

D.W. Fyn

SUPPLEMENTAL REMEDIAL
INVESTIGATION REPORT
FYN PAINT & LACQUER CO., INC.
230 KENT AVENUE
BROOKLYN, NEW YORK
VCP #V00380-2

Prepared For

Fyn Paint & Lacquer Co., Inc.

September 2003

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SUPPLEMENTAL REMEDIAL INVESTIGATION REPORT

1.0 INTRODUCTION

Leggette, Brashears & Graham, Inc. (LBG) was retained by Fyn Paint & Lacquer Co., Inc. (Fyn) to conducted a Supplemental Remedial Investigation under the Voluntary Cleanup Program (VCP) in the vicinity of their facility at 230 Kent Avenue, Greenpoint, Brooklyn, New York. Fyn has entered into the Voluntary Cleanup Program (VCP) with the New York State Department of Environmental Conservation (NYSDEC) [NYSDEC Site ID V00380-2, Index No. W2-0873-00-10]. The purpose of the investigation was to further delineate the extent of contaminants encountered during the previous subsurface investigation conducted in May and June 2001. A copy of the NYSDEC approval letter is included in Appendix A. This investigation is described in the LBG report "Subsurface Investigation, Fyn Paint & Lacquer Co., Consolidated Edison, North First Street and Vicinity, Brooklyn, New York", dated February 2002.

The Supplemental Remedial Investigation consisted of the following:

- Sampling soil gas from beneath the Fyn building floor, the sidewalk outside the Fyn building and the ambient air within the building for laboratory analysis.
- Drilling of soil borings and sampling of soil at 8 locations surrounding and within the Fyn building for laboratory analysis.
- Construction of monitor wells within the 8 new soil borings.
- Sampling of ground water, for laboratory analysis, from the new and existing monitor wells.
- Survey of the new well locations and casing elevations and measurement of water levels within all wells at low and high tides to develop ground-water elevation contour maps.
- Laboratory analysis of air, soil and ground-water samples.
- Data evaluation and preparation of this report.

2.0 FIELD INVESTIGATION

2.1 Soil Gas and Ambient Air Sampling

On July 2, 2003, soil gas samples were collected from 5 points beneath the sidewalks adjacent to the east, south and west sides of the Fyn building. Sample locations are shown on figure 1. The sidewalk was drilled and a stainless steel probe was driven to between 3.5 and 4.0 ft bg (feet below grade). The probe was removed and a stainless-steel sampling tube with perforations along the bottom 0.5 foot was inserted in the hole. The hole in the sidewalk where the tube was inserted was sealed with modeling clay to prevent dilution of soil gas by ambient air. Soil gas was withdrawn with a peristaltic pump set to a 0.1 liter per minute flow rate and collected in laboratory supplied teflar bags which were stored in a cool, dark environment prior to shipment. The soil gas was shipped to York Analytical Laboratories (York) of Stamford, Connecticut for analysis of volatile organic compounds (VOCs) by EPA Method TO-15. The stainless steel probe and sampling tube was decontaminated between sample points. The holes were filled with sand and the sidewalk was sealed with concrete-sealing material.

On July 29, 2003, soil gas was sampled from 2 points beneath the floor of the Fyn building and an ambient air sample was collected from inside the building. Soil-gas sample locations are shown on figure 1. The samples were collected with the same methodology described above except that two soil-gas samples were collected from each location; one immediately below the concrete slab and one at 2.5 feet below the slab. The ambient air sample was collected by placing the pump intake 5 feet above the floor in the center of the building.

2.2 Soil Boring, Soil Sampling

Between July 21 and August 8, 2003, an LBG hydrogeologist supervised the drilling of 11 soil borings. Soil boring locations are shown on figure 2. Drilling was completed by Aquifer Drilling & Testing, Inc. (ADT) of New Hyde Park, New York.

With the exception of Boring MW-16, all drilling was accomplished using the hollow-stem auger method. Two attempts were made to drill the MW-16 boring with an auger but an impassable subsurface obstruction was encountered. MW-16 was completed using a mud-

rotary technique. All boring locations were cleared for subsurface utilities and obstructions either by vacuum truck or hand digging, prior to the start of drilling.

Soil was sampled in advance of the auger using a 2-foot split-spoon sampling device. The split spoon was cleaned with alconox and water and rinsed with water between samples. Soil samples were visually inspected, recorded on a geologic log and screened for the presence of VOCs with a photoionization detector (PID). The soil sample collected from above the ground water interface was placed in laboratory-supplied containers for analysis. If the soil sample exhibiting the highest PID response did not correspond with this interface sample, it too was packaged for laboratory analysis. In some instances where VOCs were detected in soil sampled below the ground water, a soil sample was analyzed to determine the vertical extent of contamination. Soil was sampled at 2 to 5-foot intervals to the ground water in MW-10 and MW-11 and continuously to where practical beneath the ground water in all other borings.

All soil samples were sent to Toxikon Corporation (Toxikon) of Bedford, Massachusetts for analysis of VOCs, semivolatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), pesticides, cyanide and Target Analyte List (TAL) metals by methods outlined in the EPA SW-846 publication. Laboratory results were completed with an ASP Category B Deliverables package.

Soil cuttings generated during drilling were transferred to DOT approved 55-gallon steel drums and stored temporarily inside the Fyn building pending removal for disposal. Several soil samples from these drums were composited and sent to American Analytical Laboratories for analysis of disposal characteristics in accordance with the disposal facility. The drums were removed from the Fyn building on August 14 and August 28, 2003 by American Environmental Assessment Corporation of Wyandanch, New York. Soil was disposed at Vexor Technology, Inc. of Medina, Ohio. Transportation and disposal manifests are included in Appendix B.

2.3 Monitor Well Construction

Following the completion of soil borings, a monitor well was installed in the borehole. Because of subsurface obstructions, no monitor wells were installed in Soil Boring MW-9 or the first two MW-16 borings. All monitor wells installed during the Supplemental

Investigation with the exception of MW-16, are constructed of 4-inch diameter, Schedule 40, 0.020-slot PVC well screen and 4-inch diameter, Schedule 40 PVC riser pipe. MW-16 was constructed with 2-inch diameter PVC screen and riser pipe. Twenty feet of well screen was set in each boring with the exception of MW-12 where a subsurface obstruction necessitated that 15 feet of screen be used.

The annular space surrounding each well screen was filled with No. 2 quartz filter sand from the bottom of the boring to 2 feet above the top of the well screen. A bentonite seal was placed above the sand pack. Wells were completed at grade with a well plug and 8-inch diameter street box.

The newly-installed monitor wells were developed to remove fine material from the sand pack and from within the well screen by surging them with a PVC bailer and evacuating turbid well water with a suction pump or bailer. Approximately 50 gallons of development water was removed from each new well. All development water was contained in 55-gallon drums inside the Fyn building and disposed in the same manner, and on the same dates as the drill cuttings. Transportation and disposal manifests are included in Appendix C.

2.4 Ground-Water Sampling

On August 7, 2003, ground-water samples were collected from Monitor Wells MW-1, MW-2, MW-3, MW-5 and MW-8. Depth to ground water and total depth of each well was measured with a clean interface meter and the standing well volume was calculated. Three well volumes were removed from each well with dedicated polyethylene bailers. The water inside each well was allowed to recover and fine material allowed to settle out prior to sampling. Ground water was sampled with a bailer and sent to Toxikon for analysis of VOCs and SVOCs. The ground-water sample from MW-5 was additionally analyzed for TAL metals and cyanide.
for from the building

On August 13, 2003, ground-water samples were collected from Monitor Wells GP-1, GP-2 and CE-4. These wells are 1-inch diameter and were purged and sampled by using a peristaltic pump and dedicated polyethylene and tygon tubing. Three well volumes were removed from each well prior to sampling. Samples from GP-1, GP-2 and CE-4 were analyzed by Toxikon for VOCs and SVOCs.

Ground-water samples were collected from Monitor Wells MW-9A, MW-10, MW-11, MW-12, MW-13, MW-14 and MW-16 between August 19 and August 25, 2003. These wells were constructed with 20 feet of well screen set from 15 to 17 feet below ground water. The wells were designed to be sampled at several different depths to define the vertical distribution of dissolved compounds.

These new wells were sampled by inserting a double 4-inch packer into the well to isolate a 2-foot section of the well screen. The packers were attached to a 2-foot length of 2-inch diameter steel pipe with holes for the admission of ground water. The packer assembly was lowered into the monitor well by attaching successive lengths of 2-inch diameter steel pipe. Once the packer assembly was set at the target sampling interval, a variable-rate submersible pump was lowered to the bottom of the packer assembly.

Single-use polyethylene tubing conveyed the water to the surface where it passed through a flow through cell containing a Horiba U-22XD multiparameter meter. The flow rate was set to less than 500 ml/m (milliliters per minute). Conductivity, turbidity, temperature, dissolved oxygen, oxygen-reduction potential and pH were measured during well evacuation. Samples were collected from the pump discharge upon successful stabilization of the above parameters. After completing the shallow sample interval in each well, the packer assembly was lowered to the next sample interval and the procedure was repeated. All samples were analyzed by Toxikon for VOCs and SVOCs. Six samples were additionally analyzed for TAL metals, cyanide, PCBs and pesticides. Monitor Wells MW-15 and CE-1 were not sampled due to the presence of free-phase product, details of which will be discussed in a following section. Monitor Wells CE-2, CE-3 and GP-3 were dry.

The remaining wells (MW-4, MW-6, MW-7 and MW-16) were sampled on August 21 and 25, 2003, by purging 3 well volumes with a submersible pump and sampling either with a bailer or from the pump discharge. Parameters were recorded during purging. An attempt was made to sample MW-16 at multiple intervals below the water table but due to the meager amount of water which flowed into the well, it was evacuated and sampled with a bailer after recovery.

Table 1 summarizes the depth intervals at which each well was sampled and the compounds for which each sample was analyzed. All purge water was contained for future

disposal (removed from the site on August 14 and August 28, 2003). Transportation and disposal manifests are included in Appendix B.

2.5 Monitor Well Survey and Water Level Measurements

On August 13, 2003, a differential leveling survey was conducted with a Topcon AT-G6 autolevel to determine the elevations of the tops of casings for the new monitor wells. Measurements were related to existing monitor wells, the elevations for which were previously established relative to the Brooklyn Topographic Datum. The horizontal position of each well was measured with measuring tape or measuring wheel relative to previously established well positions.

On August 22, 2003, the depths to ground water were measured in each monitor well with an electronic interface probe. The probe was decontaminated between wells. The measurement of wells near the East River was done near the time of low tide along the river. The measurements of all wells were repeated on September 22, 2003 at a time near high tide on the East River.

3.0 SOIL AND GROUND-WATER QUALITY

3.1 Soil Gas/Ambient-Air Survey Results

Laboratory results for the soil gas and ambient air samples are summarized on table 2. VOCs were detected in every soil-gas sample as well as the ambient air sample. The most prevalent VOC was acetone and was detected at concentrations up to 1,180,000 ppbv (parts per billion by volume) [Sample AS-6]. Other VOCs detected at high concentrations were toluene, xylenes and isopropanol. The exterior and interior soil-gas samples with the highest concentrations and greatest number of compounds detected were AS-1 and AS-6, respectively.

The ambient air sample was dominated by acetone, toluene and isopropanol. The acetone concentration was 540 ppbv. Laboratory results are included as Appendix C.

3.2 Soil Analysis Results

3.2.1 VOCs

Laboratory analysis of soil samples for VOCs are summarized on table 3 and indicates that 12 of the 13 samples analyzed (8 soil borings) contained at least one VOC at a concentration above the Method Detection Limit (MDL). Of the 8 soil borings completed, 4 contained VOCs at concentrations which exceeded the NYSDEC Recommended Soil Clean-up Objectives (RSCO) as outlined in the Technical Administrative and Guidance Memorandum (TAGM) 4046. These borings were MW-11, MW-12, MW-13 and MW-15.

The most prevalent VOC was xylenes and was detected at concentrations up to 2,100,000 ug/kg (micrograms per kilogram) [MW-15, 15-17 ft bg]. Other VOCs detected at high concentrations were toluene, ethylbenzene, acetone and 4-methyl-2-pentanone (methyl isobutyl ketone or MIBK). The most highly VOC-impacted soil came from the MW-15 boring followed by MW-11 and MW-12.

3.2.2 SVOCs

Laboratory analysis of soil samples for SVOCs are summarized on table 4 and indicate that 3 of 13 samples analyzed (8 soil borings) contained at least 1 SVOC at a concentration above the MDL. Of the 8 soil borings completed, 3 contained SVOCs at concentrations above TAGM 4046 RSCO. These borings were MW-10, MW-14 and MW-15.

The SVOC with the greatest exceedance above RSCO was benzo(a)pyrene which was detected at concentrations up to 210 ug/kg (micrograms per kilogram). The other SVOCs detected above RSCO were benz(a)anthracene and 2-methylphenol. The most highly SVOC-impacted soil came from MW-10 and MW-14.

3.2.3 PCBs and Pesticides

No PCBs or pesticides were detected at concentrations above the MDL in any of the 13 soil samples.

3.2.4 Metals

Every metal on the TAL metals list except silver was detected in at least one soil sample. Results are summarized on table 5. On average, iron, aluminum and magnesium were detected at the highest concentrations in the soil samples.

Individual cleanup objectives for many of the metals in TAGM 4046 are listed as a numeric concentration or "site background". No soil samples were collected during this investigation with the intent of establishing general site background metals concentrations. In an industrial, urban area such as the Fyn location, it is expected that metals concentrations in soil to be ubiquitous. Therefore, comparison of metals analysis results from this investigation to the numerically-specific RSCOs should not be considered as exceedance of the soil cleanup standards.

Seven metals were detected at concentrations exceeding their numerical Cleanup Objectives (iron, cadmium, chromium, nickel, selenium, zinc and copper).

Laboratory summary pages for soil analysis are included as Appendix D. Category B deliverables are submitted to the NYSDEC under separate cover.

3.3 Ground-Water Analysis Results

3.3.1 VOCs

Laboratory analysis of ground-water samples for VOCs are summarized on table 6 and indicate that of the 18 monitor wells sampled, 14 contained ground water with detectable concentrations of VOCs (above the MDL). VOCs at concentrations above the NYSDEC Ground-Water Quality Standard or Guidance Value (GWQS or GV) were detected in ground-water samples from

MW-4, MW-5, MW-6, MW-7, MW-8, MW-9A, MW-10, MW-11, MW-12, MW-16, GP-1 and GP-2.

The most prevalent VOCs in ground-water samples were xylenes, toluene, ethylbenzene and acetone. Xylenes and ethylbenzene were detected at their greatest concentrations in the MW-12 ground-water samples (xylenes at 56,000 ug/l [micrograms per liter] and ethylbenzene at 9,700 ug/l). Toluene was detected at 87,000 ug/l in one of the MW-9A samples and acetone was detected at 9,500 ug/l in the MW-4 sample. Figure 4 is a map showing dissolved concentrations for the most prevalent VOCs.

Monitor Wells MW-9A, MW-10, MW-11, MW-12, MW-13 and MW-14 were sampled at several depth intervals to lend insight to the vertical ground-water quality distribution. Dominant, lighter-than-water (specific gravity < 1.0) VOCs showed a decreased concentration with depth in most of the wells. For example, ethylbenzene, toluene and xylene concentrations in MW-9A samples decreased between 59 percent and 61 percent from the top sample (17-19 ft bg) to the bottom sample (25-27 ft bg). Ethylbenzene in MW-11 and acetone in MW-12 did not follow this trend and increased in concentration with depth. Chlorinated solvents (specific gravity > 1.0) concentrations remained the same or increased with depth (see table 6, MW-9A, MW-10 and MW-14).

3.3.2 SVOCs

SVOC laboratory results are summarized on table 7. Of the 18 monitor wells sampled, 14 contained ground water with detectable concentrations of SVOCs (above the MDL). SVOCs at concentrations above the GWQS or GV were detected in ground-water samples from MW-11, MW-12 and CE-4.

The most prevalent SVOCs in ground-water samples were bis (2-ethylhexyl)phthalate, 2,4-dimethylphenol, 2-methylphenol and benzyl alcohol. Bis (2-ethylhexyl) phthalate was detected at a concentration of 200 ug/l

in the CE-4 sample. 2,4-dimethylphenol was detected at a concentration of 90 ug/l in the MW-11 sample (23-25 ft bg interval).

Most SVOCs exhibited a decreased concentration with depth in those wells sampled at several intervals although several compounds did not follow this trend (see table 7).

3.3.3 PCBs and Pesticides

No PCBs or pesticides were detected at concentrations above the MDL in any of the ground-water samples.

3.3.4 Metals

Seven ground-water samples were analyzed for total TAL metals. Laboratory results are summarized on table 8. Each sample had a minimum of 4 and a maximum of 8 metals that exceed the GWQS or GV for that particular metal. Predominant metals in ground water include iron, sodium and manganese. Ground-water samples from MW-12 and MW-14 contained metals at the highest overall concentrations. Laboratory summary pages for ground-water analysis are included as Appendix E. Category B deliverables are submitted to the NYSDEC under separate cover.

4.0 HYDROGEOLOGY

Based on soil samples collected during drilling for monitor wells, subsurface geology consists mainly of medium to fine brown sand with varying amounts of silt and gravel. Geologic logs for the SRI borings are attached in Appendix F. Several borings (MW-9A, MW-11, MW-12, MW-13, MW-14 and MW-15) encountered coarse sand at depths between 9 and 24 ft bg and extending to 31 ft bg in some cases. Heavy drilling and/or auger refusal was encountered in MW-9 at 10.5 ft bg, MW-12 at 24 ft bg, MW-13 at 7-9 ft bg and MW-16 at 9-20 ft bg. Presumably, this heavy drilling is the result of a cobble/boulder layer at these depths.

Ground water depth below top of well-casing was measured between 5.41 feet (GP-2) and 18.03 feet (MW-D) on August 22, 2003. Ground-water elevations on this date ranged between -1.42 feet (MW-2) and 3.11 feet (MW-16) relative to the site datum.

Figures 5 and 6 are ground-water elevation contour maps for August 22 and September 22, 2003 and were measured near the times of low tide and high tide along the East River, respectively.

Ground water surrounding the site flows westward toward the East River. Ground water beneath the Fyn building is between 0.2 and 0.9 foot higher in elevation than areas to the east as evidenced by measurements in MW-11, MW-15, MW-16 and MW-9A. This causes the contour lines to bend toward the west and indicates a radial flow pattern toward the west, northwest and west-southwest.

Monitor Well CE-1 was not used in contouring these maps. The elevation of the product detected in CE-1 is 5 to 6 feet higher than the water and product elevations measured in wells only 40 and 70 feet away (MW-16 and MW-15, respectively). The water/product in this well may be abnormally high due to vadose zone material entering and becoming trapped in the well or due to its proximity to the tank grave of the underground storage tanks (UST) beneath the Con Edison parking lot.

Comparison of the ground-water elevation contour maps for times of low and high tide along the East River does not indicate a significant change in the ground-water flow patterns between the two. Influence of ground-water elevation by the East River tides extends approximately 100 feet inland from the shoreline. This is not far enough to impact the flow patterns within the areas of the dissolved plume or free-phase product.

Free-phase product was measured in Monitor Wells MW-15, CE-1 and MW-9A. Thicknesses of 0.48 and 0.02 foot were measured in CE-1 on August 7 and August 22, 2003. Product was first detected in MW-9A on September 22, 2003 at a thickness of 0.01 foot.

Product was first measured in MW-15 on August 4, 2003 at a thickness of approximately 5 feet. Product has been removed from MW-15 by hand-bailing 2 to 3 times per week and is contained in a steel 55-gallon drum within the Fyn building. Product thickness prior to bailing has varied between 1 and 2 feet. Table 9 summarizes water levels for the two measurement dates.

5.0 CONCLUSIONS

Laboratory analysis of soil samples collected during the SRI indicate the presence of VOCs including xylenes, toluene, ethylbenzene, acetone and methyl isobutyl ketone. Concentrations in soil were highest in the MW-11, MW-12, MW-13 and MW-15 borings. The impacted soil exists at and below the water table. PID screening indicated little or no VOCs in soil above the water table with the exception of MW-15 and MW-16.

Analysis of ground-water samples indicates the presence of dissolved VOCs in most of the ground-water samples. Twelve wells contained dissolved VOCs at concentrations above NYSDEC GWQS. Greatest VOC impact to ground water exists in the region of MW-4, MW-9A, MW-11, MW-12, MW-15, MW-16 and CE-1. Although little soil impact was detected in the MW-9A boring, high concentrations of VOCs were detected in ground-water samples from this monitor well. Conversely, VOCs observed in MW-13 soil samples were not reflected in ground-water samples.

The dissolved VOC plume extends to the northwest to MW-4 and MW-12 but not as far as CE-4, GP-2 or MW-1. Its lateral limit to the west is defined by low levels or no VOCs in MW-8, MW-10 and MW-14.

Free-phase product was observed in MW-15, CE-1 and MW-9A and has been observed in CE-2 in the past. The greatest thickness is near MW-15. The product appears to be confined to the area beneath the north wall of the Fyn building and an unknown portion of the Con Edison parking lot north of Fyn.

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September 30, 2003

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TABLES

LEGGETTE, BRASHEARS & GRAHAM, INC.

Table 1
FYN PAINT & LACQUER COMPANY
230 KEBT AVENUE
GREENPOINT, BROOKLYN, NEW YORK

**Summary of Ground-Water Sample Depths
and Compounds Analyzed**

Well ID	Static Water Level Prior to Sampling (ft btoc)	Intervals Sampled (ft btoc)	Compounds Analyzed	Purging/Sampling Technique
MW-1	8.51	8.51-23*	VOCs, SVOCs	3 volumes, bailer
MW-2	9.32	9.32-20*	VOCs, SVOCs	3 volumes, bailer
MW-3	2.31	2.31-30*	VOCs, SVOCs	3 volumes, bailer
MW-4	10.93	10.93-16*	VOCs, SVOCs	Sub. pump/bailer
MW-5	8.37	8.37-20*	VOCs, SVOCs, metals, cyanide	3 volumes, bailer
MW-6	17.85	17.85-29*	VOCs, SVOCs	Sub. pump/low flow
MW-7	17.81	17.81-30*	VOCs, SVOCs	Sub. pump/low flow
MW-8	12.81	12.81-25*	VOCs, SVOCs	3 volumes, bailer
MW-9A	14.95	17-19	VOCs, SVOCs	
		21-23	VOCs, SVOCs, metals, PCBs, pest., cyanide	Sub. pump/low flow
		25-27	VOCs, SVOCs	
MW-10	9.66	11-13	VOCs, SVOCs	
		18-20	VOCs, SVOCs	Sub. pump/low flow
		25-27	VOCs, SVOCs	
MW-11	13.17	15-17	VOCs, SVOCs, metals, PCBs, pest., cyanide	Sub. pump/low flow
MW-12	9.96	23-25	VOCs, SVOCs	
		13-15	VOCs, SVOCs, metals, PCBs, pest., cyanide	Sub. pump/low flow
MW-13	17.92	21-23	VOCs, SVOCs	
		19-21	VOCs, SVOCs	
		24-26	VOCs, SVOCs, metals, PCBs, pest., cyanide	Sub. pump/low flow
MMW-14	11.49	28-30	VOCs, SVOCs	
		13-15	VOCs, SVOCs, metals, PCBs, pest., cyanide	
		20-22	VOCs, SVOCs	Sub. pump/low flow
		25-27	VOCs, SVOCs	
MW-15			not sampled (free product)	
MW-16	15.51	15.51-33*	VOCs, SVOCs, metals, PCBs, pest., cyanide	3 volumes, bailer
GP-1	6.82	6.82-10.2*	VOCs, SVOCs	3 volumes, parastaltic
GP-2	5.37	5.37-8.94*	VOCs, SVOCs	3 volumes, parastaltic
GP-3			not sampled (dry)	
CE-1			not sampled (free product)	
CE-2			not sampled (dry)	
CE-3			not sampled (dry)	
CE-4	5.61	5.61-8.64*	VOCs, SVOCs	3 volumes, parastaltic

ft btoc = feet below top of casing

* well evacuated and left to recover before sampling, therefore sample assumed to represent entire saturated water column

TABLE 2

FYN PAINT & LACQUER COMPANY
230 KENT AVENUE
GREENPOINT, BROOKLYN, NEW YORK

Summary of Subsurface Air Samples - EPA Method TO-15
Collected July 2 and July 29, 2003

		AS-1	AS-2	AS-3	AS-4	AS-5	AS-6	AS-7	AS-7	Ambient
	Interval (ft bgl) ¹	3.7-4.2	3.8-4.3	3.0-3.5	3.5-4.0	0.5-1.0	1.75-2.25	0.75-2.25	2.0-2.5	Air
	Units	(ppbv) ²	(ppbv)	(ppbv)	(ppbv)	(ppbv)	(ppbv)	(ppbv)	(ppbv)	NA
1,1,1 trichloroethane										
1,1 Dichloroethane				6	20	86	14	2,130	3,400	
1,2,4 trimethylbenzene						4.8				
2,2,4-trimethylpentane				1.6	1.2	1.6	1.2			1.7
Acetone							220			
Benzene				28	31	110	38	1,180,000	695,000	405,000
Chloroethane				310	1.3	1.5	8.1	6.1	2,200	4,800
cis-1,3-dichloropropylene				490						
Ethylbenzene				34						
o-xylene				1,100	26	6.1	5.2	27	1,960	25,200
p&m xylene				130	5.2	1.4	3.3	4.7	240	4,200
Tetrachloroethylene				2,970	81	17	13	70	1,670	23,600
Toluene					1.9	16	3.2	7.2	230	1,270
Trichloroethylene				690	15	15	90	39	23,500	313,000
Vinyl chloride				20		1.4	6.2	1	270	700
MTBE				350						
Ethylacetate				13		91				
Isopropanol							4,500	2,200		8
Methyl ethyl ketone							160	55,000	39,700	10,400
Methyl isobutyl ketone							28	15,100	26,000	470
n-Hexane								1,300	2,200	6,300
n-Heptane								17	370	390
4-Ethyltoluene								11		620
Carbon disulfide										1.6
										1.3
										1.3
										1.3

¹/ Feet below grade²/ Parts per billion by volume

2/ Not detected

cmnt

22-Sep-03
Report issued before samples were analyzed in final form. Final samples (b)

Table 3

FYN PAINT & LACQUER COMPANY
230 KEBT AVENUE
GREENPOINT, BROOKLYN, NEW YORK

Summary of Soil Quality, Volatile Organic Compounds
Sampled Between July 21 and August 8, 2003

Compound	units	Sample ID	MW-9	MW-9A	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-15	MW-16
		Interval (ft bg)	10.0-10.5	14-16	29-31	12-14	13-15	13-14	22-23	29-31	11-13	9-11
		DF=1	DF=1	DF=1	DF=500	DF=500	DF=5	DF=50	DF=1	DF=1,000	DF=25,000	DF=200
1,2,4-trimethylbenzene	(ug/kg)											
1,3,5-trimethylbenzene	(ug/kg)											
2-butanone (MEK)	(ug/kg)											
2-hexanone	(ug/kg)											
4-methyl-2-pentanone (MIBK)	(ug/kg)											
Acetone	(ug/kg)											
cis-1,2-dichloroethene	(ug/kg)											
Ethylbenzene	(ug/kg)											
Isopropylbenzene	(ug/kg)											
Methylene chloride	(ug/kg)											
n-propylbenzene	(ug/kg)											
Naphthalene	(ug/kg)											
Styrene	(ug/kg)											
Tetrachloroethene	(ug/kg)											
Toluene	(ug/kg)											
Trichloroethene	(ug/kg)											
Xylenes	(ug/kg)											

ft bg = feet below grade

TAGM 4046 RSCO = Technical & Administrative Guidance Memorandum 4046 Recommended Soil Cleanup Objective

DF = dilution factor

ug/kg = micrograms per kilogram

(J) = indicates an estimated value. Data indicate the presence of a compound less than the sample quantitation limit

(B) = analyte is found in the associated blank as well as in the sample

(E) = compound concentration exceeds the calibration range of the GC/MS

[] exceeds RSCO

Table 4

FYN PAINT & LACQUER COMPANY
230 KEBT AVENUE
GREENPOINT, BROOKLYN, NEW YORK

**Summary of Soil Quality, Semivolatile Organic Compounds
Sampled Between July 21 and August 8, 2003**

ft bg = feet below grade

TAGM 4046 RSCO = Technical & Administrative Guidance Memorandum 4046 Recommended Soil Clean-up Objective

DF = dilution factor

Df = dilution factor

$\mu\text{g}/\text{kg}$ = micrograms per kilogram

(J) = indicates an estimated value

exceeds BSCO

exceeds RSCU

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Table 5

FYN PAINT & LACQUER COMPANY
230 KEBT AVENUE
GREENPOINT, BROOKLYN, NEW YORK

Summary of Soil Quality, Target Analyte List Metals + Cyanide
Sampled Between July 21 and August 8, 2003

Metal	Sample ID	MW-9	MW-9A	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-16	TAGM 4046					
		Interval (ft bg)	10.0-10.5	14-16	29-31	12-14	13-15	13-14	22-23	29-31	11-13	9-11	15-17	29-31	9-9.5	RSCO
	units															
Aluminum	mg/kg	8050	4220	2420	5560	6080	4950	2050	1920	4610	6540	3620	3200	7510	SB	
Antimony	mg/kg			1.2 (B)	0.31 (B)	0.32 (B)					0.45 (B)					SB
Arsenic	mg/kg	2.4	0.86 (B)	0.73 (B)	3.5	2.5	2.4	0.27(B)	2.7	1.5	1.45 (B)	0.76 (B)	0.87 (B)	1.9	7.5 or SB	
Barium	mg/kg	63.2	41.1	19.9 (B)	28.1	47.2	29	13.0 (B)	15.9 (B)	41.8	59.1	38.8	28.2	57.1	300 or SB	
Beryllium	mg/kg	0.64	0.44 (B)	0.25 (B)	0.46 (B)	0.57 (B)	0.47 (B)	0.24 (B)	0.45 (B)	0.47 (B)	0.48 (B)	0.44 (B)	0.34 (B)	0.50 (B)	0.16 or SB	
Cadmium	mg/kg	4.6	1.44 (B)	0.64	1.8	4.1	2.4	0.47 (B)	3.1	1.47 (B)	1.3	0.8	0.73	3.1	1 or SB	
Calcium	mg/kg	3410	844	749	7900	2290	2050	393 (B)	263 (B)	731	1200	1110	841	11800	SB	
Chromium	mg/kg	33.7	12.3	7.7	15.1	26.4	18.5	5.1	11.1	13.9	15.8	9	8.9	25.1	10 or SB	
Cobalt	mg/kg	9.6	6.1	3.2 (B)	5.6 (B)	8.9	5.4 (B)	2.5 (B)	5.5 (B)	6.1	5.7	4.3 (B)	4.2 (B)	8.7	30 or SB	
Copper	mg/kg	26.6	16.3	8.2	15.8	21.1	14.1	5.4	8.9	12.3	12.7	8.1	8.2	27.8	25 or SB	
Iron	mg/kg	39700	13600	6080	15900	33800	22100	4940	28600	13500	13800	8240	7490	28100	2,000 or SB	
Lead	mg/kg	33	5.5	2.8	31.7	28.6	22.6	1.9	5.3	14.3	6	3.8	3.3	45.3	SB	
Magnesium	mg/kg	2230	1610	1210	2650	2160	1690	838	511 (B)	1720	3560	2030	1420	2790	SB	
Manganese	mg/kg	558	404	269	202	541	252	206	307	173	104	264	307	461	SB	
Mercury	mg/kg			0.09		0.04									0.1	
Nickel	mg/kg	15.1	12.3	5.3	10.4	13.3	11	4.5 (B)	6.4	9.3	10.8	8.6	7.9	12.4	13 or SB	
Potassium	mg/kg	1410	865	350 (B)	550 (B)	940	640	270 (B)	276 (B)	873	1560	856	577	1130	SB	
Selenium	mg/kg	2.4	0.74	0.65	1.1	2.1	1.5	0.40 (B)	1.8	0.63	0.71	0.69	0.78	1.9	2 or SB	
Silver	mg/kg	520 (B)	269 (B)	195 (B)	52.5 (B)	56.1 (B)	240 (B)	254 (B)	238 (B)	322 (B)	1260	1590	597	240 (B)	SB	
Sodium	mg/kg			1.2	0.94 (B)	0.91 (B)									SB	
Thallium	mg/kg														SB	
Vanadium	mg/kg	57.5	21.5	10.6	20.4	43.6	29.6	7	27.4	20.5	22.2	12.4	10.9	44	150 or SB	
Zinc	mg/kg	37.5	23.7	15	45.6	51	37.1	10.4	20.4	32.6	39.9	27	20.4	40.9	20 or SB	
Cyanide	mg/kg														SB	

ft bg = feet below grade

TAGM 4046 RSCO = Technical & Administrative Guidance Memorandum 4046 Recommended Soil Cleanup Objective

mg/kg = milligrams per kilogram

exceeds RSCO numerical value

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Table 6

FYN PAINT & LACQUER COMPANY
230 KENT AVENUE
GREENPOINT, BROOKLYN, NEW YORK

**Summary of Ground-Water Quality, Volatile Organic Compounds
Sampled on August 7, 21 and 25, 2003**

NSDTEL CLOUDS AND CY = NANO VARIO STATE LEVEL INVESTIGATIONS OF ENVIRONMENTAL POLLUTION IN CHINA

DF ≡ dilution factor

119 / 1 = micrograms per

400 - *Litologia antis petr.*

(1) = indicates an estimated value. Only indicate the presence of a compound.

(D) - although it is the associated blank as well as in the sample

(E) $\text{C}_6\text{H}_5\text{CH}_2\text{COOH}$

EORTC/SGO guidelines

exceeds GWS

Table 6 (cont.)

FYN PAINT & LACQUER COMPANY
230 KENT AVENUE
GREENPOINT, BROOKLYN, NEW YORK

Summary of Ground-Water Quality, Volatile Organic Compounds
Sampled August 13, 2003

Compound	Sample ID	GP-1		GP-2		GP-3		CE-1		CE-2		CE-3		CE-4		NYSDEC GWQS or GV
		units	DF≈1	units	DF≈1	units	DF≈1	units	DF≈1	units	DF≈1	units	DF≈1	units	DF≈1	
1,1,1-trichloroethane		(ug/l)				4 (J)										5
1,1,2-trichloroethane		(ug/l)				4 (J)										1
1,1-dichloroethane		(ug/l)						8 (J)								5
1,1-dichloroethene		(ug/l)						9 (J)								5
1,2,3-trichloropropane		(ug/l)														0.04
1,2,4-trimethylbenzene		(ug/l)														5
1,2-dichlorobenzene		(ug/l)														3
1,3,5-trimethylbenzene		(ug/l)														5
2-butanone (MEK)		(ug/l)														50
2-hexanone		(ug/l)														50
4-methyl-2-pentanone		(ug/l)														--
Acetone		(ug/l)														50
Benzene		(ug/l)				2 (J)										1
Carbon tetrachloride		(ug/l)														5
Chlorobenzene		(ug/l)														5
Chloroethane		(ug/l)														5
Chloroform		(ug/l)														7
cis-1,2-dichloroethene		(ug/l)				2 (J)		12 (J)								5
Ethylbenzene		(ug/l)														5
Isopropylbenzene		(ug/l)														5
Methyl (tert-butyl)-ether		(ug/l)						7 (J)								10
Methylene chloride		(ug/l)														5
n-propylbenzene		(ug/l)														5
Naphthalene		(ug/l)														10
Syrene		(ug/l)														5
Tetrachloroethene		(ug/l)														5
Toluene		(ug/l)														5
Trans-1,2-dichloroethene		(ug/l)														5
Trichloroethene		(ug/l)														5
Vinyl chloride		(ug/l)														2
Xylenes		(ug/l)														5

NYSDEC GWQS or GV = New York State Department of Environmental Conservation Ground-Water Quality Standards or Guidance Values

DF = dilution factor

ug/l = micrograms per liter

(J) = indicates an estimated value, data indicate the presence of a compound less than the sample quantitation limit

(W) = analyte is found in the associated blank as well as in the sample

(E) = compound concentration exceeds the calibration range of the GC/MS

(D) = compound identified in an analysis at a secondary dilution that also

exceeds GWQS

Table 6 (cont.)

FYN PAINT & LACQUER COMPANY
230 KENT AVENUE
GREENPOINT, BROOKLYN, NEW YORK

Summary of Ground-Water Quality*, Volatile Organic Compounds
Sampled August 19 and 21, 2003

FC C 226/1

Compound	Sample ID	MW-9A Interval (17-19 fg)	MW-9A DF=100	MW-9A DF=500	MW-9A DF=10	MW-9A DF=500	MW-10 DF=10	MW-10 DF=500	MW-10 DF=10	MW-11 DF=10	MW-11 DF=500	MW-11 DF=10	MW-11 DF=500
Compound	units	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
1,1,1-trichloroethane													
1,1,2-trichloroethane													
1,1-dichloroethane													
1,1-dichloroethylene													
1,2,3-trichloropropane													
1,2,4-trimethylbenzene													
1,2-dichlorobenzene													
1,2-dichloropropane													
1,3,5-trimethylbenzene													
2-butanone (MEK)													
2-hexanone													
4-methyl-2-pentanone													
Acetone													
Benzene													
Carbon tetrachloride													
Chlorobenzene													
Chloroethane													
Chloroform													
cis-1,2-dichloroethene													
Ethylbenzene													
Isopropylbenzene													
Methyl tert-butyl-ether													
Methylene chloride													
n-propylbenzene													
Naphthalene													
Styrene													
Tetrahydroethylene													
Toluene													
Trans-1,2-dichloroethen													
Trichloroethene													
Vinyl chloride													
Xylenes													

* fg = fact below grade

NYSDDEC GWQS or GV = New York State Department of Environmental Conservation Ground-Water Quality Standards or Guidance Values

DF = dilution factor

ug/l = micrograms per liter

ug/l = indicates an estimated value. Data indicate the presence of a compound less than the sample quantitation limit

(B) = analyte is found in the associated blank as well as in the sample

(E) = compound concentration exceeds the calibration range of the GC/MS

(D) = compound identified in an analysis at a secondary dilution factor

Exceeds GWQS

Table 6 (cont.)

FYN PAINT & LACQUER COMPANY
230 KENT AVENUE
GREENPOINT, BROOKLYN, NEW YORK

Summary of Ground-Water Quality, Volatile Organic Compounds
Sampled August 19 and 21, 2003

Compound	Units	Sample ID Interval (17-19 fbgs)	MW-9A (17-19)	MW-9A (21-23)	MW-9A (25-27)	MW-9A (25-27)	MW-10 (11-13)	MW-10 (18-20)	MW-10 (25-27)	MW-11 (15-17)	MW-11 (23-25)	NYSDEC GWQS or GV
		DF=100	DF=500	DF=10	DF=500	DF=10	DF=500	DF=1	DF=10	DF=10	DF=25	
1,1,1-trichloroethane	(ug/l)											5
1,1,2-trichloroethane	(ug/l)											1
1,1-dichloroethane	(ug/l)											5
1,1-dichloroethene	(ug/l)											5
1,2,3-trichloropropane	(ug/l)											5
1,2,4-trimethylbenzene	(ug/l)											5
1,2-dichlorobenzene	(ug/l)											5
1,3,5-trimethylbenzene	(ug/l)											5
2-butanone (MEK)	(ug/l)											50
2-hexanone	(ug/l)											50
4-methyl-2-pentanone	(ug/l)											—
Acetone	(ug/l)											50
Benzene	(ug/l)											1
Carbon tetrachloride	(ug/l)											5
Chlorobenzene	(ug/l)											5
Chloroethane	(ug/l)											5
Chloroform	(ug/l)											5
cis-1,2-dichloroethene	(ug/l)											7
Ethylbenzene	(ug/l)	5,700	6,600 (D)	3,300 (E)	4,400 (D)	2,200 (B)	2,700 (D)					5
Isopropylbenzene	(ug/l)					22 (J)	14 (J)					5
Methyl tert-butyl-ether	(ug/l)							1 (J)		1 (J)		10
Methylene chloride	(ug/l)											5
n-propylbenzene	(ug/l)											5
Naphthalene	(ug/l)											10
Syrene	(ug/l)											5
Tetrachloroethene	(ug/l)							11 (J)		1 (J)		5
Toluene	(ug/l)	69,000 (E)	87,000 (D)	27,000 (E)	57,000 (D)	35,000 (D)				95 (J)	46 (J)	5
Trans-1,2-dichloroethene	(ug/l)						26 (J)	42 (J)	14	20	20	5
Trichloroethene	(ug/l)											5
Vinyl chloride	(ug/l)											2
Xylenes	(ug/l)	31,000	38,000 (D)	15,000 (E)	25,000 (D)	10,000 (E)	15,000 (D)			4,100	3,600	5

fbg = feet below grade
NYSDEC GWQS or GV = New York State Department of Environmental Conservation Ground-Water Quality Standards or Guidance Values
DF = dilution factor

ug/l = micrograms per liter

(J) = indicates an estimated value, data indicate the presence of a compound less than the sample quantitation limit

(B) = analyte is found in the associated blank as well as in the sample

(E) = compound concentration exceeds the calibration range of the GC/MS

(D) = compound identified in an analysis at a secondary dilution factor
exceeds GWQS

Table 6 (cont.)

FYN PAINT & LACQUER COMPANY
230 KENT AVENUE
GREENPOINT, BROOKLYN, NEW YORK

**Summary of Ground-Water Quality, Volatile Organic Compounds
Sampled August 20 and 25, 2003**

Sample ID	MW-12	MW-12	MW-12	MW-12	MW-12	MW-13	MW-13	MW-13	MW-13	MW-14	MW-14	MW-14	MW-15	MW-16	MW-16		
Compound	units	Interval	(13-15 ftbg)	(13-15)	(21-23)	(19-21)	(24-26)	(28-30)	(13-15)	(20-22)	(25-27)	(DF=1)	DF=1	DF=1	DF=10	DF=50	NYSDEC GWQS or GV
			DF=1	DF=250	DF=1	DF=1	DF=1	DF=10	DF=50	MW-16							
1,1,1-trichloroethane	(ug/l)															5	
1,1,1-trichloroethane	(ug/l)															1	
1,1-dichloroethane	(ug/l)															5	
1,1-dichloroethene	(ug/l)															5	
1,2,3-trichloropropane	(ug/l)															0.04	
1,2,4-trimethylbenzene	(ug/l)															5	
1,2-dichlorobenzene	(ug/l)															3	
1,3,5-trimethylbenzene	(ug/l)															5	
2-butaneone (MEK)	(ug/l)															50	
2-hexanone	(ug/l)															50	
4-methyl-2-pentanone	(ug/l)															---	
Acetone	(ug/l)															1,900; 2,200 (D)	
Benzene	(ug/l)															50	
Carbon tetrachloride	(ug/l)															1	
Chlorobenzene	(ug/l)															5	
Chloroethane	(ug/l)															5	
Chloroform	(ug/l)															5	
cis-1,2-dichloroethene	(ug/l)															7	
Ethylbenzene	(ug/l)															5	
Isopropylbenzene	(ug/l)															5	
Methyl tert-butyl-ether	(ug/l)															5	
Methylene chloride	(ug/l)															10	
n-propylbenzene	(ug/l)															5	
Naphthalene	(ug/l)															10	
Syrene	(ug/l)															5	
Tetrahydroethene	(ug/l)															5	
Toluene	(ug/l)															5	
Trans-1,2-dichloroethene	(ug/l)															5	
Trichloroethene	(ug/l)															5	
Vinyl chloride	(ug/l)															2	
Xylenes	(ug/l)															6,300 (E); 7,000 (D)	

6600 words

NYSDC GNS or GCV = New York State Department of Environmental Conservation Ground Water Quality Standards or Guidance Values

DF = dimension factor

$$DF = \text{Utilization factor}$$

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(J) = indicates an estimate

(B) \equiv analytic is found in

$$(E) = \text{Compound (of } K\text{cet)}$$

(D) = compound identity

exceeds

Report of the Committee on Whitefish Fisheries, 123

Table 7

FYN PAINT & LACQUER COMPANY
230 KENT AVENUE
GREENPOINT, BROOKLYN, NEW YORK

Summary of Ground-Water Quality, Semivolatile Organic Compounds
Sampled on August 7, 21 and 25, 2003

Compound	Sample ID units	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-8		NYSDEC GWQS or GV
		DF=1	DF=1	DF=1	DF=1	DF=1	DF=1	DF=1	DF=1									
Benzyl alcohol	(ug/l)									3 (J)								
2-methylphenol	(ug/l)									12								
4-methylphenol	(ug/l)									25								
2,4-dimethylphenol	(ug/l)									12								
Naphthalene	(ug/l)																	
2-methylnaphthalene	(ug/l)																	
Acenaphthene	(ug/l)																	
Diethylphthalate	(ug/l)									3 (J)								
Phenanthrene	(ug/l)																	
Anthracene	(ug/l)																	
Di-n-butylphthalate	(ug/l)																	
Fluoranthene	(ug/l)																	
Pyrene	(ug/l)																	
Benz (a) anthracene	(ug/l)																	
Chrysene	(ug/l)																	
Bis (2-ethylhexyl) phthalate	(ug/l)																	
Benzo (b) fluoranthene	(ug/l)																	
Benzo (k) fluoranthene	(ug/l)																	
Benzo (a) pyrene	(ug/l)																	
Indeno (1,2,3-cd) pyrene	(ug/l)																	
Benzo (g,h,i) perylene	(ug/l)																	

fbg = feet below grade

NYSDEC GWQS or GV = New York State Department of Environmental Conservation Ground-Water Quality Standards or Guidance Values

DF = dilution factor

ug/l = micrograms per liter

(J) = indicates an estimated value. data indicate the presence of a compound less than the sample quantitation limit

(B) = analyte is found in the associated blank as well as in the sample

(E) = compound concentration exceeds the calibration range of the GC/MS

(D) = compound identified in an analysis at a secondary dilution factor
exceeds GWQS

Table 7 (cont.)

FYN PAINT & LACQUER COMPANY
230 KENT AVENUE
GREENPOINT, BROOKLYN, NEW YORK

Summary of Ground-Water Quality, Semivolatile Organic Compounds
Sampled August 13, 2003

Compound	Sample ID	units	GP-1	GP-2	GP-3	CE-1	CE-2	CE-3	CE-4	CE-4
			DF=1	DF=1	DF=1	DF=1	DF=1	DF=1	DF=10	NYSDEC GWQS or GV
Benzyl alcohol		(ug/l)	---	---	---	---	---	---	---	---
2-methylphenol		(ug/l)	---	---	---	---	---	---	---	---
4-methylphenol		(ug/l)	---	---	---	---	---	---	---	---
2,4-dimethylphenol		(ug/l)	---	---	---	---	---	50	---	---
Naphthalene		(ug/l)	---	---	---	---	---	10	---	---
2-methylnaphthalene		(ug/l)	---	---	---	---	---	---	---	---
Acenaphthene		(ug/l)	---	---	---	---	---	20	---	---
Dieethylphthalate		(ug/l)	---	---	---	---	---	50	---	---
Phenanthrene		(ug/l)	---	---	---	---	---	50	---	---
Anthracene		(ug/l)	---	---	---	---	---	50	---	---
Di-n-butylphthalate		(ug/l)	---	---	---	---	---	---	---	---
Fluoranthene		(ug/l)	---	---	---	---	---	50	---	---
Pyrene		(ug/l)	---	---	---	---	---	50	---	---
Benz (a) anthracene		(ug/l)	---	---	---	---	---	0.002	---	---
Chrysene		(ug/l)	---	---	---	---	---	0.002	---	---
Bis (2-ethylhexyl) phthalate		(ug/l)	3 (B)	4 (B)	3 (B)	210 (EB)	200 (DB)	5	---	---
Benzo (b) fluoranthene		(ug/l)	---	---	---	---	---	0.002	---	---
Benzo (k) fluoranthene		(ug/l)	---	---	---	---	---	0.002	---	---
Benzo (a) pyrene		(ug/l)	---	---	---	---	---	<MDL	---	---
Indeno (1,2,3-cd) pyrene		(ug/l)	---	---	---	---	---	0.002	---	---
Benzo (g,h,i) perylene		(ug/l)	---	---	---	---	---	0.002	---	---

fbg = feet below grade

NYSDEC GWNS or GW = New York State Department of Environmental Conservation Ground-Water Quality Standards or Guidance Values

$$DF = \text{dilution factor}$$

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$\mu\text{g/l}$ = micrograms per liter

(1) = indicates an estimated value. data indicate the presence of a compound less than the sample quantitation limit

THE JOURNAL OF CLIMATE

(B) = analytic is found in the associated blank as well as in the sample

(E) = compound concentration exceeds the calibration range of the GC/MS

(D) = compound identified in am-

Table 7 (cont.)

FYN PAINT & LACQUER COMPANY
230 KEBT AVENUE
GREENPOINT, BROOKLYN, NEW YORK

Summary of Ground-Water Quality, Semivolatile Organic Compounds
Sampled August 19 and 21, 2003

Compound	Sample ID		MW-9A	MW-9A	MW-9A	MW-9A	MW-9A	MW-9A	MW-10	MW-10	MW-11	MW-11	
	Interval	(17-19)	(17-19)	(21-23)	(21-23)	(25-27)	(25-27)	(11-13)	(18-20)	(25-27)	(15-17)	(23-25)	
	DF	units	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	DF=1	DF=1	DF=1	DF=1	NYSDEC GWQS or GV
Benzyl alcohol			54	50 (D)	29	26 (D)	16 (D)			2 (J)	2 (J)	---	
2-methylphenol			530 (E)	510 (D)	360 (E)	350 (D)	890 (E)	890 (DE)					---
4-methylphenol			36	28							51	90 (E)	50
2,4-dimethylphenol			17	19 (D)	11	12 (D)	8 (I)			2 (J)	2 (J)	10	---
Naphthalene			(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)					---
2-methylnaphthalene			(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)					20
Acenaphthene			(ug/l)	(ug/l)	1 (J)						2 (J)	1 (J)	50
Diethylphthalate			(ug/l)	(ug/l)									50
Phenanthrene			(ug/l)	(ug/l)									50
Anthracene			(ug/l)	(ug/l)									50
Di-n-butylphthalate			(ug/l)	(ug/l)									---
Fluoranthene			(ug/l)	(ug/l)									50
Pyrene			(ug/l)	(ug/l)									50
Benz (a) anthracene			(ug/l)	(ug/l)									0.002
Chrysene			(ug/l)	(ug/l)									0.002
Bis (2-ethylhexyl) phthalate			(ug/l)	(ug/l)									5
Benz (b) fluoranthene			(ug/l)	(ug/l)									0.002
Benz (k) fluoranthene			(ug/l)	(ug/l)									0.002
Benz (a) pyrene			(ug/l)	(ug/l)									< MDL
Indeno (1,2,3-cd) pyrene			(ug/l)	(ug/l)									0.002
Benzo (g,h,i) perylene			(ug/l)	(ug/l)									---

(I) bg = feet below grade

NYSDEC GWQS or GV = New York State Department of Environmental Conservation Ground-Water Quality Standards or Guidance Values

DF = dilution factor

ug/l = micrograms per liter

(J) = indicates an estimated value. data indicate the presence of a compound less than the sample quantitation limit

(B) = analyte is found in the associated blank as well as in the sample

(E) = compound concentration exceeds the calibration range of the GC/MS

(D) = compound identified in an analysis at a secondary dilution factor

exceeds GWQS

Table 7 (cont.)

FYN PAINT & LACQUER COMPANY
230 KEBT AVENUE
GREENPOINT, BROOKLYN, NEW YORK

Summary of Ground-Water Quality, Semivolatile Organic Compounds
Sampled August 20 and 25, 2003

Compound	Sample ID	MW-12	MW-12	MW-13	MW-13	MW-14	MW-14	MW-16
		Interval	(13-15)	(21-23)	(19-21)	(24-26)	(28-30)	(13-15)
		units	DF=1	DF=1	DF=1	DF=1	DF=1	DF=1
Benzyl alcohol		(ug/l)						
2-methylphenol			65	34				
4-methylphenol				30				
2,4-dimethylphenol				57				
Naphthalene				79	41			
2-methylnaphthalene								
Acenaphthene					1 (J)			
Diethylphthalate								
Phenanthrene								
Anthracene								
Di-n-butylphthalate								
Fluoranthene								
Pyrene								
Benz (a) anthracene								
Chrysene								
Bis (2-ethylhexyl) phthalate								
Benzo (b) fluoranthene								
Benzo (k) fluoranthene								
Benzo (a) pyrene								
Indeno (1,2,3-cd) pyrene								
Benzo (g,h,i) perylene								

fb = feet below grade

NYSDEC GWQS or GV = New York State Department of Environmental Conservation Ground-Water Quality Standards or Guidance Values

DF = dilution factor

ug/l = micrograms per liter

(J) = indicates an estimated value. data indicate the presence of a compound less than the sample quantitation limit

(B) = analyte is found in the associated blank as well as in the sample

(E) = compound concentration exceeds the calibration range of the GC/MS

(D) = compound identified in an analysis at a secondary dilution factor


exceeds GWQS

Table 8

FYN PAINT & LACQUER COMPANY
230 KEBT AVENUE
GREENPOINT, BROOKLYN, NEW YORK

Summary of Ground-Water Quality, Target Analyte List Metals + Cyanide
Sampled Between August 7 and August 25, 2003

Metal	Sample ID	Interval (ft bg) units	MW-5	MW-9A	MW-11	MW-12	MW-13	MW-14	MW-16	NYSDEC GWQS or GV
			21-23	15-17	13-15	24-26	13-15			
Aluminum	ug/l	2,470	11,100	1,600	13,400	17,100	12,100	2,600	...	...
Antimony	ug/l	4.9 (B)	7.5 (B)	3.2 (B)	1.6 (B)	2 (B)	3.3 (B)	<1.5	3	3
Arsenic	ug/l	<1.3	4.3 (B)	4.1 (B)	5.9 (B)	5.4 (B)	2.6 (B)	9.3 (B)	25	25
Barium	ug/l	138 (B)	323	150 (B)	254	590	334	953	1,000	1,000
Beryllium	ug/l	0.55 (B)	1.4 (B)	0.43 (B)	1.4 (B)	2 (B)	1.5 (B)	<0.4	3	3
Cadmium	ug/l	<0.4	3.4 (B)	1.3 (B)	6.6	5	2.2 (B)	2.2 (B)	5	5
Calcium	ug/l	130,000	72,100	111,000	108,000	176,000	176,000	103,000	...	...
Chromium	ug/l	5.4 (B)	56.1	8.1 (B)	113	58	34.7	7.5 (B)	50	50
Cobalt	ug/l	4.2 (B)	17.7 (B)	5.2 (B)	19.8 (B)	24.6 (B)	16.6 (B)	6.2 (B)	...	...
Copper	ug/l	6.2 (B)	49.2	6.4 (B)	47.2	52.3	44.1	7.2 (B)	200	200
Iron	ug/l	4,380	38,600	17,200	65,900	50,700	27,400	31,800	300	300
Lead	ug/l	3.5	30.2	9.9	30.5	29.6	34.8	7.0	25	25
Magnesium	ug/l	18,600	27,300	16,000	22,400	19,700	49,100	7,150	35,000	35,000
Manganese	ug/l	794	5,720	3,020	4,220	4,130	2,500	2,010	300	300
Mercury	ug/l	<0.2	0.32	<0.2	0.25	0.30	0.40	<0.2	0.7	0.7
Nickel	ug/l	8 (B)	44.7	8.4 (B)	85.8	50	32.1 (B)	9.2 (B)	100	100
Potassium	ug/l	8,070	17,900 (E)	3,650 (BE)	22,500	43,900 (E)	35,500	74,900	...	...
Selenium	ug/l	4.2 (B)	5.2	2.6 (B)	4.5 (B)	3.9 (B)	8.4	4.2 (B)	10	10
Silver	ug/l	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	50	50
Sodium	ug/l	240,000	321,000	26,600 (E)	942,000	<0.5	1,780,000	946,000	20,000	20,000
Thallium	ug/l	9.0 (B)	13.4	23.3	3.5 (B)	29.8	<2.8	5.9 (B)	0.5	0.5
Vanadium	ug/l	3.0 (B)	44.6 (B)	2.8 (B)	48.2 (B)	64.1	36.6 (B)	4.1 (B)	...	...
Zinc	ug/l	45.9	2,290	2,030	5,680	3,680	5,950	82.6	2,000	2,000
Cyanide	ug/l	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	200	200

ft bg = feet below grade

NYSDEC GWQS or GV = New York State Department of Environmental Conservation Ground-Water Quality Standards or Guidance Values

ug/l = micrograms per liter

(B) = analyte is found in the associated blank as well as in the sample

(E) = compound concentration exceeds the calibration range of the GC/MS

exceeds GWQS or GV

Table 9

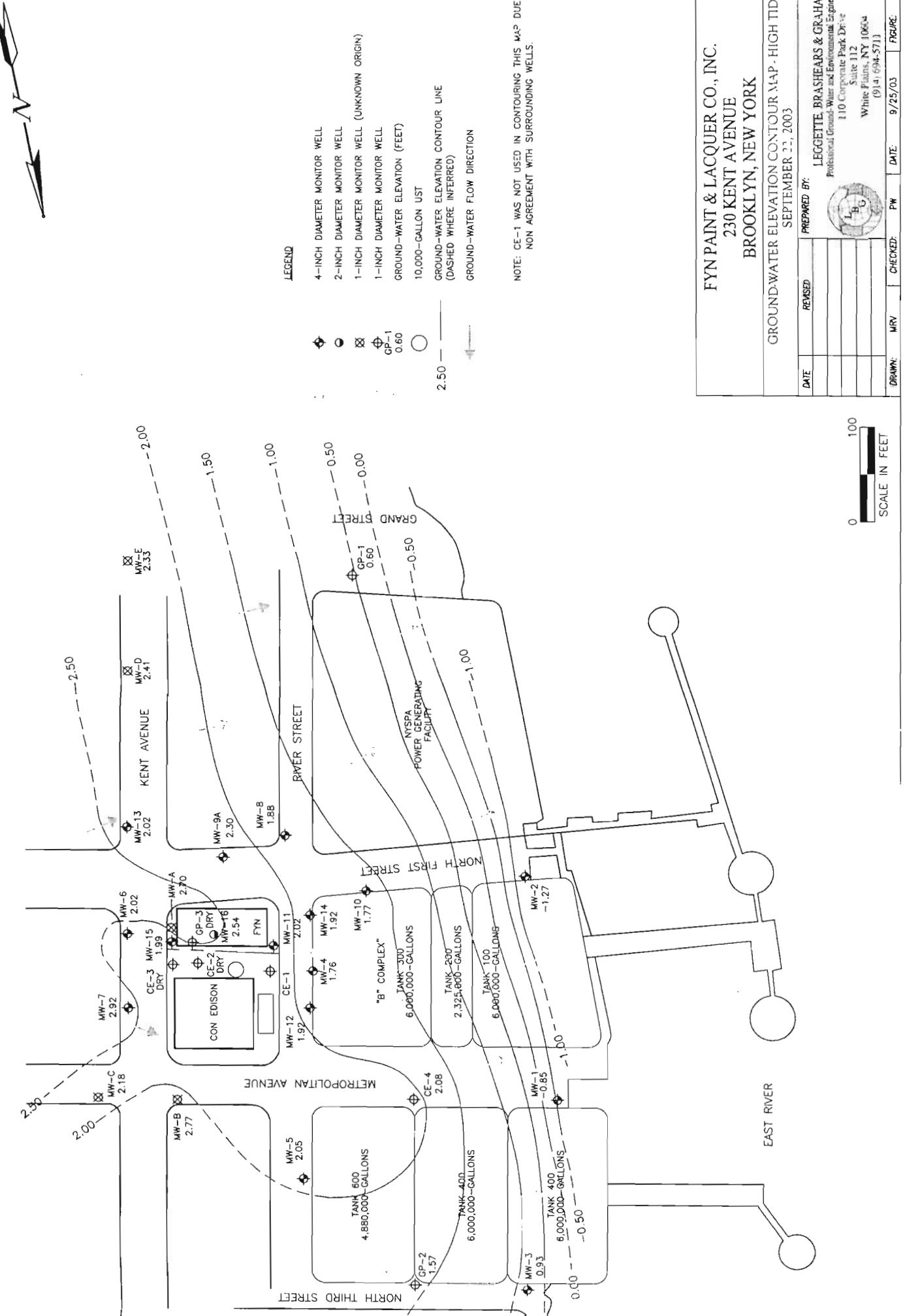
FYN PAINT & LACQUER COMPANY
230 KEBT AVENUE
GREENPOINT, BROOKLYN, NEW YORK

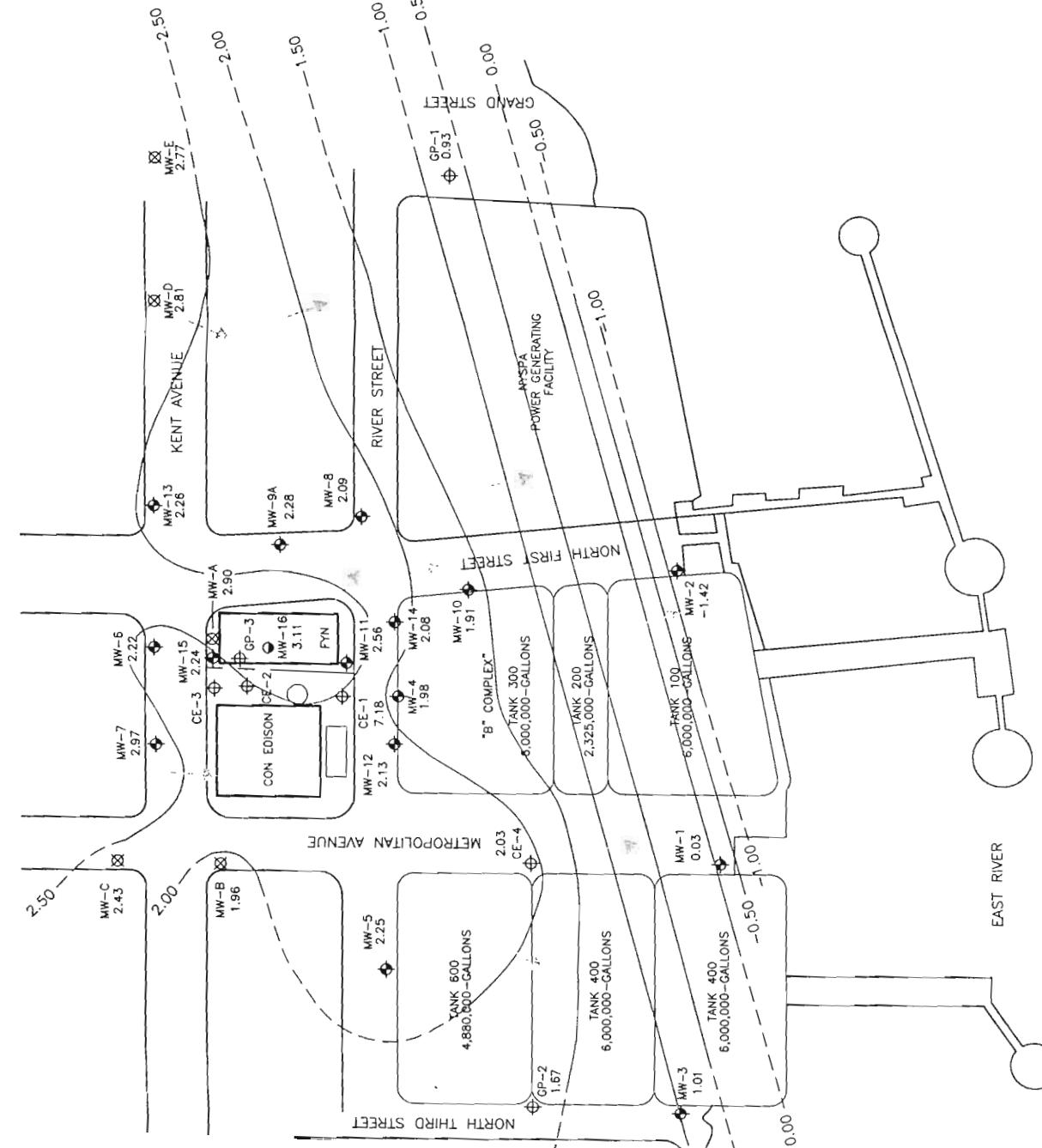
**Monitor Well Casing Elevations,
Ground-Water Depths and Elevations**

Monitor Well ID	Top of Casing Elevation (feet above datum)	Depth to Water 08/22/2003 (feet below top of casing)	Depth to Product 08/22/2003 (feet below top of casing)	Corrected Ground-Water Elevation 08/22/2003 (feet above datum)		Depth to Water 09/22/2003 (feet below top of casing)	Depth to Product 09/22/2003 (feet below top of casing)	Corrected Ground-Water Elevation 09/22/2003 (feet above datum)
				0.03	8.84			
MW-1	7.99	7.96		-1.42	9.35			-0.85
MW-2	8.08	9.50		1.01	3.06			-1.27
MW-3	3.99	2.98		1.98	11.13			0.93
MW-4	12.89	10.91		2.25	8.66			1.76
MW-5	10.71	8.46		2.22	17.97			2.05
MW-6	19.99	17.77		2.97	15.85			2.02
MW-7	18.77	15.80		2.09	13.26			2.92
MW-8	15.14	13.05		2.28	14.72			1.88
MW-9A	17.01	14.73		1.91	9.80			2.30
MW-10	11.57	9.66		2.56	13.14			1.77
MW-11	15.22	12.66		2.18	10.46			2.08
MW-12	12.38	10.20		2.26	18.14			1.92
MW-13	20.16	17.90		2.08	11.56			2.02
MW-14	13.48	11.40		2.24	18.05			2.08
MW-15	18.64	18.20	16.13	3.11	15.82			1.99
MW-16	18.36	15.25		0.93	7.27			2.54
GP-1	7.87	6.94		1.67	5.51			0.60
GP-2	7.08	5.41		---	dry			1.57
GP-3	18.40	dry		10.36	8.18	ND	11.09	ND
CE-1	18.54	10.38		---	dry	dry		19.08
CE-2	19.08	dry		---	dry	dry		18.53
CE-3	18.53	dry		---	dry	dry		2.08
CE-4	7.96	5.93		2.03	5.88			2.70
MW-A	19.09	16.19		2.90	16.39			1.77
MW-B	16.37	14.41		1.96	14.60			2.18
MW-C	17.35	14.92		2.43	15.17			2.41
MW-D	20.84	18.03		2.81	18.43			2.33
MW-E	20.22	17.45		2.77	17.89			

August 22, 2003 low tide 11:34am at Williamsburg Bridge - Well measurements 8:55am to 10:35am
September 22, 2003 high tide 7:08am at Williamsburg Bridge - Well measurements 7:41am to 12:06pm
Corrected ground-water elevation assumes a specific gravity of 0.87 for product

FIGURES





NOTE: CE-1 WAS NOT USED IN CONTOURING THIS MAP DUE TO
NON AGREEMENT WITH SURROUNDING WELLS.

FYN PAINT & LACQUER CO., INC.
230 KENT AVENUE
BROOKLYN, NEW YORK

AGUST, 22, 2003

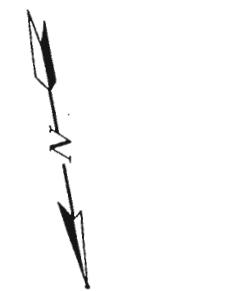
PREPARED BY:



LEGGETTE, BRASHEARS & GRAHAM, INC.
Professional Ground-Water and Environmental Engineering Services
110 Corporate Park Drive
Suite 112
White Plains, NY 10604
(914) 694-5711

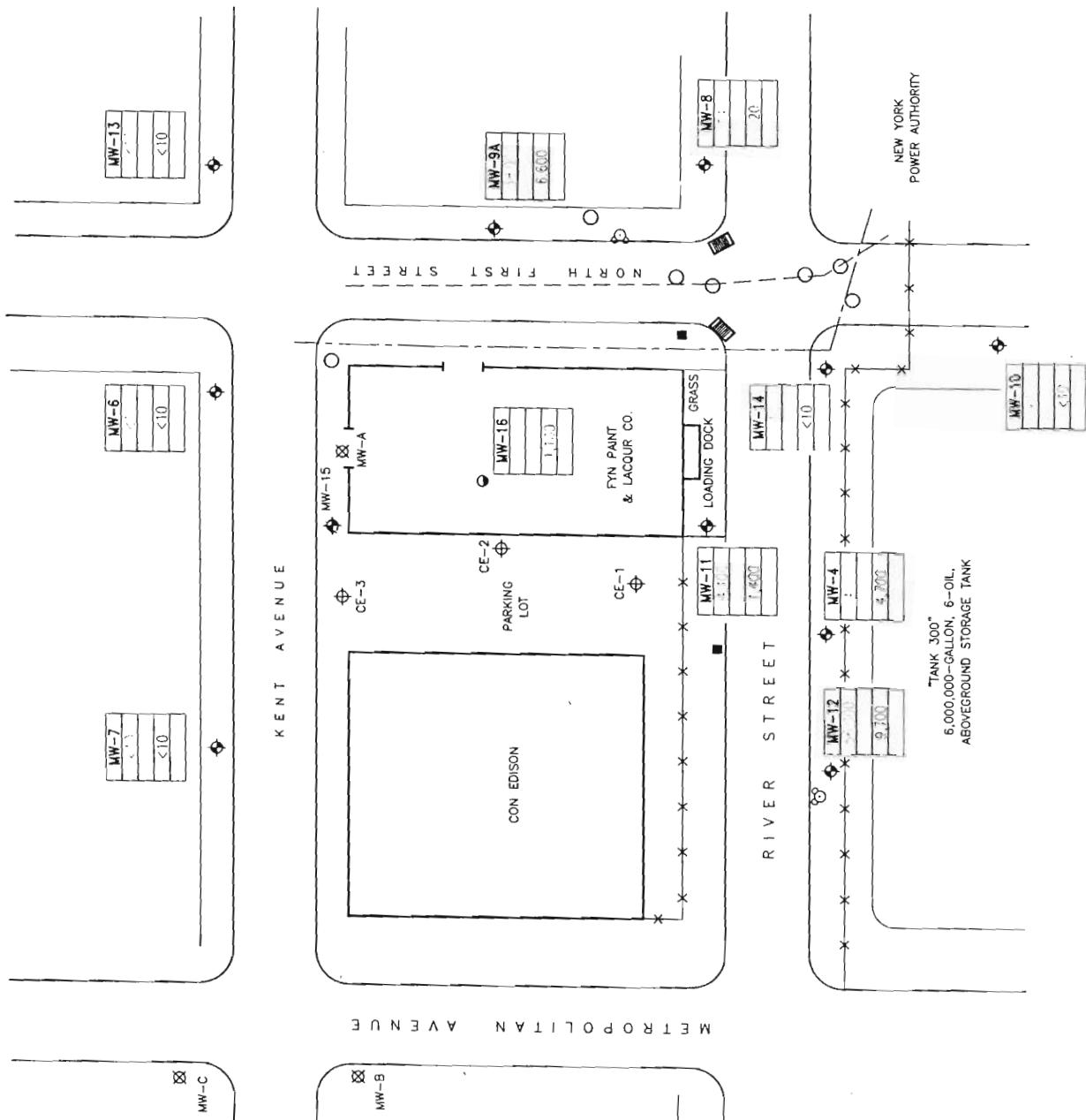
DATE	REvised	PREPARED BY:
		LEGGETTE, BRASHEARS & GRAHAM, INC. Professional Ground-Water and Environmental Engineering Services 110 Corporate Park Drive Suite 112 White Plains, NY 10604 (914) 694-5711
DRWING	MRV	CHECKED:
		FIGURE: 5 DATE: 9/25/03

SCALE IN FEET
0 100



LEGEND

◆	4-INCH DIAMETER MONITOR WELL
◆	MONITOR WELL IDENTIFICATION
◆	XYLENE CONCENTRATION (MICROGRAMS PER LITER)
◆	TOLUENE CONCENTRATION (MICROGRAMS PER LITER)
◆	ETHYLBENZENE CONCENTRATION (MICROGRAMS PER LITER)
◆	ACETONE CONCENTRATION (MICROGRAMS PER LITER)
●	2-INCH DIAMETER MONITOR WELL
○	1-INCH DIAMETER MONITOR WELL (UNKNOWN ORIGIN)
○	1-INCH DIAMETER MONITOR WELL
○	1-INCH DIAMETER MONITOR WELL
■	CATCH BASIN
■	LAMP POST
■	CHAIN LINK FENCE
○	MANHOLE
○	HYDRANT
○	MANHOLE
○	SUBSURFACE 12" DIA. HIGH PRESSURE GAS MAIN
—	SUBSURFACE HIGH VOLTAGE TRANSMISSION LINE

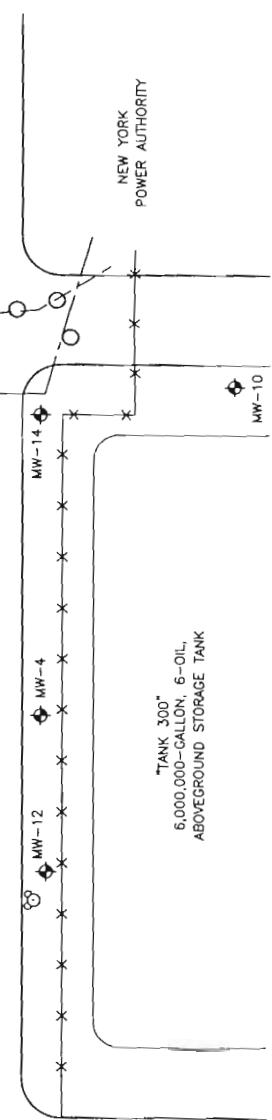
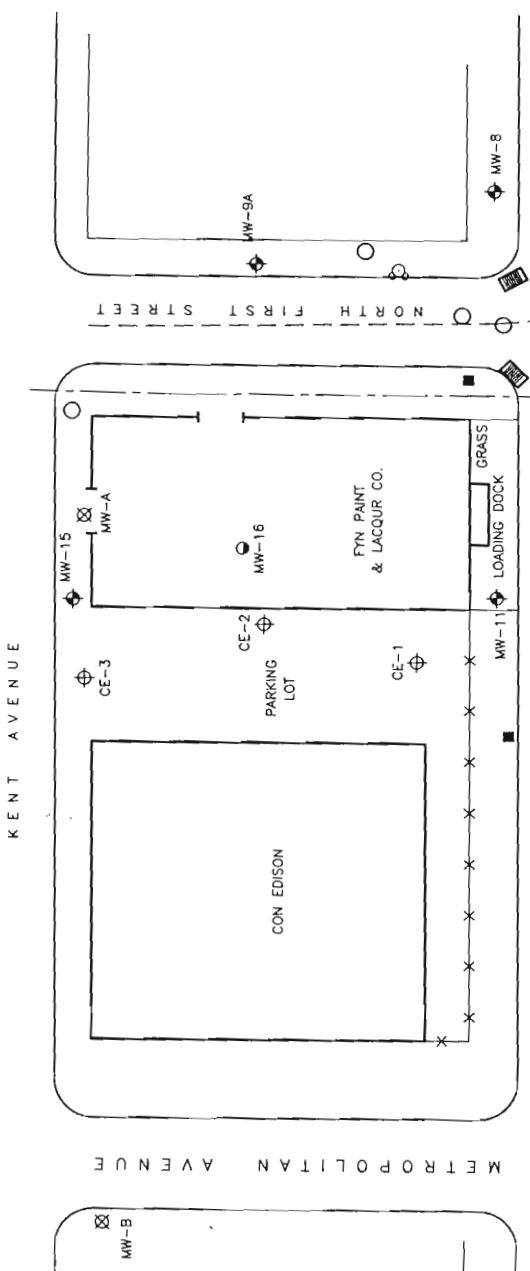
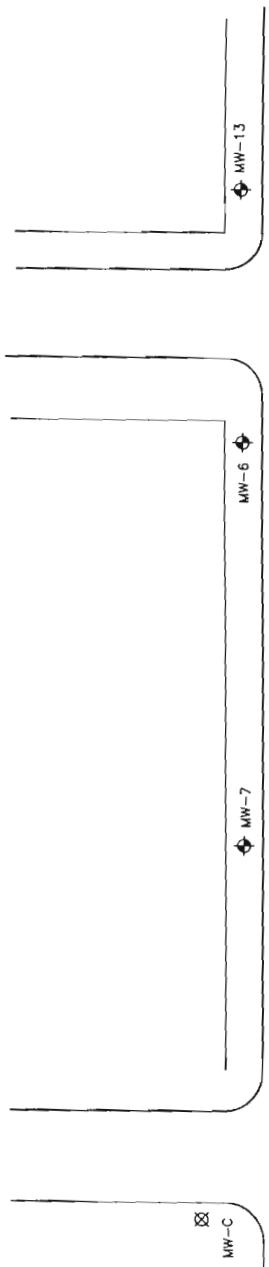


FYN PAINT & LACQUER CO. INC.
230 KENT AVENUE
BROOKLYN, NEW YORK

GROUND-WATER QUALITY - PROMINENT VOCs
(WELLS SAMPLED AUG. 31, 7, 19, 20 AND 25, 2003)

DATE	REVISED	PREPARED BY:
		LEGGETTE, BRASHEARS & GRAHAM, INC.
		Professional Ground Water and Environmental Engineering Services
		110 Corporate Park Drive
		Suite 112
		White Plains, NY 10604
		(914) 694-5711

FIGURE 4



MONITOR WELL LOCATIONS (LARGE SCALE)



LEGETTE, BRASHEARS & GRAHAM, INC.
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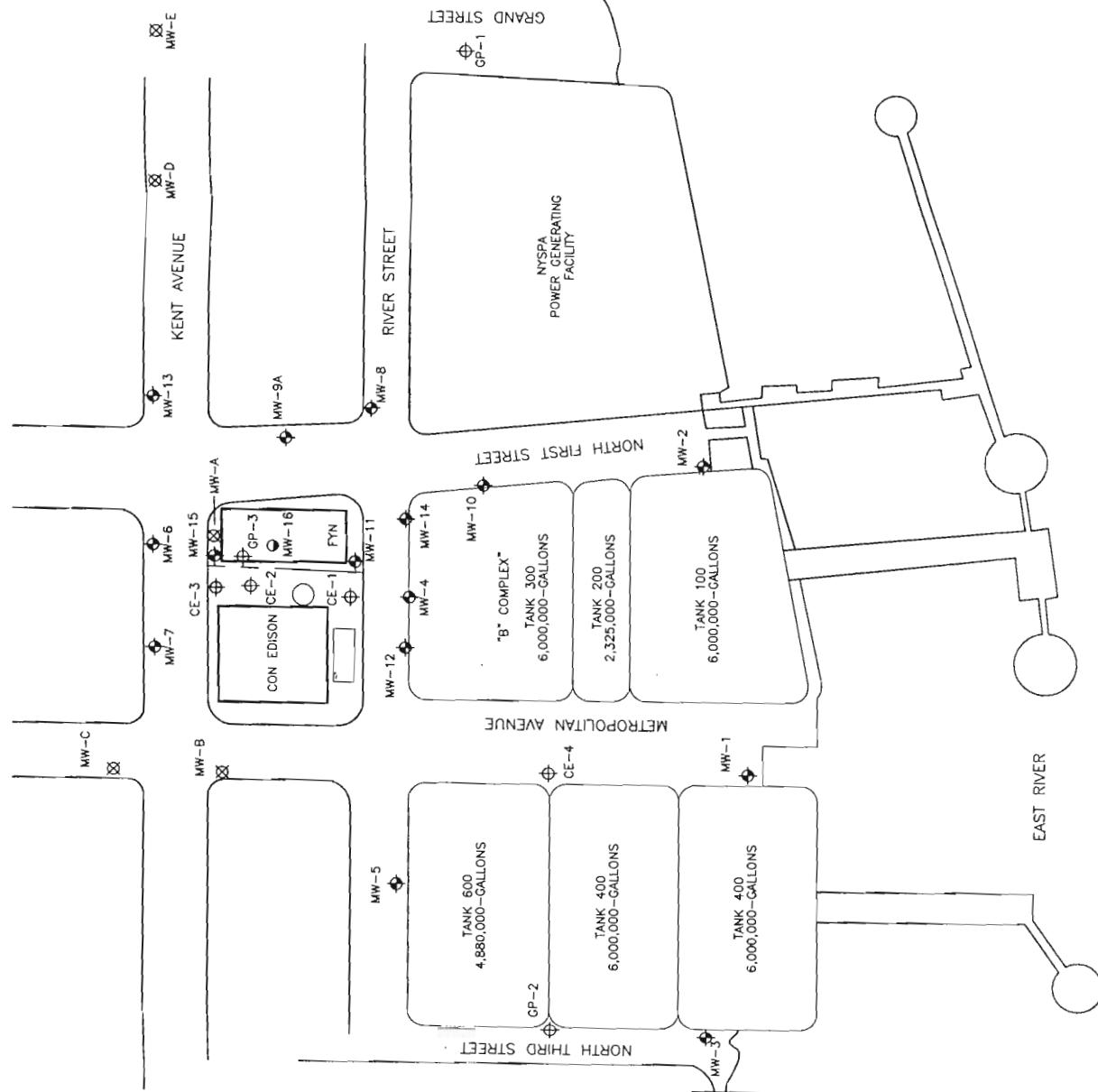
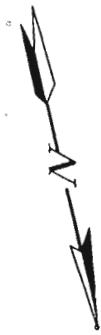
DRAWING:	MIRV	CHECKED:	PW	DATE:	9/25/03	FIGURE:	38

FYN PAINT & LACQUER CO. INC.
230 KENT AVENUE
BROOKLYN, NEW YORK

MONITOR WELL LOCATIONS (LARGE SCALE)

SCALE IN FEET

0 40

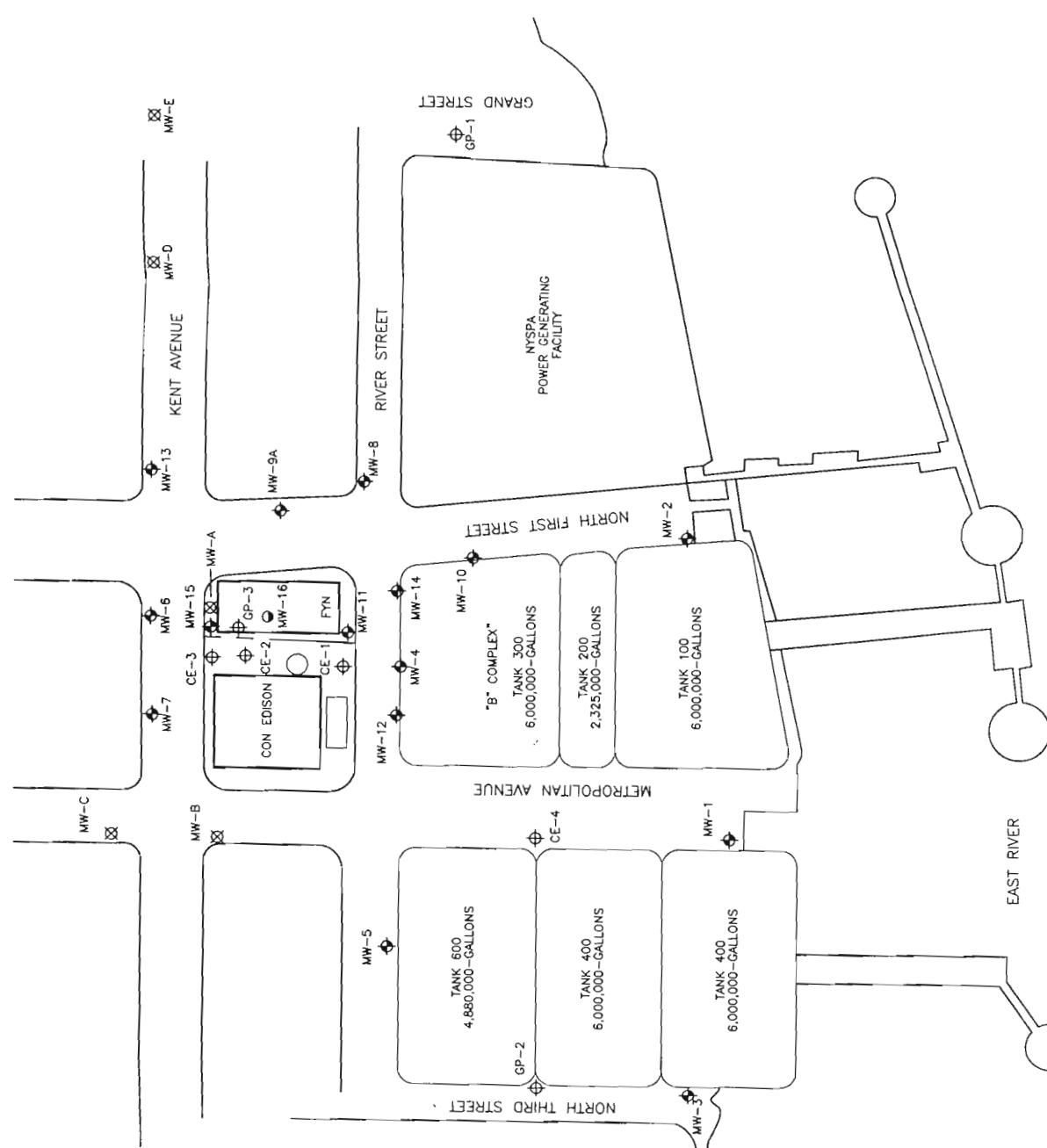


FYN PAINT & LACQUER CO., INC.
230 KENT AVENUE
BROOKLYN, NEW YORK

MONITOR WELL LOCATIONS

DATE	REVISED	PREPARED BY:
		LEGETTE, BRASHEARS & GRAHAM Professional Geotechnical & Environmental Engineers 110 Corporate Park Drive Suite 112 White Plains, NY 10604 (914) 634-5711

0 100
SCALE IN FEET



FYN PAINT & LACQUER CO., INC.
230 KENT AVENUE
BROOKLYN, NEW YORK

MONITOR WELL LOCATIONS

E. BRASHEARS & GRAHAM
Architects and Water and Environmental Engineers
1110 Corporate Park Drive
Suite 112
White Plains, NY 10604
(914) 664-5711

DATE	REVISED	PREPARED BY:	LEGGETTE, BRASHERS & GRAHAM Professional Ground Water and Environmental Engineers 110 Corporate Park Drive Suite 112 White Plains, NY 10604 (914) 684-5711		
			DRAMA	MRV	CHECKED:
			PW		DATE: 9/25/03 FIGURE:



100
0 SCALE IN FEET

BRASHEARS & GRAHAM, INC.
Water and Environmental Engineering Services
10 Corporate Park Drive
Suite 112
Pittsford, NY 14535



LEGEND

- Detailed description of the legend:

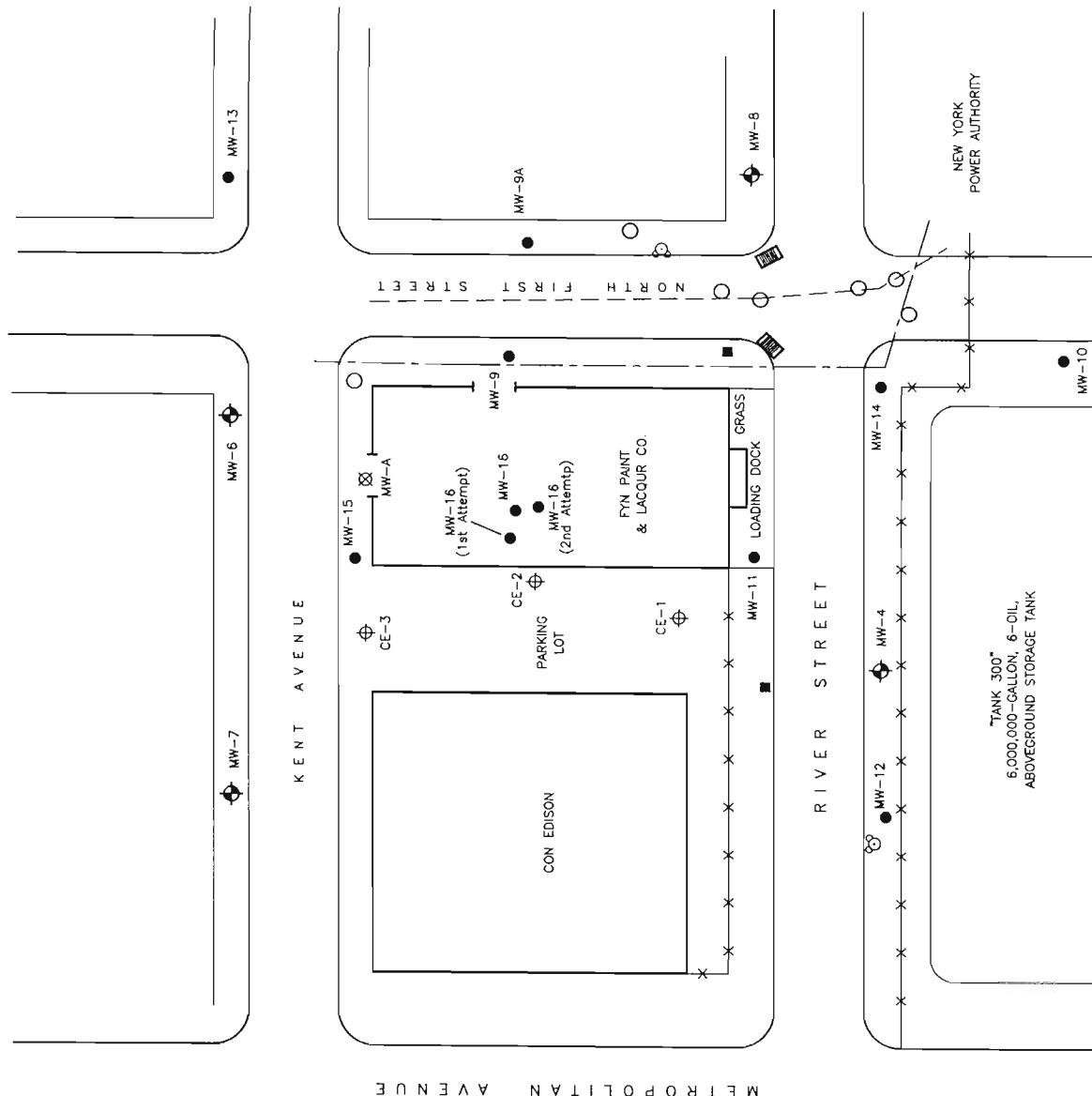
 - PIPE SIZES:**
 - 4-INCH DIAMETER MONITOR W.
 - 1-INCH DIAMETER MONITOR W.
 - 1-INCH DIAMETER MONITOR W.
 - SOIL BORING LOCATION:** Indicated by a circle with a crosshair.
 - CATCH BASIN:** Indicated by a square with a diagonal line.
 - LAMP POST:** Indicated by a square with a dot.
 - CHAIN LINK FENCE:** Indicated by a line with vertical dashes.
 - HYDRANT:** Indicated by a circle with a crosshair.
 - MANHOLE:** Indicated by a circle with a crosshair.
 - GAS MAIN SYMBOLS:**
 - Solid line with arrows at both ends.
 - Dashed line with arrows at both ends.
 - Transverse line with arrows at both ends.
 - Solid line with a break symbol in the middle.
 - Dashed line with a break symbol in the middle.
 - Transverse line with a break symbol in the middle.

FYN PAINT & LACQUER CO. INC.
230 KENT AVENUE
BROOKLYN, NEW YORK

SOIL INDICATIONS

DATE _____ DRAWN _____

40
SCALE IN FEET

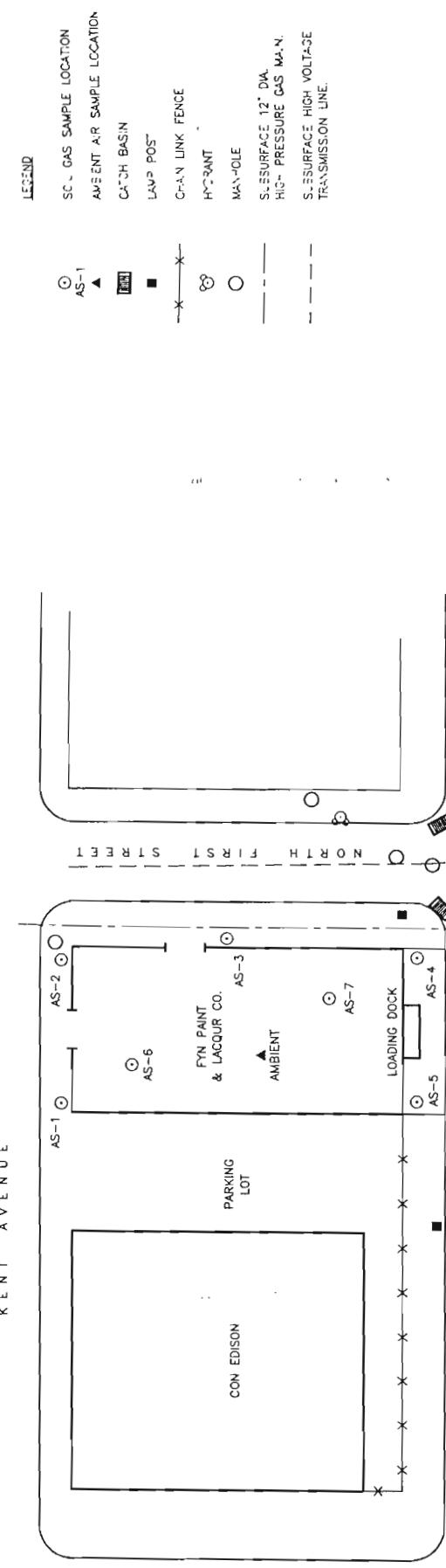


FYN PAINT & LACQUER CO. INC.
230 KENT AVENUE
BROOKLYN, NEW YORK



KENT AVENUE

METROPOLITAN AVENUE



FYN PAINT & LACQUER CO. INC.
230 KENT AVENUE
BROOKLYN, NEW YORK

SOIL GAS AND AMBIENT AIR SAMPLE LOCATIONS

DATE	REvised	PREPARED BY:	LEGGETTE, BRASHEARS & GRAHAM, INC.
			Professional Counselor and Environmental Engineering Services
			110 Corporate Park Drive
			Suite 112
			White Plains, NY 10604
			(914) 684-5711
			Facsimile (914) 684-5711
			1

SCALE IN FEET
0 40