PROJECT: CON ED MASPETH
REPORT DATE : MAR. 18 1997
PROJECT RECEIPT DATE : 03/13/97

LAB ID:97-03-0224 -002
ANALYST KW
ANALYSIS DATE: 03/14/97
MATRIX : WATER

CLIENT SAMPLE DESIGNATION: MW-101

COMPOUND	RESULTS(UG/L)	MDL(UG/L)
AROCLOR 1016	ND	0.05
AROCLOR 1221	ND	0.05
AROCLOR 1232	ND	0.05
AROCLOR 1242	ND	0.05
AROCLOR 1248	ND	0.05
AROCLOR 1254	ND	0.05
AROCLOR 1260	ND	0.05

COMMENTS:

N.D. = NOT DETECTED AT OR ABOVE THE METHOD DETECTION LIMIT (MDL).
RESULTS ARE REPORTED ON DRY WEIGHT BASIS FOR SOIL ANALYSIS

PCB301S

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837, Tel: (908) 225-4111, Fax: (908) 225-4110

ANALYTICAL REPORT

PCB ANALYSIS BY GAS CHROMATOGRAPHY

CLIENT: CEH
CLIENT PROJECT: CON ED MASPETH
REPORT DATE : MAR. 18 1997
PROJECT RECEIPT DATE : 03/13/97

LAB ID:97-03-0224 -003
ANALYST KW
ANALYSIS DATE: 03/14/97
MATRIX : WATER

CLIENT SAMPLE DESIGNATION: MW-101F

COMPOUND	RESULTS(UG/L)	MDL(UG/L)
AROCLOR 1016	ND	0.05
AROCLOR 1221	ND	0.05
AROCLOR 1232	ND	0.05
AROCLOR 1242	ND	0.05
AROCLOR 1248	ND	0.05
AROCLOR 1254	ND	0.05
AROCLOR 1260	ND	0.05

COMMENTS:

N.D. = NOT DETECTED AT OR ABOVE THE METHOD DETECTION LIMIT (MDL).
RESULTS ARE REPORTED ON DRY WEIGHT BASIS FOR SOIL ANALYSIS

PCB301S

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837. Tel: (908) 225-4111. Fax: (908) 225-4110

ANALYTICAL REPORT

PCB ANALYSIS BY GAS CHROMATOGRAPHY

CLIENT: CEH
CLIENT PROJECT: CON ED MASPETH
REPORT DATE : MAR. 18 1997
PROJECT RECEIPT DATE : 03/13/97

LAB ID:97-03-0224 -004
ANALYST KW
ANALYSIS DATE: 03/14/97
MATRIX : WATER

CLIENT SAMPLE DESIGNATION: MW-102

COMPOUND	RESULTS(UG/L)	MDL(UG/L)
AROCLOR 1016	ND	0.05
AROCLOR 1221	ND	0.05
AROCLOR 1232	ND	0.05
AROCLOR 1242	ND	0.05
AROCLOR 1248	ND	0.05
AROCLOR 1254	ND	0.05
AROCLOR 1260	ND	0.05

COMMENTS:

N.D. = NOT DETECTED AT OR ABOVE THE METHOD DETECTION LIMIT (MDL).
RESULTS ARE REPORTED ON DRY WEIGHT BASIS FOR SOIL ANALYSIS

PCB301S

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ANALYTICAL REPORT

PCB ANALYSIS BY GAS CHROMATOGRAPHY

CLIENT: CEH
CLIENT PROJECT: CON ED MASPETH
REPORT DATE : MAR. 18 1997
PROJECT RECEIPT DATE : 03/13/97

LAB ID:97-03-0224 -005
ANALYST KW
ANALYSIS DATE: 03/14/97
MATRIX : WATER

CLIENT SAMPLE DESIGNATION: MW-102F

COMPOUND	RESULTS(UG/L)	MDL(UG/L)
AROCLOR 1016	ND	0.05
AROCLOR 1221	ND	0.05
AROCLOR 1232	ND	0.05
AROCLOR 1242	ND	0.05
AROCLOR 1248	ND	0.05
AROCLOR 1254	ND	0.05
AROCLOR 1260	ND	0.05

COMMENTS:

N.D. = NOT DETECTED AT OR ABOVE THE METHOD DETECTION LIMIT (MDL).
RESULTS ARE REPORTED ON DRY WEIGHT BASIS FOR SOIL ANALYSIS

PCB301S

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837, Tel. (908) 225-4111, Fax: (908) 225-4110

ANALYTICAL REPORT

PCB ANALYSIS BY GAS CHROMATOGRAPHY

CLIENT: CEH
CLIENT PROJECT: CON ED MASPETH
REPORT DATE : MAR. 18 1997
PROJECT RECEIPT DATE : 03/13/97

LAB ID:97-03-0224 -006
ANALYST KW
ANALYSIS DATE: 03/14/97
MATRIX : WATER

CLIENT SAMPLE DESIGNATION: DUPE

COMPOUND	RESULTS(UG/L)	MDL(UG/L)
AROCLOR 1016	ND	0.05
AROCLOR 1221	ND	0.05
AROCLOR 1232	ND	0.05
AROCLOR 1242	ND	0.05
AROCLOR 1248	ND	0.05
AROCLOR 1254	ND	0.05
AROCLOR 1260	ND	0.05

COMMENTS:

N.D. = NOT DETECTED AT OR ABOVE THE METHOD DETECTION LIMIT (MDL).
RESULTS ARE REPORTED ON DRY WEIGHT BASIS FOR SOIL ANALYSIS

PCB301S

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837, Tel: (908) 225-4111, Fax: (908) 225-4110

QUALITY CONTROL SUMMARY REPORTS

GC - EXTRACTABLE ORGANICS

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837. Tel. (908) 225-4111. Fax. (908) 225-4110

METHOD BLANK SUMMARY
PCB ANALYSIS BY GAS CHROMATOGRAPHY

LABORATORY: ANALAB, INC.
NJDEP LAB ID: 12531
MATRIX: AQUEOUS

ANALYSIS DATE:03/17/97
ANALYST: KW

COMPOUND	RESULTS (UG/L)	MDL (UG/L)
AROCLOR 1016	ND	0.05
AROCLOR 1221	ND	0.05
AROCLOR 1232	ND	0.05
AROCLOR 1242	ND	0.05
AROCLOR 1248	ND	0.05
AROCLOR 1254	ND	0.05
AROCLOR 1260	ND	0.05

COMMENTS:
MDL = METHOD DETECTION LIMIT.
< = RESULT IS LESS THAN THE METHOD DETECTION LIMIT (MDL).

301B
RH/

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837. Tel: (908) 225-4111. Fax. (908) 225-4110

QUALITY CONTROL SUMMARY
BLANK SPIKE RECOVERY REPORT
PCB ANALYSIS BY GAS CHROMATOGRAPHY

MATRIX: AQUEOUS

BATCH NUMBER:031397416301

PCB	CONCENTRATION (UG/L)	PERCENT RECOVERY FOR BLANK SPIKE
A1260	0.5	108

SPIKE RANGE: MIN = 20
MAX = 150

301BS
RH/dg

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837, Tel: (908) 225-4111, Fax: (908) 225-4110

MATRIX SPIKE RECOVERY REPORT
PCB ANALYSIS BY GAS CHROMATOGRAPHY

MATRIX: AQUEOUS

SAMPLE ID: 97-03-0224-002

PCB	CONCENTRATION (UG/L)	PERCENT RECOVERY MS	PERCENT RECOVERY MSD	RPD
A1260	0.5	117	105	11

ANALYTICAL FLAG KEY:

BS = BLANK SPIKE
BSD = BLANK SPIKE DUPLICATE
RPD = RELATIVE PERCENT DIFFERENCE

RECOVERY RANGE: MIN = 20
MAX = 150
RPD = 45

301BSBSD
RH/dg

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837, Tel: (908) 225-4111, Fax. (908) 225-4110

QUALITY CONTROL SUMMARY
PCB SURROGATE PERCENT RECOVERY TABLE

MATRIX: **AQUEOUS**

SAMPLE DESIGNATION	DECACHLORO-BIPHENYL (DCB)%	TCMX %
METHOD BLANK	95	100
BLANK SPIKE	103	106
97-03-0224-1 MS	106	100
97-03-0224-1 MSD	95	90
97-03-0224-1	78	76
97-03-0224-2	66	82
97-03-0224-3	58	61
97-03-0224-4	71	71
97-03-0224-5	78	74
97-03-0224-6	78	88

ANALYTICAL FLAG KEY:

* RECOVERY NOT WITHIN THE ADVISORY LIMITS
D = DILUTED OUT
IND = INDETERMINANT DUE TO MATRIX INTERFERENCE

ADVISORY LIMITS:
Soil Range = 20-150
Water Range = 24-154

312PCBS
RH/

ANALAB, INC. 205 Campus Plaza, Edison, New Jersey 08837 (908)225-4111

New Hampshire
Department of Environmental Services
Environmental Laboratory Certificates of Approval

This information is supplied to conform to NHDES Regulatory Requirements.

The State of New Hampshire
Department of Environmental Services

CERTIFICATE OF APPROVAL
Drinking Water Analysis

Issued to
ANALAB, Inc.

Located at

205 Campus Plaza 1, Edison, NJ

Under the provisions of the Regulations in Env-C300 for the following analyses:

FULL CERTIFICATION: Metals by Flame AA, Metals by Graphite Furnace, Mercury, Total Filterable Residue, Sodium, Total Cyanide, and Herbicides (Compliance List).

PROVISIONAL CERTIFICATION: Insecticides (Limited List).

CERTIFICATE NUMBER: 255497-A

DATE OF ISSUE: January 31, 1997

Certifying Officer

EXPIRATION DATE: January 30, 1998

025

The State of New Hampshire
Department of Environmental Services

CERTIFICATE OF APPROVAL
Wastewater Analysis

Issued to
ANALAB, Inc.

Located at

205 Campus Plaza 1, Edison, NJ

Under the provisions of the Regulations in Env-C300 for the following analyses:

FULL CERTIFICATION: Metals by Flame AA, Metals by Graphite Furnace, Mercury, pH, Specific Conductivity, TDS, Total Alkalinity, Chloride, Fluoride, Sulfate, Non-Filterable Residue, Oil & Grease, PCBs in Oil, and Pesticides.

PROVISIONAL CERTIFICATION: Total Hardness, Calcium, Magnesium, Sodium, Potassium, Ammonia-N, Nitrate-N, Orthophosphate, Total Phosphorus, COD, TOC, BOD, Total Cyanide, Total Phenolics, PCBs in Water, and Volatile Organics.

CERTIFICATE NUMBER: 250 97-B

DATE OF ISSUE: January 31, 1997

Charles M. Rowe
Certifying Officer

EXPIRATION DATE: January 30, 1998

026

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837, Tel. (908) 225-4111, Fax. (908) 225-4110

END ANALYTICAL REPORT

Con Edison

Consolidated Edison Company of New York, Inc.
4 Irving Place, New York, NY 10003

Mod #1

CONTRACT ORDER PAGE 1

CURRENT DATE 10/24/96

PURCHASE ORDER NUMBER 615464
PURCHASE ORDER DATE 10/24/96
PURCHASE REQ. NUMBER 696-A 0027
VENDOR CODE 0000
AUTHORIZED DOLLARS $8000
BIDDING ORDER
ACCOUNT NUMBER 5455
STATISTICS 172

TO: CASWELL EICHLER & HILL INC
27 CONGRESS STREET
POST OFFICE BOX 4496
PORTSMOUTH NH 03802-4496

SHIP TO:
ASTORIA T&S 13A
31-01 20TH AVENUE 615464
L.I.C. NY 11105
BARRY B. COHEN

MAIL ORIGINAL INVOICES TO
CON EDISON ACCOUNTS PAYABLE
P.O. BOX 777
COOPER STATION
NEW YORK N.Y. 10276
(212) 460-3510

BUYER: ROBERT PEREZ 212-460-3045 344-1

CASWELL, EICHLER & HILL, INC. ("CEH") OF PORTSMOUTH, N.H. SHALL INSTALL, DEVELOP, AND SAMPLE THE GROUNDWATER IN THREE MONITORING WELLS AT THE FORMER MASPETH SUBSTATION. ALL SAMPLES SHALL BE ANALYZED FOR PCBS AT A DETECTION LIMIT OF 0.045 PPB.

WORK SHALL BE PERFORMED IN ACCORDANCE WITH

1. FAXED INVITATION DATED SEPTEMBER 13, 1996.

2. CON EDISON'S STANDARD TERMS AND CONDITIONS FOR SERVICE CONTRACTS, DATED AUGUST 16, 1988.

3. CON EDISON'S INSURANCE REQUIREMENTS DATED MARCH 1, 1991.

4. CEH BID DATED SEPTEMBER 13, 1996 AND LETTER DATED OCTOBER 14 1996.

5. THE RULINGS OF ALL REGULATORY AGENCIES HAVING JURISDICTION.

CONTRACT TYPE

THIS IS A UNIT PRICE CONTRACT.

UNIT PRICES

THE FOLLOWING UNIT PRICES ARE ALL INCLUSIVE AND INCLUDE SUCH ITEMS AS LABOR, SUPERVISION, TRAVEL, PER DIEM, PROFESSIONAL SERVICES, CLERICAL SERVICES, OFFICE EXPENSES, INSURANCE, OVERHEAD, AND PROFIT.

SITE VISIT	$340
HSA DRILLER MOB & DEMOB	$158
4" - HSA	$37/FOOT

SUBJECT TO THE CONDITIONS ON THE REVERSE SIDE HEREOF

PURCHASE ORDER NUMBER 4154A4 CURRENT DATE 10/24/96

2" PVC MONITORING WELLS		$27/FOOT
FOR SAMPLE ANALYSIS (0.005 PPB)		$35 EACH
SPLIT SPOON SAMPLES		$17 EACH
SAMPLING REPORT		$575
LOW FLOW DEVELOPMENT		$700/DAY
LOW FLOW PURGING AND SAMPLING		$700/DAY
DEDICATED POLYETHYLENE TUBING		$0.40/FOOT
DOT DRUMS		$50 EACH
GAS-POWERED GENERATOR	1 DAY	$50
	2 DAYS	$100
	3 DAYS	$125
	4-5 DAYS	$200

NOTE: WATER IS AVAILABLE, HOWEVER, CEH SHALL SUPPLY THE NECESSARY HOSE LENGTHS.

CON EDISON WILL BE REPRESENTED IN THE ADMINISTRATION OF THIS CONTRACT BY BARRY H. COHEN, 718-204-4236, FAX: 718-752-2487.

CEH SHALL CONTACT MR. COHEN BEFORE STARTING ANY WORK ON THIS PROJECT.

CORRESPONDENCE, QUESTIONS, AND THE SAMPLING REPORT SHALL BE SENT TO MR. COHEN AT ASTORIA T&S BLDG 136, 31-01 20TH AVENUE, ASTORIA, N.Y. 11105.

CEH WILL BE REPRESENTED BY DAVID B. HILL, 603-431-4699, FAX: 603-431-4982.

CEH SHALL COMPLY WITH CON EDISON'S INSURANCE REQUIREMENTS DATED MARCH 1, 1991.

IF NOT CURRENTLY ON FILE, COPIES OF WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY INSURANCE, COMPREHENSIVE LIABILITY INSURANCE INCLUDING CONTRACTUAL LIABILITY AND AUTOMOTIVE LIABILITY INSURANCE WITH THE COVERAGE AND LIMITS REQUIRED BY CON EDISON SHALL BE SUBMITTED DIRECTLY TO CON EDISON'S ADMINISTRATIVE SERVICES SECTION, ROOM 1207-S, FOR APPROVAL BEFORE PROCEEDING WITH THE WORK. ALSO STATE THIS ORDER NUMBER ON YOUR CERTIFICATE OR ANY CORRESPONDENCE RELATED TO THIS ORDER.

EXPENDITURE LIMITATION - THE MAXIMUM EXPENDITURE AUTHORIZED UNDER THIS PURCHASE AGREEMENT IS $0,000. CON EDISON WILL NOT BE OBLIGATED TO MAKE PAYMENT HEREUNDER IN EXCESS OF THE EXPENDITURE LIMITATION AND THE VENDOR SHALL NOT BE OBLIGATED TO CONTINUE PERFORMANCE UNLESS AND UNTIL AN INCREASE HAS BEEN AUTHORIZED BY MEANS OF A DULY EXECUTED MODIFICATION TO THIS PURCHASE ORDER.

Con Edison
Consolidated Edison Company of New York, Inc.
4 Irving Place, New York, NY 10003

PURCHASE ORDER NUMBER 615464 CURRENT DATE 10/24/90

PAYMENT

INVOICES SHALL BE SUBMITTED MONTHLY FOR WORK COMPLETED DURING SUCH PERIOD. PAYMENT WILL BE MADE 30 DAYS AFTER RECEIPT OF AN ACCEPTABLE INVOICE BY CON EDISON.

TO EXPEDITE PAYMENT, IN ADDITIONS TO SENDING YOUR ORGINAL INVOICES TO ACCOUNTS PAYABLE, PLEASE SEND A COPY TO MR. COHEN.

ACCEPTED AND AGREED TO BY CASWELL, EICHLER & HELL, INC.

NAME: _____

TITLE: _____

DATE: _____

KINDLY RETURN A SIGNED COPY OF THIS PURCHASE ORDER TO THE BUYER.

SHIPPING TERMS:
NOT APPLICABLE

PAYMENT TERMS:
NET 30 DAY

PAYMENT TO ABOVE VENDOR ONLY

BY _____
FOR CON EDISON

TOTAL PAGES

SUBJECT TO THE CONDITIONS ON THE REVERSE SIDE HEREOF

NO. 6-194A (12-84) 852-4078

NY STATE SALES & USE TAX - EFFECTIVE AUG. 1, 1965 CON EDISON DIRECT PAYMENT PERMIT NO. DP000025 CON EDISON IDENTIFICATION NUMBER 1250000

Jacques Whitford Company, Inc.

BOREHOLE RECORD

SB-1

CLIENT Consolidated Edison Company of NY

PROJECT No. NHP96280

LOCATION Con Ed - Maspeth, NY

BOREHOLE No. SB-1

DATES: BORING 03/31/99

WATER LEVEL

DATUM

DEPTH (ft)	ELEVATION (ft)	SOIL DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES RECOVERY ins	SAMPLES N-VALUE OR ROD	OTHER TESTS PID ppm
0									
3		Loose to very loose brown fine SAND, some silt, moist (Fill)			SS	1	6	4	1.7
5		- Becomes very loose			SS	2	12	3	23
7		Compact to very dense grayish brown fine SAND, some silt, trace gravel, moist			SS	3	18	12	7
10		- Petroleum odor observed 9 to 15 feet			SS	4	18	30	25
12					SS	5	15	78	31
14					SS	6	12	35	33
15		- Becomes wet		▽ 14'					
16					SS	7	8	58	65
17		End of borehole							
19		Notes: Borehole was hand dug to 3 feet. Sample numbers 5 & 7 submitted for PCBs, VOC, & SVOC lab analysis.							
21									
23									
25									

STRENGTH TESTS - ksf

1 2 3 4

WATER CONTENT & ATTERBERG LIMITS W_P W W_L

STANDARD PENETRATION TEST, BLOWS/1 ft. ●

10 20 30 40 50 60 70 80

△ Undisturbed Field Vane Test

★ Pocket Penotrometer

Jacques Whitford Company, Inc.

BOREHOLE RECORD

SB-2

CLIENT Consolidated Edison Company of NY

LOCATION Con Ed - Maspeth, NY

DATES: BORING 04/01/99 WATER LEVEL

PROJECT No. NHP96280

BOREHOLE No. SB-2

DATUM

DEPTH (ft)	ELEVATION (ft)	SOIL DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES RECOVERY ins	SAMPLES N-VALUE OR RQD	OTHER TESTS PID ppm
0									
4		Very loose to compact brown fine SAND, some silt, moist (FILL)			SS	1	12	6	28
6					SS	2	24	3	24
8		- little gravel			SS	3	12	14	45
10					SS	4	18	26	23
12		Dense to very dense grayish brown fine SAND, some silt, little gravel, moist - Visible sheen from 11 to 13 feet			SS	5	18	43	28
14					SS	6	18	63	43
15		- Becomes wet		▽ (11)					
16					SS	7	6	120/3"	44
17		End of borehole							
19									
21		Notes: Borehole was hand dug to 3 feet. Sample numbers 5 & 7 submitted for PCBs, VOC, & SVOC lab analysis.							
23									
25									

STRENGTH TESTS - ksf

1 2 3 4

WATER CONTENT & ATTERBERG LIMITS W_P W W_L

STANDARD PENETRATION TEST, BLOWS/1 ft. •

10 20 30 40 50 60 70 80

△ Undisturbed Field Vane Test

★ Pocket Penotrometer

Jacques Whitford Company, Inc.

BOREHOLE RECORD

SB-3

CLIENT Consolidated Edison Company of NY

LOCATION Con Ed - Maspeth, NY

DATES: BORING 04/02/99 WATER LEVEL

PROJECT No. NHP96280

BOREHOLE No. SB-3

DATUM

DEPTH (ft)	ELEVATION (ft)	SOIL DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES RECOVERY ins	SAMPLES N-VALUE OR RQD	OTHER TESTS PID ppm
0									
3		Compact to loose brown fine SAND, some silt, little gravel, moist (Fill)			SS	1	12	12	37
6		Loose to dense grayish brown fine SAND, some silt, moist			SS	2	18	4	36
8					SS	3	24	19	50
10					SS	4	18	39	(64)
12					SS	5	12	36	52
14				▽	SS	6	15	46	(55)
15		End of borehole							
25		Notes: Borehole was hand dug to 3 feet. Sample numbers 4 & 6 were submitted for PCBs, VOC, & SVOC lab analysis							

STRENGTH TESTS - ksf

1 2 3 4

WATER CONTENT & ATTERBERG LIMITS W_P W W_L

STANDARD PENETRATION TEST, BLOWS/1 ft. ●

10 20 30 40 50 60 70 80

△ Undisturbed Field Vane Test

★ Pocket Penotrometer

□ Torvane Test

Jacques Whitford Company, Inc.

BOREHOLE RECORD

SB-4

CLIENT Consolidated Edison Company of NY

LOCATION Con Ed - Maspeth, NY

DATES: BORING 03/30/99 WATER LEVEL

PROJECT No. NHP96280

BOREHOLE No. SB-4

DATUM

DEPTH (ft)	ELEVATION (ft)	SOIL DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES RECOVERY ins	SAMPLES N-VALUE OR ROD	OTHER TESTS PID ppm
0		Loose brown fine to medium SAND, little gravel, moist (Fill)			SS	1	12	9	4
2		Loose brown fine to medium SAND, some silt, moist (Fill)			SS	2	12	7	6
4					SS	3	18	7	6
6		- Petroleum odor observed 6 to 8 feet			SS	4	12	7	8.1
8		Compact to very dense grayish brown fine SAND, some silt, trace gravel, moist			SS	5	14	12	9.2
10					SS	6	12	28	8.2
12					SS	7	15	55	19
14		- Becomes wet		14	SS	8	12	24	20
16		End of borehole							
18									
20		Notes: Sample numbers 7 & 8 were submitted for PCBs, VOC, & SVOC laboratory analysis.							
22									
24									
25									

STRENGTH TESTS - ksf

1 2 3 4

WATER CONTENT & ATTERBERG LIMITS W_P W W_L

STANDARD PENETRATION TEST, BLOWS/1 ft. ●

10 20 30 40 50 60 70 80

△ Undisturbed Field Vane Test

★ Pocket Penotrometer

□ Torvane Test

Sheet 1 of 1

Jacques Whitford Company, Inc.

BOREHOLE RECORD

SB-5

CLIENT Consolidated Edison Company of NY

LOCATION Con Ed - Maspeth, NY

DATES: BORING 03/30/99 WATER LEVEL

PROJECT No. NHP96280

BOREHOLE No. SB-5

DATUM

DEPTH (ft)	ELEVATION (ft)	SOIL DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES RECOVERY ins	SAMPLES N-VALUE OR RQD	OTHER TESTS PID ppm
0		Concrete							
2		Compact gray fine to coarse SAND, some gravel, moist, petroleum (Fill) - Petroleum odor observed to 5 feet			SS	1	6	12	34
5		Loose gray fine to medium SAND, some silt, moist (Fill)			SS	2	18	4	26
7		Dense to compact grayish brown fine to medium SAND, little to some silt, moist - Petroleum odor observed from 9 to 13 feet			SS	3	12	41	8
9					SS	4	12	32	16
12					SS	5	12	28	18
14					SS	6	8	32	21
15		- Becomes wet		▽ 11½	SS	7	8	23	20
17					SS	8	12	27	26
19		End of borehole							
20		Notes: Hand dug from 1.5 to 3 feet. Sample numbers 1 & 7 submitted for PCBs, VOC, & SVOC lab analysis.							
21									
23									
25									

STRENGTH TESTS - ksf

1 2 3 4

WATER CONTENT & ATTERBERG LIMITS W_P W W_L

STANDARD PENETRATION TEST, BLOWS/1 ft. ●

10 20 30 40 50 60 70 80

△ Undisturbed Field Vane Test

★ Pocket Penotrometer

□ Torvane Test

Jacques Whitford Company, Inc.

BOREHOLE RECORD

SB-6

CLIENT Consolidated Edison Company of NY
PROJECT No. NHP96280
LOCATION Con Ed - Maspeth, NY
BOREHOLE No. SB-6
DATES: BORING 03/30/99
WATER LEVEL
DATUM

DEPTH (ft)	ELEVATION (ft)	SOIL DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES RECOVERY (ins)	SAMPLES N-VALUE OR RQD	OTHER TESTS PID ppm
0		Concrete							
2		Compact to very dense grayish brown SAND, little gravel, little silt, moist (Fill)			SS	~~8~~ 1	~~30~~ 8	14	30
5					SS	~~12~~ 2	~~33~~ 12	11	33
7		- Petroleum odor observed from 7 to 9 feet			SS	~~12~~ 3	~~26~~ 12	70	26
9		Soft to firm grayish brown silty CLAY, moist			SS	~~18~~ 4	~~32~~ 18	2	32
12					SS	~~18~~ 5	~~11~~ 18	8	11
14		- 1 foot layer of compact grayish brown fine to medium SAND from 14 to 15 feet		▽	SS	~~18~~ 6	~~10~~ 18	29	10
16		- Becomes wet			SS	~~18~~ 7	~~21~~ 18	10	21
17		Compact to dense brown to grayish brown fine to medium SAND, some silt, wet			SS	~~12~~ 8	~~24~~ 12	41	24
19		End of borehole							
20		Notes: Borehole was hand dug from 2 to 3 feet. Samples 4 & 7 submitted for PCBs, VOC, & SVOC lab analysis.							

STRENGTH TESTS - ksf
1 2 3 4
WATER CONTENT & ATTERBERG LIMITS W_P W W_L
STANDARD PENETRATION TEST, BLOWS/1 ft. ●
10 20 30 40 50 60 70 80

△ Undisturbed Field Vane Test
★ Pocket Penetrometer
□ Torvane Test

Sheet ___ of ___

JACQUES WHITFORD COMPANY, INC.

BOREHOLE RECORD SB-7 = MW-202

CLIENT Consolidated Edison Company of NY — PROJECT No. NHP96280

LOCATION Con Ed - Maspeth, NY — BOREHOLE No. MW-202

DATES: BORING 03-31-99 — WATER LEVEL — DATUM

DEPTH (ft)	ELEV. (ft)	SOIL DESCRIPTION	STRATA PLOT	WATER LEVEL	WELL CONSTRUCTION	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES RECOVERY ins	SAMPLES N-VALUE OR ROD	PHOTO-ION DETECTOR (ppm)
0		Loose brown silty fine SAND, moist (Fill)			Concrete/ Road box	SS	1	18	6	7.7
2		Loose gray fine to coarse SAND, little gravel, moist (Fill)			Bentonite seal / Sand	SS	2	8	8	37
4		Loose gray fine SAND, some silt, moist (Fill)			PVC screen/ Sand	SS	3	18	4	21
6		Compact gray fine to coarse SAND, little gravel, moist (Fill)				SS	4	8	11	26
8		- Seam of silty SAND from 7.8 to 8 feet Compact to dense gray to grayish brown fine to medium SAND, little to some silt, little gravel, moist				SS	5	18	22	16
10		- Petroleum odor observed from 8 to 10 feet				SS	6	18	20	29
12						SS	7	12	20	24
14						SS	8	12	21	18
16		- Becomes wet		▽		SS	9	12	42	(18)
18						SS	10	18	44	19
20						SS	11	12	34	(24)
22						SS	12	6	50	14
24		End of borehole Sample numbers 9 & 11 submitted for PCBs, VOC & SVOC lab analysis								
26										

Jacques Whitford Company, Inc.

BOREHOLE RECORD

SB-8

CLIENT Consolidated Edison Company of NY

LOCATION Con Ed - Maspeth, NY

DATES: BORING 03/31/99 WATER LEVEL

PROJECT No. NHP96280

BOREHOLE No. SB-8

DATUM

DEPTH (ft)	ELEVATION (ft)	SOIL DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES RECOVERY ins	SAMPLES N-VALUE OR RQD	OTHER TESTS PID ppm
0		Concrete							
1									
2		Loose brown fine to coarse SAND, little gravel, moist (Fill)							
4					SS	1	12	9	88
6		Very loose to loose grayish brown fine to medium SAND, some gravel, little silt, moist (Fill)			SS	2	8	3	67
8					SS	3	1	9	25
10		Compact to dense grayish brown fine SAND, some silt, little gravel, moist - Petroleum odor observed from 9 to 17 feet			SS	4	14	27	73
12					SS	5	12	39	150
14					SS	6	8	33	63
15		- Becomes wet		▽ 11'	SS	7	12	32	65
17					SS	8	8	33	32
19		End of borehole							
21		Borehole was hand dug from 1.5 to 3 feet. Sample numbers 5 & 7 submitted for PCBs, VOC, & SVOC lab analysis.							
23									
25									

STRENGTH TESTS - ksf

1 2 3 4

WATER CONTENT & ATTERBERG LIMITS W_P W W_L

STANDARD PENETRATION TEST, BLOWS/1 ft. ●

10 20 30 40 50 60 70 80

△ Undisturbed Field Vane Test

★ Pocket Penotrometer

□ Torvane Test

Jacques Whitford Company, Inc.

BOREHOLE RECORD

SB-9

CLIENT Consolidated Edison Company of NY
LOCATION Con Ed - Maspeth, NY
DATES: BORING 03/31/99 WATER LEVEL

PROJECT No. NHP96280
BOREHOLE No. SB-9
DATUM

DEPTH (ft)	ELEVATION (ft)	SOIL DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES RECOVERY ins	SAMPLES N-VALUE OR RQD	OTHER TESTS PID ppm
0		Concrete							
1									
2									
3		Loose brown fine to coarse SAND, some gravel, moist (Fill)			SS	1	12	7	6
4									
5		Loose grayish brown to olive gray fine SAND, some silt, trace gravel, moist (Fill)			SS	2	24	4	4
6									
7		Dense to very dense grayish brown fine SAND, some silt, seams of fine to medium sand -Petroleum odor observed from 7 to 9 feet			SS	3	12	26	15
8									
9					SS	4	24	36	80
10									
11		- Slight petroleum odor from 11 to 13 feet			SS	5	6	139	110
12									
13				▽ 11	SS	6	8	55	45
14									
15		End of borehole							
16									
17									
18									
19									
20		Borehole was hand dug from 1.5 to 3 feet. Sample numbers 3 & 6 were submitted for PCBs, VOC, and SVOC lab analysis.							
21									
22									
23									
24									
25									

STRENGTH TESTS - ksf
1 2 3 4
WATER CONTENT & ATTERBERG LIMITS W_P W W_L
STANDARD PENETRATION TEST, BLOWS/1 ft. ●
10 20 30 40 50 60 70 80

△ Undisturbed Field Vane Test
★ Pocket Penotrometer
□ Torvane Test

Jacques Whitford Company, Inc.

BOREHOLE RECORD

SB-10

CLIENT Consolidated Edison Company of NY

LOCATION Con Ed - Maspeth, NY

DATES: BORING 04/01/99 WATER LEVEL

PROJECT No. NHP96280

BOREHOLE No. SB-10

DATUM

DEPTH (ft)	ELEVATION (ft)	SOIL DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES RECOVERY ins	SAMPLES N-VALUE OR RQD	OTHER TESTS PID ppm
0		Concrete							
4		Loose grayish brown fine to coarse SAND, moist (Fill)			SS	1	18	3	115
8		Very loose gray silty fine SAND, moist (Fill)			SS	2	18	2	180
					SS	3	18	4	57
10		Compact to dense gray to grayish brown fine to medium SAND, some silt, trace to little gravel, moist			SS	4	12	21	84
12					SS	5	12	38	67
14					SS	6	12	41	118
15		- Becomes wet		▽					
16					SS	7	12	39	87
18					SS	8	18	23	87
19		End of borehole Borehole was hand dug from 1.5 to 3 feet. Sample numbers 2 & 7 submitted for PCBs, VOC, & SVOC lab analysis.							

STRENGTH TESTS - ksf

1 2 3 4

WATER CONTENT & ATTERBERG LIMITS W_P W W_L

STANDARD PENETRATION TEST, BLOWS/1 ft. ●

10 20 30 40 50 60 70 80

△ Undisturbed Field Vane Test

★ Pocket Penetrometer

□ Torvane Test

Jacques Whitford Company, Inc.

BOREHOLE RECORD

SB-11

CLIENT Consolidated Edison Company of NY

LOCATION Con Ed - Maspeth, NY

DATES: BORING 04/01/99 WATER LEVEL 04/01/99

PROJECT No. NHP96280

BOREHOLE No. SB-11

DATUM

DEPTH (ft)	ELEVATION (ft)	SOIL DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES RECOVERY (ins)	SAMPLES N-VALUE OR RQD	OTHER TESTS PID ppm
0									
3		Loose gray fine SAND, some silt, moist (Fill)			SS	1	12	6	45
6		- Petroleum odor observed from 5 to 13 feet			SS	2	12	10	42
8		Compact to very dense gray fine to medium SAND, some silt, some gravel, moist			SS	3	12	30	57
10					SS	4	12	51	45
12					SS	5	14	26	36
14		Compact to dense grayish brown fine to medium SAND, little to some silt, little gravel, wet		▽ 11'	SS	6	18	22	45
16					SS	7	12	23	22
18					SS	8	12	39	37
19		End of borehole Borehole was hand dug to 3 feet. Sample numbers 3 & 6 submitted for PCBs, VOC, & SVOC laboratory analysis.							

STRENGTH TESTS - ksf

1 2 3 4

WATER CONTENT & ATTERBERG LIMITS W_P W W_L

STANDARD PENETRATION TEST, BLOWS/1 ft. ●

10 20 30 40 50 60 70 80

△ Undisturbed Field Vane Test

★ Pocket Penotrometer

□ Torvane Test

Jacques Whitford Company, Inc.

BOREHOLE RECORD

SB-12

CLIENT Consolidated Edison Company of NY — PROJECT No. NHP96280

LOCATION Con Ed - Maspeth, NY — BOREHOLE No. SB-12

DATES: BORING 03/30/99 — WATER LEVEL — DATUM

DEPTH (ft)	ELEVATION (ft)	SOIL DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES RECOVERY ins	SAMPLES N-VALUE OR RQD	OTHER TESTS PID ppm
0		Concrete							
3		Very loose to compact brown fine to medium SAND, some silt, some gravel, moist (Fill)			SS	1	8	5	7.6
6					SS	2	18	3	3.0
8					SS	3	2	26	6.1
9		Compact olive gray to olive brown fine to medium SAND, some silt, trace gravel, wet - Petroleum odor from 9 to 11 feet		▽ 11	SS	4	18	17	(29)
12					SS	5	18	27	21
13		Compact to dense brown to grayish brown fine to medium SAND, some silt, trace to little gravel, wet			SS	6	18	28	(15)
16					SS	7	1	32	46
18					SS	8	15	37	5.5
20					SS	9	18	41	13
21		End of borehole Borehole was hand dug from 2.5 to 3 feet. Sample numbers 4 & 6 submitted for PCBs, VOC & SVOC lab analysis.							

STRENGTH TESTS - ksf: 1 2 3 4

WATER CONTENT & ATTERBERG LIMITS W_P W W_L

STANDARD PENETRATION TEST, BLOWS/1 ft. ●

10 20 30 40 50 60 70 80

△ Undisturbed Field Vane Test
★ Pocket Penotrometer
□ Torvane Test

JACQUES WHITFORD COMPANY, INC.

BOREHOLE RECORD

SB-13=MW-201

CLIENT Consolidated Edison Company of NY

LOCATION Con Ed - Maspeth, NY

DATES: BORING 03-30-99 WATER LEVEL

PROJECT No. NHP96280

BOREHOLE No. MW-201

DATUM

DEPTH (ft)	ELEV. (ft)	SOIL DESCRIPTION	STRATA PLOT	WATER LEVEL	WELL CONSTRUCTION	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES RECOVERY ins	SAMPLES N-VALUE OR RQD	PHOTO-ION DETECTOR (ppm)
0		Concrete			Concrete/ Road box					
2					Bentonite/ Sand layers					
3		Very loose brown fine to medium SAND, some gravel, moist (Fill)				SS	1	12	2	4.3
4					Bentonite seal					
5		Compact gray silty SAND, moist				SS	2	12	12	18
7		Compact to dense olive gray silty fine SAND, little to some gravel, moist			Sand	SS	3	12	21	(23)
9				▽						
10		- Becomes wet			PVC screen/ Sand	SS	4	24	33	(25)
11						SS	5	12	24	19
13										
15		Dense to very dense olive gray fine to coarse SAND, some silt, some gravel, wet				SS	6	12	36	(26)
17						SS	7	8	62	11
19						SS	8	12	32	15
21						SS	9	6	43	(15)
23										
24		End of borehole								
25		Borehole was hand dug to 3 feet. Sample numbers 3, 4, 6 & 9 submitted for PCBs, VOC & SVOC lab analysis.								
27										

Jacques Whitford Company, Inc.

BOREHOLE RECORD

SB-14

CLIENT Consolidated Edison Company of NY

PROJECT No. NHP96280

LOCATION Con Ed - Maspeth, NY

BOREHOLE No. SB-14

DATES: BORING 04/01/99

WATER LEVEL

DATUM

DEPTH (ft)	ELEVATION (ft)	SOIL DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES RECOVERY ins	SAMPLES N-VALUE OR RQD	OTHER TESTS PID ppm
0		Compact brown fine SAND, some silt, moist (Fill)			SS	1	6	27	10
1		- Septic odor							
2		Boring terminated due to concrete lined pipe.							
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
17									
19									
21									
23									
25									

STRENGTH TESTS - ksf

1 2 3 4

WATER CONTENT & ATTERBERG LIMITS W_P W W_L

STANDARD PENETRATION TEST, BLOWS/1 ft. ●

10 20 30 40 50 60 70 80

△ Undisturbed Field Vane Test

★ Pocket Penetrometer

Jacques Whitford Company, Inc.

BOREHOLE RECORD

SB-14A

CLIENT Consolidated Edison Company of NY

LOCATION Con Ed - Maspeth, NY

DATES: BORING 04/01/99 WATER LEVEL

PROJECT No. NHP96280

BOREHOLE No. SB-14A

DATUM

DEPTH (ft)	ELEVATION (ft)	SOIL DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES RECOVERY ins	SAMPLES N-VALUE OR RQD	OTHER TESTS PID ppm
0		Concrete							
2									
6		Loose gray fine silty SAND, saturated			SS	1	8	9	26
8		Compact gray fine to medium SAND, little silt, little gravel, dry			SS	2	12	29	29
10		Boring terminated due to affects of a concrete discharge line							
21		Borehole was hand dug from 2 to 5 feet. Sample numbers 1 & 2 submitted for PCBs, VOC & SVOC lab anlysis.							

STRENGTH TESTS - ksf

1 2 3 4

WATER CONTENT & ATTERBERG LIMITS W_P W W_L

STANDARD PENETRATION TEST, BLOWS/1 ft. ●

10 20 30 40 50 60 70 80

△ Undisturbed Field Vane Test

★ Pocket Penotrometer

□ Torvane Test

Jacques Whitford Company, Inc.

BOREHOLE RECORD

SB-15

CLIENT Consolidated Edison Company of NY

LOCATION Con Ed - Maspeth, NY

DATES: BORING 03/31/99 WATER LEVEL

PROJECT No. NHP96280

BOREHOLE No. SB-15

DATUM

DEPTH (ft)	ELEVATION (ft)	SOIL DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES RECOVERY ins	SAMPLES N-VALUE OR RQD	OTHER TESTS PID ppm
0		Concrete							
1									
2									
3									
4									
5		Boring terminated due to pipes along sides of borehole at 3 and 4.5 feet							
6									
7									
8									
9									
10		Borehole was hand dug from 2 to 5 feet. No samples were collected.							
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									

STRENGTH TESTS - ksf

1 2 3 4

WATER CONTENT & ATTERBERG LIMITS W_P W W_L

STANDARD PENETRATION TEST, BLOWS/1 ft. ●

10 20 30 40 50 60 70 80

△ Undisturbed Field Vane Test

★ Pocket Penetrometer

□ Torvane Test

Jacques Whitford Company, Inc.

BOREHOLE RECORD

SB-16

CLIENT Consolidated Edison Company of NY

PROJECT No. NHP96280

LOCATION Con Ed - Maspeth, NY

BOREHOLE No. SB-16

DATES: BORING 03/31/99 WATER LEVEL

DATUM

DEPTH (ft)	ELEVATION (ft)	SOIL DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES RECOVERY ins	SAMPLES N-VALUE OR RQD	OTHER TESTS PID ppm
0		Concrete							
2		Loose gray fine to coarse SAND, little gravel, moist (Fill)			SS	1	6	5	16
5		Loose to compact brown fine SAND, some silt, moist (Fill)			SS	2	8	5	14
8		Compact gray fine to medium SAND, moist - Petroleum odor observed from 9 to 11 feet			SS	3	18	16	15
10					SS	4	12	19	(36)
12					SS	5	18	25	26
13		Compact to dense brown fine SAND, some silt, little gravel, moist			SS	6	18	28	11
16				▽	SS	7	15	39	12
17		Compact grayish brown fine to coarse SAND, little silt, little gravel, wet			SS	8	12	28	(10)
19		End of borehole Borehole hand dug from 2 to 3 feet. Sample numbers 4 & 8 submitted for PCBs, VOC & SVOC lab analysis.							
25									

STRENGTH TESTS - ksf

1 2 3 4

WATER CONTENT & ATTERBERG LIMITS W_P W W_L

STANDARD PENETRATION TEST, BLOWS/1 ft. ●

10 20 30 40 50 60 70 80

△ Undisturbed Field Vane Test

★ Pocket Penotrometer

□ Torvane Test

Jacques Whitford Company, Inc.

BOREHOLE RECORD

SB-17

CLIENT Consolidated Edison Company of NY

LOCATION Con Ed - Maspeth, NY

DATES: BORING 03/30/99 WATER LEVEL

PROJECT No. NHP96280

BOREHOLE No. SB-17

DATUM

DEPTH (ft)	ELEVATION (ft)	SOIL DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES RECOVERY ins	SAMPLES N-VALUE OR RQD	OTHER TESTS PID ppm
0		Concrete							
2		Very loose brown fine to medium SAND, little gravel, moist (Fill)			SS	1	6	2	65
5					SS	2	6	2	7.5
6		Loose brown fine SAND, some silt, moist (Fill) - Petroleum odor was observed from 6 to 8 feet			SS	3	18	6	(47)
8		Dense to compact brown fine to medium SAND, some silt, trace gravel, wet		▽	SS	4	15	34	31
10					SS	5	17	26	(45)
12		End of borehole							
25		Borehole was hand dug from 1.5 to 2 feet. Sample numbers 3 & 5 submitted for PCBs, VOC & SVOC lab analysis.							

STRENGTH TESTS - ksf

1 2 3 4

WATER CONTENT & ATTERBERG LIMITS W_P W W_L

STANDARD PENETRATION TEST, BLOWS/1 ft. ●

10 20 30 40 50 60 70 80

△ Undisturbed Field Vane Test

★ Pocket Penotrometer

□ Torvane Test

Sheet 1 of 1

Jacques Whitford Company, Inc.

BOREHOLE RECORD

SB-18

CLIENT Consolidated Edison Company of NY

LOCATION Con Ed - Maspeth, NY

DATES: BORING 03/31/99 WATER LEVEL

PROJECT No. NHP96280

BOREHOLE No. SB-18

DATUM

DEPTH (ft)	ELEVATION (ft)	SOIL DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES RECOVERY ins	SAMPLES N-VALUE OR RQD	OTHER TESTS PID ppm
0		Concrete							
2		Very loose brown fine to coarse SAND, some gravel, moist (Fill)			SS	1	4	2	19
4		Very loose to compact brown fine SAND, some silt, moist (Fill)			SS	2	24	2	14
6					SS	3	18	12	(26)
8		Dense brown fine SAND, some silt, layers of fine to medium sand - Becomes wet - little gravel		▽	SS	4	18	44	(27)
10					SS	5	14	42	18
12		End of borehole							

STRENGTH TESTS - ksf

1 2 3 4

WATER CONTENT & ATTERBERG LIMITS W_P W W_L

STANDARD PENETRATION TEST, BLOWS/1 ft. ●

10 20 30 40 50 60 70 80

Borehole was hand dug from 1.5 to 2 feet. Sample numbers 3 & 4 submitted for PCBs, VOC & SVOC lab analysis.

△ Undisturbed Field Vane Test

★ Pocket Penotrometer

□ Torvane Test

JACQUES WHITFORD COMPANY, INC.

BOREHOLE RECORD SB-19 = MW-203

CLIENT Consolidated Edison Company of NY
LOCATION Con Ed - Maspeth, NY
DATES: BORING 04-02-99 WATER LEVEL
PROJECT No. NHP96280
BOREHOLE No. MW-203
DATUM

DEPTH (ft)	ELEV. (ft)	SOIL DESCRIPTION	STRATA PLOT	WATER LEVEL	WELL CONSTRUCTION	SAMPLES TYPE	NUMBER	RECOVERY Ins	N-VALUE OR RQD	PHOTO-ION DETECTOR (PPm)
0					Concrete/ Road box					
1										
2					Bentonite seal					
3					Sand					
4		Loose to compact olive gray to olive brown fine SAND, some silt, trace gravel, moist (Fill).								
5					PVC screen/ Sand	SS	1	12	16	55
6										
7						SS	2	18	9	31
8										
9						SS	3	8	20	49
10		Compact to dense grayish brown fine to medium SAND, some silt, little to some gravel, moist								
11						SS	4	18	28	45
12										
13						SS	5	14	20	62
14										
15		- Becomes wet		▽		SS	6	18	18	66
16										
17						SS	7	12	43	20
18										
19						SS	8	12	46	15
20										
21						SS	9	8	42	13
22										
23						SS	10	8	32	11
24		End of borehole								
25		Borehole was hand dug to 4 feet. Sample numbers 3, 6 & 10 submitted for PCBs, VOC & SVOC lab analysis								
26										
27										