APPENDIX C

SITE CHARACTERIZATION ANALYTICAL RESULTS - DATA SUMMARY TABLES

TABLE 1

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

WEST 42ND STREET FORMER MGP SITE

SITE CHARACTERIZATION STUDY

TEST PIT SOIL SAMPLING RESULTS

VOLATILE ORGANIC COMPOUNDS (VOCs)

SAMPLE ID	TP-01	TP-02	TP-03	TP-04	TP-05	TP-06	TP-07	TP-08	TP-09	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives
SAMPLE DEPTH (FT)	5-5.5	9-9.5	3.5-4	8-8.5	11-11.5	9.5-10	10-10.5	10.5-11	10-10.5		
DATE OF COLLECTION	08/14/2003	08/13/2003	08/19/2003	08/18/2003	08/20/2003	08/22/2003	08/19/2003	08/21/2003	08/18/2003		
DILUTION FACTOR	1.0	1000.0	1.0	1.0	1.0	1.0	1.0	250.0	1.0		
PERCENT SOLIDS	85.0	66.0	86.0	85.0	81.0	77.0	86.0	77.0	84.0		
UNITS	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	(ug/Kg)	(ug/Kg)
Dichlorodifluoromethane	U	U	U	U	U	U	U	U	U	5	--
Chloromethane	U	U	U	U	U	U	U	U	U	5	--
Vinyl Chloride	U	U	U	U	U	U	U	U	U	5	200
Bromomethane	U	U	U	U	U	U	U	U	U	5	--
Chloroethane	U	U	U	U	U	U	U	U	U	5	1900
Trichlorofluoromethane	U	U	U	U	U	U	U	U	U	5	--
1,1-Dichloroethene	U	U	U	U	U	U	U	U	U	5	400
Acetone	U*	U	14	88	180	19	100	U	6	5	200
Idomethane	U	U	U	U	U	U	U	U	U	5	--
Carbon Disulfide	U	U	U	U	U	U	1 J	U	U	5	2700
Methylene Chloride	U*	2,400 J	U*	U*	U	U*	U*	U	U*	5	100
trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	U	5	300
Methyl tert-butyl ether	U	U	U	U	U	U	U	U	U	5	--
1,1-Dichloroethane	U	U	U	U	U	U	U	U	U	5	200
Vinyl acetate	U	U	U	U	U	U	U	U	U	5	--
2-Butanone	14	U	U	28	50	U	24	U	U	5	300
cis-1,2-Dichloroethene	U	U	U	U	U	U	U	U	U	5	--
2,2-Dichloropropane	U	U	U	U	U	U	U	U	U	5	--
Bromochloromethane	U	U	U	U	U	U	U	U	U	5	--
Chloroform	U	U	U	U	U	U	U	U	U	5	300
1,1,1-Trichloroethane	U	U	U	U	U	U	U	U	U	5	800
1,1-Dichloropropene	U	U	U	U	U	U	U	U	U	5	--
Carbon Tetrachloride	U	U	U	U	U	U	U	U	U	5	600
1,2-Dichloroethane	U	U	U	U	U	U	U	U	U	5	100
Benzene	U	U	U	2 J	45	9	U	U	U	5	60
Trichloroethene	U	U	U	U	U	U	U	U	U	5	700
1,2-Dichloropropane	U	U	U	U	U	U	U	U	U	5	--
Dibromomethane	U	U	U	U	U	U	U	U	U	5	--
Bromodichloromethane	U	U	U	U	U	U	U	U	U	5	--
cis-1,3-Dichloropropane	U	U	U	U	U	U	U	U	U	5	--
4-Methyl-2-pentanone	U	U	U	U	U	U	U	U	U	5	1000
Toluene	U	U	1 J	6	15	U	3 J	U	U	5	1500
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	U	5	--
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	U	5	--

QUALIFIERS:

U: Constituent analyzed for but not detected.

J: Compound found at a concentration below the detection limit.

B: Constituent concentration is less than the CRDL, but greater than the IDL.

U*: Result qualified as non-detect based on validation criteria

NOTES:

[ ] : Result exceeds NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objective

--: Not Available

N/A: Not Applicable

TABLE 1 (continued)
CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
WEST 42ND STREET FORMER MGP SITE
SITE CHARACTERIZATION STUDY

TEST PIT SOIL SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS (VOCs)

SAMPLE ID	TP-01	TP-02	TP-03	TP-04	TP-05	TP-06	TP-07	TP-08	TP-09	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives
SAMPLE DEPTH (IN)	5-5.5	9-9.5	3.5-4	8-8.5	11-11.5	9.5-10	10-10.5	10.5-11	10-10.5		
DATE OF COLLECTION	08/14/2003	08/13/2003	08/19/2003	08/18/2003	08/20/2003	08/22/2003	08/19/2003	08/21/2003	08/18/2003		
DILUTION FACTOR	1.0	1000.0	1.0	1.0	1.0	1.0	1.0	250.0	1.0		
PERCENT SOLIDS	85.0	66.0	86.0	85.0	81.0	77.0	86.0	77.0	84.0		
UNITS	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	(ug/Kg)	(ug/Kg)
1,3-Dichloropropane	U	U	U	U	U	U	U	U	U	5	300
Tetrachloroethene	U	U	U	U	U	U	U	U	U	5	1,400
2-Hexanone	U	U	U	U	U	U	U	U	U	5	--
Dibromochloromethane	U	U	U	U	U	U	U	U	U	5	--
1,2-Dibromoethane	U	U	U	U	U	U	U	U	U	5	--
Chlorobenzene	U	U	U	U	U	U	U	U	U	5	1,700
1,1,1,2-Tetrachloroethane	U	U	U	U	U	U	U	U	U	5	--
Ethylbenzene	U	U	U	4 J	U	U	U	1,800	U	5	5,500
m,p-Xylene	U	U	U	3 J	U	U	U	4,000	U	5	--
o-Xylene	U	U	U	1 J	U	U	U	1,900	U	5	--
Xylene (total)	U	U	U	4	U	U	U	5,900	U	5	1,200
Styrene	U	U	U	U	U	U	U	U	U	5	--
Bromoform	U	U	U	U	U	U	U	U	U	5	--
Isopropylbenzene	U	U	U	4 J	U	U	U	420 J	U	5	--
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	U	5	600
Bromobenzene	U	U	U	U	U	U	U	U	U	5	--
1,2,3-Trichloropropane	U	U	U	U	U	U	U	U	U	5	400
n-Propylbenzene	U	U	U	1 J	U	U	U	320 J	U	5	--
2-Chlorotoluene	U	U	U	U	U	U	U	U	U	5	--
1,3,5-Trimethylbenzene	U	1,500 J	U	2 J	U	U	U	2,000	U	5	--
4-Chlorotoluene	U	U	U	U	U	U	U	U	U	5	--
tert-Butylbenzene	U	U	U	U	U	U	U	U	U	5	--
1,2,4-Trimethylbenzene	U	U	U	12	2 J	U	U	6,200	U	5	--
sec-Butylbenzene	U	U	U	U	U	U	U	U	U	5	--
4-Isopropyltoluene	U	U	U	U	U	2 J	U	U	U	5	--
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	U	5	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	U	5	8,500
n-Butylbenzene	U	U	U	U	U	U	U	320 J	U	5	--
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	U	5	7,900
1,2-Dibromo-3-chloropropane	U	U	U	U	U	U	U	U	U	5	--
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	U	5	3,400
Hexachlorobutadiene	U	U	U	U	U	U	U	U	U	5	--
1,2,3-Trichlorobenzene	U	U	U	U	U	U	U	U	U	5	--
Total BTEX	0	0	1	16	60	9	3	7,700	0	--	--
Total VOCs	14	3,900	15	151	292	30	128	16,960	6	--	10,000

QUALIFIERS:
U: Constituent analyzed for but not detected
J: Compound found at a concentration below the detection limit.
B: Constituent concentration is less than the CRDL, but greater than the IDL.
D: Result taken for reanalysis at a secondary dilution
U*: Result qualified as non-detect based on validation criteria

NOTES:
[ ] : Result exceeds NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objective
--: Not Available
N/A: Not Applicable

TABLE 2

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

WEST 42ND STREET FORMER MGP SITE

SITE CHARACTERIZATION STUDY

TEST PIT SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

SAMPLE ID	TP-01	TP-02	TP-03	TP-04	TP-05	TP-06	TP-07	TP-08	TP-09	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives
SAMPLE DEPTH (FT)	5-5.5	9-9.5	3.5-4	8-8.5	11-11.5	9.5-10	10-10.5	10.5-11	10-10.5		
DATE OF COLLECTION	08/14/2003	08/13/2003	08/19/2003	08/18/2003	08/20/2003	08/22/2003	08/19/2003	08/21/2003	08/18/2003		
DILUTION FACTOR	1.0	400.0	1.0	1.0	1.0	1.0	1.0	250.0	1.0		
PERCENT SOLIDS	85.0	66.0	86.0	85.0	81.0	77.0	86.0	77.0	84.0		
UNITS	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	(ug/Kg)	(ug/Kg)
Phenol	U	U	U	U	U	U	U	50 J	U	550	30 OR MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	U	550	----
2-Chlorophenol	U	U	U	U	U	U	U	U	U	550	800
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	U	550	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	U	550	8,500
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	U	550	7,900
2-Methylphenol	U	U	U	U	U	U	U	U	U	550	100 OR MDL
2,2-Oxybis (1-Chloropropane)	U	U	U	U	U	U	U	U	U	550	----
4-Methylphenol	U	U	U	U	U	U	U	81 J	U	550	900
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	U	550	----
Hexachloroethane	U	U	U	U	U	U	U	U	U	550	----
Nitrobenzene	U	U	U	U	U	U	U	U	U	550	200 OR MDL
Isophorone	U	U	U	U	U	U	U	U	U	550	4,400
2-Nitrophenol	U	U	U	U	U	U	U	U	U	550	330 OR MDL
2,4-Dimethylphenol	U	U	U	U	U	U	U	U	U	550	----
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	U	550	400
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	U	550	3,400
Naphthalene	1,200	350,000	260 J	4,000	28,000 D	130 J	130 J	77,000 D	U	550	13,000
4-Chloroaniline	U	U	U	U	U	U	U	U	U	550	220 OR MDL
bis (2-Chloroethoxy) methane	U	U	U	U	U	U	U	U	U	550	----
Hexachlorobutadiene	U	U	U	U	U	U	U	U	U	550	----
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	U	550	240 OR MDL
2-Methylnaphthalene	140 J	330,000	140 J	1,000	180 J	U	U	5,200	U	550	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	U	550	----
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	U	1400	----
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	U	550	100
2-Chloronaphthalene	U	U	U	U	U	U	U	U	U	1400	----
2-Nitroaniline	U	U	U	U	U	U	U	U	U	550	430 OR MDL
Dimethylphthalate	U	U	U	U	U	U	U	U	U	550	2,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	U	550	1,000
Acenaphthylene	150 J	120,000 J	110 J	61 J	140 J	U	U	480	U	550	41,000
3-Nitroaniline	U	U	U	U	U	U	U	U	U	1400	500 OR MDL
Acenaphthene	440	90,000 J	620	770	590	U	U	370 J	U	550	50,000
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	U	1400	200 OR MDL
4-Nitrophenol	U	U	U	U	U	U	U	U	U	1400	100 OR MDL
Dibenzofuran	350 J	410,000	340 J	640	290 J	U	U	610	U	550	6,200

TABLE 2 (continued)

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

WEST 42ND STREET FORMER MGP SITE

SITE CHARACTERIZATION STUDY

TEST PIT SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

SAMPLE ID	TP-01	TP-02	TP-03	TP-04	TP-05	TP-06	TP-07	TP-08	TP-09	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives
SAMPLE DEPTH (FT)	5-5.5	9-9.5	3.5-4	8-8.5	11-11.5	9.5-10	10-10.5	10.5-11	10-10.5		
DATE OF COLLECTION	08/14/2003	08/13/2003	08/19/2003	08/18/2003	08/20/2003	08/22/2003	08/19/2003	08/21/2003	08/18/2003		
DILUTION FACTOR	1.0	400.0	1.0	1.0	1.0	1.0	1.0	250.0	1.0		
PERCENT SOLIDS	85.0	66.0	86.0	85.0	81.0	77.0	86.0	77.0	84.0		
UNITS	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	(ug/Kg)	(ug/Kg)
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	U	550	---
Diethylphthalate	U	U	U	U	U	U	U	U	U	550	7,100
Fluorene	390	**260,000**	640	370 J	600	U	U	540	U	550	50,000
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	U	550	---
4-Nitroaniline	U	U	U	U	U	U	U	U	U	1400	---
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	U	1400	---
N-Nitrosodiphenylamine	U	U	U	U	U	U	U	U	U	550	---
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	U	550	---
Hexachlorobenzene	U	U	U	U	U	U	U	U	U	550	410
Pentachlorophenol	U	U	U	U	U	U	U	U	U	1400	1,000 OR MDL
Phenanthrene	2,000	**2,000,000**	5,400	600	7,300 D	160 J	200 J	1,300	450	550	50,000
Anthracene	1,000	**520,000**	1,400	U	2,200	U	53 J	470	130 J	550	50,000
Carbazole	130 J	150,000 J	620	140 J	340 J	U	47 J	130 J	U	550	---
Di-n-butylphthalate	U	U	U	U	U	U	U	U	U	550	8,100
Fluoranthene	3,800	**1,600,000**	8,200 D	100 J	11,000 D	180 J	510	1,300	840	550	50,000
Pyrene	4,700 D	**1,700,000**	7,800 D	130 J	11,000 D	160 J	550	1,700	940	550	50,000
Butylbenzylphthalate	U	U	U	U	U	U	U	U	U	550	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	U	550	---
Benzo (a) anthracene	**3,400**	**750,000**	**4,400**	U	**7,000 D**	110 J	**360 J**	**660**	**510**	550	224 OR MDL
Chrysene	**3,100**	**780,000**	**4,000**	54 J	**5,600**	120 J	380	**570**	**450**	550	400
bis(2-Ethylhexyl)phthalate	340 BJ	U	120 J	44 J	45 J	240 J	39 J	88 J	68 J	550	50,000
Di-n-octylphthalate	U	U	U	U	U	U	U	U	U	550	50,000
Benzo(b)fluoranthene	**4,600**	**800,000**	**6,000**	57 J	**7,800 D**	130 J	530	730	550	550	1,100
Benzo(k)fluoranthene	**2,200**	**490,000**	**2,300**	U	**3,500**	57 J	240 J	380 J	310 J	550	1,100
Benzo(a)pyrene	**3,400**	**660,000**	**4,000**	46 J	**6,300**	**96 J**	**410**	**590**	**460**	550	61 OR MDL
Indeno(1,2,3-cd)pyrene	1,900	**470,000**	1,800	U	2,900	58 J	240 J	280 J	230 J	550	3,200
Dibenzo(a,h)anthracene	**470**	**110,000 J**	**550**	U	**760**	U	**71 J**	**68 J**	**55 J**	550	14 OR MDL
Benzo(g,h,i)perylene	1,800	**420,000**	1,600	U	2,800	56 J	240 J	250 J	210 J	550	50,000
Total PAHs	34,550	11,120,000	49,080	6,188	97,490	1,257	3,914	86,688	5,135		---
Total Carcinogen PAHs	19,070	4,060,000	23,050	157	33,860	571	2,231	3,278	2,565		---
Total SVOCs	35,510	**12,010,000**	50,300	8,012	98,345	1,497	4,000	92,847	5,203		500,000

QUALIFIERS:
U: Compound analyzed for but not detected
B: Compound found in the method blank as well as the sample
J: Compound found at a concentration below the CRDL, value estimated
D: Result taken from reanalysis at dilution

NOTES:
To determine the detection limit for each sample, use the following equation: (CRDL)*(DF)*(100/%S), where CRDL = contract required detection limit, DF = dilution factor and %S = percent solids.
---: not established
[ ] Indicates value exceeds NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objective
NA: sample not analyzed for this analyte

TABLE 3

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

WEST 42ND STREET FORMER MGP SITE

SITE CHARACTERIZATION STUDY

TEST PIT SOIL SAMPLING RESULTS
TARGET ANALYTE LIST (TAL) METALS AND CYANIDE

SAMPLE ID	TP-01	TP-02	TP-03	TP-04	TP-05	TP-06	TP-07	TP-08	TP-09	INSTRUMENT DETECTION LIMITS	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives
SAMPLE DEPTH (FT)	5-5.5	9-9.5	3.5-4	8-8.5	11-11.5	9.5-10	10-10.5	10.5-11	10-10.5		
DATE OF COLLECTION	08/14/2003	08/13/2003	08/19/2003	08/18/2003	08/20/2003	08/22/2003	08/19/2003	08/21/2003	08/18/2003		
DILUTION FACTOR	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		
PERCENT SOLIDS	85.0	66.0	86.0	85.0	81.0	77.0	86.0	77.0	84.0		
UNITS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/l	mg/kg
Aluminum	8,140	2,370	10,900	6,250	9,210	9,480	8,340	8,610	6,490	13	SB
Antimony	1.8	U	0.41 B	U	U	U	U	U	U	8	SB
Arsenic	6	**35.6**	4.7	**14.2**	3.5	4	3.3	2.3	1.4	3	7.5 or SB
Barium	131	48 B	139	84.6	109	99.6	97.1	101	68.5	1	300 or SB
Beryllium	**0.27 B**	U	**0.55**	**0.41**	**0.55**	**0.46**	**0.45**	**0.67**	**0.6**	1	0.16 or SB
Cadmium	1.1	1.4 B	0.24 B	U	U	U	U	0.056 B	0.067 B	1	10*
Calcium	6440	5840	8,970	5,440	3,440	9,140	4,200	5,630	2,890	8	SB
Chromium	21.2	46.1	29.6	15.3	15.2	17.1	16.4	18	14.6	1	50*
Cobalt	8.3	3.1 B	10.4	5.1	7.7	8.4	7	8.7	9.4	2	30 or SB
Copper	**77.5**	**50.1**	**51.6**	24.5	**32.6**	23.5	**32.2**	**33.3**	**29.9**	1	25 or SB
Iron	**29600**	**94900**	**20900**	**13700**	**17400**	**16500**	**14900**	**17500**	**14200**	20	2,000 or SB
Lead	154	247	192	68.3	125	120	75.7	76.1	76.2	2	400
Magnesium	5140	5980	6,600	3,620	2,970	3,840	3,280	4,090	3,960	8	SB
Manganese	347	363	242	236	194	426	541	484	211	4	SB
Mercury	**0.58**	**22.2**	**1**	**0.14**	**0.6**	**0.22**	**2.3**	**0.24**	**0.16**	0.2	0.1
Nickel	**25.2 B**	8.4 B	**27.3**	**13.8**	**16.1**	**15.6**	**16.4**	**20.2**	**22.1**	2	13 or SB
Potassium	3530 B	2010 B	4,680	798	1,210	1,390	2,310	2,010	2,540	20	SB
Selenium	U	U	U	U	U	1.1 B	U	U	U	4	2 or SB
Silver	1.8	U	0.78 B	0.53 B	0.69 B	0.43 B	0.5 B	0.49 B	0.87 B	1	SB
Sodium	168	1360 B	1380	112	156	175	193	243	97.1	9	SB
Thallium	U	U	U	U	U	U	U	U	U	5	SB
Vanadium	27.4	40.1 B	33.1	17.8	22.4	22.3	23.7	22.9	19.1	1	150 or SB
Zinc	**220**	**156**	**137**	**64.9**	**72.1**	**69.6**	**69.2**	**82.3**	**123**	1	20 or SB
Total Cyanide	1.4	0.76 B	2.9	U	1.2	1.1 B	2.6	0.48 B	U	1	----

QUALIFIERS:

U: Compound analyzed for but not detected

B: Compound concentration is less than the CRDL but greater than the IDL.

NOTES:

To determine the detection limit for each sample, use the following equation: (CRDL)*(DF)*(100/%S) where CRDL = contract required detection limit, DF = dilution factor and %S = percent solids.

SB: Site background

----: not established

*: as per proposed 4/95 NYSDEC TAGM

Bold Indicates value exceeds the NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objective

TABLE 4

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
WEST 42ND STREET FORMER MGP SITE
SITE CHARACTERIZATION STUDY

SOIL BORING SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS (VOCs)

SAMPLE ID	SB-01	SB-01	SB-02	SB-02	SB-03	SB-04	SB-05	SB-06	SB-07	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives
SAMPLE DEPTH (FT)	22-26	26-32	17-19	29-31	17-19	10-16	18-19.5	9-11	27-29		
DATE OF COLLECTION	09/02/2003	09/02/2003	09/03/2003	09/22/2003	09/05/2003	09/18/2003	09/09/2003	09/09/2003	09/03/2003		
DILUTION FACTOR	1.0	1.0	1.0	1.0	400.0	1.0	1.0	1.0	5.0		
PERCENT SOLIDS	20.0	78.0	82.0	93.0	76.0	78.0	75.0	78.0	77.0		
UNITS	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	(ug/Kg)	(ug/Kg)
Dichlorodifluoromethane	28	7	2 J	U	U	U	U	U	U	5	--
Chloromethane	U	U	U	U	U	U	U	U	U	5	--
Vinyl Chloride	U	U	U	U	U	U	U	U	U	5	--
Bromomethane	U	U	U	U	U	U	U	U	U	5	200
Chloroethane	5 J	U	U	U	U	U	U	U	U	5	--
Trichlorofluoromethane	U	U	U	U	U	U	U	U	U	5	1900
1,1-Dichloroethene	U	U	U	U	U	U	U	U	U	5	--
Acetone	42	8	46	65	U	53	35	75	53	5	400
Idomethane	U	U	U	U	U	U	U	U	U	5	200
Carbon Disulfide	12 J	1 J	2 J	U	U	U	U	U	U	5	--
Methylene Chloride	12 J	3 J	2 J	1 J	U	U	2 J	2 J	17 J	5	2700
trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	U	5	100
Methyl tert-butyl ether	U	U	U	U	U	U	U	U	U	5	300
1,1-Dichloroethane	U	U	U	U	U	U	U	U	U	5	--
Vinyl acetate	U	U	U	U	U	10	U	U	U	5	200
2-Butanone	U	U	10	U	U	U	U	U	U	5	--
cis-1,2-Dichloroethene	U	U	U	U	U	U	U	U	U	5	300
2,2-Dichloropropane	U	U	U	U	U	U	U	U	U	5	--
Bromochloromethane	U	U	U	U	U	U	U	U	U	5	--
Chloroform	U	U	U	U	U	U	U	U	U	5	--
1,1,1-Trichloroethane	U	U	U	U	U	U	U	U	U	5	300
1,1-Dichloropropene	U	U	U	U	U	U	U	U	U	5	800
Carbon Tetrachloride	U	U	U	U	U	U	U	U	U	5	--
1,2-Dichloroethane	U	U	U	U	U	U	U	U	U	5	600
Benzene	22 J	U	610 E	U	3,200	2 J	15,000 DJ	17	300	5	100
Trichloroethene	U	U	U	U	U	U	U	U	U	5	60
1,2-Dichloropropane	U	U	U	U	U	U	U	U	U	5	700
Dibromomethane	U	U	U	U	U	U	U	U	U	5	--
Bromodichloromethane	U	U	U	U	U	U	U	U	U	5	--
cis-1,3-Dichloropropane	U	U	U	U	U	U	U	U	U	5	--
4-Methyl-2-pentanone	8 J	U	U	U	U	U	U	U	U	5	--
Toluene	U	U	760 E	U	6,600	U	33,000 DJ	U	22 J	5	1000
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	U	5	1500
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	U	5	--

QUALIFIERS:

U: Constituent analyzed for but not detected.
J: Compound found at a concentration below the detection limit.
D: Result taken for reanalysis at a secondary dilution
E: Compound detected at a concentration greater than the instrument calibration range, value estimated

NOTES:

[ ] : Result exceeds NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objective
--: Not Available
N/A: Not Applicable

TABLE 4 (continued)

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
WEST 42ND STREET FORMER MGP SITE
SITE CHARACTERIZATION STUDY

SOIL BORING SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS (VOCs)

SAMPLE ID	SB-01	SB-01	SB-02	SB-02	SB-03	SB-04	SB-05	SB-06	SB-07	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives
SAMPLE DEPTH (IN)	22-26	26-32	17-19	29-31	17-19	10-16	18-19.5	9-11	27-29		
DATE OF COLLECTION	09/02/2003	09/02/2003	09/03/2003	09/22/2003	09/05/2003	09/18/2003	09/09/2003	09/09/2003	09/03/2003		
DILUTION FACTOR	1.0	1.0	1.0	1.0	400.0	1.0	1.0	1.0	5.0		
PERCENT SOLIDS	20.0	78.0	82.0	93.0	76.0	78.0	75.0	78.0	77.0		
UNITS	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	(ug/Kg)	(ug/Kg)
1,3-Dichloropropane	U	U	U	U	U	U	U	U	U	5	300
Tetrachloroethene	U	U	U	U	U	U	U	U	U	5	1,400
2-Hexanone	11 J	U	U	U	U	U	U	U	U	5	--
Dibromochloromethane	U	U	U	U	U	U	U	U	U	5	--
1,2-Dibromoethane	U	U	U	U	U	U	U	U	U	5	--
Chlorobenzene	U	U	U	U	U	U	U	U	U	5	1,700
1,1,1,2-Tetrachloroethane	U	U	U	U	U	U	U	U	U	5	--
Ethylbenzene	110	U	2,000 E	U	4,400	U	21,000 DJ	U	200	5	5,500
m,p-Xylene	47	U	190,000 DJ	U	12,000	U	80,000 D	U	160	5	--
o-Xylene	34	U	75,000 DJ	U	3,600	U	27,000 DJ	U	80	5	--
Xylene (total)	81	U	265,000 DJ	U	15,600	U	107,000 D	U	240	5	1,200
Styrene	U	U	U	U	U	U	70	U	U	5	--
Bromoform	U	U	U	U	U	U	U	U	U	5	--
Isopropylbenzene	52	U	160	U	U	U	140	U	9 J	5	--
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	U	5	600
Bromobenzene	U	U	U	U	U	U	U	U	U	5	--
1,2,3-Trichloropropane	U	U	U	U	U	U	U	U	U	5	400
n-Propylbenzene	15 J	U	460 E	U	U	U	140	U	U	5	--
2-Chlorotoluene	U	U	U	U	U	U	U	U	U	5	--
1,3,5-Trimethylbenzene	34	U	1,400 E	U	1,400 J	U	18,000 DJ	U	17 J	5	--
4-Chlorotoluene	U	U	U	U	U	U	U	U	U	5	--
tert-Butylbenzene	U	U	U	U	U	U	U	U	U	5	--
1,2,4-Trimethylbenzene	120	U	140,000 DJ	U	3,900	U	48,000 D	U	32	5	--
sec-Butylbenzene	U	U	U	U	U	U	U	U	U	5	--
4-Isopropyltoluene	130	U	U	U	U	U	U	U	17 J	5	--
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	U	5	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	U	5	8,500
n-Butylbenzene	12 J	U	210	U	U	U	U	U	U	5	--
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	U	5	7,900
1,2-Dibromo-3-chloropropane	U	U	U	U	U	U	U	U	U	5	--
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	U	5	3,400
Hexachlorobutadiene	U	U	U	U	U	U	U	U	U	5	--
1,2,3-Trichlorobenzene	U	U	U	U	U	3 J	U	U	U	5	--
Total BTEX	213	0	268,370	0	29,800	2	176,000	17	762	--	--
Total VOCs	694	19	410,662	66	35,100	68	242,387	94	907	--	10,000

QUALIFIERS:
U: Constituent analyzed for but not detected.
J: Compound found at a concentration below the detection limit.
D: Result taken for reanalysis at a secondary dilution
E: Compound detected at a concentration greater than the instrument calibration range, value estimated

NOTES:
[ ] : Result exceeds NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objective
--: Not Available
N/A: Not Applicable

TABLE 4 (continued)

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
WEST 42ND STREET FORMER MGP SITE
SITE CHARACTERIZATION STUDY

SOIL BORING SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS (VOCs)

SAMPLE ID	SB-07	SB-08	SB-08	SB-09	SB-09	SB-10	SB-10	SB-11	SB-12	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives
SAMPLE DEPTH (FT)	33-35	12-16	28-30	11-15	31-33.5	20-24	26-28	10-12	21-23		
DATE OF COLLECTION	09/03/2003	10/02/2003	10/02/2003	09/05/2003	09/05/2003	09/11/2003	09/11/2003	09/17/2003	09/08/2003		
DILUTION FACTOR	1.0	4000.0	400.0	1.0	1.0	1.0	1.0	1.0	50.0		
PERCENT SOLIDS	77.0	81.0	78.0	81.0	70.0	80.0	78.0	82.0	68.0		
UNITS	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	(ug/Kg)	(ug/Kg)
Dichlorodifluoromethane	U	U	U	U	U	U	U	U	U	5	--
Chloromethane	U	U	U	U	U	U	U	U	U	5	--
Vinyl Chloride	U	U	U	U	U	U	U	U	U	5	200
Bromomethane	U	U	U	U	U	U	U	U	U	5	--
Chloroethane	U	U	U	U	U	U	U	U	U	5	1900
Trichlorofluoromethane	U	U	U	U	U	U	U	U	U	5	--
1,1-Dichloroethene	U	U	U	U	U	U	U	U	U	5	400
Acetone	21	U	U	49	25	37	45	14	U	5	200
Idomethane	U	U	U	U	U	U	U	U	U	5	--
Carbon Disulfide	U	U	U	U	2 J	2 J	4 J	U	U	5	2700
Methylene Chloride	2 J	5,000 J	540 J	2 J	2 J	2 J	2 J	2 J	U	5	100
trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	U	5	300
Methyl tert-butyl ether	U	U	U	U	U	U	U	U	U	5	--
1,1-Dichloroethane	U	U	U	U	U	U	U	U	U	5	200
Vinyl acetate	U	U	U	U	U	U	U	U	U	5	--
2-Butanone	U	U	510 J	U	U	U	7	U	U	5	300
cis-1,2-Dichloroethene	U	U	U	U	U	U	U	U	U	5	--
2,2-Dichloropropane	U	U	U	U	U	U	U	U	U	5	--
Bromochloromethane	U	U	U	U	U	U	U	U	U	5	--
Chloroform	U	U	U	U	U	U	U	U	U	5	300
1,1,1-Trichloroethane	U	U	U	U	U	U	U	U	U	5	800
1,1-Dichloropropene	U	U	U	U	U	U	U	U	U	5	--
Carbon Tetrachloride	U	U	U	U	U	U	U	U	U	5	600
1,2-Dichloroethane	U	U	U	U	U	U	U	U	U	5	100
Benzene	8	U	U	2 J	70	43	2 J	U	230 J	5	60
Trichloroethene	U	U	U	U	U	U	U	U	U	5	700
1,2-Dichloropropane	U	U	U	U	U	U	U	U	U	5	--
Dibromomethane	U	U	U	U	U	U	U	U	U	5	--
Bromodichloromethane	U	U	U	U	U	U	U	U	U	5	--
cis-1,3-Dichloropropane	U	U	U	U	U	U	U	U	U	5	--
4-Methyl-2-pentanone	U	U	U	U	U	U	U	U	U	5	1000
Toluene	U	5,800 J	U	U	U	U	U	U	U	5	1500
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	U	5	--
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	U	5	--

QUALIFIERS:
U: Constituent analyzed for but not detected.
J: Compound found at a concentration below the detection limit.
D: Result taken for reanalysis at a secondary dilution
E: Compound detected at a concentration greater than the instrument calibration range, value estimated

NOTES:
[ ] : Result exceeds NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objective
--: Not Available
N/A: Not Applicable

TABLE 4 (continued)

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
WEST 42ND STREET FORMER MGP SITE
SITE CHARACTERIZATION STUDY

SOIL BORING SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS (VOCs)

SAMPLE ID	SB-07	SB-08	SB-08	SB-09	SB-09	SB-10	SB-10	SB-11	SB-12	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives
SAMPLE DEPTH (IN)	33-35	12-16	28-30	11-15	31-33.5	20-24	26-28	10-12	21-23		
DATE OF COLLECTION	09/03/2003	10/02/2003	10/02/2003	09/05/2003	09/05/2003	09/11/2003	09/11/2003	09/17/2003	09/08/2003		
DILUTION FACTOR	1.0	4000.0	400.0	1.0	1.0	1.0	1.0	1.0	50.0		
PERCENT SOLIDS	77.0	81.0	78.0	81.0	70.0	80.0	78.0	82.0	68.0		
UNITS	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	(ug/Kg)	(ug/Kg)
1,3-Dichloropropane	U	U	U	U	U	U	U	U	U	5	
Tetrachloroethene	U	U	U	U	U	U	U	U	U	5	300
2-Hexanone	U	U	U	U	U	U	U	U	U	5	1,400
Dibromochloromethane	U	U	U	U	U	U	U	U	U	5	--
1,2-Dibromoethane	U	U	U	U	U	U	U	U	U	5	--
Chlorobenzene	U	U	U	U	U	U	U	U	U	5	--
1,1,1,2-Tetrachloroethane	U	U	U	U	U	U	U	U	U	5	1,700
Ethylbenzene	4 J	11,000 J	730 J	U	3 J	110	U	U	760	5	5,500
m,p-Xylene	3 J	25,000	1,500 J	U	U	35	U	U	900	5	--
o-Xylene	2 J	10,000 J	600 J	U	U	12	U	U	310 J	5	--
Xylene (total)	5 J	35,000	2,100 J	U	U	47	U	U	1,210	5	1,200
Styrene	U	U	U	U	U	U	U	U	U	5	--
Bromoform	U	U	U	U	U	U	U	U	U	5	--
Isopropylbenzene	U	U	U	U	2 J	7	U	U	U	5	--
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	U	5	600
Bromobenzene	U	U	U	U	U	U	U	U	U	5	--
1,2,3-Trichloropropane	U	U	U	U	U	U	U	U	U	5	400
n-Propylbenzene	U	U	U	U	U	1 J	U	U	U	5	--
2-Chlorotoluene	U	U	U	U	U	U	U	U	U	5	--
1,3,5-Trimethylbenzene	U	10,000 J	680 J	U	U	2 J	U	U	110 J	5	--
4-Chlorotoluene	U	U	U	U	U	U	U	U	U	5	--
tert-Butylbenzene	U	U	U	U	U	U	U	U	U	5	--
1,2,4-Trimethylbenzene	U	25,000	1,600 J	U	U	10	U	U	340 J	5	--
sec-Butylbenzene	U	U	U	U	U	U	U	U	U	5	--
4-Isopropyltoluene	U	U	U	U	U	U	U	U	U	5	--
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	U	5	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	U	5	8,500
n-Butylbenzene	U	U	U	U	U	U	U	U	U	5	--
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	U	5	7,900
1,2-Dibromo-3-chloropropane	U	U	U	U	U	U	U	U	U	5	--
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	U	5	3,400
Hexachlorobutadiene	U	U	U	U	U	U	U	U	U	5	--
1,2,3-Trichlorobenzene	U	U	U	U	U	U	U	U	U	5	--
Total BTEX	17	51,800	2,830	2	73	200	2	0	2,200	--	--
Total VOCs	40	91,800	6,160	53	104	261	60	16	2,650	--	10,000

QUALIFIERS:
U: Constituent analyzed for but not detected.
J: Compound found at a concentration below the detection limit.
D: Result taken for reanalysis at a secondary dilution
E: Compound detected at a concentration greater than the instrument calibration range, value estimated

NOTES:
[ ] : Result exceeds NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objective
--: Not Available
N/A: Not Applicable

TABLE 4 (continued)

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
WEST 42ND STREET FORMER MGP SITE
SITE CHARACTERIZATION STUDY

SOIL BORING SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS (VOCs)

SAMPLE ID	SB-12	SB-13	SB-14	SB-14	SB-15	SB-15	SB-16	SB-16	SB-17	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives
SAMPLE DEPTH (FT)	27-28.8	19-21.4	17-19	30-32	7-9	13-15	13-15	25-27	9-13		
DATE OF COLLECTION	09/08/2003	09/16/2003	09/12/2003	09/15/2003	09/12/2003	09/12/2003	09/16/2003	09/16/2003	09/09/2003		
DILUTION FACTOR	1.0	1.0	1.0	1.0	50.0	1.0	2500.0	1.0	1.0		
PERCENT SOLIDS	80.0	78.0	85.0	85.0	85.0	86.0	85.0	84.0	83.0		
UNITS	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	(ug/Kg)	(ug/Kg)
Dichlorodifluoromethane	U	U	U	U	U	U	U	U	U	5	--
Chloromethane	U	U	U	U	U	U	U	U	U	5	--
Vinyl Chloride	U	U	U	U	U	U	U	U	U	5	200
Bromomethane	U	U	U	U	U	U	U	U	U	5	--
Chloroethane	U	U	U	U	U	U	U	U	U	5	1900
Trichlorofluoromethane	U	U	U	U	U	U	U	U	U	5	--
1,1-Dichloroethene	U	U	U	U	U	U	U	U	U	5	400
Acetone	27	47	10	13	U	19	U	30	20	5	200
Idomethane	U	U	U	U	U	U	U	U	U	5	--
Carbon Disulfide	2 J	U	1 J	U	U	U	U	2 J	5 J	5	2700
Methylene Chloride	2 J	U	2 J	3 J	U	2 J	U	3 J	2 J	5	100
trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	U	5	300
Methyl tert-butyl ether	U	U	U	U	U	U	U	U	U	5	--
1,1-Dichloroethane	U	U	U	U	U	U	U	U	U	5	200
Vinyl acetate	U	U	U	U	U	U	U	U	U	5	--
2-Butanone	U	U	U	U	U	U	U	U	U	5	300
cis-1,2-Dichloroethene	U	U	U	U	U	U	U	U	U	5	--
2,2-Dichloropropane	U	U	U	U	U	U	U	U	U	5	--
Bromochloromethane	U	U	U	U	U	U	U	U	U	5	--
Chloroform	U	U	U	U	U	U	U	U	U	5	300
1,1,1-Trichloroethane	U	U	U	U	U	U	U	U	U	5	800
1,1-Dichloropropene	U	U	U	U	U	U	U	U	U	5	--
Carbon Tetrachloride	U	U	U	U	U	U	U	U	U	5	600
1,2-Dichloroethane	U	U	U	U	U	U	U	U	U	5	100
Benzene	120	6,400 DJ	900 E	1 J	U	U	U	14	28	5	60
Trichloroethene	U	U	U	U	U	U	U	U	U	5	700
1,2-Dichloropropane	U	U	U	U	910	U	U	U	U	5	--
Dibromomethane	U	U	U	U	U	U	U	U	U	5	--
Bromodichloromethane	U	U	U	U	U	U	U	U	U	5	--
cis-1,3-Dichloropropane	U	U	U	U	U	U	U	U	U	5	--
4-Methyl-2-pentanone	U	U	U	U	U	U	U	U	U	5	1000
Toluene	20	17,000 D	690 E	U	U	U	U	59	14	5	1500
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	U	5	--
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	U	5	--

QUALIFIERS:

U: Constituent analyzed for but not detected.
J: Compound found at a concentration below the detection limit.
D: Result taken for reanalysis at a secondary dilution
E: Compound detected at a concentration greater than the instrument calibration range, value estimated

NOTES:

: Result exceeds NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objective
--: Not Available
N/A: Not Applicable

TABLE 4 (continued)

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
WEST 42ND STREET FORMER MGP SITE
SITE CHARACTERIZATION STUDY

SOIL BORING SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS (VOCs)

SAMPLE ID	SB-12	SB-13	SB-14	SB-14	SB-15	SB-15	SB-16	SB-16	SB-17	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives
SAMPLE DEPTH (IN)	27-28.8	19-21.4	17-19	30-32	7-9	13-15	13-15	25-27	9-13		
DATE OF COLLECTION	09/08/2003	09/16/2003	09/12/2003	09/15/2003	09/12/2003	09/12/2003	09/16/2003	09/16/2003	09/09/2003		
DILUTION FACTOR	1.0	1.0	1.0	1.0	50.0	1.0	2500.0	1.0	1.0		
PERCENT SOLIDS	80.0	78.0	85.0	85.0	85.0	86.0	85.0	84.0	83.0		
UNITS	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	(ug/Kg)	(ug/Kg)
1,3-Dichloropropane	U	U	U	U	U	U	U	U	U	5	300
Tetrachloroethene	U	U	U	U	U	U	U	U	U	5	1,400
2-Hexanone	U	U	U	U	U	U	U	U	U	5	--
Dibromochloromethane	U	U	U	U	U	U	U	U	U	5	--
1,2-Dibromoethane	U	U	U	U	U	U	U	U	U	5	--
Chlorobenzene	U	U	U	U	U	U	U	U	U	5	1,700
1,1,1,2-Tetrachloroethane	U	U	U	U	U	U	U	U	U	5	--
Ethylbenzene	190	3,000 DJ	1,600 E	U	590	U	11,000 J	90	230 E	5	5,500
m,p-Xylene	230	20,000	2,500 E	U	290	U	U	56	17	5	--
o-Xylene	140	7,800 DJ	2,100 E	U	78 J	U	U	50	10	5	--
Xylene (total)	370	27,800 D	4,600 E	U	368	U	U	106	27	5	1,200
Styrene	U	8,100 DJ	1,200 E	U	U	U	U	U	7	5	--
Bromoform	U	U	U	U	U	U	U	U	U	5	--
Isopropylbenzene	6 J	110	53	U	5,000	3 J	7,700 J	U	U	5	--
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	U	5	600
Bromobenzene	U	U	U	U	U	U	U	U	U	5	--
1,2,3-Trichloropropane	U	U	U	U	U	U	U	U	U	5	400
n-Propylbenzene	2 J	430 E	370 E	U	6,000	2 J	3,400 J	U	2 J	5	--
2-Chlorotoluene	U	U	U	U	U	U	U	U	U	5	--
1,3,5-Trimethylbenzene	11	4,400 DJ	1,400 E	U	U	U	10,000 J	U	U	5	--
4-Chlorotoluene	U	U	U	U	U	U	U	U	U	5	--
tert-Butylbenzene	U	U	U	U	U	U	U	U	U	5	--
1,2,4-Trimethylbenzene	42	11,000 DJ	1,800 E	U	U	U	39,000	U	30	5	--
sec-Butylbenzene	U	U	U	U	4,200	3 J	U	U	U	5	--
4-Isopropyltoluene	U	U	U	U	5,600	U	U	U	43	5	--
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	U	5	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	U	5	8,500
n-Butylbenzene	U	U	U	U	5,800	4 J	3,200 J	U	U	5	--
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	U	5	7,900
1,2-Dibromo-3-chloropropane	U	U	U	U	U	U	U	U	U	5	--
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	U	5	3,400
Hexachlorobutadiene	U	U	U	U	U	U	U	U	U	5	--
1,2,3-Trichlorobenzene	U	U	U	U	U	U	U	U	U	5	--
Total BTEX	700	54,200	7,790	1	958	0	11,000	269	299	--	--
Total VOCs	792	78,287	12,626	17	28,468	33	74,300	304	408	--	10,000

QUALIFIERS:

U: Constituent analyzed for but not detected.
J: Compound found at a concentration below the detection limit.
D: Result taken for reanalysis at a secondary dilution
E: Compound detected at a concentration greater than the instrument calibration range, value estimated

NOTES:

: Result exceeds NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objective
--: Not Available
N/A: Not Applicable

TABLE 4 (continued)

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
WEST 42ND STREET FORMER MGP SITE
SITE CHARACTERIZATION STUDY

SOIL BORING SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS (VOCs)

SAMPLE ID	SB-17	SB-18	SB-18	SB-19	SB-19	SB-20	SB-20	SB-21	SB-21	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives
SAMPLE DEPTH (FT)	21-23	9-13	23-25	20-24	24-26.2	12-16	16-20	12-16	36-38.9		
DATE OF COLLECTION	09/10/2003	09/26/2003	09/26/2003	10/02/2003	10/02/2003	10/02/2003	10/02/2003	09/30/2003	09/30/2003		
DILUTION FACTOR	1.0	4500.0	1.0	4000.0	50.0	3.1	50.0	50.0	1.0		
PERCENT SOLIDS	94.0	78.0	56.0	63.0	86.0	73.0	64.0	78.0	75.0		
UNITS	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	(ug/Kg)	(ug/Kg)
Dichlorodifluoromethane	U	U	U	U	U	U	U	U	U	5	--
Chloromethane	U	U	U	U	U	U	U	U	U	5	--
Vinyl Chloride	U	U	U	U	U	U	U	U	U	5	200
Bromomethane	U	U	U	U	U	U	U	U	U	5	--
Chloroethane	U	U	U	U	U	U	U	U	U	5	1900
Trichlorofluoromethane	U	U	U	U	U	U	U	U	U	5	--
1,1-Dichloroethene	U	U	U	U	U	U	U	U	U	5	400
Acetone	20	U	140	U	U	30	490	U	19	5	200
Idomethane	U	U	U	U	U	U	U	U	U	5	--
Carbon Disulfide	U	U	U	U	U	U	U	U	U	5	2700
Methylene Chloride	2 J	U	8 J	U	69 J	22 B	95 J	U	2 J	5	100
trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	U	5	300
Methyl tert-butyl ether	U	U	U	U	U	U	U	U	U	5	--
1,1-Dichloroethane	U	U	U	U	U	U	U	U	U	5	200
Vinyl acetate	U	U	U	U	U	U	U	U	U	5	--
2-Butanone	U	U	14	U	290	U	640	U	U	5	300
cis-1,2-Dichloroethene	U	U	U	U	U	U	U	U	U	5	--
2,2-Dichloropropane	U	U	U	U	U	U	U	U	U	5	--
Bromochloromethane	U	U	U	U	U	U	U	U	U	5	--
Chloroform	U	U	U	U	U	U	U	U	U	5	300
1,1,1-Trichloroethane	U	U	U	U	U	U	U	U	U	5	800
1,1-Dichloropropene	U	U	U	U	U	U	U	U	U	5	--
Carbon Tetrachloride	U	U	U	U	U	U	U	U	U	5	600
1,2-Dichloroethane	U	U	U	U	U	U	U	U	U	5	100
Benzene	4 J	24,000 J	13	180,000 J	91 J	U	U	U	4 J	5	60
Trichloroethene	U	U	U	U	U	U	U	U	U	5	700
1,2-Dichloropropane	U	U	U	U	U	U	U	U	U	5	--
Dibromomethane	U	U	U	U	U	U	U	U	U	5	--
Bromodichloromethane	U	U	U	U	U	U	U	U	U	5	--
cis-1,3-Dichloropropane	U	U	U	U	U	U	U	U	U	5	--
4-Methyl-2-pentanone	U	U	U	U	U	U	U	U	U	5	1000
Toluene	U	31,000	11	340,000	86 J	U	U	U	U	5	1500
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	U	5	--
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	U	5	--

QUALIFIERS:

U: Constituent analyzed for but not detected
J: Compound found at a concentration below the detection limit.
D: Result taken for reanalysis at a secondary dilution
E: Compound detected at a concentration greater than the instrument calibration range, value estimated

NOTES:

[ ] : Result exceeds NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objective
--: Not Available
N/A: Not Applicable

TABLE 4 (continued)

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
WEST 42ND STREET FORMER MGP SITE
SITE CHARACTERIZATION STUDY

SOIL BORING SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS (VOCs)

SAMPLE ID	SB-17	SB-18	SB-18	SB-19	SB-19	SB-20	SB-20	SB-21	SB-21	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives
SAMPLE DEPTH (IN)	21-23	9-13	23-25	20-24	24-26.2	12-16	16-20	12-16	36-38.9		
DATE OF COLLECTION	09/10/2003	09/26/2003	09/26/2003	10/02/2003	10/02/2003	10/02/2003	10/02/2003	09/30/2003	09/30/2003		
DILUTION FACTOR	1.0	4500.0	1.0	4000.0	50.0	3.1	50.0	50.0	1.0		
PERCENT SOLIDS	94.0	78.0	56.0	63.0	86.0	73.0	64.0	78.0	75.0		
UNITS	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	(ug/Kg)	(ug/Kg)
1,3-Dichloropropane	U	U	U	U	U	U	U	U	U	5	300
Tetrachloroethene	U	U	U	U	U	U	U	U	U	5	1,400
2-Hexanone	U	U	U	U	U	U	U	U	U	5	--
Dibromochloromethane	U	U	U	U	U	U	U	U	U	5	--
1,2-Dibromoethane	U	U	U	U	U	U	U	U	U	5	--
Chlorobenzene	U	U	U	U	U	U	U	U	U	5	1,700
1,1,1,2-Tetrachloroethane	U	U	U	U	U	U	U	U	U	5	--
Ethylbenzene	2 J	13,000 J	U	62,000 J	82 J	U	780	63 J	7	5	5,500
m,p-Xylene	U	57,000	10	350,000	140 J	U	190 J	U	2 J	5	--
o-Xylene	U	20,000 J	4 J	120,000 J	54 J	U	360 J	U	3 J	5	--
Xylene (total)	U	77,000	14	470,000	194 J	U	550	U	5 J	5	1,200
Styrene	U	U	U	95,000 J	U	U	U	U	U	5	--
Bromoform	U	U	U	U	U	U	U	U	U	5	--
Isopropylbenzene	U	U	U	U	U	U	120 J	U	3 J	5	--
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	U	5	600
Bromobenzene	U	U	U	U	U	U	U	U	U	5	--
1,2,3-Trichloropropane	U	U	U	U	U	U	U	U	U	5	400
n-Propylbenzene	U	U	U	U	U	U	83 J	U	U	5	--
2-Chlorotoluene	U	U	U	U	U	U	U	U	U	5	--
1,3,5-Trimethylbenzene	U	9,400 J	U	U	U	U	140 J	U	2 J	5	--
4-Chlorotoluene	U	U	U	U	U	U	U	U	U	5	--
tert-Butylbenzene	U	U	U	U	U	U	U	U	U	5	--
1,2,4-Trimethylbenzene	U	23,000 J	3 J	120,000 J	62 J	U	420	U	5 J	5	--
sec-Butylbenzene	U	U	U	U	U	U	U	U	U	5	--
4-Isopropyltoluene	U	U	U	U	U	U	U	U	U	5	--
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	U	5	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	U	5	8,500
n-Butylbenzene	U	U	U	U	U	U	U	U	U	5	--
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	U	5	7,900
1,2-Dibromo-3-chloropropane	U	U	U	U	U	U	U	U	U	5	--
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	U	5	3,400
Hexachlorobutadiene	U	U	U	U	U	U	U	U	U	5	--
1,2,3-Trichlorobenzene	U	U	U	U	U	U	U	U	U	5	--
Total BTEX	6	145,000	38	1,052,000	453	0	1,330	63	16	--	--
Total VOCs	28	177,400	203	1,267,000	874	52	3,318	63	47	--	10,000

QUALIFIERS:

U: Constituent analyzed for but not detected.
J: Compound found at a concentration below the detection limit.
D: Result taken for reanalysis at a secondary dilution
E: Compound detected at a concentration greater than the instrument calibration range, value estimated

NOTES:

[ ] : Result exceeds NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objective
--: Not Available
N/A: Not Applicable

TABLE 4 (continued)

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
WEST 42ND STREET FORMER MGP SITE
SITE CHARACTERIZATION STUDY

SOIL BORING SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS (VOCs)

SAMPLE ID	SB-22	SB-22	SB-23	SB-23	SB-24	SB-24	SB-24	SB-25	SB-25	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives
SAMPLE DEPTH (FT)	12-16	36-44	20-24	52-54.5	30-32	34-36	36-38	12-16	24-28		
DATE OF COLLECTION	09/29/2003	09/29/2003	09/30/2003	09/30/2003	10/03/2003	10/03/2003	10/03/2003	10/01/2003	10/01/2003		
DILUTION FACTOR	1000.0	50.0	12500.0	50.0	100000.0	4000.0	100000.0	500.0	400.0		
PERCENT SOLIDS	75.0	79.0	64.0	76.0	69.0	70.0	62.0	75.0	63.0		
UNITS	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	(ug/Kg)	(ug/Kg)
Dichlorodifluoromethane	U	U	U	U	U	U	U	U	U	5	--
Chloromethane	U	U	U	U	U	U	U	U	U	5	--
Vinyl Chloride	U	U	U	U	U	U	U	U	U	5	200
Bromomethane	U	U	U	U	U	U	U	U	U	5	--
Chloroethane	U	U	U	U	U	U	U	U	U	5	1900
Trichlorofluoromethane	U	U	U	U	U	U	U	U	U	5	--
1,1-Dichloroethene	U	U	U	U	U	U	U	U	U	5	400
Acetone	U	360	U	550	U	U	U	U	1,800 J	5	200
Idomethane	U	U	U	U	U	U	U	U	U	5	--
Carbon Disulfide	U	U	U	U	U	U	U	U	U	5	2700
Methylene Chloride	U	81 J	U	69 J	160,000 J	U	190,000 JB	U	580 J	5	100
trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	U	5	300
Methyl tert-butyl ether	U	U	U	U	U	U	U	U	U	5	--
1,1-Dichloroethane	U	U	U	U	U	U	U	U	U	5	200
Vinyl acetate	U	U	U	U	U	U	U	U	U	5	--
2-Butanone	U	490	U	680	U	U	U	U	780 J	5	300
cis-1,2-Dichloroethene	U	U	U	U	U	U	U	U	U	5	--
2,2-Dichloropropane	U	U	U	U	U	U	U	U	U	5	--
Bromochloromethane	U	U	U	U	U	U	U	U	U	5	--
Chloroform	U	U	U	U	U	U	U	U	U	5	300
1,1,1-Trichloroethane	U	U	U	U	U	U	U	U	U	5	800
1,1-Dichloropropene	U	U	U	U	U	U	U	U	U	5	--
Carbon Tetrachloride	U	U	U	U	U	U	U	U	U	5	600
1,2-Dichloroethane	U	U	U	U	U	U	U	U	U	5	100
Benzene	2,400 J	U	50,000 J	U	320,000 J	U	490,000 J	610 J	U	5	60
Trichloroethene	U	U	U	U	U	U	U	U	U	5	700
1,2-Dichloropropane	U	U	U	U	U	U	U	U	U	5	--
Dibromomethane	U	U	U	U	U	U	U	U	U	5	--
Bromodichloromethane	U	U	U	U	U	U	U	U	U	5	--
cis-1,3-Dichloropropane	U	U	U	U	U	U	U	U	U	5	--
4-Methyl-2-pentanone	U	U	U	U	U	U	U	U	U	5	1000
Toluene	U	U	130,000	U	750,000	12,000 J	1,200,000	U	U	5	1500
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	U	5	--
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	U	5	--

QUALIFIERS:
U: Constituent analyzed for but not detected.
J: Compound found at a concentration below the detection limit.
D: Result taken for reanalysis at a secondary dilution
E: Compound detected at a concentration greater than the instrument calibration range, value estimated

NOTES:
: Result exceeds NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objective
--: Not Available
N/A: Not Applicable

TABLE 4 (continued)

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
WEST 42ND STREET FORMER MGP SITE
SITE CHARACTERIZATION STUDY

SOIL BORING SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS (VOCs)

SAMPLE ID	SB-22	SB-22	SB-23	SB-23	SB-24	SB-24	SB-24	SB-25	SB-25	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives
SAMPLE DEPTH (IN)	12-16	36-44	20-24	52-54.5	30-32	34-36	36-38	12-16	24-28		
DATE OF COLLECTION	09/26/1902	09/26/2003	09/30/2003	09/30/2003	10/03/2003	10/03/2003	10/03/2003	10/01/2003	10/01/2003		
DILUTION FACTOR	1000.0	50.0	12500.0	50.0	100000.0	4000.0	100000.0	500.0	400.0		
PERCENT SOLIDS	75.0	79.0	64.0	76.0	69.0	70.0	62.0	75.0	63.0		
UNITS	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	(ug/Kg)	(ug/Kg)
1,3-Dichloropropane	U	U	U	U	U	U	U	U	U	5	300
Tetrachloroethene	U	U	U	U	U	U	U	U	U	5	1,400
2-Hexanone	U	U	U	U	U	U	U	U	U	5	--
Dibromochloromethane	U	U	U	U	U	U	U	U	U	5	--
1,2-Dibromoethane	U	U	U	U	U	U	U	U	U	5	--
Chlorobenzene	U	U	U	U	U	U	U	U	U	5	1,700
1,1,1,2-Tetrachloroethane	U	U	U	U	U	U	U	U	U	5	--
Ethylbenzene	2,900 J	120 J	81,000 J	75 J	540,000 J	11,000 J	790,000 J	1,900 J	1,200 J	5	5,500
m,p-Xylene	4,600 J	87 J	160,000	U	1,100,000	24,000 J	1,600,000	2,400 J	1,400 J	5	--
o-Xylene	2,200 J	U	61,000 J	U	390,000 J	9,600 J	580,000 J	930 J	620 J	5	--
Xylene (total)	6,800	87 J	221,000	U	1,490,000	33,600	2,180,000	3,330	2,020 J	5	1,200
Styrene	U	U	U	U	U	U	U	U	U	5	--
Bromoform	U	U	U	U	U	U	U	U	U	5	--
Isopropylbenzene	U	U	U	U	U	U	U	U	U	5	--
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	U	5	600
Bromobenzene	U	U	U	U	U	U	U	U	U	5	--
1,2,3-Trichloropropane	U	U	U	U	U	U	U	U	U	5	400
n-Propylbenzene	U	U	U	U	U	U	U	U	U	5	--
2-Chlorotoluene	U	U	U	U	U	U	U	U	U	5	--
1,3,5-Trimethylbenzene	2,100 J	U	29,000 J	U	230,000 J	5,800 J	320,000 J	U	U	5	--
4-Chlorotoluene	U	U	U	U	U	U	U	U	U	5	--
tert-Butylbenzene	U	U	U	U	U	U	U	U	U	5	--
1,2,4-Trimethylbenzene	4,400 J	84 J	68,000 J	62 J	530,000 J	14,000 J	760,000 J	1,300 J	880 J	5	--
sec-Butylbenzene	U	U	U	U	U	U	U	U	U	5	--
4-Isopropyltoluene	U	U	U	U	U	U	U	U	U	5	--
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	U	5	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	U	5	8,500
n-Butylbenzene	U	U	U	U	U	U	U	U	U	5	--
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	U	5	7,900
1,2-Dibromo-3-chloropropane	U	U	U	U	U	U	U	U	U	5	--
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	U	5	3,400
Hexachlorobutadiene	U	U	U	U	U	U	U	U	U	5	--
1,2,3-Trichlorobenzene	U	U	U	U	U	U	U	U	U	5	--
Total BTEX	12,100	207	482,000	75	3,100,000	56,600	4,660,000	5,840	3,220	--	--
Total VOCs	18,600	1,222	579,000	1,436	4,020,000	76,400	5,930,000	7,140	7,260	--	10,000

QUALIFIERS:
U: Constituent analyzed for but not detected.
J: Compound found at a concentration below the detection limit.
D: Result taken for reanalysis at a secondary dilution
E: Compound detected at a concentration greater than the instrument calibration range, value estimated

NOTES:
[ ] : Result exceeds NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objective
--: Not Available
N/A: Not Applicable

TABLE 4 (continued)

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
WEST 42ND STREET FORMER MGP SITE
SITE CHARACTERIZATION STUDY

SOIL BORING SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS (VOCs)

SAMPLE ID	SB-26	SB-26	SB-27	SB-27	SB-28	SB-29	SB-29			LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives
SAMPLE DEPTH (FT)	9-13	16-19	18-20	29-31	11-13	19-23	39-41				
DATE OF COLLECTION	09/29/2003	10/01/2003	09/22/2003	09/23/2003	09/25/2003	09/24/2003	09/24/2003				
DILUTION FACTOR	5000.0	2000.0	1000.0	100.0	1.0	20000.0	1.0				
PERCENT SOLIDS	80.0	79.0	82.0	77.0	71.0	67.0	97.0				
UNITS	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg			(ug/Kg)	(ug/Kg)
Dichlorodifluoromethane	U	U	U	U	U	U	U			5	--
Chloromethane	U	U	U	U	U	U	U			5	--
Vinyl Chloride	U	U	U	U	U	U	U			5	200
Bromomethane	U	U	U	U	U	U	U			5	--
Chloroethane	U	U	U	U	U	U	U			5	1900
Trichlorofluoromethane	U	U	U	U	U	U	U			5	--
1,1-Dichloroethene	U	U	U	U	U	U	U			5	400
Acetone	U	U	U	U	U	U	29			5	200
Idomethane	U	U	U	U	U	U	U			5	--
Carbon Disulfide	U	U	U	U	U	U	U			5	2700
Methylene Chloride	U	U	1,500 J	1,500 J	5 J	U	2 J			5	100
trans-1,2-Dichloroethene	U	U	U	U	U	U	U			5	300
Methyl tert-butyl ether	U	U	U	U	U	U	U			5	--
1,1-Dichloroethane	U	U	U	U	U	U	U			5	200
Vinyl acetate	U	U	U	U	U	U	U			5	--
2-Butanone	U	U	U	U	U	U	U			5	300
cis-1,2-Dichloroethene	U	U	U	U	U	U	U			5	--
2,2-Dichloropropane	U	U	U	U	U	U	U			5	--
Bromochloromethane	U	U	U	U	U	U	U			5	--
Chloroform	U	U	U	U	U	U	U			5	300
1,1,1-Trichloroethane	U	U	U	U	U	U	U			5	800
1,1-Dichloropropene	U	U	U	U	U	U	U			5	--
Carbon Tetrachloride	U	U	U	U	U	U	U			5	600
1,2-Dichloroethane	U	U	U	U	U	U	U			5	100
Benzene	U	1,500 J	U	4,300 J	140	U	U			5	60
Trichloroethene	U	U	U	U	U	U	U			5	700
1,2-Dichloropropane	U	U	U	U	U	U	U			5	--
Dibromomethane	U	U	U	U	U	U	U			5	--
Bromodichloromethane	U	U	U	U	U	U	U			5	--
cis-1,3-Dichloropropane	U	U	U	U	U	U	U			5	--
4-Methyl-2-pentanone	U	U	U	U	U	U	U			5	1000
Toluene	U	5,400 J	1,300 J	U	2 J	170,000	U			5	1500
trans-1,3-Dichloropropene	U	U	U	U	U	U	U			5	--
1,1,2-Trichloroethane	U	U	U	U	U	U	U			5	--

QUALIFIERS:
U: Constituent analyzed for but not detected.
J: Compound found at a concentration below the detection limit.
D: Result taken for reanalysis at a secondary dilution
E: Compound detected at a concentration greater than the instrument calibration range, value estimated

NOTES:
[ ] : Result exceeds NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objective
--: Not Available
N/A: Not Applicable

TABLE 4 (continued)

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
WEST 42ND STREET FORMER MGP SITE
SITE CHARACTERIZATION STUDY

SOIL BORING SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS (VOCs)

SAMPLE ID	SB-26	SB-26	SB-27	SB-27	SB-28	SB-29	SB-29			LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives
SAMPLE DEPTH (IN)	9-13	16-19	18-20	29-31	11-13	19-23	39-41				
DATE OF COLLECTION	09/29/2003	10/01/2003	09/22/2003	09/23/2003	09/25/2003	09/24/2003	09/24/2003				
DILUTION FACTOR	5000.0	2000.0	1000.0	1000.0	1.0	20000.0	1.0				
PERCENT SOLIDS	80.0	71.0	82.0	77.0	71.0	67.0	97.0				
UNITS	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg			(ug/Kg)	(ug/Kg)
1,3-Dichloropropane	U	U	U	U	U	U	U			5	300
Tetrachloroethene	U	U	U	U	U	U	U			5	1,400
2-Hexanone	U	U	U	U	U	U	U			5	--
Dibromochloromethane	U	U	U	U	U	U	U			5	--
1,2-Dibromoethane	U	U	U	U	U	U	U			5	--
Chlorobenzene	U	U	U	U	U	U	U			5	1,700
1,1,1,2-Tetrachloroethane	U	U	U	U	U	U	U			5	--
Ethylbenzene	14,000 J	3,800 J	4,000 J	7,000	U	140,000 J	1 J			5	5,500
m,p-Xylene	27,000 J	11,000 J	5,200	11,000	U	240,000	U			5	--
o-Xylene	10,000 J	4,200 J	2,500 J	4,400 J	U	96,000 J	U			5	--
Xylene (total)	37,000	15,200	7,700	15,400	U	336,000	U			5	1,200
Styrene	U	U	U	U	U	U	U			5	--
Bromoform	U	U	U	U	U	U	U			5	--
Isopropylbenzene	U	U	U	U	U	U	U			5	--
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U			5	600
Bromobenzene	U	U	U	U	U	U	U			5	--
1,2,3-Trichloropropane	U	U	U	U	U	U	U			5	400
n-Propylbenzene	U	U	1,200 J	U	U	U	U			5	--
2-Chlorotoluene	U	U	U	U	U	U	U			5	--
1,3,5-Trimethylbenzene	U	U	2,900 J	2,400 J	U	69,000 J	U			5	--
4-Chlorotoluene	U	U	U	U	U	U	U			5	--
tert-Butylbenzene	U	U	U	U	U	U	U			5	--
1,2,4-Trimethylbenzene	11,000 J	5,600 J	7,600	6,300	U	150,000	U			5	--
sec-Butylbenzene	U	U	U	U	U	U	U			5	--
4-Isopropyltoluene	U	U	U	U	U	U	U			5	--
1,3-Dichlorobenzene	U	U	U	U	U	U	U			5	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U			5	8,500
n-Butylbenzene	U	U	1,300 J	U	U	U	U			5	--
1,2-Dichlorobenzene	U	U	U	U	U	U	U			5	7,900
1,2-Dibromo-3-chloropropane	U	U	U	U	U	U	U			5	--
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U			5	3,400
Hexachlorobutadiene	U	U	U	U	U	U	U			5	--
1,2,3-Trichlorobenzene	U	U	U	U	U	U	U			5	--
Total BTEX	51,000	25,900	13,000	26,700	142	646,000	1			--	--
Total VOCs	62,000	31,500	27,500	36,900	147	865,000	32			--	10,000

QUALIFIERS:

U: Constituent analyzed for but not detected.
J: Compound found at a concentration below the detection limit.
D: Result taken for reanalysis at a secondary dilution
E: Compound detected at a concentration greater than the instrument calibration range, value estimated

NOTES:

: Result exceeds NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objective
--: Not Available
N/A: Not Applicable

TABLE 5

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
WEST 42ND STREET FORMER MGP SITE
SITE CHARACTERIZATION STUDY

SOIL BORING SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

SAMPLE ID	SB-01	SB-01	SB-02	SB-02	SB-03	SB-04	SB-05	SB-06	SB-07	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives
SAMPLE DEPTH (FT)	22-26	26-32	17-19	29-31	17-19	10-16	18-19.5	9-11	27-29		
DATE OF COLLECTION	09/02/2003	09/02/2003	09/03/2003	09/22/2003	09/05/2003	09/18/2003	09/09/2003	09/09/2003	09/03/2003		
DILUTION FACTOR	1.0	1.0	100.0	1.0	100.0	1.0	1200.0	1.0	1.0		
PERCENT SOLIDS	20.0	78.0	82.0	93.0	76.0	78.0	75.0	78.0	77.0		
UNITS	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	(ug/Kg)	(ug/Kg)
Phenol	U	U	U	U	U	U	U	U	U	330	30 OR MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	U	330	----
2-Chlorophenol	U	U	U	U	U	U	U	U	U	330	800
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	U	330	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	U	330	8,500
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	U	330	7,900
2-Methylphenol	U	U	U	U	U	U	U	U	U	330	100 OR MDL
2,2-Oxybis (1-Chloropropane)	U	U	U	U	U	U	U	U	U	330	----
4-Methylphenol	U	U	U	U	U	44 J	U	U	U	330	900
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	U	330	----
Hexachloroethane	U	U	U	U	U	U	U	U	U	330	----
Nitrobenzene	U	U	U	U	U	U	U	U	U	330	200 OR MDL
Isophorone	U	U	U	U	U	U	U	U	U	330	4,400
2-Nitrophenol	U	U	U	U	U	U	U	U	U	330	330 OR MDL
2,4-Dimethylphenol	U	U	U	U	U	U	U	U	U	330	----
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	U	330	400
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	U	330	3,400
Naphthalene	38,000 D	5,400	2,800,000 D	U	1,200,000 D	370 J	5,900,000	390 J	1,500	330	13,000
4-Chloroaniline	U	U	U	U	U	U	U	U	U	330	220 OR MDL
bis (2-Chloroethoxy) methane	U	U	U	U	U	U	U	U	U	330	----
Hexachlorobutadiene	U	U	U	U	U	U	U	U	U	330	----
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	U	330	240 OR MDL
2-Methylnaphthalene	620 J	1,100	220,000	U	52,000	78 J	220,000 J	U	250 J	330	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	U	330	----
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	U	800	----
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	U	330	100
2-Chloronaphthalene	U	U	U	U	U	U	U	U	U	800	----
2-Nitroaniline	U	U	U	U	U	U	U	U	U	330	430 OR MDL
Dimethylphthalate	U	U	U	U	U	U	U	U	U	330	2,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	U	330	1,000
Acenaphthylene	U	280 J	12,000 J	U	6,300 J	310 J	55,000 J	U	U	330	41,000
3-Nitroaniline	U	U	U	U	U	U	U	U	U	800	500 OR MDL
Acenaphthene	2,400	480	7,200 J	U	6,900 J	U	U	U	71 J	330	50,000
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	U	800	200 OR MDL
4-Nitrophenol	U	U	U	U	U	U	U	U	U	800	100 OR MDL
Dibenzofuran	2,700	1,000	23,000 J	U	12,000 J	130 J	79,000 J	U	170 J	330	6,200

TABLE 5 (continued)

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
WEST 42ND STREET FORMER MGP SITE
SITE CHARACTERIZATION STUDY

SOIL BORING SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

SAMPLE ID	SB-01	SB-01	SB-02	SB-02	SB-03	SB-04	SB-05	SB-06	SB-07	LABORATORY QUANTITATION LIMITS [1]	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives
SAMPLE DEPTH (FT)	22-26	26-32	17-19	29-31	17-19	10-16	18-19.5	9-11	27-29		
DATE OF COLLECTION	09/02/2003	09/02/2003	09/03/2003	09/22/2003	09/05/2003	09/18/2003	09/09/2003	09/09/2003	09/03/2003		
DILUTION FACTOR	1.0	1.0	100.0	1.0	100.0	1.0	1200.0	1.0	5.0		
PERCENT SOLIDS	20.0	78.0	82.0	93.0	76.0	78.0	75.0	78.0	77.0		
UNITS	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	(ug/Kg)	(ug/Kg)
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	U	330	----
Diethylphthalate	U	U	U	91 JB	U	U	U	U	U	330	7,100
Fluorene	3,000	1,400	16,000 J	U	13,000 J	120 J	**79,000 J**	U	230 J	330	50,000
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	U	330	----
4-Nitroaniline	U	U	U	U	U	U	U	U	U	800	----
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	U	800	----
N-Nitrosodiphenylamine	U	U	U	U	U	U	U	U	U	330	----
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	U	330	----
Hexachlorobenzene	U	U	U	U	U	U	U	U	U	330	410
Pentachlorophenol	U	U	U	U	U	U	U	U	U	800	1,000 OR MDL
Phenanthrene	3,800	4,700	45,000	U	**69,000**	1,500	**340,000 J**	97 J	820	330	50,000
Anthracene	680 J	1,400	12,000 J	U	14,000 J	780	**95,000 J**	U	290 J	330	50,000
Carbazole	3,200	780	U	U	7,300 J	51 J	U	U	180 J	330	----
Di-n-butylphthalate	U	U	U	U	U	U	U	U	U	330	8,100
Fluoranthene	1,200 J	2,900	32,000 J	U	**56,000**	4,000	**220,000 J**	140 J	510	330	50,000
Pyrene	1,100 J	2,700	26,000 J	U	46,000	5,100	**190,000 J**	130 J	420 J	330	50,000
Butylbenzylphthalate	U	U	U	U	U	U	U	U	U	330	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	U	330	----
Benzo (a) anthracene	**620 J**	**1,500**	**12,000 J**	U	**23,000 J**	**3,300**	**81,000 J**	83 J	**240 J**	330	224 OR MDL
Chrysene	**500 J**	**1,200**	**11,000 J**	U	**19,000 J**	**2,900**	**69,000 J**	75 J	230 J	330	400
bis(2-Ethylhexyl)phthalate	800 J	640	U	250 J	U	2,400	U	630	810	330	50,000
Di-n-octylphthalate	U	U	U	U	U	U	U	U	U	330	50,000
Benzo(b)fluoranthene	500 J	**1,200**	**11,000 J**	U	**21,000 J**	**4,300**	**96,000 J**	89 J	190 J	330	1,100
Benzo(k)fluoranthene	240 J	510	**5,900 J**	U	**10,000 J**	**1,600**	U	U	95 J	330	1,100
Benzo(a)pyrene	**450 J**	**1,000**	**9,900 J**	U	**19,000 J**	**3,300**	**78,000 J**	**76 J**	**170 J**	330	61 OR MDL
Indeno(1,2,3-cd)pyrene	190 J	460	**6,200 J**	U	**11,000 J**	1,400	U	U	76 J	330	3,200
Dibenzo(a,h)anthracene	U	**150 J**	U	U	U	**360 J**	U	U	U	330	14 OR MDL
Benzo(g,h,i)perylene	170 J	390 J	6,700 J	U	12,000 J	1,400	U	U	66 J	330	50,000
Total PAHs	52,850	25,670	3,012,900	0	1,526,200	30,740	7,203,000	1,080	4,908		----
Total Carcinogen PAHs	2,500	6,020	56,000	0	103,000	17,160	324,000	323	1,001		----
Total SVOCs	60,170	29,190	**3,255,900**	341	**1,597,500**	33,443	**7,502,000**	1,710	6,318		500,000

QUALIFIERS:
U: Compound analyzed for but not detected
B: Compound found in the method blank as well as the sample
J: Compound found at a concentration below the CRDL, value estimated
D: Result taken from reanalysis at dilution

NOTES:
To determine the detection limit for each sample, use the following equation:
(CRDL)*(DF)*(100/%S), where CRDL = contract required detection limit, DF = dilution factor and %S = percent solids.
---: not established
[ ] Indicates value exceeds NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objective
NA: sample not analyzed for this analyte

TABLE 5 (continued)

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
WEST 42ND STREET FORMER MGP SITE
SITE CHARACTERIZATION STUDY

SOIL BORING SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

SAMPLE ID	SB-07	SB-08	SB-08	SB-09	SB-09	SB-10	SB-10	SB-11	SB-12	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives
SAMPLE DEPTH (FT)	33-35	12-16	28-30	11-15	31-33.5	20-24	26-28	10-12	21-23		
DATE OF COLLECTION	09/03/2003	10/02/2003	10/02/2003	09/05/2003	09/05/2003	09/11/2003	09/11/2003	09/17/2003	09/08/2003		
DILUTION FACTOR	1.0	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		
PERCENT SOLIDS	77.0	81.0	78.0	81.0	70.0	80.0	78.0	82.0	68.0		
UNITS	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	(ug/Kg)	(ug/Kg)
Phenol	U	U	U	U	U	U	U	U	U	330	30 OR MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	U	330	----
2-Chlorophenol	U	U	U	U	U	U	U	U	U	330	800
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	U	330	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	U	330	8,500
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	U	330	7,900
2-Methylphenol	U	U	U	U	U	U	U	U	U	330	100 OR MDL
2,2-Oxybis (1-Chloropropane)	U	U	U	U	U	U	U	U	U	330	----
4-Methylphenol	U	U	U	U	U	U	U	U	U	330	900
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	U	330	----
Hexachloroethane	U	U	U	U	U	U	U	U	U	330	----
Nitrobenzene	U	U	U	U	U	U	U	U	U	330	200 OR MDL
Isophorone	U	U	U	U	U	U	U	U	U	330	4,400
2-Nitrophenol	U	U	U	U	U	U	U	U	U	330	330 OR MDL
2,4-Dimethylphenol	U	U	U	U	U	U	U	U	71 J	330	----
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	U	330	400
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	U	330	3,400
Naphthalene	11,000 D	550,000 DB	16,000 DB	990	4,400	400 J	46 J	U	41,000 D	330	13,000
4-Chloroaniline	U	U	U	U	U	U	U	U	U	330	220 OR MDL
bis (2-Chloroethoxy) methane	U	U	U	U	U	U	U	U	U	330	----
Hexachlorobutadiene	U	U	U	U	U	U	U	U	U	330	----
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	U	330	240 OR MDL
2-Methylnaphthalene	3,100	150,000 D	1,100	89 J	200 J	U	U	U	1,100	330	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	U	330	----
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	U	800	----
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	U	330	100
2-Chloronaphthalene	U	U	U	U	U	U	U	U	U	800	----
2-Nitroaniline	U	U	U	U	U	U	U	U	U	330	430 OR MDL
Dimethylphthalate	U	U	U	U	U	U	U	U	U	330	2,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	U	330	1,000
Acenaphthylene	510	25,000	73 J	U	U	U	U	U	U	330	41,000
3-Nitroaniline	U	U	U	U	U	U	U	U	U	800	500 OR MDL
Acenaphthene	1,200	28,000	230 J	86 J	U	U	U	U	340 J	330	50,000
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	U	800	200 OR MDL
4-Nitrophenol	U	U	U	U	U	U	U	U	U	800	100 OR MDL
Dibenzofuran	3,000	32,000	160 J	60 J	U	U	U	U	420 J	330	6,200

TABLE 5 (continued)

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
WEST 42ND STREET FORMER MGP SITE
SITE CHARACTERIZATION STUDY

SOIL BORING SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

SAMPLE ID	SB-07	SB-08	SB-08	SB-09	SB-09	SB-10	SB-10	SB-11	SB-12	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives
SAMPLE DEPTH (FT)	33-35	12-16	28-30	11-15	31-33.5	20-24	26-28	10-12	21-23		
DATE OF COLLECTION	09/03/2003	10/02/2003	10/02/2003	09/05/2003	09/05/2003	09/11/2003	09/11/2003	09/17/2003	09/08/2003		
DILUTION FACTOR	1.0	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		
PERCENT SOLIDS	77.0	81.0	78.0	81.0	70.0	80.0	78.0	82.0	68.0		
UNITS	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	(ug/Kg)	(ug/Kg)
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	U	330	----
Diethylphthalate	U	U	U	U	U	U	U	U	U	330	7,100
Fluorene	4,100	88,000 D	200 J	77 J	U	U	U	U	500	330	50,000
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	U	330	----
4-Nitroaniline	U	U	U	U	U	U	U	U	U	800	----
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	U	800	----
N-Nitrosodiphenylamine	U	U	U	U	U	U	U	U	U	330	----
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	U	330	----
Hexachlorobenzene	U	U	U	U	U	U	U	U	U	330	410
Pentachlorophenol	U	U	U	U	U	U	U	U	U	800	1,000 OR MDL
Phenanthrene	16,000 D	230,000 D	590	610	U	U	U	U	410 J	330	50,000
Anthracene	4,700	81,000 D	170 J	160 J	U	U	U	U	56 J	330	50,000
Carbazole	2,200	22,000	86 J	91 J	U	U	U	U	840	330	----
Di-n-butylphthalate	U	U	U	U	U	U	U	U	U	330	8,100
Fluoranthene	10,000 D	160,000 D	390 J	760	U	U	U	U	U	330	50,000
Pyrene	7,500 D	140,000 D	310 J	750	U	U	U	U	U	330	50,000
Butylbenzylphthalate	U	U	U	44 J	U	U	U	U	U	330	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	U	330	----
Benzo (a) anthracene	4,800	68,000 D	150 J	420	U	U	U	U	U	330	224 OR MDL
Chrysene	3,700	63,000 D	140 J	440	U	U	U	U	U	330	400
bis(2-Ethylhexyl)phthalate	4,400	U	U	2,200	300 J	520	230 J	1,900	480 J	330	50,000
Di-n-octylphthalate	53 J	U	U	U	U	U	U	U	U	330	50,000
Benzo(b)fluoranthene	4,000	68,000 D	140 J	610	U	U	U	U	U	330	1,100
Benzo(k)fluoranthene	1,600	21,000	55 J	220 J	U	U	U	U	U	330	1,100
Benzo(a)pyrene	2,900	61,000 D	120 J	520	U	U	U	U	U	330	61 OR MDL
Indeno(1,2,3-cd)pyrene	1,100	20,000	58 J	340 J	U	U	U	U	U	330	3,200
Dibenzo(a,h)anthracene	330 J	5,700	U	71 J	U	U	U	U	U	330	14 OR MDL
Benzo(g,h,i)perylene	860	23,000	72 J	360 J	U	U	U	U	U	330	50,000
Total PAHs	74,300	1,631,700	18,698	6,414	4,400	400	46	0	42,306		----
Total Carcinogen PAHs	18,430	306,700	663	2,621	0	0	0	0	0		----
Total SVOCs	87,053	1,835,700	20,044	8,898	4,900	920	276	1,900	45,217		500,000

QUALIFIERS:
U: Compound analyzed for but not detected
B: Compound found in the method blank as well as the sample
J: Compound found at a concentration below the CRDL, value estimated
D: Result taken from reanalysis at dilution

NOTES:
To determine the detection limit for each sample, use the following equation:
(CRDL)*(DF)*(100/%S), where CRDL = contract required detection limit, DF = dilution factor and %S = percent solids.
---: not established
[ ] Indicates value exceeds NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objective
NA: sample not analyzed for this analyte

TABLE 5 (continued)

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
WEST 42ND STREET FORMER MGP SITE
SITE CHARACTERIZATION STUDY

SOIL BORING SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

SAMPLE ID	SB-12	SB-13	SB-14	SB-14	SB-15	SB-15	SB-16	SB-16	SB-17	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives
SAMPLE DEPTH (FT)	27-28.8	19-21.4	17-19	30-32	7-9	13-15	13-15	25-27	9-13		
DATE OF COLLECTION	09/08/2003	09/16/2003	09/12/2003	09/15/2003	09/12/2003	09/12/2003	09/16/2003	09/16/2003	09/09/2003		
DILUTION FACTOR	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	60.0		
PERCENT SOLIDS	80.0	78.0	85.0	85.0	85.0	86.0	85.0	84.0	83.0		
UNITS	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	(ug/Kg)	(ug/Kg)
Phenol	U	U	U	U	U	U	U	U	U	330	30 OR MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	U	330	----
2-Chlorophenol	U	U	U	U	U	U	U	U	U	330	800
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	U	330	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	U	330	8,500
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	U	330	7,900
2-Methylphenol	U	U	U	U	U	U	U	U	U	330	100 OR MDL
2,2-Oxybis (1-Chloropropane)	U	U	U	U	U	U	U	U	U	330	----
4-Methylphenol	U	U	U	U	U	U	U	U	U	330	900
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	U	330	----
Hexachloroethane	U	U	U	U	U	U	U	U	U	330	----
Nitrobenzene	U	U	U	U	U	U	U	U	U	330	200 OR MDL
Isophorone	U	U	U	U	U	U	U	U	U	330	4,400
2-Nitrophenol	U	U	U	U	U	U	U	U	U	330	330 OR MDL
2,4-Dimethylphenol	U	U	U	U	U	U	U	U	U	330	----
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	U	330	400
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	U	330	3,400
Naphthalene	690	29,000 D	26,000 D	U	1,300	U	34,000 D	1,600	200,000	330	13,000
4-Chloroaniline	U	U	U	U	U	U	U	U	U	330	220 OR MDL
bis (2-Chloroethoxy) methane	U	U	U	U	U	U	U	U	U	330	----
Hexachlorobutadiene	U	U	U	U	U	U	U	U	U	330	----
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	U	330	240 OR MDL
2-Methylnaphthalene	U	2,000	2,300	U	1,200	U	4,600	87 J	5,500 J	330	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	U	330	----
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	U	800	----
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	U	330	100
2-Chloronaphthalene	U	U	U	U	U	U	U	U	U	800	----
2-Nitroaniline	U	U	U	U	U	U	U	U	U	330	430 OR MDL
Dimethylphthalate	U	U	U	U	U	U	U	U	U	330	2,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	U	330	1,000
Acenaphthylene	U	86 J	98 J	U	U	U	U	U	3,300 J	330	41,000
3-Nitroaniline	U	U	U	U	U	U	U	U	U	800	500 OR MDL
Acenaphthene	U	59 J	76 J	U	64 J	U	820	U	5,800 J	330	50,000
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	U	800	200 OR MDL
4-Nitrophenol	U	U	U	U	U	U	U	U	U	800	100 OR MDL
Dibenzofuran	U	160 J	240 J	U	51 J	U	1,500	U	36,000	330	6,200

TABLE 5 (continued)

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
WEST 42ND STREET FORMER MGP SITE
SITE CHARACTERIZATION STUDY

SOIL BORING SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

SAMPLE ID	SB-12	SB-13	SB-14	SB-14	SB-15	SB-15	SB-16	SB-16	SB-17	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives
SAMPLE DEPTH (FT)	27-28.8	19-21.4	17-19	30-32	7-9	13-15	13-15	25-27	9-13		
DATE OF COLLECTION	09/08/2003	09/16/2003	09/12/2003	09/15/2003	09/12/2003	09/12/2003	09/16/2003	09/16/2003	09/09/2003		
DILUTION FACTOR	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	60.0		
PERCENT SOLIDS	80.0	78.0	85.0	85.0	85.0	86.0	85.0	84.0	83.0		
UNITS	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	(ug/Kg)	(ug/Kg)
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	U	330	----
Diethylphthalate	U	U	U	U	U	U	U	U	U	330	7,100
Fluorene	U	130 J	160 J	U	68 J	U	1,000	U	29,000	330	50,000
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	U	330	----
4-Nitroaniline	U	U	U	U	U	U	U	U	U	800	----
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	U	800	----
N-Nitrosodiphenylamine	U	U	U	U	U	U	U	U	U	330	----
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	U	330	----
Hexachlorobenzene	U	U	U	U	U	U	U	U	U	330	410
Pentachlorophenol	U	U	U	U	U	U	U	U	U	800	1,000 OR MDL
Phenanthrene	U	490 J	550	U	170 J	U	2,800	U	**69,000**	330	50,000
Anthracene	U	130 J	140 J	U	47 J	U	750	U	11,000 J	330	50,000
Carbazole	U	47 J	U	U	U	U	180 J	U	10,000 J	330	----
Di-n-butylphthalate	U	U	U	U	U	U	U	U	U	330	8,100
Fluoranthene	U	360 J	U	U	110 J	U	1,700	U	**51,000**	330	50,000
Pyrene	U	340 J	U	U	94 J	U	2,300	U	**63,000**	330	50,000
Butylbenzylphthalate	U	U	U	U	U	U	U	U	U	330	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	U	330	----
Benzo (a) anthracene	U	140 J	130 J	U	U	U	**710**	U	**21,000 J**	330	224 OR MDL
Chrysene	U	140 J	130 J	U	U	U	**600**	U	**18,000 J**	330	400
bis(2-Ethylhexyl)phthalate	320 J	840	1,200	130 J	550	1,100	280 J	610	U	330	50,000
Di-n-octylphthalate	U	U	U	U	U	U	U	U	U	330	50,000
Benzo(b)fluoranthene	U	130 J	130 J	U	43 J	U	680	U	**24,000**	330	1,100
Benzo(k)fluoranthene	U	56 J	62 J	U	U	U	280 J	U	**11,000 J**	330	1,100
Benzo(a)pyrene	U	**110 J**	**130 J**	U	U	U	**590**	U	**12,000 J**	330	61 OR MDL
Indeno(1,2,3-cd)pyrene	U	U	50 J	U	U	U	310 J	U	**14,000 J**	330	3,200
Dibenzo(a,h)anthracene	U	U	U	U	U	U	U	U	U	330	14 OR MDL
Benzo(g,h,i)perylene	U	44 J	56 J	U	U	U	350 J	U	U	330	50,000
Total PAHs	690	31,215	27,712	0	1,896	0	46,890	1,600	532,100		----
Total Carcinogen PAHs	0	576	632	0	43	0	3,170	0	100,000		----
Total SVOCs	1,010	34,262	31,452	130	3,697	1,100	53,450	2,297	**583,600**		500,000

QUALIFIERS:
U: Compound analyzed for but not detected
B: Compound found in the method blank as well as the sample
J: Compound found at a concentration below the CRDL, value estimated
D: Result taken from reanalysis at dilution

NOTES:
To determine the detection limit for each sample, use the following equation:
(CRDL)*(DF)*(100/%S), where CRDL = contract required detection limit, DF = dilution factor and %S = percent solids.
---: not established
Indicates value exceeds NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objective
NA: sample not analyzed for this analyte

TABLE 5 (continued)

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
WEST 42ND STREET FORMER MGP SITE
SITE CHARACTERIZATION STUDY

SOIL BORING SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

SAMPLE ID	SB-17	SB-18	SB-18	SB-19	SB-19	SB-20	SB-20	SB-21	SB-21	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives
SAMPLE DEPTH (FT)	21-23	9-13	23-25	20-24	24-26.2	12-16	16-20	12-16	36-38.9		
DATE OF COLLECTION	09/10/2003	09/26/2003	09/26/2003	10/02/2003	10/02/2003	10/02/2003	10/02/2003	09/30/2003	09/30/2003		
DILUTION FACTOR	1.0	5.0	1.0	50.0	1.0	1.0	1.0	5.0	1.0		
PERCENT SOLIDS	94.0	78.0	56.0	63.0	86.0	73.0	64.0	78.0	75.0		
UNITS	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	(ug/Kg)	(ug/Kg)
Phenol	U	U	U	U	U	U	U	U	U	330	30 OR MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	U	330	----
2-Chlorophenol	U	U	U	U	U	U	U	U	U	330	800
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	U	330	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	U	330	8,500
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	U	330	7,900
2-Methylphenol	U	U	U	U	U	U	U	U	U	330	100 OR MDL
2,2-Oxybis (1-Chloropropane)	U	U	U	U	U	U	U	U	U	330	----
4-Methylphenol	U	U	U	U	U	U	U	U	U	330	900
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	U	330	----
Hexachloroethane	U	U	U	U	U	U	U	U	U	330	----
Nitrobenzene	U	U	U	U	U	U	U	U	U	330	200 OR MDL
Isophorone	U	U	U	U	U	U	U	U	U	330	4,400
2-Nitrophenol	U	U	U	U	U	U	U	U	U	330	330 OR MDL
2,4-Dimethylphenol	U	U	U	7,800 J	U	U	U	U	U	330	----
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	U	330	400
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	U	330	3,400
Naphthalene	400	660,000 D	910	1,700,000 DB	19,000 DB	110 JB	6,000 B	3,100 B	2,300 B	330	13,000
4-Chloroaniline	U	U	U	U	U	U	U	U	U	330	220 OR MDL
bis (2-Chloroethoxy) methane	U	U	U	U	U	U	U	U	U	330	----
Hexachlorobutadiene	U	U	U	U	U	U	U	U	U	330	----
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	U	330	240 OR MDL
2-Methylnaphthalene	U	130,000 D	67 J	380,000	2,500	U	3,200	1,300 J	680	330	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	U	330	----
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	U	800	----
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	U	330	100
2-Chloronaphthalene	U	U	U	U	U	U	U	U	U	800	----
2-Nitroaniline	U	U	U	U	U	U	U	U	U	330	430 OR MDL
Dimethylphthalate	U	U	U	U	U	U	U	U	U	330	2,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	U	330	1,000
Acenaphthylene	U	15,000	U	220,000	2,200	U	U	4,300	440	330	41,000
3-Nitroaniline	U	U	U	U	U	U	U	U	U	800	500 OR MDL
Acenaphthene	U	12,000	U	65,000	850	3,400	1,400	11,000	1,200	330	50,000
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	U	800	200 OR MDL
4-Nitrophenol	U	U	U	U	U	U	U	U	U	800	100 OR MDL
Dibenzofuran	U	73,000 D	U	180,000	1,900	1,400	86 J	1,900 J	270 J	330	6,200

TABLE 5 (continued)

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
WEST 42ND STREET FORMER MGP SITE
SITE CHARACTERIZATION STUDY

SOIL BORING SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

SAMPLE ID	SB-17	SB-18	SB-18	SB-19	SB-19	SB-20	SB-20	SB-21	SB-21	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives
SAMPLE DEPTH (FT)	21-23	9-13	23-25	20-24	24-26.2	12-16	16-20	12-16	36-38.9		
DATE OF COLLECTION	09/10/2003	09/26/2003	09/26/2003	10/02/2003	10/02/2003	10/02/2003	10/02/2003	09/30/2003	09/30/2003		
DILUTION FACTOR	1.0	5.0	1.0	50.0	1.0	1.0	1.0	5.0	1.0		
PERCENT SOLIDS	94.0	78.0	56.0	63.0	86.0	73.0	64.0	78.0	75.0		
UNITS	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	(ug/Kg)	(ug/Kg)
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	U	330	----
Diethylphthalate	U	U	U	U	U	U	U	U	U	330	7,100
Fluorene	U	**66,000 D**	U	**200,000**	2,200	U	1,100	7,700	1,900	330	50,000
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	U	330	----
4-Nitroaniline	U	U	U	U	U	U	U	U	U	800	----
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	U	800	----
N-Nitrosodiphenylamine	U	U	U	U	U	U	U	U	U	330	----
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	U	330	----
Hexachlorobenzene	U	U	U	U	U	U	U	U	U	330	410
Pentachlorophenol	U	U	U	U	U	U	U	U	U	800	1,000 OR MDL
Phenanthrene	54 J	**230,000 D**	110 J	**700,000 D**	5,300	U	1,400	11,000	5,200	330	50,000
Anthracene	U	**64,000 D**	U	**170,000**	2,000	1,800	260 J	9,500	1,400	330	50,000
Carbazole	U	23,000	U	93,000	1,200	U	U	U	83 J	330	----
Di-n-butylphthalate	U	U	U	U	U	U	U	U	U	330	8,100
Fluoranthene	42 J	**160,000 D**	78 J	**330,000**	3,900	6,100	300 J	22,000	3,200	330	50,000
Pyrene	50 J	**130,000 D**	U	**320,000**	3,700	18,000 D	590	**53,000 D**	6,200	330	50,000
Butylbenzylphthalate	U	U	U	U	U	U	U	U	U	330	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	U	330	----
Benzo (a) anthracene	U	**56,000 D**	U	**160,000**	**1,800**	**5,400**	170 J	**19,000**	**2,200**	330	224 OR MDL
Chrysene	U	**53,000 D**	U	**140,000**	**1,600**	**5,200**	170 J	**18,000**	**2,400**	330	400
bis(2-Ethylhexyl)phthalate	260 J	U	76 J	U	U	U	U	U	U	330	50,000
Di-n-octylphthalate	U	U	U	U	U	U	U	U	U	330	50,000
Benzo(b)fluoranthene	U	**57,000 D**	U	**150,000**	**1,700**	**3,800**	120 J	**15,000**	**1,800**	330	1,100
Benzo(k)fluoranthene	U	**22,000**	U	**65,000**	740	**1,200**	U	**5,300**	540	330	1,100
Benzo(a)pyrene	U	**42,000 DJ**	U	**140,000**	**1,500**	**5,400**	**170 J**	**18,000**	**1,700**	330	61 OR MDL
Indeno(1,2,3-cd)pyrene	U	**22,000**	U	**69,000**	680	1,500	U	**6,400**	590	330	3,200
Dibenzo(a,h)anthracene	U	**5,200**	U	**20,000 J**	**190 J**	**490 J**	U	**2,100**	**200 J**	330	14 OR MDL
Benzo(g,h,i)perylene	U	24,000	U	**80,000**	760	2,700	93 J	9,800	930	330	50,000
Total PAHs	546	1,618,200	1,098	4,529,000	48,120	55,100	11,773	215,200	32,200		----
Total Carcinogen PAHs	0	257,200	0	744,000	8,210	22,990	630	83,800	9,430		----
Total SVOCs	806	**1,844,200**	1,241	**5,189,800**	53,720	56,500	15,059	218,400	33,233		500,000

QUALIFIERS:
U: Compound analyzed for but not detected
B: Compound found in the method blank as well as the sample
J: Compound found at a concentration below the CRDL, value estimated
D: Result taken from reanalysis at dilution

NOTES:
To determine the detection limit for each sample, use the following equation:
(CRDL)*(DF)*(100/%S), where CRDL = contract required detection limit, DF = dilution factor and %S = percent solids.
---: not established
[ ] Indicates value exceeds NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objective
NA: sample not analyzed for this analyte

TABLE 5 (continued)

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
WEST 42ND STREET FORMER MGP SITE
SITE CHARACTERIZATION STUDY

SOIL BORING SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

SAMPLE ID	SB-22	SB-22	SB-23	SB-23	SB-24	SB-24	SB-24	SB-25	SB-25	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives
SAMPLE DEPTH (FT)	12-16	36-44	20-24	52-54.5	30-32	34-36	36-38	12-16	24-28		
DATE OF COLLECTION	09/29/2003	09/29/2003	09/30/2003	09/30/2003	10/03/2003	10/03/2003	10/03/2003	10/01/2003	10/01/2003		
DILUTION FACTOR	1.0	1.0	10.0	5.0	3000.0	1.0	3000.0	10.0	1.0		
PERCENT SOLIDS	75.0	79.0	64.0	76.0	69.0	70.0	62.0	75.0	63.0		
UNITS	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	(ug/Kg)	(ug/Kg)
Phenol	U	U	U	U	U	U	U	U	U	330	30 OR MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	U	330	----
2-Chlorophenol	U	U	U	U	U	U	U	U	U	330	800
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	U	330	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	U	330	8,500
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	U	330	7,900
2-Methylphenol	66 J	U	2,300 J	310 J	U	U	U	U	U	330	100 OR MDL
2,2-Oxybis (1-Chloropropane)	U	U	U	U	U	U	U	U	U	330	----
4-Methylphenol	200 J	U	8,100	1,000 J	U	U	U	U	U	330	900
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	U	330	----
Hexachloroethane	U	U	U	U	U	U	U	U	U	330	----
Nitrobenzene	U	U	U	U	U	U	U	U	U	330	200 OR MDL
Isophorone	U	U	U	U	U	U	U	U	U	330	4,400
2-Nitrophenol	U	U	U	U	U	U	U	U	U	330	330 OR MDL
2,4-Dimethylphenol	U	U	39,000	1,800 J	200,000 J	U	360,000 J	U	U	330	----
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	U	330	400
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	U	330	3,400
Naphthalene	22,000 D	2,500 B	1,300,000 DB	110,000 DB	38,000,000 DB	5,900 B	56,000,000 DB	61,000 B	1,500 B	330	13,000
4-Chloroaniline	U	U	U	U	U	U	U	U	U	330	220 OR MDL
bis (2-Chloroethoxy) methane	U	U	U	U	U	U	U	U	U	330	----
Hexachlorobutadiene	U	U	U	U	U	U	U	U	U	330	----
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	U	330	240 OR MDL
2-Methylnaphthalene	5,800	85 J	460,000 D	32,000	12,000,000	2,500	19,000,000	15,000	190 J	330	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	U	330	----
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	U	800	----
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	U	330	100
2-Chloronaphthalene	U	U	U	U	U	U	U	U	U	800	----
2-Nitroaniline -	U	U	U	U	U	U	U	U	U	330	430 OR MDL
Dimethylphthalate	U	U	U	U	U	U	U	U	U	330	2,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	U	330	1,000
Acenaphthylene	1,700	U	250,000 D	15,000	7,900,000	1,900	12,000,000	13,000	U	330	41,000
3-Nitroaniline	U	U	U	U	U	U	U	U	U	800	500 OR MDL
Acenaphthene	6,900	94 J	220,000 D	19,000	4,400,000	1,000	7,000,000	28,000	170 J	330	50,000
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	U	800	200 OR MDL
4-Nitrophenol	U	U	U	U	U	U	U	U	U	800	100 OR MDL
Dibenzofuran	4,800	62 J	280,000 D	20,000	7,500,000	2,000	12,000,000	31,000	160 J	330	6,200

TABLE 5 (continued)

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
WEST 42ND STREET FORMER MGP SITE
SITE CHARACTERIZATION STUDY

SOIL BORING SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

SAMPLE ID	SB-22	SB-22	SB-23	SB-23	SB-24	SB-24	SB-24	SB-25	SB-25	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives (ug/Kg)
SAMPLE DEPTH (FT)	12-16	36-44	20-24	52-54.4	30-32	34-36	36-38	12-16	24-28		
DATE OF COLLECTION	09/29/2003	09/29/2003	09/30/2003	09/30/2003	10/03/2003	10/03/2003	10/03/2003	10/01/2003	10/01/2003		
DILUTION FACTOR	1.0	1.0	10.0	5.0	3000.0	1.0	3000.0	10.0	1.0		
PERCENT SOLIDS	75.0	79.0	64.0	76.0	69.0	70.0	62.0	75.0	63.0		
UNITS	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	(ug/Kg)	
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	U	330	----
Diethylphthalate	U	U	U	U	U	U	U	U	U	330	7,100
Fluorene	6,200	88 J	360,000 D	24,000	9,200,000	2,500	14,000,000	36,000	180 J	330	50,000
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	U	330	----
4-Nitroaniline	U	U	U	U	U	U	U	U	U	800	----
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	U	800	----
N-Nitrosodiphenylamine	U	U	U	U	U	U	U	U	U	330	----
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	U	330	----
Hexachlorobenzene	U	U	U	U	U	U	U	U	U	330	410
Pentachlorophenol	U	U	U	U	U	U	U	U	U	800	1,000 OR MDL
Phenanthrene	30,000 D	330 J	820,000 D	85,000 D	20,000,000	5,800	35,000,000 D	110,000 D	700	330	50,000
Anthracene	6,600	81 J	330,000 D	24,000	7,600,000	2,200	11,000,000	46,000	380 J	330	50,000
Carbazole	2,500	U	140,000 D	12,000	3,200,000	960	5,400,000	18,000	130 J	330	----
Di-n-butylphthalate	U	U	U	U	U	U	U	U	U	330	8,100
Fluoranthene	20,000 D	210 J	600,000 D	58,000 D	13,000,000	4,000	20,000,000	92,000 D	460 J	330	50,000
Pyrene	20,000 D	180 J	520,000 D	54,000 D	13,000,000	3,900	21,000,000	88,000 D	360 J	330	50,000
Butylbenzylphthalate	U	U	U	U	U	U	U	U	U	330	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	U	330	----
Benzo (a) anthracene	9,100 D	88 J	280,000 D	24,000	6,900,000	2,100	12,000,000	45,000	160 J	330	224 OR MDL
Chrysene	7,700 D	75 J	260,000 D	22,000	5,700,000	1,700	9,200,000	42,000	160 J	330	400
bis(2-Ethylhexyl)phthalate	U	U	U	450 J	U	U	U	U	U	330	50,000
Di-n-octylphthalate	U	U	U	U	U	U	U	U	U	330	50,000
Benzo(b)fluoranthene	8,400 D	74 J	270,000 D	22,000	6,200,000	1,800	10,000,000	46,000	150 J	330	1,100
Benzo(k)fluoranthene	4,100	U	120,000 D	9,300	2,700,000	810	4,300,000	18,000	65 J	330	1,100
Benzo(a)pyrene	8,200 D	69 J	240,000 D	19,000	5,300,000	1,600	8,600,000	39,000	130 J	330	61 OR MDL
Indeno(1,2,3-cd)pyrene	3,500	U	64,000	7,700	2,100,000	510	3,400,000	17,000	53 J	330	3,200
Dibenzo(a,h)anthracene	1,100	U	21,000	2,400	700,000 J	160 J	1,000,000 J	5,100	U	330	14 OR MDL
Benzo(g,h,i)perylene	4,300	46 J	74,000	8,000	2,200,000	500	3,200,000	19,000	U	330	50,000
Total PAHs	159,800	3,835	5,729,000	503,400	144,900,000	36,380	227,700,000	705,100	4,468		----
Total Carcinogen PAHs	42,100	306	1,255,000	106,400	29,600,000	8,680	48,500,000	212,100	718		----
Total SVOCs	173,166	3,982	6,658,400	570,960	167,800,000	41,840	264,460,000	769,100	4,948		500,000

QUALIFIERS:
U: Compound analyzed for but not detected
B: Compound found in the method blank as well as the sample
J: Compound found at a concentration below the CRDL, value estimated
D: Result taken from reanalysis at dilution

NOTES:
To determine the detection limit for each sample, use the following equation:
(CRDL)*(DF)*(100/%S), where CRDL = contract required detection limit, DF = dilution factor and %S = percent solids.
---: not established
[ ] Indicates value exceeds NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objective
NA: sample not analyzed for this analyte

TABLE 5 (continued)

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
WEST 42ND STREET FORMER MGP SITE
SITE CHARACTERIZATION STUDY

SOIL BORING SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

SAMPLE ID	SB-26	SB-26	SB-27	SB-27	SB-28	SB-29	SB-29			LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives
SAMPLE DEPTH (FT)	9-13	16-19	18-20	29-31	11-13	19-23	39-41				
DATE OF COLLECTION	09/29/2003	10/01/2003	09/22/2003	09/23/2003	09/25/2003	09/24/2003	09/24/2003				
DILUTION FACTOR	5.0	10.0	1.0	1.0	1.0	1.0	1.0				
PERCENT SOLIDS	80.0	71.0	82.0	77.0	71.0	67.0	97.0				
UNITS	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg			(ug/Kg)	(ug/Kg)
Phenol	U	U	U	67 J	U	U	U			330	30 OR MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U			330	----
2-Chlorophenol	U	U	U	U	U	U	U			330	800
1,3-Dichlorobenzene	U	U	U	U	U	U	U			330	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U			330	8,500
1,2-Dichlorobenzene	U	U	U	U	U	U	U			330	7,900
2-Methylphenol	U	U	U	U	U	U	U			330	100 OR MDL
2,2-Oxybis (1-Chloropropane)	U	U	U	U	U	U	U			330	----
4-Methylphenol	U	U	U	U	U	U	U			330	900
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U			330	----
Hexachloroethane	U	U	U	U	U	U	U			330	----
Nitrobenzene	U	U	U	U	U	U	U			330	200 OR MDL
Isophorone	U	U	U	U	U	U	U			330	4,400
2-Nitrophenol	U	U	U	U	U	U	U			330	330 OR MDL
2,4-Dimethylphenol	910 J	29,000	U	110 J	U	U	U			330	----
2,4-Dichlorophenol	U	U	U	U	U	U	U			330	400
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U			330	3,400
Naphthalene	270,000 DB	3,700,000 D	770,000 D	69,000 D	U	230,000 D	740			330	13,000
4-Chloroaniline	U	U	U	U	U	U	U			330	220 OR MDL
bis (2-Chloroethoxy) methane	U	U	U	U	U	U	U			330	----
Hexachlorobutadiene	U	U	U	U	U	U	U			330	----
4-Chloro-3-methylphenol	U	U	U	U	U	U	U			330	240 OR MDL
2-Methylnaphthalene	71,000 D	660,000 D	57,000 D	10,000	U	14,000 DJ	U			330	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U			330	----
2,4,6-Trichlorophenol	U	U	U	U	U	U	U			800	----
2,4,5-Trichlorophenol	U	U	U	U	U	U	U			330	100
2-Chloronaphthalene	U	2,000 J	U	U	U	U	U			800	----
2-Nitroaniline	U	U	U	U	U	U	U			330	430 OR MDL
Dimethylphthalate	U	U	U	U	U	U	U			330	2,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U			330	1,000
Acenaphthylene	19,000	430,000 D	130 J	480	U	450 J	U			330	41,000
3-Nitroaniline	U	U	U	U	U	U	U			800	500 OR MDL
Acenaphthene	24,000	160,000 DJ	310 J	460	U	480 J	U			330	50,000
2,4-Dinitrophenol	U	U	U	U	U	U	U			800	200 OR MDL
4-Nitrophenol	U	U	U	U	U	U	U			800	100 OR MDL
Dibenzofuran	32,000	350,000 D	620	700	U	1,100	U			330	6,200

TABLE 5 (continued)

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
WEST 42ND STREET FORMER MGP SITE
SITE CHARACTERIZATION STUDY

SOIL BORING SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

SAMPLE ID	SB-26	SB-26	SB-27	SB-27	SB-28	SB-29	SB-29			LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives
SAMPLE DEPTH (FT)	9-13	16-19	18-20	29-31	11-13	19-23	39-41				
DATE OF COLLECTION	09/29/2003	10/01/2003	09/22/2003	09/23/2003	09/25/2003	09/24/2003	09/24/2003				
DILUTION FACTOR	5.0	10.0	1.0	1.0	1.0	1.0	1.0				
PERCENT SOLIDS	80.0	71.0	82.0	77.0	71.0	67.0	97.0				
UNITS	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg			(ug/Kg)	(ug/Kg)
2,4-Dinitrotoluene	U	U	U	U	U	U	U			330	----
Diethylphthalate	U	U	94 JB	110 JB	U	120 JB	U			330	7,100
Fluorene	80,000 D	420,000 D	480	750	U	1,000	U			330	50,000
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U			330	----
4-Nitroaniline	U	U	U	U	U	U	U			800	----
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U			800	----
N-Nitrosodiphenylamine	U	U	U	U	U	U	U			330	----
4-Bromophenyl-phenylether	U	U	U	U	U	U	U			330	----
Hexachlorobenzene	U	U	U	U	U	U	U			330	410
Pentachlorophenol	U	U	U	U	U	U	U			800	1,000 OR MDL
Phenanthrene	200,000 D	1,300,000 D	820	1,700	U	2,700	U			330	50,000
Anthracene	81,000 D	380,000 D	200 J	580	U	900	U			330	50,000
Carbazole	29,000	180,000 DJ	U	400 J	U	170 J	U			330	----
Di-n-butylphthalate	U	U	U	U	U	U	U			330	8,100
Fluoranthene	190,000 D	790,000 D	550	1,200	U	2,000	U			330	50,000
Pyrene	180,000 D	580,000 D	450	1,100	U	1,800	U			330	50,000
Butylbenzylphthalate	U	U	U	U	U	U	U			330	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U			330	----
Benzo (a) anthracene	100,000 D	320,000 D	170 J	480	U	780	U			330	224 OR MDL
Chrysene	92,000 D	240,000 DJ	180 J	460	U	770	U			330	400
bis(2-Ethylhexyl)phthalate	U	U	590	190 J	56 J	510	390			330	50,000
Di-n-octylphthalate	U	U	U	U	U	U	U			330	50,000
Benzo(b)fluoranthene	110,000 D	250,000 DJ	180 J	530	U	840	U			330	1,100
Benzo(k)fluoranthene	32,000	130,000 DJ	68 J	240 J	U	350 J	U			330	1,100
Benzo(a)pyrene	93,000	260,000 DJ	130 J	440	U	650	U			330	61 OR MDL
Indeno(1,2,3-cd)pyrene	31,000	44,000	53 J	170 J	U	250 J	U			330	3,200
Dibenzo(a,h)anthracene	9,000	13,000	U	U	U	U	U			330	14 OR MDL
Benzo(g,h,i)perylene	41,000 D	48,000	56 J	160 J	U	220 J	U			330	50,000
Total PAHs	1,552,000	9,065,000	773,777	77,750	0	243,190	740				----
Total Carcinogen PAHs	467,000	1,257,000	781	2,320	0	3,640	0				----
Total SVOCs	1,684,910	10,286,000	832,081	89,327	56	259,090	1,130				500,000

QUALIFIERS:
U: Compound analyzed for but not detected
B: Compound found in the method blank as well as the sample
J: Compound found at a concentration below the CRDL, value estimated
D: Result taken from reanalysis at dilution

NOTES:
To determine the detection limit for each sample, use the following equation:
(CRDL)*(DF)*(100/%S), where CRDL = contract required detection limit, DF = dilution factor and %S = percent solids.
---: not established
Indicates value exceeds NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objective
NA: sample not analyzed for this analyte

TABLE 6

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
WEST 42ND STREET FORMER MGP SITE
SITE CHARACTERIZATION STUDY

SOIL BORING SAMPLING RESULTS
TARGET ANALYTE LIST (TAL) METALS AND CYANIDE

SAMPLE ID	SB-01	SB-01	SB-02	SB-02	SB-03	SB-04	SB-05	SB-06	SB-07	INSTRUMENT DETECTION LIMITS	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives
SAMPLE DEPTH (FT)	22-26	26-32	17-19	29-31	17-19	10-16	18-19.5	9-11	27-29		
DATE OF COLLECTION	09/02/2003	09/02/2003	09/03/2003	09/22/2003	09/05/2003	09/18/2003	09/09/2003	09/09/2003	09/03/2003		
DILUTION FACTOR	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		
PERCENT SOLIDS	20.0	78.0	82.0	93.0	76.0	78.0	75.0	78.0	77.0		
UNITS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/l	mg/kg
Aluminum	26,300	6,720	5,560	4,490	13,500	4,780	7,370	12,500	7,880	17	SB
Antimony	15.9	3	5.7	1.6	4.8	U	5.2	4.5	4.3	3	SB
Arsenic	**15.3**	1.2 B	**7.6**	1.9	5.9	5.7	4.7	1.7	5.4	3	7.5 or SB
Barium	99.3	113	75.7	64.7	138	169	97	81.1	26.9	4	300 or SB
Beryllium	**1.8**	**0.75**	**0.39**	**0.43**	**1**	**0.32**	**0.53**	**0.86**	**0.57**	0.5	0.16 or SB
Cadmium	U	U	U	U	U	0.11 B	U	U	U	0.7	1 or SB
Calcium	9,040	782	9,460	603	5,520	48,400	32,700	1,620	3,420	240	SB
Chromium	**59.3**	**20.8**	**28.9**	**16.1**	**36.1**	9.8	**14.7**	**17.7**	**17.9**	0.6	10 or SB
Cobalt	14.1	3.5	3.2	5	10.7	4.6	6	6.2	4.5	0.9	30 or SB
Copper	**37**	11.8	**31.6**	**25.7**	**38.4**	**30.8**	**56.8**	25	10.6	4	25 or SB
Iron	**58,400**	**12,500**	**24,200**	**7,560**	**24,200**	**8,790**	**23,000**	**17,700**	**17,500**	26	2,000 or SB
Lead	282	7.9	90.3	6.8	92.4	390	246	62.9	17.6	4	400
Magnesium	8,990	3,270	3,090	1,700	8,040	2,410	3,610	3,790	3,720	8	SB
Manganese	736	124	137	75	202	631	264	234	461	0.8	SB
Mercury	**0.14 B**	U	**0.25**	U	**0.71**	**1.8**	**6.5**	**0.15**	U	0.1	0.1
Nickel	**43.4**	12.7	12.3	8.5	**34.4**	6.7	**23**	**18.2**	**15.6**	0.8	13 or SB
Potassium	5,110	2,550	1,140	1,530	4,840	961	835	1,980	1,460	78	SB
Selenium	U	U	U	1.3 B	U	1 B	U	U	U	9	2 or SB
Silver	U	U	U	U	U	0.96 B	1.8 B	1.3 B	U	2	SB
Sodium	2270	255	210	333	396	442	273	254	932	83	SB
Thallium	16.4	2.9	6.2	1.6	4.4	0.69 B	5.1	4.2	5	3	SB
Vanadium	76.1	24.9	14.3	15.8	34.2	15.8	**163**	20.4	22.2	0.7	150 or SB
Zinc	**129**	**31.5**	**64.6**	**22**	**100**	**92.4**	**185**	**56.1**	**45.5**	7	20 or SB
Total Cyanide	12.3	0.86 B	368	U	14.1	14	528	2.4	U	7	----

QUALIFIERS:

U: Compound analyzed for but not detected

B: Compound concentration is less than the CRDL but greater than the IDL.

NOTES:

To determine the detection limit for each sample, use the following equation: (CRDL)*(DF)*(100/%S) where CRDL = contract required detection limit, DF = dilution factor and %S = percent solids.

SB: Site background

----: not established

Indicates value exceeds the NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objective

TABLE 6 (continued)

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
WEST 42ND STREET FORMER MGP SITE
SITE CHARACTERIZATION STUDY

SOIL BORING SAMPLING RESULTS
TARGET ANALYTE LIST (TAL) METALS AND CYANIDE

SAMPLE ID	SB-07	SB-08	SB-08	SB-09	SB-09	SB-10	SB-10	SB-11	SB-12	INSTRUMENT DETECTION LIMITS	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives
SAMPLE DEPTH (FT)	33-35	12-16	28-30	11-15	31-33.5	20-24	26-28	10-12	21-23		
DATE OF COLLECTION	09/03/2003	10/02/2003	10/02/2003	09/05/2003	09/05/2003	09/11/2003	09/11/2003	09/17/2003	09/08/2003		
DILUTION FACTOR	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		
PERCENT SOLIDS	77.0	81.0	78.0	81.0	70.0	80.0	78.0	82.0	68.0		
UNITS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/l	mg/kg
Aluminum	46,900	4,420	11,200	10,800	4,990	7,100	9,320	9,140	11,500	17	SB
Antimony	12.7	2.5	U	5.1	3	3.9	5.2	U	4.9	3	SB
Arsenic	**15.6**	**10.9**	3	2	2.6	4.8	6	1.9	3.4	3	7.5 or SB
Barium	205	82.2	40.6	153	44.9	16.7	20.9	81.2	69.2	4	300 or SB
Beryllium	U	**0.18 B**	**0.34**	**1.1**	**0.44**	**0.47**	**0.7**	**0.49**	**0.81**	0.5	0.16 or SB
Cadmium	U	**1.7**	0.53	U	U	U	U	0.057 B	U	0.7	1 or SB
Calcium	3,790	76,000	1,600	4,980	1,980	1,470	1,800	3,240	2,880	240	SB
Chromium	**79.1**	4.6	**22**	**26.1**	**14.6**	**14.2**	**19.7**	**16.9**	**30.4**	0.6	10 or SB
Cobalt	**32**	4.3	4.1	8.8	3.9	5.3	7	7.6	7.6	0.9	30 or SB
Copper	**77.1**	**28.5**	11	**34.9**	8.5	8.5	13.5	**28.7**	**25.4**	4	25 or SB
Iron	**81,300**	**30,500**	**12,500**	**23,400**	**12,600**	**16,200**	**22,600**	**17900**	**20,200**	26	2,000 or SB
Lead	27.1	**841**	6.9	46.4	6.4	11.5	11.9	17.4	48.7	4	400
Magnesium	19,800	2,310	3,030	5,050	2,540	3,070	4,210	3,530	4,660	8	SB
Manganese	449	427	227	243	196	185	302	231	337	0.8	SB
Mercury	U	**3.2**	0.03 B	**0.29**	0.026 B	0.036 B	0.028 B	**0.14**	**0.15**	0.1	0.1
Nickel	**52.9**	6.2	10.3	**25.6**	11	**15.8**	**19.5**	**13.3**	**23.3**	0.8	13 or SB
Potassium	27,600	593	1,070	4,280	908	1,330	1,720	3,260	2,080	78	SB
Selenium	U	**4.8**	**2.5**	U	U	U	U	0.66 B	U	9	2 or SB
Silver	0.15 B	2.3	1.4 B	U	0.96 B	1.2 B	1.6 B	1.2 B	1.5 B	2	SB
Sodium	690	392	714	194	584	207	743	130	341	83	SB
Thallium	1.6	1.7	1.2	4.2	2.9	4	5.4	3.3	5	3	SB
Vanadium	**197**	12.5	29.1	33.6	18.5	15	23.3	27.4	28.1	0.7	150 or SB
Zinc	**209**	**36.9**	**35.5**	**61.1**	**30.3**	**38.3**	**54.9**	**66.2**	**59.9**	7	20 or SB
Total Cyanide	1 B	126	U	1.2 B	U	0.37 B	U	0.71 B	1.1 B	7	----

QUALIFIERS:

U: Compound analyzed for but not detected

B: Compound concentration is less than the CRDL but greater than the IDL.

NOTES:

To determine the detection limit for each sample, use the following equation: (CRDL)*(DF)*(100/%S) where CRDL = contract required detection limit, DF = dilution factor and %S = percent solids.

SB: Site background

----: not established

Indicates value exceeds the NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objective

TABLE 6 (continued)

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
WEST 42ND STREET FORMER MGP SITE
SITE CHARACTERIZATION STUDY

SOIL BORING SAMPLING RESULTS
TARGET ANALYTE LIST (TAL) METALS AND CYANIDE

SAMPLE ID	SB-12	SB-13	SB-14	SB-14	SB-15	SB-15	SB-16	SB-16	SB-17	INSTRUMENT DETECTION LIMITS	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives
SAMPLE DEPTH (FT)	27-28.8	19-21.4	17-19	30-32	7-9	13-15	13-15	25-27	9-13		
DATE OF COLLECTION	09/08/2003	09/16/2003	09/12/2003	09/15/2003	09/12/2003	09/12/2003	09/16/2003	09/16/2003	09/09/2003		
DILUTION FACTOR	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		
PERCENT SOLIDS	80.0	78.0	85.0	85.0	85.0	86.0	85.0	84.0	83.0		
UNITS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/l	mg/kg
Aluminum	8,190	9,880	7,200	5,590	8,330	5,470	7,220	7,600	4,430	17	SB
Antimony	3.7	U	0.23 B	U	U	U	U	U	13.7	3	SB
Arsenic	1.6	3.9	2.1	0.9 B	2.9	1.2	3.4	5.4	U	3	7.5 or SB
Barium	44.7	111	53	56.5	94	57.5	70.7	15.6	76.1	4	300 or SB
Beryllium	**0.72**	**0.46**	**0.37**	**0.41**	**0.47**	**0.23 B**	**0.33**	**0.37**	**0.41 B**	0.5	0.16 or SB
Cadmium	U	0.2 B	0.11 B	0.057 B	0.12 B	U	0.052 B	0.068 B	U	0.7	1 or SB
Calcium	539	9,620	28,400	501	3,070	1,640	7,710	1,180	24,500	240	SB
Chromium	**23.4**	**14.2**	**26.4**	**17.5**	**17.1**	**12**	**14.4**	**17**	**13.9**	0.6	10 or SB
Cobalt	7.4	6.6	5	4.9	14	6.5	5.2	4.9	0.99 B	0.9	30 or SB
Copper	11.5	19.9	14	13.1	24.2	18.5	20.2	10.4	24.9	4	25 or SB
Iron	**14,200**	**21,000**	**10,900**	**11,900**	**16,500**	**12,000**	**12,400**	**14,900**	**55,900**	26	2,000 or SB
Lead	8.5	128	39.8	4.7	14.1	7.1	86.2	5.9	78.2	4	400
Magnesium	2,690	5,430	7,370	2,180	5,190	3,340	2,550	2,890	8,230	8	SB
Manganese	94.3	552	358	84.7	240	144	316	259	541	0.8	SB
Mercury	U	**0.34**	**0.22**	U	0.034 B	U	**0.17**	0.026 B	**4.9**	0.1	0.1
Nickel	**14.4**	**13.1**	**25.9**	9.6	**37**	13	10.8	**16.3**	11.9 B	0.8	13 or SB
Potassium	1,850	1,680	1,230	1,060	5,820	3,190	1,360	1,320	1,180	78	SB
Selenium	U	U	0.76 B	0.91 B	U	U	U	0.61 B	U	9	2 or SB
Silver	1 B	1.6 B	0.86 B	1.2 B	1.5 B	1.2 B	1.2 B	1.4 B	4.4 B	2	SB
Sodium	285	421	230	241	178	152	132	537	160 B	83	SB
Thallium	3.2	U	0.26 B	0.2 B	2.5	1.8	0.57 B	U	13.3	3	SB
Vanadium	25.8	21.6	16.1	15.6	20.1	15	22.3	20.2	15.9	0.7	150 or SB
Zinc	**25.3**	**53.7**	**33.8**	**22.9**	**68.7**	**42.7**	**31.6**	**32**	**43.8**	7	20 or SB
Total Cyanide	U	6.2	19.7	U	U	35.8	0.85 B	U	1,580	7	----

QUALIFIERS:

U: Compound analyzed for but not detected

B: Compound concentration is less than the CRDL but greater than the IDL.

NOTES:

To determine the detection limit for each sample, use the following equation: (CRDL)*(DF)*(100/%S) where CRDL = contract required detection limit, DF = dilution factor and %S = percent solids.

SB: Site background

----: not established

Indicates value exceeds the NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objective

TABLE 6 (continued)

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
WEST 42ND STREET FORMER MGP SITE
SITE CHARACTERIZATION STUDY

SOIL BORING SAMPLING RESULTS
TARGET ANALYTE LIST (TAL) METALS AND CYANIDE

SAMPLE ID	SB-17	SB-18	SB-18	SB-19	SB-19	SB-20	SB-20	SB-21	SB-21	INSTRUMENT DETECTION LIMITS	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives
SAMPLE DEPTH (FT)	21-23	9-13	23-25	20-24	24-26.2	12-16	16-20	12-16	36-38.9		
DATE OF COLLECTION	09/10/2003	09/26/2003	09/26/2003	10/02/2003	10/02/2003	10/02/2003	10/02/2003	09/30/2003	09/30/2003		
DILUTION FACTOR	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		
PERCENT SOLIDS	94.0	78.0	56.0	63.0	86.0	73.0	64.0	78.0	75.0		
UNITS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/l	mg/kg
Aluminum	6,620	8,530	13,700	9,840	6,190	6,980	10,800	9,830	11,100	17	SB
Antimony	3.8	2.1	5.8	U	U	U	U	U	U	3	SB
Arsenic	3.9	4.6	**10.8**	5.8	2.1	**9.9**	**8.1**	6.8	7	3	7.5 or SB
Barium	17.4	95.9	29.4	106	53.7	232	38.2	168	60.9	4	300 or SB
Beryllium	**0.47**	**0.64**	**0.96**	**0.2 B**	**0.2 B**	**0.3 B**	**0.36**	**0.27**	**0.37**	0.5	0.16 or SB
Cadmium	U	U	U	0.7	0.23 B	0.47	1.1	0.69	0.87	0.7	1 or SB
Calcium	1,730	24,600	14,500	5,570	431	10,500	2,810	4,790	8,050	240	SB
Chromium	**13.7**	**17.2**	**30.5**	**16.5**	**13.5**	**13.7**	**20.9**	**15**	**17.8**	0.6	10 or SB
Cobalt	5	4.9	9.2	6.7	4.5	5.4	8.3	6.5	7.5	0.9	30 or SB
Copper	10	**26.5**	20.9	**28.7**	9.9	**26.8**	16.6	**39.8**	20.8	4	25 or SB
Iron	**14,900**	**13,700**	**34,800**	**14,800**	**6,560**	**10,400**	**22,600**	**14,300**	**19,300**	26	2,000 or SB
Lead	14.3	63	16.2	113	5	**467**	20.8	109	112	4	400
Magnesium	3,300	8,360	6,990	3,550	1,820	1,810	5,200	2,970	4,380	8	SB
Manganese	398	380	1,260	248	61.2	224	555	187	339	0.8	SB
Mercury	0.035	**0.34**	0.06	**0.45**	U	**0.22**	0.045 B	**0.27**	0.097	0.1	0.1
Nickel	**13.2**	**18.6**	**24.8**	**13.1**	11.2	**13.2**	**18.2**	**13.6**	**16**	0.8	13 or SB
Potassium	1,150	1,900	2,960	2,220	1,070	1,270	1,960	1,070	2,030	78	SB
Selenium	0.53 B	2	**4**	**5**	1.6	**2.9**	**4.3**	**3.3**	**3.4**	9	2 or SB
Silver	1.1 B	U	U	1.8 B	0.78 B	1.4 B	2.2	1.6	1.9	2	SB
Sodium	443	203	1,940	501	365	622	609	336	717	83	SB
Thallium	3.9	2.5	8.1	1.6	0.87 B	1.4	1.2 B	0.46 B	1.1 B	3	SB
Vanadium	16.3	20.3	33.8	23.9	14.5	20.9	26.4	24.1	24.1	0.7	150 or SB
Zinc	**38.7**	**54**	**77.2**	**58.2**	15.2	**44.8**	**56.2**	**61.6**	**67.8**	7	20 or SB
Total Cyanide	1.1	29.1	U	26.4	U	6.7	U	6.5	0 78 B	7	----

QUALIFIERS:

U: Compound analyzed for but not detected

B: Compound concentration is less than the CRDL but greater than the IDL.

NOTES:

To determine the detection limit for each sample, use the following equation: (CRDL)*(DF)*(100/%S) where CRDL = contract required detection limit, DF = dilution factor and %S = percent solids.

SB: Site background

----: not established

Indicates value exceeds the NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objective

TABLE 6 (continued)

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
WEST 42ND STREET FORMER MGP SITE
SITE CHARACTERIZATION STUDY

SOIL BORING SAMPLING RESULTS
TARGET ANALYTE LIST (TAL) METALS AND CYANIDE

SAMPLE ID	SB-22	SB-22	SB-23	SB-23	SB-24	SB-24	SB-24	SB-25	SB-25	INSTRUMENT DETECTION LIMITS	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives
SAMPLE DEPTH (FT)	12-16	36-44	20-24	52-54.4	30-32	34-36	36-38	12-16	24-28		
DATE OF COLLECTION	09/29/2003	09/29/2003	09/30/2003	09/30/2003	10/03/2003	10/03/2003	10/03/2003	10/01/2003	10/01/2003		
DILUTION FACTOR	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		
PERCENT SOLIDS	75.0	79.0	64.0	76.0	69.0	70.0	62.0	75.0	63.0		
UNITS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/l	mg/kg
Aluminum	9,260	4,430	13,700	7,660	3,850	12,200	291	9,980	15,200	17	SB
Antimony	0.3 B	U	U	U	U	U	U	U	0.33 B	3	SB
Arsenic	**24.2**	2.9	**10.1**	2.4	**9.2**	**10.8**	5.2	3.5	**11.3**	3	7.5 or SB
Barium	160	12.8	60.8	60.3	11.2 B	24.7	1.7 B	82.1	34	4	300 or SB
Beryllium	**0.35**	0.084 B	**0.47**	0.1 B	0.037 B	**0.43**	U	0.098 B	**0.55**	0.5	0.16 or SB
Cadmium	**1.8**	0.33	**1.2**	0.59	**5.1**	**1.3**	0.068 B	0.78	**1.5**	0.7	1 or SB
Calcium	13,300	936	11,800	1,470	4,470	3,630	191	4,610	6,330	240	SB
Chromium	**15.7**	9.7	**21.8**	**18.4**	**65.8**	**20.6**	0.86 B	**14.4**	**25.2**	0.6	10 or SB
Cobalt	18	3.4	9	5.9	3.5	9.4	0.35 B	7	11	0.9	30 or SB
Copper	**99.1**	5.8	**33.2**	17	**59.5**	14	0.94 B	20.5	17.1	4	25 or SB
Iron	**37,400**	**8,320**	**24,900**	**13,900**	**92,900**	**27,600**	987	**18,300**	**33,200**	26	2,000 or SB
Lead	164	3.2	212	12	6	9.6	2.9	112	12.1	4	400
Magnesium	2,760	2,320	5,740	4,030	1,550	6,740	168	3,480	7,440	8	SB
Manganese	417	84.9	426	247	653	675	30	236	571	0.8	SB
Mercury	**0.57**	U	**0.94**	**0.16**	0.077	0.032 B	0.04 B	**0.96**	0.039 B	0.1	0.1
Nickel	**24.7**	9.1	**22.8**	**13.9**	**21.2**	**19.4**	0.79 B	**14**	**23.5**	0.8	13 or SB
Potassium	1,390	988	2,460	1,930	481	2,550	116	2,300	2,970	78	SB
Selenium	**6.8**	**2.2**	**4.9**	**3.1**	**6.2**	**4.8**	U	**4.4**	**5.4**	9	2 or SB
Silver	3.3	0.99 B	2.4	1.5 B	3.8	2.5	U	1.9	2.6	2	SB
Sodium	425	1,370	2,860	1,420	1,070	3,980	257	475	2,720	83	SB
Thallium	1.8	0.86 B	2	1.4	2.4	1.2 B	0.21 B	1.8	1.7	3	SB
Vanadium	26.4	14.5	30.2	22.8	7.3	26	7	19.2	31.8	0.7	150 or SB
Zinc	**136**	19.1	**74.8**	**33.1**	**77.8**	**62.1**	4.2	**46.7**	**74.1**	7	20 or SB
Total Cyanide	U	U	2	0.63 B	1.2 B	U	3.8	0.6 B	U	7	----

QUALIFIERS:

U: Compound analyzed for but not detected

B: Compound concentration is less than the CRDL but greater than the IDL.

NOTES:

To determine the detection limit for each sample, use the following equation: (CRDL)*(DF)*(100/%S) where CRDL = contract required detection limit, DF = dilution factor and %S = percent solids.

SB: Site background

----: not established

Bold Indicates value exceeds the NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objective

TABLE 6 (continued)

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
WEST 42ND STREET FORMER MGP SITE
SITE CHARACTERIZATION STUDY

SOIL BORING SAMPLING RESULTS
TARGET ANALYTE LIST (TAL) METALS AND CYANIDE

SAMPLE ID	SB-26	SB-26	SB-27	SB-27	SB-28	SB-29	SB-29			INSTRUMENT DETECTION LIMITS	NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objectives
SAMPLE DEPTH (FT)	9-13	16-19	18-20	29-31	11-13	19-23	39-41				
DATE OF COLLECTION	09/29/2003	10/01/2003	09/22/2003	09/23/2003	09/25/2003	09/24/2003	09/24/2003				
DILUTION FACTOR	1.0	1.0	1.0	1.0	1.0	1.0	1.0				
PERCENT SOLIDS	80.0	79.0	82.0	77.0	71.0	67.0	97.0				
UNITS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg			ug/l	mg/kg
Aluminum	8,290	13,100	4,890	6,270	10,500	5,120	6,530			17	SB
Antimony	0.37 B	1.7 B	2.7	2.7	4.4	2.6	2.2			3	SB
Arsenic	4.3	6.7	2.9	3.3	7.4	3.1	1.1			3	7.5 or SB
Barium	81.8	103	78.5	23.4	32.2	88.8	216			4	300 or SB
Beryllium	U	0.095 B	**0.51**	**0.49**	**0.7**	**0.57**	**0.67**			0.5	0.16 or SB
Cadmium	**1.1**	0.91	U	U	U	U	U			0.7	1 or SB
Calcium	9,740	2,150	3,430	1,500	3,880	11,400	5,980			240	SB
Chromium	**16.6**	**24.8**	**12.9**	**15.8**	**22.5**	**16.8**	**18.1**			0.6	10 or SB
Cobalt	6.2	11.5	5.3	3.5	6.9	5.2	5.2			0.9	30 or SB
Copper	**34.3**	**40.2**	24.1	10.3	18.4	23.9	9.3			4	25 or SB
Iron	**23,200**	**24,200**	**11,400**	**12,300**	**25,600**	**12,000**	**12,500**			26	2,000 or SB
Lead	55.6	94.2	67.3	6.6	27.7	69.6	8.1			4	400
Magnesium	5,070	5,580	3,010	2,070	4,870	2,760	4,530			8	SB
Manganese	236	198	201	173	553	194	399			0.8	SB
Mercury	**0.33**	**0.3**	0.035 B	U	**0.23**	**0.24**	U			0.1	0.1
Nickel	**13.6**	**22.7**	12.1	9.6	**23.2**	**13.1**	**14.4**			0.8	13 or SB
Potassium	4,060	4,540	1,590	920	1,810	1,630	3,120			78	SB
Selenium	**5.1**	**5.5**	1.4 B	1.7 B	**2.7**	2 B	1.3 B			9	2 or SB
Silver	2.4	0.34 B	U	U	U	U	U			2	SB
Sodium	304	788	148	554	407	155	376			83	SB
Thallium	2.2	4.4	2.7	2.8	5.8	2.6	2.6			3	SB
Vanadium	19.9	25.4	14.2	22.5	24.6	13	21.1			0.7	150 or SB
Zinc	**53.4**	**69**	**119**	**27**	**55**	**109**	**25**			7	20 or SB
Total Cyanide	7.3	4.4	1.5	2.6	0.62 B	92.9	1.7			7	----

QUALIFIERS:

U: Compound analyzed for but not detected

B: Compound concentration is less than the CRDL but greater than the IDL.

NOTES:

To determine the detection limit for each sample, use the following equation: (CRDL)*(DF)*(100/%S) where CRDL = contract required detection limit, DF = dilution factor and %S = percent solids.

SB: Site background

----: not established

Indicates value exceeds the NYSDEC TAGM 4046 Appendix A Recommended Soil Cleanup Objective

TABLE 7
CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
WEST 42ND STREET FORMER MGP SITE
SITE CHARACTERIZATION STUDY

GROUNDWATER SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS (VOCs)

Sample Identification	LMW-01	LMW-02	LMW-03	LMW-04	MW-01	Contract Required Detection Limit	NYSDEC Class GA Groundwater Standard or Guidance Value
Date of Collection	10/10/03	10/08/03	10/10/03	10/10/03	10/07/03		
Dilution Factor	1.0	1.0	1.0	1.0	1.0		
Units	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Dichlorodifluoromethane	U	U	U	U	U	5	5 ST
Chloromethane	U	U	U	U	U	5	5 ST
Vinyl Chloride	U	U	U	U	U	5	2 ST
Bromomethane	U	U	U	U	U	5	5 ST
Chloroethane	U	U	U	U	U	5	5 ST
Trichlorofluoromethane	U	U	U	U	U	5	5 ST
1,1-Dichloroethene	U	U	U	U	U	5	5 ST
Acetone	20	U	U	U	U	5	50GV
Iodomethane	U	U	U	U	U	5	5 ST
Carbon Disulfide	U	U	U	U	U	5	---
Methylene Chloride	U	U	U	U	U	5	5 ST
trans-1,2-dichloroethene	U	U	U	U	U	5	5 ST
Methyl tert-Butyl Ether	17	U	U	7	2 J	5	10GV
1,1-Dichloroethane	U	U	U	U	U	5	5 ST
Vinyl Acetate	U	U	U	U	U	5	---
cis-1,2-Dichloroethene	U	U	U	U	U	5	5 ST
2-Butanone	U	U	U	U	U	5	50GV
2,2-Dichloropropane	U	U	U	U	U	5	5 ST
Bromochloromethane	U	U	U	U	U	5	5 ST
Chloroform	U	U	U	U	U	5	7 ST
1,1,1-Trichloroethane	U	U	U	U	U	5	5 ST
1,1-Dichloropropene	U	U	U	U	U	5	5 ST
Carbon Tetrachloride	U	U	U	U	U	5	5 ST
Benzene	37	1 J	870 DJ	10,000 D	39	5	1 ST
1,2-Dichloroethane	U	U	U	89	U	5	0.6 ST
Trichloroethene	U	U	U	U	U	5	5 ST
1,2-Dichloropropane	U	U	U	U	U	5	1 ST
Dibromomethane	U	U	U	U	U	5	5 ST
Bromodichloromethane	U	U	U	U	U	5	50GV
cis-1,3-Dichloropropene	U	U	U	U	U	5	0.4 ST *
4-Methyl-2-Pentanone	U	U	U	U	U	5	---
Toluene	2 J	U	470 DJ	53	U	5	5 ST
Trans-1,3-Dichloropropene	U	U	U	U	U	5	0.4 ST *
1,1,2-Trichloroethane	U	U	U	U	U	5	1 ST
1,3-Dichloropropane	U	U	U	U	U	5	5 ST
Tetrachloroethene	U	U	U	U	U	5	5 ST
2-Hexanone	U	U	U	U	U	5	50GV
Dibromochloromethane	U	U	U	U	U	5	50GV
1,2-Dibromoethane	U	U	U	U	U	5	---
Chlorobenzene	U	U	U	U	U	5	5 ST
1,1,1,2-Tetrachloroethane	U	U	U	U	U	5	5 ST
Ethylbenzene	10	4 J	650 DJ	210 DJ	U	5	5 ST
Total Xylenes	12	4 J	4600 D	140	U	5	5 ST
Styrene	U	U	28	4 J	U	5	5 ST
Bromoform	U	U	U	U	U	5	50GV
Isopropylbenzene	1 J	U	420 DJ	31	U	5	5 ST
1,1,2,2-Tetrachloroethane	U	U	U	U	U	5	5 ST
Bromobenzene	U	U	U	U	U	5	5 ST
1,2,3-Trichloropropane	U	U	U	U	U	5	0.04 ST
n-Propylbenzene	U	U	100	7	U	5	5 ST
2-Chlorotoluene	U	U	U	U	U	5	5 ST
1,3,5-Trimethylbenzene	1 J	U	1400 D	9	U	5	5 ST
4-Chlorotoluene	U	U	U	U	U	5	5 ST
tert-Butylbenzene	U	U	U	U	U	5	5 ST
1,2,4-Trimethylbenzene	4 J	2 J	3400 D	27	U	5	5 ST
sec-Butylbenzene	U	U	6	U	U	5	5 ST
4-Isopropyltoluene	U	U	36	U	U	5	5 ST
1,3-Dichlorobenzene	U	U	U	U	U	5	3 ST
1,4-Dichlorobenzene	U	U	U	U	U	5	3 ST
n-Butylbenzene	U	U	U	U	U	5	5 ST
1,2-Dichlorobenzene	U	U	U	U	U	5	3 ST
1,2-Dibromo-3-chloropropane	U	U	U	U	U	5	0.04 ST
1,2,4-Trichlorobenzene	U	U	U	U	U	5	5 ST
Hexachlorobutadiene	U	U	U	U	U	5	0.5 ST
1,2,3-Trichlorobenzene	U	U	U	U	U	5	5 ST
Total BTEX	61	9	6,590	10,403	39	---	---
Total VOCs	104	11	11,980	10,577	41	---	---

QUALIFIERS:
U: Compound analyzed for but not detected
B: Compound found in the blank as well as the sample
J: Compound found at a concentration below the CRDL, value estimated
D: Result taken from reanalysis at a secondary dilution

NOTES:
*: Value pertains to the sum of the isomers
GV: Guidance Value
ST: Standard
---: Not established
Indicates value exceeds standard or guidance value.

TABLE 7 (continued)
CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
WEST 42ND STREET FORMER MGP SITE
SITE CHARACTERIZATION STUDY

GROUNDWATER SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS (VOCs)

Sample Identification	MW-02	MW-03	MW-04	MW-05	MW-06	Contract Required Detection Limit	NYSDEC Class GA Groundwater Standard or Guidance Value
Date of Collection	10/10/03	10/08/03	10/08/03	10/09/03	10/10/03		
Dilution Factor	1.0	1.0	1.0	1.0	1.0		
Units	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Dichlorodifluoromethane	U	U	U	U	U	5	5 ST
Chloromethane	U	U	U	U	U	5	5 ST
Vinyl Chloride	U	U	U	U	U	5	2 ST
Bromomethane	U	U	U	U	U	5	5 ST
Chloroethane	U	U	U	U	U	5	5 ST
Trichlorofluoromethane	U	U	U	U	U	5	5 ST
1,1-Dichloroethene	U	U	U	U	U	5	5 ST
Acetone	U	U	U	12	10	5	50GV
Idomethane	U	U	U	U	U	5	5 ST
Carbon Disulfide	U	U	U	U	U	5	----
Methylene Chloride	U	U	U	U	U	5	5 ST
trans-1,2-dichloroethene	U	U	U	U	U	5	5 ST
Methyl tert-Butyl Ether	13	2 J	2 J	U	U	5	10GV
1,1-Dichloroethane	U	U	U	U	U	5	5 ST
Vinyl Acetate	U	U	U	U	U	5	----
cis-1,2-Dichloroethene	U	U	U	U	U	5	5 ST
2-Butanone	U	U	U	U	U	5	50GV
2,2-Dichloropropane	U	U	U	U	U	5	5 ST
Bromochloromethane	U	U	U	U	U	5	5 ST
Chloroform	U	U	U	U	U	5	7 ST
1,1,1-Trichloroethane	U	U	U	U	U	5	5 ST
1,1-Dichloropropene	U	U	U	U	U	5	5 ST
Carbon Tetrachloride	U	U	U	U	U	5	5 ST
Benzene	1,600 D	220 D	620 D	120 D	1,600 D	5	1 ST
1,2-Dichloroethane	U	U	U	U	U	5	0.6 ST
Trichloroethene	U	U	U	U	U	5	5 ST
1,2-Dichloropropane	U	U	U	U	U	5	1 ST
Dibromomethane	U	U	U	U	U	5	5 ST
Bromodichloromethane	U	U	U	U	U	5	50GV
cis-1,3-Dichloropropene	U	U	U	U	U	5	0.4 ST *
4-Methyl-2-Pentanone	U	U	U	U	U	5	----
Toluene	12	U	U	U	28	5	5 ST
Trans-1,3-Dichloropropene	U	U	U	U	U	5	0.4 ST *
1,1,2-Trichloroethane	U	U	U	U	U	5	1 ST
1,3-Dichloropropane	U	U	U	U	U	5	5 ST
Tetrachloroethene	U	U	U	U	U	5	5 ST
2-Hexanone	U	U	U	U	U	5	50GV
Dibromochloromethane	U	U	U	U	U	5	50GV
1,2-Dibromoethane	U	U	U	U	U	5	----
Chlorobenzene	U	U	U	U	U	5	5 ST
1,1,1,2-Tetrachloroethane	U	U	U	U	U	5	5 ST
Ethylbenzene	120	U	U	8	1,700 D	5	5 ST
Total Xylenes	140	U	5	3 J	350	5	5 ST
Styrene	2 J	U	U	U	2 J	5	5 ST
Bromoform	U	U	U	U	U	5	50GV
Isopropylbenzene	10	2 J	7	U	120	5	5 ST
1,1,2,2-Tetrachloroethane	U	U	U	U	U	5	5 ST
Bromobenzene	U	U	U	U	U	5	5 ST
1,2,3-Trichloropropane	U	U	U	U	U	5	0.04 ST
n-Propylbenzene	1 J	U	1 J	U	24	5	5 ST
2-Chlorotoluene	U	U	U	U	U	5	5 ST
1,3,5-Trimethylbenzene	10	U	U	U	32	5	5 ST
4-Chlorotoluene	U	U	U	U	U	5	5 ST
tert-Butylbenzene	U	U	U	U	U	5	5 ST
1,2,4-Trimethylbenzene	35	U	U	U	200 DJ	5	5 ST
sec-Butylbenzene	U	U	U	U	U	5	5 ST
4-Isopropyltoluene	U	U	U	U	2 J	5	5 ST
1,3-Dichlorobenzene	U	U	U	U	U	5	3 ST
1,4-Dichlorobenzene	U	U	U	U	U	5	3 ST
n-Butylbenzene	U	U	U	U	U	5	5 ST
1,2-Dichlorobenzene	U	U	U	U	U	5	3 ST
1,2-Dibromo-3-chloropropane	U	U	U	U	U	5	0.04 ST
1,2,4-Trichlorobenzene	U	U	U	U	U	5	5 ST
Hexachlorobutadiene	U	U	U	U	U	5	0.5 ST
1,2,3-Trichlorobenzene	U	U	U	U	U	5	5 ST
Total BTEX	1,872	220	625	131	3,678	---	---
Total VOCs	1,943	224	635	143	4,068		---

QUALIFIERS:
U: Compound analyzed for but not detected
B: Compound found in the blank as well as the sample
J: Compound found at a concentration below the CRDL, value estimated
D: Result taken from reanalysis at a secondary dilution

NOTES:
*: Value pertains to the sum of the isomers
GV: Guidance Value
ST: Standard
----: Not established
[ ] Indicates value exceeds standard or guidance value.

TABLE 8

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

WEST 42ND STREET FORMER MGP SITE

SITE CHARACTERIZATION STUDY

GROUNDWATER SAMPLE RESULTS

SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

Sample Identification	LMW-01	LMW-02	LMW-03	LMW-04	MW-01	Contract Required Detection Limit	NYSDEC Class GA Groundwater Standard or Guidance Value
Date of Collection	10/10/03	10/08/03	10/10/03	10/10/03	10/07/03		
Dilution Factor	1.0	1.0	1.0	1.0	1.0		
Units	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/L)	(ug/l)
Phenol	U	U	U	**40**	U	10	1 ST *
bis(2-Chloroethyl)ether	U	U	U	U	U	10	1 ST
2-Chlorophenol	U	U	U	U	U	10	1 ST *
1,3-Dichlorobenzene	U	U	U	U	U	10	3 ST
1,4-Dichlorobenzene	U	U	U	U	U	10	3 ST
1,2-Dichlorobenzene	U	U	U	U	U	10	3 ST
2-Methylphenol	U	U	U	U	U	10	1 ST *
2,2-Oxybis (1-Chloropropane)	U	U	U	U	U	10	----
4-Methylphenol	U	U	U	U	U	10	1 ST *
N-Nitroso-di-n-propylamine	U	U	U	U	U	10	----
Hexachloroethane	U	U	U	U	U	10	5 ST
Nitrobenzene	U	U	U	U	U	10	0.4 ST
Isophorone	U	U	U	U	U	10	50 GV
2-Nitrophenol	U	U	U	U	U	10	----
2,4-Dimethylphenol	U	U	U	U	U	10	1 ST *
bis(2-Chloroethoxy)methane	U	U	U	U	U	10	5 ST
2,4-Dichlorophenol	U	U	U	U	U	10	1 ST *
1,2,4-Trichlorobenzene	U	**16**	U	U	U	10	5 ST
Naphthalene	**31**	10	**3,800 D**	**620 D**	U	10	10 GV
4-Chloroaniline	U	U	U	U	U	10	5 ST
Hexachlorobutadiene	U	U	U	U	U	10	0.5 ST
4-Chloro-3-methylphenol	U	U	U	U	U	10	----
2-Methylnaphthalene	U	1 J	670 D	23	U	10	----
Hexachlorocyclopentadiene	U	U	U	U	U	10	5 ST
2,4,6-Trichlorophenol	U	U	U	U	U	10	----
2,4,5-Trichlorophenol	U	U	U	U	U	25	----
2-Chloronaphthalene	U	U	U	U	U	10	10 GV
2-Nitroaniline	U	U	U	U	U	25	5 ST
Dimethylphthalate	U	U	U	U	U	10	50 GV
2,6-Dinitrotoluene	U	U	U	U	U	10	5 ST
Acenaphthylene	U	U	29	U	U	10	----
3-Nitroaniline	U	U	U	U	U	25	5 ST
Acenaphthene	10	U	**35**	12	U	10	20 GV
2,4-Dinitrophenol	U	U	U	U	U	25	1 ST *
4-Nitrophenol	U	U	U	U	U	25	----
Dibenzofuran	U	U	61	6 J	U	10	----

TABLE 8 (continued)

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

WEST 42ND STREET FORMER MGP SITE

SITE CHARACTERIZATION STUDY

GROUNDWATER SAMPLE RESULTS

SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

Sample Identification	LMW-01	LMW-02	LMW-03	LMW-04	MW-01	Contract Required Detection Limit	NYSDEC Class GA Groundwater Standard or Guidance Value
Date of Collection	10/10/03	10/08/03	10/10/03	10/10/03	10/07/03		
Dilution Factor	1.0	1.0	1.0	1.0	1.0		
Units	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
2,4-Dinitrotoluene	U	U	U	U	U	10	5 ST
Diethylphthalate	U	U	U	U	U	10	50 GV
Fluorene	U	U	**54**	7 J	U	10	50 GV
4-Chlorophenyl-phenylether	U	U	U	U	U	10	----
4-Nitroaniline	U	U	U	U	U	25	5 ST
4,6-Dinitro-2-methylphenol	U	U	U	U	U	25	----
N-Nitrosodiphenylamine	U	U	U	U	U	10	50 GV
4-Bromophenyl-phenylether	U	U	U	U	U	10	----
Hexachlorobenzene	U	U	U	U	U	10	0.04 ST
Pentachlorophenol	U	U	U	U	U	25	1 ST *
Phenanthrene	U	U	**140**	10	U	10	50 GV
Anthracene	U	U	41	1 J	U	10	50 GV
Carbazole	U	U	U	21	U	10	----
Di-n-butylphthalate	U	U	U	U	U	10	50 ST
Fluoranthene	U	U	**97**	2 J	U	10	50 GV
Pyrene	U	U	**100**	1 J	U	10	50 GV
Butylbenzylphthalate	U	U	U	U	U	10	50 GV
3,3'-Dichlorobenzidine	U	U	U	U	U	10	5 ST
Benzo (a) anthracene	U	U	**44**	U	U	10	0.002 GV
Chrysene	U	U	**39**	U	U	10	0.002 GV
bis(2-Ethylhexyl)phthalate	U	**6 J**	**25**	U	U*	10	5 ST
Di-octylphthalate	U	U	U	U	U	10	50 GV
Benzo(b)fluoranthene	U	U	**45**	U	U	10	0.002 GV
Benzo(k)fluoranthene	U	U	**19**	U	U	10	0.002 GV
Benzo(a)pyrene	U	U	**40**	U	U	10	ND ST
Indeno(1,2,3-cd)pyrene	U	U	**17**	U	U	10	0.002 GV
Dibenzo(a,h)anthracene	U	U	5 J	U	U	10	----
Benzo(g,h,i)perylene	U	U	18	U	U	10	----
Total PAHs	41	10	4,523	653	0		
Total Carcinogen PAHs	0	0	209	0	0		
Total SVOCs	41	33	5,279	743	0		

QUALIFIERS:

U. Compound analyzed for but not detected

B: Compound found in the method blank as well as the sample

J. Compound found at a concentration below the CRDL, value estimated

D Result taken from reanalysis at a secondary dilution

U*: Result qualified as non-detect based on validation criteria

NOTES:

* : Applies to Total Phenols

** : Applies to the sum of Unchlorinated Phenols

**** : Applies to the sum of Chlorinated Phenols

Bold Indicates value exceeds standard or guidance value.

TABLE 8 (continued)
CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
WEST 42ND STREET FORMER MGP SITE
SITE CHARACTERIZATION STUDY

GROUNDWATER SAMPLE RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

Sample Identification	MW-02	MW-03	MW-04	MW-05	MW-06	Contract Required Detection Limit	NYSDEC Class GA Groundwater Standard or Guidance Value
Date of Collection	10/10/03	10/08/03	10/08/03	10/09/03	10/10/03		
Dilution Factor	1.0	1.0	1.0	1.0	1.0		
Units	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/L)	(ug/l)
Phenol	**22**	**11**	**8 J**	U	U	10	1 ST *
bis(2-Chloroethyl)ether	U	U	U	U	U	10	1 ST
2-Chlorophenol	U	U	U	U	U	10	1 ST *
1,3-Dichlorobenzene	U	U	U	U	U	10	3 ST
1,4-Dichlorobenzene	U	U	U	U	U	10	3 ST
1,2-Dichlorobenzene	U	U	U	U	U	10	3 ST
2-Methylphenol	U	U	U	U	U	10	1 ST *
2,2-Oxybis (1-Chloropropane)	U	U	U	U	U	10	----
4-Methylphenol	U	U	U	U	1 J	10	1 ST *
N-Nitroso-di-n-propylamine	U	U	U	U	U	10	----
Hexachloroethane	U	U	U	U	U	10	5 ST
Nitrobenzene	U	U	U	U	U	10	0.4 ST
Isophorone	U	U	U	U	U	10	50 GV
2-Nitrophenol	U	U	U	U	U	10	----
2,4-Dimethylphenol	U	U	U	U	**48**	10	1 ST *
bis(2-Chloroethoxy)methane	U	U	U	U	U	10	5 ST
2,4-Dichlorophenol	U	U	U	U	U	10	1 ST *
1,2,4-Trichlorobenzene	U	U	U	U	U	10	5 ST
Naphthalene	**220 D**	5 J	**23**	U	**2,800 D**	10	10 GV
4-Chloroaniline	U	U	U	U	U	10	5 ST
Hexachlorobutadiene	U	U	U	U	U	10	0.5 ST
4-Chloro-3-methylphenol	U	U	U	U	U	10	----
2-Methylnaphthalene	3 J	U	U	U	62	10	----
Hexachlorocyclopentadiene	U	U	U	U	U	10	5 ST
2,4,6-Trichlorophenol	U	U	U	U	U	10	----
2,4,5-Trichlorophenol	U	U	U	U	U	25	----
2-Chloronaphthalene	U	U	U	U	U	10	10 GV
2-Nitroaniline	U	U	U	U	U	25	5 ST
Dimethylphthalate	U	U	U	U	U	10	50 GV
2,6-Dinitrotoluene	U	U	U	U	U	10	5 ST
Acenaphthylene	U	U	U	U	U	10	----
3-Nitroaniline	U	U	U	U	U	25	5 ST
Acenaphthene	U	U	14	U	3 J	10	20 GV
2,4-Dinitrophenol	U	U	U	U	U	25	1 ST *
4-Nitrophenol	U	U	U	U	U	25	----
Dibenzofuran	U	U	U	U	2 J	10	----

TABLE 8 (continued)

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

WEST 42ND STREET FORMER MGP SITE

SITE CHARACTERIZATION STUDY

GROUNDWATER SAMPLE RESULTS

SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

Sample Identification	MW-02	MW-03	MW-04	MW-05	MW-06	Contract Required Detection Limit	NYSDEC Class GA Groundwater Standard or Guidance Value
Date of Collection	10/10/03	10/08/03	10/08/03	10/09/03	10/10/03		
Dilution Factor	1.0	1.0	1.0	1.0	1.0		
Units	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
2,4-Dinitrotoluene	U	U	U	U	U	10	5 ST
Diethylphthalate	U	U	U	U	U	10	50 GV
Fluorene	U	U	2 J	U	2 J	10	50 GV
4-Chlorophenyl-phenylether	U	U	U	U	U	10	----
4-Nitroaniline	U	U	U	U	U	25	5 ST
4,6-Dinitro-2-methylphenol	U	U	U	U	U	25	----
N-Nitrosodiphenylamine	U	U	U	U	U	10	50 GV
4-Bromophenyl-phenylether	U	U	U	U	U	10	----
Hexachlorobenzene	U	U	U	U	U	10	0.04 ST
Pentachlorophenol	U	U	U	U	U	25	1 ST *
Phenanthrene	U	U	U	U	U	10	50 GV
Anthracene	U	U	U	U	U	10	50 GV
Carbazole	U	U	4 J	U	3 J	10	----
Di-n-butylphthalate	U	U	U	1 J	U	10	50 ST
Fluoranthene	U	U	U	U	U	10	50 GV
Pyrene	U	U	U	U	U	10	50 GV
Butylbenzylphthalate	U	U	U	U	U	10	50 GV
3,3'-Dichlorobenzidine	U	U	U	U	U	10	5 ST
Benzo (a) anthracene	U	U	U	U	U	10	0.002 GV
Chrysene	U	U	U	U	U	10	0.002 GV
bis(2-Ethylhexyl)phthalate	2 J	U*	U*	2 J	U	10	5 ST
Di-octylphthalate	U	U	U	U	U	10	50 GV
Benzo(b)fluoranthene	U	U	U	U	U	10	0.002 GV
Benzo(k)fluoranthene	U	U	U	U	U	10	0.002 GV
Benzo(a)pyrene	U	U	U	U	U	10	ND ST
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	10	0.002 GV
Dibenzo(a,h)anthracene	U	U	U	U	U	10	----
Benzo(g,h,i)perylene	U	U	U	U	U	10	----
Total PAHs	220	5	39	0	2,805		
Total Carcinogen PAHs	0	0	0	0	0		
Total SVOCs	247	16	51	3	2,921		

QUALIFIERS:

U. Compound analyzed for but not detected

B. Compound found in the method blank as well as the sample

J. Compound found at a concentration below the CRDL, value estimated

D. Result taken from reanalysis at a secondary dilution

U*. Result qualified as non-detect based on validation criteria

NOTES:

* : Applies to Total Phenols

** : Applies to the sum of Unchlorinated Phenols

**** : Applies to the sum of Chlorinated Phenols

Indicates value exceeds standard or guidance value

TABLE 9

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

WEST 42ND STREET FORMER MGP SITE

SITE CHARACTERIZATION STUDY

GROUNDWATER SAMPLE RESULTS

TARGET ANALYTE LIST (TAL) METALS

Sample Identification	LMW-01	LMW-02	LMW-03	LMW-04	MW-01	Contract Required Detection Limit	NYSDEC Class GA Groundwater Standard or Guidance Value
Date of Collection	10/10/03	10/08/03	10/10/03	10/10/03	10/07/03		
Dilution Factor	1.0	1.0	1.0	1.0	1.0		
Units	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/L)	(ug/l)
Aluminum	50.3 B	449	284	556	1800	17	----
Antimony	U	U	U	U	U	3	3 ST
Arsenic	**651**	U	6.7 B	U	U	3	25 ST
Barium	**1,420**	46.8 B	148 B	120 B	72.2 B	4	1,000 ST
Beryllium	U	U	U	U	U	0.5	3 GV
Cadmium	0.7 B	U	U	U	U	0.7	5 ST
Calcium	76,800	25,900	95,500	90,900	85,800	240	----
Chromium	U	1.7 B	U	U	1.3 B	0.6	50 ST
Cobalt	U	2.1 B	3.4 B	2.9 B	2.2 B	0.9	----
Copper	U	15.8 B	U	U	7 B	4	200 ST
Iron	**22,500**	**2,230**	**3,410**	**4,620**	**2,880**	26	300 ST ^
Lead	U	**34.1**	U	5 B	11.3	4	25 ST
Magnesium	**58,000**	2,350	**38,100**	30,000	**41,100**	8	35,000 GV
Manganese	**2,750**	213	**936**	**880**	**873**	1	300 ST ^
Mercury	U	U	U	U	NR	0.1	0.7 ST
Nickel	7.9 B	8.3 B	U	U	1.4 B	0.8	100 ST
Potassium	40,500	2,790	21,100	39,300	23,700	78	----
Selenium	U	U	U	U	U	9	10 ST
Silver	U	U	U	U	U	2	50 ST
Sodium	**404,000**	5,030	**159,000**	**168,000**	**133,000**	83	20,000 ST
Thallium	U	U	U	U	U	3	0.5 GV
Vanadium	U	4.6 B	U	2.3 B	4.3 B	0.7	----
Zinc	U	153	12.9 B	U	53.2	7	2,000 GV
Total Cyanide	185	U	**207**	**275**	178	7	200 ST
Amenable Cyanide	107	U	148	240	118	7	----

QUALIFIERS:

U: Compound analyzed for but not detected

B: Compound concentration is less than the CRDL but greater than the IDL.

NOTES:

ST: Standard

NR: Not Reported

GV:Guidance Value

^: Standard for the sum of Iron and Manganese is 500 ug/l

Bold Indicates value exceeds standard or guidance value.

TABLE 9 (continued)

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

WEST 42ND STREET FORMER MGP SITE

SITE CHARACTERIZATION STUDY

GROUNDWATER SAMPLE RESULTS

TARGET ANALYTE LIST (TAL) METALS

Sample Identification	MW-02	MW-03	MW-04	MW-05	MW-06	Contract Required Detection Limit	NYSDEC Class GA Groundwater Standard or Guidance Value
Date of Collection	10/10/03	10/08/03	10/08/03	10/09/03	10/10/03		
Dilution Factor	1.0	1.0	1.0	1.0	1.0		
Units	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/L)	(ug/l)
Aluminum	583	4,440	56.9 B	278	568	17	----
Antimony	U	U	U	U	U	3	3 ST
Arsenic	U	5.8 B	U	U	6.6 B	3	25 ST
Barium	94.8 B	299	143 B	99.1 B	141 B	4	1,000 ST
Beryllium	U	U	U	U	U	0.5	3 GV
Cadmium	U	U	U	U	U	0.7	5 ST
Calcium	91,700	128,000	129,000	143,000	234,000	240	----
Chromium	U	U	U	U	U	0.6	50 ST
Cobalt	3.5 B	6.1 B	U	U	U	0.9	----
Copper	16.3 B	9 B	U	U	U	4	200 ST
Iron	**4,190**	**11,900**	**827**	**2,900**	**5,350**	26	300 ST ^
Lead	14.7	**51.7**	U	11.6	14.9	4	25 ST
Magnesium	**62,600**	34,200	**39,100**	33,300	**67,300**	8	35,000 GV
Manganese	**1,050**	**2,100**	**644**	**630**	**1,980**	1	300 ST ^
Mercury	0.14 B	U	U	U	U	0.1	0.7 ST
Nickel	2.5 B	8.6 B	U	U	U	0.8	100 ST
Potassium	45,800	32,800	28,800	27,500	33,900	78	----
Selenium	U	U	U	U	U	9	10 ST
Silver	U	U	U	U	U	2	50 ST
Sodium	**179,000**	**104,000**	**153,000**	**122,000**	**140,000**	83	20,000 ST
Thallium	U	U	U	U	U	3	0.5 GV
Vanadium	3.4 B	12.4 B	1.2 B	1.9 B	3.3 B	0.7	----
Zinc	20.7 B	40.2 B	8.4 B	U	U	7	2,000 GV
Total Cyanide	**270**	163	**282**	77.9	123	7	200 ST
Amenable Cyanide	182	99.7	203	22	60.3	7	----

QUALIFIERS:

U: Compound analyzed for but not detected

B: Compound concentration is less than the CRDL but greater than the IDL.

NOTES:

ST: Standard

NR: Not Reported

GV:Guidance Value

^: Standard for the sum of Iron and Manganese is 500 ug/l

bold Indicates value exceeds standard or guidance value.

APPENDIX D

META ENVIRONMENTAL INC.,
ENVIRONMENTAL FORENSIC REPORT,
DATED NOVEMBER 12, 2003

Environmental Forensic Report

ConEd - W. 42nd

SDG: DB031007

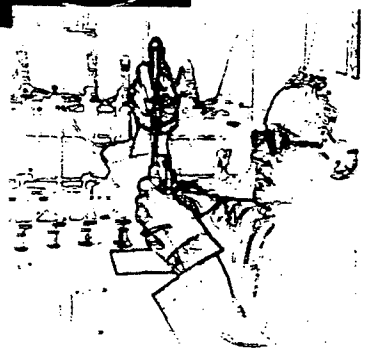
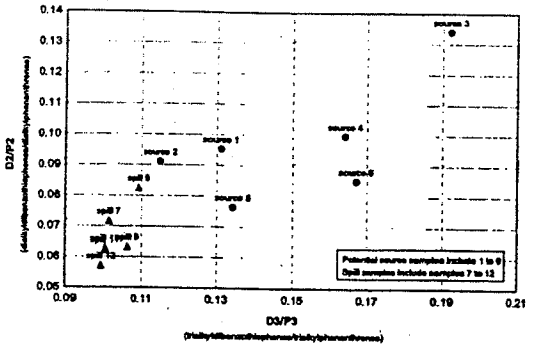


Figure 1. Double Ratio Plot



Report To:

Dvirka and Bartilucci
330 Crossways Park Drive
Woodbury, NY 11797

Report By:

META Environmental, Inc.
49 Clarendon Street
Watertown, MA 02472

November 12, 2003

Identifying and allocating sources of pollutants in complex environments.

META Environmental, Inc.
ENGINEERING & CHEMISTRY

Final Laboratory Report

META Environmental, Inc.
49 Clarendon Street
Watertown, MA 02472

Phone: 617-923-4662
Fax: 617-923-4610
e-Mail: meta@metaenv.com

Certification

This certifies that this package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed herein. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Director and Quality Assurance Officer, as verified by the following signatures.

David R. Craig
Laboratory Director, META Environmental, Inc.

11/12/03
Date

David M. Mauro
Quality Assurance Officer, META Environmental, Inc.

11/12/03
Date

Sample Delivery Group Narrative

Project: ConEd – W. 42nd

Client: Dvirka and Bartilucci
330 Crossways Park Drive
Woodbury, NY 11797

Report Contact: Ms. Kristen Panella

Date of Receipt: 10/7/03

Sample Summary:

The samples received for this project are summarized in the attached sample login forms.

META Project Number: D07003-60

Chain of Custody

Samples were received in good condition. The internal temperatures of the shipment containers were as follows:

Samples received 10/7/2003 5.0°C

Internal chain of custody procedures were followed after sample receipt. Samples were stored in a locked refrigerator. A sample custody logbook contains the record of sample removal from the secure sample storage area to the sample preparation laboratory. The custody record for the sample extracts is present on the sample extraction logbook page.

The disposal of samples and extracts will be authorized 1 month after the release of this data report. Sample disposal will be documented.

Methods

The samples were prepared by solvent extraction (EPA 3570) using dichloromethane (DCM). The extracts were spiked with internal standard and analyzed by GC/FID (EPA 8100 mod.) and GC/MS/SIM (EPA 8270 mod.).

Results

Sample results were presented in summary forms (CLP Form 1 equivalent) which follow this narrative.

Quality Control

Analyte Flags

The detection limits were determined as the sample equivalent of the lowest linear initial calibration standard. Analytes measured between 50% and 100% of the lowest standard were reported as "estimated" and flagged with the letter "J." No value was reported above the calibration range. Undetected analytes were flagged with the letter, "U." Analytes marked with a "B" were detected in the associated blank and should be reviewed for a possible positive bias. No deviations were thought significant enough to compromise the integrity of the reported values.

Holding Times

The samples were extracted within 14 days of collection. All samples and extracts were stored at $4^{\circ}C \pm 2^{\circ}C$ prior to extraction and analysis. All extracts were analyzed within 40 days of sample preparation.

Blanks

No target analytes were present above the detection limit in the blanks.

Internal Standards

Internal standards were recovered within acceptable QC limits (50%-200%) relative to the continuing calibration standard.

Interpretation

Sample SB-08 12-16

This sample contained a pyrogenic substance. The pattern of PAHs, especially the ratios of fluoranthene to pyrene and dibenzofuran to fluorene indicate that the pyrogenic material in this sample is coal tar from a relatively high temperature process. The presence of MAHs and the high concentration of naphthalene relative to other PAHs indicate that this sample has not been subject to substantial weathering.

Sample SB-24 36-38

This sample also contained a pyrogenic substance consistent with relatively unweathered coal tar

Discussion

Both samples contained relatively unweathered coal tar. The statistical significance of any variability in the diagnostic ratios between the samples could not be evaluated with only two samples. Both samples appear to be from the same source, however sample SB-24 36-38 appears to be somewhat more weathered.

Definitions

Pyrogenic substances are complex mixtures of primarily hydrocarbons produced from organic matter subjected to high temperatures but with insufficient oxygen for complete combustion. Pyrogenic materials are produced by fires, internal combustion engines, and furnaces. They also are formed when coke or gas are produced from coal or oil. Coal-tar based products, such as roofing, pavement sealers, waterproofing, pesticides, and some shampoos contain pyrogenic materials.

Petrogenic substances include crude oil and crude oil derivatives such as gasoline, heating oil, and asphalt.

Pitch is the semi-solid or solid material consisting of high molecular weight hydrocarbons that remain following coal tar distillation.

References

1 "Chemical Source Attribution at Former MGP Sites," EPRI Report 1000728, December 2000.

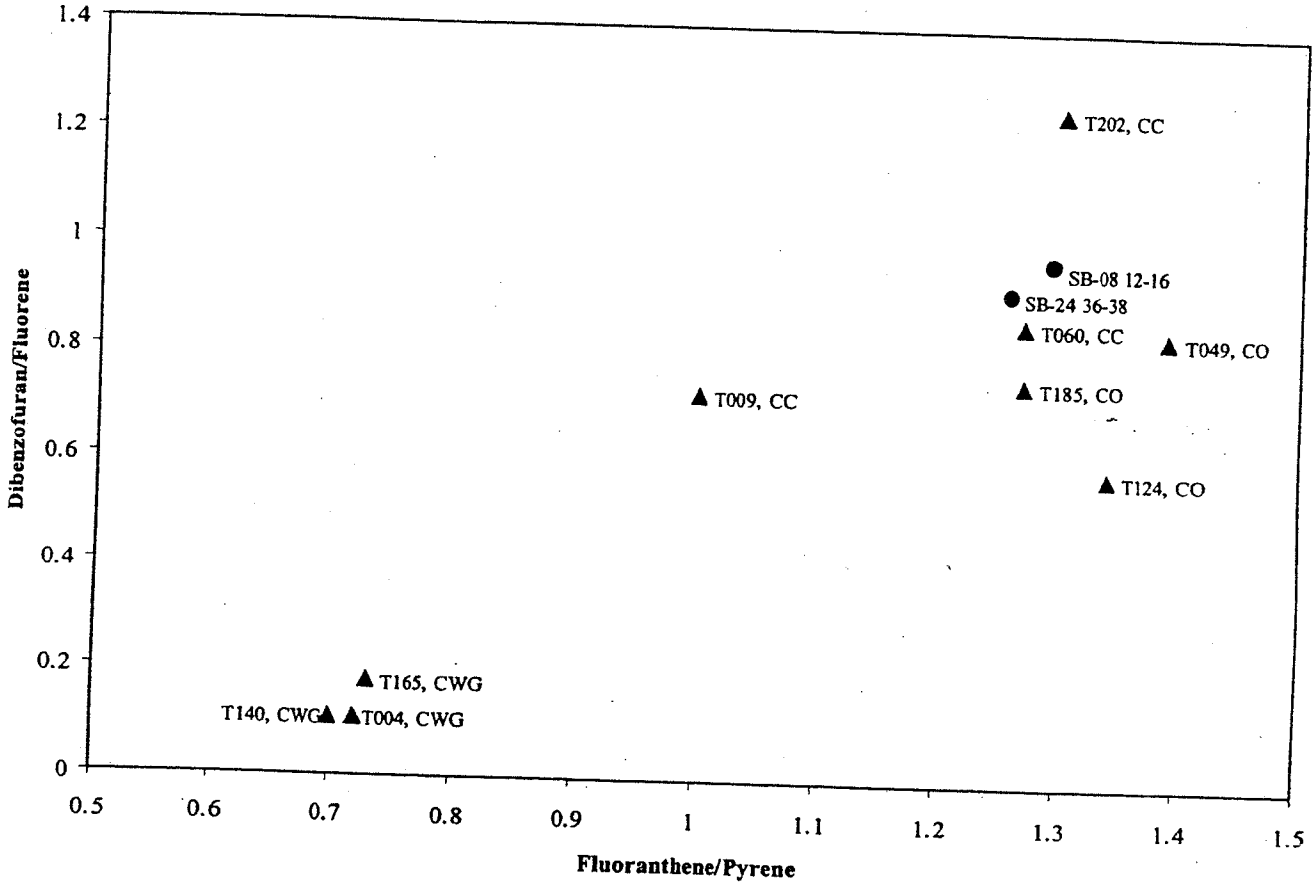
Table 1
Source and Weathering Ratios

Sample	Fl/Py	D/F	C17/Pris	C18/Phy	Pris/Phy	C3D/C3PA	C2D/C2PA
SB-08 12-16	1.29	0.98	0.91	2.76	4.19	0.72	0.19
SB-24 36-38	1.26	0.92	1.01	0.19	1.15	0.43	0.25

Ratios:

Fl/Py	fluoranthene/pyrene
D/F	dibenzofuran/fluorene
C17/Pris	septadecane/pristane
C18/Phy	octadecane/phytane
Pris/Phy	pristane/phytane
C3D/C3PA	trialkyldibenzothiophenes/trialkylphenanthrenes/anthracenes
C2D/C2PA	dialkyldibenzothiophenes/dialkylphenanthrenes/anthracenes
Chry/Pri	Phenanthrene/Phytane

Figure 1
Selected Source Ratios



TXXX	Tar Sample from META's in house source library
CC	Coal Carbonization Tar
CO	Coke Oven Tar
CWG	Carburetted Water Gas Tar

Appendix A
Chains of Custody

META ENVIRONMENTAL SAMPLE RECEIPT

Lab ID	Field ID	Matrix	Analysis		Date Sampled	Date Received	Client/ Project	Container/ Storage	Comments/Logger
DB031007-01 a,b	SB-08 12-16	Soil/Napl	2512/4007	4008	10/2/2003	10/7/2003		2X 16 oz. jar	
DB031007-02 a,b	SB-24 36-38	NAPL	2512/4007	4008	10/3/2003	10/7/2003		4 oz. jar	

10/7/03

MITKEM CORPORATION

~~175 Metro Center Boulevard~~
~~Warwick, Rhode Island 02886-1755~~
~~(401) 732-3400 • Fax (401) 732-3499~~
~~email: mitkem@mitkem.com~~

49 Clarendon Street
Watertown, MA 02472

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

REPORT TO			INVOICE TO		
COMPANY Dvirka & Bartilucci	PHONE 364 9890		COMPANY	PHONE:	LAB PROJECT #:
NAME Kristen Parella	FAX 364-9045		NAME SAME	FAX	
ADDRESS 330 Crossways Park Drive			ADDRESS		TURNAROUND TIME:
CITY/ST/ZIP Woodbury, NY 11797			CITY/ST/ZIP		

CLIENT PROJECT NAME:	CLIENT PROJECT #:	CLIENT P.O.#:
ConEd-W 42nd St	2085:-A02	

SAMPLE IDENTIFICATION	DATE/TIME SAMPLED	COMPOSITE	GRAB	WATER	SOIL	OTHER	LAB ID	# OF CONTAINERS	Full Characterization	COMMENTS
SB-08 12-16	10/02/03 1200		X		X			2	X	DB031007-01a,b
SB-24 36-38	10/03/03 1515		X			X		1	X	-02
	/									
	/									
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	/									
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	/									
	/									
	/									
	/									

TSF#	RELINQUISHED BY	DATE/TIME	ACCEPTED BY	DATE/TIME
1	Kristen Parella	10/6/03 1700	Brian Gagi	10/07/03 10:00
2		/		/
3		/		/

ADDITIONAL REMARKS:
* Full Characterization - class fractionation, SHC, extended PAH profiles, biomarkers

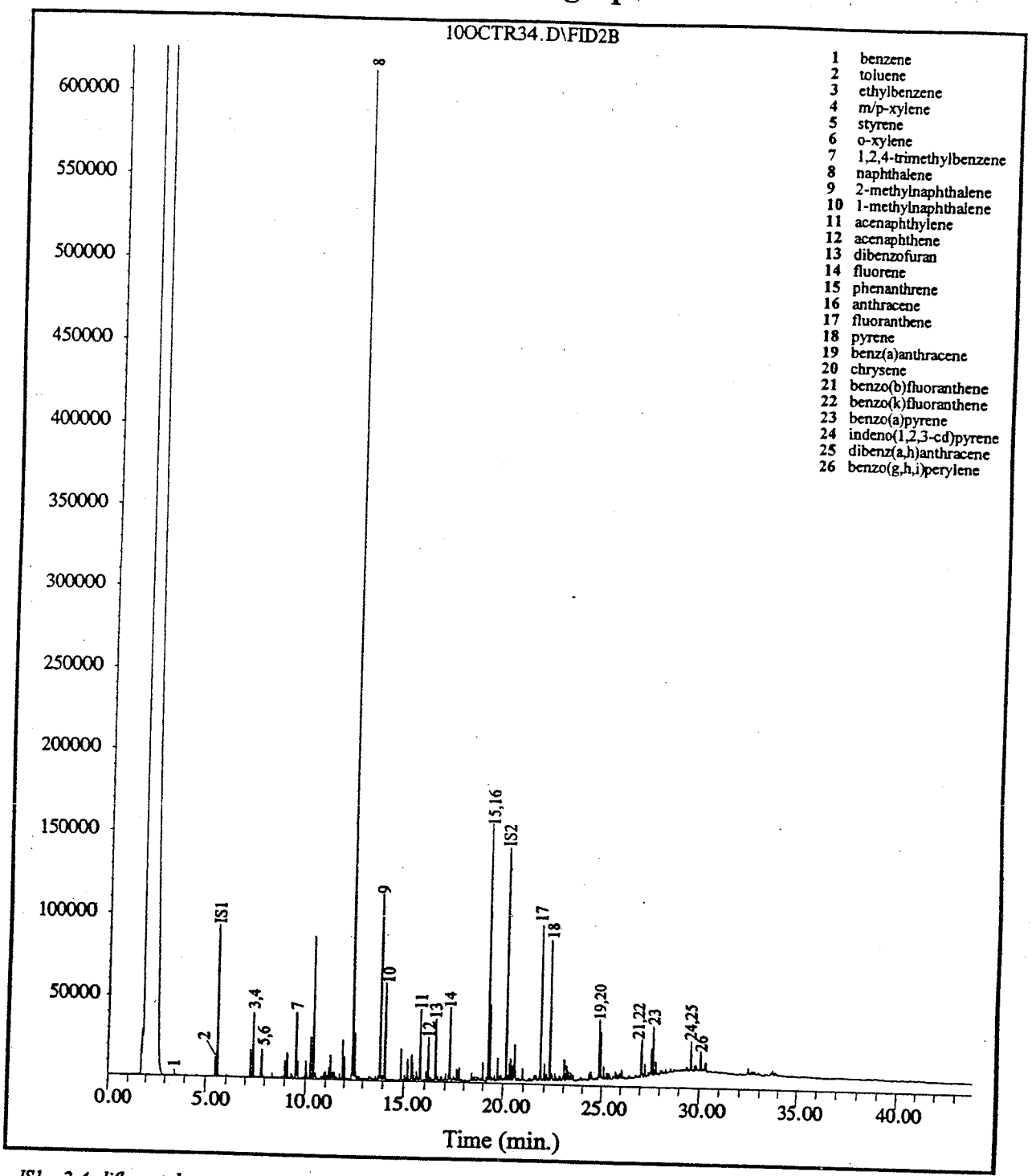
COOLER TEMP: 5.0°C

WHITE: LABORATORY COPY YELLOW: REPORT COPY PINK: CLIENT'S COPY

Appendix B

GC/FID Fingerprints

GC/FID Fingerprint



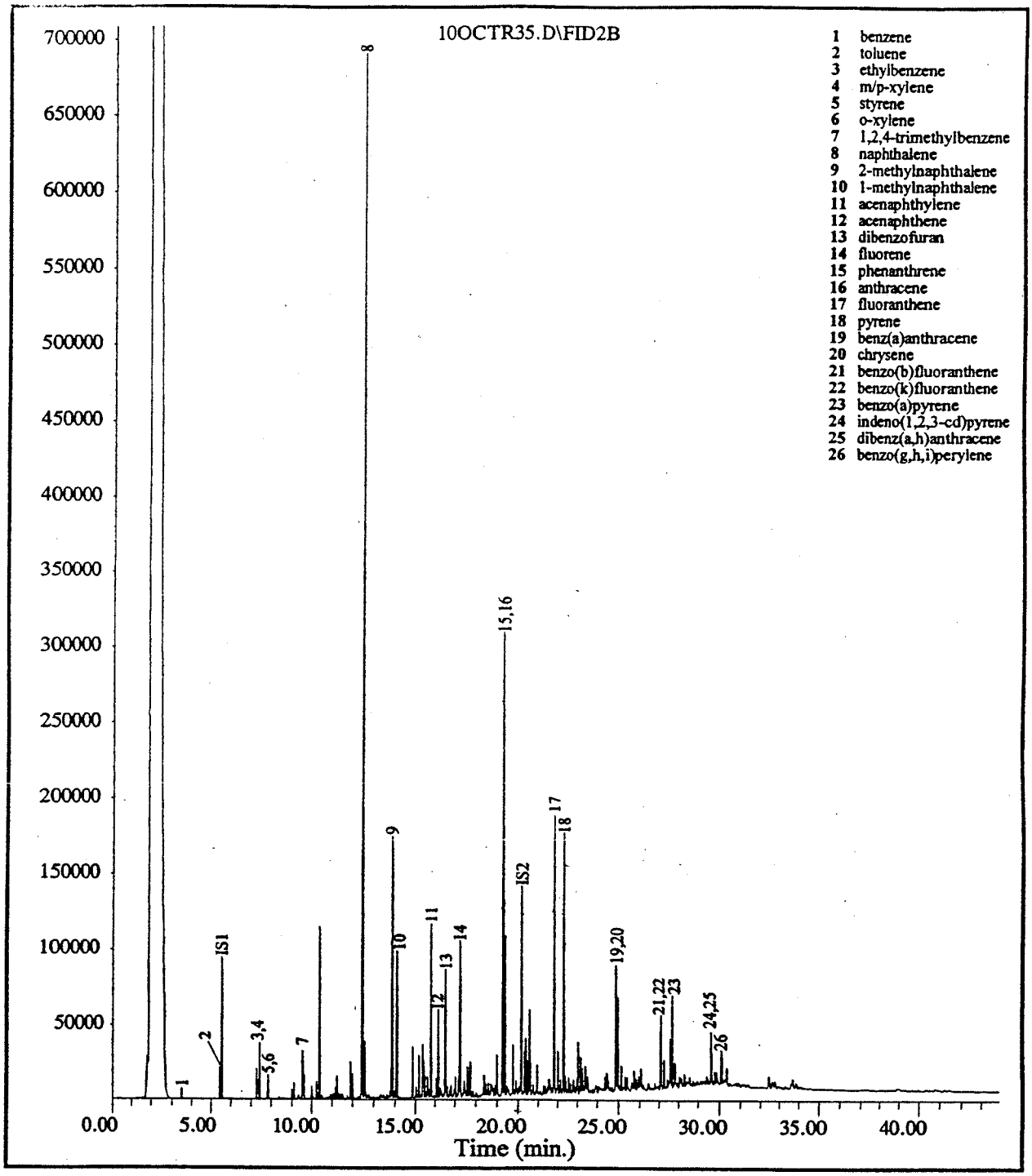
IS1 – 2,4-difluorotoluene
IS2 – o-terphenyl

Field ID:	**SB-08 12-16**
Laboratory ID:	DB031007-01
Method:	METD7015

DB031007.ppt

META

GC/FID Fingerprint



IS1 – 2,4-difluorotoluene
IS2 – o-terphenyl
SS1 – fluorobenzene
SS2 – 2-fluorobiphenyl
SS3 – 5α-androstane
SS4 – benzo(a)pyrene-d12

Field ID:	SB-24 36-38
Laboratory ID:	DB031007-02
Method:	METD7015

META

Appendix C
Chemical Concentrations

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SB-08 12-16

Client:	Dvirka + Bartilucci
Project:	Con Ed-W 42nd
Lab ID:	DB031007-01
File ID:	31OCT16.D
Date Sampled:	10/2/2003
Date Received:	10/7/2003
Date Prepared:	10/10/2003
Date Cleanup:	N/A
Date Analyzed:	1 Nov 2003 10:53 am
Instrument:	GC4-MS_59
Operator:	MP

Preparation Method:	EPA 3580	
Cleanup Method(s):	N/A	
Analysis Method:	GC/MS (EPA 8270 Mod.)	
Matrix:	NAPL	
Preservation:	None	
Decanted:	No	
Sample Size:	0.01	g
%Solid:	100%	
Extract Volume:	2	mL
Prep DF:	1	
Analysis DF:	1	
Injection Volume:	0.001	mL
Batch QC:	DB031010-MB	

Analyte:	Concentration mg/kg	Q	RL mg/kg	EDL mg/kg	Comments
PAH COMPOUNDS:					
Benzene	271		20.0	10.0	
Toluene	956		20.0	10.0	
Ethylbenzene	1,480		20.0	10.0	
m/p-Xylenes	3,350		20.0	10.0	
Styrene	295		20.0	10.0	
o-Xylene	1,430		20.0	10.0	
1,2,4-Trimethylbenzene	1,400		20.0	10.0	
Naphthalene	66,300	D	20.0	10.0	
2-Methylnaphthalene	8,530		20.0	10.0	
1-Methylnaphthalene	4,450		20.0	10.0	
Acenaphthylene	2,570		20.0	10.0	
Acenaphthene	1,740		20.0	10.0	
Dibenzofuran	3,260		20.0	10.0	
Fluorene	3,340		20.0	10.0	
Phenanthrene	11,600		20.0	10.0	
Anthracene	3,130		20.0	10.0	
Fluoranthene	6,770		20.0	10.0	
Pyrene	5,240		20.0	10.0	
Benz[a]anthracene	2,450		20.0	10.0	
Chrysene	2,070		20.0	10.0	
Benzo[b]fluoranthene	1,530		20.0	10.0	
Benzo[k]fluoranthene	1,590		20.0	10.0	
Benzo(e)pyrene	1,150		20.0	10.0	
Benzo[a]pyrene	2,200		20.0	10.0	
Perylene	549		20.0	10.0	
Indeno[1,2,3-cd]pyrene	1,150		20.0	10.0	
Dibenz[a,h]anthracene	319		20.0	10.0	
Benzo[g,h,i]perylene	1,240		20.0	10.0	
ALKYLATED PAHs:					
C0-Benzene	271		20.0	10.0	
C1-Benzene	1,080		20.0	10.0	
C2-Benzene	6,730		20.0	10.0	
C3-Benzene	6,750		20.0	10.0	
C4-Benzene	2,370		20.0	10.0	
C5-Benzene	276		20.0	10.0	
C0-Naphthalene	66,300	D	20.0	10.0	
C1-Naphthalene	8,390		20.0	10.0	
C2-Naphthalene	2,810		20.0	10.0	
C3-Naphthalene	563		20.0	10.0	
C4-Naphthalene	144		20.0	10.0	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: **SB-08 12-16**

Client:	Dvirka + Bartilucci
Project:	Con Ed-W 42nd
Lab ID:	DB031007-01
File ID:	31OCT16.D
Date Sampled:	10/2/2003
Date Received:	10/7/2003
Date Prepared:	10/10/2003
Date Cleanup:	N/A
Date Analyzed:	1 Nov 2003 10:53 am
Instrument:	GC4-MS_59
Operator:	MP

Preparation Method:	EPA 3580
Cleanup Method(s):	N/A
Analysis Method:	GC/MS (EPA 8270 Mod.)
Matrix:	NAPL
Preservation:	None
Decanted:	No
Sample Size:	0.01 g
%Solid:	100%
Extract Volume:	2 mL
Prep DF:	1
Analysis DF:	1
Injection Volume:	0.001 mL
Batch QC:	DB031010-MB

Analyte:	Concentration mg/kg	Q	RL mg/kg	EDL mg/kg	Comments
C0-Fluorene	3,340		20.0	10.0	
C1-Fluorene	705		20.0	10.0	
C2-Fluorene	140		20.0	10.0	
C3-Fluorene	38.2		20.0	10.0	
C0-Phenanthrene/Anthracene	15,500		20.0	10.0	
C1-Phenanthrene/Anthracene	2,100		20.0	10.0	
C2-Phenanthrene/Anthracene	431		20.0	10.0	
C3-Phenanthrene/Anthracene	66.4		20.0	10.0	
C4-Phenanthrene/Anthracene	24.2		20.0	10.0	
C0-Dibenzothiophene	1,030		20.0	10.0	
C1-Dibenzothiophene	242		20.0	10.0	
C2-Dibenzothiophene	81.8		20.0	10.0	
C3-Dibenzothiophene	48.1		20.0	10.0	
C0-Fluoranthene/Pyrene	13,000		20.0	10.0	
C1-Fluoranthene/Pyrene	1,850		20.0	10.0	
C2-Fluoranthene/Pyrene	299		20.0	10.0	
C3-Fluoranthene/Pyrene	88.0		20.0	10.0	
C0-Benz(a)anthracene/Chrysene	4,660		20.0	10.0	
C1-Benz(a)anthracene/Chrysene	629		20.0	10.0	
C2-Benz(a)anthracene/Chrysene	179		20.0	10.0	
C3-Benz(a)anthracene/Chrysene	78.8		20.0	10.0	
C4-Benz(a)anthracene/Chrysene	55.8		20.0	10.0	

EXTRACTION SURROGATE COMPOUNDS:	%R	Min	Max
Fluorobenzene	Not Spiked	50%	150%
2-Fluorobiphenyl	Not Spiked	50%	120%
5a-Androstane	Not Spiked	50%	120%
Benzo(a)pyrene-d12	Not Spiked	50%	120%

Qualifiers:

B	Analyte detected in the blank
D	Analyte reported from a diluted extract
U	Undetected above the detection limit
J	Estimated value detected between the reporting and detection limits
E	Estimated value detected above calibration range
RL	Reporting limit is the sample equivalent of the lowest linear calibration concentration
EDL	Estimated detection limit is 50% of the RL

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SB-24 36-38

Client:	Dvirka + Bartilucci	Preparation Method:	EPA 3580	
Project:	Con Ed-W 42nd	Cleanup Method(s):	N/A	
Lab ID:	DB031007-02	Analysis Method:	GC/MS (EPA 8270 Mod.)	
File ID:	31OCT20.D	Matrix:	NAPL	
		Preservation:	None	
Date Sampled:	10/3/2003	Decanted:	No	
Date Received:	10/7/2003	Sample Size:	0.0118	g
Date Prepared:	10/10/2003	%Solid:	100%	
Date Cleanup:	N/A	Extract Volume:	2	mL
Date Analyzed:	1 Nov 2003 3:45 pm	Prep DF:	1	
Instrument:	GC4-MS_59	Analysis DF:	1	
Operator:	MP	Injection Volume:	0.001	mL
		Batch QC:	DB031010-MB	

Analyte:	Concentration mg/kg	Q	RL mg/kg	EDL mg/kg	Comments
PAH COMPOUNDS:					
Benzene	539		16.9	8.47	
Toluene	1,580		16.9	8.47	
Ethylbenzene	1,570		16.9	8.47	
m/p-Xylenes	2,840		16.9	8.47	
Styrene	290		16.9	8.47	
o-Xylene	1,230		16.9	8.47	
1,2,4-Trimethylbenzene	889		16.9	8.47	
Naphthalene	68,300	D	16.9	8.47	
2-Methylnaphthalene	11,000		16.9	8.47	
1-Methylnaphthalene	6,100		16.9	8.47	
Acenaphthylene	5,730		16.9	8.47	
Acenaphthene	3,140		16.9	8.47	
Dibenzofuran	5,760		16.9	8.47	
Fluorene	6,270		16.9	8.47	
Phenanthrene	23,600	D	16.9	8.47	
Anthracene	5,460		16.9	8.47	
Fluoranthene	11,200		16.9	8.47	
Pyrene	8,910		16.9	8.47	
Benz[a]anthracene	4,620		16.9	8.47	
Chrysene	3,600		16.9	8.47	
Benzo[b]fluoranthene	2,470		16.9	8.47	
Benzo[k]fluoranthene	2,870		16.9	8.47	
Benzo(e)pyrene	2,000		16.9	8.47	
Benzo[a]pyrene	3,850		16.9	8.47	
Perylene	866		16.9	8.47	
Indeno[1,2,3-cd]pyrene	1,910		16.9	8.47	
Dibenz[a,h]anthracene	603		16.9	8.47	
Benzo[g,h,i]perylene	2,070		16.9	8.47	
ALKYLATED PAHs:					
C0-Benzene	539		16.9	8.47	
C1-Benzene	1,790		16.9	8.47	
C2-Benzene	6,070		16.9	8.47	
C3-Benzene	4,320		16.9	8.47	
C4-Benzene	1,640		16.9	8.47	
C5-Benzene	262		16.9	8.47	
C0-Naphthalene	68,300	D	16.9	8.47	
C1-Naphthalene	11,000		16.9	8.47	
C2-Naphthalene	5,380		16.9	8.47	
C3-Naphthalene	1,290		16.9	8.47	
C4-Naphthalene	421		16.9	8.47	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: **SB-24 36-38**

Client:	Dvirka + Bartilucci
Project:	Con Ed-W 42nd
Lab ID:	DB031007-02
File ID:	31OCT20.D
Date Sampled:	10/3/2003
Date Received:	10/7/2003
Date Prepared:	10/10/2003
Date Cleanup:	N/A
Date Analyzed:	1 Nov 2003 3:45 pm
Instrument:	GC4-MS_59
Operator:	MP

Preparation Method:	EPA 3580
Cleanup Method(s):	N/A
Analysis Method:	GC/MS (EPA 8270 Mod.)
Matrix:	NAPL
Preservation:	None
Decanted:	No
Sample Size:	0.0118 g
%Solid:	100%
Extract Volume:	2 mL
Prep DF:	1
Analysis DF:	1
Injection Volume:	0.001 mL
Batch QC:	DB031010-MB

Analyte:	Concentration mg/kg	Q	RL mg/kg	EDL mg/kg	Comments
C0-Fluorene	6,270		16.9	8.47	
C1-Fluorene	1,870		16.9	8.47	
C2-Fluorene	376		16.9	8.47	
C3-Fluorene	96.5		16.9	8.47	
C0-Phenanthrene/Anthracene	31,500	D	16.9	8.47	
C1-Phenanthrene/Anthracene	4,960		16.9	8.47	
C2-Phenanthrene/Anthracene	1,090		16.9	8.47	
C3-Phenanthrene/Anthracene	183		16.9	8.47	
C4-Phenanthrene/Anthracene	73.5		16.9	8.47	
C0-Dibenzothiophene	1,920		16.9	8.47	
C1-Dibenzothiophene	569		16.9	8.47	
C2-Dibenzothiophene	269		16.9	8.47	
C3-Dibenzothiophene	77.9		16.9	8.47	
C0-Fluoranthene/Pyrene	22,100		16.9	8.47	
C1-Fluoranthene/Pyrene	4,240		16.9	8.47	
C2-Fluoranthene/Pyrene	836		16.9	8.47	
C3-Fluoranthene/Pyrene	240		16.9	8.47	
C0-Benz(a)anthracene/Chrysene	8,460		16.9	8.47	
C1-Benz(a)anthracene/Chrysene	1,390		16.9	8.47	
C2-Benz(a)anthracene/Chrysene	521		16.9	8.47	
C3-Benz(a)anthracene/Chrysene	191		16.9	8.47	
C4-Benz(a)anthracene/Chrysene	132		16.9	8.47	

EXTRACTION SURROGATE COMPOUNDS:	%R	Min	Max
Fluorobenzene	Not Spiked	50%	150%
2-Fluorobiphenyl	Not Spiked	50%	120%
5a-Androstane	Not Spiked	50%	120%
Benzo(a)pyrene-d12	Not Spiked	50%	120%

Qualifiers:

B	Analyte detected in the blank
D	Analyte reported from a diluted extract
U	Undetected above the detection limit
J	Estimated value detected between the reporting and detection limits
E	Estimated value detected above calibration range
RL	Reporting limit is the sample equivalent of the lowest linear calibration concentration
EDL	Estimated detection limit is 50% of the RL

META

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: **SB-24 36-38**

Client:	Dvirka + Bartilucci
Project:	Con Ed-W 42nd
Lab ID:	DB031007-02 DUP X20
File ID:	31OCT25.D
Date Sampled:	10/3/2003
Date Received:	10/7/2003
Date Prepared:	10/10/2003
Date Cleanup:	N/A
Date Analyzed:	1 Nov 2003 8:47 pm
Instrument:	GC4-MS_59
Operator:	MP

Preparation Method:	EPA 3580	
Cleanup Method(s):	N/A	
Analysis Method:	GC/MS (EPA 8270 Mod.)	
Matrix:	NAPL	
Preservation:	None	
Decanted:	No	
Sample Size:	0.0123	g
%Solid:	100%	
Extract Volume:	2	mL
Prep DF:	20	
Analysis DF:	1	
Injection Volume:	0.001	mL
Batch QC:	DB031010-MB	

Analyte:	Concentration mg/kg	Q	RL mg/kg	EDL mg/kg	Comments
PAH COMPOUNDS:					
Benzene	659		325	163	44.5%
Toluene	2,110		325	163	67.1%
Ethylbenzene	1,660		325	163	11.5%
m/p-Xylenes	3,850		325	163	71.1%
Styrene	364		325	163	51.0%
o-Xylene	1,750		325	163	84.6%
1,2,4-Trimethylbenzene	1,280		325	163	88.0%
Naphthalene	84,500		325	163	47.4%
2-Methylnaphthalene	16,900		325	163	107.3%
1-Methylnaphthalene	9,000		325	163	95.1%
Acenaphthylene	8,270		325	163	88.7%
Acenaphthene	4,330		325	163	75.8%
Dibenzofuran	8,080		325	163	80.6%
Fluorene	9,300		325	163	96.7%
Phenanthrene	33,700		325	163	85.6%
Anthracene	9,460		325	163	146.5%
Fluoranthene	18,400		325	163	128.6%
Pyrene	14,500		325	163	125.5%
Benz[a]anthracene	6,830		325	163	95.7%
Chrysene	5,730		325	163	118.3%
Benzo[b]fluoranthene	4,040		325	163	127.1%
[illegible]	4,410		325	163	107.3%
[illegible]	3,010		325	163	101.0%
Benzo[a]pyrene	5,920		325	163	107.5%
Perylene	1,290		325	163	97.9%
Indeno[1,2,3-cd]pyrene	2,530		325	163	64.9%
Dibenz[a,h]anthracene	666		325	163	20.9%
Benzo[g,h,i]perylene	2,520		325	163	43.5%
ALKYLATED PAHs:					
C0-Benzene	659		325	163	44.5%
C1-Benzene	2,390		325	163	67.0%
C2-Benzene	8,070		325	163	65.9%
C3-Benzene	5,730		325	163	65.3%
C4-Benzene	2,760		325	163	136.6%
C5-Benzene	361		325	163	75.6%
C0-Naphthalene	84,500		325	163	47.4%
C1-Naphthalene	16,700		325	163	103.6%
C2-Naphthalene	7,380		325	163	74.3%
C3-Naphthalene	1,680		325	163	60.5%
C4-Naphthalene	566		325	163	68.9%

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: **SB-24 36-38**

Client:	Dvirka + Bartilucci
Project:	Con Ed-W 42nd
Lab ID:	DB031007-02 DUP X20
File ID:	31OCT25.D
Date Sampled:	10/3/2003
Date Received:	10/7/2003
Date Prepared:	10/10/2003
Date Cleanup:	N/A
Date Analyzed:	1 Nov 2003 8:47 pm
Instrument:	GC4-MS_59
Operator:	MP

Preparation Method:	EPA 3580
Cleanup Method(s):	N/A
Analysis Method:	GC/MS (EPA 8270 Mod.)
Matrix:	NAPL
Preservation:	None
Decanted:	No
Sample Size:	0.0123 g
%Solid:	100%
Extract Volume:	2 mL
Prep DF:	20
Analysis DF:	1
Injection Volume:	0.001 mL
Batch QC:	DB031010-MB

Analyte:	Concentration mg/kg	Q	RL mg/kg	EDL mg/kg	Comments
C0-Fluorene	9,300		325	163	96.7%
C1-Fluorene	2,680		325	163	86.6%
C2-Fluorene	438		325	163	33.0%
C3-Fluorene		U	325	163	
C0-Phenanthrene/Anthracene	44,300		325	163	81.3%
C1-Phenanthrene/Anthracene	7,190		325	163	89.9%
C2-Phenanthrene/Anthracene	1,510		325	163	77.1%
C3-Phenanthrene/Anthracene	242	J	325	163	64.5%
C4-Phenanthrene/Anthracene		U	325	163	
C0-Dibenzothiophene	2,640		325	163	75.0%
C1-Dibenzothiophene	986		325	163	146.6%
C2-Dibenzothiophene	281	J	325	163	8.9%
C3-Dibenzothiophene	262	J	325	163	472.7%
C0-Fluoranthene/Pyrene	36,200		325	163	127.6%
C1-Fluoranthene/Pyrene	6,540		325	163	108.5%
C2-Fluoranthene/Pyrene	1,190		325	163	84.7%
C3-Fluoranthene/Pyrene	365		325	163	104.2%
C0-Benz(a)anthracene/Chrysene	13,000		325	163	107.3%
C1-Benz(a)anthracene/Chrysene	2,210		325	163	118.0%
C2-Benz(a)anthracene/Chrysene	773		325	163	96.7%
C3-Benz(a)anthracene/Chrysene	333		325	163	148.7%
C4-Benz(a)anthracene/Chrysene	499		325	163	556.1%

EXTRACTION SURROGATE COMPOUNDS:	%R	Min	Max
Fluorobenzene	Not Spiked	50%	150%
2-Fluorobiphenyl	Not Spiked	50%	120%
5a-Androstane	Not Spiked	50%	120%
Benzo(a)pyrene-d12	Not Spiked	50%	120%

Qualifiers:

B	Analyte detected in the blank
D	Analyte reported from a diluted extract
U	Undetected above the detection limit
J	Estimated value detected between the reporting and detection limits
E	Estimated value detected above calibration range
RL	Reporting limit is the sample equivalent of the lowest linear calibration concentration
EDL	Estimated detection limit is 50% of the RL

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: Method Blank

Client:	N/A	Preparation Method:	EPA 3580
Project:	N/A	Cleanup Method(s):	N/A
Lab ID:	DB031010-MB	Analysis Method:	GC/MS (EPA 8270 Mod.)
File ID:	27OCT15.D	Matrix:	NAPL
		Preservation:	None
Date Sampled:	N/A	Decanted:	No
Date Received:	N/A	Sample Size:	0.01 g
Date Prepared:	10/10/2003	%Solid:	100%
Date Cleanup:	N/A	Extract Volume:	2 mL
Date Analyzed:	28 Oct 2003 1:28 am	Prep DF:	1
Instrument:	GC4-MS_59	Analysis DF:	1
Operator:	MP	Injection Volume:	0.001 mL
		Batch QC:	DB031010-MB

Analyte:	Concentration mg/kg	Q	RL mg/kg	EDL mg/kg	Comments
PAH COMPOUNDS:					
Benzene		U	20.0	10.0	
Toluene		U	20.0	10.0	
Ethylbenzene		U	20.0	10.0	
m/p-Xylenes		U	20.0	10.0	
Styrene		U	20.0	10.0	
o-Xylene		U	20.0	10.0	
1,2,4-Trimethylbenzene		U	20.0	10.0	
Naphthalene		U	20.0	10.0	
2-Methylnaphthalene		U	20.0	10.0	
1-Methylnaphthalene		U	20.0	10.0	
Acenaphthylene		U	20.0	10.0	
Acenaphthene		U	20.0	10.0	
Dibenzofuran		U	20.0	10.0	
Fluorene		U	20.0	10.0	
Phenanthrene		U	20.0	10.0	
Anthracene		U	20.0	10.0	
Fluoranthene		U	20.0	10.0	
Pyrene		U	20.0	10.0	
Benz[a]anthracene		U	20.0	10.0	
Chrysene		U	20.0	10.0	
Benzo[b]fluoranthene		U	20.0	10.0	
Benzo[k]fluoranthene		U	20.0	10.0	
Benzo(e)pyrene		U	20.0	10.0	
Benzo[a]pyrene		U	20.0	10.0	
Perylene		U	20.0	10.0	
Indeno[1,2,3-cd]pyrene		U	20.0	10.0	
Dibenz[a,h]anthracene		U	20.0	10.0	
Benzo[g,h,i]perylene		U	20.0	10.0	
ALKYLATED PAHs:					
C0-Benzene		U	20.0	10.0	
C1-Benzene		U	20.0	10.0	
C2-Benzene		U	20.0	10.0	
C3-Benzene		U	20.0	10.0	
C4-Benzene		U	20.0	10.0	
C5-Benzene		U	20.0	10.0	
C0-Naphthalene		U	20.0	10.0	
C1-Naphthalene		U	20.0	10.0	
C2-Naphthalene		U	20.0	10.0	
C3-Naphthalene		U	20.0	10.0	
C4-Naphthalene		U	20.0	10.0	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: **Method Blank**

Client:	N/A
Project:	N/A
Lab ID:	DB031010-MB
File ID:	27OCT15.D
Date Sampled:	N/A
Date Received:	N/A
Date Prepared:	10/10/2003
Date Cleanup:	N/A
Date Analyzed:	28 Oct 2003 1:28 am
Instrument:	GC4-MS_59
Operator:	MP

Preparation Method:	EPA 3580
Cleanup Method(s):	N/A
Analysis Method:	GC/MS (EPA 8270 Mod.)
Matrix:	NAPL
Preservation:	None
Decanted:	No
Sample Size:	0.01 g
%Solid:	100%
Extract Volume:	2 mL
Prep DF:	1
Analysis DF:	1
Injection Volume:	0.001 mL
Batch QC:	DB031010-MB

Analyte:	Concentration mg/kg	Q	RL mg/kg	EDL mg/kg	Comments
C0-Fluorene		U	20.0	10.0	
C1-Fluorene		U	20.0	10.0	
C2-Fluorene		U	20.0	10.0	
C3-Fluorene		U	20.0	10.0	
C0-Phenanthrene/Anthracene		U	20.0	10.0	
C1-Phenanthrene/Anthracene		U	20.0	10.0	
C2-Phenanthrene/Anthracene		U	20.0	10.0	
C3-Phenanthrene/Anthracene		U	20.0	10.0	
C4-Phenanthrene/Anthracene		U	20.0	10.0	
C0-Dibenzothiophene		U	20.0	10.0	
C1-Dibenzothiophene		U	20.0	10.0	
C2-Dibenzothiophene		U	20.0	10.0	
C3-Dibenzothiophene		U	20.0	10.0	
C0-Fluoranthene/Pyrene		U	20.0	10.0	
C1-Fluoranthene/Pyrene		U	20.0	10.0	
C2-Fluoranthene/Pyrene		U	20.0	10.0	
C3-Fluoranthene/Pyrene		U	20.0	10.0	
C0-Benz(a)anthracene/Chrysene		U	20.0	10.0	
C1-Benz(a)anthracene/Chrysene		U	20.0	10.0	
C2-Benz(a)anthracene/Chrysene		U	20.0	10.0	
C3-Benz(a)anthracene/Chrysene		U	20.0	10.0	
C4-Benz(a)anthracene/Chrysene		U	20.0	10.0	

EXTRACTION SURROGATE COMPOUNDS:	%R	Min	Max
Fluorobenzene	Not Spiked	50%	150%
2-Fluorobiphenyl	Not Spiked	50%	120%
5a-Androstane	Not Spiked	50%	120%
Benzo(a)pyrene-d12	Not Spiked	50%	120%

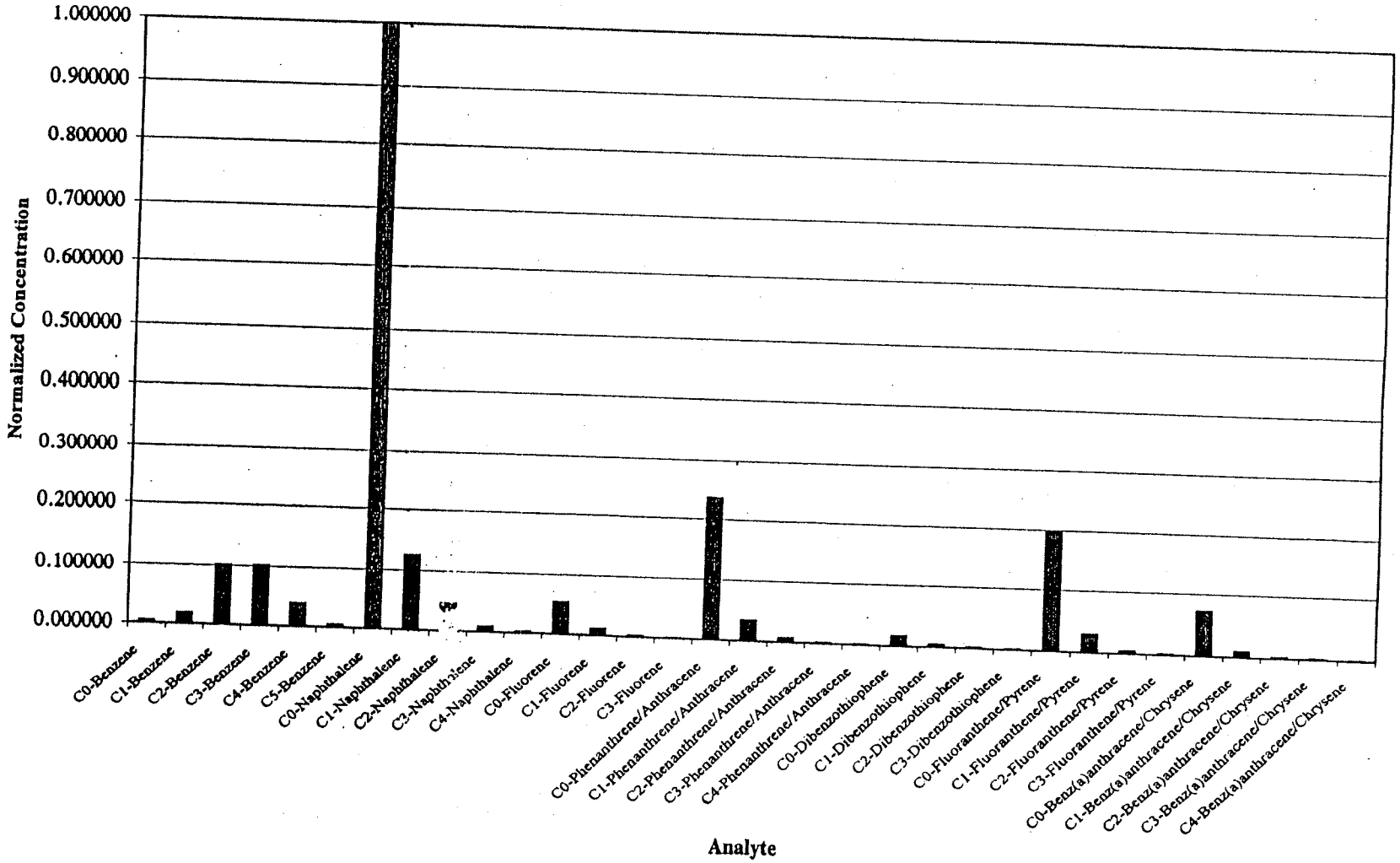
Qualifiers:

B	Analyte detected in the blank
D	Analyte reported from a diluted extract
U	Undetected above the detection limit
J	Estimated value detected between the reporting and detection limits
E	Estimated value detected above calibration range
RL	Reporting limit is the sample equivalent of the lowest linear calibration concentration
EDL	Estimated detection limit is 50% of the RL

Appendix D

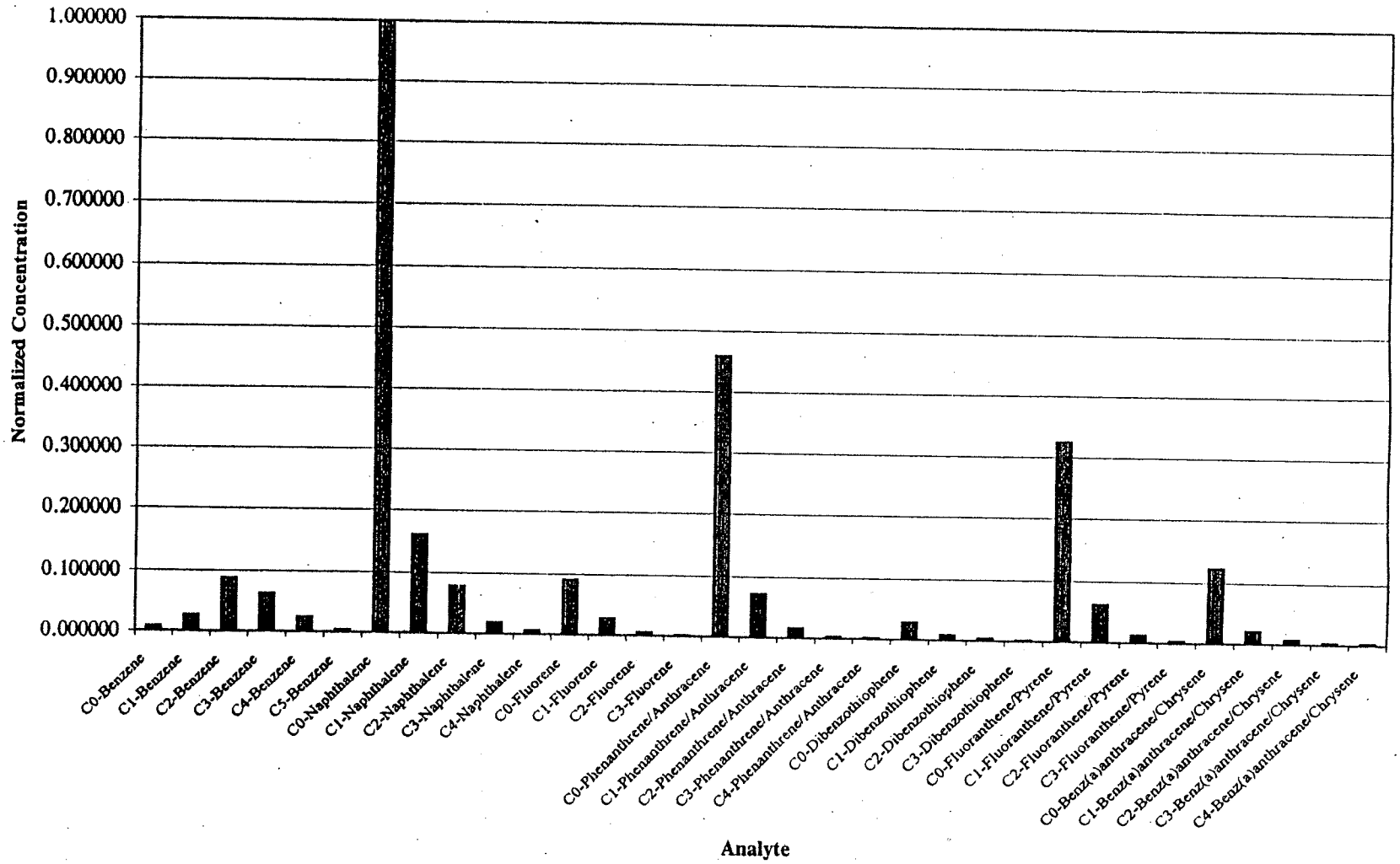
Extended PAH Profiles – Bar Graphs

SB-08 12-16



META

SB-24 36-38



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Appendix E

Extracted Ion Current Profiles (EICs)

Primary Ions for Target Compounds and Compound Groups

Target Compound or Group	Abbreviation	Ion
Alkylated cyclohexanes		83
Normal alkanes, pristane, phytane		85
Isoprenoid hydrocarbons, pristane, phytane		113
Olefins		115
Hopanes		191
Steranes		217
Benzene	B	78
Monoalkylbenzenes	C1B	91
Dialkylbenzenes	C2B	91
Trialkylbenzenes	C3B	105
Tetraalkylbenzenes	C4B	119
Pentaalkylbenzenes	C5B	133
Naphthalene	N	128
Monoalkylnaphthalenes	C1N	142
Dialkylnaphthalenes	C2N	156
Trialkylnaphthalenes	C3N	170
Tetraalkylnaphthalenes	C4N	184
Fluorene	F	166
Monoalkylfluorenes	C1F	180
Dialkylfluorenes	C2F	194
Trialkylfluorenes	C3F	208
Phenanthrene, anthracene	PA	178
Monoalkylphenanthrenes and anthracenes	C1PA	192
Dialkylphenanthrenes and anthracenes	C2PA	206
Trialkylphenanthrenes and anthracenes	C3PA	220
Tetraalkylphenanthrenes and anthracenes	C4PA	234
Dibenzothiophene	D	184
Monoalkyldibenzothiophenes	C1D	198
Dialkyldibenzothiophenes	C2D	212
Trialkyldibenzothiophenes	C3D	226
Fluoranthene, pyrene	FP	202
Monoalkylfluoranthenes and pyrenes	C1FP	216
Dialkylfluoranthenes and pyrenes	C2FP	230
Trialkyfluoranthenes and pyrenes	C3FP	244
Benz(a)anthracene, chrysene	BC	228
Monoalkylbenz(a)anthracenes and chrysenes	C1BC	242
Dialkylbenz(a)anthracenes and chrysenes	C2BC	256
Trialkylbenz(a)anthracenes and chrysenes	C3BC	270
Tetraalkylbenz(a)anthrancenes and chrysenes	C4BC	284

Field ID: SB-08 12-16
Lab ID: DB031007-01
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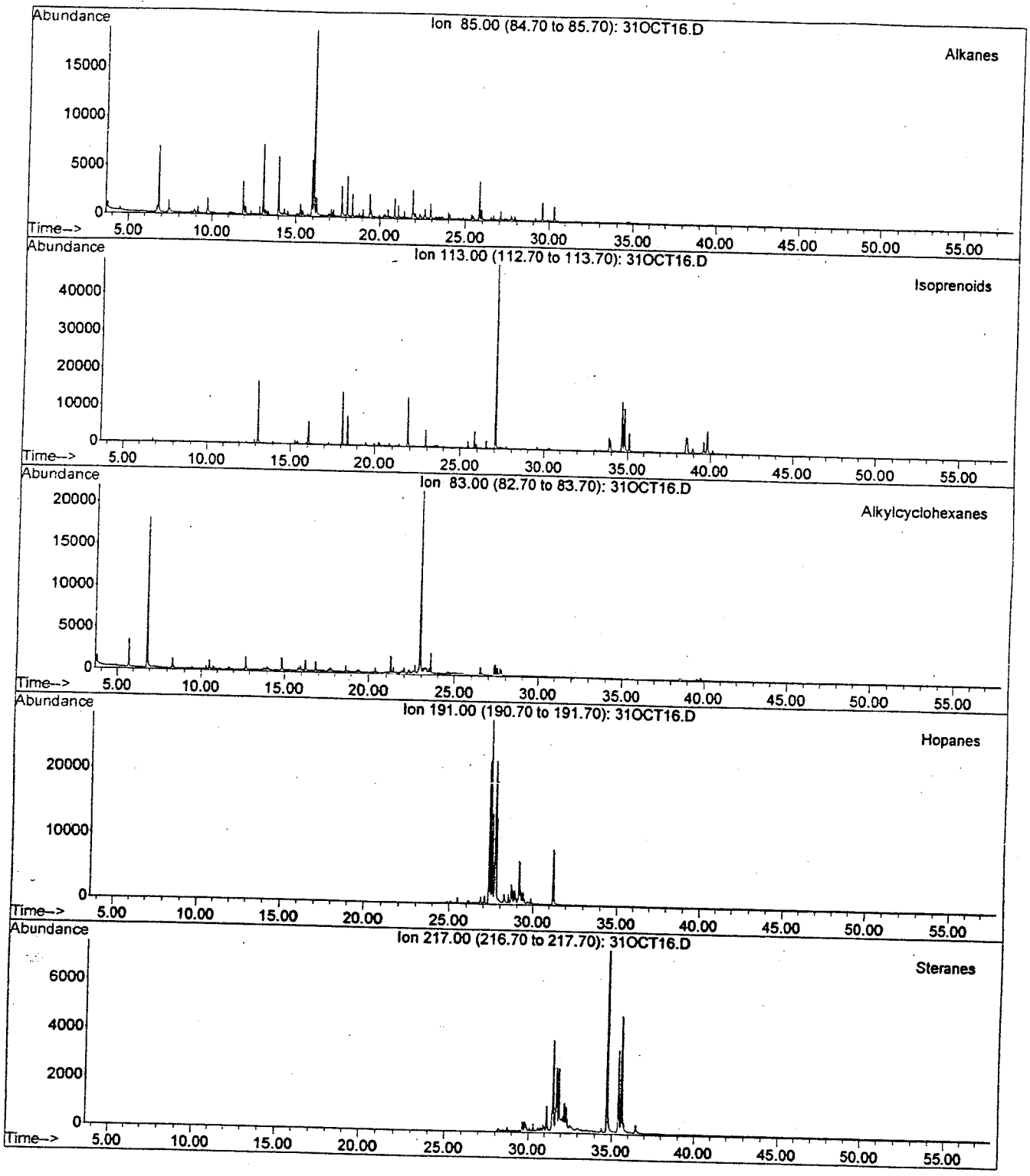
Instrument: GC4-MS_59 Operator: MP



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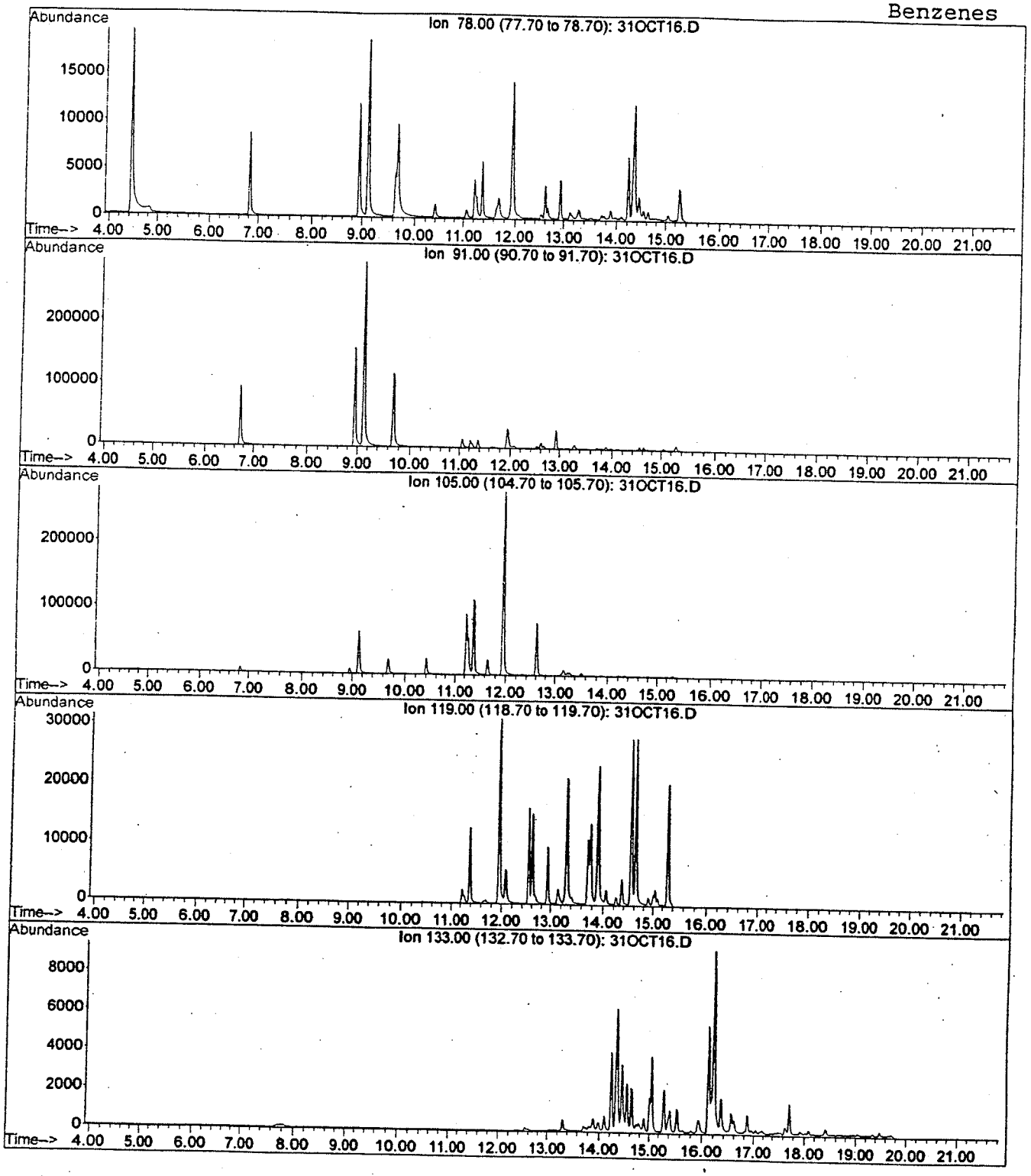
Lab ID: DB031007-01
File: I:\4\DATA\031031\31OCT16.D
Acquired: 1 Nov 2003 10:53 am using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: MP

Benzenes



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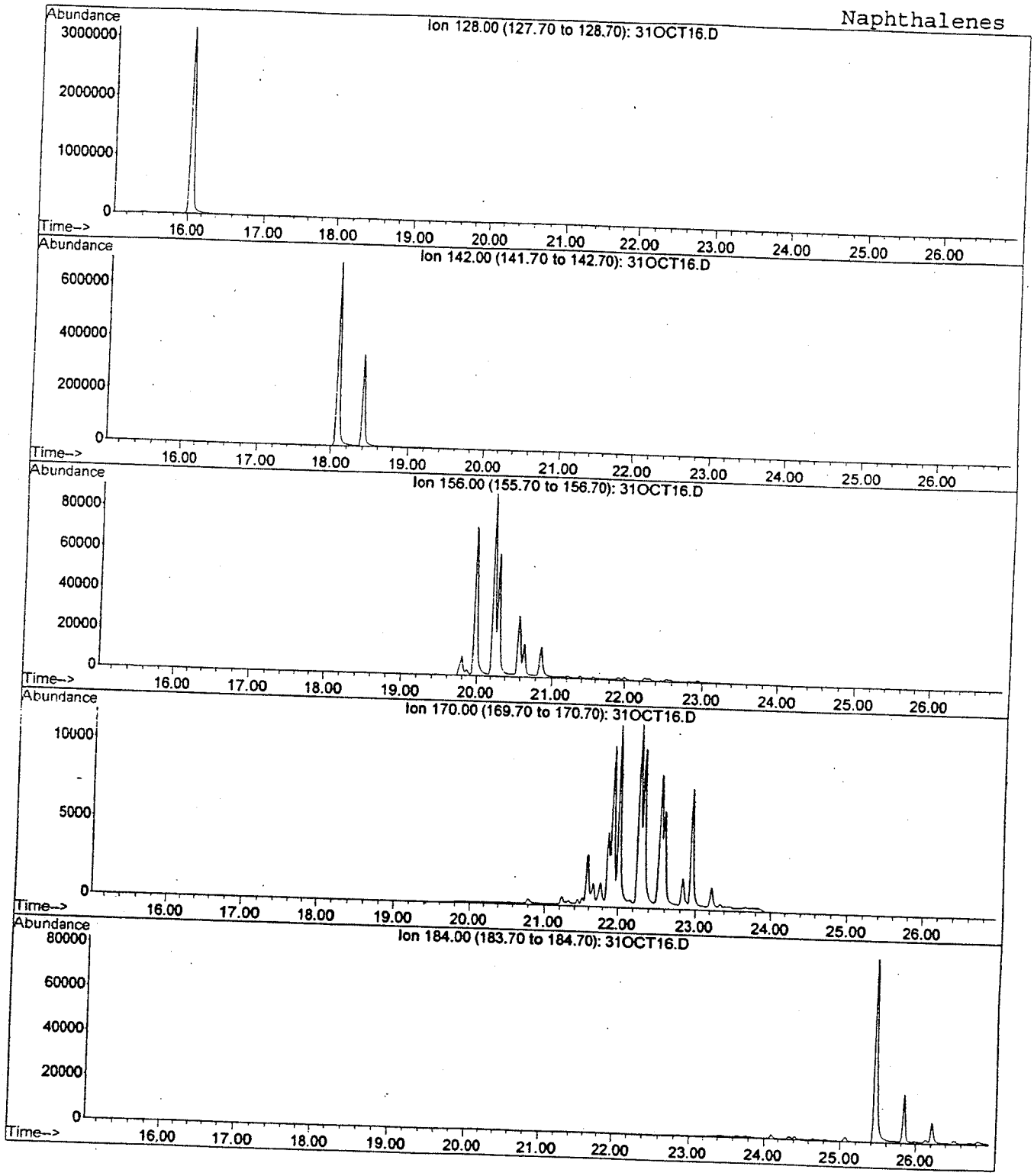
Lab ID: DB031007-01
File: I:\4\DATA\031031\31OCT16.D
Acquired: 1 Nov 2003 10:53 am using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: MP

Naphthalenes



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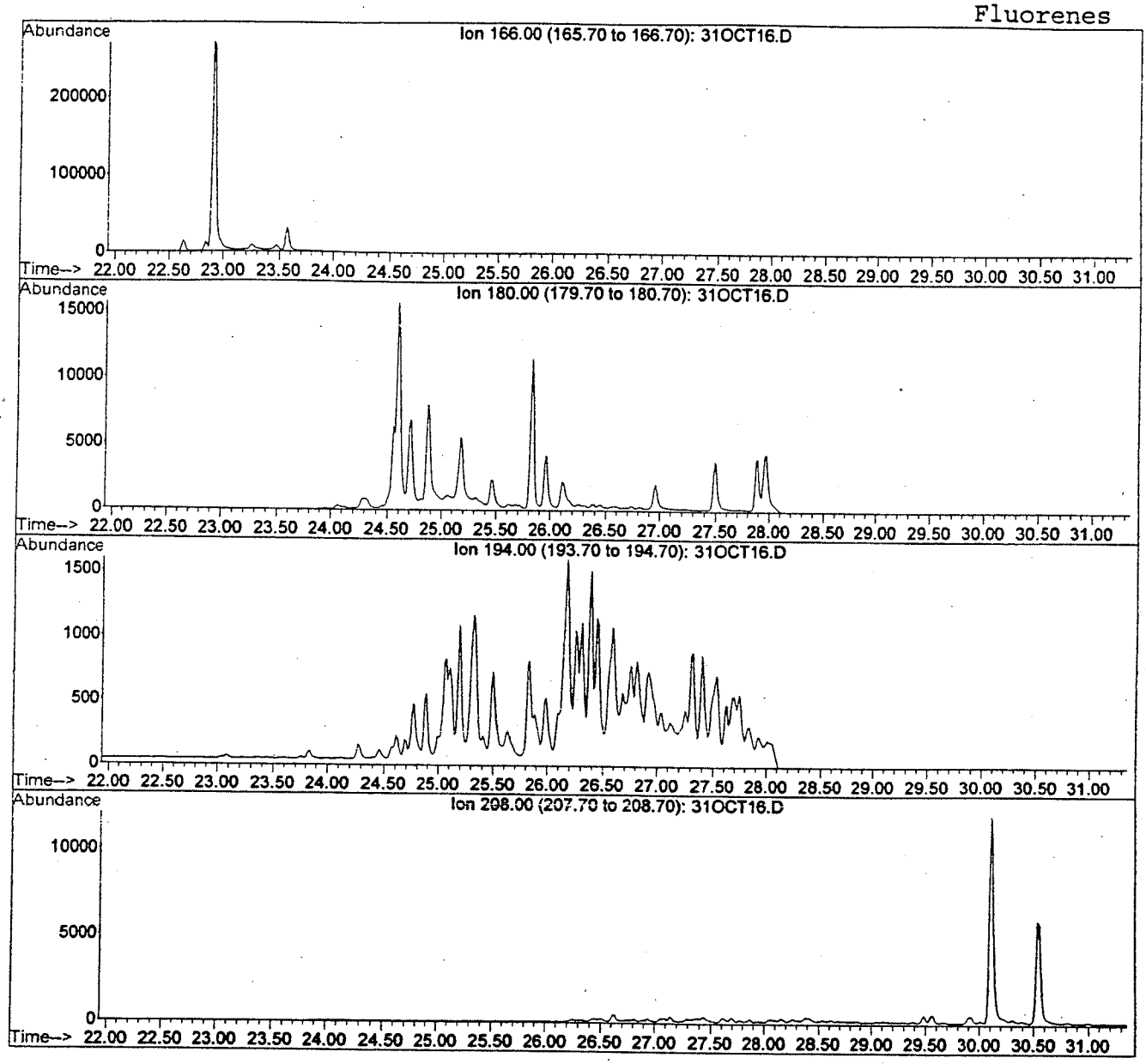
Lab ID: DB031007-01
File: I:\4\DATA\031031\31OCT16.D
Acquired: 1 Nov 2003 10:53 am using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: MP

Fluorenes



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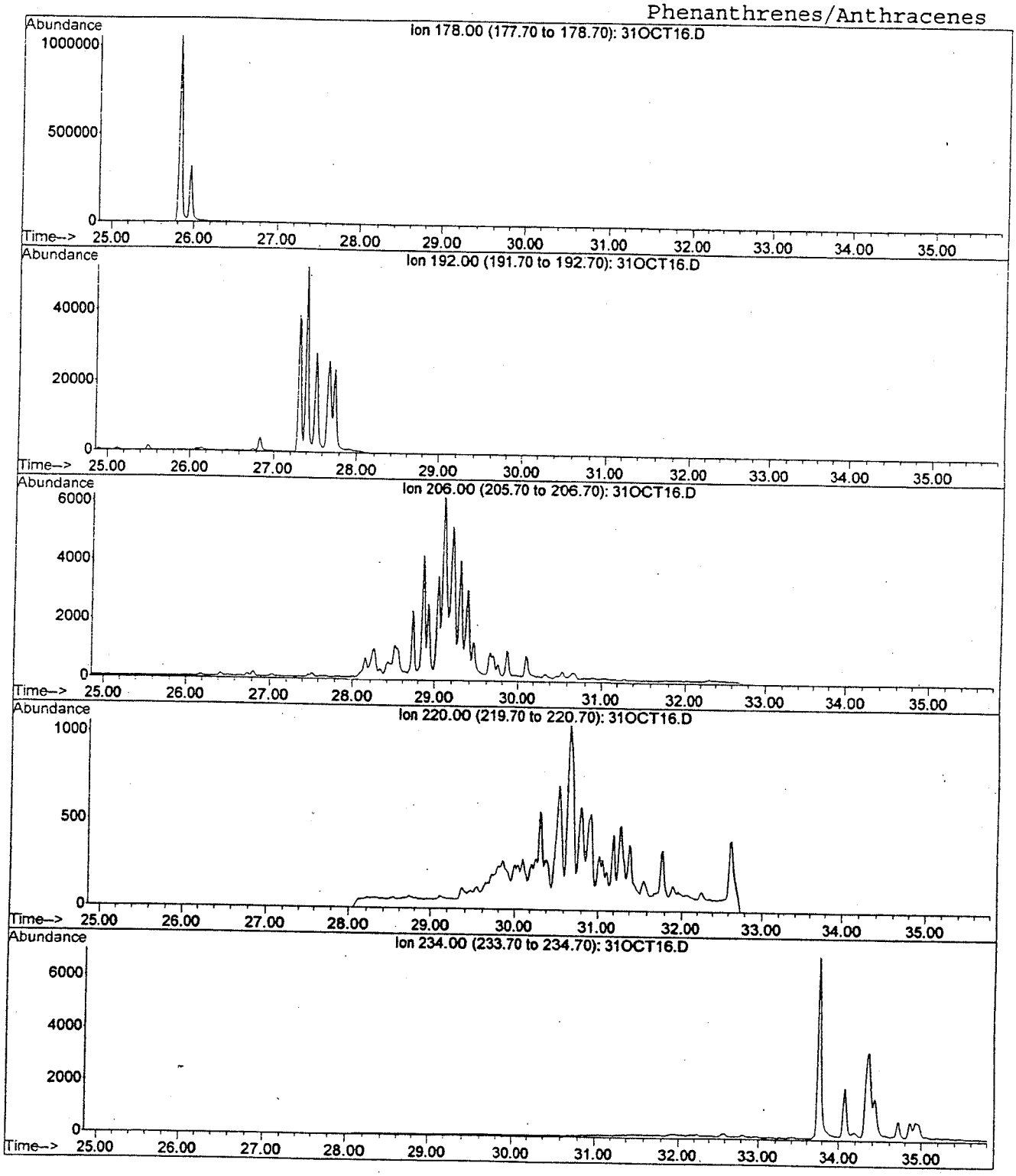
Lab ID: DB031007-01
File: I:\4\DATA\031031\31OCT16.D
Acquired: 1 Nov 2003 10:53 am using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: MP

Phenanthrenes/Anthracenes



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Lab ID: DB031007-01
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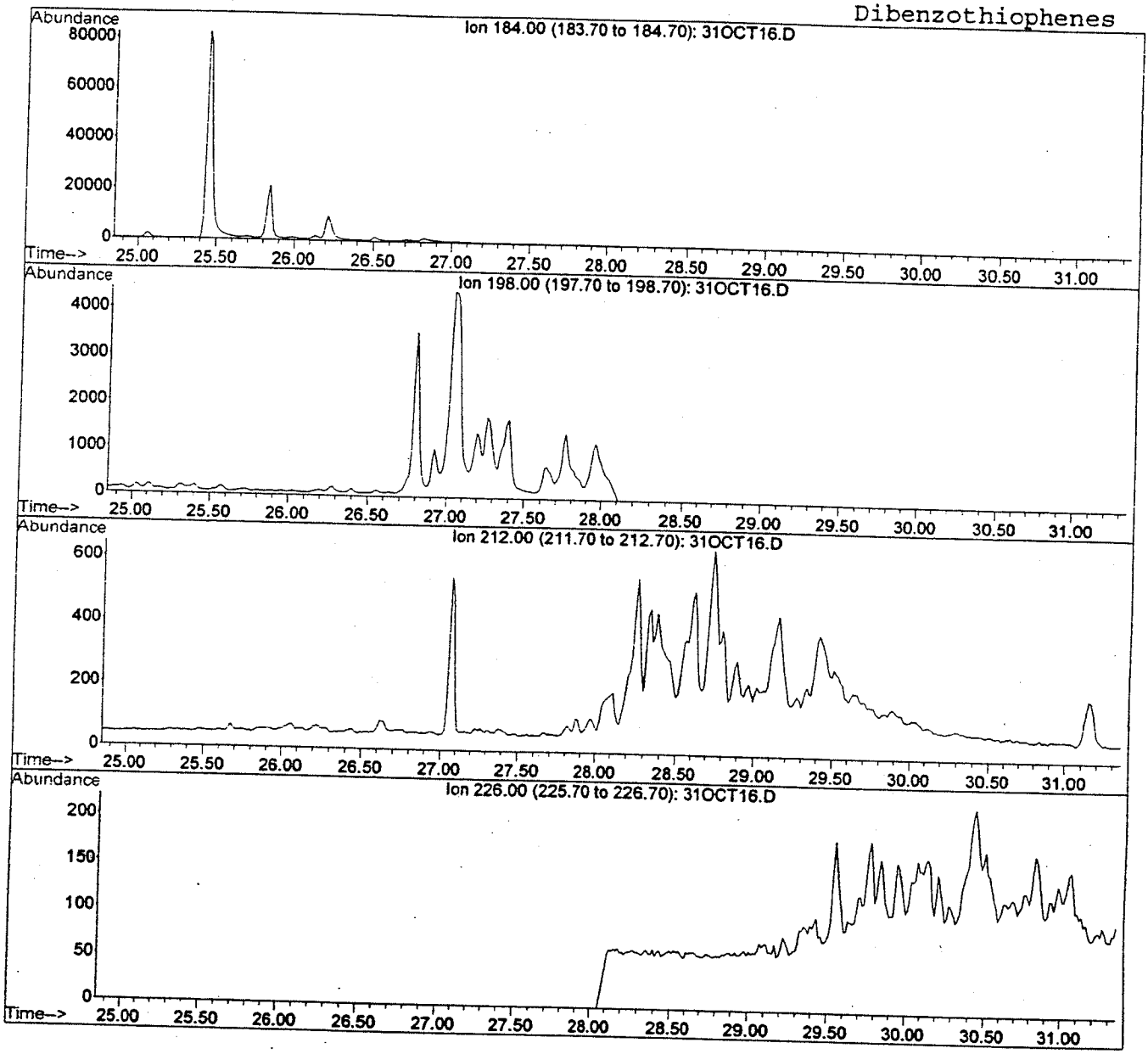
Instrument: GC4-MS_59 Operator: MP

Dibenzothiophenes



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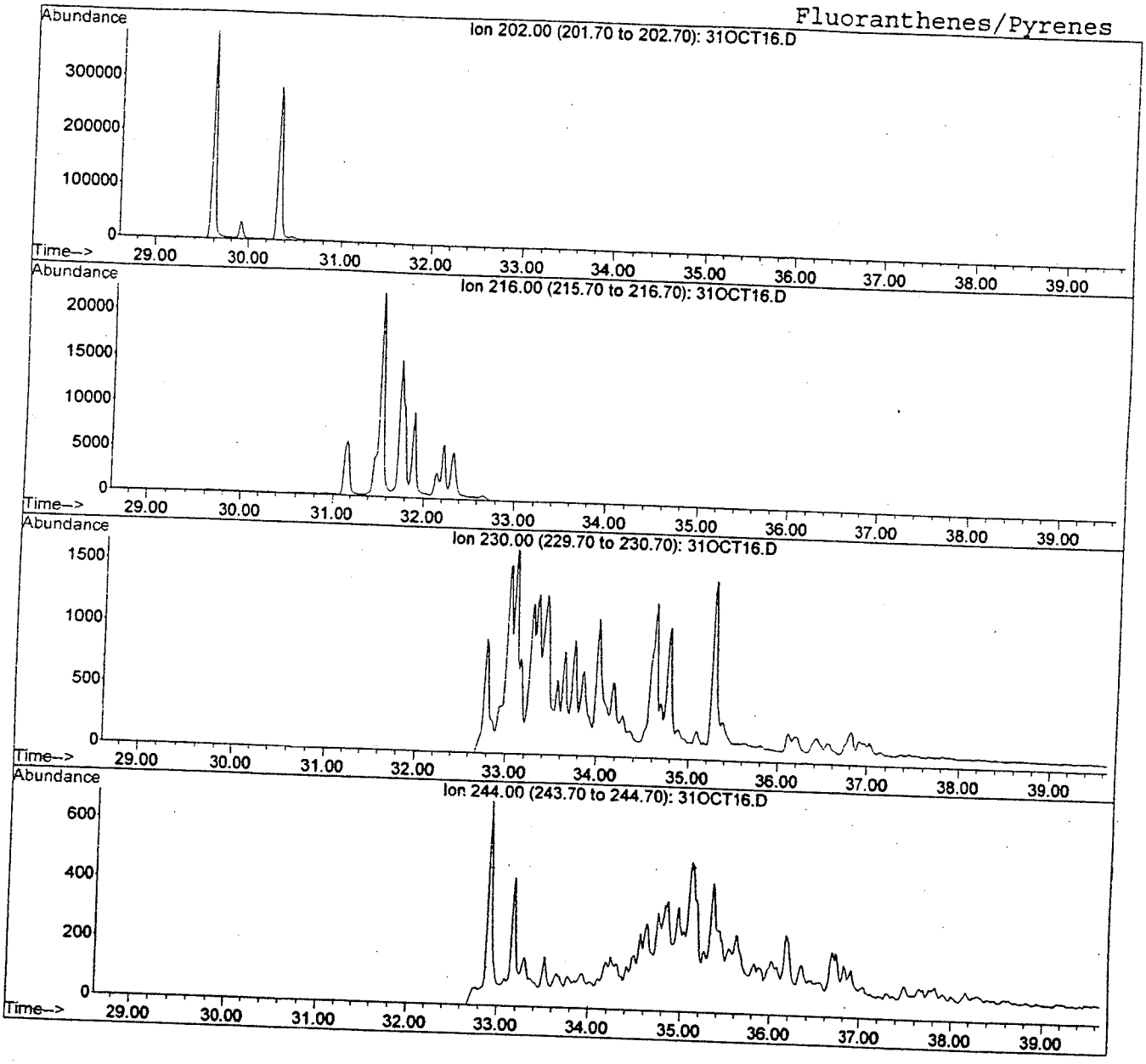
Instrument: GC4-MS_59 Operator: MP

Fluoranthenes/Pyrenes



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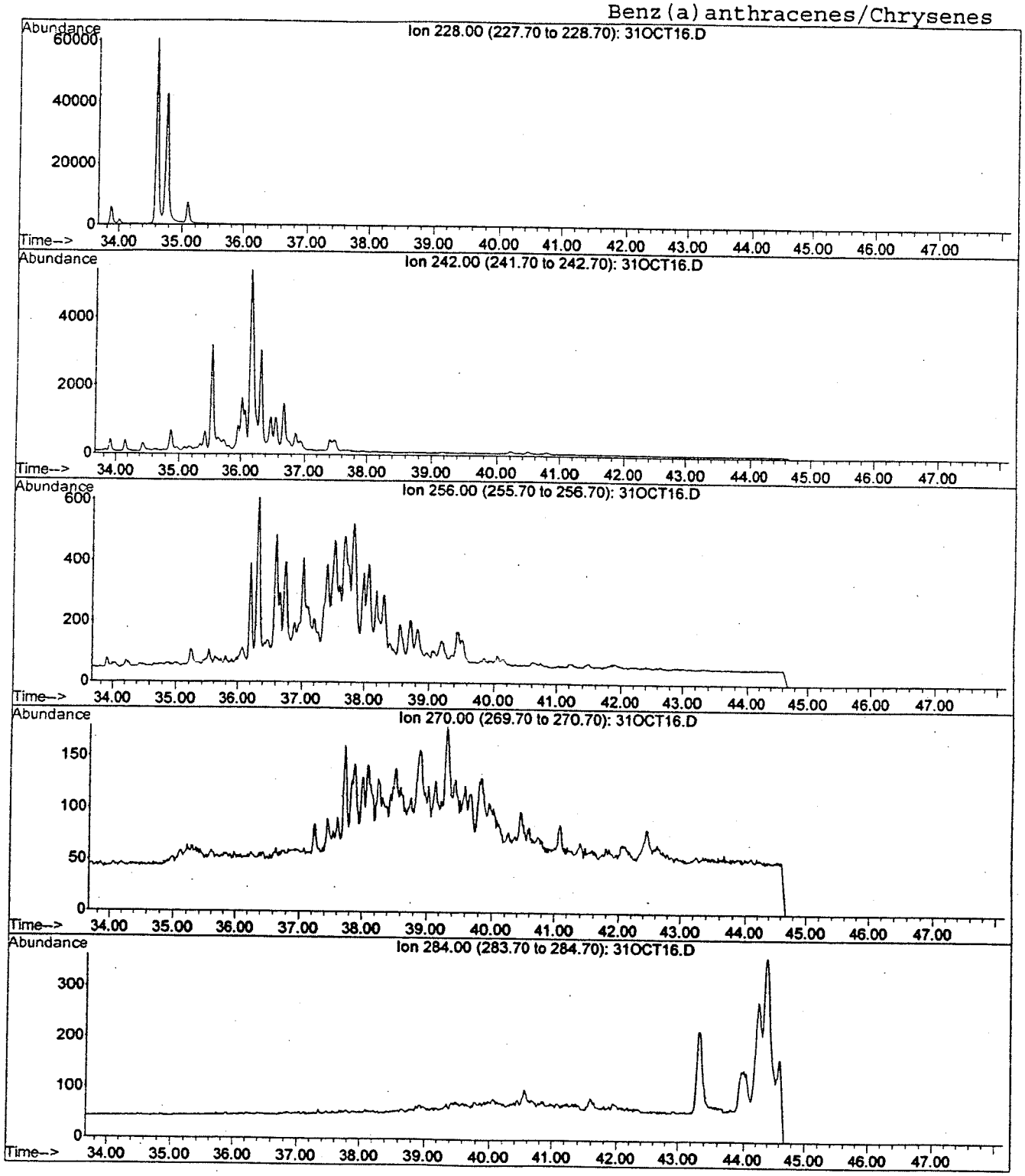
Lab ID: DB031007-01
File: I:\4\DATA\031031\31OCT16.D
Acquired: 1 Nov 2003 10:53 am using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: MP

Benz(a)anthracenes/Chrysenes



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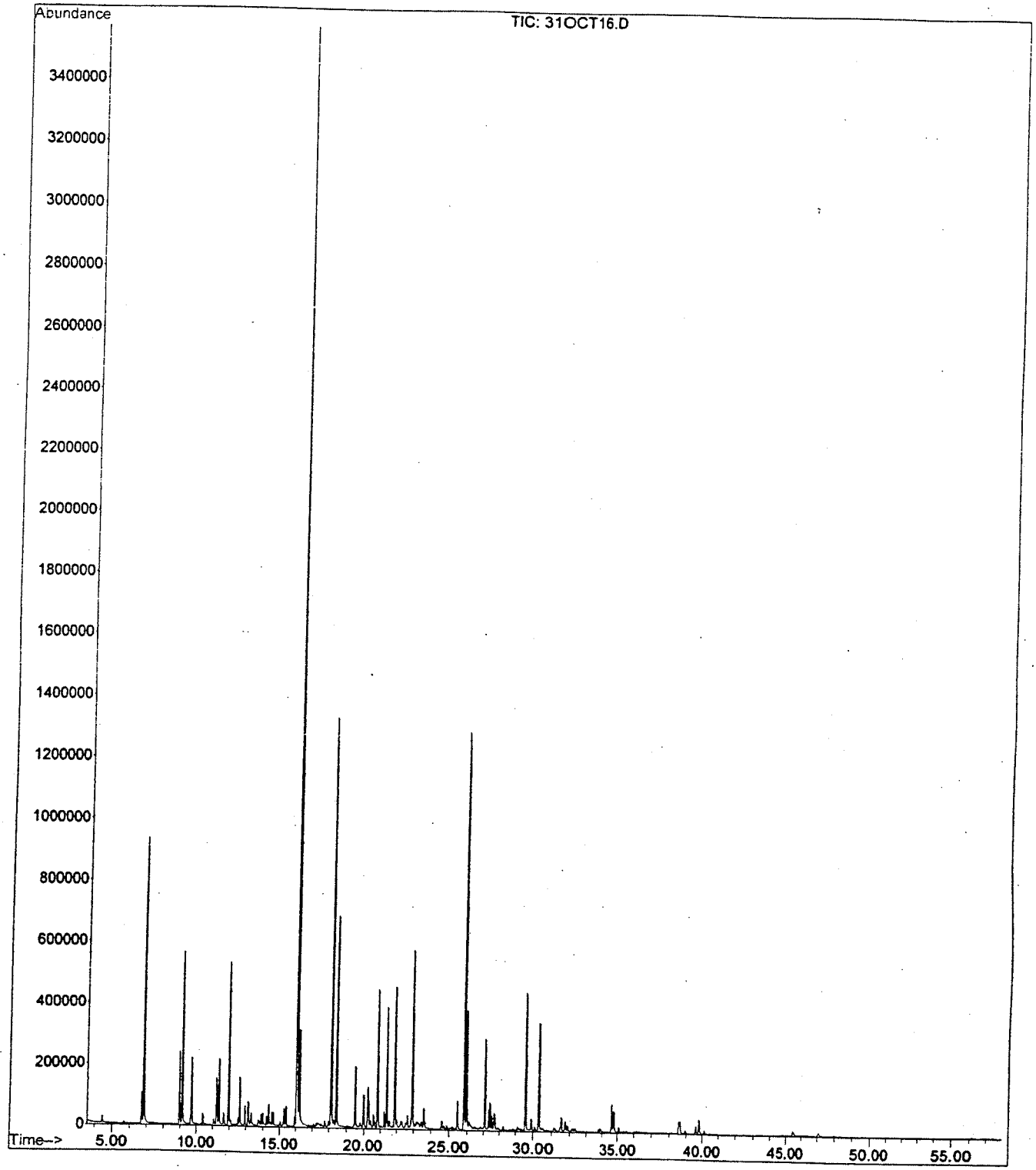
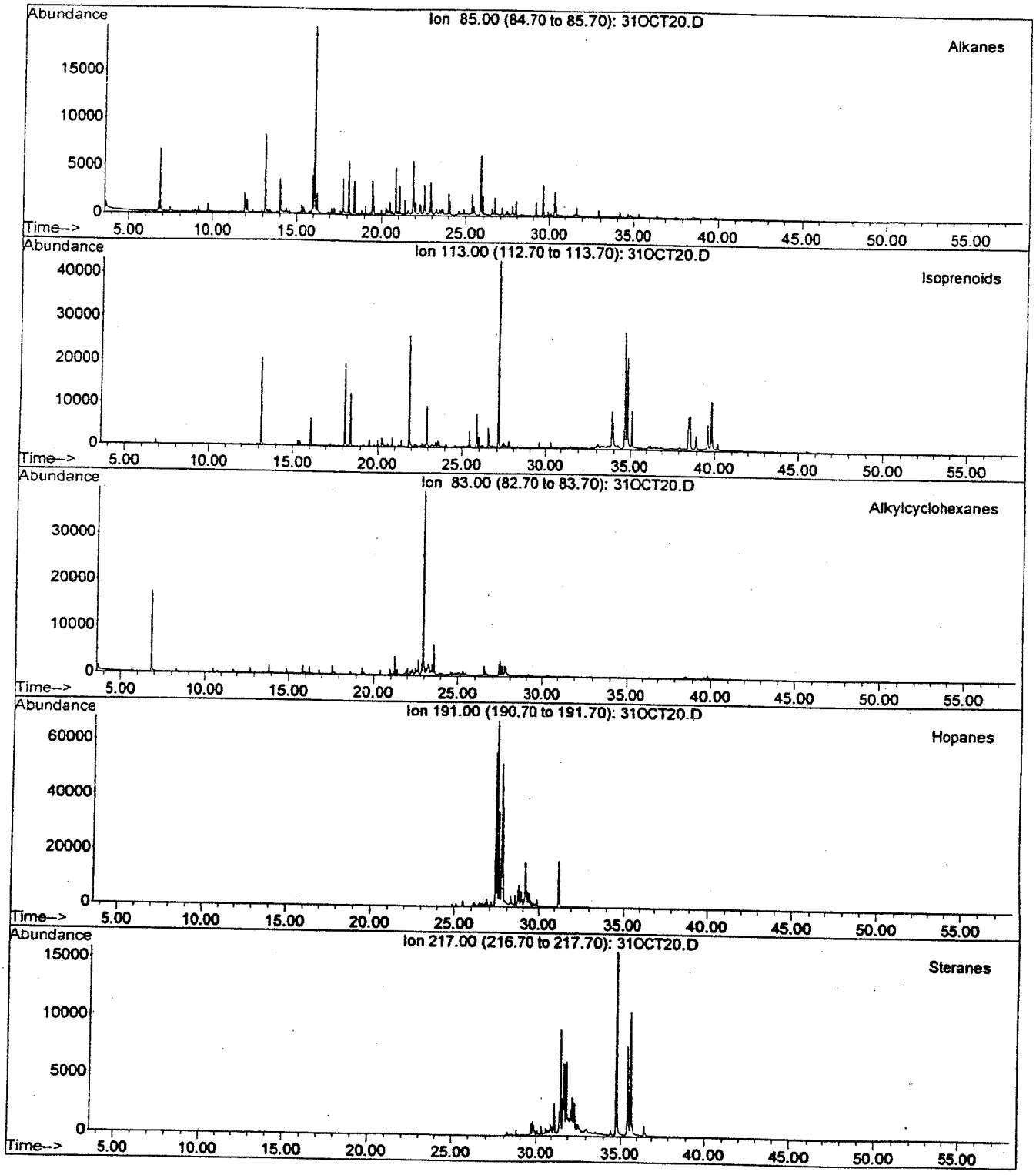
Instrument: GC4-MS_59 Operator: MP



Field ID: SB-24 36-38
Lab ID: DB031007-02
File: I:\4\DATA\031031\31OCT20.D
Acquired: 1 Nov 2003 3:45 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: MP



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Lab ID: DB031007-02
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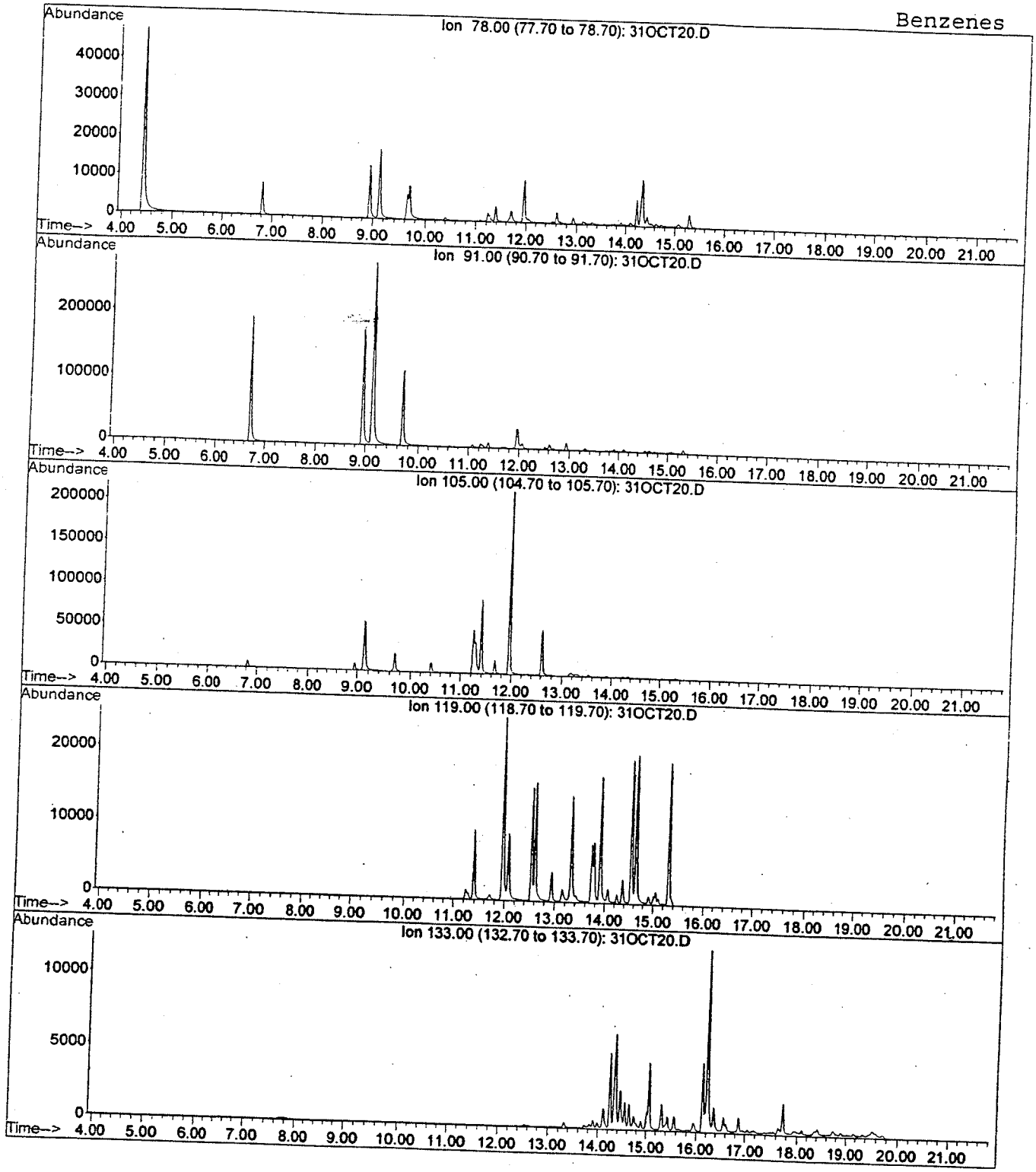
Benzenes



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Lab ID: DB031007-02
File: I:\4\DATA\031031\31OCT20.D
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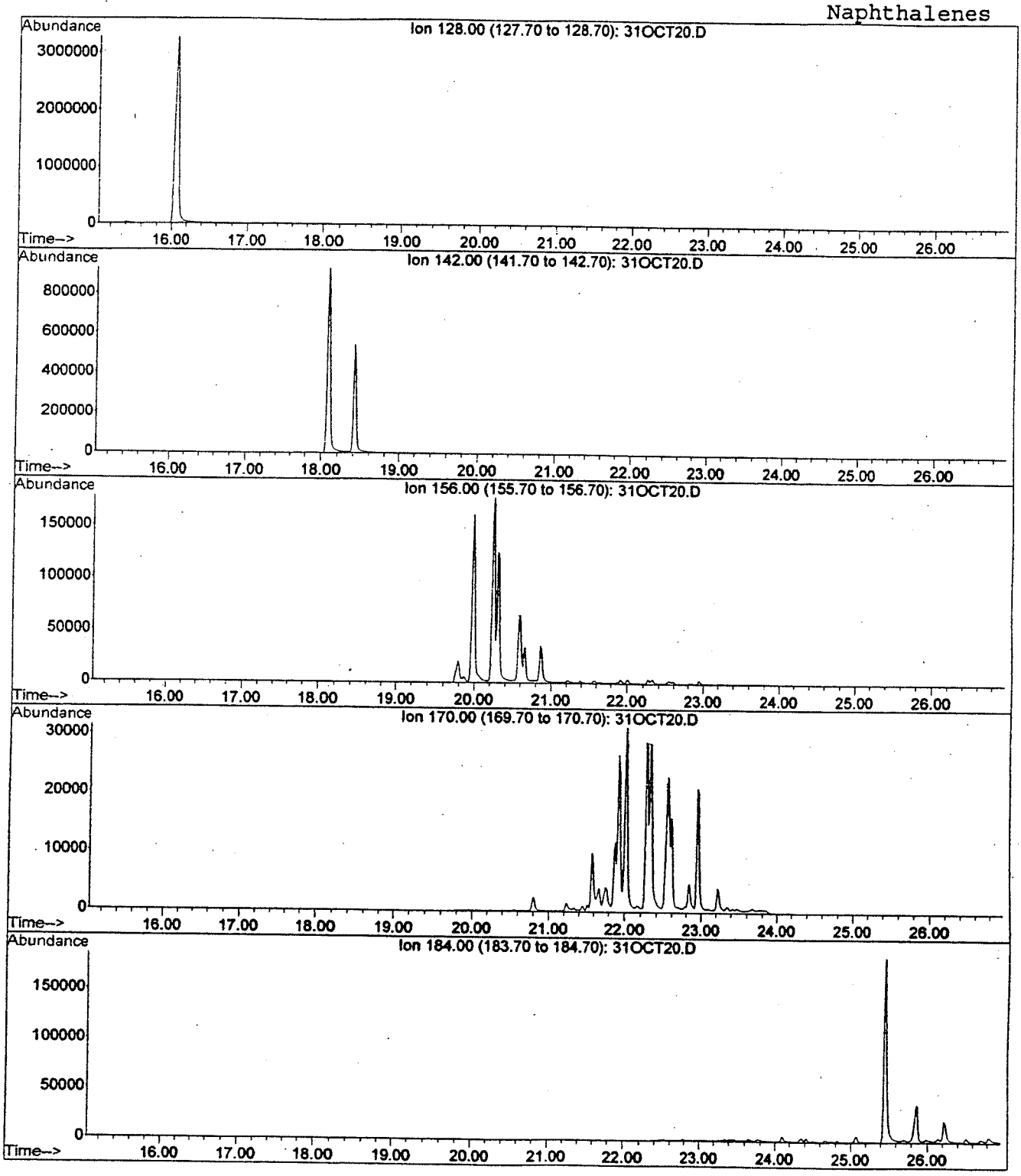
Instrument: GC4-MS_59 Operator: MP

Naphthalenes



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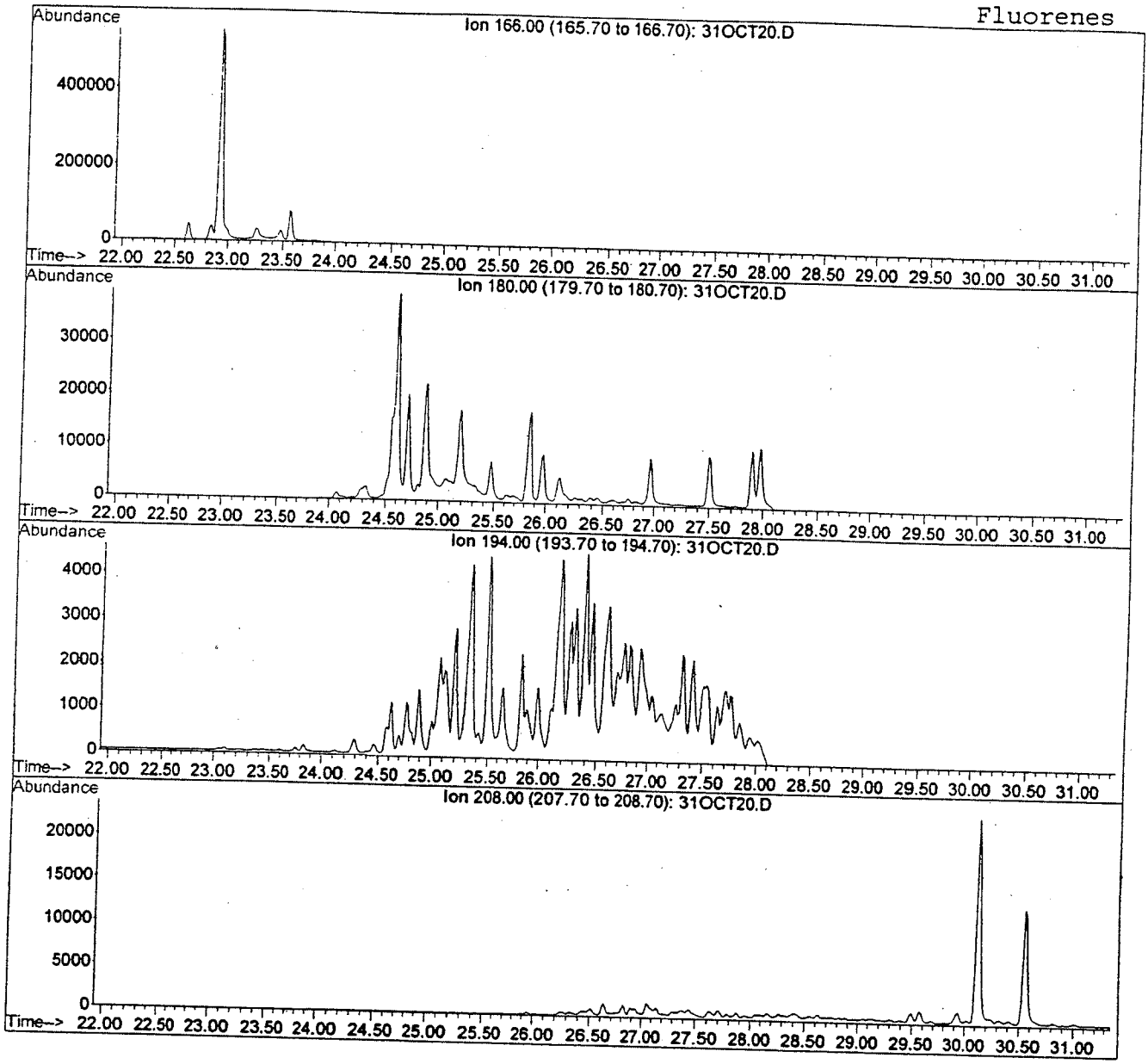
Lab ID: DB031007-02
File: I:\4\DATA\031031\31OCT20.D
Acquired: 1 Nov 2003 3:45 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: MP

Fluorenes



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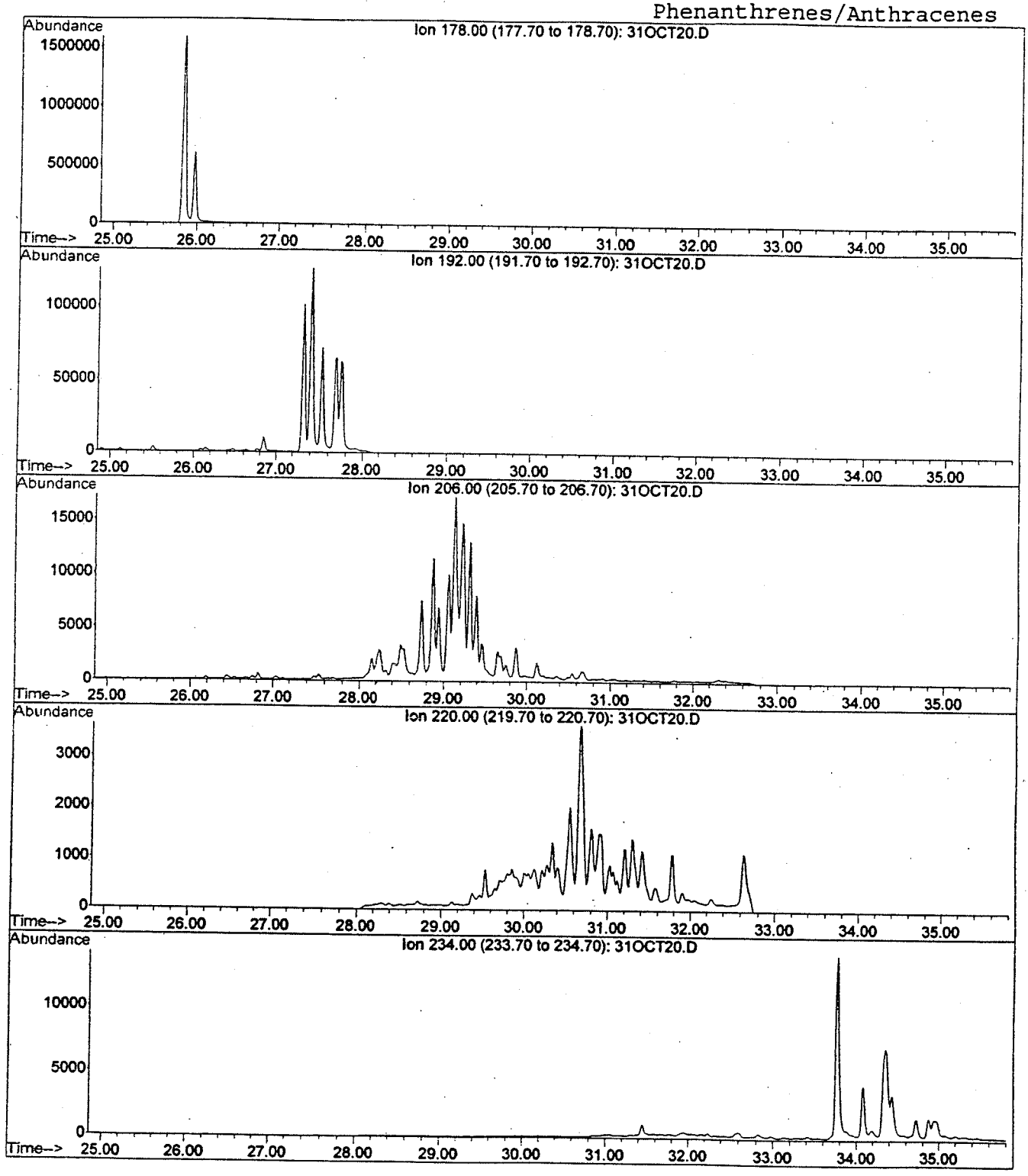
Acquired: 1 Nov 2003 3:45 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: MP

Phenanthrenes/Anthracenes



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Lab ID: DB031007-02
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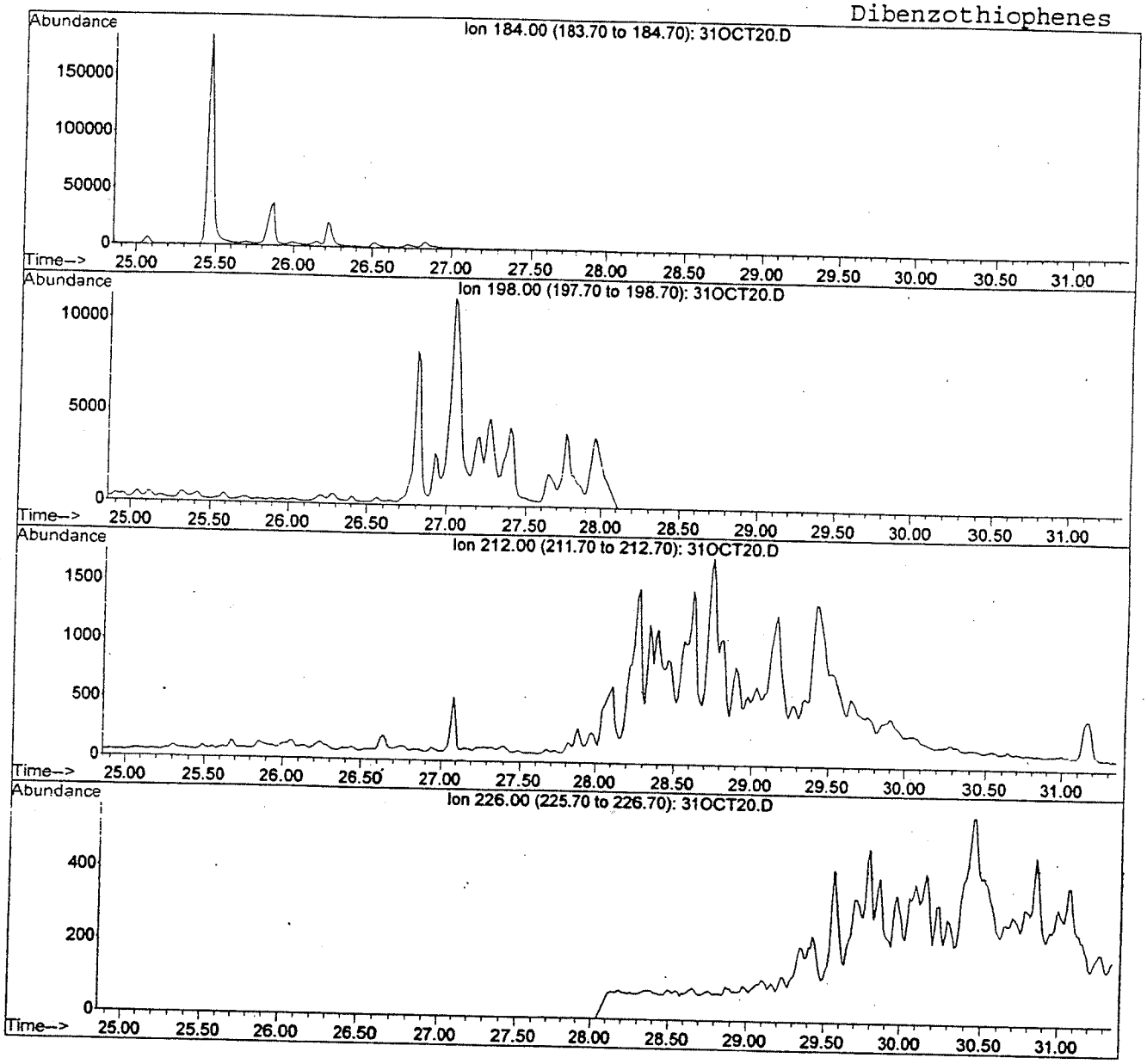
Acquired: 1 Nov 2003 3:45 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: MP

Dibenzothiophenes



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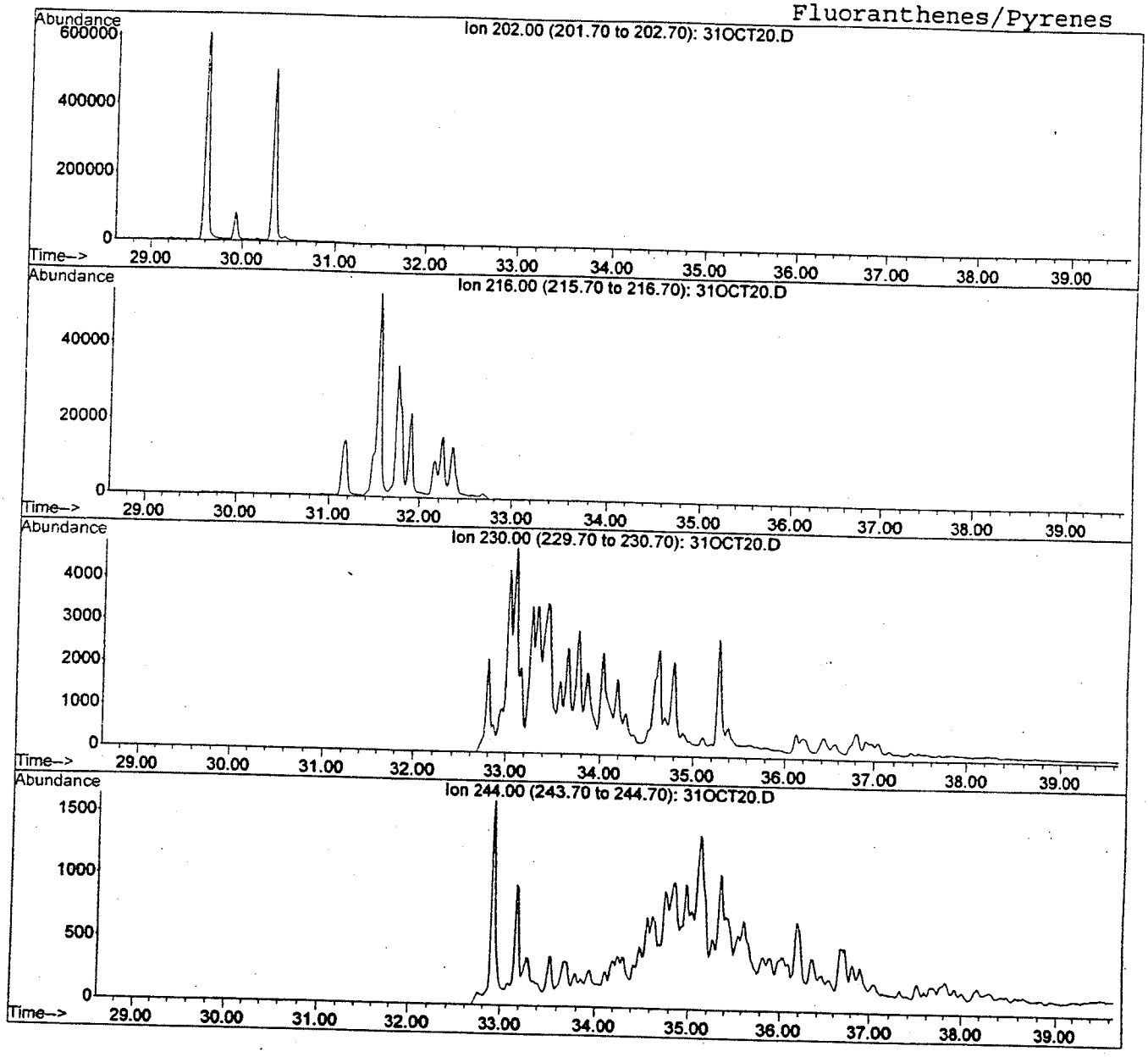
Lab ID: DB031007-02
File: I:\4\DATA\031031\31OCT20.D
Acquired: 1 Nov 2003 3:45 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: MP

Fluoranthenes/Pyrenes



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Lab ID: DB031007-02
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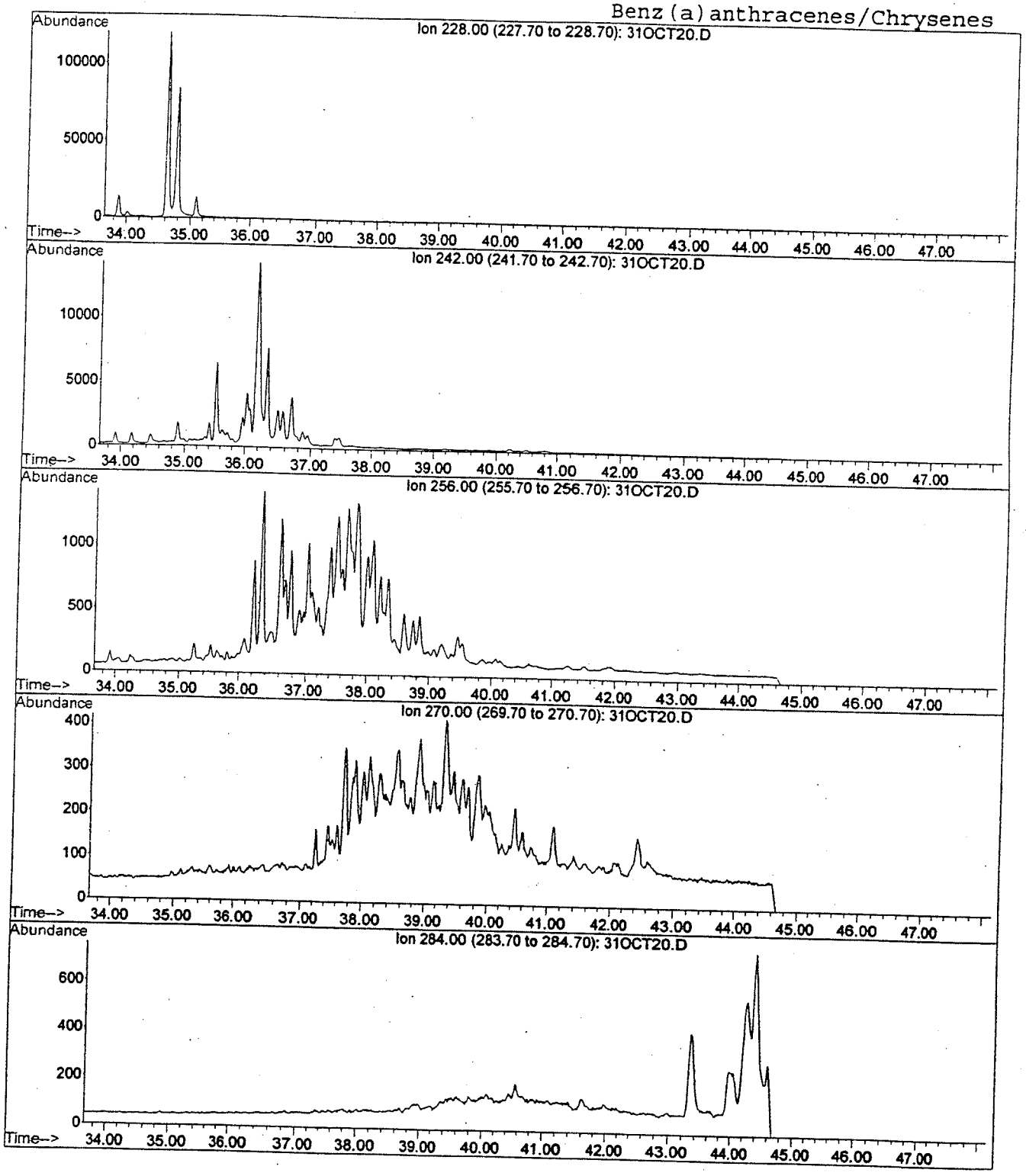
Instrument: GC4-MS_59 Operator: MP

Benz(a)anthracenes/Chrysenes



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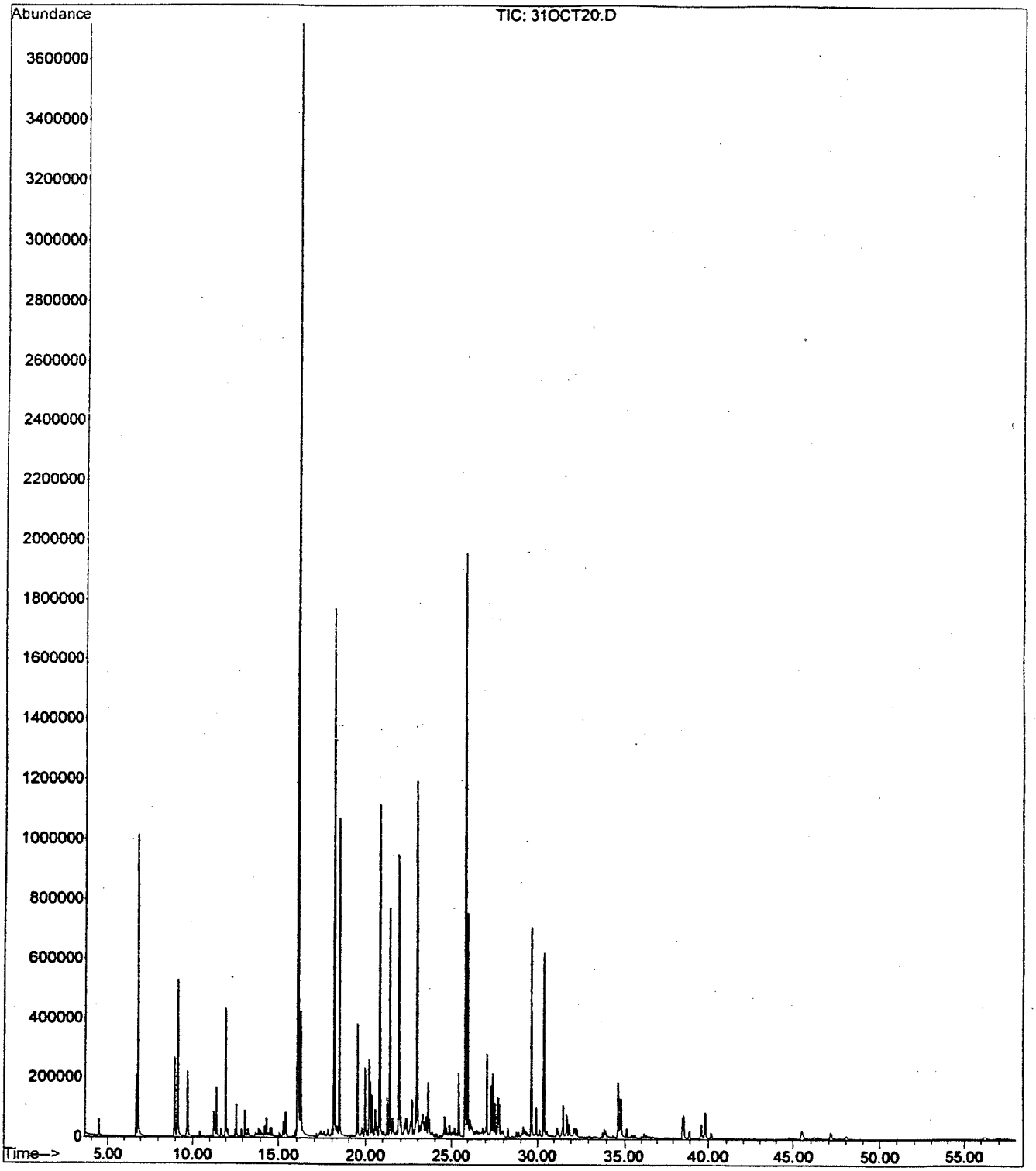
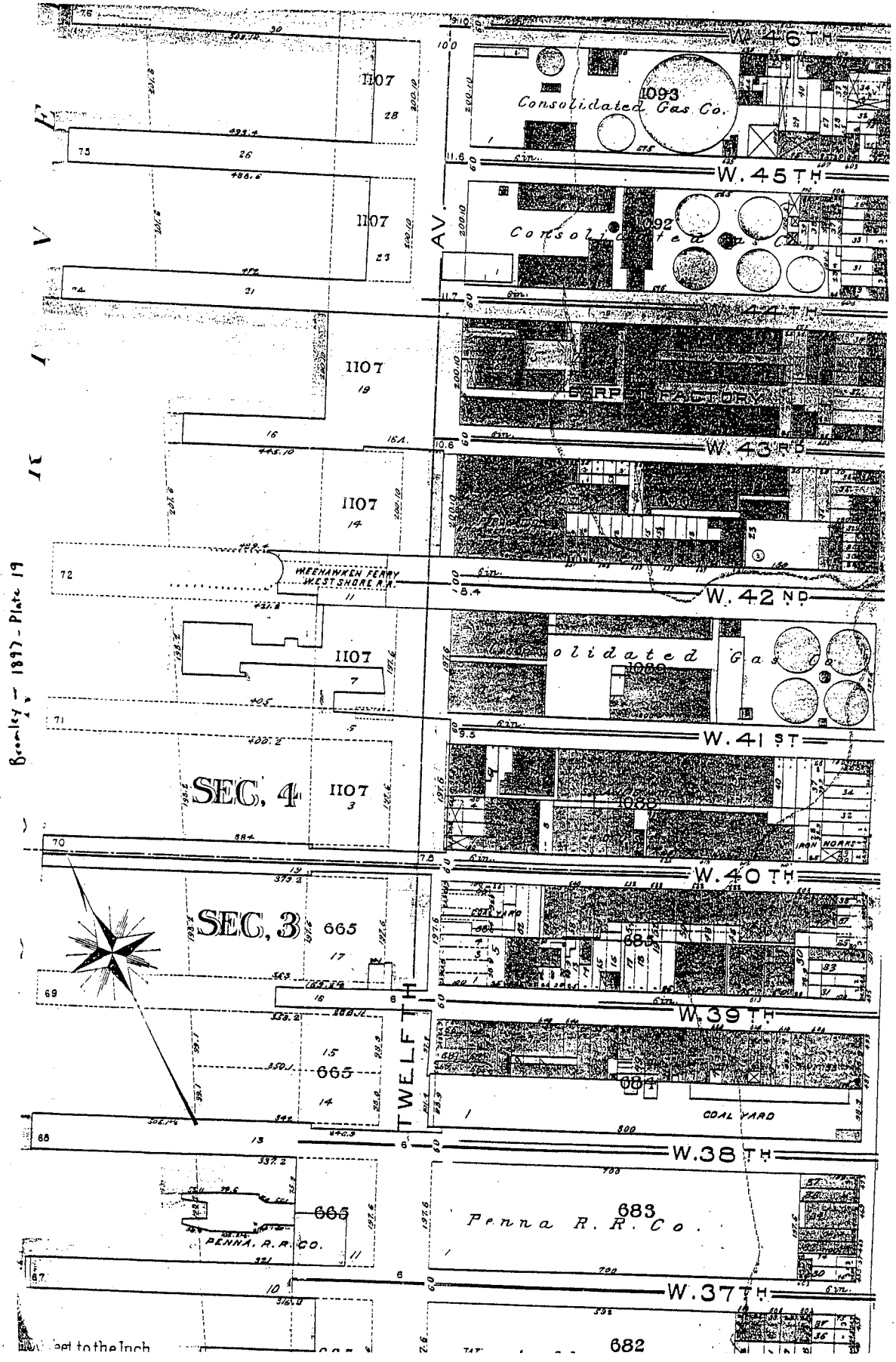
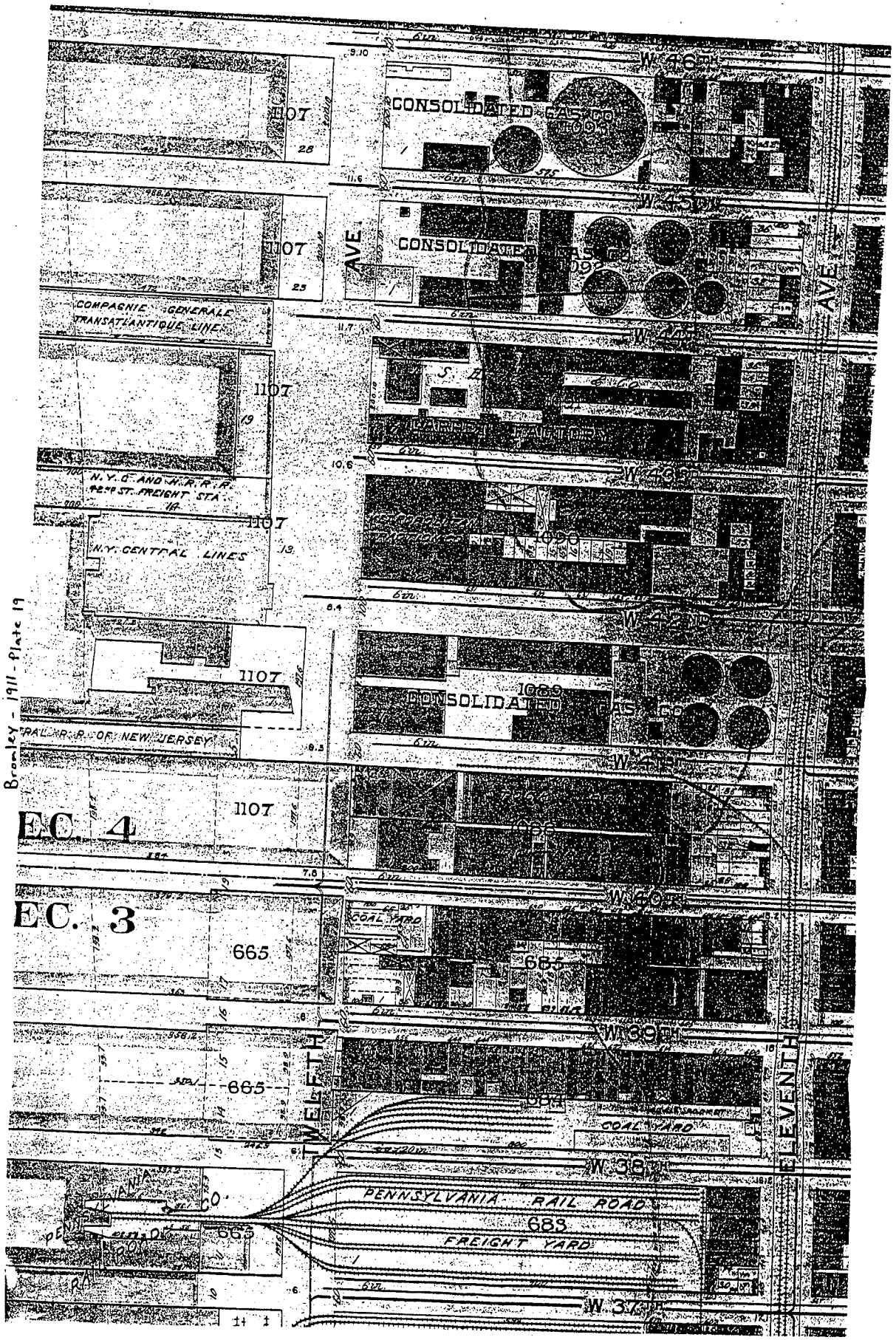
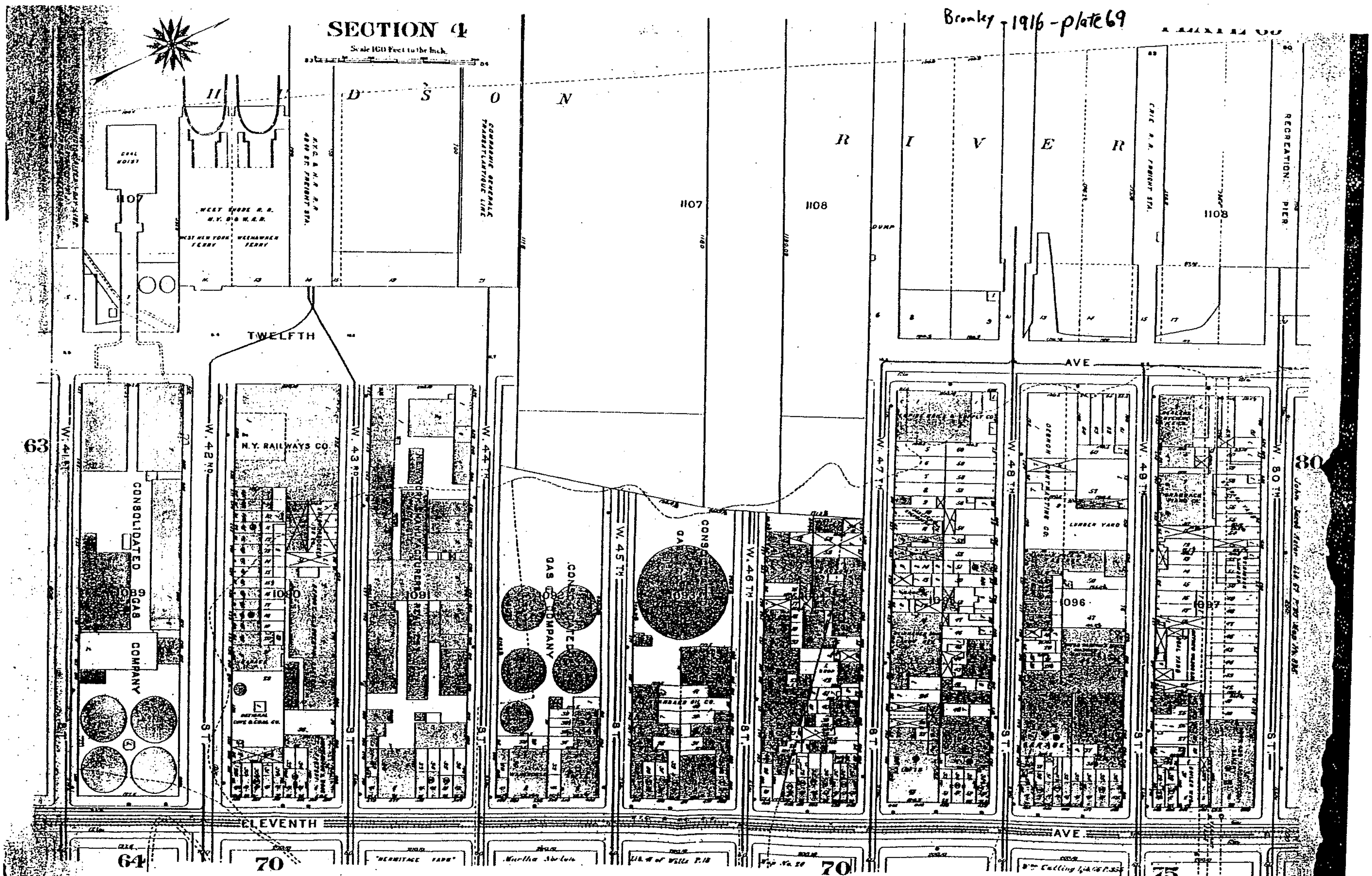


APPENDIX E

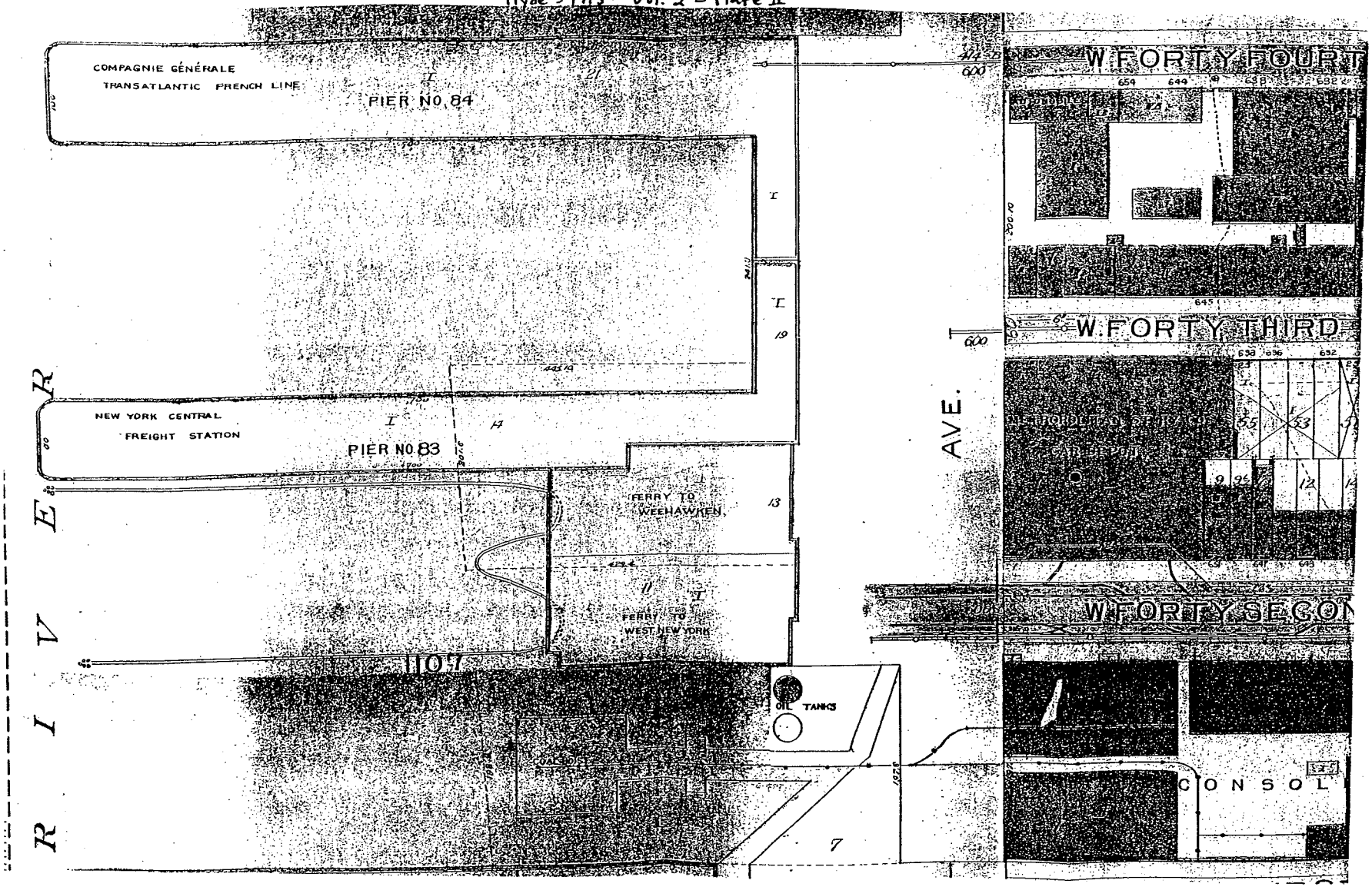
HISTORICAL MAPS


Brooklyn — 1897 - Plate 19
W. 46TH
W. 45TH
W. 44TH
W. 43RD
W. 42ND
W. 41ST
W. 40TH
W. 39TH
W. 38TH
W. 37TH
AV. V
AV. U
TWELFTH
SEC. 4
SEC. 3
1107
1093
Consolidated Gas Co.
1092
CARPET FACTORY
WEEHAWKEN FERRY
WEST SHORE R.R.
1089
1088
665
684
COAL YARD
683
Penna R. R. Co.
PENNA. R.R. CO.
682

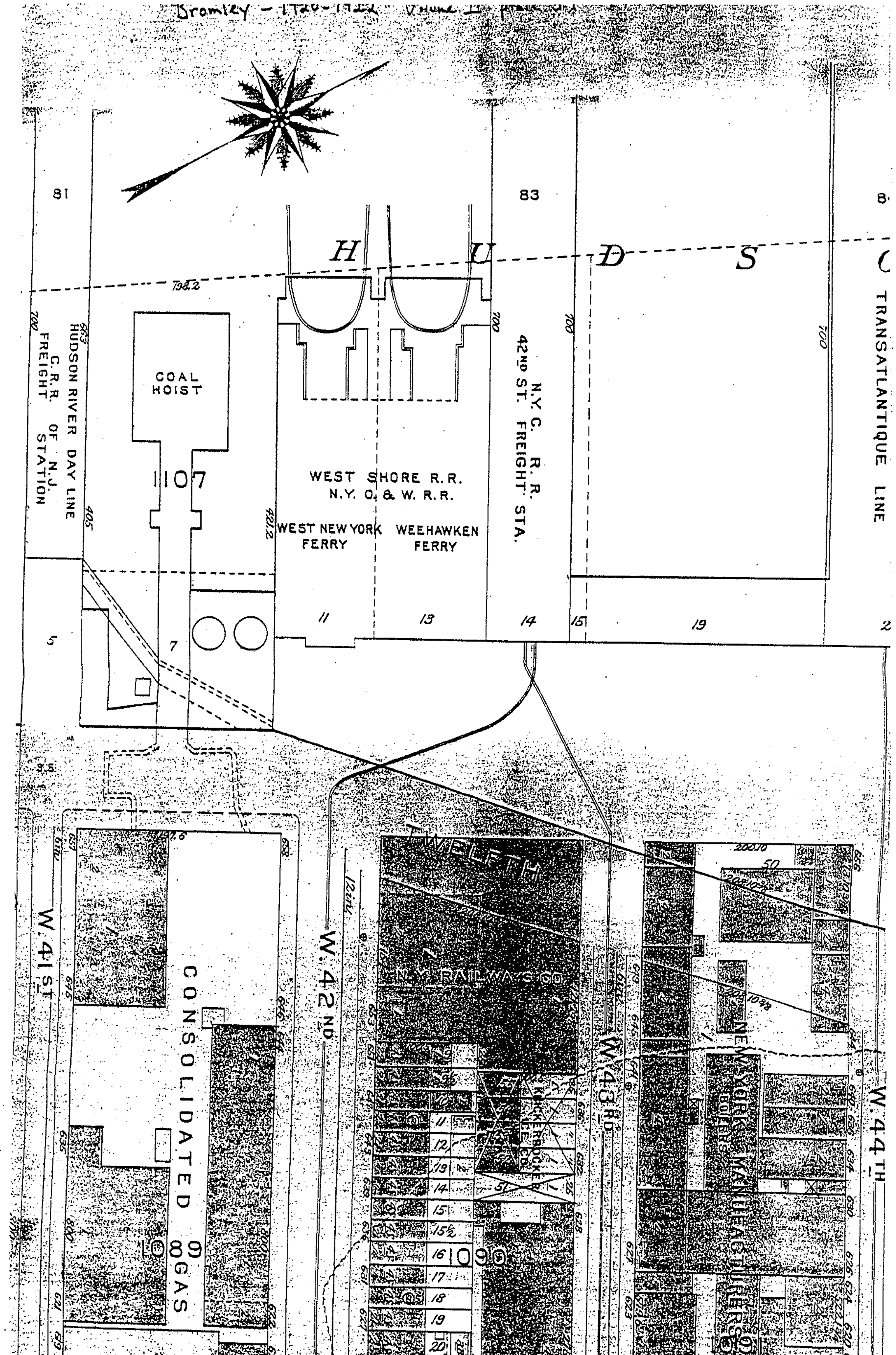

W 46TH
W 45TH
W 44TH
W 43RD
W 42ND
W 41ST
W 40TH
W 39TH
W 38TH
W 37TH
CONSOLIDATED GAS CO
COMPAGNIE GENERALE TRANSATLANTIQUE LINE
N.Y.C. AND H.R.R.R. 42ND ST. FREIGHT STA.
N.Y. CENTRAL LINES
CENTRAL R.R. OF NEW JERSEY
PENNSYLVANIA RAIL ROAD
COAL YARD
FREIGHT YARD
1107
1090
1089
1088
1087
1086
665
688
ELEVENTH AVE
SEC. 4
SEC. 3
Bromley - 1911 - Plate 19

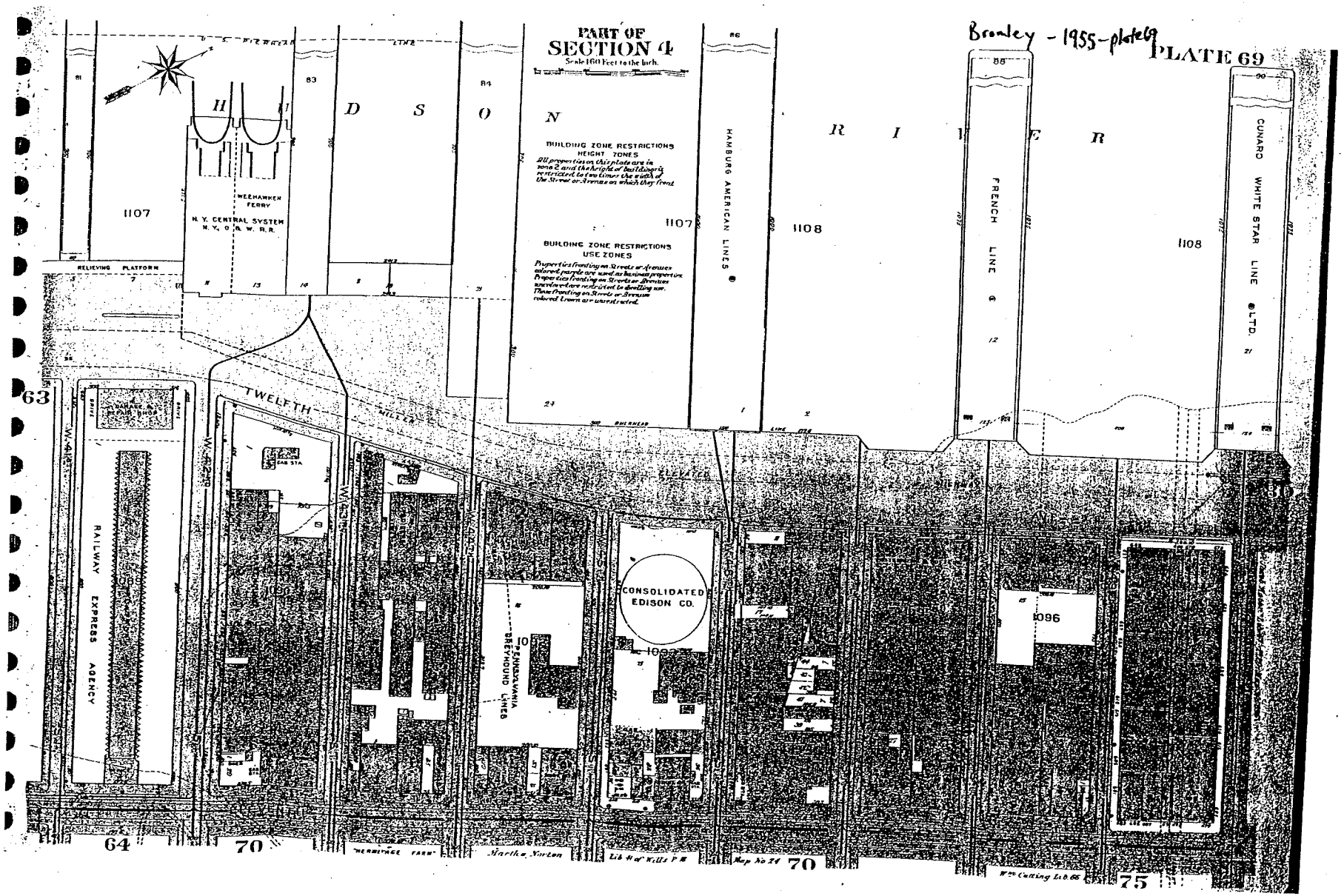

SECTION 4
Scale 100 Feet to the Inch.
Bromley - 1916 - plate 69
H U D S O N R I V E R
TWELFTH AVE
ELEVENTH AVE
W. 41ST
W. 42ND
W. 43RD
W. 44TH
W. 45TH
W. 46TH
W. 47TH
W. 48TH
W. 49TH
W. 50TH
ST.
N.Y. RAILWAYS CO.
CONSOLIDATED GAS COMPANY
WEST SHORE R.R.
RECREATION PIER
DUMP
LUMBER YARD
1107
1108
1089
1090
1091
1095
1096
1097
63
64
70
75
80

Hyde - 1913 - Vol. 2 - Plate II

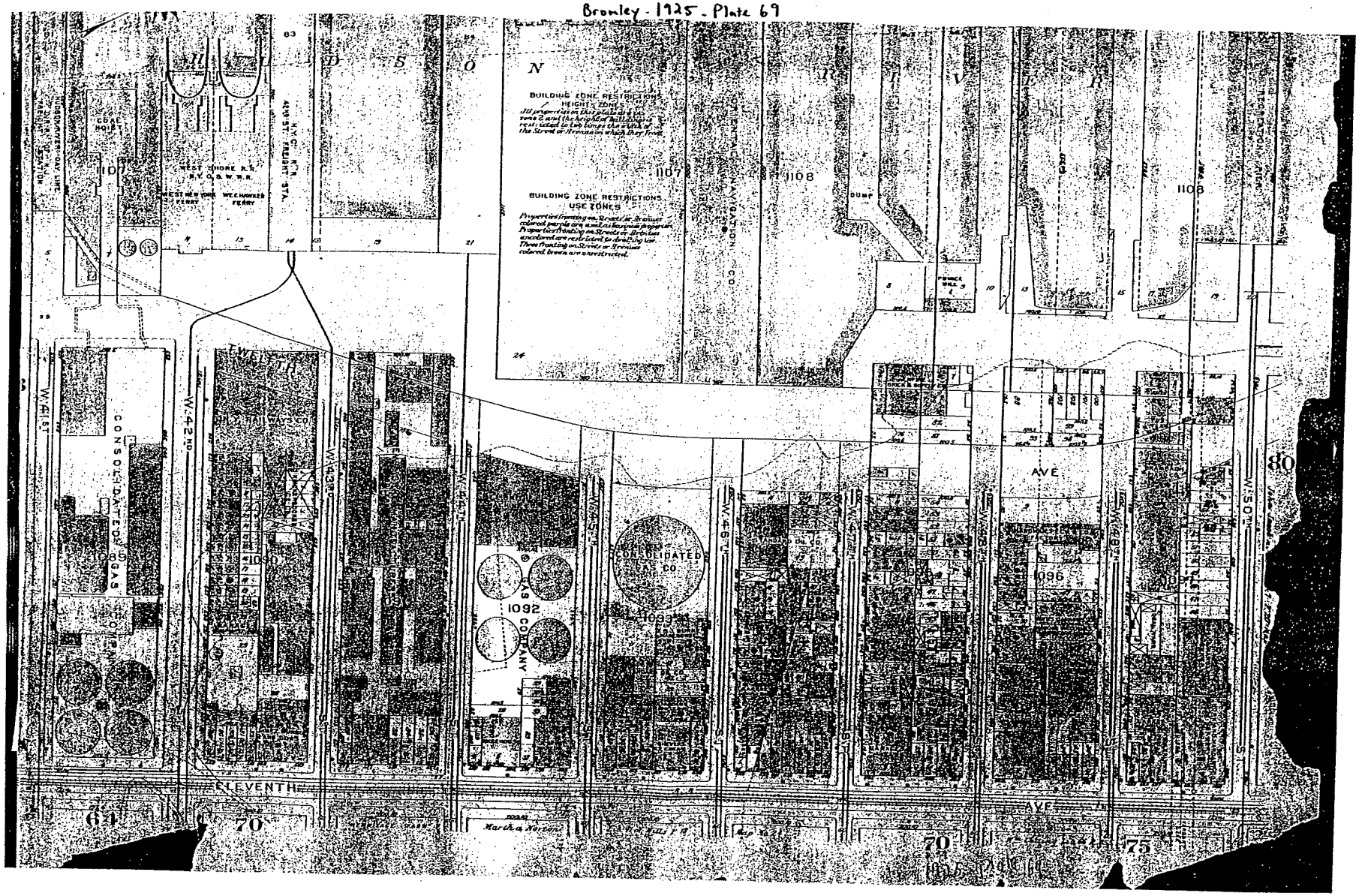


Bromley - 1920-1922 Volume I plate

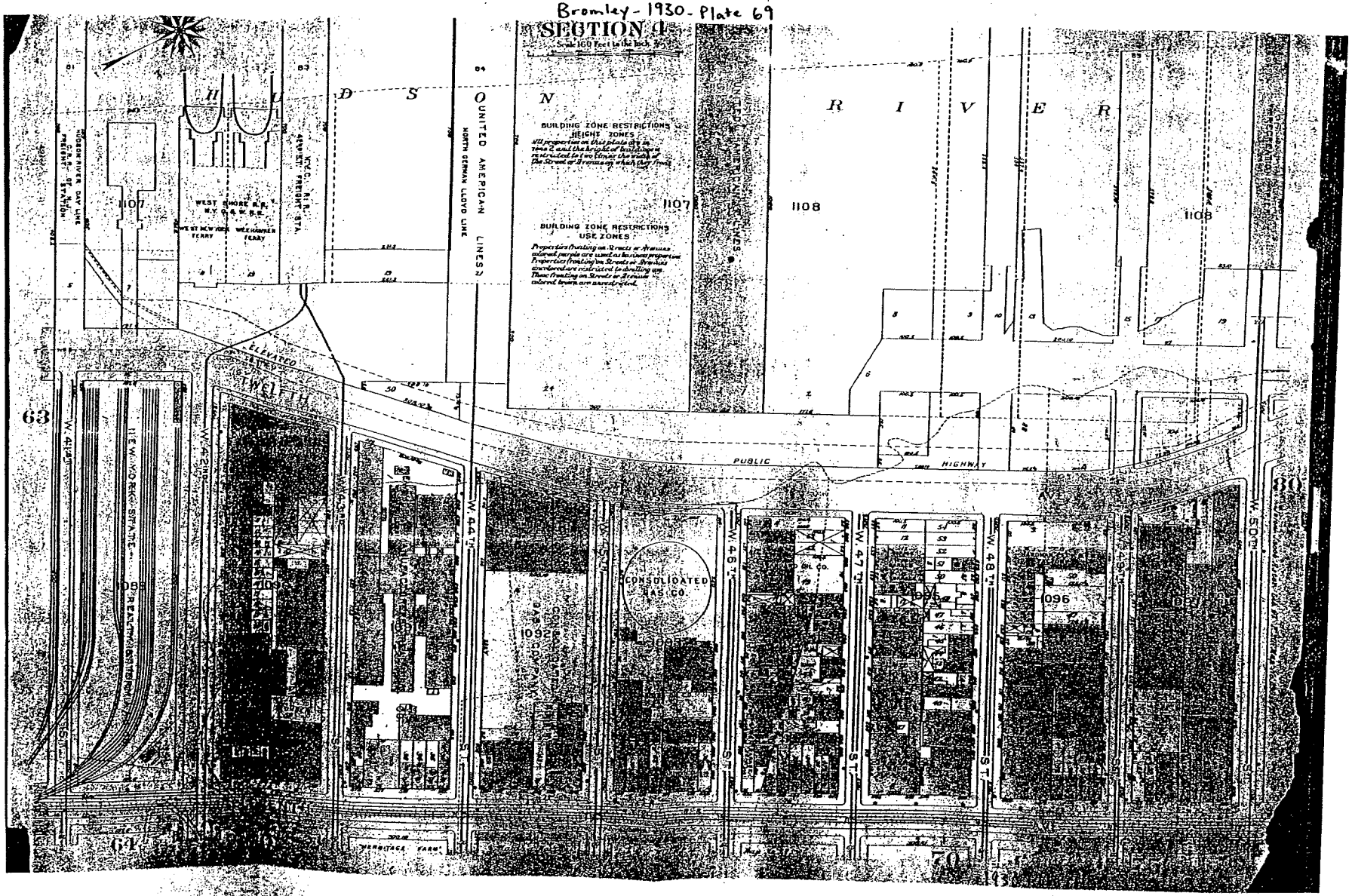


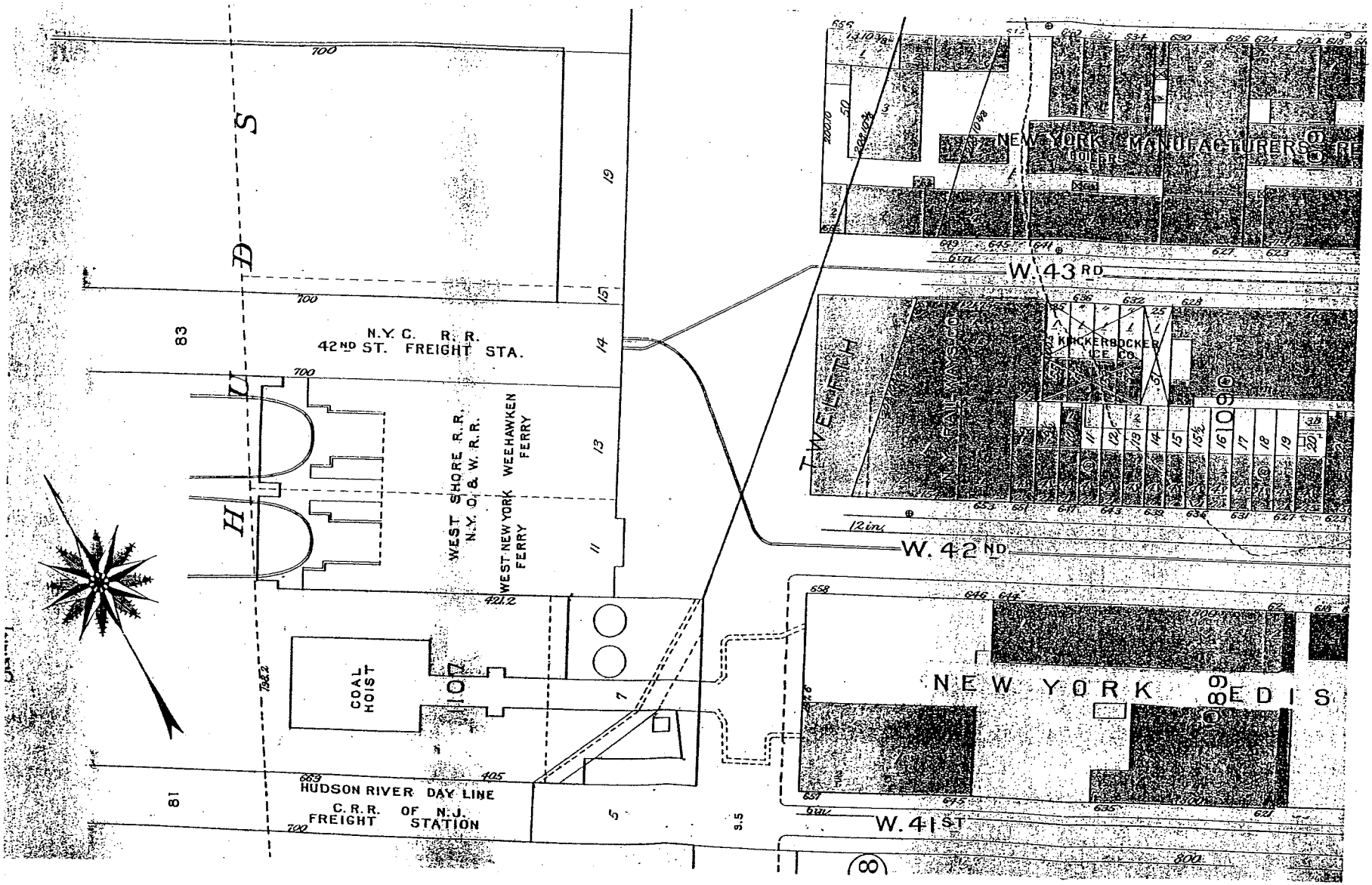

PART OF
SECTION 4
Scale 160 Feet to the Inch.
Bromley - 1955 - plate 69
PLATE 69
H U D S O N R I V E R
BUILDING ZONE RESTRICTIONS
HEIGHT ZONES
All properties on this plate are in zone E and the height of buildings is restricted to two times the width of the Street or Avenue on which they front.
BUILDING ZONE RESTRICTIONS
USE ZONES
Properties fronting on Streets or Avenues colored purple are used as business properties. Properties fronting on Streets or Avenues uncolored are restricted to dwelling use. Those fronting on Streets or Avenues colored brown are unrestricted.
WEEHAWKEN FERRY
N.Y. CENTRAL SYSTEM N.Y.C. & H.R. R.R.
HAMBURG AMERICAN LINES
FRENCH LINE
CUNARD WHITE STAR LINE LTD.
1107
1108
1096
TWELFTH
RAILWAY EXPRESS AGENCY
PENNSYLVANIA GREYHOUND LINES
CONSOLIDATED EDISON CO.
RELIEVING PLATFORM
63
64
70
75

Bromley - 1925 - Plate 69

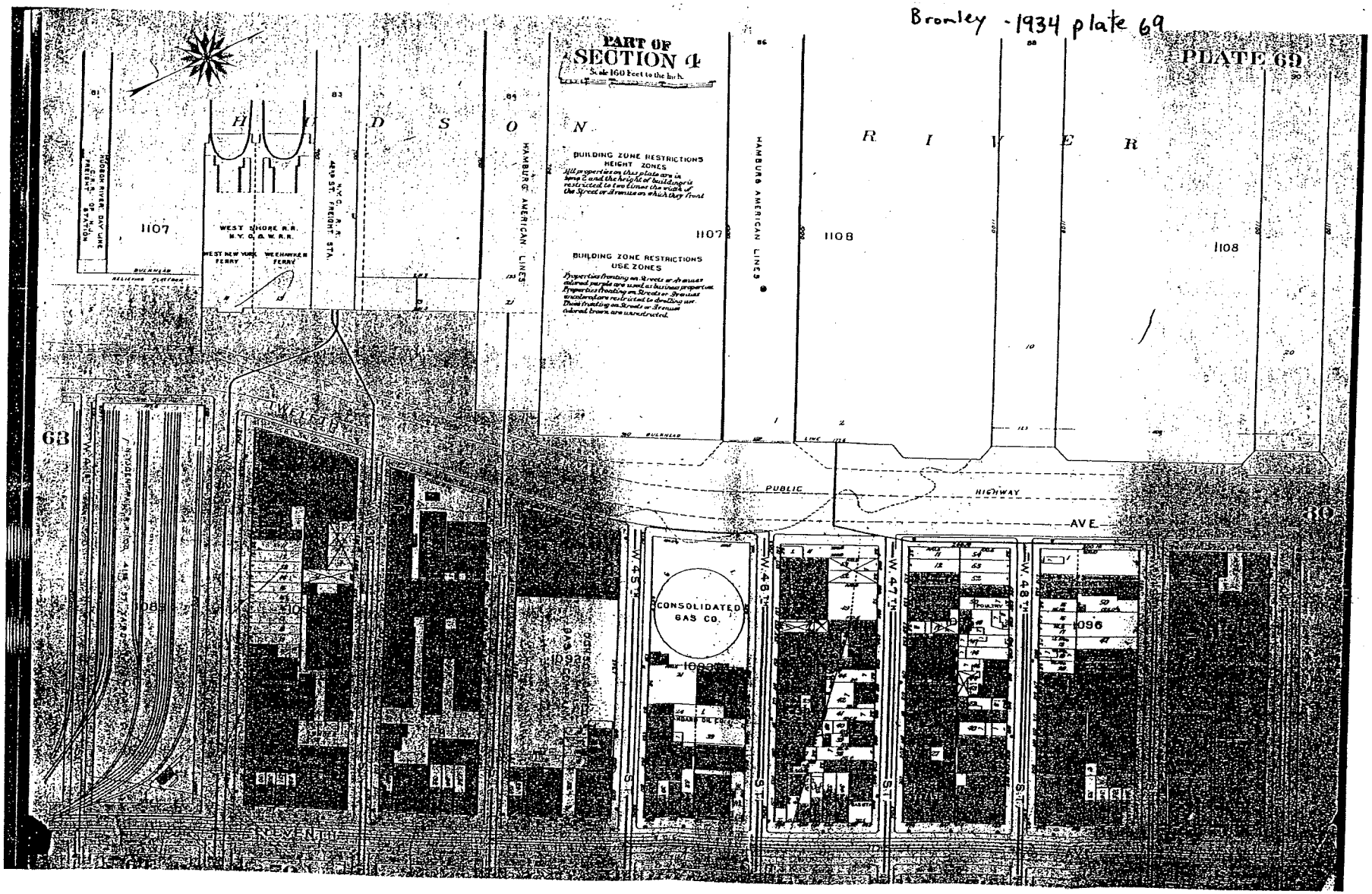


Bromley - 1930 - Plate 69

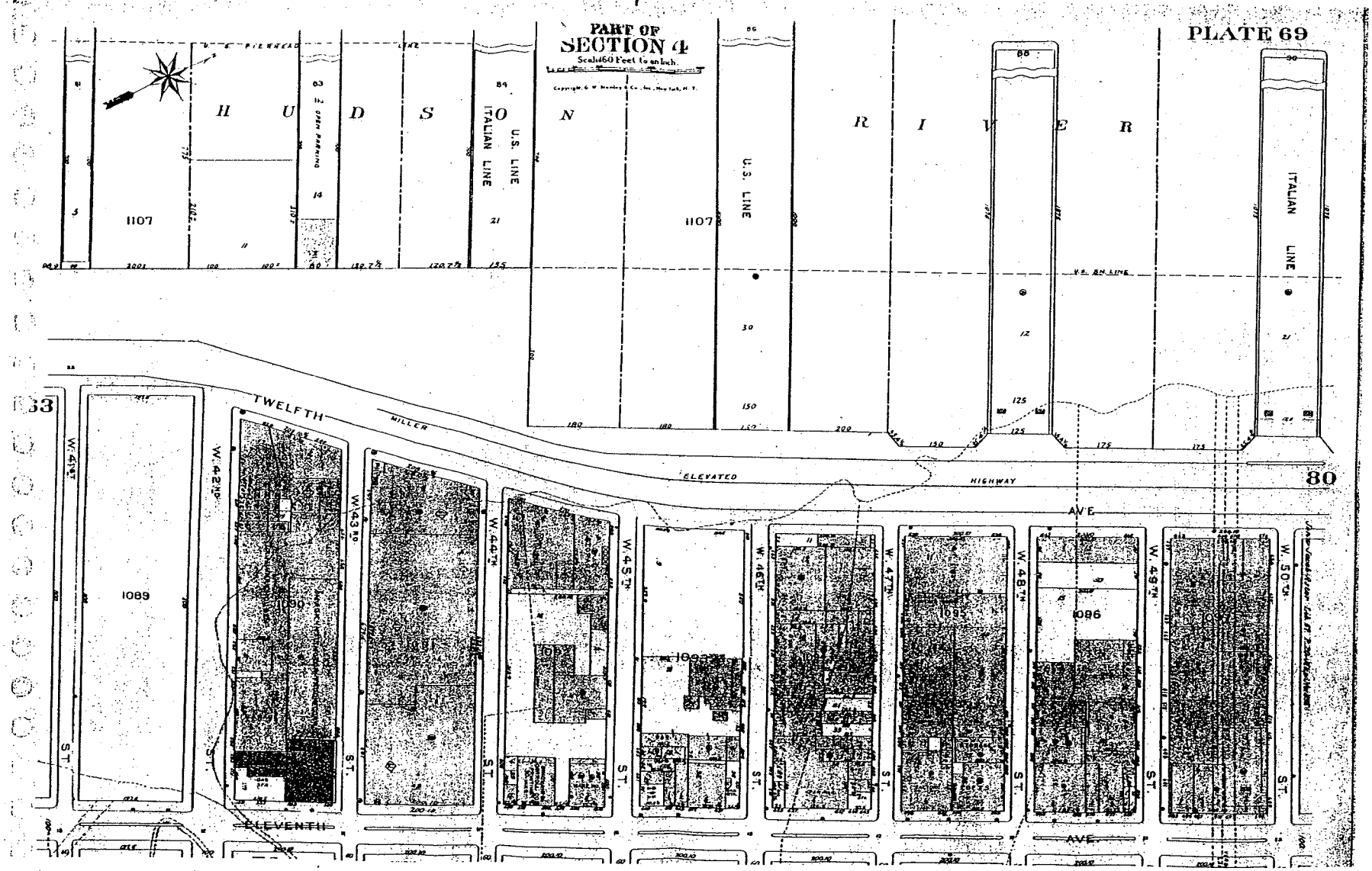



N.Y.C. R.R.
42ND ST. FREIGHT STA.
WEST SHORE R.R.
N.Y.O. & W. R.R.
WEST NEW YORK FERRY
WEEHAWKEN FERRY
COAL HOIST
HUDSON RIVER DAY LINE
C.R.R. OF N.J.
FREIGHT STATION
NEW YORK MANUFACTURERS
KNICKERBOCKER ICE CO.
W. 43RD
W. 42ND
W. 41ST
NEW YORK
12 ins.

Bromley - 1934 plate 69



Bromley - 1974



APPENDIX F

REPORT OF EVALUATION OF INDOOR AIR SAMPLING CONDUCTED AT RIVER PLACE I, BY THE RETEC GROUP, INC.

West 42ND Street Works Site
Report of Evaluation of Indoor Air Sampling

Conducted at
River Place I
650 West 42nd Street
Manhattan, New York

Prepared by:

The RETEC Group, Inc.
1000 West Seneca Street, Suite 204
Ithaca, NY 14850-3342

RETEC Project Number: CECN3-16197-121

Prepared for:

Consolidated Edison Company of New York, Inc.
31-01 20th Avenue, Building No. 138
Long Island City, NY 11105

Prepared by:

_____
Susan Welt, Project Engineer

Reviewed by:

_____
John T. Finn, P.E., Senior Engineer

August 26, 2003

Executive Summary

An evaluation of the potential for sub-surface vapor intrusion at River Place I in west Manhattan, New York was conducted in April of 2003. The overall goal of the work was to ascertain whether air quality within the apartment buildings was being adversely affected by residual sub-surface impacts that might remain from the former Manufactured Gas Plant (MGP) operations which had historically occurred on the property.

After an initial inspection of the building, a total of four indoor air samples (3 indoor air samples, and 1 field duplicate for quality assurance/quality control purposes) were collected from the ground floor of the building. Four air samples were collected from outside of the building for comparison purposes. The samples were submitted to a commercial laboratory for chemical analyses.

Results indicate that the air quality is not impacted by sub-surface intrusion of vapors emanating from any MGP-related material that may be present at the site. Compounds detected in the indoor air samples were present in concentrations within the range of typical background levels for indoor air quality, or were comparable to the results of the outdoor air samples, indicating outdoor sources, as noted below.

Two compounds were detected at concentrations above the typical range for background residential indoor air (above the 95th percentile): acetone and bromomethane. These compounds were also detected in the outdoor (ambient) samples at similar concentrations, indicating outdoor sources. The concentrations of these compounds were at low levels – at least two orders of magnitude below the Worker Guidance Values.

The results indicate that the quality of the air sampled within the apartment building is generally within the range expected for indoor air. The indoor air quality does not appear to be impacted by sub-surface intrusion of vapors emanating from any MGP-related material that may be present at the site.

Table of Contents

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

1 Introduction

This report has been prepared for Consolidated Edison Company of New York, Inc. (Con Edison) to present the evaluation of sub-surface vapor intrusion at the River Place I property.

The investigation activities were conducted in general accordance with the Work Plan for Evaluation of Sub-Surface Vapor Intrusion (Work Plan) [RETEC, 2002], and in cooperation with the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH). The Work Plan was prepared for general use in the program that Con Edison has initiated to evaluate sub-surface vapor intrusion that may be associated with its former Manufactured Gas Plant sites.

NYSDOH has commented on the results of this indoor air investigation at the River Place I apartment complex (Appendix E).

1.1 Purpose of Report

The overall goal of the work was to ascertain whether air quality within the River Place I apartment building was being adversely affected by residual sub-surface impacts that might remain from the former MGP operations which had historically occurred on the property. The purpose of this report is to describe the investigation activities, present the results, and interpret their meaning.

1.2 Scope of Work

The specific scope of work for the evaluation at the River Place I Property was determined during an initial site visit on January 3, 2003 at which Mr. Joseph Moloughney, the NYSDEC Project Manager, was present.

The scope of work consisted of the following two field tasks:

- Initial site visit and building inspection; and
- Indoor and ambient air sampling.

1.3 Report Organization

The remainder of this is organized as follows:

- Section 2 describes the site and provides a summary of its history.
- Section 3 describes investigation activities, including the sampling locations and procedures.

- Section 4 provides a summary of the onsite observations and field measurements.
- Section 5 presents the analytical laboratory results.
- Section 6 presents an evaluation of the findings and provides recommendations.
- Section 7 lists the references cited in this report.
- Documentation of results and data quality information is provided in the appendices.

2 Site Description and History

The site description and historical information provided in this section has been summarized from recent site history reports [Parsons, 2002].

The site is located in Manhattan, New York City, New York. The property encompassed approximately five acres extending from West 41st to West 42nd Street and 11th Avenue to 12th Avenue. The site is currently occupied by a high rise apartment/retail building (River Place I), a landscaped park-like area, and a paved parking lot.

The site was formerly used as a gas manufacturing and storage facility, the West 42nd Street Works, from 1863 to the early 1920s. Gas was produced by the coal carbonization gas processes and stored in gas holders until the property was sold in 1924.

The former MGP property switched ownership many times before it was sold to the Silverstein 42nd Associates in 1996. The River Place I building was constructed on part of the site in 2000. This building does not have any subsurface space; it is constructed at of above the previous site grade. A historical use map which shows the locations of the former MGP structures in approximate relationship to the existing building is shown in Figure 2-1.

3 Investigation Activities

This section describes the activities undertaken to collect data and information for the purposes of the indoor air quality screening evaluation. The building inspection and collection of indoor and ambient air samples are described.

3.1 Building Inspection

The building inspection was conducted on December 5, 2002. A tour of the building and grounds was conducted. Representatives of Con Edison, River Place I Property, Clayton Group Services, Inc., and the RETEC Group, Inc. participated. The inspection included a walk-through of the ground floor of the building and the surrounding grounds. The information obtained during the site walk is summarized in the NYSDOH Indoor Air Quality Questionnaire and Building Inventory, provided in Appendix A.

The chemical inventory was conducted by the Clayton Group on April 16, the day of sampling. It focused on the Ramp Area in the storage room at 625 E. 14th St. The inventory is provided in Appendix A.

Observations were made regarding potential indoor sources of hydrocarbon vapors, as further described in Section 4.

3.2 Indoor and Ambient Air Sampling

Sampling locations inside and outside of the building were established and marked during the initial building inspection. The locations were determined with reference to the historical overlay map (Figure 2-1), and the building floorplan.

The rationale for selecting the locations of the ambient samples was to "bracket" the building by collecting air from the prevailing upwind direction and the prevailing downwind direction.

The rationale for selection of sample locations in the apartment buildings was to obtain samples from areas nearest to the former locations of MGP structures such as gas holders. The sampling locations are shown in Figure 3-1. Table 3-1 lists the full sample numbers, locations and rationale for selection of each location.

Two initial ambient air samples, four indoor air samples, and two final ambient air samples were collected on April 16, 2003 by The Clayton Group Services, Inc (Clayton). The building had been closed for approximately 12 hours prior to the start of sampling. Six-liter Summa canisters with flow regulators were used to collect each sample over a one-hour period. Samples

were submitted for laboratory analysis as described in Section 5. A photographic record of the sampling locations is provided in Appendix B.

Collection of meteorological data, VOC emissions using a photoionization detector (PID) from vapor intrusion points, and volatile cyanide was also conducted by Clayton at the apartment complex on April 16, 2003. Results are described in Section 4.

4 On-site Observations

This section documents the observations and field measurements made during the on-site building inspection and during the sample collection events.

4.1 Building Observations

Observations of the HVAC system, odors, and potential hydrocarbon sources, were made during the indoor air sampling event. These observations are important for the correct interpretation of the results.

4.1.1 HVAC

The heating, ventilation and air conditioning (HVAC) of the building was described by the building staff as having a central heating and central air conditioning system. The HVAC system was not running in the retail space or the café during the time of sampling.

4.1.2 Odors

Distinct hydrocarbon odors (paint) were observed in the café during the time of sampling; the café had been painted the week before.

4.1.3 Potential Hydrocarbon Sources

The retail space and café contained a wide variety of commercial products that are potential hydrocarbon sources, including gasoline, paint, and paint thinners. During the sampling event, the brass doorway and window molding in the lobby were also being polished. Cigarette smoke, and newly painted walls could also be potential sources of hydrocarbons in the apartment building.

4.2 Observations and Measurements During Sampling

Observations made during air sampling included meteorological data, PID measurements, and volatile cyanide measurements using Draeger tubes. Clayton's records of these observations are provided in Appendix C. Meteorological data show a relatively constant barometric pressure throughout the sampling event inside and outside of the building (29.95 – 29.97 inches Hg). Wind speed was mostly out of the west at 0 – 6 miles per hour. Field measurements of VOCs by PID did not indicate vapor intrusion. The presence of cyanide in air was not detected throughout the entire apartment building.

5 Analytical Laboratory Results

This section presents summaries of the laboratory results for analysis performed on ambient air and indoor air collected at the site during the April 2003 sampling event. The results are discussed and evaluated with regard to potential intrusion of MGP vapors.

The laboratory analytical methods and data quality is also discussed in this section. It is concluded that the data quality is adequate.

5.1 Summary of Results

A total of a total of four ambient air samples, three indoor air samples, and one field duplicate collected for quality assurance/quality control were submitted for laboratory analysis. Volatile organic compounds were analyzed (EPA Method TO-15) by Air Toxics Laboratory, Inc. The results of this analysis are summarized in Table 5-1. Analytical laboratory reports are provided in Appendix D.

Table 5-1 lists the detected analytes in two categories:

1) Compounds including BTEX and naphthalene, that could possibly be related to MGP sources, but may just as likely be related to non-MGP sources; and

2) Compounds including chlorinated hydrocarbons and MTBE (the gasoline additive) that are certainly not related to MGP sources.

Table 5-1 lists the ambient (outdoor) samples in the left-most columns, followed by indoor air samples. The three right-most columns present background indoor air values obtained from National (EPA) and New York State analyses of air samples from within typical (non-contaminated) residences. The background values are expressed as the 75^{th} and 95^{th} percentile values derived statistically from the datasets [NYSDOH, 2003, EPA, 1992]. The indoor air and ambient values that exceed the 75^{th} percentile of background are highlighted in Table 5-1 for screening purposes. However, values within the 95^{th} percentile are considered to be within the range of typical background, especially considering that the background data were obtained primarily from residences. Apartment buildings and large buildings may contain higher VOC concentrations than residences because of the use of products such as industrial-strength floor tile cleaners, floor polishes, more frequent use of paints, etc.

5.2 Evaluation of Ambient and Indoor Air Results

The evaluation of the results focuses on the VOCs that are possibly related to MGP operations or other sources and is based on comparisons to the following three values:

1. Worker guidance values (the lowest of the OSHA-PEL, NIOSH-REL, or ACGIH-TLV). The intent of this comparison was to identify immediate health considerations that might warrant immediate corrective action. It is recognized that worker guidance values are not appropriate for evaluation of long-term considerations for this school building.

2. NYSDOH/EPA Background Indoor Air Concentration. The intent of this comparison was to determine whether the measured indoor air concentrations fell within the ranges that are typical of air inside of buildings. The statistical data was provided for use in the project by NYSDOH.

3. Maximum Ambient Air Concentration. If indoor air concentrations were above the typical background range, then the intent of this comparison would be to determine whether compounds detected in the outdoor air samples might be sources for those compounds found in indoor air. Ambient air is drawn into the building through air intakes.

Overall, the results indicate that the air quality is not impacted by sub-surface intrusion of vapors related to the former MGP on the site. As anticipated, hydrocarbons were detected in most of the samples at low concentrations. None of the results exceeded the Worker Guidance Values.

Although several compounds were detected in indoor air at concentrations above the typical ranges for background indoor air, these compounds had concentrations comparable to those detected in the ambient air samples.

Many of these compounds, such as Freon 12, are not attributable to MGP operations. The occurrence of these compounds at similar concentrations throughout the building and also in ambient air indicates that these VOCs are attributable to other sources such as fuel emissions, cigarette smoke, floor waxes, paints, or the chemical cleaning products routinely used in the building.

Indoor air samples collected from three locations contained VOC concentrations exceeding the 95th percentile and were thus slightly above the typical range of VOCs in residences:

The concentration of o-xylene, m,p-xylene, and ethlybenzene in the center of the retail space (RP-1-IA-1) exceeded the NYSDOH 95th percentile background concentrations. However, these compounds, which are

components of gasoline, were also detected at similar concentrations in one of the ambient (outdoor) samples, RP-1-AMB-3. Gasoline vapors are present in ambient and indoor air in this urban setting, as indicated by the modern gasoline additive MTBE, which was present in this ambient and indoor sample at concentrations of 21 and 51 $\mu g/M^3$, respectively. These facts indicate an outdoor source not related to the former MGP.

Acetone was detected in all of the samples collected, including the ambient air samples. Two of the samples collected, RP1-IA-1 and RP1-IA-3, located in the retail space and management office respectively, had a concentration of acetone greater than the NYSDOH 95th percentile. In all of the samples, the concentration detected was similar, indicating outdoor sources.

Bromomethane was detected in the café and management office in concentrations greater than the NYSDOH 95th percentile for indoor air. Bromomethane was also detected in ambient air samples at similar concentrations, indicating outdoor sources.

5.3 Analytical Laboratory Methods and Quality Control

To meet the data quality objectives for this project, NYSDEC Analytical Service Protocols (ASP) were used with Category B deliverables [NYSDEC, 2000]. This analysis was completed by Air Toxics Laboratory, Inc. Air Toxics is currently listed with the New York State Department of Health Environmental Accreditation Program and has current CLP certification for all analyte categories.

The data packages were reviewed by a RETEC chemist who prepared a Data Usability Summary Report (DUSR), included as Appendix D of this report. As part of the data review process analytical results and data qualifiers were corrected where necessary to reflect quality control issues. The data summary reports in this report have been modified to reflect the findings of the DUSR.

All data reported by the laboratory was usable with qualification of some samples for calibration nonconformance, laboratory and/or method performance, and professional judgment.

- The concentration of naphthalene is now reported as an estimated concentration.

Field quality control samples, which included field duplicates, laboratory blanks, a laboratory duplicate, and laboratory control samples, were collected and analyzed during the investigation. All laboratory blank and field duplicate detections were within that expected and therefore are not a significant quality control concern.

The laboratory control samples had a percent recovery of 1,2-dichloroethane, 1,2,4-trichlorobenzene, hexachlorobutadiene, 1,2,4-trichlorobenzene, and hexachlorobutadiene less than the lower quality control limits; the concentrations of these compounds are now estimated. The percent recovery for bromomethane and styrene were greater than the upper quality control limits. The positive results reported for bromomethane in the affected samples were qualified as estimated, "J," due to high bias. The results reported for styrene in the affected samples were non-detect. Therefore, validation action for styrene was not required.

These data validation modifications are not a significant quality control concern and do not impact the investigation results.

6 Conclusions and Recommendations

Results indicate that the air quality is not impacted by sub-surface intrusion of vapors related to the previous MGP operations at the site. Compounds detected in the indoor air samples, with the exception of acetone and bromomethane, were present in concentrations within the range of typical background levels for indoor air quality, or were comparable to the results of the outdoor air samples, indicating outdoor sources. These two compounds are not associated with the former MGP operations.

Based on these results, intrusion of vapors emanating from any MGP-related material that may be present at the site is not evident and neither additional indoor air sampling nor soil gas sampling for MGP constituents appear to be warranted.

7 References

NYSDEC, 2000. NYSDEC Analytical Services Protocol, 1995, revised June, 2000.

NYSDOH, 2003. Background Indoor/Outdoor Air Levels of Volatile Organic Compounds in Homes Sampled by the New York State Department of Health, 1989-1996, New York State Department of Health, Bureau of Toxic Substance Assessment, Interim Draft, January 2003.

Parsons, 2002. West 42nd Street Manufactured Gas Plant Site History Report. August 2002.

RETEC, 2002. Work Plan for Evaluation of Sub-Surface Vapor Intrusion at Con Edison MGP Sites, June 26, 2002.

U.S. EPA, 1992. Assessing Potential Indoor Air Impacts for Superfund Sites. United States Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina. September, 1992.

Table 5-1
Summary of Outdoor and Indoor Air Results
River Place I - West 42nd Street Works Site - 04/16/03
New York, New York

Compound	CAS number	Sample Number, Location and Results in ug/m3									Background Residential Indoor Air Values		
		RP1-AMB-1 Outdoor, SW Corner 42nd St & 11th Ave	RP1-AMB-2 Outdoor, NE Corner 12th Ave & 41st St	RP1-AMB-3 Outdoor, 11th Ave Near Fire Hydrant by Parking Lot	RP1-AMB-4 Outdoor, NE Corner 12th Ave & 41st St	RP1-IA-1 Ground Floor Center of Retail Space	RP1-IA-2 Café	RP1-IA-2FD Café Field Duplicate	RP1-IA-3 Ground Floor, Mgmt Office, In Conf Room	RP1-IA-3 Duplicate Laboratory Duplicate	DOH 75th ug/m3	EPA 75th ug/m3	DOH 95th ug/m3
Possibly MGP Related or Other Sources [1]													
1,2,4-trimethylbenzene	95-63-6	1.7	-	7.3	2.2	4.5	-	1.2	-	-	7	4	20
1,3,5-trimethylbenzene	108-67-8	-	-	2	-	1.2	-	-	-	-	<10	5.4	<10
2,3-Dimethylpentane	565-59-3	-	-	-	-	6	-	-	-	-	NA	NA	NA
2-Methylpentane	107-83-5	3.4	-	11	4.5	18	-	-	-	-	NA	NA	NA
4-Ethyltoluene	622-96-8	-	-	5.9	-	-	-	-	-	-	NA	NA	NA
4-Methyl-2-pentanone	108-10-1	-	-	-	-	9.4	-	-	-	-	NA	NA	NA
benzene	71-43-2	2.4	1.7	7.1	4.5	4.8	1.8	1.7	2.1	1.8	5	21	14
ethylbenzene	100-41-4	2.2	0.99	6.4	2.2	7.9	0.81	1.4	0.89	-	4.8	9.6	6.5
hexane	110-54-3	-	-	4	-	3.9	-	-	-	-	3.6	4	14
2,2,4-trimethylpentane	540-84-1	-	-	7.5	-	11	-	-	-	-	NA	NA	NA
Isopentane	78-784	19	14	29	13	73	130	130	12	11	NA	NA	NA
styrene	100-42-5	0.9	-	0.9	-	-	-	-	-	-	<10	2.8	<10
toluene	108-88-3	12	5.5	41	12	39	17	22	7.6	6.8	25	0	49
m/p-xylenes	136777-61-2	8.1	3.1	24	8.1	33	1.5	3.6	2.3	2.1	9.5	NA	21
o-xylene	95-47-6	2.2	0.93	8.2	2.4	8.9	-	0.97	-	-	5	9.3	7.9
Not MGP Related [2]													
2-butanone (MEK)	78-93-3	-	-	-	3.4	14	5.5	5.5	7.4	6.3	NA	42	NA
acetone	67-64-1	8.1	7.4	8.7	12	25	15	17	33	29	NA	27	NA
benzyl chloride	100-44-7	-	-	-	-	-	-	-	-	-	<1	NA	<1
bromomethane	74-83-9	1.2	1	-	1.1	0.85	1.3	1.2	1.2	1	<1	NA	<1
chloromethane	74-87-3	1.1	0.98	0.94	0.97	1.1	1.2	1.1	1.1	0.94	<2	NA	2.6
Ethanol	64-17-5	8.5	7.4	12	11	71	57	53	45	41	NA	NA	NA
trichlorofluoromethane (Freon 11)	75-69-4	1.5	1.4	1.4	1.4	1.6	2	2	2	1.8	3.8	NA	5.9
dichlorodifluoromethane (Freon 12)	75-71-8	2.6	2.5	2.9	2.9	2.8	4.1	4.1	3.4	3.1	<1	NA	<5
Methyl tert-Butyl Ether	1634-04-4	8	8.3	21	5	51	5.1	4.1	4	-	NA	NA	NA
methylene chloride (dichloromethane)	75-09-2	0.71	0.73	0.99	1.1	4.8	0.81	1.1	2.8	2.7	5.6	NA	45
2-Propanol	67-63-0	-	-	2.7	-	5.7	3	3.7	6.5	6.1	NA	NA	NA
tetrachloroethene	127-18-4	-	-	1.5	1.2	1.3	-	-	-	-	<10	11	7.3

Notes:

Shaded values are greater than the 75th percentile value of background indoor air as provided by the NYSDOH. Where no NYSDOH value was available, the shaded values are greater than the 75th percentile value provided by the EPA. The 95th percentile NYSDOH values are presented to indicate the range of typical background values.

[1] These compounds may be related to either MGP sources or non-MGP sources, or both. MGP sources include MGP tars and petroleum feedstocks used in MGP processes, such as the carburetted water gas process. Non-MGP sources include cleaning products, floor wax and polish, vehicle exhaust, construction materials, and cigarette smoke.

[2] These compounds are not related to MGP sources and are present due to non-MGP sources, such as vehicle exhaust, heating and air conditioning systems, cleaning agents, art supplies, paints, etc.

NA - Not Available. No data available for background concentrations of these compounds.

- Not Detected

Compounds that were not detected in any of the samples are not shown. Of the 68 compounds analyzed, 17 were detected.

Table D-1
Summary Table of Outdoor and Indoor Air Results
River Place I - West 42nd Street Works Site - 04/16/03
New York, New York

Compound	CAS number	Sample Number, Location and Results in ug/m3									Background Residential Indoor Air Values		
		RP1-AMB-1 Outdoor, SW Corner 42nd St & 11th Ave	RP1-AMB-2 Outdoor, NE Corner 12th Ave & 41st St	RP1-AMB-3 Outdoor, 11th Ave Near Fire Hydrant by Parking Lot	RP1-AMB-4 Outdoor, NE Corner 12th Ave & 41st St	RP1-IA-1 Ground Floor Center of Retail Space	RP1-IA-2 Café	RP1-IA-2FD Café Field Duplicate	RP1-IA-3 Ground Floor, Mgmt Office, In Conf Room	RP1-IA-3 Duplicate Laboratory Duplicate	DOH 75th ug/m3	EPA 75th ug/m3	DOH 95th ug/m3
Possibly MGP Related or Other Sources [1]													
1,2,4-trimethylbenzene	95-63-6	1.7	0.91 U	7.3	2.2	4.5	0.91 U	1.2	0.95 U	0.95 U	7	4	20
1,3,5-trimethylbenzene	108-67-8	0.91 U	0.91 U	2	0.93 U	1.2	0.91 U	0.89 U	0.95 U	0.95 U	<10	5.4	<10
2,3-Dimethylpentane	565-59-3	3.8 U	3.8 U	4 U	3.9 U	6	3.8 U	3.7 U	4 U	4 U	NA	NA	NA
2-Hexanone	591-78-6	3.8 U	3.8 U	4 U	3.9 U	3.6 U	3.8 U	3.7 U	4 U	4 U	NA	NA	NA
2-Methylpentane	107-83-5	3.4	3.3 U	11	4.5	18	3.3 U	3.2 U	3.4 U	3.4 U	NA	NA	NA
4-Ethyltoluene	622-96-8	4.6 U	4.6 U	5.9	4.7 U	4.4 U	4.6 U	4.5 U	4.8 U	4.8 U	NA	NA	NA
4-Methyl-2-pentanone	108-10-1	3.8 U	3.8 U	4 U	3.9 U	8.4	3.8 U	3.7 U	4 U	4 U	NA	NA	NA
benzene	71-43-2	2.4	1.7	7.1	4.5	4.8	1.8	1.7	2.1	1.8	5	21	14
carbon disulfide	75-15-0	2.9 U	2.9 U	3 U	3 U	2.8 U	2.9 U	2.8 U	3 U	3 U	NA	NA	NA
Cyclohexane	110-82-7	3.2 U	3.2 U	3.3 U	3.3 U	3.1 U	3.2 U	3.1 U	3.3 U	3.3 U	NA	NA	NA
ethylbenzene	100-41-4	2.2	0.99	6.4	2.2	7.9	0.81	1.4	0.89	0.84 U	4.6	9.6	6.5
heptane	142-82-6	3.8 U	3.8 U	4 U	3.9 U	3.6 U	3.8 U	3.7 U	4 U	4 U	NA	6	NA
hexane	110-54-3	3.3 U	3.3 U	4	3.3 U	3.9	3.3 U	3.2 U	3.4 U	3.4 U	3.6	4	14
2,2,4-trimethylpentane	540-84-1	4.3 U	4.3 U	7.5	4.4 U	11	4.3 U	4.2 U	4.5 U	4.5 U	NA	NA	NA
Indene	95-13-6	4.4 U	4.4 U	4.6 U	4.5 U	4.2 U	4.4 U	4.3 U	4.6 U	4.6 U	NA	NA	NA
Indan	496-11-7	4.5 U	4.5 U	4.7 U	4.6 U	4.3 U	4.5 U	4.4 U	4.7 U	4.7 U	NA	NA	NA
Isopentane	78-784	19	14	29	13	73	130	130	12	11	NA	NA	NA
naphthalene	91-20-3	4.9 UJ	4.9 UJ	5.1 UJ	5 UJ	4.7 UJ	4.9 UJ	4.8 UJ	5.1 UJ	5.1 U	<10	NA	<10
styrene	100-42-5	0.9	0.79 U	0.9	0.81 U	0.76 U	0.79 U	0.77 U	0.83 U	0.83 U	<10	2.8	<10
Tetrahydrofuran	109-99-9	2.7 U	2.7 U	2.9 U	2.8 U	2.6 U	2.7 U	2.7 U	2.9 U	2.9 U	NA	NA	NA
Thiophene	110-02-1	3.2 U	3.2 U	3.3 U	3.3 U	3.1 U	3.2 U	3.1 U	3.3 U	3.3 U	NA	NA	NA
toluene	108-88-3	12	5.5	41	12	39	17	22	7.6	6.8	25	0	49
m/p-xylenes	136777-61-2	8.1	3.1	24	8.1	33	1.5	3.6	2.3	2.1	9.5	NA	21
o-xylene	95-47-6	2.2	0.93	8.2	2.4	8.9	0.81 U	0.97	0.84 U	0.84 U	5	9.3	7.9
Not MGP Related [2]													
1,1,1-trichloroethane	71-55-6	1 U	1 U	1 U	1 U	0.97 U	1 U	0.99 U	1 U	1 U	6.7	30	28
1,1,2,2-tetrachloroethane	79-34-5	1.3 U	1.3 U	1.3 U	1.3 U	1.2 U	1.3 U	1.2 U	1.3 U	1.3 U	<9	0	<10
1,1,2-trichloroethane	79-00-5	1 U	1 U	1 U	1 U	0.97 U	1 U	0.99 U	1 U	1 U	<9	NA	<10
1,1-dichloroethane	75-34-3	0.75 U	0.75 U	0.78 U	0.77 U	0.72 U	0.75 U	0.74 U	0.78 U	0.78 U	<1	NA	<10
1,1-dichloroethene	75-35-4	0.74 U	0.74 U	0.77 U	0.75 U	0.7 U	0.74 U	0.72 U	0.77 U	0.77 U	<1	0	<8
1,2,4-trichlorobenzene	120-82-1	6.9 U	6.9 U	7.2 U	7 U	6.6 U	6.9 U	6.8 U	7.2 U	7.2 U	<10	NA	<10
1,2-dibromoethane (EDB)	106-93-4	1.4 U	1.4 U	1.5 U	1.5 U	1.4 U	1.4 U	1.4 U	1.5 U	1.5 U	<1.5	0	<1.5
1,2-dichlorobenzene	95-50-1	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	1.2 U	1.2 U	<6	0	<10
1,2-dichloroethane	107-06-2	0.75 UJ	0.75 UJ	0.78 UJ	0.77 UJ	0.72 UJ	0.75 U	0.74 U	0.78 U	0.78 U	<1	0	<10
1,2-dichloropropane	78-87-5	0.86 U	0.86 U	0.9 U	0.88 U	0.82 U	0.86 U	0.84 U	0.9 U	0.9 U	<10	NA	<10
1,3-Butadiene	106-99-0	2 U	2 U	2.1 U	2.1 U	2 U	2 U	2 U	2.1 U	2.1 U	NA	NA	NA
1,3-dichlorobenzene	541-73-1	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	1.2 U	1.2 U	<8	5.6	<10
1,4-dichlorobenzene	106-46-7	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	1.2 U	1.2 U	<5	5.6	5.1
1,4-Dioxane	123-91-1	3.4 U	3.4 U	3.5 U	3.4 U	3.2 U	3.4 U	3.3 U	3.5 U	3.5 U	NA	NA	NA
2-butanone (MEK)	78-93-3	2.7 U	2.7 U	2.9 U	3.4	14	5.5	5.5	7.4	6.3	NA	42	NA
acetone	67-64-1	8.1	7.4	8.7	12	28	15	17	33	29	NA	27	NA
benzyl chloride	100-44-7	1	0.98 U	1 U	0.98 U	0.92 U	0.96 U	0.94 U	1 U	1 U	<1	NA	<1
bromodichloromethane	75-27-4	6.2 U	6.2 U	6.5 U	6.4 U	6 U	6.2 U	6.1 U	6.5 U	6.5 U	<10	0	<10
bromoform	75-25-2	9.6 U	9.6 U	10 U	9.8 U	9.2 U	9.6 U	9.4 U	10 U	10 U	<10	0	<10
bromomethane	74-83-9	1.2	1	0.75 U	1.1	0.85	1.3 J	1.2 J	1.2 J	1	<1	NA	<1
carbon tetrachloride	56-23-5	1.2 U	1.2 U	1.2 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	<6.2	0.83	<10
chlorobenzene	108-90-7	0.86 U	0.86 U	0.89 U	0.88 U	0.82 U	0.86 U	0.84 U	0.89 U	0.89 U	<10	0	<10
chloroethane	75-00-3	0.49 U	0.49 U	0.51 U	0.5 U	0.47 U	0.49 U	0.48 U	0.51 U	0.51 U	<1	NA	<1
chloroform	67-66-3	0.91 U	0.91 U	0.95 U	0.93 U	0.87 U	0.91 U	0.89 U	0.95 U	0.95 U	4.3	3.4	<10
chloromethane	74-87-3	1.1	0.98	0.94	0.97	1.1	1.2	1.1	1.1	0.94	<2	NA	2.6
cis-1,2-dichloroethene	156-59-2	0.74 U	0.74 U	0.77 U	0.75 U	0.7 U	0.74 U	0.72 U	0.77 U	0.77 U	<10	NA	<10
cis-1,3-dichloropropene	10061-01-5	0.84 U	0.84 U	0.88 U	0.86 U	0.81 U	0.84 U	0.82 U	0.88 U	0.88 U	<9	NA	<10
dibromochloromethane	124-48-1	7.9 U	7.9 U	8.3 U	8.1 U	7.6 U	7.9 U	7.7 U	8.3 U	8.3 U	<10	0	<10
Ethanol	64-17-5	8.5 J	7.4 J	12 J	11 J	71 J	57 J	53 J	48 J	41	NA	NA	NA
trichlorofluoromethane (Freon 11)	75-69-4	1.8	1.4	1.4	1.4	1.6	2	2	2	1.8	3.8	NA	5.9
1,1,2-trichlorotrifluoroethane (Freon 113)	76-13-1	1.4 U	1.4 U	1.5 U	1.4 U	1.4 U	1.4 U	1.4 U	1.5 U	1.5 U	<1	NA	<1
1,2-dichlorotetrafluoroethane	76-14-2	1.3 U	1.3 U	1.4 U	1.3 U	1.2 U	1.3 U	1.3 U	1.4 U	1.4 U	<1.5	NA	<1.5
dichlorodifluoromethane (Freon 12)	75-71-8	3.8	2.5	2.9	2.9	2.8	4.1	4.1	3.4	3.1	<1	NA	<5
hexachlorobutadiene (C-46)	87-68-3	9.9 U	9.9 U	10 U	10 U	9.5 U	9.9 U	9.7 U	10 U	10 U	<2	NA	<8
Methyl tert-Butyl Ether	1634-04-4	8	5.3	21	5	51	5.1	4.1	4	3.5 U	NA	NA	NA
methylene chloride (dichloromethane)	75-09-2	0.71	0.73	0.99	1.1	4.8	0.81	1.1	2.8	2.7	5.6	NA	45
2-Propanol	67-63-0	2.3 U	2.3 U	2.7	2.3 U	5.7	3	3.7	6.5	6.1	NA	NA	NA
Propene	115-07-1	1.6 U	1.6 U	1.7 U	1.6 U	1.5 U	1.6 U	1.6 U	1.7 U	1.7 U	NA	NA	NA
tetrachloroethene	127-18-4	1.3 U	1.3 U	1.5	1.2	1.3	1.3 U	1.2 U	1.3 U	1.3 U	<10	11	7.3
trans-1,2-dichloroethene	156-60-5	3.7 U	3.7 U	3.8 U	3.8 U	3.5 U	3.7 U	3.6 U	3.8 U	3.8 U	<10	NA	<10
trans-1,3-dichloropropene	10061-02-6	0.84 U	0.84 U	0.88 U	0.86 U	0.81 U	0.84 U	0.82 U	0.88 U	0.88 U	<9	NA	<10
trichloroethene	79-01-6	1 U	1 U	1 U	1 U	0.96 U	1 U	0.98 U	1 U	1 U	<5.3	4.5	<10
Vinyl Acetate	108-05-4	3.3 U	3.3 U	3.4 U	3.3 U	3.1 U	3.3 U	3.2 U	3.4 U	3.4 U	NA	NA	NA
vinyl chloride	75-01-4	0.48 U	0.48 U	0.5 U	0.48 U	0.45 U	0.48 U	0.46 U	0.5 U	0.5 U	<1	NA	<5

Notes:

Shaded values are greater than the 75th percentile value of background indoor air as provided by the NYSDOH. Where no NYSDOH value was available, the shaded values are greater than the 75th percentile value provided by the EPA. The 95th percentile NYSDOH values are presented to indicate the range of typical background values.

[1] These compounds may be related to either MGP sources or non-MGP sources, or both. MGP sources include MGP tars and petroleum feedstocks used in MGP processes, such as the carburetted water gas process. Non-MGP sources include cleaning products, floor wax and polish, vehicle exhaust, construction materials, and cigarette smoke.

[2] These compounds are not related to MGP sources and are present due to non-MGP sources, such as vehicle exhaust, heating and air conditioning systems, cleaning agents, art supplies, paints, etc.

NA - Not Available. No data available for background concentrations of these compounds.

U - Not detected at the detection limit indicated.

12/12/2003

ATTACHMENT I

JOINT BCP APPLICATION OF CONSOLIDATED EDISON COMPANY OF NEW YORK, INC. AND RIVER PLACE I LLC

PAST SITE OWNERS AND OPERATORS

Past Owner/Operator Name And Last Known Address	Con Edison's Relationship With Past Owner/Operator	River Place I's Relationship With Past Owner/Operator
Manhattan Gas Light Co. 4 Irving Place New York, NY (1860 – 11/1884)	Predecessor in Interest by Corporate Consolidation	None
Consolidated Gas Company of New York, Inc. 4 Irving Place New York, NY (11/1884 – 10/1923)	Same as Con Edison. Prior to 1936, Con Edison was known as Consolidated Gas Company of New York, Inc.	None
New York Edison Company 4 Irving Place New York, NY (10/1923 – 10/1927)	Predecessor in Interest by Corporate Merger	None
New York State Realty and Terminal Company 450 Lexington Avenue New York, NY (10/1927 – 12/1932	None	None
N.Y. Central Railroad Co. 450 Lexington Avenue New York, NY (12/1932 – 6/1962)	None	None
Cola Realty Corp. Presently Unknown (6/1962 – 7/1962)	None	None
Railway Express Agency, Inc. 219. East 42nd Street New York, NY (7/1962 – 5/67)	None	None

Past Owner/Operator Name And Last Known Address	**Con Edison's Relationship With Past Owner/Operator**	**River Place I's Relationship With Past Owner/Operator**
Joseph. D. Keenan & Roger Deed, as Trustees under 5/31/67 Trust Agreement 27-27 29th Street NW Washington, DC (5/1967 – 6/1969)	None	None
Chrysler Realty Corporation P.O. box 2236 Wichita, Kansas (6/1969 – 2/1981)	None	None
Ivory Forty-Two Realty Corp. c/o Silverstein Properties, Inc. 521 Fifth Avenue New York, NY (2/1981 – 7/1984)	None	Affiliated company that may be defunct. River Place I is currently reviewing records to determine the corporation's status
Silverstein 42nd Associates, L.P. c/o Silverstein Properties, Inc. 521 Fifth Avenue New York, NY (7/1984 – 12/1996)	None	Affiliated Company

ATTACHMENT J

JOINT BCP APPLICATION OF CONSOLIDATED EDISON COMPANY OF NEW YORK, INC. AND RIVER PLACE I LLC

CONTACT LIST INFORMATION

Chief Executive Officer and Zoning Board Chairperson

The Chief Executive Officer and Zoning Board Chairperson of the County and City in which the Site is located are as follows:

Chief Executive Officer	Honorable Michael R. Bloomberg Mayor of the City of New York City Hall New York, NY 10007
NYC Director of Zoning	Michael Weil NYC Department of City Planning 22 Reade Street New York, NY 10007
Manhattan Borough Office	Vishaan Chakrabarti Director, Manhattan Office NYC Department of City Planning 22 Reade Street New York, NY 10007

Owners and Occupants of Properties Adjacent to Site

South of Site	NYC Transit Authority 525 11th Avenue New York, NY 10018 (MTA Bus Depot)
West of Site	Pier 83 at West 42nd Street New York City Department of Business 110 William Street New York, NY 10038 (Sightseeing Boat Marina)
East of Site	Mercedes Benz Manhattan 514 11th Avenue New York, NY 10018 (Auto Dealership)

Owners and Occupants of Properties Adjacent to Site (cont.)

East of Site

Federal Express Corporation
554 11th Avenue
New York, NY 10036
(Truck Garage and Offices)

Massachusetts Mutual Life Insurance Co.
555 West 42nd Street
New York, NY 10036
(High-Rise Apartment Building)

North of Site

Peoples Republic of China
520 Joe DiMaggio Highway
New York, NY 10036
(Consulate Building)

Kandila Realty Corp.
647 West 42nd Street
New York, NY 10036
(Restaurant)

627 Associates LLC
627 West 42nd Street
New York, NY 10036
(Vacant Commercially Zoned Property)

DFF 37th Street Associates
621 West 42nd Street
New York, NY 10036
(Vacant - Former NYPD Mounted Unit Horse Stable)

Verizon New York Inc.
603 West 43rd Street
New York, NY 10036
(Garage)

Mobil Oil Corp.
553 11th Avenue
New York, NY 10036
(Gas Station)

Local News Media

The following are among the local news media sources from which the community in the vicinity of the Site is believed to obtain information:

Newspapers: The New York Times, Daily News, New York Post, Our Town

Television: NY1, WCBS – Channel 2, WNBC – Channel 4, WNYM – Channel 5, WABC – Channel 7, WWOR- Channel 9, WPIX – Channel 11

Public Water Supplier

The municipal water supply system for the area in which the Site is located is operated by the New York City Department of Environmental Protection, 59-17 Junction Boulevard, Corona, New York 11368.

VCA Contacts

The Department and New York State Health Department ("DOH") contacts specified in Voluntary Cleanup Agreement Index No. D2-0003-02-08 between Con Edison and the Department and the Department's and DOH's project managers for the Site under that VCA are as follows:

Robert W. Schick, P.E.
Chief, MGP Remedial Section
NYS Department of Environmental Conservation
625 Broadway
Albany, NY 12233

Dale A. Desnoyers, Esq.
NYS Department of Environmental Conservation
625 Broadway
Albany, NY 12233

Joseph Moloughney, P.E.
NYS Department of Environmental Conservation
625 Broadway
Albany, NY 12233

Gary Litwin
Bureau of Environmental Exposure Investigation
New York State Department of Health
Flanigan Square
547 River Street
Troy, NY 12180-2216

VCA Contacts (cont.)

Dawn Hettrick, P.E.
Environmental Investigations
New York State Department of Health
Flanigan Square
547 River Street
Troy, NY 12180-2216

Public Officials and Community Contacts

Hon. C. Virginia Fields
Manhattan Borough President
Municipal Building, 19th Floor South
One Centre Street
New York, NY 10007

Hon. Thomas Duane
New York State Senator
29th State Senatorial District
494 Eighth Avenue
New York, NY 10001

Hon. Richard N. Goffried
New York State Assembly Member
64th Assembly District
242 West 27th Street
New York, NY 10007

Hon. Christine Quinn
New York City Council Member
City Council District 3
224 West 30th Street
New York, NY 10001

Anthony Borella
District Manger
Manhattan Community Board No. 4
330 West 42nd Street
New York, NY 10036

Document Repositories

Under its VCA with the Department, Con Edison has established document repositories for the Site at the following locations:

Office of Manhattan Borough President C. Virginia Fields
Municipal Building, 19th Floor South
One Centre Street
New York, NY 10007

Mid-Manhattan Library
455 Fifth Avenue
New York, NY 10016

ATTACHMENT K

JOINT BCP APPLICATION OF CONSOLIDATED EDISON COMPANY OF NEW YORK, INC. AND RIVER PLACE I LLC

LAND USE PATTERNS IN AREA IN WHICH SITE IS LOCATED

The attached report entitled, ***West 42nd Street Manufactured Gas Plant History Report*** (Parsons, August 2002), presents information relating to past and current land use patterns in the area in which the Site is located.

WEST 42nd STREET MANUFACTURED GAS PLANT SITE HISTORY REPORT

Prepared For:

ConEdison

Consolidated Edison Company of New York, Inc.

31-01 20th Avenue
Long Island City, New York 11105

Prepared By:

Parsons

290 Elwood Davis Road, Suite 312
Liverpool, New York 13088
Phone: (315) 451-9560
Fax: (315) 451-9570

AUGUST 2002

Report For:

WEST 42nd STREET MANUFACTURED GAS PLANT SITE HISTORY REPORT

Prepared For:

Consolidated Edison Company of New York, Inc.

31-01 20th Avenue
Long Island City, NY 11105

Prepared By:

PARSONS

290 Elwood Davis Road, Suite 312
Liverpool, New York 13088
Phone: (315) 451-9560
Fax: (315) 451-9570

REVIEWED AND APPROVED BY:

Project Manager: Matt B. Dillman 8-5-02
Date

Technical Manager: Greg Monn 8/6/02
Date

AUGUST 2002

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EXECUTIVE SUMMARY

Consolidated Edison Company of New York (Con Edison) contracted Parsons to conduct historical research of former manufactured gas plants (MGPs) and associated facilities that were used either by Con Edison or predecessor companies of Con Edison. Parsons was assigned a group of sites located in the Borough of Manhattan. This report presents the results of the historical research conducted for the West 42nd Street MGP site. The objective of the MGP research is to obtain information necessary to rank and prioritize the sites for future investigation or other management actions under the pending Voluntary Cleanup Agreement (VAC) between Con Edison and the New York State Department of Environmental Conservation (NYSDEC). In order to meet this objective, data were compiled to provide information on site setting, current and past site ownership and use, MGP development and operations, site physiography and hydrogeology, potential on-site and off-site historic waste materials, and potential public and environmental receptors.

The West 42nd Street Gas Works is a former MGP that formerly existed on Block 1089 and the adjacent waterfront on Block 1107 in the Borough of Manhattan, New York City and New York County, New York. The construction of the West 42nd Street MGP began in 1860. The MGP operated from 1863 into the early 1920s. Block 1089 was sold to the New York Edison Company in 1923 who later sold the property to the New York Central Railroad Company in 1932. Block 1089 was sold to a series of real estate companies beginning in 1967. The rest of the former MGP is under 12th Avenue. The extreme eastern end of modern Pier 81 was part of the site. This area was used for unloading coal from docked barges along the waterfront and for naphtha tanks.

Construction of the basement and parking for the multiple-story River Place apartment and shopping complex on Tax Lot 1 in 1999 to 2000 likely removed all traces of the MGP in that location. The parking lot on Tax Lot 3, on the eastern end of the block, may retain remnants of the former MGP. The portion of the block now under 12th Avenue may also retain parts of the MGP, if they have not been destroyed by roadwork.

The historical research and site reconnaissance identified the following key items for consideration in the prioritization of the former MGP sites:

- The block containing the former West 42nd Street MGP was under water during the 1830s and 1840s, and filled by the 1850s. There was no known development on the property prior to the construction of the MGP beginning in 1860.
- The former West 42nd Street MGP operated from 1863 through the early 1920s on City Block 1089, the waterfront area west of Block 1089, and the area in-between that would become 12th Avenue. The Metropolitan Gas Light Company began production of coal gas in 1863. The Consolidated Gas Company, formed in 1884, continued the gas production. The MGP continued to produce gas from coal until the early 1920s.
- The lots from the former MGP were sold in 1924 and new structures were built on portions of the site after the MGP structures were razed. The disposition of wastes and

byproducts generated by the former MGP is not well documented. The disposition of the materials from the razed structures is not documented.

- Based on the site reconnaissance and historical research, there are no remaining structures at the ground surface that are associated with the former MGP. No visual evidence of impacts or MGP residuals were observed during the site reconnaissance visit.
- Areas of the site that have not had significant excavation and building (Lot 3) may retain subsurface remnants of the former MGP structures and may contain possible MGP residuals.
- The area surrounding the former West 42nd Street MGP is a mixed-use area formerly used for commercial, industrial, warehousing, and residential purposes dating back to the 1800's. The area is close to the Hudson River and piers. Land usage now includes the River Place high-rise apartments and shopping center, the World Yacht tour business, offices buildings, a FedEx shipping center, and a bus depot owned by the New York Transit Authority.
- The Environmental Data Resources, Inc. (EDR) report indicates the potential exists for spills and leaks from other sources within the area. The report identified 10 Resource Conservation and Recovery Information System (RCRIS) small quantity generators and 12 large quantity generators within 0.25 miles of the site. In addition, there are 24 underground storage tanks (USTs), one bulk chemical UST, and two bulk chemical aboveground storage tanks (ASTs) within 0.25 miles and 55 leaking tanks within 0.5 miles of the former MGP. There are two more former MGPs located within one mile of the West 42nd Street MGP.
- Previous investigations were conducted at the former West 42nd Street MGP, a 1995 investigation on Lot 1 prior to the construction of the high-rise apartments and in 2000 in anticipation of development on Lot 3 (Langan, 2002). The 2000 investigation on Lot 3 found SVOCs above NYSDEC TAGMs in soil samples and BTEX and metals in groundwater (Langan, 2002). The May 1994 Final Impact Statement for the Route 9A Reconstruction Project reported BTEX at 13 mg/kg in one groundwater sample collected between 41st and 42nd Street and PAHs were detected in soil samples collected between 41st Street and 46th Street (AKRF, 1994).
- The site is located in an area with mixed commercial and residential use. If impacts are present at the site, potential receptors would include workers, nearby residents, and tourists visiting the World Yacht tour operation and the River Place shopping area. In addition, a public school is approximately 0.25 miles northeast of the site. Most of the former site area is covered with pavement or buildings with the exception of landscaped areas on Lot 1 near the apartments. Exposure pathways for surface and subsurface soil are present. Workers conducting excavation or construction activities could encounter residues in the subsurface from past operations. There is no groundwater usage in the area being investigated.
- The Hudson River is within 200 feet of the former MGP and could be impacted if MGP residuals were migrating from the site or if past disposal practices lead to the disposal of MGP related materials in or near the Hudson River.

SECTION 1

OBJECTIVE

1.1 PROJECT BACKGROUND

Con Edison contracted Parsons to conduct historical research of former MGPs and associated facilities that were either owned by Con Edison or predecessor companies of Con Edison. Parsons was assigned a group of sites located in the Borough of Manhattan. This report presents results of the historical research conducted for the West 42nd Street MGP site located in the Hell's Kitchen section of Manhattan.

1.2 PURPOSE

This report documents results of the historical research completed on the West 42nd Street Former MGP site located between West 41st Street and West 42nd Street and 11th Avenue and 12th Avenue in western Manhattan, New York (Figure 1). All report figures are located between Section 11 and Appendix A. The purpose of the historical research was to:

- Determine the physical limits of the former MGP operations.
- Develop an understanding of past operations at the former MGP.
- Identify products, byproducts, waste handling procedures, waste streams and potential hazardous substances, and the usage of the site to assess potential impacts, if any, to adjacent properties and current site occupants.
- Develop historical and current site data that will support prioritization of the former MGP sites based on potential, actual, and perceived human health exposure risks, environmental impacts, sensitive receptors, current site usage, the surrounding community, potential for development, site control and ownership, and size of the former MGP operation.

1.3 INVESTIGATION METHODOLOGY

Investigations for this report consisted of: 1) historical research to summarize site ownership, occupancy, use, and operations over time (including pre-MGP use, use during MGP operation, and post-MGP use; 2) a site reconnaissance to determine current conditions and neighboring property use; and 3) review of federal, state, and local databases to assess other sites in the vicinity that may be impacting the former MGP site and the neighboring properties.

Research undertaken as part of this report included review of in-house documents and photographs provided by Con Edison, as well as materials gathered at the Municipal Archives of the City of New York, the Municipal Reference and Research Center of the City of New York, the New York City Recorder of Deeds office, the New York City Department of Buildings, the New York Public Library, the Library of Congress, the NYSDEC, the Environmental Protection Agency, and various web sites that post historical maps and journal articles. EDR compiled the radius search data for the site.

The following is a summary of the resources reviewed during the research and preparation of this report; a detailed list of references is provided in Section 11:

- Consolidated Edison internal records and files (including remediation files and reports, real estate records, in-plant property records, and historical photographs);
- Consolidated Edison personnel interviews;
- Historical maps, including Sanborn Fire Insurance Maps, Dripps Maps, Perris and Browne Insurance Maps, Bromley Atlases, and Taylor City Map;
- Deeds and site surveys for the properties;
- Nineteenth century tax assessment records;
- New York City Department of Buildings records;
- Books and articles detailing manufactured gas company histories and operating procedures;
- Manufactured gas industry publications (including the *American Gas Light Journal*, in later years called the *American Gas Journal*);
- Brown's Directory of American Gas Companies;
- Public Service Commission (PSC) reports;
- Nineteenth and twentieth century newspaper and journal articles (such as the *New York Times*);
- Environmental studies undertaken within and adjacent to the properties; and
- EDR radius search information.

Ms. Susan Shelton and Ms. Julie Abell Horn of Parsons conducted the site reconnaissance on April 10, 2002. Tasks included a windshield and pedestrian survey (where possible) of the property, photographing buildings, structures, and roadways on and adjacent to the former MGP site, documenting current conditions and possible receptors, and creating an overall site map.

SECTION 2

PROPERTY DESCRIPTION

2.1 PROPERTY DESCRIPTON

The former West 42nd Street MGP site is located in the Borough of Manhattan, New York City and New York County, New York (Figure 1). The former site occupied approximately five acres and consists of two modern Tax Lots on one city block, the waterfront property west of the block, and the street between them (Figure 2). Specifically, the former site includes all of Block 1089 (now designated Tax Lots 1 and 3), the waterfront property immediately west of Block 1089 (now included as part of Block 1107), and the stretch of 12th Avenue between Block 1089 and the waterfront. Block 1089 is bounded by West 41st Street on the south, West 42nd Street on the north, 11th Avenue on the east, and 12th Avenue on the west. It should be noted that the existing two Tax Lots were historically sold to the Metropolitan Gas Light Company (Con Edison's predecessor company) by individual owners. Section 5 of this report provides detailed histories of the Tax Lots. Figure 3 shows the current street configuration with an overlay of the former MGP structures.

SECTION 3

CURRENT USAGE

3.1 GENERAL

The current usage of the former MGP property was determined from a site reconnaissance conducted on April 10, 2002. The site reconnaissance was supplemented with title search information, tax map information, and aerial photographs. The site is located in a mixed usage area with commercial properties including store front retail facilities to the north, a commercial bus depot owned by the New York Transit Authority to the south, and a commercial yacht tour business located directly west of the site. Details of current land use are described in the following paragraphs. Photographs of the site are provided in the Photolog in Appendix A. Tables 3.1 and 3.2 present a summary of the current ownership and land usage.

3.2 BLOCK 1089 LAND USE

The majority of the former MGP site is on modern Block 1089, Tax Lots 1 and 3 (Figure 2). A high-rise apartment complex occupies approximately 90 percent of Tax Lot 1 (photographs 2, 3, 4, 5, 7, and 8). The remaining portion of the lot consists of a landscaped park-like area (photographs 7 and 8). Tax Lot 3 on the east end of Block 1089 supports a public parking lot (photographs 11, 12, and 19). Access to the public parking lot may be obtained from both 11th Avenue and 41st Street. During the site inspection performed on April 10, 2002, the parking lot on Tax Lot 3 appeared to encompass the entire Tax Lot. The parking lot consisted of concrete and asphalt pavement. In some areas, asphalt patch appeared to cover cracks and/or areas of degraded concrete. The surface of the parking area did not appear to be flat and even. Some areas of the parking lot appeared to gently undulant. The parking lot is in the same area as four former gasholders that were utilized during historic MGP site operations dating back to the mid-1800s.

Table 3.1 – Former MGP Lots In Block 1089

Lot Number	Current Owner	Current Usage
Lot 1	River Place I, LLC	High-rise apartment building.
Lot 3	River Place II, LLC	Concrete and asphalt parking lot.

Block 1089, Lots 1 and 3, C6-4 – General Central Commercial District with a restrictive declaration of D-129

No remnants of former MGP were observed on this block during the site inspection performed on April 10, 2002. Due to limited site access, the status and condition of the building interiors could not be verified. No hazardous waste and/or petroleum usage, storage, and/or disposal were observed at any of the structures on Block 1089 during the site visit. No municipal solid waste containers were observed along the exterior of the high-rise apartment building. With the exception of wind-blown refuse and general litter, the area appeared well maintained.

3.3 BLOCK 1107 LAND USE

Block 1107 is a portion of the existing waterfront located west of Blocks 1089. This area was historically part of MGP operations at the West 42nd Street MGP. The area is currently occupied by the West Side Highway and piers along the Hudson River. The World Yacht tour operation is located in this area along the waterfront (photographs 1 and 4).

SECTION 4

SITE SETTING

4.1 INTRODUCTION

This section describes the current zoning, characteristics of the neighboring properties, topography, demography, geology, and hydrogeology. Information in this section was developed during the site reconnaissance visit conducted on April 10, 2002 and through the collection and review of New York City tax and zoning files, historical reports, and the radius search report.

4.2 DEMOGRAPHY

The population of Manhattan Borough is 1,537,195 people. Census Tract 117 encompasses Block 1089 and the two blocks to the south and the four blocks to the east and southeast. According to the 2000 Census, Census Tract 117 is not very populous. The Census lists the total population as 340 people with a median age of 8.3 years. Approximately 55 percent of the residents are Black, 27 percent are White, and the remaining 18 percent are some other race(s). There are 23 renter-occupied housing units and one owner occupied unit. These statistics appear to be out of date or in error. The River Place apartment high-rise, on Block 1089 reportedly has 921 units. Assuming an occupancy of 1.8 people per unit, more than 1,600 people could be housed at the River Place apartments. Block 1089 borders Census Tract 129. Census Tract 129 encompasses 16 Blocks north and northeast of the former MGP. The population in Census Tract 129 is 4,457 people. The population is approximately 63 percent white with the rest of the population being ethnically diverse. The median age is 33.4 years. There are more male residents than female. There are 2,327 households in Tract 129. Approximately 85.5 percent of housing (1990 units) is renter occupied housing and 14.5 percent (337 units) is owner occupied. The average household size is 1.60 people (owner occupied) and 1.83 people (renter occupied). The demography of the West 42nd Street MGP area is likely more accurately represented by an average of the two Census Tracts.

4.3 ZONING

Within the general geographic area of the site, property usage is residential, light commercial, light manufacturing, and local service district. Tables 4.1 and 4.2 list the zoning for Tax Lot 1 and 3 in Block 1089, the area that comprises the former MGP site. The site is bordered to the east by 11th Avenue and to the west by 12th Avenue (12th Avenue).

Table 4.1 – Former MGP Lots In Block 1089

Lot Number	Current Zoning	Current Usage
Lot 1	C6-4, D-129	High-rise apartment building.
Lot 3	C6-4, D-129	Concrete and asphalt parking lot.

C6-4 – General Central Commercial District
D-129 – Restrictive Use Declaration

Table 4.2 – Former MGP Lots In Block 1107

Lot Number	Current Zoning	Current Usage
Not Identified	M2-3	Pier/Bulkhead

M2-3 –Manufacturing District

4.4 CHARACTERISTICS OF NEIGHBORING PROPERTIES

Within a one-quarter mile radius of the West 42nd Street site the neighboring properties consist of commercial properties, restaurants, retail stores, and a yacht tour operation. Commercial buildings are present to the east and south of the site along 11th Avenue and 41st Street. The World Yacht marina is located west of the site along the Hudson River with frontage along 12th Avenue. Store front retail facilities are located to the north of the site with frontage along 42nd Street. A commercial bus depot owned by the New York Transit Authority is located south of the site. It should be noted that store front retail facilities are also located on Tax Lot 1 at the base of the high-rise apartment building. During the site inspection, the area buildings were observed to be generally well maintained. The roadways were observed to be in good repair with few potholes. The area maintains a high population density due to the presence residential high-rises, office buildings, local attractions, and retail facilities as well as the influx of the workforce population on any given day of the workweek.

4.5 TOPOGRAPHY AND SURFACE WATER DRAINAGE

The general site topography is sloping from the east to west toward 12th Avenue and subsequently to the Hudson River. The elevation near the intersection of 42nd Street and 11th Avenue is approximately 17 feet above mean sea level (amsl) and the elevation near the intersection of 42nd Street and 12th Avenue is approximately 12 feet amsl.

Based upon observations made during the site reconnaissance visit, the apparent surface water drainage is west toward 12th Avenue and subsequently to the Hudson River. Storm sewers are present along 12th Avenue and 11th Avenue to collect surface water runoff from the adjacent side streets.

4.6 REGIONAL GEOLOGY

The bedrock underlying the project site is the Manhattan Formation, composed of gray to black mica schist that has been intensely folded and deformed by the two major episodes of mountain building during the Paleozoic Era, more than 200 million years ago. The depth of the bedrock surface in the project area varies from more than 150 feet below ground surface (bgs) in the Chelsea section approximately 2.1 miles to the southwest to near the surface in the Clinton area of Manhattan approximately 1.1 miles to the north (AKRF, 1994). Depths to bedrock in the site vicinity have been reported from 28 to 53 feet.

Bedrock is generally overlain by Pleistocene glacial deposits. During the past 35,000 years of the Pleistocene Epoch (the Ice Age), bedrock has been abraded and eroded by four episodes of glaciation. During the Wisconsonian Stage (the last of the four stages), large volumes of sand, gravel, and rock were deposited along the margins of the Hudson River Valley (AKRF, 1994).

4.7 SITE GEOLOGY

Boring logs from the Route 9a Reconstruction Project (AKRF, 1998) and a proprietary investigation conducted by Langan Engineering and Environmental Services, Inc in 2000 (Langan, 2002) provide information on the subsurface conditions at the former West 42nd Street MGP. The site and surrounding properties are underlain by fill and unconsolidated soils. Saturated soils were encountered at depths ranging from 5.5 to 19 feet bgs. Boring logs for the West 45th Street property three blocks north indicated the fill material beneath the site consists of gravel, brick, slag, concrete, and coal ash. Similar materials would be expected in the vicinity of the West 42nd Street site. Fill thinknesses ranged from approximately 15 to 20 feet on Block 1089. Organic material (4 to 10 feet thick) and sand and sand and gravel (2 to 15 feet thick) were encountered below the fill in borings. Bedrock was reported from 28 to 53 feet (Langan, 2002).

4.8 HYDROLOGY/HYDROGEOLOGY

Manhattan is an island of approximately 22 square miles and is surrounded by brackish or salty tidal water. The Hudson River is located less than 0.25 miles west of the site, and the East River is located less than two miles east of the site. The Hudson River is classified as an "I" surface water body adjacent to the West 42nd Street site (NYSDEC, 2001). Class I waters fall within the Interstate Sanitation District. Class I waters are suitable for secondary contact recreation and any other use except primary contact recreation and shellfishing for market purposes.

The area is characterized by a relatively mild climate with an average precipitation of approximately 45 inches per year. The primary source of groundwater is precipitation; however, recharge precipitation in Manhattan is probably much less than 50 percent of total recharge because the majority of surface area is paved. Secondary sources of groundwater recharge are leakage from sewer and water lines, and infiltration of surface water. Manhattan's drinking water is obtained from reservoirs located greater than 25 miles north of the city. No drinking water supply wells were identified in the vicinity of the site (EDR, 2002 and NYSDOH, 1982). The EDR report did identify a public water system location within 0.25 miles. However, this supply is actually located upstate in Liberty, New York. The supply owner apparently resides in the vicinity of the site. The usage of local groundwater is not likely since the public water

supply is readily available. However, the fresh groundwater would be compared to Class GA groundwater standards.

Prior to significant construction and development, Manhattan was drained by approximately 12 shallow creeks, which emptied into the Hudson, Harlem, and East Rivers. Most of these creeks are now filled in and covered by buildings and streets, but the location of the old channels may have some influence on the occurrence and movement of shallow groundwater in the region. Depths to groundwater at the former MGP were reported from 5.5 to 19 feet bgs based on boring log information (personal communication Langan, 2002). Groundwater is expected to flow in a westerly direction toward the Hudson River. Groundwater elevation contour maps were not available for the site.

SECTION 5

PAST OWNERSHIP

5.1 INTRODUCTION

This section describes the past ownership of the site. Ownership history is divided into three parts; pre-MGP, the MGP period, and post-MGP. In addition to the title search results that are presented in Appendix D, Sanborn Insurance Maps from 1890 to 1996 and other historical maps and atlases were used to develop the chain of ownership and evolution of site operations.

The former MGP site occupied two modern Tax Lots on Block 1089, plus the waterfront area immediately west of Block 1089, now part of larger Block 1107, and the street between Block 1089 and the waterfront (see Section 2.1).

5.2 PRE-MGP OWNERSHIP AND USE

Most of the West 42nd Street MGP site was originally under the Hudson River. Historic maps indicate that Block 1089 was under water (except for a small area at its eastern end) through the 1830s and 1840s. The 1836 Colton map (Figure 4) shows that the block had not yet been reclaimed from the Hudson River and was still under a portion of the river labeled Norton's Cove. The map also depicts an unnamed drainage emptying into the cove at the eastern side of what would become Block 1089. The 1865 Viele map (Figure 5), which shows the original topography and hydrology of Manhattan Island, confirms that the block was mostly under water and the outlet of the drainage.

By the 1850s, Block 1089 had been filled in, and was now solid ground adjacent to the river. However, there appears to have been no development on the block through the 1850s, as evidenced by the 1852 Dripps map (Figure 6), which shows no structures on the block, and tax assessment rolls, which indicate that in 1855 there were still no buildings on the block (Assessed Valuation of Real Estate 1855). This may be because during these years the property title was being contested in a chancery court case. In 1854, the matter finally was resolved, and in that year Charles Appleby purchased all of Block 1089 and the adjacent waterfront from the City of New York. By that time, Block 1089 had been filled in as far as the eastern line of what would become 12th Avenue, but Block 1107 was still under water.

5.3 MGP HISTORY

Charles Appleby sold all of Block 1089 and the portion of Block 1107 immediately west of Block 1089 to the Metropolitan Gas Light Company in 1860. The Metropolitan Gas Light Company was a new entity that had struggled throughout much of the late 1850s to secure a franchise allowing it to compete with the existing gas companies in Manhattan: the New York Gas Light Company (which served the area south of Canal Street), the Manhattan Gas Light Company (providing gas from Canal Street to 79th Street), and the Harlem Gas Light Company (covering the area north of 79th Street). Since the existing gas companies did not want to share their markets with a new company, they waged a number of legal battles to thwart the upstart

group. The result was that the Metropolitan obtained and then lost its charter several times, as the state legislature in Albany and the local government in New York City alternately approved and rejected the charter in a seemingly see-saw fashion. The final victory for the Metropolitan came in 1860, when the last of the state court's decisions was reversed and their charter finally was granted (Collins, 1934).

Construction of the Metropolitan's West 42nd Street MGP began in late 1860 and continued into 1861. By March 1861, the MGP was well underway and a contract had been made to excavate foundations for gasholders on site. It was expected that the plant would be operational by the end of 1861. However, the onset of the Civil War later that spring and the company's expensive startup costs affected the construction schedule's pace, so that a year later, in April 1862, work still had not been completed. Fortunately, finances improved for the Metropolitan during the ensuing months, and by the end of summer, brickwork for the four gas holders had been nearly completed, plans were underway to enlarge the retort house from 40 benches to 60 benches, and contracts were being made to obtain coal, and construct coal sheds and a pier. The company estimated gas production could begin in four or five months (Collins, 1934).

Once again, though, outside forces conspired to prevent gas manufacture from occurring at the West 42nd Street MGP as quickly as the Metropolitan had hoped. During the summer of 1862, the Manhattan Gas Light Company, which until then had controlled the territory between Canal and 79th streets, began talks with the Metropolitan to reach a deal by which both companies could operate simultaneously without competing for the same business. In August 1862, as meetings between the two companies progressed, the Metropolitan suspended laying its gas mains in the streets, and in September called off its order for additional pipe stock. Over the winter, with construction stalled, the two companies negotiated an agreement. By 1863, they had reached a compromise: the Manhattan would continue to serve the district from Grand and Canal streets to 34th Street, and the Metropolitan would gain rights to the area between 34th and 79th streets. After complicated financial negotiations were resolved, both companies began to move forward again. At the West 42nd Street MGP, the gasholders were completed by May 1863, and gas production began the following month. On June 25, 1863, the works began to supply coal gas to its first customers (Collins 1934).

The 1867 Dripps map (Figure 7) illustrates the original footprint of the West 42nd Street MGP. Comparison with the 1871 Perris and Browne map (Figures 8a and 8b) indicates the initial setup included a pier jutting into the Hudson River (within Block 1107) and a small structure within the future line of 12th Avenue. From the pier, coal would be unloaded from barges or smaller lighters and wheeled down a platform to a pair of coal houses on the western end of Block 1089. From the coal houses the material would be transported to a large retort house along the West 42nd Street frontage. The manufactured gas passed through a series of condensers at the eastern end of the retort house. The gas then was piped to the purifying house, a building located east of the retort house, and oriented north-south. Once the gas was purified, it was piped into four gasholders at the far eastern end of the block, where it awaited distribution to consumers. Each gasholder had a capacity of 250,000 cubic feet, for a combined capacity of 1,000,000 cubic feet (PSC 1908-1918). The 1871 Perris and Browne map (Figures 8a and 8b) indicates that by this year, the MGP had grown to include a second retort and condensing house along the West 41st Street frontage, and several coke vaults nearby.

During the early years of the West 42nd Street MGP's operation, local residents frequently complained of unpleasant odors emanating from the plant, which were attributed to the purifying house, labeled on the 1871 Perris and Browne map as the "Lime Houses." The Metropolitan used a process known as the "dry-lime" method of purifying gas. At a hearing called by the Board of Health in 1869, assistant engineer Samuel Perham explained the process in detail:

> The Company used the best of coals – Bogshead, canel coal, Armiston, Leutheon, St. Helen, Inchal, Lesmahago. The Company used what is called the "dry lime" process of purification of gas. Oyster shell lime is placed in large boxes and the gas passed through it; the sulfur and other impurities are to a great extent absorbed by the lime. The lime is used in this way until by a certain test it is found to have become so saturated with the impurities or "fouled," as it is termed in the MGP, that it will no longer answer the purpose, when it is taken out and a fresh supply of lime is substituted. The lime, which has thus used is thrown out into the yard from the purifiers, the odors from the substances it has absorbed passing off into the atmosphere. Finally this fouled lime is sold as a fertilizer. In the Summer these boxes of lime are changed once in two or three days; in the Winter, when the consumption of gas is much greater, the change is made about once in every twenty-four hours (*New York Times* February 14, 1869).

Other gas companies in the city had switched to less foul-smelling purifying processes, most notably the "Laming Process," named for a French inventor who had patented an iron oxide purification method in 1849, which was already widely used in Europe. The Metropolitan refused to change its purification process, citing the healthfulness of the odors with regard to certain diseases like whooping cough; patients who suffered from this affliction often visited the purification house for medical purposes, claimed the company (*New York Times* February 14, 1869). However, on December 23, 1871, an unexplained phenomenon caused the West 42nd Street MGP's purification house to explode, destroying the building and disrupting the supply of gas to much of the city for three days. A newspaper report said there was 12,000 cubic feet of gas in the gasholders at the time of the explosion (*New York Times* December 24, 1871). When the Metropolitan rebuilt its purifying house, it finally adopted the Laming process (Collins 1934).

The West 42nd Street MGP suffered a second explosion on May 28, 1877. On this day, an oil lighter was docked at the company pier, and its crew was pumping naphtha from barrels on the boat into underground storage tanks at the edge of the pier when a presumed spark from the Captain's illegally lit pipe ignited the fuel, burning the lighter to the water line and killing three men. A newspaper article explained that a small steam pump, using steam supplied by a boiler on the adjacent pier, was used to pump the naphtha from the lighter to the underground tanks (*New York Times* May 29, 1877; June 17, 1877).

The 1879 Taylor bird's eye drawing (Figure 9) and the 1880 Perris and Browne map (Figure 10) illustrate the final configuration of the West 42nd Street MGP. The new purifying house is shown in roughly the same location as the previously destroyed structure, although it is no longer labeled "Lime Houses" on the map, confirming the company's switch to the Laming process. The retorts on the West 41st Street side of the block have been enlarged as well. The

naphtha tanks at the edge of the pier are shown clearly on the map, where they simply are designated "tanks."

The 1890 Sanborn map (Figure 11) provides a few additional details about the West 42nd Street MGP, including the location of the underground naphtha tanks, now shown at the edge of the pier. All of the structures and property are attributed to the Consolidated Gas Company, the organization that was formed in 1884 and superceded the Metropolitan Gas Light Company, as well as five other local gas companies. The 1899 and 1911 Sanborn maps (Figures 12 and 13) reveal little change to the MGP layout during these years.

The West 42nd Street MGP operated through the early 1920s. In 1923, the Consolidated Gas Company sold all of Block 1089 to the New York Edison Company, another energy company that was later bought by Consolidated Gas. The PSC report for 1925 indicates the MGP was no longer in operation, suggesting the change in ownership corresponded with the end of the MGP's use/life.

5.4 POST-MGP OWNERSHIP AND USE

After demolition of the West 42nd Street MGP in the 1920s, Block 1089 supported a series of railroad-related structures through the mid-twentieth century. In 1927, the New York Edison Company sold all of Block 1089 to the New York State Realty and Terminal Company, who in turn sold the block to the New York Central Railroad Company in 1932. The 1930 Sanborn map (Figure 14a) illustrates that the block was now used as a railroad yard, owned by the New York Central Railroad [note: Sanborn maps frequently were updated between editions by "pasting over" portions of existing maps. Thus, the 1930 map likely represents the status of the area several years after the original publication date]. A gasoline station (including buried tanks) is depicted at the northeast corner of the block, at the intersection of West 42nd Street and 11th Avenue. A small one-story office is shown near the southeast corner of the block, and a one-story store and lunch building appears at the northwest corner of the block. Much of the block's remaining area is covered by railroad tracks. To the west of Block 1089, the 1930 Sanborn map indicates the former gas company pier was still extant, although the boiler house once situated on the pier had been demolished (Figure 14b). The projected location of the elevated highway that would become Route 9A (along the line of 12th Avenue) is shown on this edition as well.

The 1950 Sanborn map (Figure 15a) reveals that in 1940, a series of buildings attributed to the Railway Express Agency had been erected on Block 1089, replacing the gasoline station, other assorted buildings, and the railroad yard. A long, one-story "assorting station" was constructed along the center of the block, oriented east-west, with a two-story office attached to its eastern end, facing 11th Avenue. A one-story private garage was built along the 12th Avenue frontage, and eight gas tanks were located to the north of the garage. All of the buildings on the block are labeled as having concrete floors, concrete slab roofs over exposed steel, and brick walls. By this time, the former Consolidated Gas Company pier west of Block 1089 had been removed completely and the elevated highway along 12th Avenue, now called Miller Highway, had been constructed (Figure 15b).

The 1968 Sanborn map (Figure 16a) shows little change from the previous edition, but the 1980 Sanborn map (Figure 17a) indicates that all the structures on Block 1089 had now been

removed (the block was used for bus parking), and the 1984 through 1996 Sanborn maps (Figures 18a and b through 21a and b) show adjacent Miller Highway had been razed. Today, the 12th Avenue area supports multiple-lane, at-grade roadways separated by a wide median strip. The portion of Block 1107 formerly owned by the gas company is again under the waters of the Hudson River, after removal of the pier (Figures 20b and 21b).

Block 1089 had been owned by a series of railroad-affiliated entities through 1967. After this year, the block passed to a series of real estate companies. Both Tax Lots on the block currently are owned by River Place LLC, the developer that constructed the current building on Tax Lot 1, a high-rise apartment building (with basement) erected in 1999-2000, and that owns the at-grade, pay-parking lot on Tax Lot 3.

5.5 SUMMARY

Table 5.1 presents a summary of the significant property transfers on Block 1089 which occurred during the formation of the West 42nd Street MGP, during the operations of the MGP, and the dissolution of the MGP in the early 1920s.

Table 5.1 Block 1089 – Property Transfers

Date of Transaction	Tax Lots	Seller/Grantee	Purchaser/ Grantee	Comments
1854	Entire Block	City of New York	Charles Appleby	Settlement of chancery case
1860	Entire Block	Charles Appleby	Metropolitan Gas Light Co.	Also waterfront property west of Block 1089
1885	Entire Block	Metropolitan Gas Light Co.	Consolidated Gas Co.	Consolidated Gas Co. organized in 1884.
1924	Entire Block	Consolidated Gas Co.	New York Edison Co.	MGP shut down.
1927	Entire Block	New York Edison Co.	New York State Realty and Terminal Co.	
1932	Entire Block	New York State Realty and Terminal Co.	New York Central Railroad Co.	
1962	Entire Block	New York Central Railroad Co.	Cola Realty Corp.	
1962	Entire Block	Cola Realty Corp.	Railway Express Agency, Inc.	

Table 5.1 Block 1089 – Property Transfers (continued)

Date of Transaction	Tax Lots	Seller/Grantee	Purchaser/ Grantee	Comments
1967	Entire Block	Railway Express Agency, Inc.	Joseph D. Keenan and Roger Deed, Trustees	
1969	Entire Block	Joseph D. Keenan and Roger Deed, Trustees	Chrysler Realty Corp.	
1981	Entire Block	ABKO Properties, Inc. f/k/a Chrysler Realty Corp.	Ivory Forty-Two Realty Corp.	
1984	Entire Block	Ivory Forty-Two Realty Corp.	Silverstein 42nd Associates	
1996	Tax Lot 1	Silverstein 42nd Associates	River Place I, LLC	High-rise apartment building on property today.
1999	Tax Lot 3	Silverstein 42nd Associates	River Place II, LLC	Asphalt and concrete parking lot on property today.

SECTION 6

PAST SITE OPERATIONS

6.1 INTRODUCTION

This section describes the operations conducted at the former West 42nd Street MGP in addition to significant operations conducted before and after the MGP. This section is divided into three parts; pre-MGP operations, MGP operations, and Post MGP operations. Information used to develop the operational history was obtained from:

- Consolidated Edison internal records and files (including remediation files and reports, real estate records, in-plant property records, and historical photographs);
- Consolidated Edison personnel interviews;
- Historical maps, including Sanborn Fire Insurance Maps, Dripps Maps, Perris and Browne Insurance Maps, Bromley Atlases, and Taylor City Map;
- Books and articles detailing manufactured gas company histories and operating procedures;
- Manufactured gas industry publications (including the *American Gas Light Journal*, in later years called the *American Gas Journal*);
- Brown's Directory of American Gas Companies;
- PSC reports;
- Nineteenth and twentieth century newspaper and journal articles (such as the *New York Times*); and
- Environmental studies undertaken within and adjacent to the properties.

6.2 PRE-MGP OPERATIONS

6.2.1 Summary of Pre-MGP Operations

Prior to the existence of the West 42nd Street MGP, Block 1089 and the waterfront property west of the block were under the waters of the Hudson River through the 1830s and 1840s, filled in by the 1850s, but undeveloped through 1860, when the gas company acquired the land. Thus, the only known operation on the block involved landfilling associated with shoreline extension prior to the MGP's construction. Figures 4 through 6 illustrate the changing position of the shoreline during this period.

6.2.2 Pre-MGP Wastes and Byproducts

Since the West 42nd Street MGP blocks were undeveloped through 1860, it is unlikely that any wastes or byproducts exist from this period unless contaminated fill was used to reclaim this area from the Hudson River.

6.3 MGP OPERATIONS

6.3.1 Summary of Site Gas Production

The processes and practices described in the following sections are inferred from historic maps, Con Edison records, Collins (1934), PSC Records, Brown's Directories, Eng (1985), Hornby (1911), Alrich (1934), Downing (1934), Stewart (1958), and EEI (1984).

The West 42nd Street MGP manufactured retort or coal gas from 1863 through the early 1920s (Collins 1934, PSC 1907-1918, 1925). Anthracite coal for coal gas production was delivered by barges or lighters to the company's Hudson River pier, and then by cart to the plant itself. The coal was stored in two "coal houses" at the western end of the block, then transported to one of two retort houses (the first was along West 42nd Street, and later a second was built and enlarged along West 41st Street). At the eastern ends of the retort house were the condensers. After the condensers, the gas went through the purifying house, located east of the retort houses. The initial purifying house used the dry-lime process, whereas the second purifying house (built to replace the first one, after an explosion) used the Laming process. From the purifying house the gas went to the holders at the eastern end of the block for storage before being distributed to customers. During the period when the MGP operated on the site, four gasholders were available at the eastern end of the block, with a combined capacity of 1,000,000 cubic feet. The following text summarizes the coal gas manufacturing process, from delivery of the coal to the retorts, to the piping of gas to the holders.

Coal gas production quantities were listed in PSC reports beginning in 1907 (although not published for 1908-1910 and after 1911). A summary of available information on gas production for the West 42nd Street MGP, prior to its shutdown in the 1920s, is presented in Table 6.1. At this time, there were two coal gas plants operated by the Consolidated Gas Company in New York City. The West 42nd Street MGP had the capacity to produce about 47 percent of all coal gas manufactured by the company (PSC 1908). The West 42nd Street MGP contained three retort house configurations, described by PSC reports as 66 benches with 6 retorts each, 14 benches also with 6 retorts each, and 20 benches with 7 retorts each, for a grand total of 620 retorts on site (PSC 1908-1918).

TABLE 6.1

GAS PRODUCTION AT THE WEST 42nd STREET MGP (PSC REPORTS)

Year	Total Yearly Production	Daily Plant Capacity	Daily Average Production	Total Holder Capacity
1907	200,151,000 cu. ft. (6 months only)	4,500,000 cu. ft.	1,088,000 cu. ft.	1,000,000 cu. ft.
1911	415,582,000 cu. ft.	4,500,000 cu. ft.	1,139,000cu. ft.	1,000,000 cu. ft.

6.3.2 Process Configurations

As described above, coal gas was produced at the West 42nd Street site between 1863 and the early 1920s. Raw materials such as coal and naphtha were delivered by barge or lighter and

unloaded at the company's Hudson River pier, and may also have been delivered by rail, as tracks ran along 11th Avenue on the eastern side of the MGP. By-products may have been shipped from the plant by barge or rail also.

Typically, retorts were constructed of interlocking silica brickwork with the oven tapered from the top to bottom. The sides of the oven were heated with vertical flues containing "producer" or "oven gas." A boiler sometimes provided steam to the bottom of the retort during the latter stages of carbonization. The steam displaced residual coal gas and reacted with the hot coke to produce water gas to increase gas yield. The spent coal or coke was discharged through the bottom of the oven and immediately quenched with water to prevent combustion. The "oven" gas used to heat the retorts was generated in a producer oven. The oven produced gases by blowing air and a small amount of steam through the fuel bed. The fuel bed used to generate the "oven gas" was often coke (a by-product of the coal gas retort process). Due to the low heating value of the "oven gas," it was normally generated near the retorts (EEI, 1984).

The retort gas was passed through a series of processes to recover by-products and impurities. Once the raw gas was driven from the coal, it was drawn from the retort and through a tar condenser by exhaust fans. The tar condenser cooled the gas by indirect contact cooling water to remove heavy tars and water vapor. The gas was then driven through a washer or tar extractor, and a scrubber. The washer typically removed light oil from the gas stream by direct contact with ammonia liquor. The scrubber, located after the washer, removed ammonia from the gas stream by direct contact with water. The ammonia liquor was recycled for use in the washer or discharged to a tar well.

The final stage in the removal of impurities from the gas stream, purification, was the removal of carbon dioxide and sulfur. Sulfur was removed from the gas stream by the formation of calcium sulfate as the coal gas was passed through lime purifiers. After the dry-lime process ceased at the West 42nd Street MGP, the Laming method – an oxide purification process – was used. In the oxide purification process, gas was passed through iron oxide impregnated wood chips in purifier boxes. Hydrogen sulfide in the gas stream reacted with the iron oxide forming ferric sulfide. The iron oxide purifier material, when exhausted was regenerated by exposing it to air, producing iron oxide and sulfur. Eventually, the purifier material (oxide chips) was fouled by the accumulation of sulfur, tar, and ferrocyanides. The iron oxide purifier material was replaced with fresh purifier material. The purifier material usually consisted of clean gray iron borings free from steel, brass, and other metals. Small amounts of crystal rock salt were added. Rosin and gum free wood shavings were also added. Common ratios used in the purifiers were 500 pounds of iron oxide, 20 pounds of crystal rock salt and 10 bushels of wood shavings. The mixture was wet with water.

Gas was finally passed through a meter and into the distribution holders. At the West 42nd Street MGP, the four brick holders each had a capacity of 250,000 cubic feet, for a total of 1,000,000 cubic feet. Occasionally, the base of a holder required cleaning. Typically, a basket-shovel was employed to remove some of the mud and muck. The remaining mud and tar was pumped out and replaced by clean water (Nisbet-Latta 1907).

6.3.3 By-Products and Waste Disposal

A complete record of by-product quantities, reuse, sale, and disposal is not available. Although PSC reports list individual plant tar production, tar sales, coke production, and coke sales, these figures are not available until after the West 42nd Street MGP closed. During the period that the West 42nd Street MGP operated, PSC reports summarize byproduct output and sales for entire corporations only. For the Consolidated Gas Company, the PSC report indicates coal gas plant raw materials were gas coals, enriching coals, boiler fuel, gas oil, lime, and iron oxide. All of the coal gas residuals – coke, tar, ammoniacal liquor, and other carbon residuals – were offered for sale. The following tables, detailing coal gas materials (Table 6.2) and coal gas residuals (Table 6.3) are reproduced from the PSC report of 1907. At this time, the West 42nd Street MGP was one of two coal gas plants operated by the Consolidated Gas Company, and provided approximately 47 percent of the company's total coal gas capacity. The tables below summarize the company's total raw materials and residuals for 1906-1907.

TABLE 6.2
COAL GAS MATERIALS FOR YEAR (PSC 1908)

	On hand June 30, 1906	Received during year	Carbonized	Used elsewhere	On hand June 30, 1907	Average Cost
Gas coals (tons)	60,545.62	125,782	130,037.11	196.34	56,094.17	$3.10
Enriching coals (tons)	220.15				220.15	
Boiler fuel (tons)		1,448.25		1,137.33	310.92	
Gas oil (gals.)	123,660	3,881,026		3,878,330	126,356	$0.0457
Lime (bu.)	3,777	29,100		27,200	5,677	$0.0519
Iron oxide (bu.)	9,000	8,700		17,700		$0.01745

TABLE 6.3
COAL GAS RESIDUALS FOR YEAR (PSC 1908)

	On hand June 30, 1906	Made during year	Used	Sold	On hand June 30, 1907	Average Selling Price
Coke, net tons	2,818	100,823	49,920	53,517	204	$3.00
Tar (coal gas), gals.	32,299	1,843,249	1,350	1,826,809	47,389	
Ammoniacal Liquor (gals.)	69,530	5,676,763		5,696,257	50,036	
Other residuals (carbon), lbs.	66,265	122,090		125,280	63,075	$0.0085

Written information regarding waste or excess by-product disposal is not available. It is not known if purifier waste (usually iron oxide impregnated wood chips and/or spent lime) was stockpiled prior to or after use on-site. The disposal history of purifier waste is unknown.

6.4 POST-MGP OPERATIONS

Section 5.4 describes the history of the West 42nd Street MGP site footprint after the property was sold to other owners. The following is a summary of the post-MGP operations.

After demolition of the MGP, Block 1089 supported a railroad yard (tracks) with several small associated buildings, and a gasoline station during the 1930s. In 1940, the railroad yard complex and gasoline station were replaced by an "assorting station," office, and private garage belonging to the Railway Express Agency. The Railway Express Agency garage had associated USTs. These structures stood on the block for several decades. By the 1980s, the block was vacant and used for parking. In 1999-2000, a high-rise luxury apartment building was constructed on Tax Lot 1, which remains today. Tax Lot 3 is still used as a parking lot. Tax Lot 1 overlies the area of the MGP formerly containing the coal houses, the retort houses and condensers, the coke vaults, and most of the purifying house. The high-rise apartment building footprint overlies the former locations of the coal houses, parts of the retort houses, and parts of the coke vaults. Tax Lot 3 overlies the former location of the gasholders, and the eastern edge of the purifying house. It is likely that portions of the MGP may still exist beneath the current ground surface in areas where deep excavation or construction has not occurred, specifically in the center and eastern end of the block.

The portion of Block 1107 formerly owned by the Consolidated Gas Company once contained the company pier and several storage tanks. This pier has been completely removed, and the area that once contained the storage tanks is now underneath Marginal Street.

6.5 SUMMARY OF OPERATIONAL HISTORY

Tables 6.4 and 6.5 present a summary of the progression of the significant operations conducted on each of the tax lots that comprised the former West 42nd Street MGP. Details of the operations and historical progression have been presented in Sections 6.1 through 6.4.

Table 6.4 Block 1089 Tax Lot 1

Year	Usage	Owner	Comments
Pre-MGP	Under water until 1850s, undeveloped through 1860.	Various	
1861-1920s	MGP	Metropolitan Gas Light Co. then Consolidated Gas Co.	Lot contained coalhouses, retort houses and condensers, coke vaults, and portion of purifying houses.
1930s	Railroad yard (tracks) and buildings.	New York Central Railroad Co.	
1940-ca. 1970s	Assorting station, private garage.	Railway Express Agency	
Ca. 1970s-1999	Parking lot	Various	
1999-present	High-rise apartment building with basement, landscaped area.	River Place LLC	

Table 6.5 Block 1089 Tax Lot 3

Year	Usage	Owner	Comments
Pre-MGP	Under water until 1850s, undeveloped through 1860.	Various	
1861-1920s	MGP	Metropolitan Gas Light Co. then Consolidated Gas Co.	Lot contained portion of purifying houses and four gas holders
1930s	Railroad yard (tracks) and buildings, gasoline station.	New York Central Railroad Co.	
1940-ca. 1970s	Assorting station, office	Railway Express Agency	
Ca. 1970s-1999	Parking lot	Various	
1999-present	Parking lot	River Place LLC	

SECTION 7

ENVIRONMENTAL/REGULATORY AGENCIES AND DATABASES

7.1 EDR PROFILE SEARCH

A search of site environmental databases was conducted by EDR on March 18, 2002. The search included New York State and Federal databases. The complete listing of sites is presented in the EDR report in Appendix B. All sites identified in the EDR search report are at equal or higher elevation than the 42nd Street site.

Mappable Sites:

Mappable sites in the vicinity of the West 42nd Street site were identified on the area map provided in the EDR profile search. A summary of environmental database findings is presented in Table 7.1. A list of acronyms and definitions are included in the database search report in Appendix B.

The database search identified 12 large quantity and 10 small quantity sites where hazardous wastes are generated, transported, stored, treated, and/or disposed within 0.25 miles of the site. Fifty-five leaking tanks and 24 underground storage tanks were identified within 0.5 and 0.25 miles of the site respectively. One chemical bulk storage UST and two above ground chemical bulk storage tanks were identified within 0.25 miles of the site. The leaking tanks identified within 0.25 miles of the site have the potential to impact the site depending on the ages of the releases, types of releases, quantities of releases, and distances from the site. Current releases and associated impacts from the other sites listed have not been identified. Releases and associated impacts from these other sites described above would have the potential to impact the site if a release occurred.

It is also noteworthy that the EDR Proprietary Historical Databases revealed three coal gas sites within 1 mile of the site. The first location is the 42nd Street site, which is the subject of this report. The site consisted of gasholders and purifiers. The second was owned by Consolidated Gas Works and is located on the western side of 11th Avenue between 44th Street and 46th Street. The site extends to 12th Avenue. The third site was owned by the Equitable Gas Company and is located between 59th Street and 58th Street and between Amsterdam Avenue and West End Avenue. The site consisted of gasholders.

TABLE 7.1 SUMMARY OF ENVIRONMENTAL DATABASE FINDINGS (MAPPABLE SITES)

Jurisdiction	Program Database	Radius (Miles)	Number of Sites
Federal	NPL – National Priority List	1	0
	Proposed NPL – Proposed NPL Site	1	0
	CERCLIS – Comprehensive Environmental Response, Compensation, and Liability Information System	0.5	0
	CERC-NFRAP – CERCLIS No Further Action Planned	0.25	0
	CORRACTS – Corrective Action Report	1	0
	RCRIS-TSD – Resource Conservation and Recovery Information System	0.5	0
	RCRIS (Lg. Gen.) – RCRIS Large Quantity Generator	0.25	12
	RCRIS (Small Gen.) – RCRIS Small Quantity Generator	0.25	10
Federal Supplemental	CONSENT – Superfund (CERCLA) Consent Decrees	1	0
	ROD – Record of Decision	1	0
	Delisted NPL – NPL Deletions	1	0
	MINES – Mines Master Index File	0.25	0
State	SHWS – Inactive State Haz. Waste Disposal Sites in NYS-	1	0
	SWF/LF – Facility Register	0.5	0
	LTANKS – Leaking Storage Tank Incident Report Filed	0.5	55
	UST – Underground Storage Tank Database	0.25	24
	CBS UST – Underground Chemical Bulk Storage Tank	0.25	1
	MOSF AST – Major Oil Storage Facilities Database	0.5	0
	VCP – Voluntary Cleanup Agreement	0.5	0
State/Local Supplemental	HSWDS – Hazardous Substance Waste Disposal Site Inventory	0.5	0
	CBS AST – Above-ground Chemical Bulk Storage Tank	0.25	2
	MOSF AST – Major Oil Storage Facilities Database	0.5	0
EDR Proprietary	Coal Gas – Manufactured Gas (Coal Gas) Site	1	3

Unmappable Sites (Zip code ID)

Unmappable sites were identified on New York and Federal databases. The sites were not mappable because the addresses provided to EDR by regulatory agencies were incomplete. The

unmappable sites were identified by zip code, city name or county. Details on the unmappable sites are provided in the EDR Search Report in Appendix B and summarized in Table 7.2.

Table 7.2 Summary of Environmental Database Findings (Unmappable Sites)

Jurisdiction	Program Database	Radius (Miles)	Number of Sites
Federal	RCRIS-SQG, FINDS – Facility Index System		1
	FINDS, RCRIS-LQG		0
State	SHWS		4
	LTANKS		1
	NY Spills, LTANKS		1
	CBS AST		1
	UST		1

7.2 ADDITIONAL RECORDS SOURCES

Files at Con Edison and the Department of City Planning were searched for records of additional sites and results of sampling. A freedom of information request was filed with the NYSDEC that requested information on sites within the investigation area.

Langan Engineering and Environmental Services, Inc. conducted a site investigation at Lot 3 in 2000 for the current landowners, (Langan, 2002). The results of this investigation are proprietary. However, general information about the site was provided, (Langan, 2002). Twenty-six borings were drilled. The overburden materials consisted of up to 15 to 20 feet of fill, over 4 to 10 feet of native organic material and up to 2 to 15 feet of sand or sand and gravel. Bedrock was not encountered in the borings that were drilled as deep as 26 feet. The investigation encountered "coal tar" type materials and SVOCs in soil samples above NYSDEC TAGM values. BTEX and metals were detected in groundwater samples, (Langan, 2002).

An earlier investigation was conducted in 1995 on Lot 1 prior to the construction of the high-rise apartments. The depth to bedrock ranged from 28 to 53 feet. The upper bedrock consisted of decomposed mica schist and "hardpan". Areas of Lot 1 were excavated to approximately 8 feet prior to the construction of the apartments (Langan, 2002).

The May 1994 Final Impact Statement for the Route 9A Reconstruction Project presented summary results for soil vapor sampling, soil borings, and soil and groundwater sampling conducted between West 42nd and West 44th streets (AKRF, 1994). The soil gas survey did not detect any non-methane VOCs. PAHs were detected in soil samples collected throughout the area from 41st Street to 46th Street at concentrations ranging from 50 mg/kg to 166 mg/kg. BTEX (13 mg/kg) was detected at 40 feet in one soil sample (W-39) collected between 41st and 42nd Street. A sample collected at 42nd Street (H-40) did not contain VOCs so the source was

assumed to be south of 42nd Street. Metals were detected in all the soil samples from the area but at concentrations below RCRA EP Toxicity limits. A groundwater sample (W-39) collected during Phase 1A between 41st Street and 42nd Street contained BTEX, PAHs, and metals. The metals concentrations were above Class GA groundwater standards. However, this sample was turbid. No site-related organic compounds were detected in the second groundwater sample collected during Phase 1b. Only iron and manganese exceeded Class GA standards in filtered water samples.

SECTION 8

POTENTIAL RECEPTORS

8.1 SENSITIVE AREAS

Based upon the site reconnaissance conducted on April 10, 2002 and data reviews, sensitive areas and potential receptors were identified. Table 8.1 presents potential sensitive areas and possible receptors within 0.25 miles and Table 8.2 identifies possible pathways leading to impact.

TABLE 8.1 POTENTIAL SENSITIVE RECEPTORS AND AREAS

Sensitive Receptors (Human)	Distance From Site (miles)	Comments
Schools	<0.25	PS 51 Elias Howe School at West 45th St. near Amsterdam Ave.
Day Care Facilities	NA	None identified.
Parks	>0.25	Playground between 9th and 10th Ave. between 45th and 46th Street.
Libraries or Community Organizations	NA	None Identified
Tourist Attractions	<0.25	World Yacht boat tours west of site and River Place shopping center over site.
Sensitive Receptors/Habitats		
Water Bodies	<0.25	Hudson River
Wetlands	<0.25	Wetlands around piers in Hudson River.
Surrounding Land Use		
Residential Only	NA	
Mixed Residential and Commercial	<0.25	High rise housing and commercial usage. 340 people living in Census Tract 117 including site and 4,457 residents in Census Tract 129 bordering site to the north (Census, 2000).
Commercial/Industrial Only	NA	

Table 8.2 Potential Exposure Pathways

Pathway	Possible Exposure Yes/No	Comments
Soils		
Exposed Ground Surface	Yes	Approximately 10-percent of Tax Lot 1 is landscaped grounds for the apartment.
Subsurface	Yes	Excavators & site workers. Previous sampling indicated subsurface soils contained SVOCs and groundwater contained BTEX and metals at Lot 3. Soils were removed in localized areas to approximately 8 feet during construction on Lot 1.
Seeps/Vapors	Yes	Buildings have basements. Residues, if present, could seep into basements along with shallow groundwater, or as vapors.
Surface Water	**Miles**	**Comments**
Distance to Surface Water	<0.25 miles	Site runoff could reach the Hudson River via storm sewer discharges.
Distance to Surface Water Intakes	NA	No known intakes.
Distance to Wetlands	>0.5 miles <0.25 miles	The nearest Federal wetland is in Central Park 6,000 feet to the northeast. The EDR report also shows wetlands adjacent to the piers approximately 200 feet west of the site.
Contaminated Runoff Potential	No	Site is paved, occupied by buildings, or is vegetated. Contaminated runoff could occur during excavation if excavated soils are uncovered and runoff is not controlled.
Groundwater		
Groundwater Used for Drinking in Manhattan?	No	Area is in the NYC water supply area supplied by upstate reservoirs. Groundwater not used for drinking in Manhattan.
Drinking Water Wells	>12 miles	The nearest known drinking water wells are in the Jamaica-Queens Water Supply on Long Island. No potential impacts from the West 42nd Street site because of separation by the East River and groundwater divide. The public water system site identified in the EDR report is actually located upstate in Liberty, NY. The supply owner resides in the vicinity of the West 42nd Street site.
Depth to Aquifer Used for Drinking	NA	No drinking water aquifers used in site vicinity.

- Previous investigations were conducted at the former West 42nd Street MGP; a 1995 investigation on Lot 1, prior to the construction of the high-rise apartments, and a 2000 investigation in anticipation of redevelopment on Lot 3 (Langan, 2002). The 2000 investigation on Lot 3 found SVOCs above NYSDEC TAGMs in soil samples and BTEX and metals in groundwater (Langan, 2002). The May 1994 Final Impact Statement for the Route 9A Reconstruction Project reported BTEX, PAHs, and metals in one groundwater sample collected between 41st and 42nd Street and BTEX and PAHs were detected in soil samples collected between 41st Street and 46th Street (AKRF, 1994).
- The site is located in an area with mixed commercial and residential use. If impacts are present at the site, potential receptors would include workers, nearby residents, and tourists visiting the World Yacht tour operation and the River Place shopping area. In addition, a public school is approximately 0.25 miles northeast of the site. Most of the former site area is covered with pavement or buildings with the exception of landscaped areas on Lot 1 near the apartments. Exposure pathways for surface and subsurface soil are present. Workers conducting excavation or construction activities could encounter subsurface residues from past operations. There is no groundwater usage in the area being investigated.
- The Hudson River is within 200 feet of the former MGP and could be impacted if MGP residuals were migrating from the site or if past disposal practices lead to the disposal of MGP related materials in or near the Hudson River.

9.2 COMPLETENESS OF RESEARCH

Research undertaken as part of this report included review of in-house documents and photographs provided by Con Edison, as well as materials gathered at the Municipal Archives of the City of New York, the Municipal Reference and Research Center of the City of New York, the New York City Recorder of Deeds office, the New York City Department of Buildings, the New York Public Library, the Library of Congress, the New York State Department of Environmental Conservation, the Environmental Protection Agency, and various web sites that post historical maps and journal articles. EDR compiled the radius search data for the site.

The materials gathered to date provide a general synopsis of activities that occurred on the MGP site, both before its construction, during its operation, and after it was demolished and the property used for other purposes. The information compiled about the pre-MGP use and the post-MGP use is likely adequate for the purpose of this report. Information gaps still remain concerning specific operating procedures at the MGP itself, as well as byproduct production and disposal activities. Because the MGP operated during years when this information was not always published by the PSC, and since internal plant records do not survive for this MGP, it is unlikely these data will be recovered. However, second-hand accounts of the MGP and its operations may exist in newspaper or journal articles that have no indices and therefore are unlikely to be found without considerable additional time and effort.

SECTION 10

SUMMARY OF HISTORICAL RESEARCH FINDINGS

10.0 PRIORITIZATION SUMMARY AND CONCLUSIONS

The NYSDEC requested Con Edison perform historical research at former MGP related sites located within the greater New York City area. The historical research will support the prioritization of these former MGP and gas holder sites based on potential, actual, and perceived human health exposure risks, environmental impacts, sensitive receptors, current site usage, the surrounding community, potential for development, site control and ownership, and the size of the former MGP or gas holder operation. Table 10.1 presents a summary of factors that will be used in the prioritization of the sites.

Table 10.1 Prioritization Criteria and Factors

Prioritization Criteria	Prioritization Factors
Does Con Edison own and control access and site usage?	Con Edison does not currently own any of the former MGP parcels.
Relative size of the former MGP.	The former MGP site was approximately 5 acres and occupied modern Block 1089, the part of Block 1107 west of Block 1089, and the roadway area in-between which is currently under 12th Avenue.
Potential for development.	Tax Lot 1 was developed as a high-rise apartment with shopping and parking in the lower levels. There are apparently plans to develop Lot 3 based on the 2000 site investigation activities.
Current potential for direct exposure to impacted soils.	Exposure to impacted soils is possible. A portion of the site adjacent to the apartments is developed as a landscaped lawn area. No stressed vegetation or visually impacted soils were observed during the site reconnaissance. The potential exists for site workers to be exposed to subsurface soils while conducting excavations and other intrusive activities.
Potential for site actions to be triggered by other regulatory means.	The EDR radius search identified 12 RCRIS large quantity generators, 10 RCRIS small quantity generators, 55 leaking storage tank sites, 24 UST sites, 3 chemical bulk storage tanks, and 3 former coal gassification plants within 0.5 miles of the former MGP. Site investigations have been conducted for the current property owners (Langan, 2002). Results from these investigations could trigger regulatory actions.

Table 10.1 Prioritization Criteria and Factors (continued)

Prioritization Criteria	Prioritization Factors	
Presence and proximity of sensitive receptors.	Groundwater Use Aquifers	None
	Surface Water Bodies	The Hudson River is less than 0.25 miles west of the site.
	Groundwater Seepage Areas.	None
	Population	340 people in Census Tract 117 (includes site) and 4,457 people in Census Tract 129 (bordering tract to north). 1,537,195 people in Manhattan Borough.
	Playgrounds/Parks	The nearest playground and park are over 0.25 miles northeast of site and 0.5 miles north of site, respectively.
	Schools	The PS51 Elias Howe School is less than 0.25 miles northeast of the site.
	Residences	There are residences within 0.25 miles of the site (high-rise apartments on the former site).
	Gardens	No vegetable gardens. Lawn and landscaped areas are present on the site.
	Wetlands	The nearest Federal wetland is approximately 6,000 feet from the site in Central Park. The EDR report shows wetlands around the piers approximately 200 feet west of the site.
Physical Site Factors-	Topography	The site topography is gently sloping to the west. Drainage is expected to be radial to the nearest street.
	Soil Types and Permeability	The soils are fill with relatively high permeabilities. The site is covered limiting access and infiltration.
	Cover	The site is paved or covered with buildings with the exception of the landscaped area near the apartments.
	Depth to Groundwater	5.5 to 19 feet

Table 10.1 Prioritization Criteria and Factors (continued)

Prioritization Criteria	Prioritization Factors	
Physical Site Factors (continued)	Groundwater Use	No known use in vicinity.
	Surface Water Proximity and Use	The Hudson is less than 0.25 miles from the site. There are no known surface water intakes downstream of the site.
Presence of buildings with basements onsite or nearby. Volatilization/seepage exposure pathway to residents or workers.	There is parking under the apartments/stores at River Place located onsite. Neighboring buildings have basements. The potential for seepage/volatilization into basement areas exists if impacted soils are present.	
Ongoing or obvious impacts to surface water.	No impacts were observed in the Hudson River in the vicinity of the former MGP. Slight sheens would be expected in the vicinity of the yachts and ships at the World Yacht tour operation and as a result of normal shipping activities on the Hudson River.	
Degree and extent of impacts associated with other (non-MGP) site uses.	Impacts were not observed. BTEX reported by Langan (2002) and by AKRF (1994) could be related to petroleum tanks onsite during railroad operations after the closure of the MGP.	

SECTION 11

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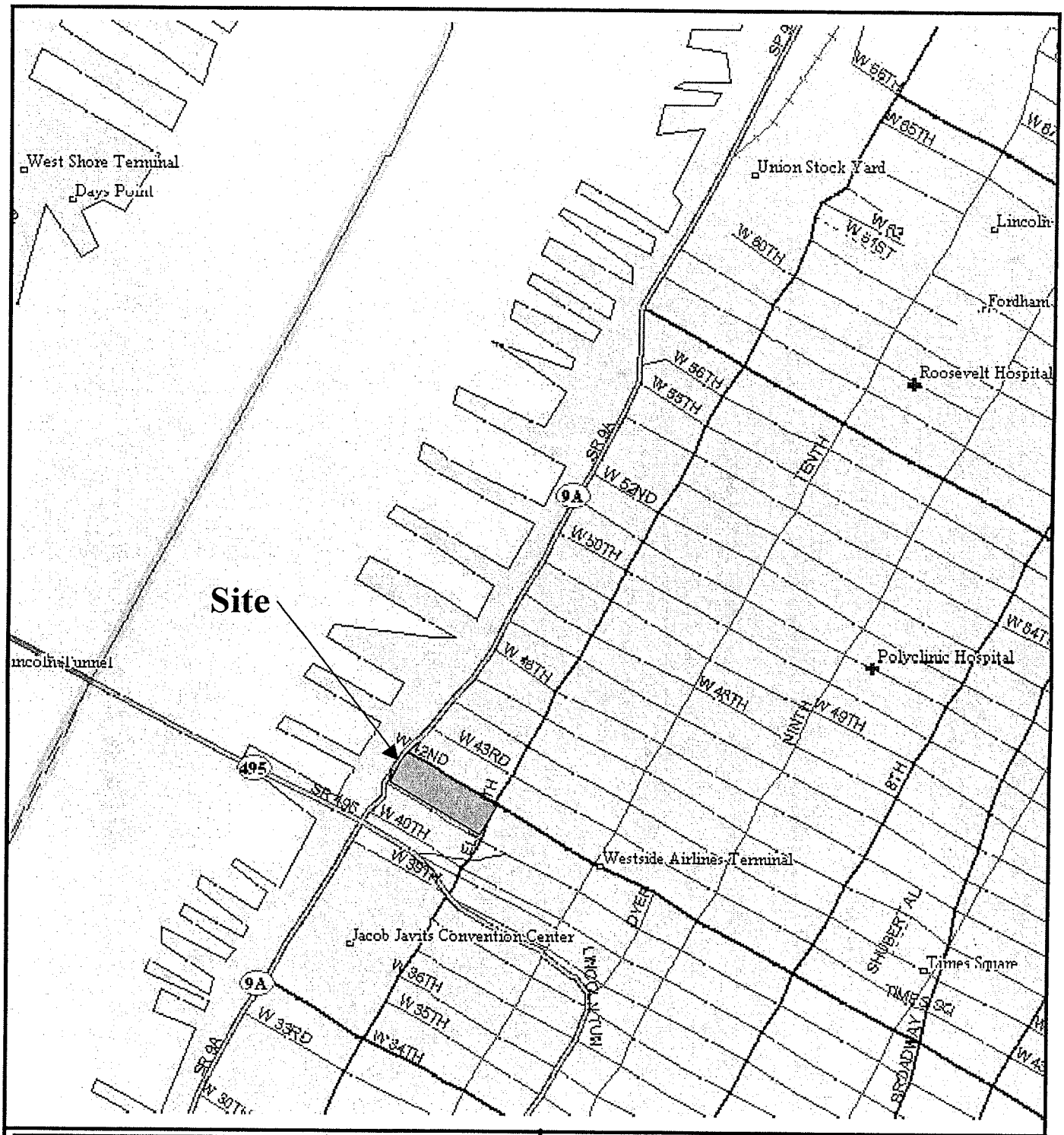
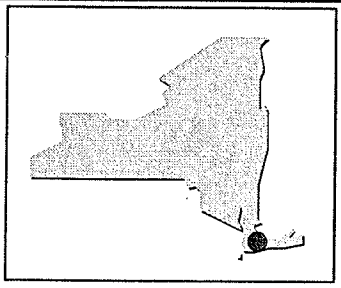
FIGURES





New York Quadrangle

LATITUDE: N40° 45" 41"
LONGITUDE: W73° 59' 58"

N

0.200 MI

Figure 1

CONSOLIDATED EDISON

NEW YORK, NEW YORK

SITE LOCATION MAP

FORMER WEST 42nd STREET GAS WORKS

PARSONS
DESIGN * RESEARCH * PLANNING
290 Elwood Davis Road, Suite 312, Liverpool, New York 13088 * (315) 451-9560
Offices in Principal Cities

P:\741280\CAD\42ND\SITELOC.PPT

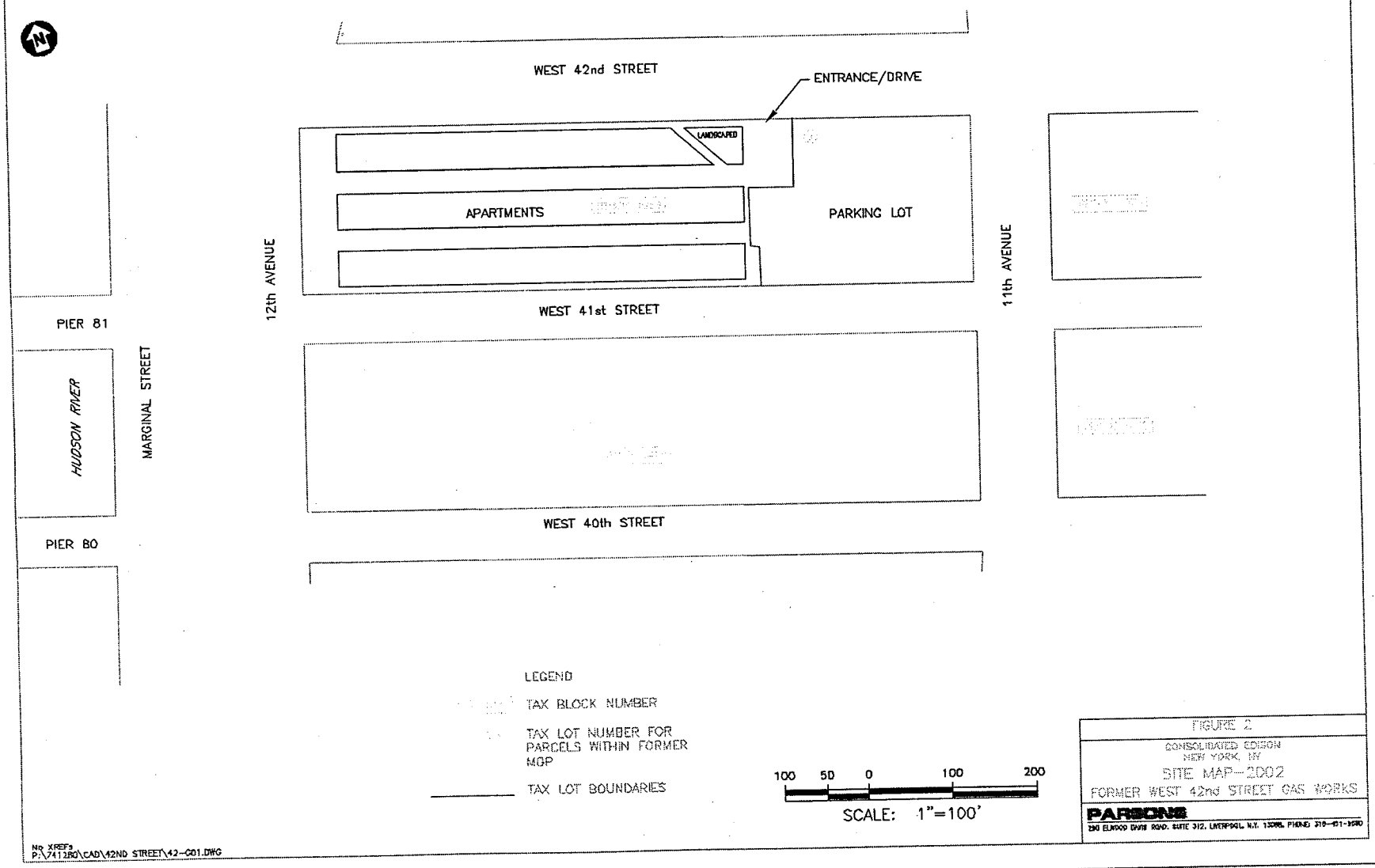


FIGURE 2

CONSOLIDATED EDISON
NEW YORK, NY

SITE MAP—2002

FORMER WEST 42nd STREET GAS WORKS

PARSONS

290 ELWOOD DAVIS ROAD, SUITE 312, LIVERPOOL, N.Y. 13088, PHONE: 315-451-9560

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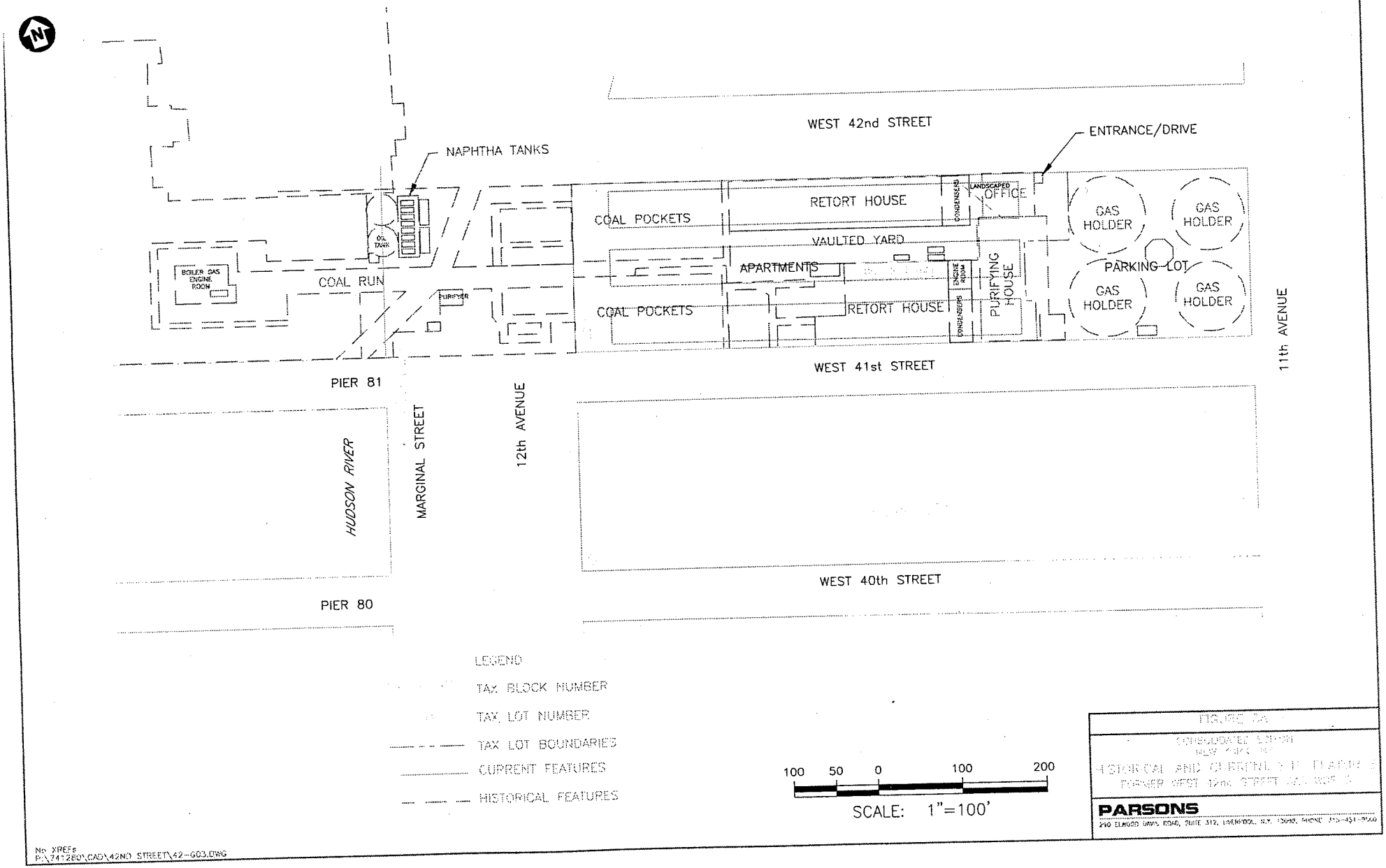

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Figure 4 (Colton 1836)

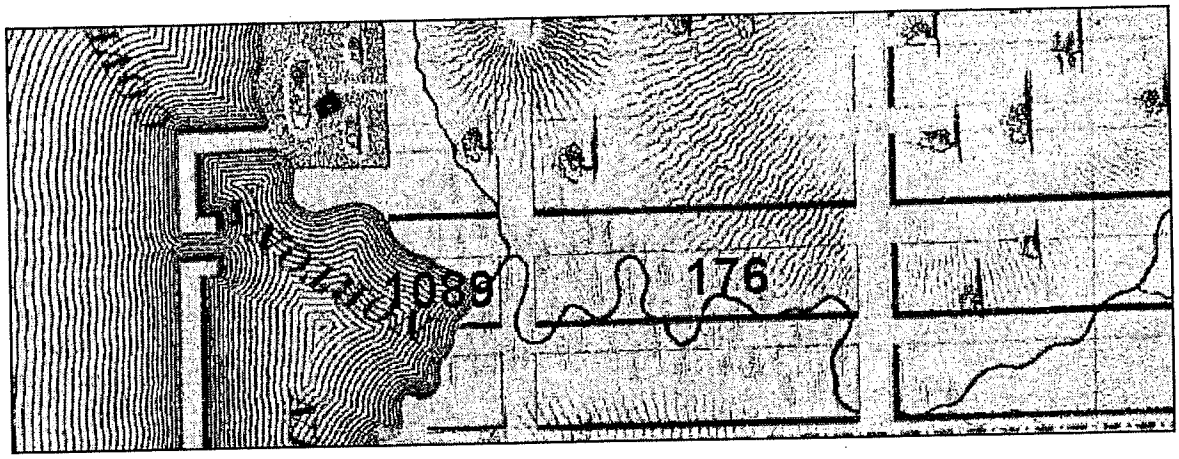


Figure 5 (Viele 1865)

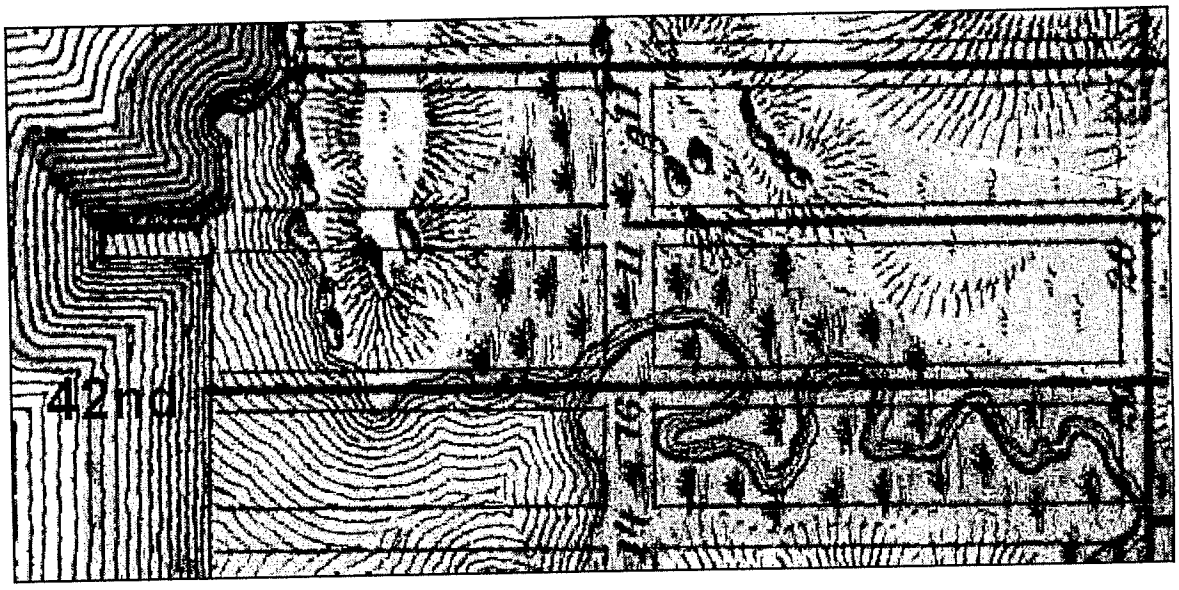


Figure 6 (Dripps 1852)

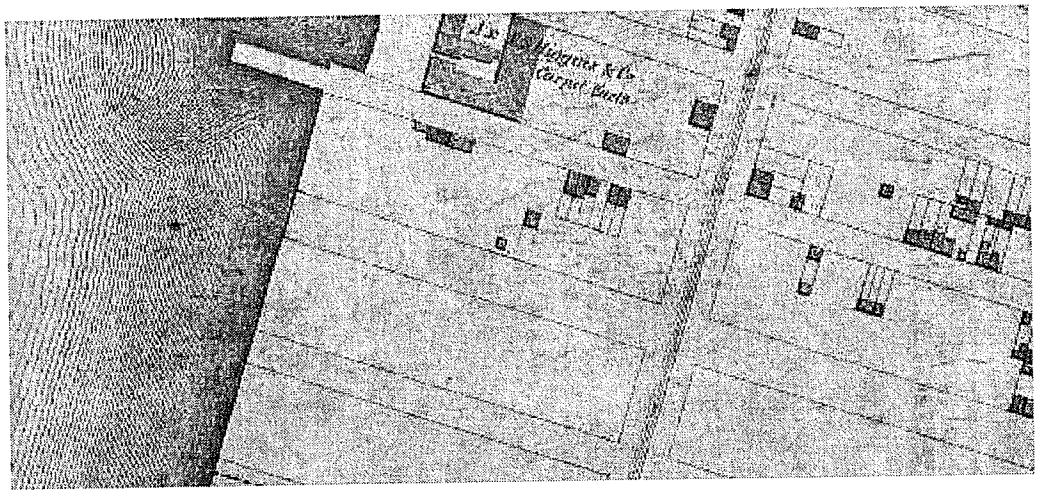


Figure 7 (Dripps 1867)

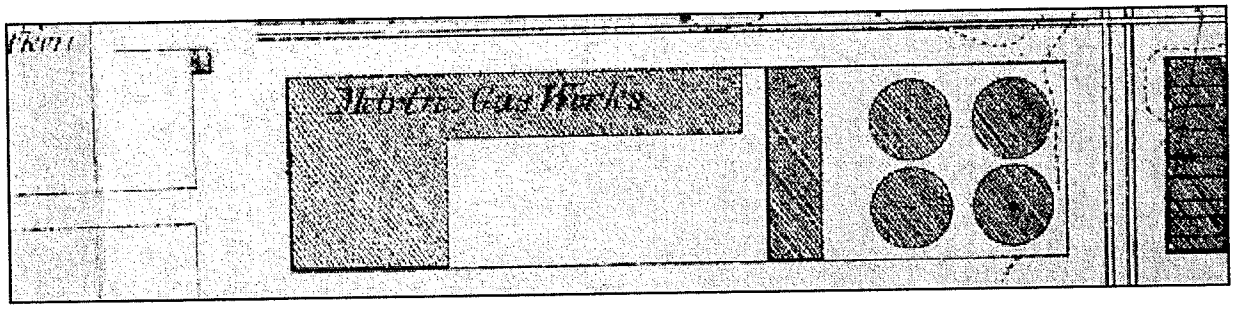


Figure 8a (Perris and Browne 1871)

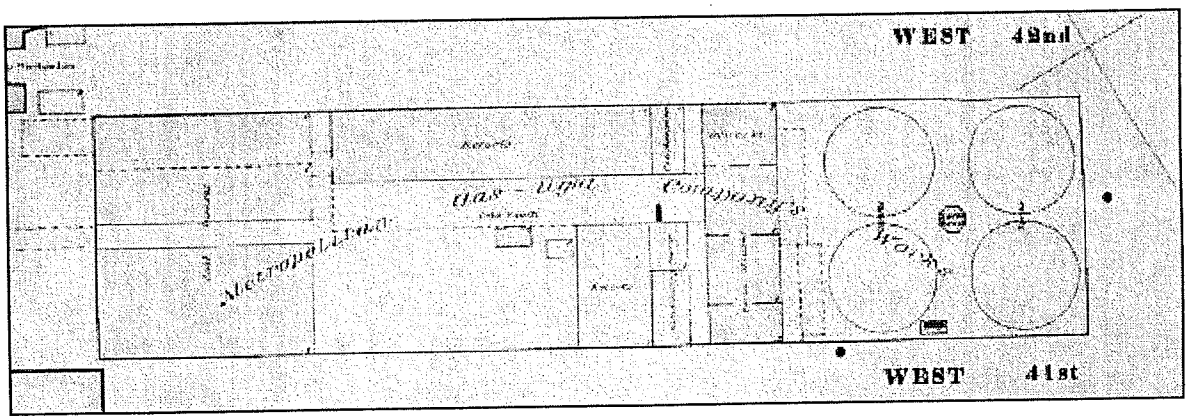


Figure 8b (Perris and Browne 1871)

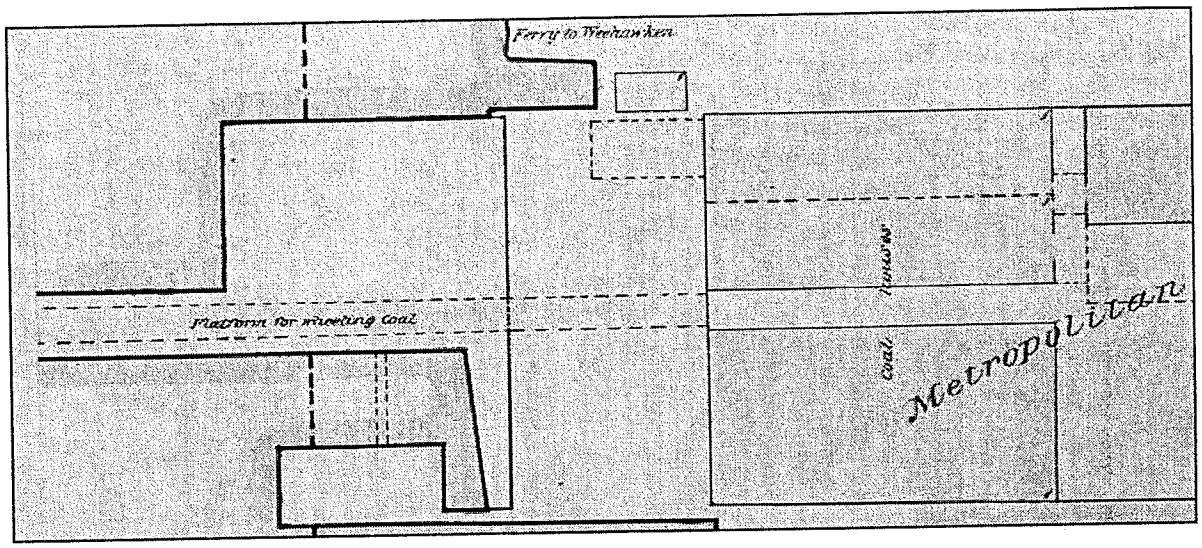


Figure 9 (Taylor 1879)

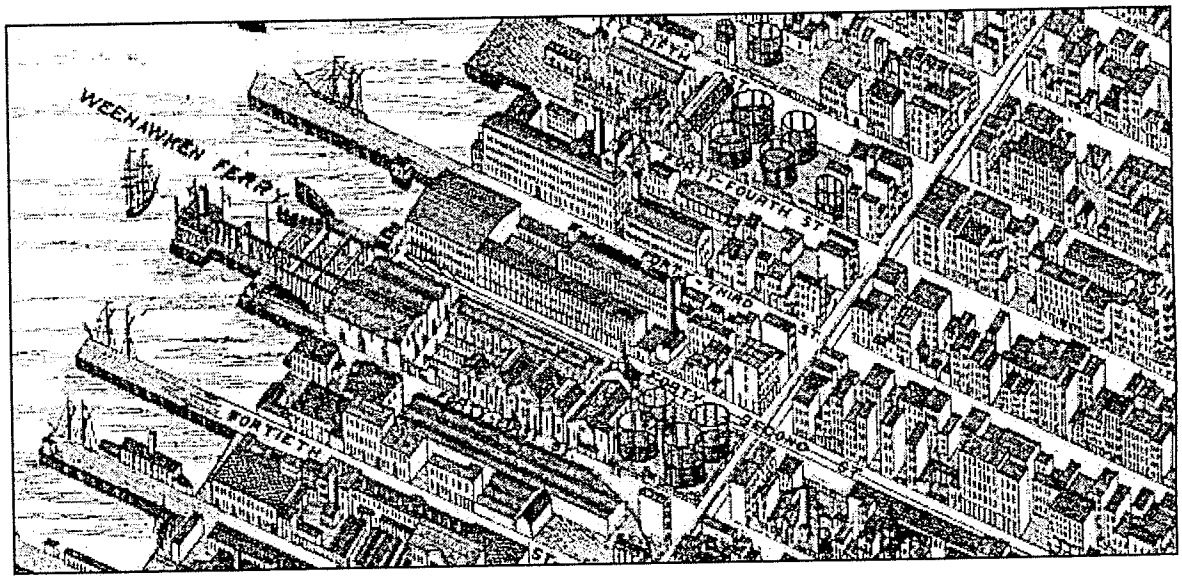
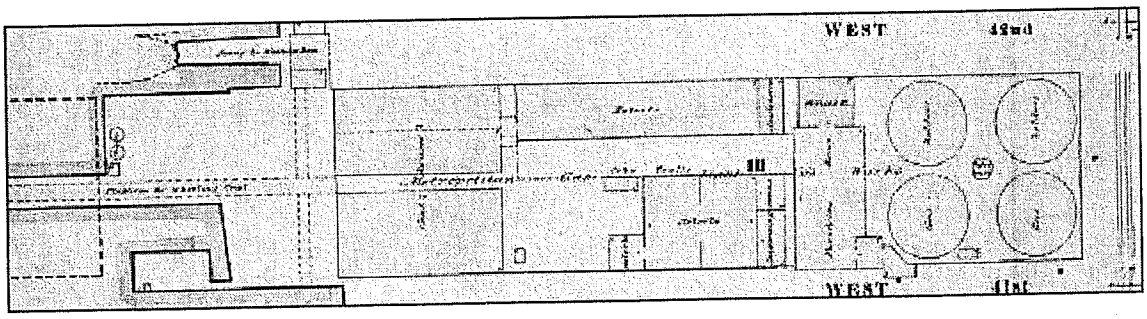
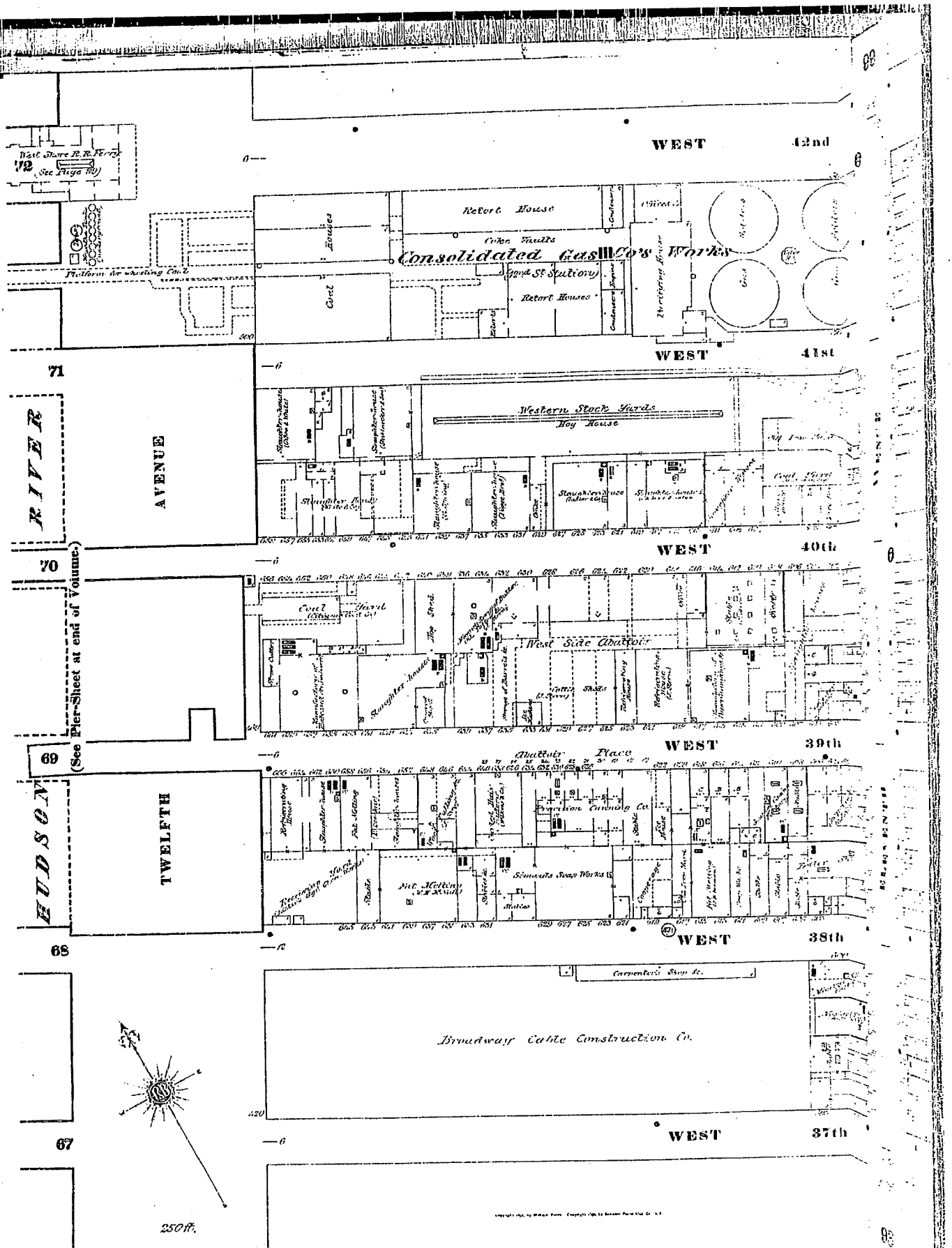
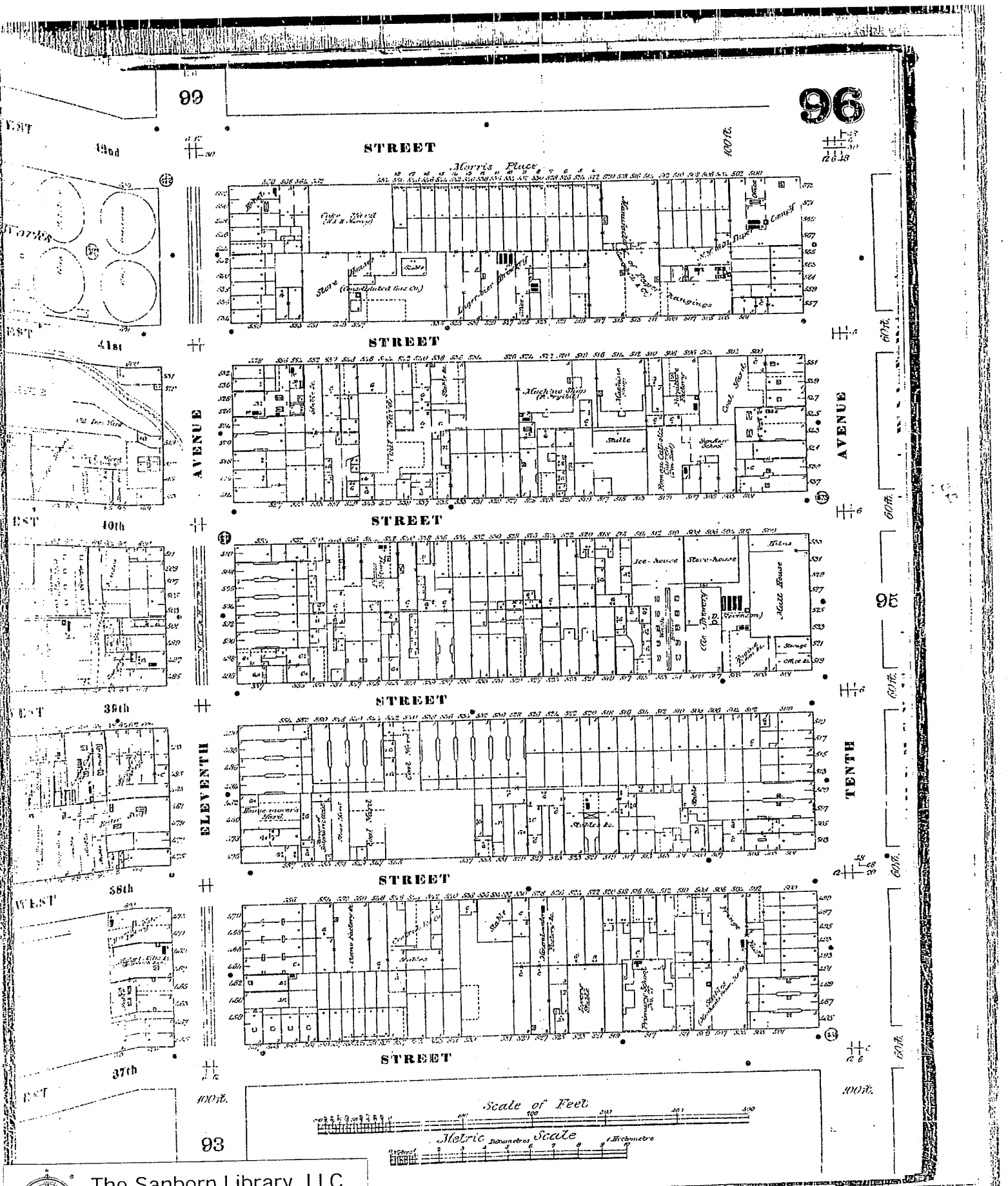
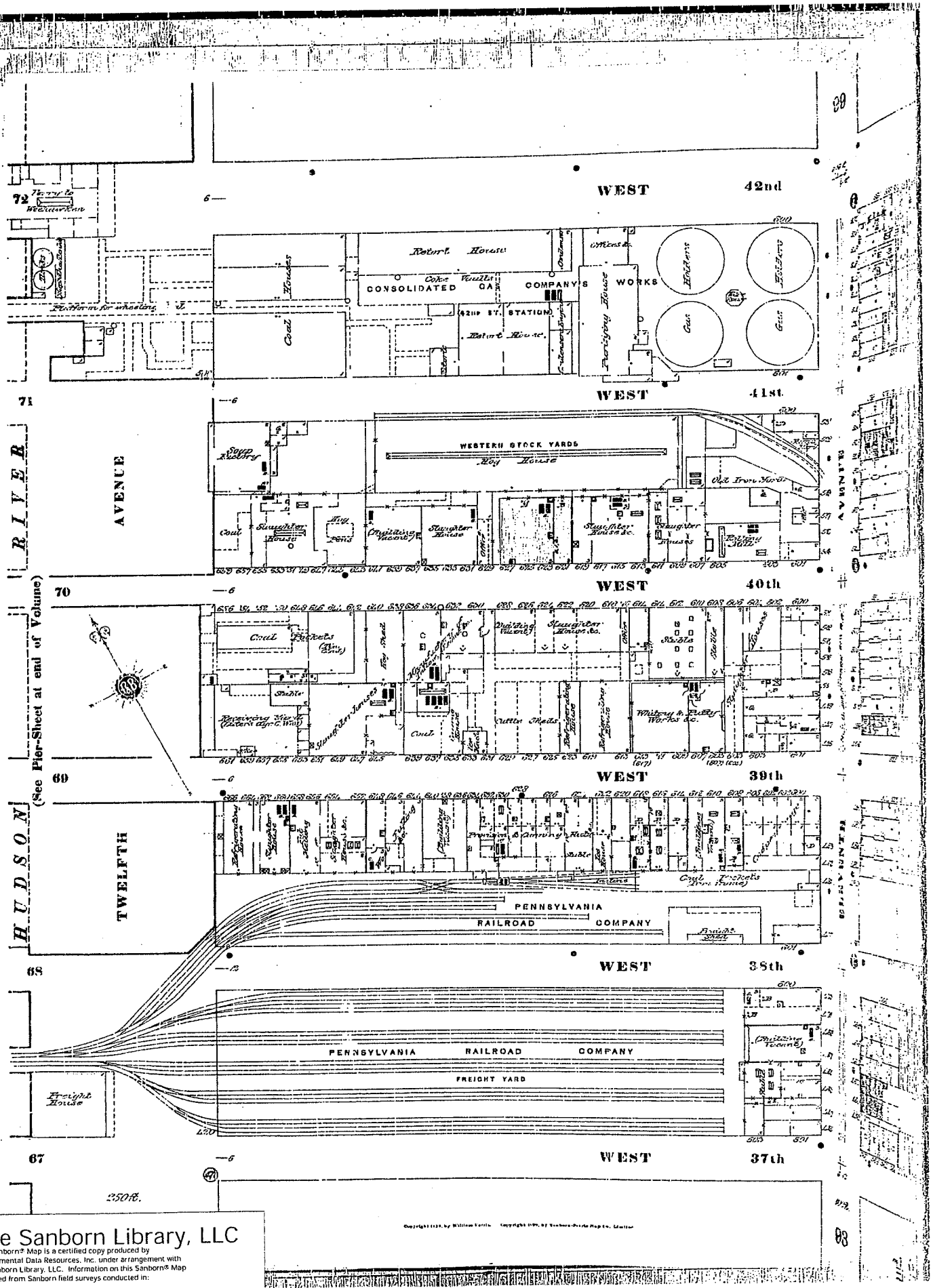


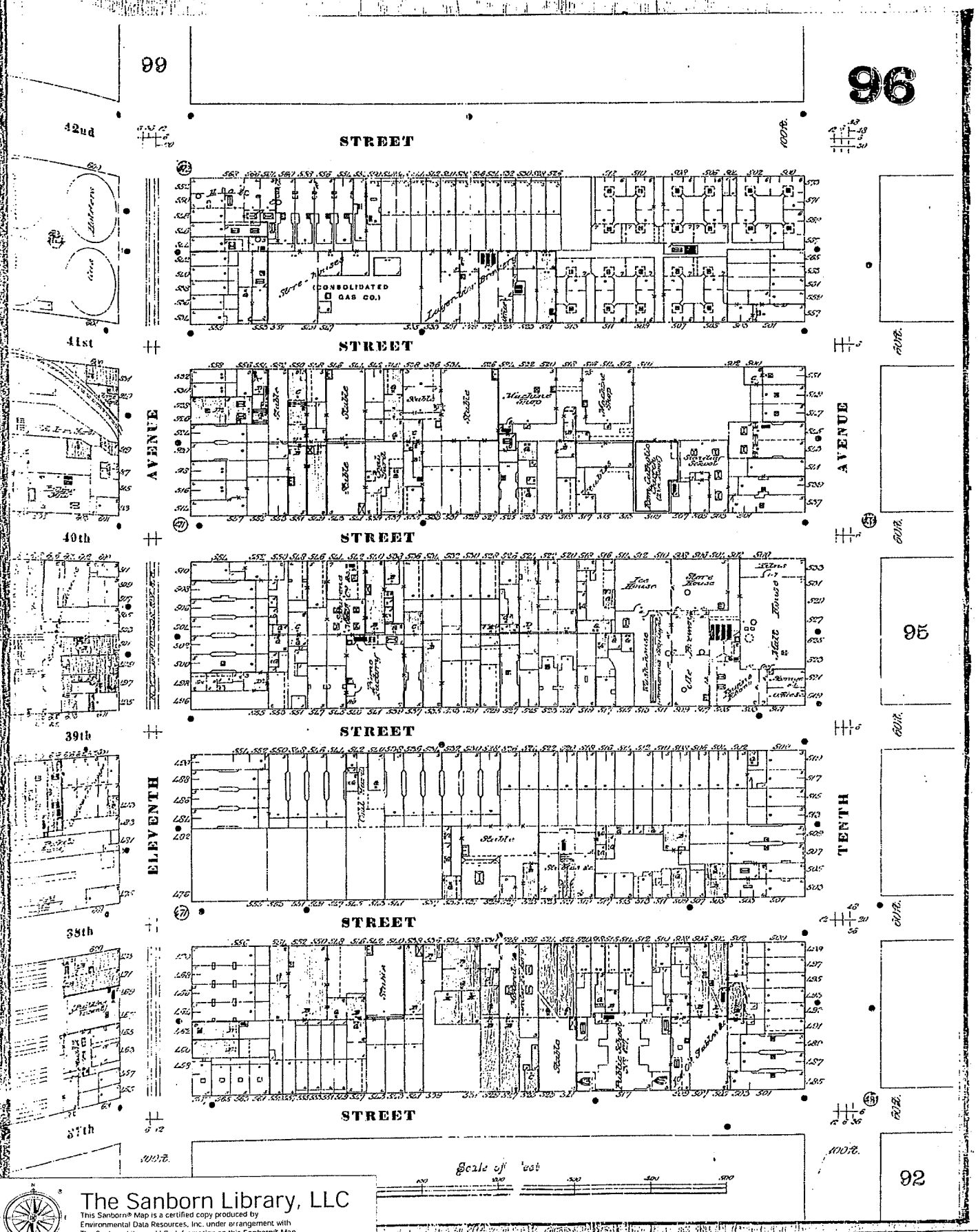
Figure 10 (Perris and Browne 1880)

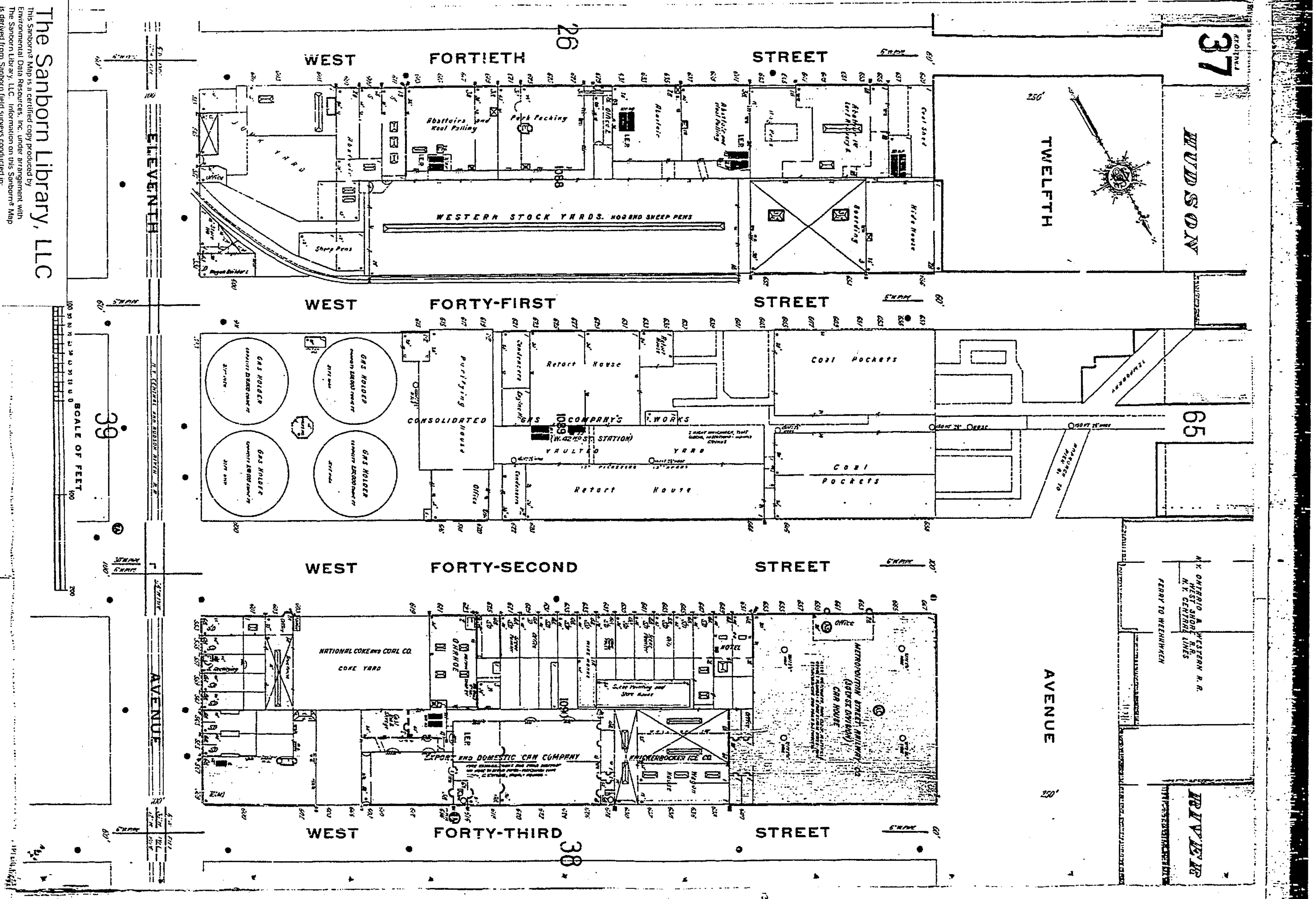


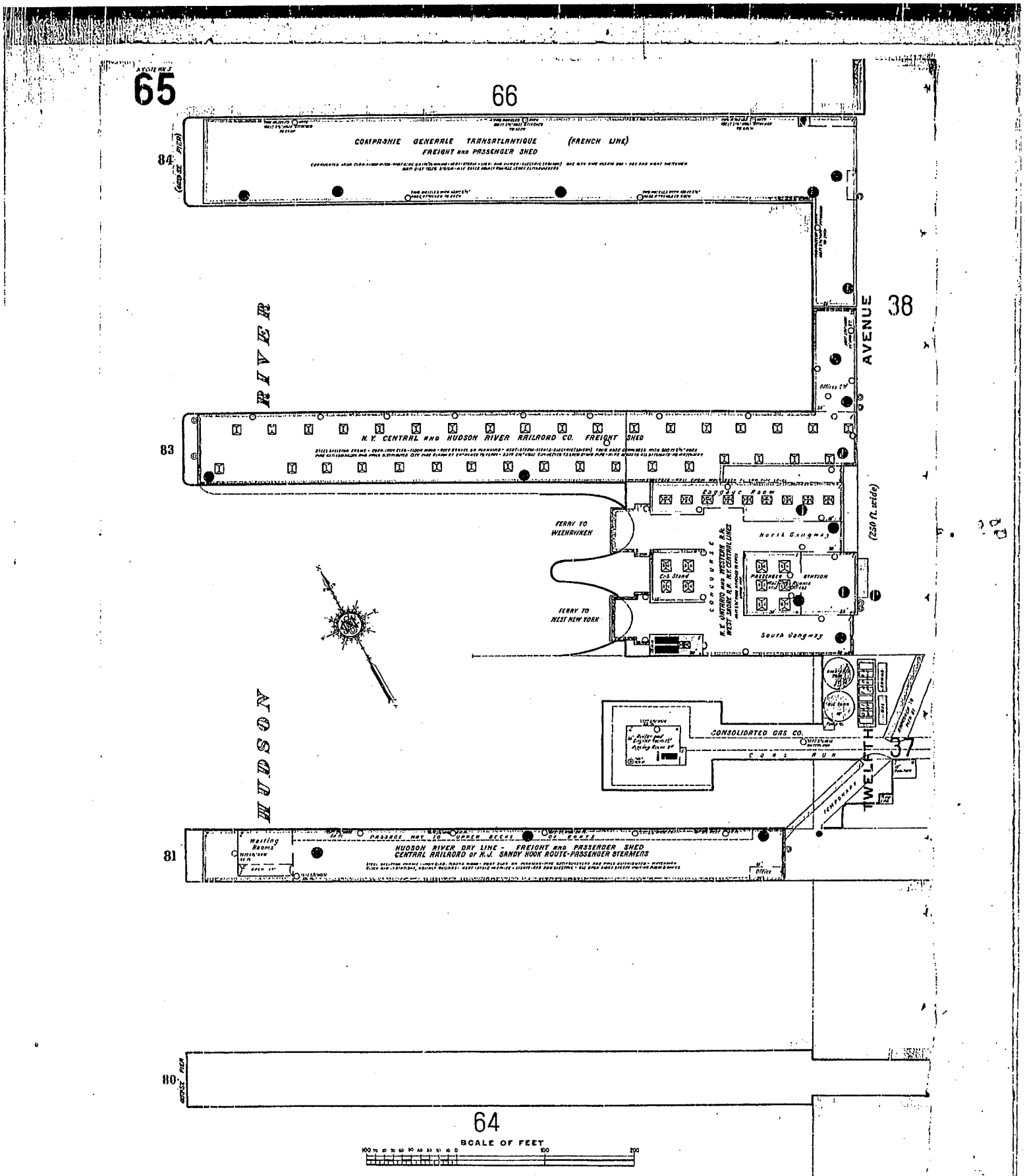


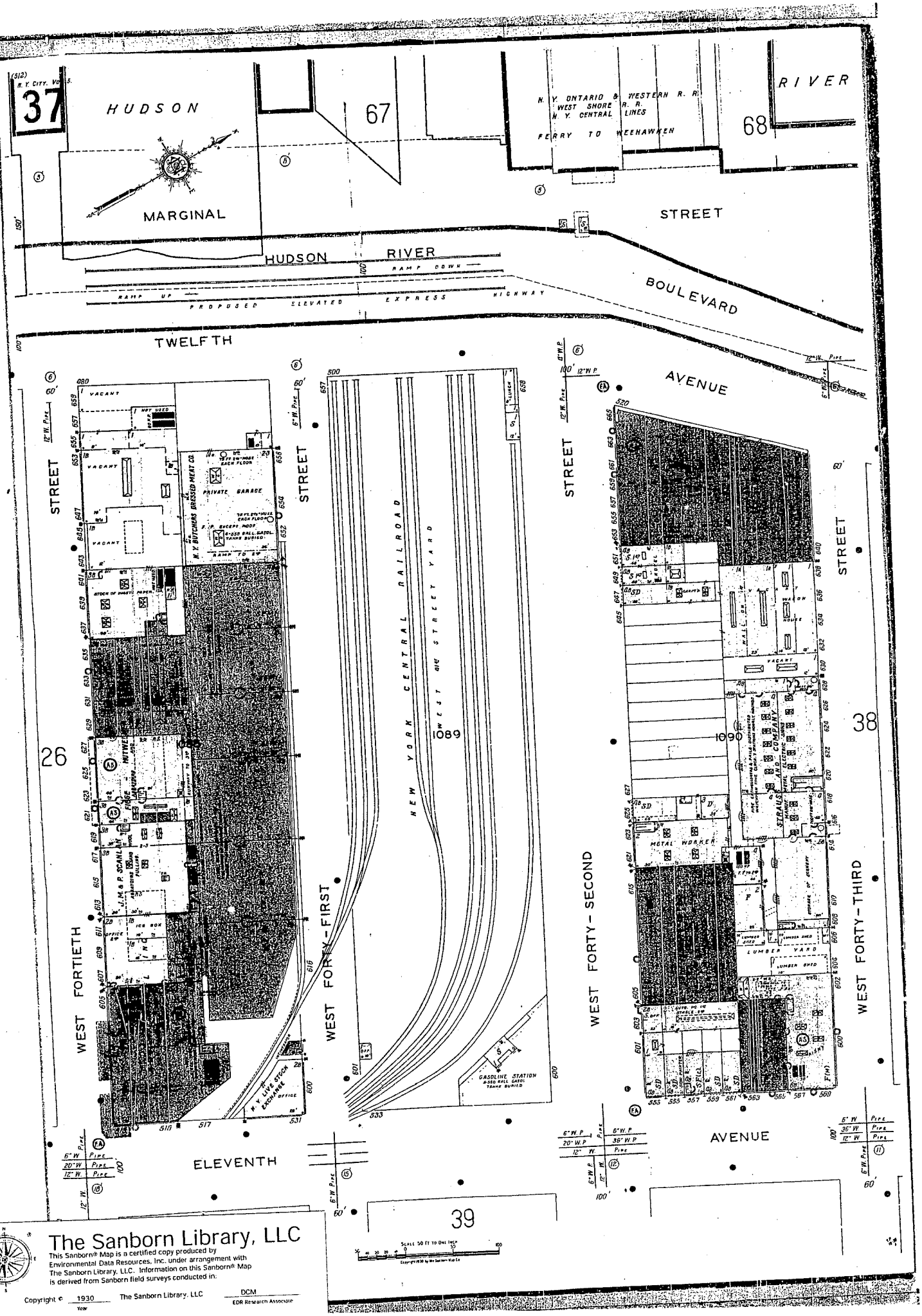












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HUDSON RIVER

EXTERIOR WATER LINE GRANT LINE 1871

29 PIERHEAD LINE 80 ESTABLISHED 1837 BY 81 SECRETARY OF WAR

66

CENTRAL RAILROAD OF NEW JERSEY — FREIGHT PIER

HUDSON RIVER DAY LINE CENTRAL RAILROAD OF N. J. CANOT HOOK ROUTE FREIGHT AND PASSENGER PIER PASSENGER STEAMERS

FERRY TO WEEHAWKEN

FERRY TO WEEHAWKEN

68

CONCOURSE
N. Y. ONTARIO AND WESTERN R. R.
WEST SHORE R. R. N. Y. CENTRAL LINES

CAB STAND

STATION

SOUTH RAMEWAY

NORTH RAMEWAY

PASSENGER WAITING ROOMS AND OFFICES

150'

MARGINAL STREET

RAMP UP HUDSON RIVER RAMP DOWN BOULEVARD

RAMP DOWN PROPOSED ELEVATED EXPRESS HIGHWAY RAMP UP

100'

TWELFTH AVENUE

26

39TH ST.

40TH ST.

37

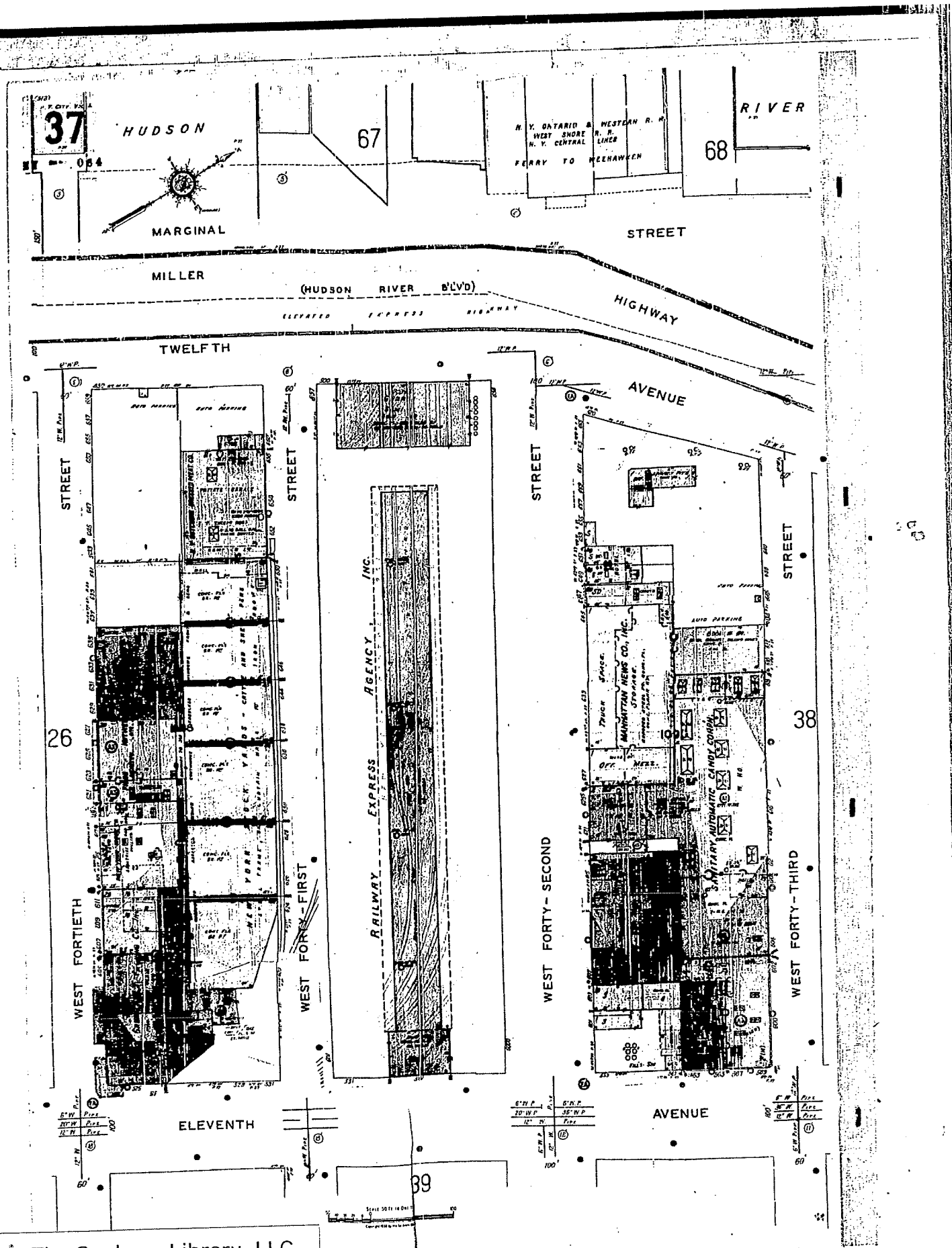
W. 41ST ST.

W. 42ND ST.

12" W. Pipe

6" W. Pipe

SCALE 50 Ft. to One Inch



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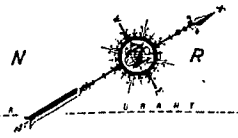
ST. 064

HUDSON RIVER



PIERHEAD LINE 80' ESTABLISHED 1921 BY 81' SECRETARY OF WAR

66

68

CITY PIER

FREIGHT PIER

HUDSON RIVER DAY LINE

FERRY TO WEEHAWKEN

FERRY TO WEEHAWKEN

CONCOURSE

N.Y. ONTARIO And WESTERN R.R.

WEST SHORE R.R. N.Y. CENTRAL LINES

MARGINAL STREET

MILLER (OR HUDSON RIVER BLVD) HIGHWAY

TWELFTH AVENUE

W. 39TH ST.

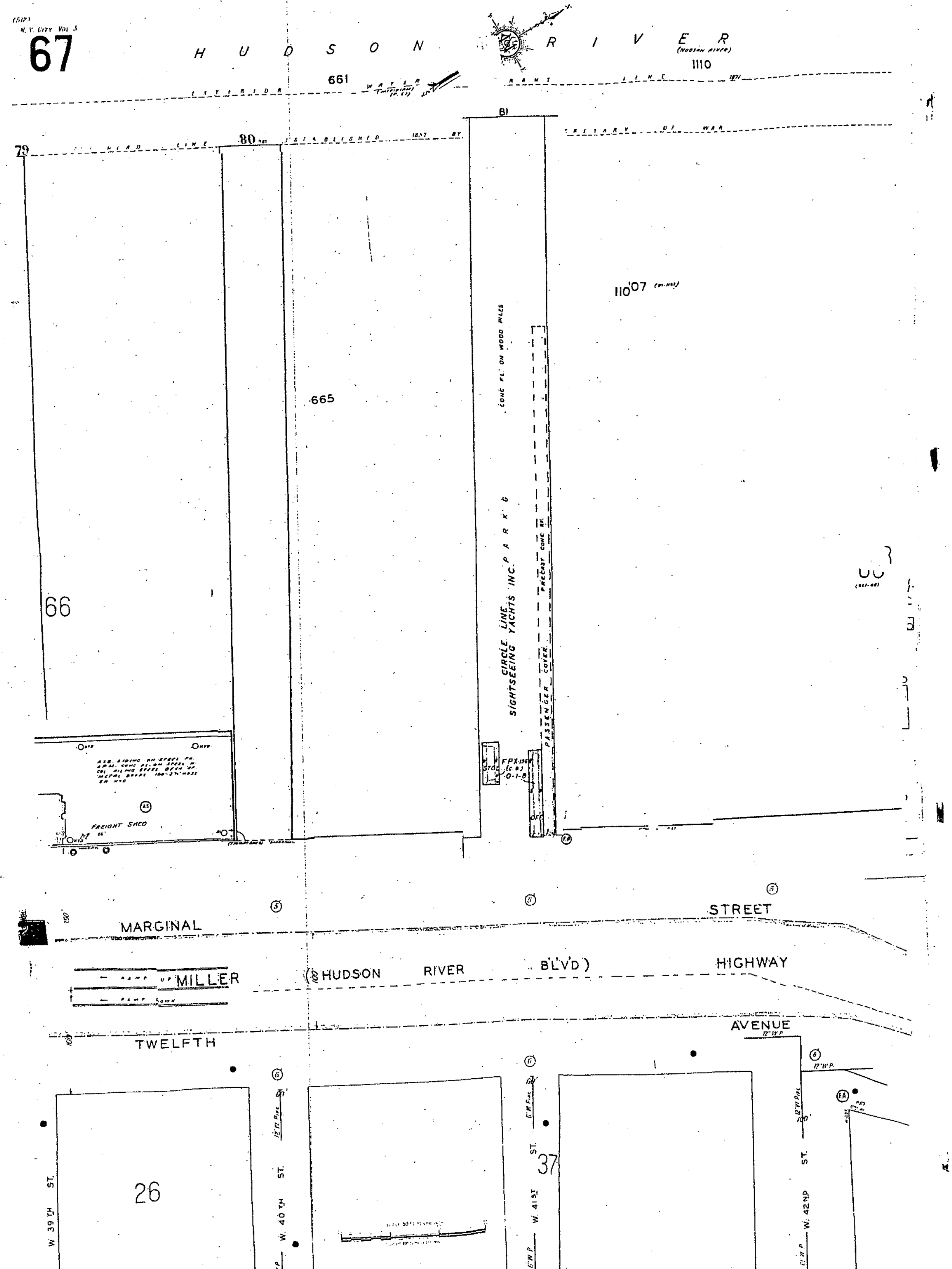
W. 40TH ST.

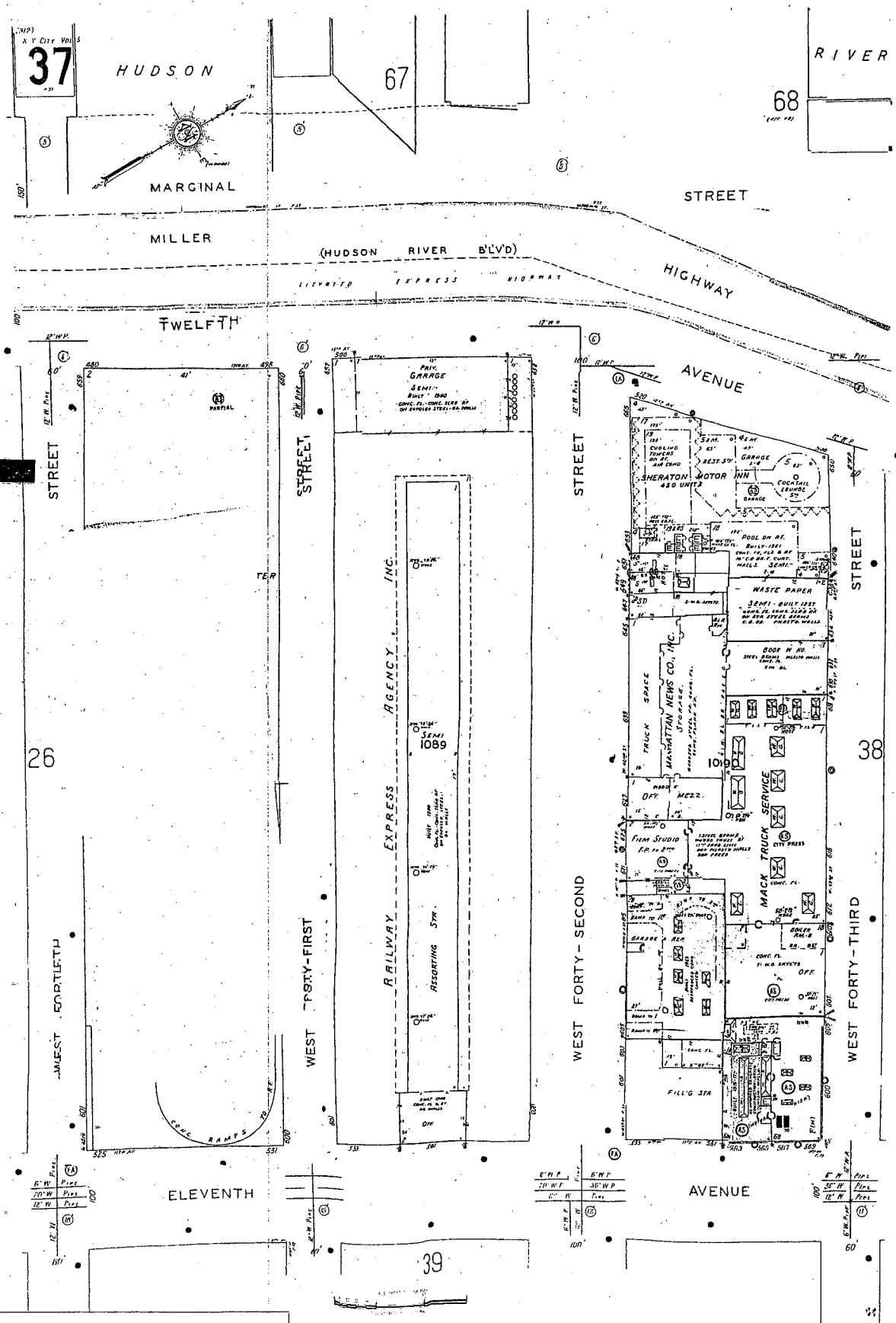
W. 41ST ST.

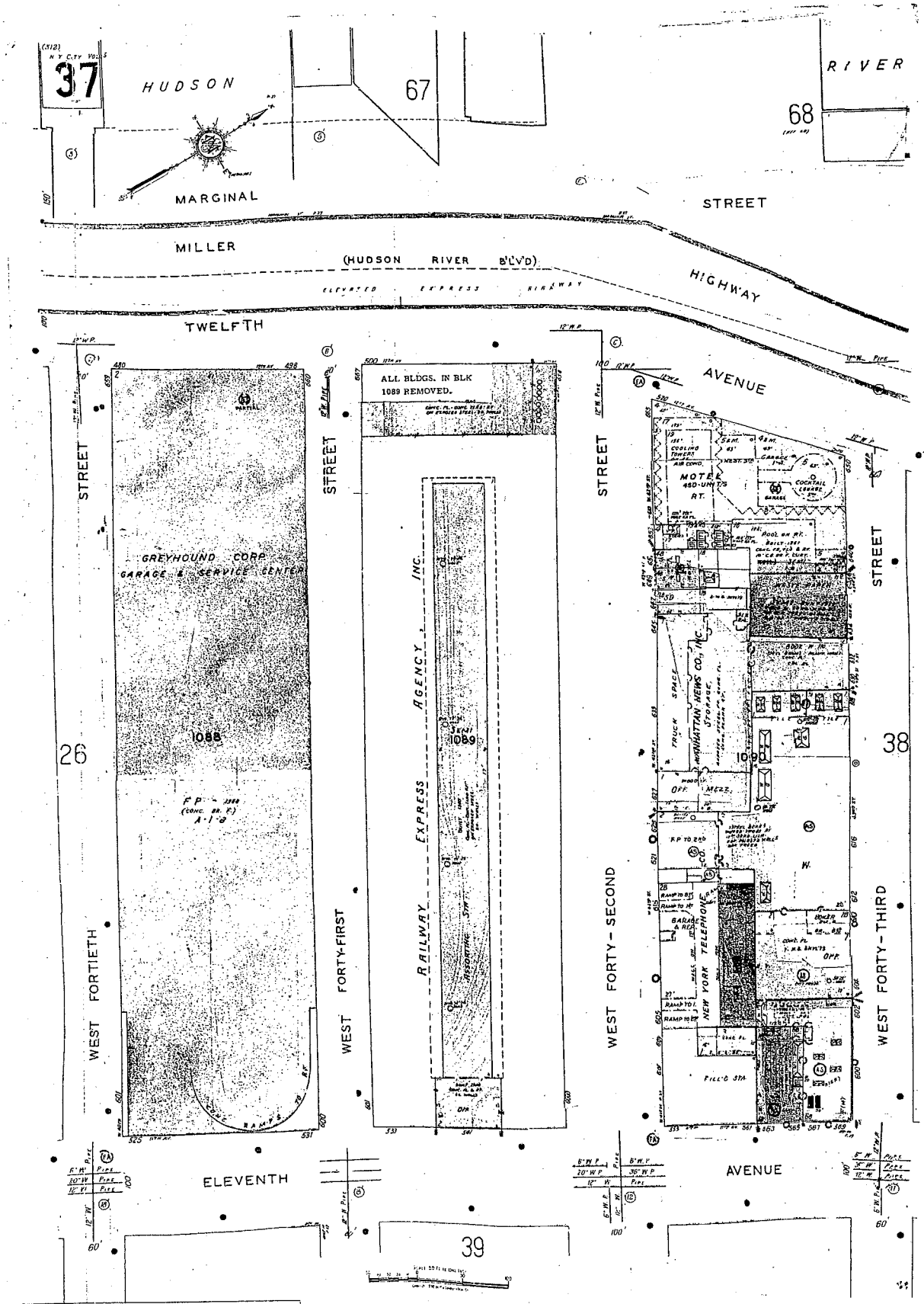
W. 42ND ST.

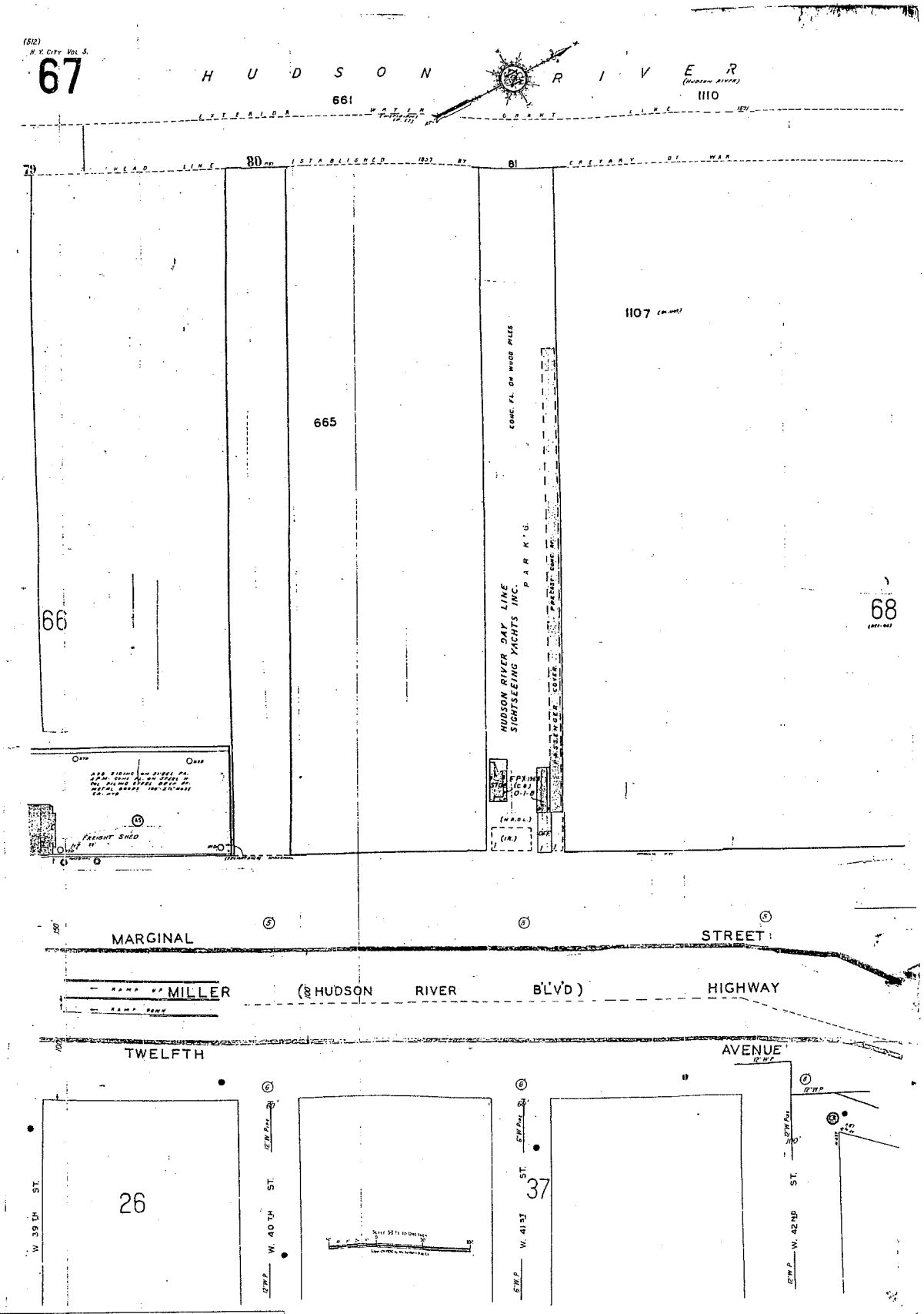
26

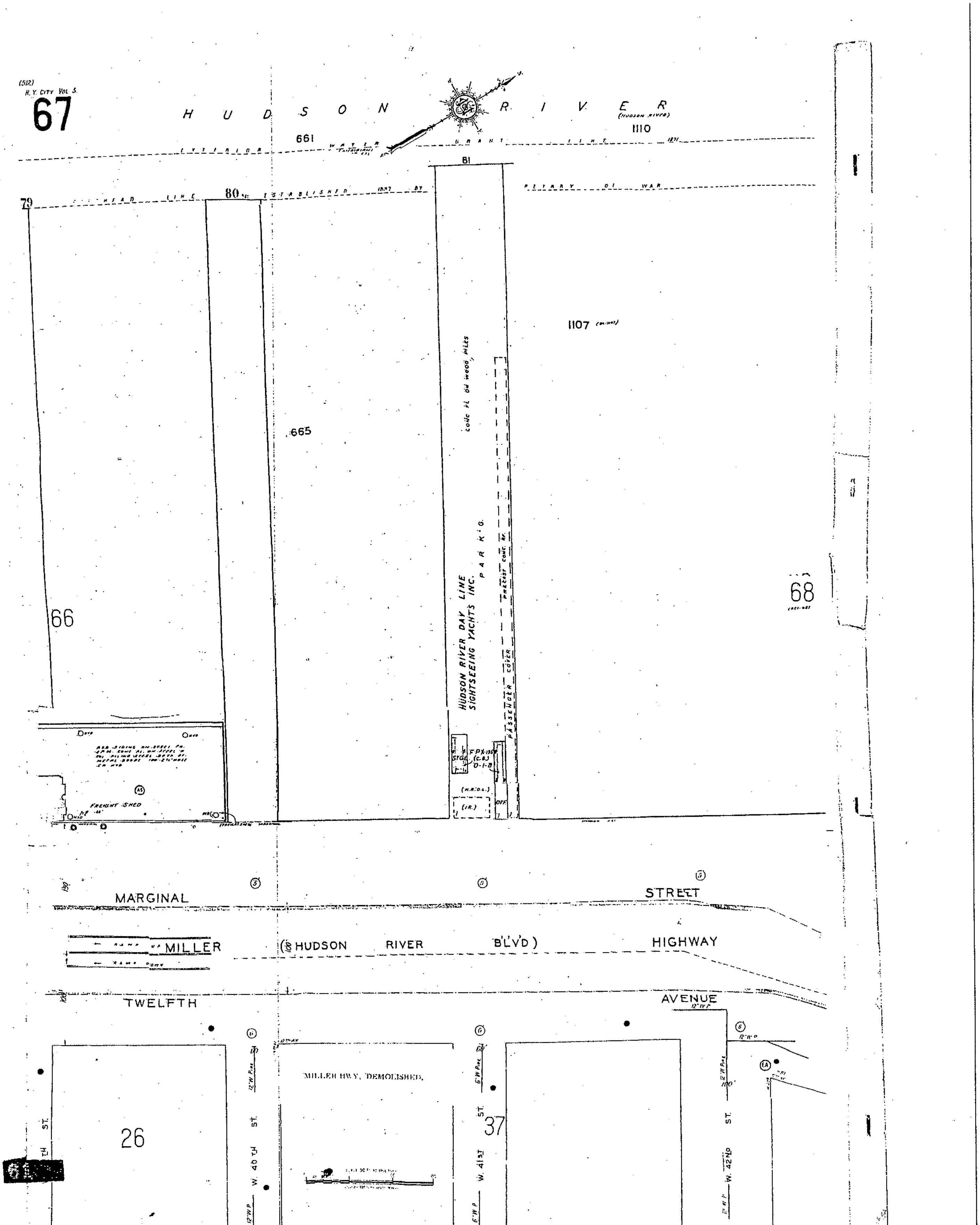
37

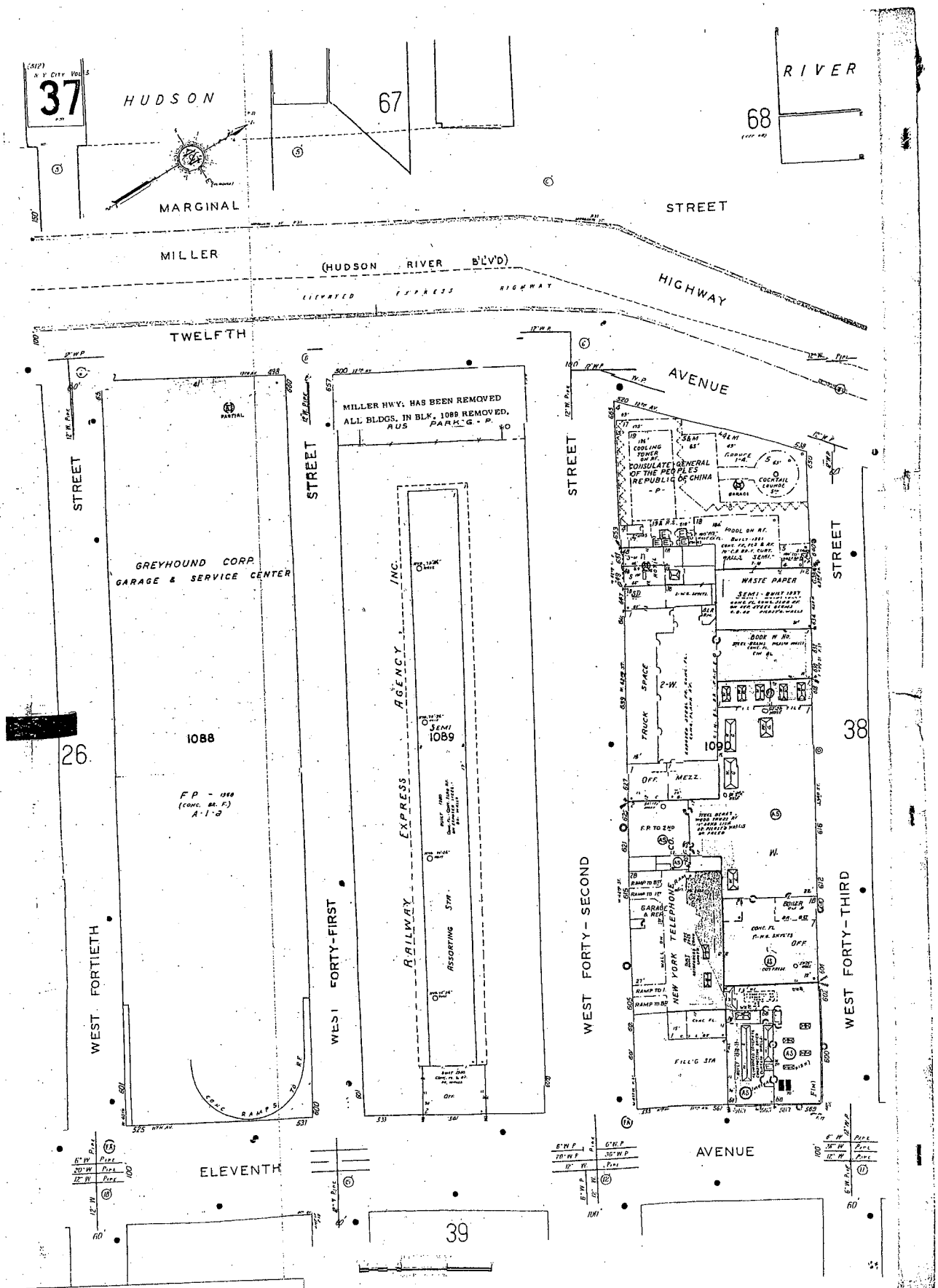












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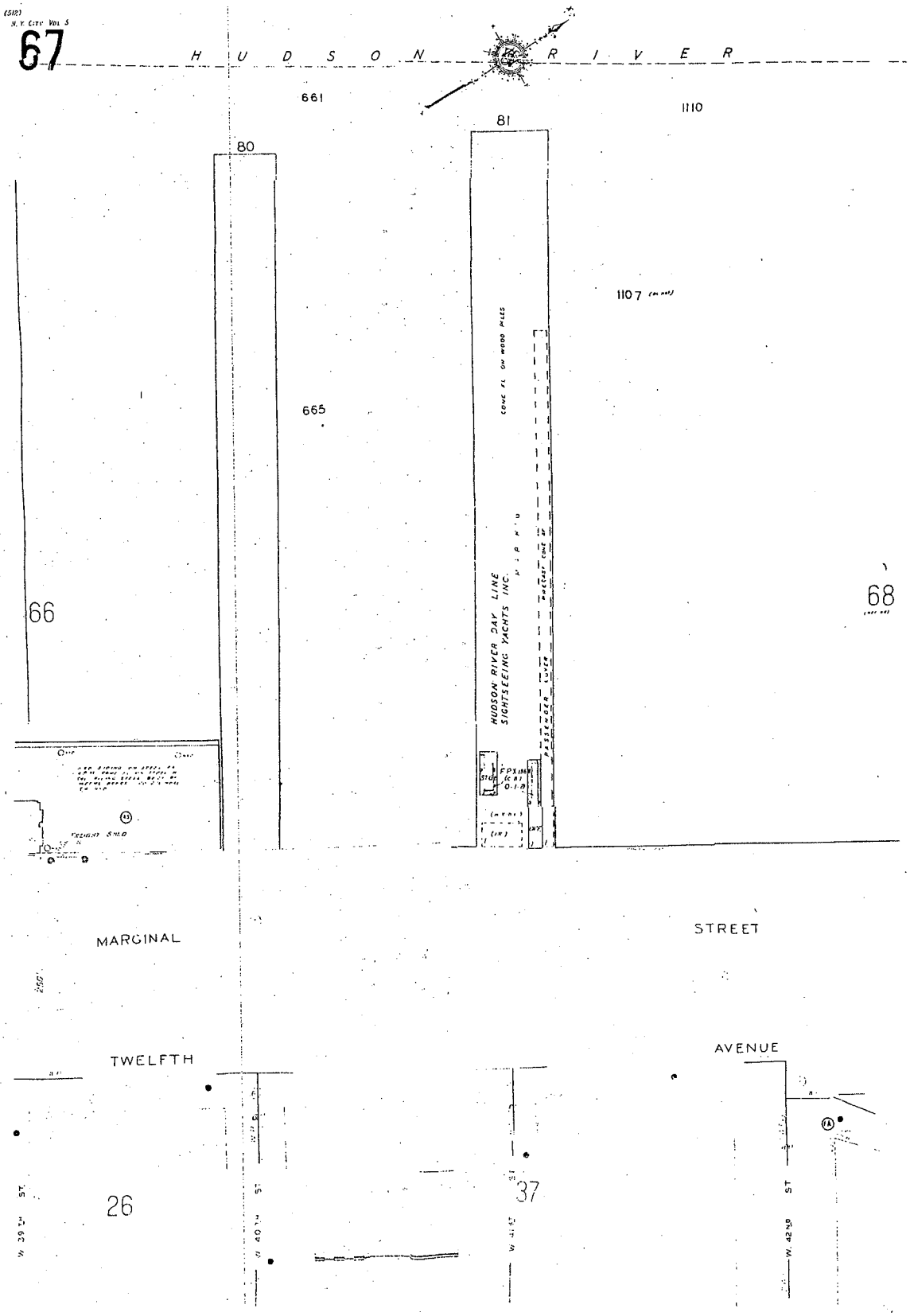
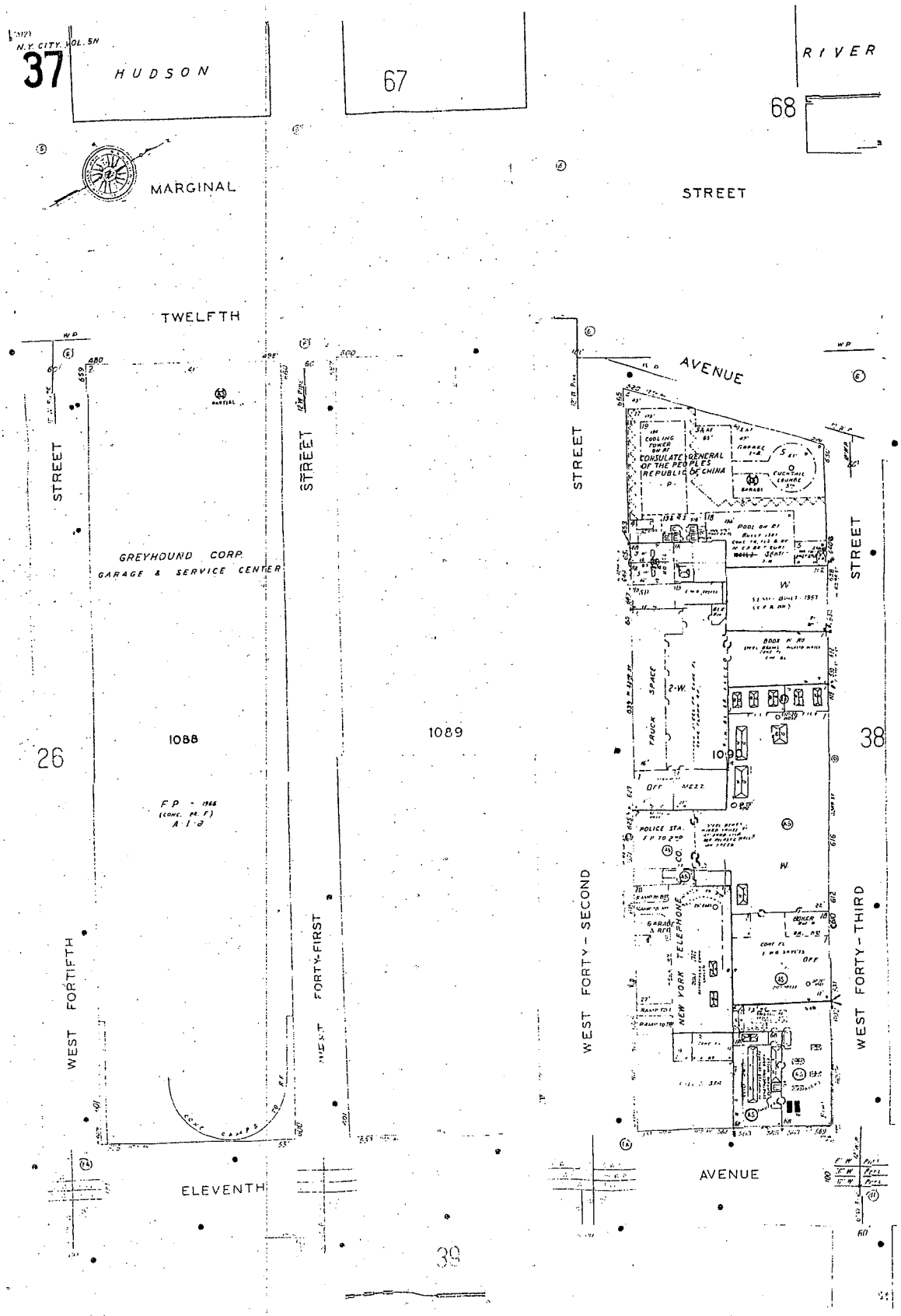
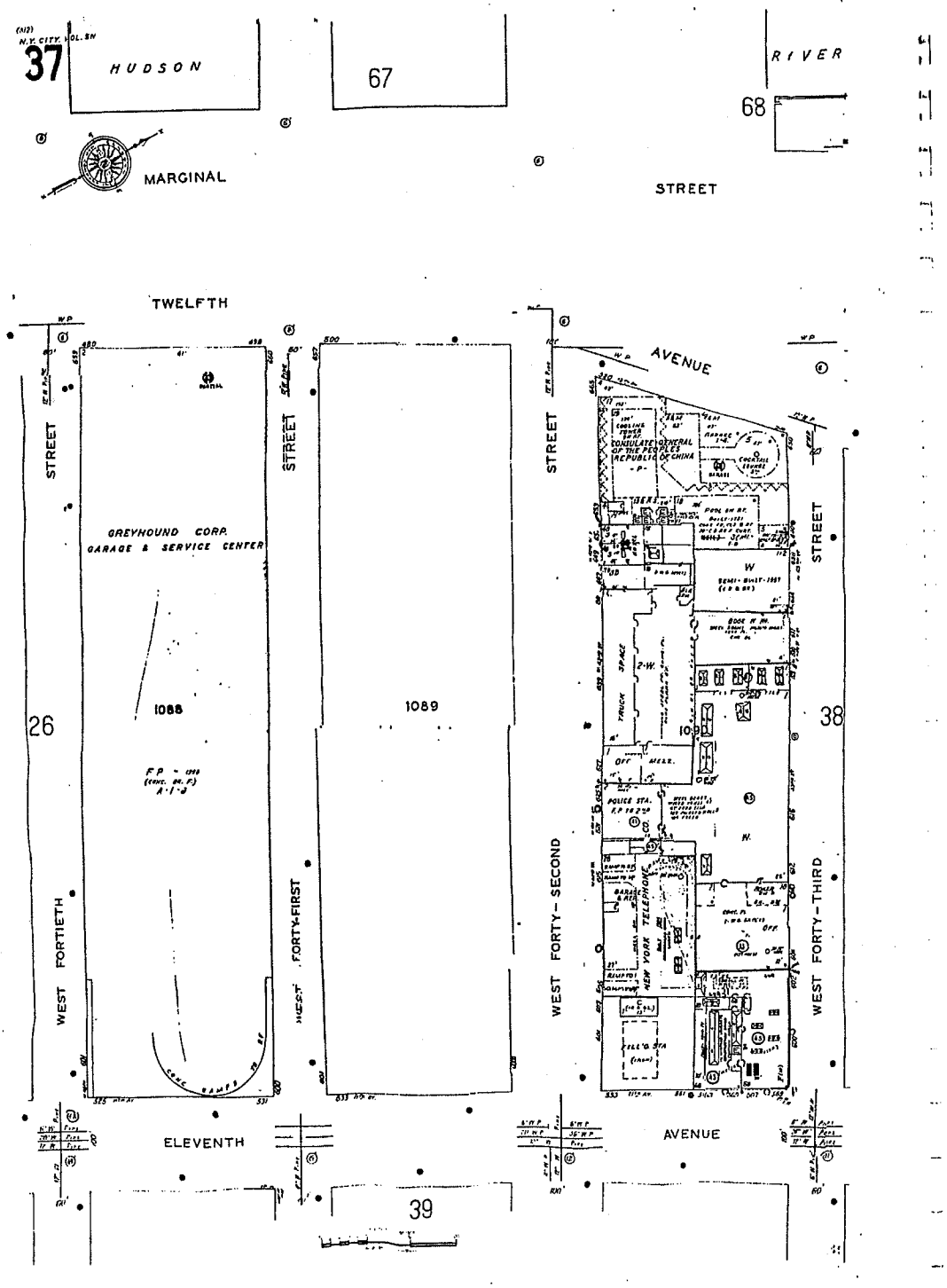
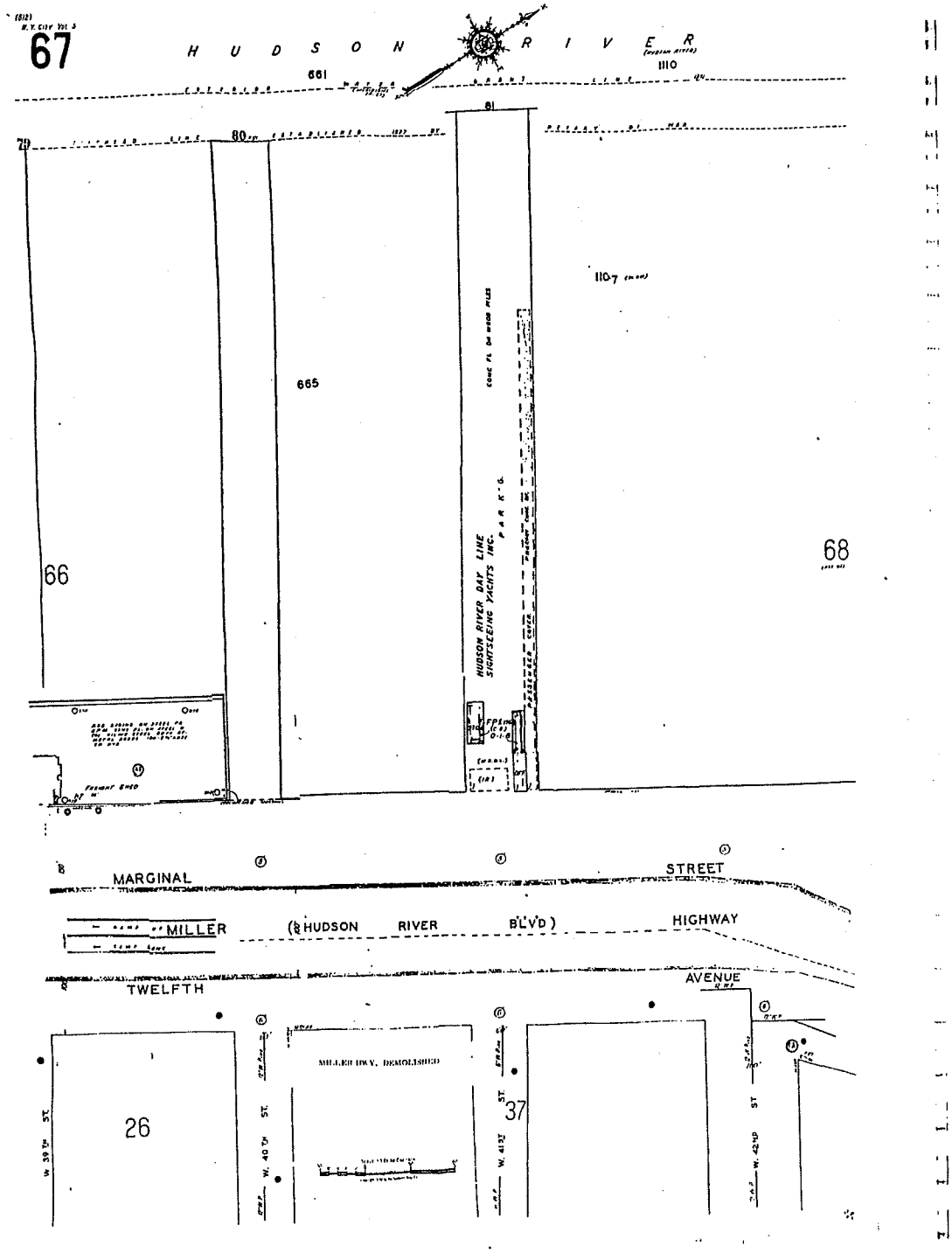
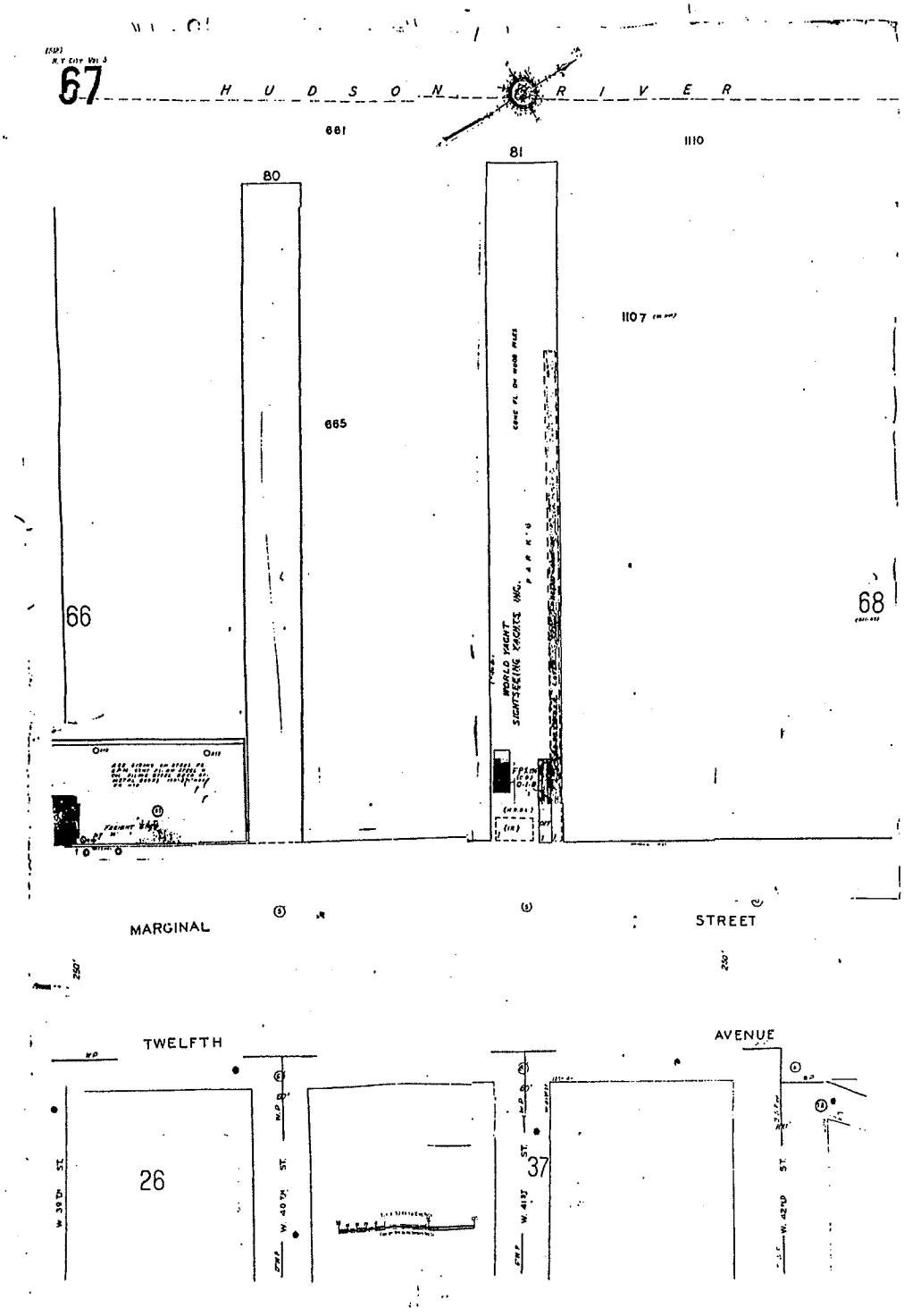
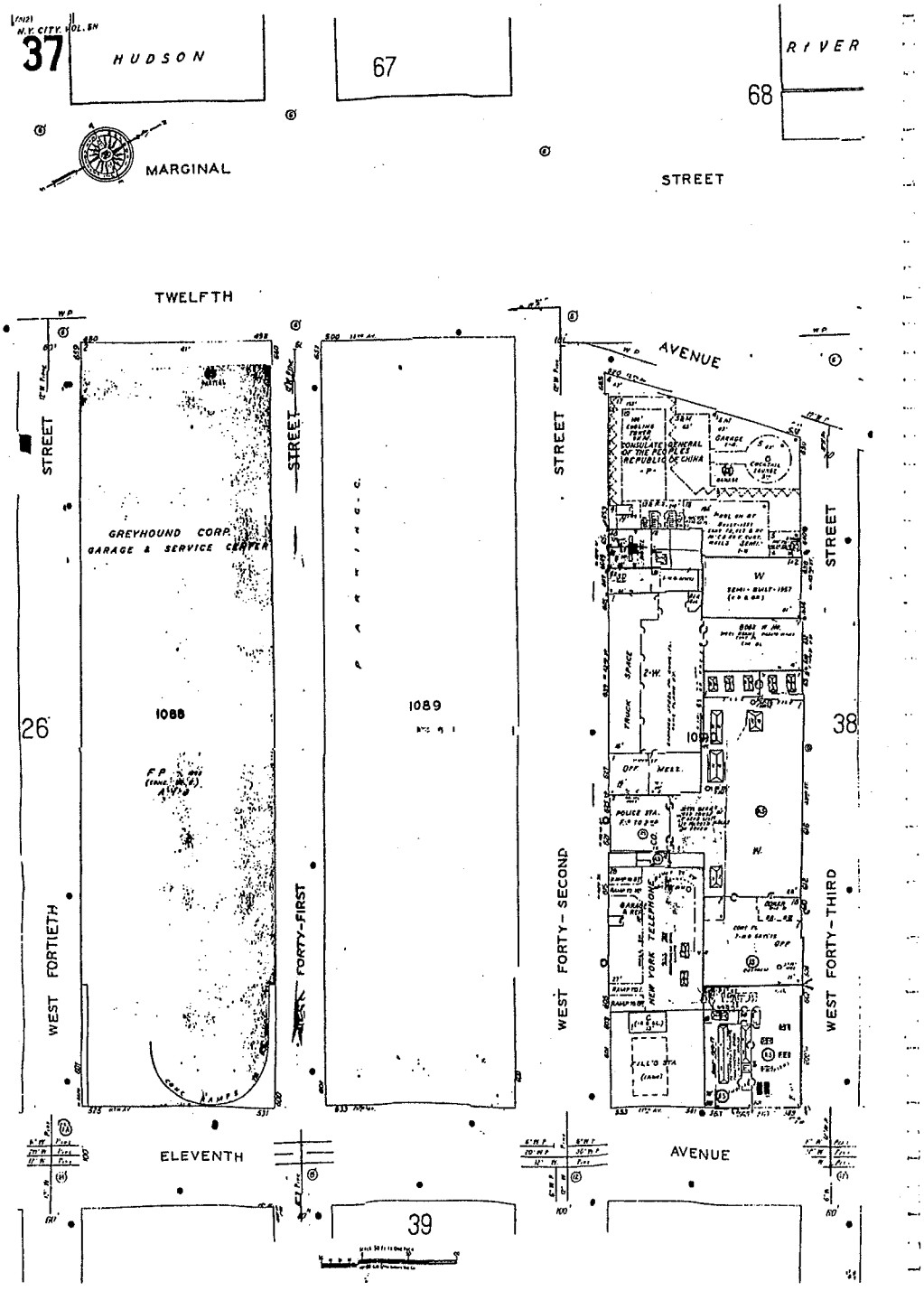












APPENDIX A

SITE PHOTOGRAPHS

PROJECT: West 42nd Street
PROJECT #: 741280.04000

LOCATION:
CLIENT: Con Edison

Photo 1

Status as of: 4/10/02
Description: West Side Highway from Block 1089.
Photo by: Julie Abell Horn

Photo 2

Status as of: 4/10/02
Description: NW corner Block 1089.
Photo by: Julie Abell Horn

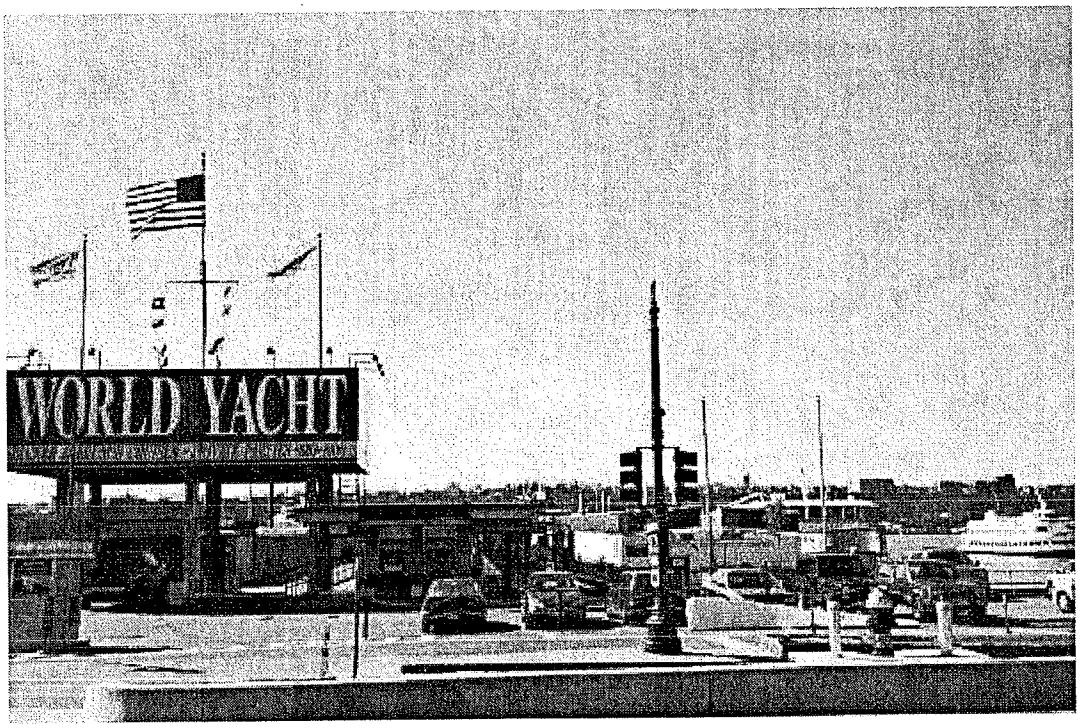
PROJECT: West 42nd Street
PROJECT #: 741280.04000

LOCATION:
CLIENT: Con Edison

Photo 3

Status as of: 4/10/02
Description: SW corner Block 1089.
Photo by: Julie Abell Horn

Photo 4

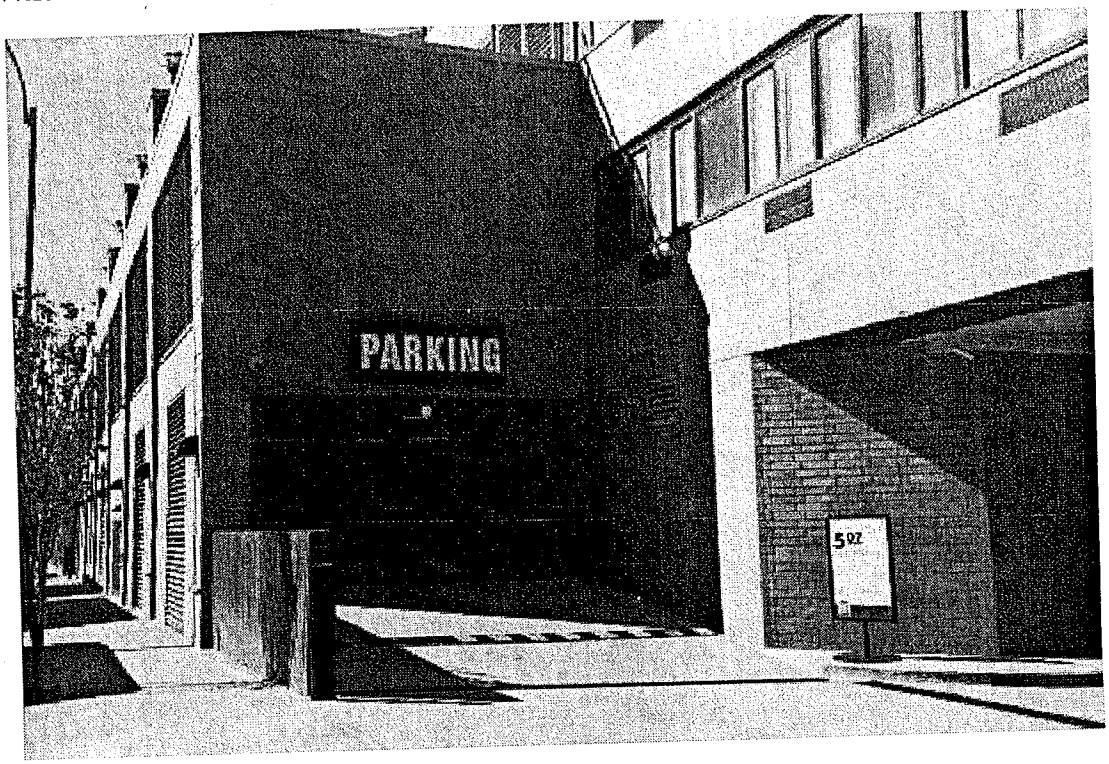


Status as of: 4/10/02
Description: Across West Side Highway from Block 1089.
Photo by: Julie Abell Horn

PROJECT: West 58th Street
PROJECT #: 741280.04000

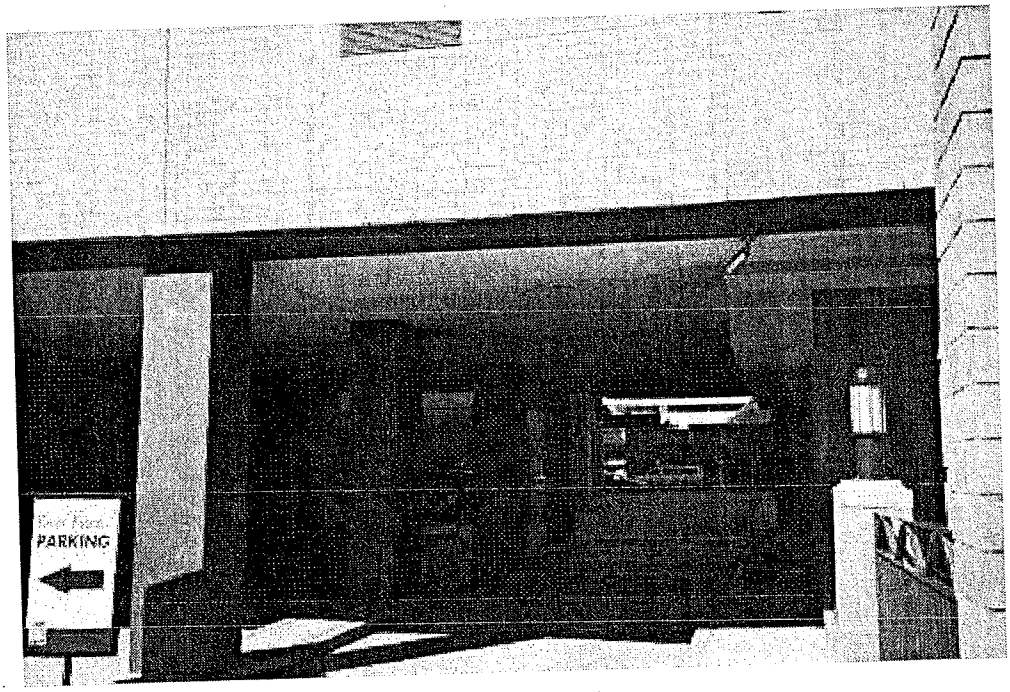
LOCATION:
CLIENT: Con Edison

Photo 5



Status as of: 4/10/02
Description: Block 1089, parking lot under high rise apartment building.
Photo by: Julie Abell Horn

Photo 6

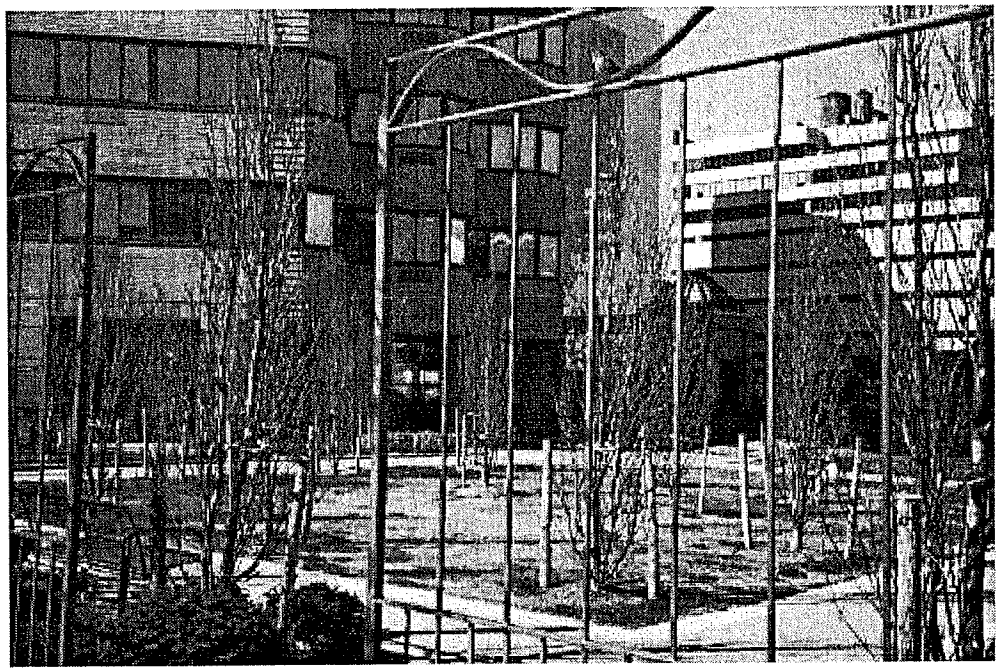


Status as of: 4/10/02
Description: Block 1089, parking lot under high rise apartment building.
Photo by: Julie Abell Horn

PROJECT: West 42nd Street
PROJECT #: 741280.04000

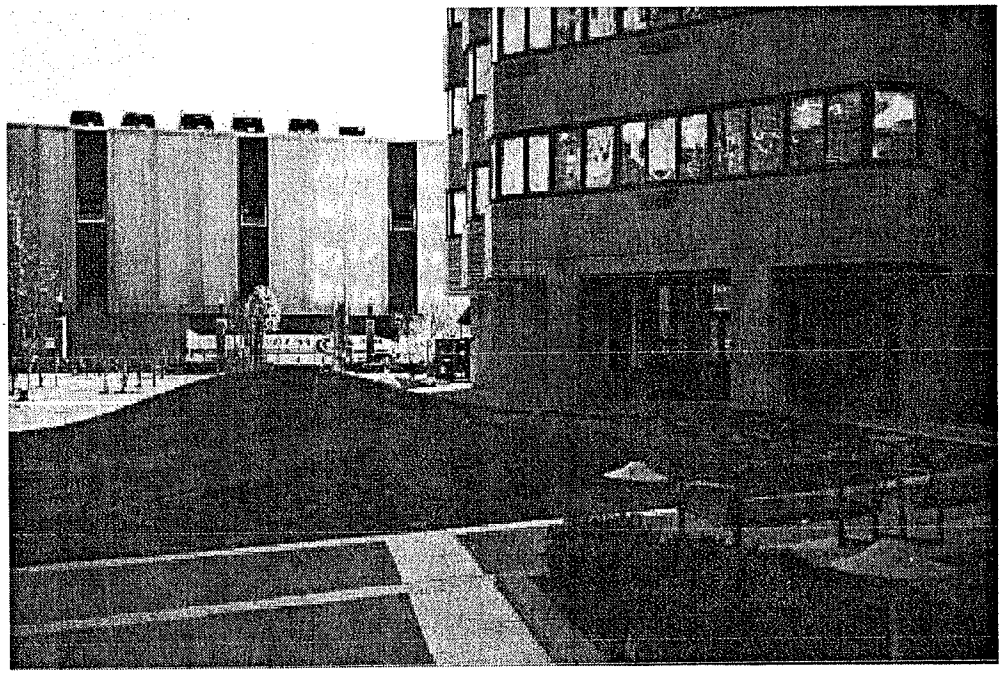
LOCATION:
CLIENT: Con Edison

Photo 7



Status as of: 4/10/02
Description: Block 1089, landscaped area east of high rise apartment building.
Photo by: Julie Abell Horn

Photo 8



Status as of: 4/10/02
Description: Block 1089, landscaped area east of high rise apartment building, bermed up areas.
Photo by: Julie Abell Horn

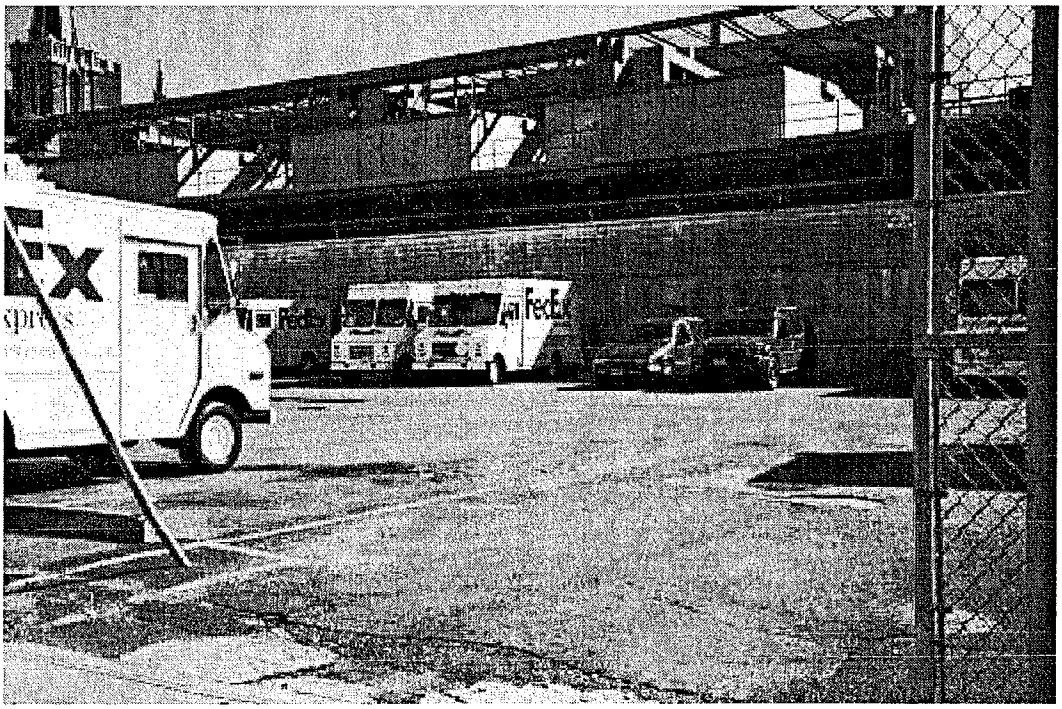
PROJECT: West 42nd Street
PROJECT #: 741280.04000

LOCATION:
CLIENT: Con Edison

Photo 9

Status as of: 4/10/02
Description: North side Block 1070, Fed Ex property on south side of 42nd Street.
Photo by: Julie Abell Horn

Photo 10

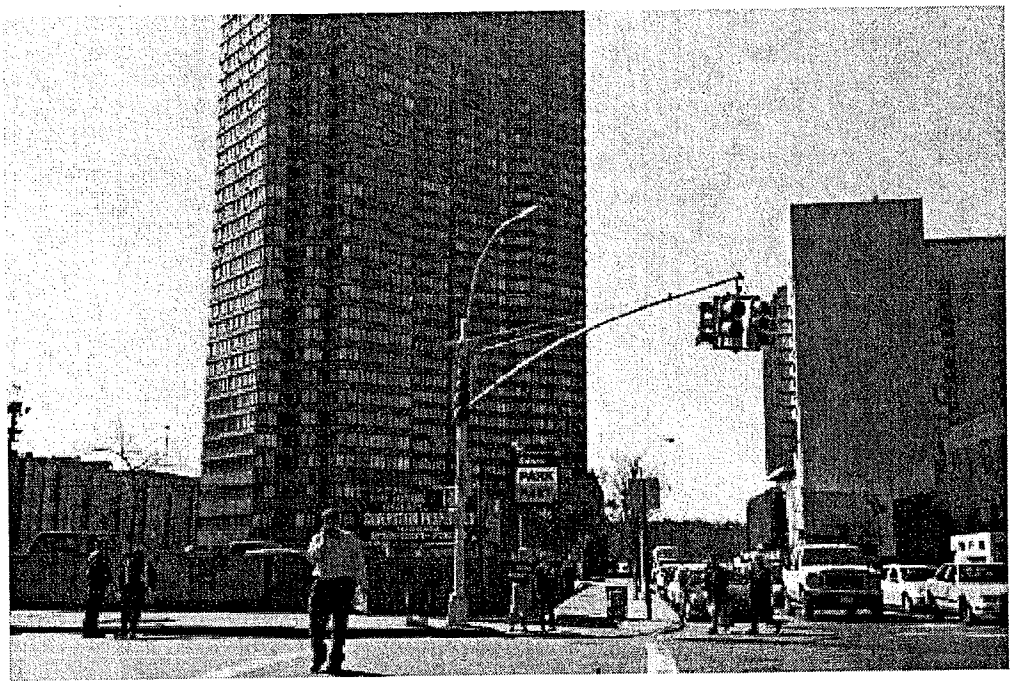


Status as of: 4/10/02
Description: North side Block 1070, Fed Ex property on south side of 42nd Street.
Photo by: Julie Abell Horn

PROJECT: West 42nd Street
PROJECT #: 741280.04000

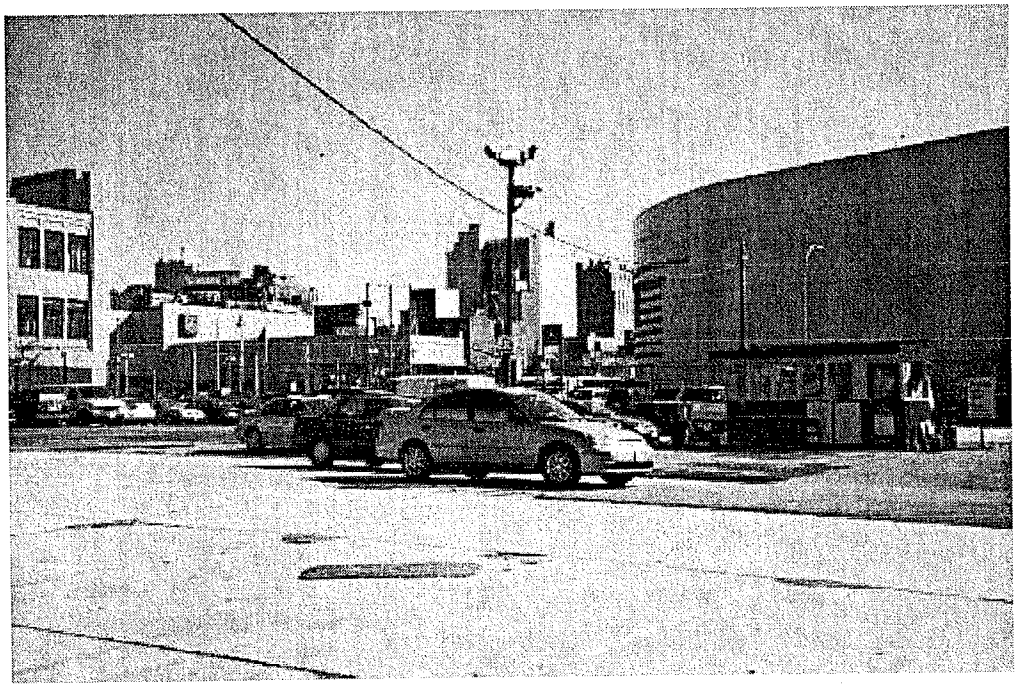
LOCATION:
CLIENT: Con Edison

Photo 11



Status as of: 4/10/02
Description: NE corner Block 1089, parking log.
Photo by: Julie Abell Horn

Photo 12



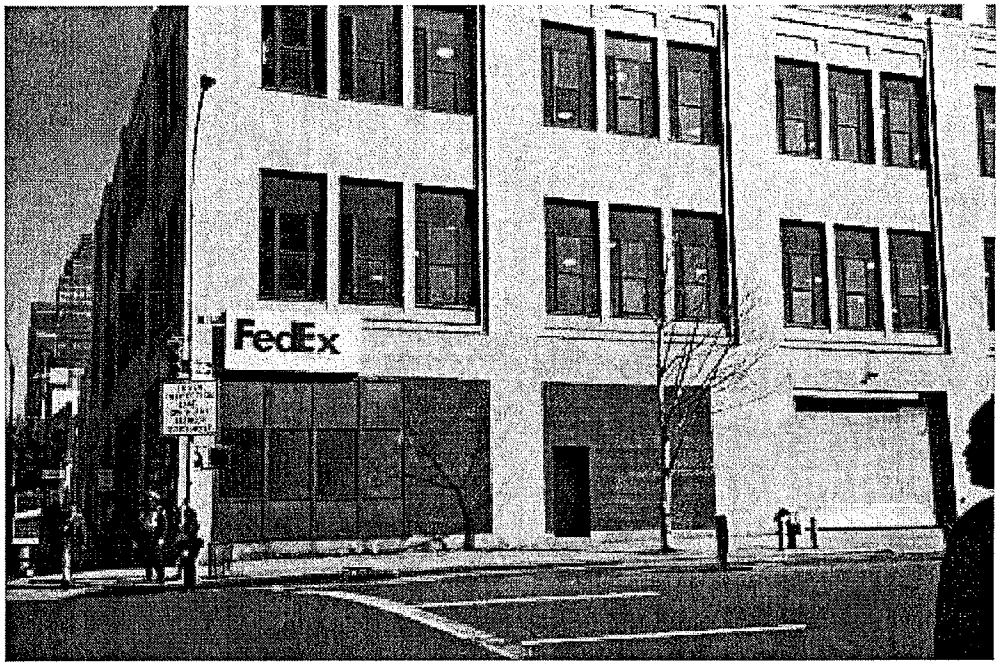
Status as of: 4/10/02
Description: East end Block 1089, parking lot.
Photo by: Julie Abell Horn

PHOTOGRAPHIC LOG
PARSONS

PROJECT: West 42nd Street
PROJECT #: 741280.04000

LOCATION:
CLIENT: Con Edison

Photo 13



Status as of: 4/10/02
Description: NW corner Block 1070, Fed Ex building, 42nd Street / 11th Avenue.
Photo by: Julie Abell Horn

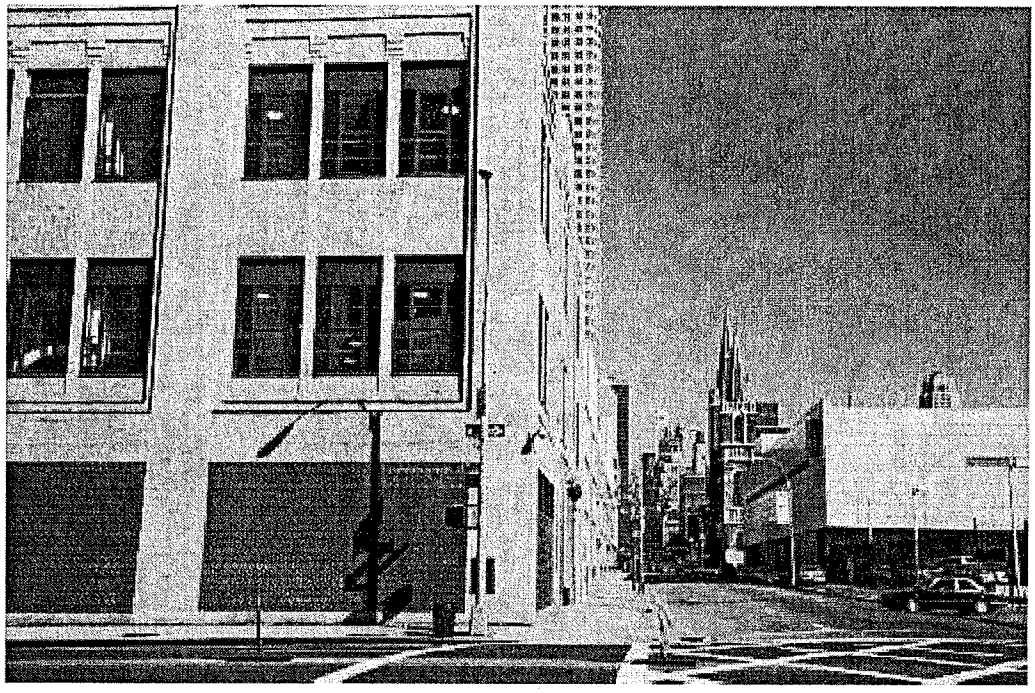
Photo 14

Status as of: 4/10/02
Description: SE corner Block 1070, 41st Street, Con Ed facility.
Photo by: Julie Abell Horn

PROJECT: West 42nd Street
PROJECT #: 741280.04000

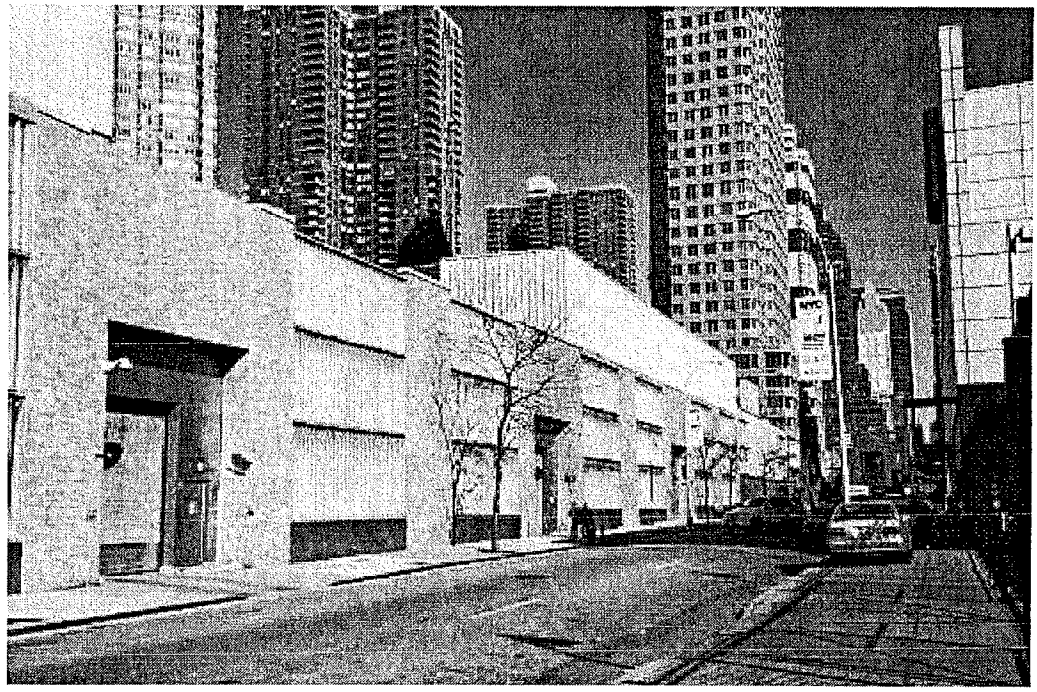
LOCATION:
CLIENT: Con Edison

Photo 15



Status as of: 4/10/02
Description: SE corner Block 1070, 41st Street / 11th Avenue.
Photo by: Julie Abell Horn

Photo 16

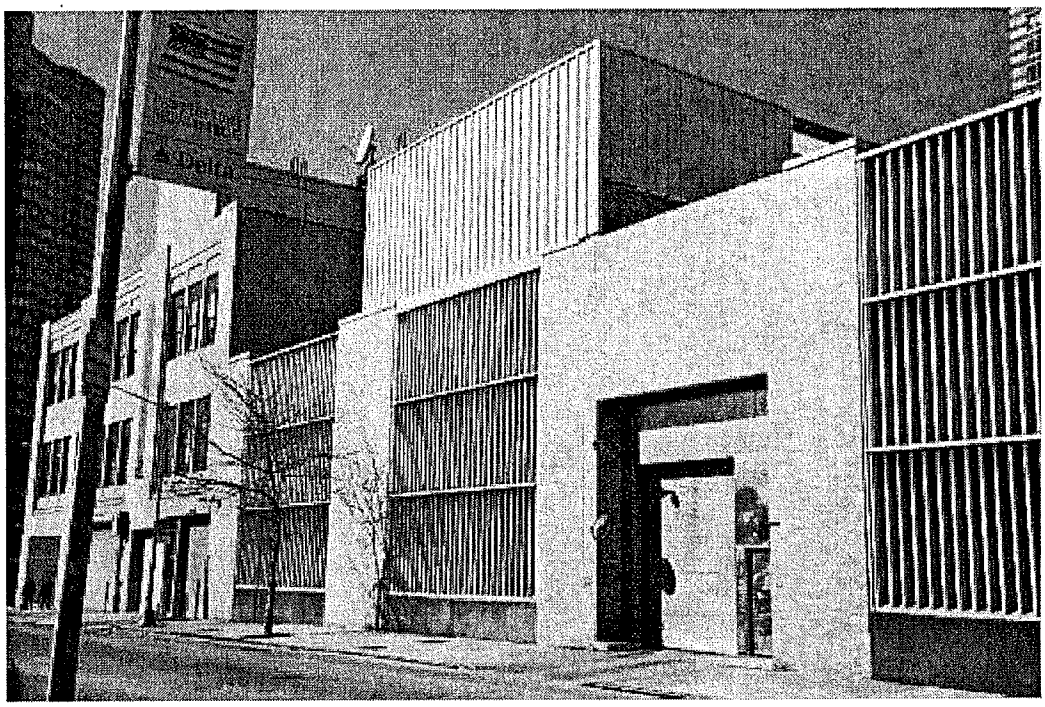


Status as of: 4/10/02
Description: Block 1070, north side of 41st Street, Con Ed Facility.
Photo by: Julie Abell Horn

PROJECT: West 42nd Street
PROJECT #: 741280.04000

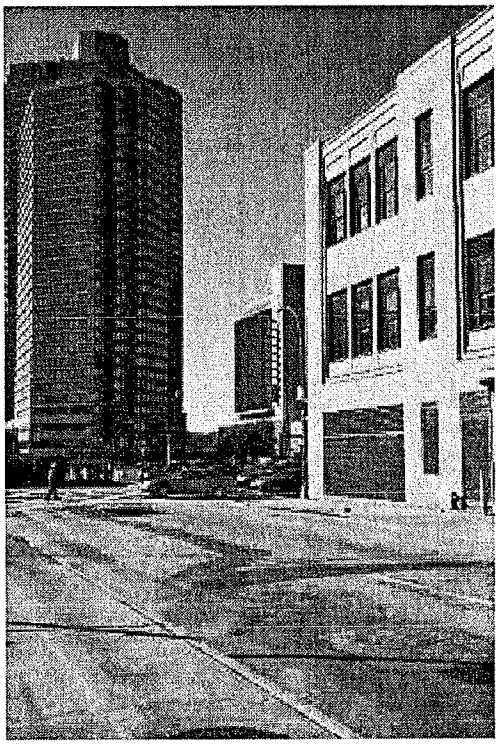
LOCATION:
CLIENT: Con Edison

Photo 17



Status as of: 4/10/02
Description: Block 1070, north side of 41st Street, Con Ed facility.
Photo by: Julie Abell Horn

Photo 18



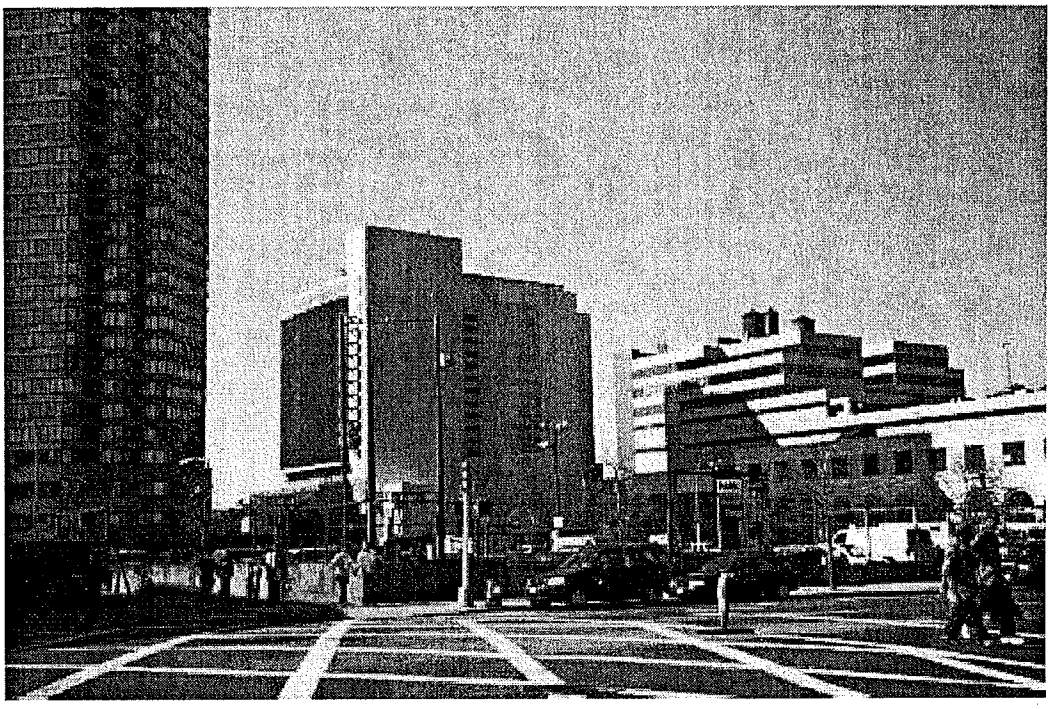
Status as of: 4/10/02
Description: Block 1089, intersection of 41st Street / 11th Avenue in foreground, high rise in background.
Photo by: Julie Abell Horn

PHOTOGRAPHIC LOG
PARSONS

PROJECT: West 42nd Street
PROJECT #: 741280.04000

LOCATION:
CLIENT: Con Edison

Photo 19



Status as of: 4/10/02
Description: SE corner Block 1089, parking lot.
Photo by: Julie Abell Horn