(6)

HOME DEPOT

VALLEY STREAM, NEW YORK

PHASE II ENVIRONMENTAL ASSESSMENT

Prepared for:

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I EXECUTIVE SUMMARY:

AKRF, Inc. performed a subsurface investigation to determine whether the level of volatile organic compounds (VOC) in the soils underlying the Westerly and Easterly buildings on the subject property exceeded the site-specific cleanup standards developed by ENVIRON Corporation and approved by the Nassau County Department of Health. Elevated levels of VOC contamination in the soils underlying the buildings were suspected in response to the findings of two previous soil gas surveys conducted by Tracer Research Corporation.

Based upon the findings of AKRF's investigation, there is no reason to believe that the level of VOC contamination in the underlying soils exceed the site-specific cleanup standards. AKRF collected ten soil samples from each building in the areas that exhibited the highest soil gas concentrations. Analytical results of these samples revealed either trace or no VOC contamination. Consequently, no additional action with regards to the assessment of the subsurface soil conditions is necessary.

II INTRODUCTION:

AKRF, Inc. conducted a subsurface investigation to assess the condition of the soils underlying the two buildings presently located on the former Bulova property in Valley Stream, New York (Green Acres Project Site). The investigation was initiated because of the findings of two previous soil gas surveys, which suggested the presence of elevated levels of volatile organic compounds underneath the buildings. The specific compounds identified by the soil gas survey included 1,1, 1-Trichloroethane (TCA), Trichloroethylene (TCE), and Tetrachloroethylene (PCE). In addition, the soil vapor survey identified trace amounts of Benzene, Toluene, Ethylbenzene, and Xylenes. Refer to Appendix I, Supporting Documentation, to review copies of the results of the soil gas surveys.

Both soil gas survey were performed by Tracer Research Corporation, and comprised part of ENVIRON Corporation's and Storb Environmental Incorporated's efforts to characterize the subsurface conditions at the project site. Because soil gas surveys are relied upon as a qualitative technique for evaluating subsurface conditions, ENVIRON Corporation recommended that soil samples be collected from selected areas of elevated soil gas concentrations and analyzed to determine whether the level of contamination underneath the buildings exceeds the site-specific cleanup standards (refer to Appendix I for this information). ENVIRON Corporation made this recommendation in their report dated July, 1991 and was in response to the first survey conducted in the Easterly building (Bldg #1, as referred to in the ENVIRON report). Following the ENVIRON investigation, Storb Environmental Incorporated reviewed the results of the second soil gas survey performed in the Westerly building, and made the same recommendation as Environ with regards to the assessment of the soil conditions underneath the Westerly building.

Thus, AKRF designed and implemented a soil sampling plan to assess the condition of the soil underneath both buildings with regards to the site-specific cleanup standards and to ascertain whether additional action was warranted. The

sampling plan consisted of advancing ten soil borings to groundwater in each building at locations that exhibited the highest soil gas concentrations. Furthermore, an additional boring was advanced in each building at a location that exhibited no elevated soil gas concentration for the purpose of establishing a background level of contamination. Tables I and II provide a correlation between the boring locations and the original soil gas survey locations and their respective level of VOC contamination.

The sampling plan was not designed to initially address the condition of the groundwater for the following reasons: 1) Quarterly groundwater sampling results has shown a steady decline in the level of contamination for the majority of the groundwater monitoring wells at the site, 2) Correspondence from the Nassau County Department of Health does not reflect a concern for the groundwater at the site. Also, refer to AKRF's letter dated January 26th, 1993 in Appendix I for a detailed discussion of the likelihood for groundwater remediation.

The following sections of this report describes the methodologies used to assess the soil conditions underlying both buildings, summarizes the results of the investigation, and provides relevant conclusions and/or recommendations based upon the findings of the investigation.

TABLE I

EASTERLY BUILDING

Soil Boring #	Soil Gas Probe #	Soil Gas Contamination Levels (ug/l)	Rank
EB26	SG-26	TCA=2, TCE= .6, PCE=.2, TVHC=.2	Bkgd
EB23	SG-23	TCA=7, PCE=.3, TVHC=.3	10
EB2	SG-2	TCA=4, TCE=13, PCE=6, TVHC=1	9
EB9	SG-9	TCA=28, TCE=.03, PCE=.2, TVHC=3	8
EB21	SG-21	TCA=3, TCE=20, PCE=13, TVHC=.5	7
EB20	SG-20	TCA=4, TCE=22, PCE=16, TVHC=2	6
EB5	SG-5	TCA=7, TCE=30, PCE=10, TVHC=2	5
EB19	SG-19	TCA=5, TCE= 34, PCE=9, TVHC=1	4
EB17	SG-17	TCA=130, TCE=1, PCE=2, TVHC=6	3
EB8	SG-8	TCA=660, TCE=<.3, PCE=<.1, TVHC=11	2
EB14	SG-14	TCA=3,700, TCE=<5, PCE=4, TVHC=7	1

KEY

TCA= 1,1,1-Trichloroethane
TCE= Trichloroethylene
PCE= Tetrachloroethylene
TVHC= Total Volatile Hydrocarbons
Rank#= Relative level of total soil/gas contamination

TABLE II

WESTERLY BUILDING

Soil Boring #	Soil Gas Probe #	Soil Gas Contamination Levels (ug/l)	Rank
EB2	SG-2	TCA=.2, TCE= .4, PCE=3, TVHC=1	Bkgd
EB31	SG-31	TCA=7, TCE= .07, PCE=.2, TVHC=1	9
EB34	SG-34	TCA=5, TCE=.1, PCE=.4, TVHC=3	8
EB11	SG-11	TCA=8, TCE=.2, PCE=.3, TVHC=2	7
EB28	SG-28	TCA=12, TCE=2, PCE=.2, TVHC=4	6
EB39	SG-39	TCA=14, TCE=.2, PCE=.5, TVHC=2	5
EB4	SG-4	TCA=.09, TCE=2, PCE=4, TVHC=52	4
EB9	SG-9	TCA=1, TCE= 22, PCE=44, TVHC=2	3
EB20	SG-20	TCA=8, TCE=.7, PCE=96, TVHC=11	2
EB23 EB23A	SG-3	TCA=8, TCE=140, PCE=4, TVHC=30	1

KEY

TCA= 1,1,1-Trichloroethane
TCE= Trichloroethylene
PCE= Tetrachloroethylene
TVHC= Total Volatile Hydrocarbons
Rank#= Relative level of total soil/gas contamination

IV SUMMARY OF FIELD WORK

On January 15 and 18, 1993, soil borings were advanced within the Westerly building at the locations indicated on Figure 2. The borings were advanced from 6.5 to 8.5 feet below grade until groundwater was encountered. From January 18 to 21, 1993, borings were advanced within the Easterly buildings at the locations indicated on Figure 1. The borings were advanced from 5 to 8 feet below grade until groundwater was encountered.

AKRF field geologist Mohamed Ahmed oversaw the advancement of the borings, performed field screening of the soil samples, and collected samples for laboratory analysis.

A description of the lithology and relevant comments regarding the condition of the soil at each boring location can be found in the borings logs in Appendix II.

V RESULTS

Headspace readings of all samples collected from the borings in both buildings indicated no evidence of contamination. None of the samples exhibited any odors suggesting volatile or petroleum contamination. Thus, samples submitted for laboratory analysis were selected from the groundwater interface.

A total of twenty-two soil samples, plus QA/QC samples, were submitted for analysis for TCLP volatile compounds. Analytical results indicated only trace amounts of VOC contamination in three borings. The highest concentration of VOC contamination was detected in boring EB20 in the Westerly building, where Tetrachloroethylene (PCE) was detected at 66 parts per billion (ppb). Immediately to the south of EB20, boring EB23, Trichloroethylene (TCE) and 1,2-Dichloroethene were detected at 35 ppb and 14 ppb, respectively. Trace concentrations of Tetrachloroethylene, Trichloroethylene, and 1,2-Dichloroethene were detected below the detection limit of the instrumentation in EB9 in the Easterly building.

In the remaining borings, no detectable quantities of VOC contaminants were found in the samples. Trace amounts of Methylene Chloride and Acetone (less than 50 ppb) were detected in some of the samples; however, these compounds are typically associated with laboratory or field contamination. In fact, Acetone was detected in the laboratory and trip blanks, indicating contamination from the laboratory or transportation of the samples.

If requested, a complete analytical data package for the results can be made available.

VI CONCLUSIONS

Based upon the findings of this subsurface investigation, there is no reason to believe that the soil underlying the Easterly and Westerly buildings has volatile organic contamination of any concern to the proposed development of the property.

Analytical results indicated only trace concentrations of VOC contamination in the soils underneath the buildings. These amounts of VOC contamination was detected in only two of the ten borings in the Westerly building and in only one of the ten borings in the Easterly building. Furthermore, the concentrations of detected VOC contaminants were well below the site-specific cleanup standards for the site. For example, the highest concentration of VOC contamination was 66 ppb of PCE in EB20 of the Westerly building. The present site-specific cleanup standard for PCE ranges from 1,065 to 1,864 ppb.

Since no appreciable amounts of soil contamination was encountered above or in the groundwater, any additional action to assess the subsurface conditions beneath the buildings cannot be justified.

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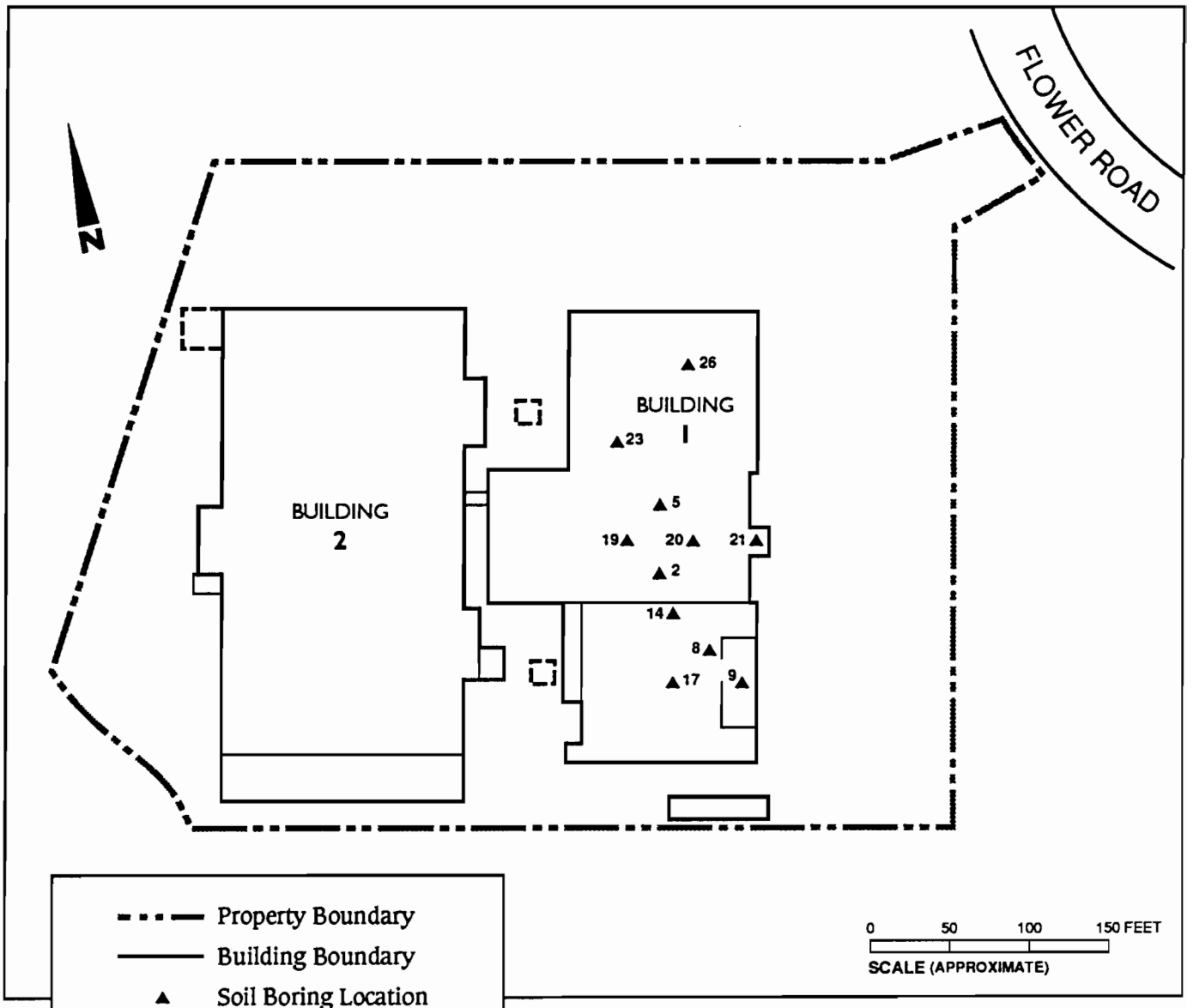


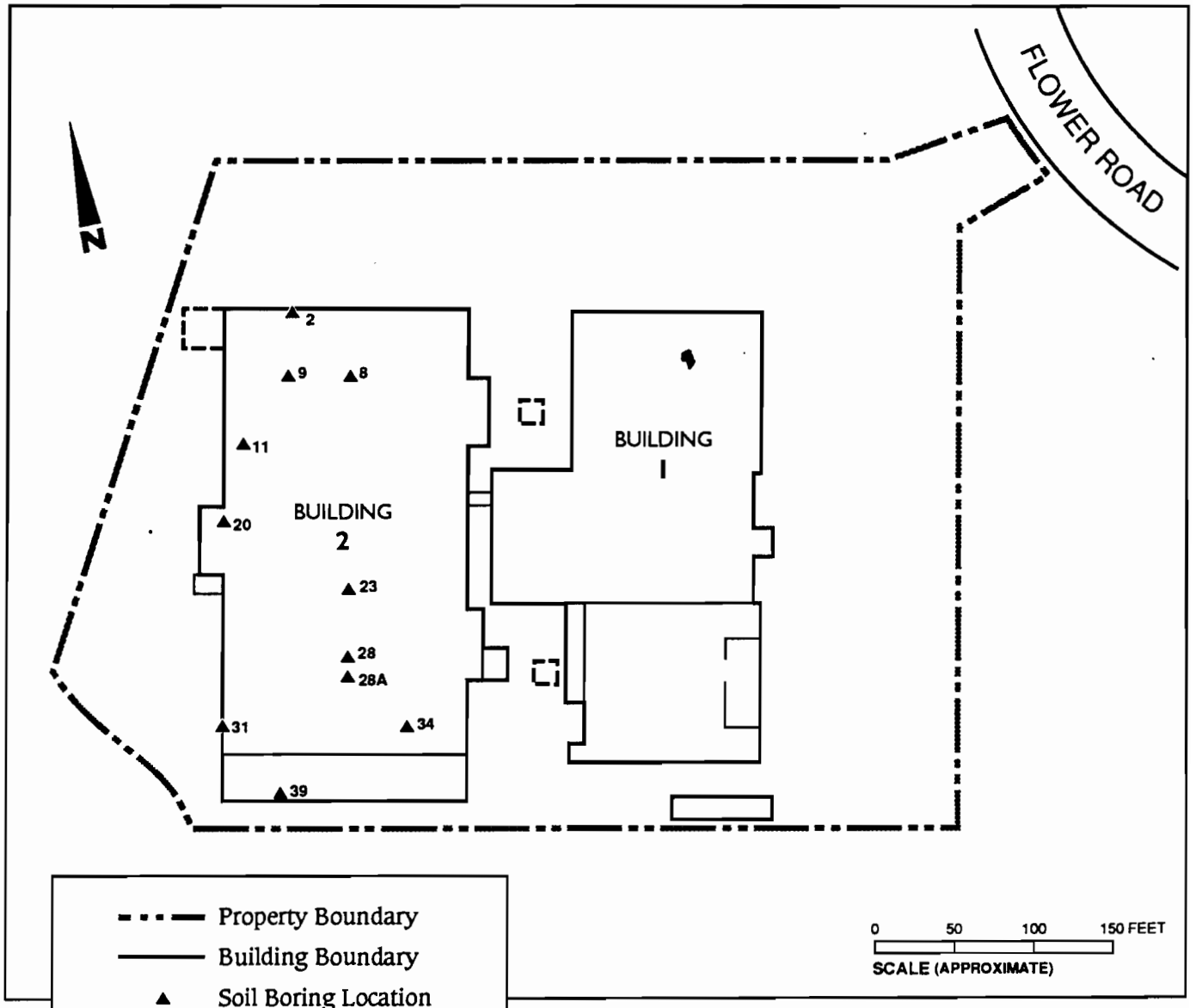
BORING #	SAMPLE # FROM BORING
26	EB26/1-5'-7'
23	EB23/1-5'-7'
5	EB5/1-4.4'-6.4'
19	EB19/1-6.5'-8.5'
20	EB20/1-6.5'-8.5'
21	EB21/1-6'-8'
2	EB2/1-6'-8'
14	EB14/1-5'-7'
8	EB8/1-5'-7'
17	EB17/1-6'-8'
9	EB9/1-5'-7'

FIGURE 1

SOIL BORING LOCATIONS FOR BUILDING NO. 1

FORMER BULOVA TECHNOLOGIES FACILITY, VALLEY STREAM, NY

HOME DEPOT
GREEN ACRES



BORING #	SAMPLE # FROM BORING
2	EB2/2-4.5'-6.5'
9	EB8/2-4.5'-6.5'
8	EB9/2-4.5'-6.5'
11	EB11/2-4.5'-6.5'
20	EB20/2
23	EB23/2
28	EB28/2
31	EB31/2
34	EB34/2
39	EB39/2

FIGURE 2

SOIL BORING LOCATIONS FOR BUILDING NO. 2

FORMER BULOVA TECHNOLOGIES FACILITY, VALLEY STREAM, NY

HOME DEPOT
GREEN ACRES

APPENDIX I

SUPPORTING DOCUMENTATION

ENVIRON Corporation
Quarterly Groundwater Sampling Results

BULOVA TECHNOLOGIES GROUND WATER MONITORING DATA - VALLEY STREAM, NEW YORK
CONCENTRATIONS IN PARTS PER BILLION

	MONITORING WELL AND SAMPLING DATE													
	MW1							MW2						
VOLATILE ORGANIC COMPOUND	2/91	5/91	9/91	1/92	5/92	7/92	11/92	2/91	5/91	9/91	1/92	5/92	7/92	11/92
1,1,1-TRICHLOROETHANE	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-DICHLOROETHANE	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TRICHLOROETHYLENE	-	-	-	44	2.2J	10	24	-	-	-	-	-	-	-
TETRACHLOROETHYLENE	-	-	-	-	-	-	-	12	-	12	7.1	5.8J	10	8.1
METHYL ETHYL KETONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-
O,P-XYLENE	-	-	-	-	-	-	-	-	-	-	-	-	-	-
METHYLENE CHLORIDE	1.95	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES: '-' INDICATES COMPOUND NOT DETECTED
BLANK COLUMN DENOTES WELL NOT YET INSTALLED AT TIME OF SAMPLING
MONITORING WELL MW5 WAS REMOVED DURING SOIL REMEDIATION IN DECEMBER 1990
ALL ANALYSES CONDUCETD ON SAMPLES PRESERVED WITH HCl

BULOVA TECHNOLOGIES GROUND WATER MONITORING DATA - VALLEY STREAM, NEW YORK
CONCENTRATIONS IN PARTS PER BILLION

	MONITORING WELL AND SAMPLING DATE													
	MW3							MW4						
VOLATILE ORGANIC COMPOUND	2/91	5/91	9/91	1/92	5/92	7/92	11/92	2/91	5/91	9/91	1/92	5/92	7/92	11/92
1,1,1-TRICHLOROETHANE	67	3.6J	8.2	7.2	5.3J	2.8J	3.1J	-	-	-	-	-	-	-
1,1-DICHLOROETHANE	-	-	2.6J	1.1J	-	-		-	-	-	-	-	-	-
TRICHLOROETHYLENE	14	-	4.0J	3.0J	1.3J	15	2.7J	11	2.2J	4.1J	-	-	1.1J	-
TETRACHLOROETHYLENE	110	2.2J	25	40	13	49	15	-	-	-	-	-	-	-
METHYL ETHYL KETONE	-	-	-	-	-	-		34	-	-	-	-	-	-
O,P-XYLENE	2.75J	-	-	-	-	-		-	-	-	-	-	-	-
METHYLENE CHLORIDE	-	-	-	-	-	-		-	-	-	-	-	-	

Note: 8.1J Acetone present in 11/92 sample from MW3

NOTES: '-' INDICATES COMPOUND NOT DETECTED
BLANK COLUMN DENOTES WELL NOT YET INSTALLED AT TIME OF SAMPLING
MONITORING WELL MW5 WAS REMOVED DURING SOIL REMEDIATION IN DECEMBER 1990
ALL ANALYSES CONDUCETD ON SAMPLES PRESERVED WITH HCl

BULOVA TECHNOLOGIES GROUND WATER MONITORING DATA - VALLEY STREAM, NEW YORK
CONCENTRATIONS IN PARTS PER BILLION

	MONITORING WELL AND SAMPLING DATE										
	MW5			MW6							
VOLATILE ORGANIC COMPOUND	2/91	5/91	9/91	2/91	5/91	9/91	1/92	5/92	7/92	11/92
1,1,1-TRICHLOROETHANE		-	2.4J		-	-	-	-	-	-
1,1-DICHLOROETHANE		-	-		-	-	-	-	-	-
TRICHLOROETHYLENE		-	-		-	-	-	-	-	-
TETRACHLOROETHYLENE		-	3.7J		-	-	-	-	-	-
METHYL ETHYL KETONE		-	-		-	-	-	-	-	-
O,P-XYLENE		-	-		-	-	-	-	-	-
METHYLENE CHLORIDE		-	-		-	-	-	-	-	-

NOTES: "-" INDICATES COMPOUND NOT DETECTED
BLANK COLUMN DENOTES WELL NOT YET INSTALLED AT TIME OF SAMPLING
MONITORING WELL MW5 WAS REMOVED DURING SOIL REMEDIATION IN DECEMBER 1990
ALL ANALYSES CONDUCETD ON SAMPLES PRESERVED WITH HCl

BULOVA TECHNOLOGIES GROUND WATER MONITORING DATA - VALLEY STREAM, NEW YORK
CONCENTRATIONS IN PARTS PER BILLION

	MONITORING WELL AND SAMPLING DATE													
	MW7							MW8						
VOLATILE ORGANIC COMPOUND	2/91	5/91	9/91	1/92	5/92	7/92	11/92	2/91	5/91	9/91	1/92	5/92	7/92	11/92
1,1,1-TRICHLOROETHANE		24	40	6.2	3.5J	2.3J	6.6J		-	-	-	-	-	-
1,1-DICHLOROETHANE		-	-	-	-	-			-	-	-	-	-	-
TRICHLOROETHYLENE		-	-	-	-	1.1J			-	-	-	-	-	-
TETRACHLOROETHYLENE		-	-	-	-	-			-	-	-	-	-	-
METHYL ETHYL KETONE		-	-	-	-	-			-	-	-	-	-	-
O,P-XYLENE		-	-	-	-	-			-	-	-	-	-	-
METHYLENE CHLORIDE		-	-	-	-	-			-	-	-	-	-	-

NOTES: '-' INDICATES COMPOUND NOT DETECTED
BLANK COLUMN DENOTES WELL NOT YET INSTALLED AT TIME OF SAMPLING
MONITORING WELL MW5 WAS REMOVED DURING SOIL REMEDIATION IN DECEMBER 1990
ALL ANALYSES CONDUCETD ON SAMPLES PRESERVED WITH HCl

Site-specific Cleanup Standards

TABLE 7
Summary of New York State Drinking Water Standards, K_{oc} Values, and Calculated Soil Cleanup Goals for Organic Compounds Detected at the Bulova Technologies Site, Valley Stream, New York

Compound[1]	K_{oc} (ml/g)	Drinking Water Standard (ug/L)	Soil Cleanup Goal in SA1 - SA4[2] (ug/kg)	Soil Cleanup Goal in SA5[3] (ug/kg)
TCE	126	5	674	385
PCE	364	5	1864	1065
Ethylbenzene	1100	5	5544	3168
Total xylenes	240	5	1244	711
MEK	4.5	50	666	380
Acetone	2.2	50	551	315
TCA	152	5	804	460
Toluene	300	5	1544	882
DCA	30	5	194	111

[1] TCE - Trichloroethene
PCE - Tetrachloroethene
MEK - Methyl ethyl ketone
TCA - 1,1,1-trichloroethane
DCA - 1,1-dichloroethane
[2]Assuming 2-foot thickness of contaminated soil
[3]Assuming 3.5-foot thickness of contaminated soil

1961A:PAA01685.W51

Tracer Research Corporation
Soil Gas Survey Results

Building No. 1 (Easterly)

TABLE 4
Summarized Soil Gas Sampling Results
Bulova Technologies, Inc., Valley Stream, New York

Sample	TCA	TCE	PCE	Benzene	Toluene	Ethyl Benzene	Xylenes	TVHC
SG-1	4	0.7	0.2	<0.01	0.1	<0.07	0.08	0.7
SG-2	4	13	6	<0.01	0.2	<0.07	0.1	1
SG-3	3	7	5	<0.01	0.8	<0.07	1	3
SG-4	3	0.7	0.1	<0.01	<0.03	<0.07	<0.09	0.5
SG-5	7	30	10	<0.01	<0.03	<0.07	<0.09	2
SG-6	5	21	14	<0.01	<0.03	<0.07	<0.09	2
SG-7	1	0.01	0.02	<0.01	0.3	<0.07	0.6	0.9
SG-8	660	<0.3	<0.1	<0.01	<0.03	<0.07	<0.09	11
SG-9	28	0.03	0.2	<0.01	0.7	<0.07	0.8	3
SG-10	0.3	0.2	0.5	<0.01	0.7	<0.07	0.5	2
SG-11	1	9	0.3	<0.01	<0.03	<0.07	<0.09	5
SG-12	0.9	7	0.4	<0.01	<0.03	<0.07	<0.09	2
SG-13	2	0.2	0.5	<0.01	0.05	<0.06	<0.08	
SG-14	3700	<5	4	<0.1	<0.3	<0.6	<0.8	0.7
SG-15	0.4	0.004	0.005	<0.01	0.06	<0.06	<0.8	<0.2
SG-16	21	21	0.3	<0.01	<0.03	<0.06	<0.08	3
SG-17	130	1	2	<0.01	<0.03	<0.06	<0.08	6

Building No. 1 (Easterly)

TABLE 4
Summarized Soil Gas Sampling Results
Bulova Technologies, Inc., Valley Stream, New York

Sample	TCA	TCE	PCE	Benzene	Toluene	Ethyl Benzene	Xylenes	TVHC
SG-18	0.3	1	0.1	<0.01	<0.03	<0.06	<0.08	<0.08
SG-19	5	34	9	<0.01	<0.03	<0.06	<0.08	1
SG-20	4	22	16	<0.01	0.4	<0.06	0.2	2
SG-21	3	20	13	<0.01	0.04	<0.06	<0.08	0.5
SG-22	2	4	2	<0.01	0.07	<0.06	<0.08	0.5
SG-23	7	<0.05	0.3	<0.01	<0.03	<0.06	<0.08	0.3
SG-24	8	0.6	2	<0.01	<0.03	<0.06	<0.08	0.2
SG-25	10	0.1	1	<0.01	<0.03	<0.06	<0.08	0.3
SG-26	5	0.6	0.2	<0.01	<0.03	<0.06	<0.08	0.2
SG-27	0.5	0.09	0.02	<0.01	<0.03	<0.06	<0.08	<0.08
SG-28	1	0.06	0.02	<0.01	0.06	<0.06	<0.08	0.06
SG-29	0.4	0.01	0.02	<0.01	0.06	<0.06	0.07	0.4

Notes:
All concentrations in µg/l
TCA: 1,1,1-Trichloroethane
TCE: Trichloroethylene
PCE: Tetrachloroethylene
TVHC: Total Volatile Hydrocarbons

1961A:PAA01685.W51

SOIL GAS SAMPLE SUMMARY

Building No. 2 (westerly)

SAMPLE	TCA (ug/l)	TCE (ug/l)	PCE (ug/l)	BENZENE (ug/l)	TOLUENE (ug/l)	ETHBENZ (ug/l)	XYLENES (ug/l)	TVHC (ug/l)
SG-1	0.003	0.004	0.007	0.02	0.04	0.08	0.1	0.1
SG-2	0.2	0.4	3	0.1	0.2	0.06	0.07	1
SG-3	0.7	0.6	4	0.2	1	0.6	0.7	11
SG-4	0.7	0.04	0.6	0.05	0.09	0.06	0.4	0.7
SG-5	0.04	0.009	0.01	0.3	0.5	0.1	0.1	2
SG-6	0.6	0.08	0.6	0.04	0.08	0.06	0.07	0.2
SG-7	0.002	0.002	0.005	0.2	0.3	0.06	0.6	2
SG-8	0.09	2	4	0.2	0.3	4	8	52
SG-9	1	22	44	0.03	0.03	0.06	0.07	2
SG-10	1	0.2	1	0.03	0.06	0.1	0.1	0.3
SG-11	8	0.2	0.3	0.2	0.3	0.6	0.7	2
SG-12	0.08	0.002	0.002	0.1	0.1	0.06	0.08	0.6
SG-13	2	0.003	0.03	0.02	0.05	0.06	0.08	0.6
SG-14	0.5	0.03	0.2	0.08	0.2	0.06	0.08	0.7
SG-15	0.3	0.2	0.4	0.03	0.02	0.06	0.08	0.1
SG-16	0.3	0.02	0.04	0.04	0.1	0.06	0.08	0.5
SG-17	0.2	0.1	0.03	0.05	0.2	0.06	0.8	3
SG-18	1	0.6	0.06	0.02	0.02	0.06	0.08	2
SG-19	0.04	0.02	0.01	0.3	2	4	5	9
SG-20	8	0.7	96	0.2	0.5	0.6	0.8	11
SG-21	0.5	0.2	0.8	0.03	0.05	0.06	0.08	0.2
SG-22	2	0.09	2	0.02	0.03	0.06	0.08	0.9
SG-23	8	140	4	0.2	0.2	0.7	0.8	30
SG-24	2	6	0.3	0.02	0.03	0.07	0.08	3
SG-25	0.06	0.08	0.005	0.06	0.2	0.07	0.08	0.4
SG-26	2	0.6	0.4	0.2	0.2	0.7	0.8	7
SG-27	3	0.07	0.2	0.02	0.03	0.07	0.08	2
SG-28	12	2	0.2	0.02	0.02	0.07	0.08	4
SG-29	6	0.07	0.2	0.02	0.02	0.07	0.08	1
SG-30	4	0.04	0.08	0.02	0.02	0.07	0.08	0.5
SG-31	7	0.07	0.2	0.02	0.02	0.07	0.08	1
SG-32	0.8	0.0006	0.01	0.02	0.07	0.08	0.1	2
SG-33	0.03	0.004	0.007	0.02	0.04	0.08	0.1	0.1
SG-34	5	0.1	0.4	0.02	0.04	0.08	0.1	3
SG-35	2	0.4	0.4	0.02	0.04	0.08	0.1	0.6
SG-36	0.9	0.3	0.5	0.02	0.04	0.08	0.1	0.4
SG-37	5	1	2	0.02	0.04	0.08	0.1	2
SG-38	4	0.5	0.4	0.02	0.04	0.08	0.1	0.8
SG-39	14	0.2	0.5	0.02	0.04	0.08	0.1	2
SG-40	2	0.04	0.1	0.02	0.04	0.08	0.1	0.3

APPENDIX II

AKRF, INC. SOIL BORING LOG

Date January 19, 1993
Boring Number EB 26/1
Project Green Acres
Location Valley Stream, New York
Driller Dennis Page
Supervisor Mohamed Ahmed
Surface Elevation 7.1 NOD
Groundwater Level 6 feet

Depth	**Notes:** blowcounts, strata description, odors
1- 3 feet	4,7,8,9 redish yellow, medium to coarse sand, no odor.
3- 5 feet	10,11,10,10 redish yellow, medium to coarse sand at the bottom, slightly wet gray silty sand, no odor.
5- 7 feet	8,10,11,12 gray silty sand, wet, no odor.

AKRF, INC. SOIL BORING LOG

Date January 19, 1993 **Boring Number** EB 23/1

Project Green Acres **Location** Valley Stream, New York

Driller Dennis page

Supervisor Mohamed Ahmed **Surface Elevation** 7.52 NOD

Groundwater Level 6 feet

Depth	**Notes:** blowcounts, strata description, odors
1- 3 feet	8,12,18,16 redish yellow, fine to medium sand, no odor.
3- 5 feet	18,23,31,47 redish yellow medium to coarse sand at the top, and slightly wet silty sand at the bottom,no odor.
5- 7 feet	14,19,25,26 gray silty sand, wet, no odor.

AKRF, INC. SOIL BORING LOG

Date January 19, 1993
Boring Number EB 5/1
Project Green Acres
Location Valley Stream, New york
Driller Dennis Page
Supervisor Mohamed Ahmed
Surface Elevation 7.2 NOD
Groundwater Level 6 feet

Depth	**Notes:** blowcounts, strata description, odors
1.5- 2.5 feet	10,12,15,20 fine to medium sand, no odor.
2.5- 4.5 feet	29,35,39,20 medium to coarse sand at the top with pieces of bricks,redish yellow fine to medium sand at the bottom, no odor.
4.5- 6.5 feet	20,29,32,40 gray silty sand, wet, no odor.

AKRF, INC. SOIL BORING LOG

Date January 20, 1993 **Boring Number** EB 8/1

Project Green Acres **Location** Stream Valley, New York

Driller Dennis Page

Supervisor Mohamed Ahmed **Surface Elevation** 8.9 NOD

Groundwater Level 6 feet

Depth	**Notes:** blowcounts, strata description, odors
2- 3 feet	(Auger sample) medium to coarse gray sand, no odor.
3- 5 feet	30,38,26,25 medium to coarse,redish yellow sand with gravel, no odor.
5- 7 feet	17,37,40,42 gray silty sand, wet, no odor.

AKRF, INC. SOIL BORING LOG

Date January, 20, 1993
Boring Number EB 9/1
Project green Acres
Location Valley Stream, New York
Driller Dennis Page
Supervisor Mohamed Ahmed
Surface Elevation 7.9 NOD
Groundwater Level 6 feet

Depth	**Notes:** blowcounts, strata description, odors
3- 5 feet	24,27,40,41 slightly wet, fine to medium sand, no odor.
5- 7 feet	20,34,30,47 wet silty sand, no odor.

AKRF, INC. SOIL BORING LOG

Date January 20, 1993 **Boring Number** EB 14/1

Project Green Acres **Location** Valley Stream, New York

Driller Dennis Page

Supervisor Mohamed Ahmed **Surface Elevation** 7 1 NOD

Groundwater Level 6 feet

Depth	**Notes:** blowcounts, strata description, odors
2- 3 feet	(Auger sample) fine to medium sand, no odor.
3- 5 feet	27,33,28,33 redish yellow, fine to medium sand at the top, silty sand slightly wet at the bottom, no odor.
5- 7 feet	19,21,28,24 wet silty sand with gravel, no odor.

AKRF, INC. SOIL BORING LOG

Date January 21, 1993
Boring Number EB 19/1
Project Green Acres
Location Valley Stream, New York
Driller Dennis Page
Supervisor Mohamed Ahmed
Surface Elevation 7.9 NOD
Groundwater Level 6 feet

Depth	**Notes:** blowcounts, strata description, odors
2.5- 4.5 feet	18,40,17,25 fine to medium sand with pieces of bricks -fine to medium yellow sand, no odor.
4.5-6.6 feet	28,28,27,30 gravel, yellow medium to coarse sand, no odor.
6.5- 8.5 feet	20,23,19,20 wet gray silty sand, no odor.

AKRF, INC. SOIL BORING LOG

Date January 21, 1993 **Boring Number** EB 2/1

Project Green Acres **Location** Valley Stream, New York

Driller Dennis Page

Supervisor Mohamed Ahmed **Surface Elevation** 7.2 NOD

Groundwater Level 6 feet

Depth	**Notes:** blowcounts, strata description, odors
2- 4 feet	12,15,13,14 redish color, coarse to medium sand, no odor.
4- 6 feet	14,16,25,22 redish yellow coarse sand with gravel, no odor.
6- 8 feet	11,13,15,15 wet silty sand, no odor.

AKRF, INC. SOIL BORING LOG

Date January 21, 1993
Boring Number EB 20/1
Project Green Acres
Location Valley Stream, New York
Driller Dennis Page
Supervisor Mohamed Ahmed
Surface Elevation 7.6 NOD
Groundwater Level 6 feet

Depth	**Notes:** blowcounts, strata description, odors
2- 4 feet	8,12,15,24 redish yellow medium to coarse sand,gravel, no odor.
4- 6 feet	8,14,25,24 medium to coarse sand, no odor.
6- 8 feet	wet silty sand, no odor.

AKRF, INC. SOIL BORING LOG

Date January 21, 1993 **Boring Number** EB 17/1

Project Green Acres **Location** Stream Valley, New York

Driller Dennis Page

Supervisor Mohamed Ahmed **Surface Elevation** 7.5 NOD

Groundwater Level 6 feet

Depth	**Notes:** blowcounts, strata description, odors
2- 4 feet	7,10,12,16 gray silty sand, no odor.
4- 6 feet	12,14,20,22 wet silty sand, no odor.
6- 8 feet	10,14,18,20 wet silty sand, no odor .

AKRF, INC. SOIL BORING LOG

Date January 21, 1993 **Boring Number** EB 21/1

Project Green Acres **Location** Valley Stream, New York

Driller Dennis Page

Supervisor Mohamed Ahmed **Surface Elevation** 7.4 NOD

Groundwater Level 6 feet

Depth	**Notes:** blowcounts, strata description, odors
2- 4 feet	8,10,16,22 redish yellow medium to coarse sand ,pieces of bricks, no odor.
4- 6 feet	27,24,34,31 medium to coarse sand, no odor.
6- 8 feet	14,18,20,22 wet,gray silty sand, no odor.

AKRF, INC. SOIL BORING LOG

Date January, 18, 1993
Boring Number EB11/2
Project Valley stream
Location Valley Stream.New York
Driller Dennis Page
Supervisor Mohamed Ahmed
Surface Elevation 8.3 NOD
Groundwater Level 5 feet

Depth	**Notes:** blowcounts, strata description, odors
0.5-2.5 feet	5,8,14,27 Medium sand and gravel, no odor.
2.5- 4.5 feet	27, 29, 48, 43 Gravel,medium sand,slightly wet silty sand at the bottom, no odor.
4.5- 6.5 feet	32,27,27,27 Silty sand with gravel, wet, no odor.

AKRF, INC. SOIL BORING LOG

Date January 18, 1993 **Boring Number** EB 9/2

Project Green Acres **Location** Valley Stream, New York

Driller Dennis Page

Supervisor Mohamed Ahmed **Surface Elevation** 8.6 NOD

Groundwater Level 5 feet

Depth	**Notes:** blowcounts, strata description, odors
0.5- 2.5 feet	7,14,18,22 black coarse sand and gravel at the top, yellow coarse sand and gravel at the bottom, no odor.
2.5- 4.5 feet	22,33,23,21 black medium to coarse sand, slightly wet, no odor.
4.5- 6.5 feet	22,25, 22, 23 gray silty sand ,wet, no odor.

AKRF, INC. SOIL BORING LOG

Date January 18, 1993 **Boring Number** EB 8/2

Project Green Acres **Location** Valley Stream, New York

Driller Dennis Page

Supervisor Mohamed Ahmed **Surface Elevation** 7.8 NOD

Groundwater Level 5 Feet

Depth	**Notes:** blowcounts, strata description, odors
0.5- 2.5 feet	5,9,10,17 black medium to coarse sand and gravel,no odor.
2.5- 4.5 feet	7,8,12,12 dark black medium to coarse sand at the top and slightly wet gray silty sand at the bottom,no odor.
4.5- 6.5 feet	15,14,14,16 gray silty sand with some yellow coarse sand and gravel, wet, no odor.

AKRF, INC. SOIL BORING LOG

Date January 18, 1993
Boring Number EB 2/2
Project Green Acres
Location Valley Stream, New York
Driller Dennis Page
Supervisor Mohamed Ahmed
Surface Elevation 7.9 NOD
Groundwater Level 5 Feet

Depth	**Notes:** blowcounts, strata description, odors
0.5- 2.5 feet	2,3,3,2 black fine sand with some gravel, no odor.
2.5- 4.5 feet	2,34,9,9 black coarse sand at the top with some gravel, and slightly wet gray silty sand at the bottom, no odor.
4.5- 6.5 feet	10,15,15,25 gray silty sand at the top ,and redish yellow fine to medium sand at the bottom, no odor.
6- 8 feet	

AKRF Inc. Assessment of Likelihood
for
Groundwater Remediation

AKRF, Inc.

Environmental Consultants
117 East 29th Street • New York, NY 10016 • 212/696-0670

FAX Number 212/447-5546

January 26, 1993

Mr. Theodore H. Sandler
Altman, Kritzer & Levick, P.C.
6400 Powers Ferry Road, N.W.
Powers Ferry Landing
Suite 224
Atlanta, Georgia, 30339

RE: Green Acres Site.
Project No.: 3174-001
Status Report

Dear Mr. Sandler:

As you had requested in our phone conversation last week, AKRF has reviewed all available background information regarding the past environmental studies at the site for the purposes stated below:

1) To determine why sampling underneath the easterly and westerly buildings had not been considered until this week.
2) To assess the potential for groundwater remediation for the site.

An explanation of each follows, and pertinent background information can be found in the Appendix.

EXPLANATION FOR THE DELAY SAMPLING UNDERNEATH THE BUILDINGS:

Review of the ENVIRON Corporation report dated July 1991 revealed the most probable reason for the postponement of sampling and analyzing the soil underneath both buildings. In their recommendation section, ENVIRON stated that soil samples underneath the buildings should be collected and analyzed for VOCs to determine if they exceeded the site-specific cleanup criteria after the present structures had been demolished (refer to Appendix for ENVIRON Recommendations). From a purely technical standpoint, namely ease of access to all sampling points, this recommendation was defensible. But, it obviously ignored nontechnical factors (ie. real estate transaction) that would necessitate determining the level of contamination prior to demolition of the buildings.

Apparently, none of the other reports considered that commercial factors could outweigh the advantages of sampling after demolition of the buildings.

ASSESSMENT OF THE LIKELIHOOD FOR GROUNDWATER REMEDIATION:

Based upon our review of quarterly groundwater sampling results for the site, general knowledge of the groundwater standards for New York State (as promulgated in 6NYCRR Parts 700-705), and correspondence from the Nassau County Health Department, AKRF concurs with ENVIRON's conclusion that the site would not likely

require groundwater remediation. The reasons for this are as follows:

- Quarterly groundwater sampling at the site from 2/91 to 11/92 has showed a steady decrease in the VOC concentrations in all wells except the upgradient wells, MW1 and MW2. These wells showed only a slight increase for Trichlorethylene and Tetrachloroethylene. Furthermore, this contamination in these upgradient wells reflects the low-level contamination that characterizes the shallow, unconfined aquifer of the area.

- The concentration of contamination in only three of the eight wells on the property have exceeded any applicable water quality standards. These wells were MW1, MW2, and MW3. The level of contamination in this and the other wells would be considered negligible, less than 25 ppb in the most contaminated well (MW1). A brief discussion of each contaminant identified above the New York State Standard follows.

  Trichloroethylene was detected above the New York State standard of 5 ppb in well MW1. In MW1, Trichloroethylene was last detected at 24 ppb. Our past project experience with similar sites in the area would indicate that this level of contamination would not prompt corrective action by a regulatory agency.

  Tetrachloroethylene was the only other compound detected above the New York State water quality standard, which in its case is 5 ppb. Elevated levels of this contamination were detected in MW2 and MW3. It was last detected at 8.1 ppb in MW2 and 15 ppb in MW3. For the same reason as Trichloroethylene, this level of contamination should not be of concern.

- Review of groundwater sampling results recently received by AKRF, Inc. indicated that there were no elevated levels of metals and PCBs in the groundwater and that the only contaminants of concern were volatile organic compounds (VOCs). As previously discussed, the quarterly groundwater monitoring has demonstrated that the level of VOC contamination would not likely require remediation.

- Results of a well search to determine water use in the area demonstrated that this area does not rely on water from the shallow aquifer. The well search identified only three potable water supply wells within a 1-mile radius of the site, none of which were downgradient of the site.

- The Nassau County Health Department, which rigorously enforces the New York State Drinking Water Quality Standards, have been informed of the results of the quarterly groundwater monitoring at the site. Correspondence from the Health Department does not reflect any concern for the water quality.

Should you have any questions regarding this report, please do not hesitate to call us.

Sincerely,

William V. Silveri
Project Manager