

6 May 2008

**Environmental
Resources
Management**

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Mr. Steven M. Scharf, P.E.
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Action, Bureau A
625 Broadway
Albany, NY 12233-7015



Re: Soil Vapor Intrusion Investigation Results
Interior Building Areas Near Phase II Area Nos. 25 & 46
Former Grumman Plant 2, Bethpage, New York

Dear Mr. Scharf:

On behalf of Steel Los III, LP, (Steel Los III), ERM Consulting & Engineering, Inc. (ERM) has prepared this letter report to present the results of the Soil Vapor Intrusion (SVI) Investigation recently performed within the former Grumman Plant 2 building near Area of Concern Nos. 25 (Former Paint Storage, Mixing and Stripping Room) & 46 (Machine Pit) identified in a Phase II investigation conducted by Dvirka & Bartalucci in 1996. The SVI investigation was conducted pursuant to the Stipulation Agreement between Steel Los III and NYSDEC dated 4 February 2008, and involved collection of six (6) sub-slab vapor samples in accordance with ERM's 28 January 2008 Revised SVI Investigation Work Plan (the Work Plan) that was approved by New York State Department of Environmental Conservation.¹

Background

The New York State Department of Environmental Conservation (NYSDEC) requested that Steel Los III perform a SVI investigation to evaluate whether there are any potential soil vapor intrusion issues within the former Grumman Plant 2 building that are associated with the former Areas of Concern.

Historic environmental reports associated with the former Grumman Plant 2 building were reviewed including the April 1996 Phase II Site Assessment For Plant 2 and the December 1996 Supplemental Phase II Site Assessment For Plant 2 prepared by Dvirka & Bartalucci, the December 1997 Supplemental Site Investigation Report and Delisting Petition prepared by Eder Associates, and various correspondence from the NYSDEC regarding these documents.

□

¹ Letter dated 31 January 2008 from Steve Scharf-NYSDEC to Chris Wenczel-ERM.

Based on these reviews, only two former areas were identified where volatile organic compounds (VOCs) were detected in soil at concentrations above the corresponding NYSDEC Soil Cleanup Objectives for those compounds. The former areas, by number, name and corresponding compounds detected in soil at that location are:

Area	Former Area Name	Detected Compounds
25	Paint Storage, Mixing & Stripping Room	Methylene Chloride 1,1-DCA, 1,2-DCE, 1,1,1-TCA
46	Former Machine Pit	TCE, 1,1,1-TCA

1,1-DCA: 1,1-Dichloroethane

1,2-DCE: 1,2-Dichloroethene

1,1,1-TCA: 1,1,1-Trichloroethane

The Work Plan called for the collection sub-slab soil vapor samples from six (6) locations; two (2) in the vicinity of Area 25 - Former Paint Storage, Mixing and Stripping Room, and four (4) in the vicinity Area 46 - Former Machine Pits. Soil vapor sampling locations SS-03 and SS-06 were positioned at the perimeter of Area 46 because the machine pits have been filled in and a second concrete slab poured in-place over the pits. Soil vapor sampling locations SS-04 and SS-05 were relocated to the east of Area 46 at the request of the NYSDEC, and the revised locations were incorporated into the NYSDEC-approved Work Plan.

Sub-Slab Vapor Sampling

The sub-slab vapor sampling was performed on 25 February 2008. Sampling locations SS-01 through SS-06 are shown in Figure 1, which were slightly adjusted in the field based on accessibility and positioned to cause minimal disruption to the business activities of the current tenant, the United States Postal Service.

Sampling was performed following the protocols outlined in the NYSDEC-approved Work Plan and in accordance with the applicable protocols identified in the NYSDOH "Guidance for Evaluating Soil Vapor Intrusion in the State of New York" (October 2006). An "Indoor Air Quality Questionnaire and Building Inventory, and Product Inventory Forms" was completed (Attachment 1) contained in Appendix B of the NYSDOH Guidance. Each sampling location was screened using a photoionization detector (PID) to identify areas of potential interferences, and removing possible sources of VOCs from the sampling area. The PID was properly calibrated using isobutylene at the beginning of the day. No interferences were noted at the sampling locations. All sub-slab soil vapor samples were collected over the same 8-hour period with individually-certified clean Summa® canisters fitted with appropriately programmed regulators. All the pertinent data was recorded for each sampling location and is summarized in Table 1.

Laboratory Analysis & Reporting

The six summa canisters were shipped via overnight courier to Alpha Analytical Laboratories (NYSDOH Certification No. 11627) in Mansfield, Massachusetts, an Environmental Laboratory Accreditation Program- (ELAP)-certified laboratory. The sub-slab vapor samples were analyzed for VOCs using USEPA Method TO-15, with a target detection limit of 1.0 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) or less for all parameters. However, all samples required dilution during analyses due to elevated concentrations of target compounds, which resulted in higher detection limits.

All laboratory data was reported in ASP Category B deliverable format and a data usability validation was performed by a qualified ERM Chemist. The Data Usability Report is presented in Attachment 2. The validated analytical results are presented in Table 2. Laboratory data summary sheets are presented in Attachment 3. Detected compounds and associated concentrations are summarized below.

Detected Compounds ($\mu\text{g}/\text{m}^3$)	Area 25		Area 46			
	SS-01	SS-02	SS-03	SS-04	SS-05	SS-06
1,1,1-Trichloroethane	33,400	1,260	2,050	4.01	11.7	23.7
1,1-Dichloroethane	3,200	130	U	U	U	U
1,1-Dichloroethene	1,520	14.3	U	U	U	U
1,2,4-Trimethylbenzene	U	U	U	67.8	175	12.4
1,3,5-Trimethylbenzene	U	U	U	24.3	25.4	3.3
1,3-Butadiene	U	U	U	1.84	U	U
2-Butanone	U	U	15.1	17.2	24.3	11
4-Ethyltoluene	U	U	U	10.2	16.2	2.98
4-Methyl-2-pentanone	U	U	U	297	U	6.1
Acetone	U	5.98	96.3	327	138	58.8
Benzene	U	U	U	4.1	U	2.53
Carbon disulfide	175	U	U	3.96	U	1.96
Carbon tetrachloride	454	26.5	U	U	U	U
Chloroethane	21.6	U	U	U	U	U
Chloroform	815	26.8	24	3.71	U	15.6
Cis-1,2-Dichloroethene	15.5	U	U	2.89	U	U
Cyclohexane	10.7	U	U	U	U	U
Ethanol	55	U	93.4	46.7	252	9.56
Ethylbenzene	U	U	U	17.1	U	3.85
Freon-113	196	37.2	U	U	U	U
Heptane	U	U	U	2.94	U	2.32
Isopropanol	U	U	U	7.74	U	6.15
Methylene chloride	21.4	U	U	U	U	U
n-Hexane	U	U	U	2.27	U	2.22
o-Xylene	U	U	U	36.1	U	3.49
p/m-Xylene	U	U	U	91.3	U	14
Propylene	U	U	U	8.34	U	U
Tetrachloroethene	U	138	U	6.33	U	2.86
Toluene	U	U	11.7	22.1	21.9	14.2
Trichloroethene	128	723	1,320	724	290	395
Trichlorofluoromethane	U	U	13.7	3.51	U	16.8

The exact sources of VOCs in sub-slab soil vapor are unknown. Although minor use of detergent, lubricants and degreasers by the current tenant in servicing package conveyance systems and general housekeeping was noted, it is highly unlikely that current tenant operations are responsible for the sub-slab findings since the PID screening at each sampling location did not indicate the presence of VOCs in the ambient air.

We do not expect resultant impacts to indoor air quality from the sub-slab vapors because the integrity of the floor slab is very good in these areas, and there are powerful heating/ventilation/air conditioning systems that continuously feed and circulate fresh air from outdoors under a positive pressure to all occupied areas of the building, which would suppress sub-slab vapors from entering the building. We would like to meet with you to discuss these results. If you have any additional questions or comments, please do not hesitate to contact me at (631) 756-8900.

Very truly yours,

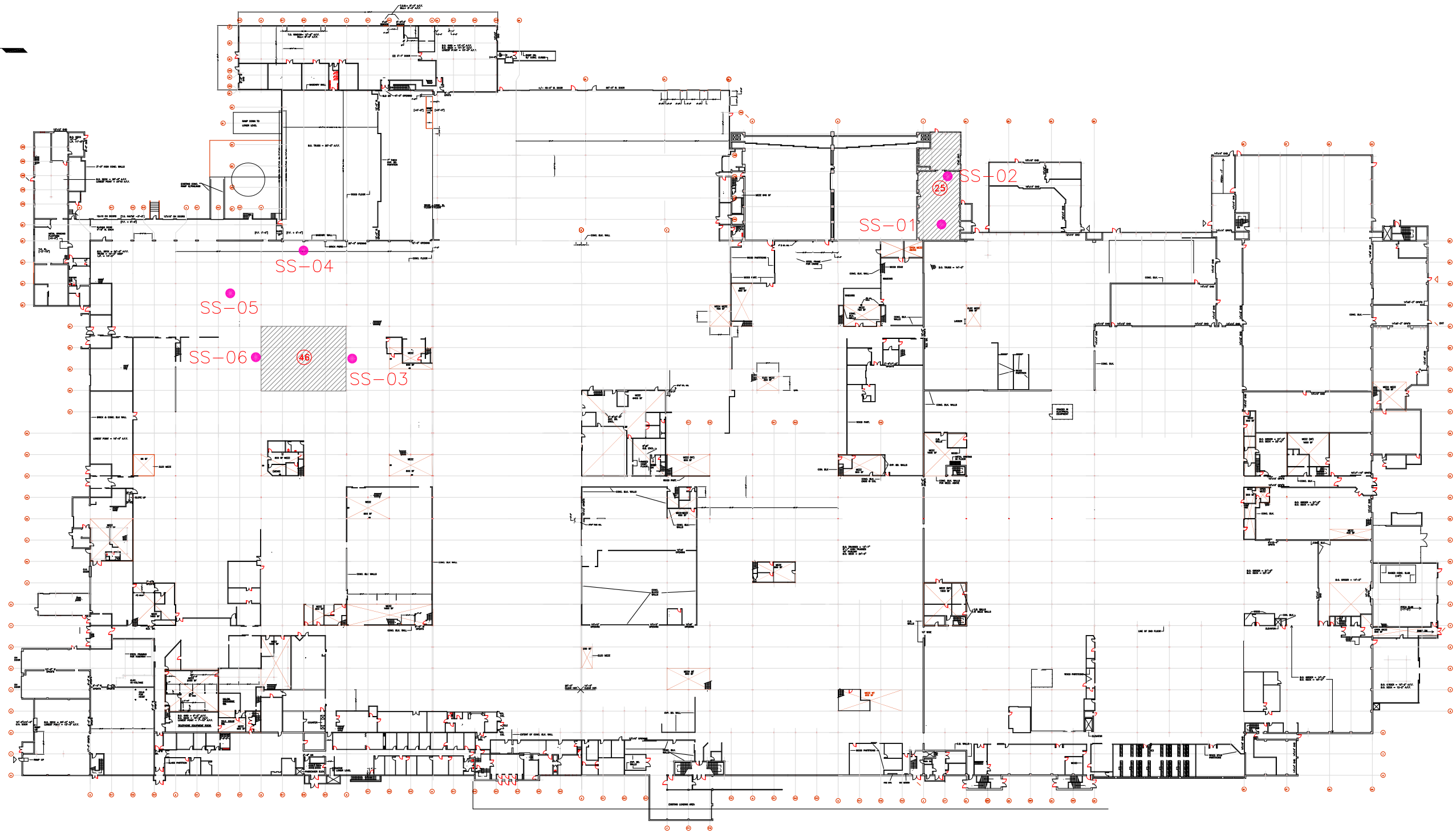
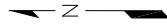


Chris W. Wenczel
Senior Consultant

Attachments

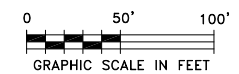
cc: Kevin Lumpe, Steel Los III, LP
Manfred Bohms, Steel Los III, LP
John Swartwout, NYSDEC
Walter Parish, NYSDEC

FIGURES



LEGEND

- SOIL VAPOR SAMPLING LOCATION
- ②5 FORMER AREA OF CONCERN



REVISION				REVISION				STEEL LOS III				CHECKED				DRAWING NO.			
NO.	DATE	APPR.		NO.	DATE	APPR.		PLANT 2 BUILDING				DESIGN ENGINEER				1			
								Environmental Resources Management				PROJECT ENGINEER				REV. NO.			
								ERM				PROJECT MANAGER							
												APPROVED				DRAWN			
												APPROVED				EMF/CWW			
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TABLES

Table 1
Sub-Slab Vapor Sampling - 25 February 2008
Former Areas 25 & 46
Steel Equities - Plant 2

[illegible]

Table 2
Sub-Slab Analytical Results
Volatile Organic Compounds (VOCs)
SVI Plant 2
Steel Equities
Bethpage, New York

PERIOD: From 02/25/2008 thru 02/25/2008 - Inclusive

SAMPLE TYPE: Air

CONSTITUENT	SITE LAB SAMPLE ID DATE	SS-01 L0802694-01 02/25/2008	SS-02 L0802694-02 02/25/2008	SS-03 L0802694-03 02/25/2008	SS-04 L0802694-04 02/25/2008
1,1,1-Trichloroethane	(ug/m3)	33400	1260	2050	4.01
1,1,2,2-Tetrachloroethane	(ug/m3)	13.7 U	13.7 U	13.7 U	3.43 U
1,1,2-Trichloroethane	(ug/m3)	10.9 U	10.9 U	10.9 U	2.72 U
1,1-Dichloroethane	(ug/m3)	3200	130	8.09 U	2.02 U
1,1-Dichloroethene	(ug/m3)	1520	14.3	7.92 U	1.98 U
1,2,4-Trichlorobenzene	(ug/m3)	14.8 U	14.8 U	14.8 U	3.71 U
1,2,4-Trimethylbenzene	(ug/m3)	9.82 U	9.82 U	9.82 U	67.8
1,2-Dibromoethane	(ug/m3)	15.4 U	15.4 U	15.4 U	3.84 U
1,2-Dichlorobenzene	(ug/m3)	12 U	12 U	12 U	3 U
1,2-Dichloroethane	(ug/m3)	8.09 U	8.09 U	8.09 U	2.02 U
1,2-Dichloropropane	(ug/m3)	9.24 U	9.24 U	9.24 U	2.31 U
1,3,5-Trimethylbenzene	(ug/m3)	9.82 U	9.82 U	9.82 U	24.3
1,3-Butadiene	(ug/m3)	4.42 U	4.42 U	4.42 U	1.84
1,3-Dichlorobenzene	(ug/m3)	12 U	12 U	12 U	3 U
1,4-Dichlorobenzene	(ug/m3)	12 U	12 U	12 U	3 U
1,4-Dioxane	(ug/m3)	7.2 U	7.2 U	7.2 U	1.8 U
2,2,4-Trimethylpentane	(ug/m3)	9.34 U	9.34 U	9.34 U	2.33 U
2-Butanone	(ug/m3)	5.89 U	5.89 U	15.1 J	17.2 J
2-Hexanone	(ug/m3)	8.19 U	8.19 U	8.19 U	2.05 U
4-Ethyltoluene	(ug/m3)	9.82 U	9.82 U	9.82 U	10.2
4-Methyl-2-Pentanone	(ug/m3)	8.19 U	8.19 U	8.19 U	297
Acetone	(ug/m3)	4.75 U	5.98 J	96.3 J	327 J
Allyl chloride	(ug/m3)	6.26 U	6.26 U	6.26 U	1.56 U
Benzene	(ug/m3)	6.38 U	6.38 U	6.38 U	4.1
Benzyl chloride	(ug/m3)	10.3 U	10.3 U	10.3 U	2.59 U
Bromodichloromethane	(ug/m3)	13.4 U	13.4 U	13.4 U	3.35 U
Bromoform	(ug/m3)	20.6 U	20.6 U	20.6 U	5.16 U
Bromomethane	(ug/m3)	7.76 U	7.76 U	7.76 U	1.94 U
Carbon Disulfide	(ug/m3)	175	6.22 U	6.22 U	3.96
Carbon Tetrachloride	(ug/m3)	454	26.5	12.6 U	3.14 U
Chlorobenzene	(ug/m3)	9.2 U	9.2 U	9.2 U	2.3 U
Chloroethane	(ug/m3)	21.6	5.27 U	5.27 U	1.32 U
Chloroform	(ug/m3)	815	26.8	24	3.71
Chloromethane	(ug/m3)	4.13 U	4.13 U	4.13 U	1.03 U
cis-1,2-Dichloroethene	(ug/m3)	15.5	7.92 U	7.92 U	2.89
cis-1,3-Dichloropropene	(ug/m3)	9.07 U	9.07 U	9.07 U	2.27 U
Cyclohexane	(ug/m3)	10.7	6.88 U	6.88 U	1.72 U
Dibromochloromethane	(ug/m3)	17 U	17 U	17 U	4.26 U
Dichlorodifluoromethane	(ug/m3)	9.88 U	9.88 U	9.88 U	2.47 U
U - Non-detect. J - Estimated value.					

Table 2
Sub-Slab Analytical Results
Volatile Organic Compounds (VOCs)
SVI Plant 2
Steel Equities
Bethpage, New York

PERIOD: From 02/25/2008 thru 02/25/2008 - Inclusive

SAMPLE TYPE: Air

CONSTITUENT	SITE LAB SAMPLE ID DATE	SS-01 L0802694-01 02/25/2008	SS-02 L0802694-02 02/25/2008	SS-03 L0802694-03 02/25/2008	SS-04 L0802694-04 02/25/2008
Ethanol	(ug/m3)	55	47.1 U	93.4	46.7
Ethyl acetate	(ug/m3)	18 U	18 U	18 U	4.5 U
Ethylbenzene	(ug/m3)	8.68 U	8.68 U	8.68 U	17.1
Freon 113	(ug/m3)	196	37.2	15.3 U	3.83 U
Freon 114	(ug/m3)	14 U	14 U	14 U	3.49 U
Heptane	(ug/m3)	8.19 U	8.19 U	8.19 U	2.94
Hexachlorobutadiene	(ug/m3)	21.3 U	21.3 U	21.3 U	5.33 U
Hexane	(ug/m3)	7.04 U	7.04 U	7.04 U	2.27
Isopropyl Alcohol	(ug/m3)	12.3 U	12.3 U	12.3 U	7.74
m+p-Xylene	(ug/m3)	17.4 U	17.4 U	17.4 U	91.3
Methyl Tertiary Butyl Ether	(ug/m3)	7.2 U	7.2 U	7.2 U	1.8 U
Methylene Chloride	(ug/m3)	21.4	6.94 U	6.94 U	1.74 U
o-Xylene	(ug/m3)	8.68 U	8.68 U	8.68 U	36.1
Propylene	(ug/m3)	3.44 U	3.44 U	3.44 U	8.34
Styrene	(ug/m3)	8.51 U	8.51 U	8.51 U	2.13 U
Tetrachloroethene	(ug/m3)	13.6 U	138	13.6 U	6.33
Tetrahydrofuran	(ug/m3)	5.89 U	5.89 U	5.89 U	1.47 U
Toluene	(ug/m3)	7.53 U	7.53 U	11.7	22.1
trans-1,2-Dichloroethene	(ug/m3)	7.92 U	7.92 U	7.92 U	1.98 U
trans-1,3-Dichloropropene	(ug/m3)	9.07 U	9.07 U	9.07 U	2.27 U
Trichloroethene	(ug/m3)	128	723	1320	724
Trichlorofluoromethane	(ug/m3)	11.2 U	11.2 U	13.7	3.51
Vinyl Acetate	(ug/m3)	7.04 U	7.04 U	7.04 U	1.76 U
Vinyl bromide	(ug/m3)	8.74 U	8.74 U	8.74 U	2.18 U
Vinyl chloride	(ug/m3)	5.11 U	5.11 U	5.11 U	1.28 U
Sum of Constituents	(ug/m3)	40012.20	2361.78	3624.20	1732.44
U - Non-detect. J - Estimated value.					

Table 2
Sub-Slab Analytical Results
Volatile Organic Compounds (VOCs)
SVI Plant 2
Steel Equities
Bethpage, New York

PERIOD: From 02/25/2008 thru 02/25/2008 - Inclusive

SAMPLE TYPE: Air

CONSTITUENT	SITE LAB SAMPLE ID DATE	SS-05 L0802694-05 02/25/2008	SS-06 L0802694-06 02/25/2008
1,1,1-Trichloroethane	(ug/m3)	11.7	23.7
1,1,2,2-Tetrachloroethane	(ug/m3)	13.7 U	2.74 U
1,1,2-Trichloroethane	(ug/m3)	10.9 U	2.18 U
1,1-Dichloroethane	(ug/m3)	8.09 U	1.62 U
1,1-Dichloroethene	(ug/m3)	7.92 U	1.58 U
1,2,4-Trichlorobenzene	(ug/m3)	14.8 U	2.97 U
1,2,4-Trimethylbenzene	(ug/m3)	175	12.4
1,2-Dibromoethane	(ug/m3)	15.4 U	3.07 U
1,2-Dichlorobenzene	(ug/m3)	12 U	2.4 U
1,2-Dichloroethane	(ug/m3)	8.09 U	1.62 U
1,2-Dichloropropane	(ug/m3)	9.24 U	1.85 U
1,3,5-Trimethylbenzene	(ug/m3)	25.4	3.3
1,3-Butadiene	(ug/m3)	4.42 U	0.884 U
1,3-Dichlorobenzene	(ug/m3)	12 U	2.4 U
1,4-Dichlorobenzene	(ug/m3)	12 U	2.4 U
1,4-Dioxane	(ug/m3)	7.2 U	1.44 U
2,2,4-Trimethylpentane	(ug/m3)	9.34 U	1.87 U
2-Butanone	(ug/m3)	24.3 J	11 J
2-Hexanone	(ug/m3)	8.19 U	1.64 U
4-Ethyltoluene	(ug/m3)	16.2	2.98
4-Methyl-2-Pentanone	(ug/m3)	8.19 U	6.1
Acetone	(ug/m3)	138 J	58.8 J
Allyl chloride	(ug/m3)	6.26 U	1.25 U
Benzene	(ug/m3)	6.38 U	2.53
Benzyl chloride	(ug/m3)	10.3 U	2.07 U
Bromodichloromethane	(ug/m3)	13.4 U	2.68 U
Bromoform	(ug/m3)	20.6 U	4.13 U
Bromomethane	(ug/m3)	7.76 U	1.55 U
Carbon Disulfide	(ug/m3)	6.22 U	1.96
Carbon Tetrachloride	(ug/m3)	12.6 U	2.51 U
Chlorobenzene	(ug/m3)	9.2 U	1.84 U
Chloroethane	(ug/m3)	5.27 U	1.05 U
Chloroform	(ug/m3)	9.76 U	15.6
Chloromethane	(ug/m3)	4.13 U	0.825 U
cis-1,2-Dichloroethene	(ug/m3)	7.92 U	1.58 U
cis-1,3-Dichloropropene	(ug/m3)	9.07 U	1.81 U
Cyclohexane	(ug/m3)	6.88 U	1.38 U
Dibromochloromethane	(ug/m3)	17 U	3.4 U
Dichlorodifluoromethane	(ug/m3)	9.88 U	7.25
U - Non-detect. J - Estimated value.			

Table 2
 Sub-Slab Analytical Results
 Volatile Organic Compounds (VOCs)
 SVI Plant 2
 Steel Equities
 Bethpage, New York

PERIOD: From 02/25/2008 thru 02/25/2008 - Inclusive

SAMPLE TYPE: Air

CONSTITUENT	SITE LAB SAMPLE ID DATE	SS-05 L0802694-05 02/25/2008	SS-06 L0802694-06 02/25/2008
Ethanol	(ug/m3)	252	9.56
Ethyl acetate	(ug/m3)	18 U	3.6 U
Ethylbenzene	(ug/m3)	8.68 U	3.85
Freon 113	(ug/m3)	15.3 U	3.06 U
Freon 114	(ug/m3)	14 U	2.79 U
Heptane	(ug/m3)	8.19 U	2.32
Hexachlorobutadiene	(ug/m3)	21.3 U	4.26 U
Hexane	(ug/m3)	7.04 U	2.22
Isopropyl Alcohol	(ug/m3)	12.3 U	6.15
m+p-Xylene	(ug/m3)	17.4 U	14
Methyl Tertiary Butyl Ether	(ug/m3)	7.2 U	1.44 U
Methylene Chloride	(ug/m3)	6.94 U	1.39 U
o-Xylene	(ug/m3)	8.68 U	3.49
Propylene	(ug/m3)	3.44 U	0.688 U
Styrene	(ug/m3)	8.51 U	1.7 U
Tetrachloroethene	(ug/m3)	13.6 U	2.86
Tetrahydrofuran	(ug/m3)	5.89 U	1.18 U
Toluene	(ug/m3)	21.9	14.2
trans-1,2-Dichloroethene	(ug/m3)	7.92 U	1.58 U
trans-1,3-Dichloropropene	(ug/m3)	9.07 U	1.81 U
Trichloroethene	(ug/m3)	290	395
Trichlorofluoromethane	(ug/m3)	11.2 U	16.8
Vinyl Acetate	(ug/m3)	7.04 U	1.41 U
Vinyl bromide	(ug/m3)	8.74 U	1.75 U
Vinyl chloride	(ug/m3)	5.11 U	1.02 U
Sum of Constituents	(ug/m3)	954.50	616.07
U - Non-detect. J - Estimated value.			

ATTACHMENTS

ATTACHMENT 1 - INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY, AND PRODUCT INVENTORY FORMS

ATTACHMENT 2 - DATA VALIDATION REPORT

ATTACHMENT 3 - ALPHA ANALYTICAL LABORATORIES DATA SUMMARY FORMS

***ATTACHMENT 1 - INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING
INVENTORY, AND PRODUCT INVENTORY FORMS***

**NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH**

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Karen Pickering Date/Time Prepared 2/27/08
Preparer's Affiliation ERM Phone No. (631) 756-8900
Purpose of Investigation Legacy Site

1. OCCUPANT:Interviewed: Y/☒N

Last Name: Nick Vernaci First Name: _____
Address: 288 Gruman Road, West Bethpage, NY 11714
County: Nassau
Home Phone: _____ Office Phone: (516) 803-0132

Number of Occupants/persons at this location 500 + Age of Occupants 18-60
(in 2 shifts)

2. OWNER OR LANDLORD: (Check if same as occupant ☐)Interviewed: ☒Y/☐N

Last Name: Lumpe First Name: Kevin
Address: 700 Hicksville Rd. Bethpage, NY 11714
County: Nassau
Home Phone: _____ Office Phone: (516) 576-3165

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential
Industrial

School
Church

Commercial/Multi-use
Other: _____

If the property is residential, type? (Circle appropriate response)

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other: _____

If multiple units, how many? _____

If the property is commercial, type?

Business Type(s) US Postal Service

Does it include residences (i.e., multi-use)? Y / N If yes, how many? _____

Other characteristics:

Number of floors 1 Building age ~70 yrs

Is the building insulated? Y / N How air tight? Tight / Average / Not Tight

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

Airflow near source

Outdoor air infiltration

Infiltration into air ducts

5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

- a. Above grade construction: wood frame concrete stone brick
- b. Basement type: full crawlspace slab other _____
- c. Basement floor: concrete dirt stone other _____
- d. Basement floor: uncovered covered covered with _____
- e. Concrete floor: unsealed sealed sealed with _____
- f. Foundation walls: poured block stone other _____
- g. Foundation walls: unsealed sealed sealed with _____
- h. The basement is: wet damp dry moldy
- i. The basement is: finished unfinished partially finished
- j. Sump present? Y / N
- k. Water in sump? Y / N / not applicable

Basement/Lowest level depth below grade: _____ (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

Hot air circulation
Space Heaters
Electric baseboard

Heat pump
Stream radiation
Wood stove

Hot water baseboard
Radiant floor
Outdoor wood boiler

Other Rooftop Package
Units HVAC Fresh
Air from roof level

The primary type of fuel used is:

Natural Gas
Electric
Wood

Fuel Oil
Propane
Coal

Kerosene
Solar

Domestic hot water tank fueled by: Natural Gas / Electric

Boiler/furnace located in: Basement Outdoors Main Floor Other No Boiler

Air conditioning: Central Air Window units Open Windows None

Are there air distribution ducts present? ☒ Y ☐ N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

Roof Top Mounted equipment. Supply and return
penetrate roof deck with approx. 10-12" of
Vertical Duct and 4 way diffuser on supply
and single return.

7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom Almost Never

Level General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)

Basement

1st Floor

Slab on grade. Package Distribution Conveyors
throughout. Ceiling Height +/- 32'

2nd Floor

Partial Mezzanine office

3rd Floor

NA

4th Floor

NA

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage?

Y ☒ N

b. Does the garage have a separate heating unit?

Y / N / ☒ NA

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car)

Y / N / ☒ NA

Please specify _____

d. Has the building ever had a fire?

Y ☒ N When? _____

e. Is a kerosene or unvented gas space heater present?

Y ☒ N Where? _____

f. Is there a workshop or hobby/craft area?

Y / ☒ N Where & Type? _____

g. Is there smoking in the building?

Y / ☒ N How frequently? _____

h. Have cleaning products been used recently?

☒ Y / N When & Type? typical Detergents
WD 40, Degreasers

i. Have cosmetic products been used recently?

Y / ☒ N When & Type? _____

j. Has painting/staining been done in the last 6 months? Y / ☒ N Where & When? _____

k. Is there new carpet, drapes or other textiles? Y / ☒ N Where & When? _____

l. Have air fresheners been used recently? Y / ☒ N When & Type? _____

m. Is there a kitchen exhaust fan? Y / ☒ N If yes, where vented? _____

n. Is there a bathroom exhaust fan? ☒ Y / ☒ N If yes, where vented? Roof

o. Is there a clothes dryer? Y / ☒ N If yes, is it vented outside? Y / N

p. Has there been a pesticide application? Y / ☒ N When & Type? _____

Are there odors in the building?

Y / ☒ N

If yes, please describe: _____

Do any of the building occupants use solvents at work?

Y / N UNKNOWN

(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist)

500 + employees in 2 shifts

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work?

Y / N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly)

Yes, use dry-cleaning infrequently (monthly or less)

Yes, work at a dry-cleaning service

No

Unknown

Is there a radon mitigation system for the building/structure? Y / ☒ N Date of Installation: _____

Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply: Public Water Drilled Well Driven Well Dug Well Other: _____

Sewage Disposal: Public Sewer Septic Tank Leach Field Dry Well Other: _____

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? Y / N

11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:

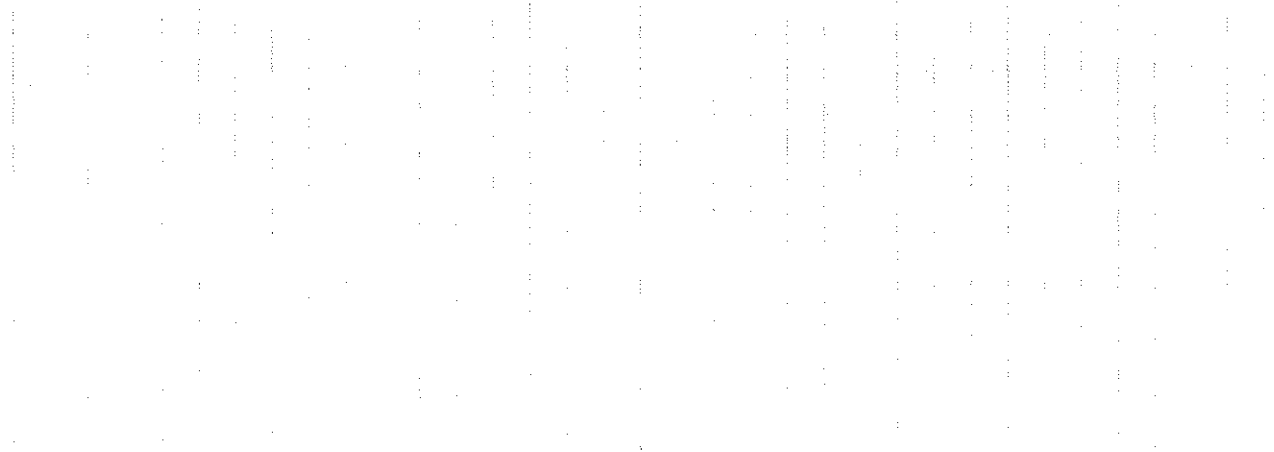


First Floor:

12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: _____

List specific products found in the residence that have the potential to affect indoor air quality.

[illegible]

* Describe the condition of the product containers as **Unopened (UO)**, **Used (U)**, or **Deteriorated (D)**

**** Photographs of the front and back of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.**

ATTACHMENT 2 - DATA VALIDATION REPORT

DATA USABILITY SUMMARY REPORT (DUSR)
STEEL EQUITIES
SOIL VAPOR INTRUSION INVESTIGATION
INTERIOR BUILDING AREAS NEAR PHASE II AREA NOS. 25 & 46
FORMER GRUMMAN PLANT 2, BETHPAGE, NEW YORK
ENVIRONMENTAL RESOURCES MANAGEMENT (ERM)
PROJECT NUMBER 0072943
ALPHA ANALYTICAL SAMPLE DELIVERY GROUP (SDG) L0802694

Deliverables:

The above referenced data packages for six (6) soil vapor samples contains all the required deliverables as stipulated under the 2005 New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) Category B deliverables. The sample were analyzed following "*Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition 1997, EPA/625/R-96/010B*", *Compendium Method TO-15, "Determination Of Volatile Organic Compounds (VOCs) In Air Collected In Specially-Prepared Canisters And Analyzed By Gas Chromatography/Mass Spectrometry (GC/MS)"*. The data have been evaluated according to the protocols and quality control (QC) requirements of the ASP, the National Functional Guidelines for Organic Data Review (October 1999), the USEPA Region 2 Data Review Standard Operating Procedure (SOP) Number HW-31, Revision 4, October 2006: Validating Volatile Organic Analysis of Ambient Air in canister by Method TO-15 and the reviewer's professional judgment.

This report pertains to the following soil vapor samples collected on 25 February 2007:

<u>ERM Sample ID</u>	<u>Alpha Sample ID</u>
SS-01	0802694-01
SS-02	0802694-02
SS-03	0802694-03
SS-04	0802694-04
SS-05	0802694-05
SS-06	0802694-06

The following items/criteria were reviewed:

- Case narrative and deliverable compliance
- Chain-of-Custody (COC)
- Holding times
- Canister Certification/Pressures
- Surrogate compound recoveries, summary and data

- Laboratory Check Sample (LCS) recoveries, summary and data
- Method blank summary and data
- Gas Chromatography (GC)/Mass Spectroscopy (MS) tuning and performance
- Initial and continuing calibration summaries and data
- Internal standard areas, retention times, summary and data
- Organic analysis data sheets (Form I)
- GC/MS chromatograms, mass spectra and quantitation reports
- Quantitation/detection limits
- Qualitative and quantitative compound identification

The items listed above were in compliance with the analytical methods and with the ASP and USEPA criteria with the exceptions discussed in the text below. The data have been validated according to the procedures outlined above and qualified accordingly.

Chains-of-Custody

- The Chains-of-Custody (COCs) were reviewed for completeness and accuracy. There were no discrepancies observed with the samples presented on the COC, and all tests specified on the COC were performed for the designated samples.

Volatiles

- Methylene chloride was positively identified (1.53 ug/m³) in the method blank applicable to the further diluted analysis of sample SS-01. No qualification of the sample data is required as only the result for 1,1,1-trichloroethene and 1,1-dichloroethane have been utilized from the further diluted analysis of sample SS-01.
- The following table lists compounds that exceeded 30 percent relative standard deviation (%RSD) for relative response factors (RRFs) in the initial calibration (ICAL). Associated field samples are also listed. Positive results for these compounds in associated samples are considered estimated and qualified "J" while non-detect results do not require qualification.

Calibration	Compound	Deficiency	Associated Samples
ICAL	acetone	%RSD=40.93	All samples
01/31/2008	2-butanone	%RSD=35.64	
@ 18:43-23:36			

- All samples required dilution due to the elevated concentration of target compounds. Sample SS-01 was reanalyzed at a further dilution due to the concentration of 1,1,1-trichloroethene and 1,1-dichloroethane. Results for these 2 compounds have been taken from the further diluted analysis of sample SS-01.

Package Summary:

All data are valid and usable with qualifications as noted in this review.



Signed:

Andrew J. Coenen
ERM QA Manager

Dated: 07 April 2008

Project Name: STEEL EQUITIES
Project Number: Not Specified

Lab Number: L0802694
Report Date: 03/05/08

SAMPLE RESULTS

Lab ID: L0802694-01
Client ID: SS-01
Sample Location: BETHPAGE, NY
Matrix: Air
Analytical Method: 48,TO-15
Analytical Date: 03/03/08 14:21
Analyst: HM

Date Collected: 02/25/08 18:02
Date Received: 02/26/08
Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor	
	Results	RDL	Results	RDL			
Low Level Volatile Organic Compounds in Air							
1,1,1-Trichloroethane	6120	>1000	2	33400	>5456	10.9	10
1,1,2,2-Tetrachloroethane		ND	2.00		ND	13.7	10
1,1,2-Trichloroethane		ND	2.00		ND	10.9	10
1,1-Dichloroethane	791	>1000	2	3200	>4047	8.09	10
1,1-Dichloroethene		384	2.00		1520	7.92	10
1,2,4-Trichlorobenzene		ND	2.00		ND	14.8	10
1,2,4-Trimethylbenzene		ND	2.00		ND	9.82	10
1,2-Dibromoethane		ND	2.00		ND	15.4	10
1,2-Dichlorobenzene		ND	2.00		ND	12.0	10
1,2-Dichloroethane		ND	2.00		ND	8.09	10
1,2-Dichloropropane		ND	2.00		ND	9.24	10
1,3,5-Trimethybenzene		ND	2.00		ND	9.82	10
1,3-Butadiene		ND	2.00		ND	4.42	10
1,3-Dichlorobenzene		ND	2.00		ND	12.0	10
1,4-Dichlorobenzene		ND	2.00		ND	12.0	10
1,4-Dioxane		ND	2.00		ND	7.20	10
2,2,4-Trimethylpentane		ND	2.00		ND	9.34	10
2-Butanone		ND	2.00		ND	5.89	10
2-Hexanone		ND	2.00		ND	8.19	10
3-Chloropropene		ND	2.00		ND	6.26	10
4-Ethyltoluene		ND	2.00		ND	9.82	10
Acetone		ND	2.00		ND	4.75	10
Benzene		ND	2.00		ND	6.38	10
Benzyl chloride		ND	2.00		ND	10.3	10
Bromodichloromethane		ND	2.00		ND	13.4	10



Project Name: STEEL EQUITIES

Lab Number: L0802694

Project Number: Not Specified

Report Date: 03/05/08

SAMPLE RESULTS

Lab ID: L0802694-01
 Client ID: SS-01
 Sample Location: BETHPAGE, NY

Date Collected: 02/25/08 18:02
 Date Received: 02/26/08
 Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Low Level Volatile Organic Compounds in Air						
Bromoform	ND	2.00	ND	20.6		10
Bromomethane	ND	2.00	ND	7.76		10
Carbon disulfide	56.4	2.00	175	6.22		10
Carbon tetrachloride	72.3	2.00	454	12.6		10
Chlorobenzene	ND	2.00	ND	9.20		10
Chloroethane	8.19	2.00	21.6	5.27		10
Chloroform	167	2.00	815	9.76		10
Chloromethane	ND	2.00	ND	4.13		10
cis-1,2-Dichloroethene	3.92	2.00	15.5	7.92		10
cis-1,3-Dichloropropene	ND	2.00	ND	9.07		10
Cyclohexane	3.11	2.00	10.7	6.88		10
Dibromochloromethane	ND	2.00	ND	17.0		10
Dichlorodifluoromethane	ND	2.00	ND	9.88		10
Ethanol	29.2	25.0	55.0	47.1		10
Ethyl Acetate	ND	5.00	ND	18.0		10
Ethylbenzene	ND	2.00	ND	8.68		10
Freon-113	25.6	2.00	196	15.3		10
Freon-114	ND	2.00	ND	14.0		10
Hexachlorobutadiene	ND	2.00	ND	21.3		10
Isopropanol	ND	5.00	ND	12.3		10
Methylene chloride	6.16	2.00	21.4	6.94		10
4-Methyl-2-pentanone	ND	2.00	ND	8.19		10
Methyl tert butyl ether	ND	2.00	ND	7.20		10
p/m-Xylene	ND	4.00	ND	17.4		10
o-Xylene	ND	2.00	ND	8.68		10
Heptane	ND	2.00	ND	8.19		10
n-Hexane	ND	2.00	ND	7.04		10
Propylene	ND	2.00	ND	3.44		10



Project Name: STEEL EQUITIES

Lab Number: L0802694

Project Number: Not Specified

Report Date: 03/05/08

SAMPLE RESULTS

Lab ID: L0802694-01
 Client ID: SS-01
 Sample Location: BETHPAGE, NY

Date Collected: 02/25/08 18:02
 Date Received: 02/26/08
 Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Low Level Volatile Organic Compounds in Air						
Styrene	ND	2.00	ND	8.51		10
Tetrachloroethene	ND	2.00	ND	13.6		10
Tetrahydrofuran	ND	2.00	ND	5.89		10
Toluene	ND	2.00	ND	7.53		10
trans-1,2-Dichloroethene	ND	2.00	ND	7.92		10
trans-1,3-Dichloropropene	ND	2.00	ND	9.07		10
Trichloroethene	23.8	2.00	128	10.7		10
Trichlorofluoromethane	ND	2.00	ND	11.2		10
Vinyl acetate	ND	2.00	ND	7.04		10
Vinyl bromide	ND	2.00	ND	8.74		10
Vinyl chloride	ND	2.00	ND	5.11		10



Project Name: STEEL EQUITIES

Lab Number: L0802694

Project Number: Not Specified

Report Date: 03/05/08

SAMPLE RESULTS

Lab ID: L0802694-01 **R DL**
Client ID: SS-01
Sample Location: BETHPAGE, NY
Matrix: Air
Analytical Method: 48,TO-15
Analytical Date: 03/05/08 14:19
Analyst: HM

Date Collected: 02/25/08 18:02
Date Received: 02/26/08
Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Low Level Volatile Organic Compounds in Air						
1,1,1-Trichloroethane	6120	32.4	33400	176		161.8
1,1-Dichloroethane	791	32.4	3200	131		161.8

See revised form 1



Project Name: STEEL EQUITIES

Lab Number: L0802694

Project Number: Not Specified

Report Date: 03/05/08

SAMPLE RESULTS

Lab ID: L0802694-02
 Client ID: SS-02
 Sample Location: BETHPAGE, NY
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 03/03/08 14:58
 Analyst: HM

Date Collected: 02/25/08 18:01
 Date Received: 02/26/08
 Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Low Level Volatile Organic Compounds in Air						
1,1,1-Trichloroethane	230	2.00	1260	10.9	J	10
1,1,2,2-Tetrachloroethane	ND	2.00	ND	13.7		10
1,1,2-Trichloroethane	ND	2.00	ND	10.9		10
1,1-Dichloroethane	32.2	2.00	130	8.09		10
1,1-Dichloroethene	3.61	2.00	14.3	7.92		10
1,2,4-Trichlorobenzene	ND	2.00	ND	14.8		10
1,2,4-Trimethylbenzene	ND	2.00	ND	9.82		10
1,2-Dibromoethane	ND	2.00	ND	15.4		10
1,2-Dichlorobenzene	ND	2.00	ND	12.0		10
1,2-Dichloroethane	ND	2.00	ND	8.09		10
1,2-Dichloropropane	ND	2.00	ND	9.24		10
1,3,5-Trimethybenzene	ND	2.00	ND	9.82		10
1,3-Butadiene	ND	2.00	ND	4.42		10
1,3-Dichlorobenzene	ND	2.00	ND	12.0		10
1,4-Dichlorobenzene	ND	2.00	ND	12.0		10
1,4-Dioxane	ND	2.00	ND	7.20		10
2,2,4-Trimethylpentane	ND	2.00	ND	9.34		10
2-Butanone	ND	2.00	ND	5.89		10
2-Hexanone	ND	2.00	ND	8.19		10
3-Chloropropene	ND	2.00	ND	6.26		10
4-Ethyltoluene	ND	2.00	ND	9.82	10	
Acetone	2.52	2.00	5.98	4.75	10	
Benzene	ND	2.00	ND	6.38	10	
Benzyl chloride	ND	2.00	ND	10.3	10	
Bromodichloromethane	ND	2.00	ND	13.4	10	



Project Name: STEEL EQUITIES

Lab Number: L0802694

Project Number: Not Specified

Report Date: 03/05/08

SAMPLE RESULTS

Lab ID: L0802694-02
 Client ID: SS-02
 Sample Location: BETHPAGE, NY

Date Collected: 02/25/08 18:01
 Date Received: 02/26/08
 Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Low Level Volatile Organic Compounds in Air						
Bromoform	ND	2.00	ND	20.6		10
Bromomethane	ND	2.00	ND	7.76		10
Carbon disulfide	ND	2.00	ND	6.22		10
Carbon tetrachloride	4.22	2.00	26.5	12.6		10
Chlorobenzene	ND	2.00	ND	9.20		10
Chloroethane	ND	2.00	ND	5.27		10
Chloroform	5.49	2.00	26.8	9.76		10
Chloromethane	ND	2.00	ND	4.13		10
cis-1,2-Dichloroethene	ND	2.00	ND	7.92		10
cis-1,3-Dichloropropene	ND	2.00	ND	9.07		10
Cyclohexane	ND	2.00	ND	6.88		10
Dibromochloromethane	ND	2.00	ND	17.0		10
Dichlorodifluoromethane	ND	2.00	ND	9.88		10
Ethanol	ND	25.0	ND	47.1		10
Ethyl Acetate	ND	5.00	ND	18.0		10
Ethylbenzene	ND	2.00	ND	8.68		10
Freon-113	4.86	2.00	37.2	15.3		10
Freon-114	ND	2.00	ND	14.0		10
Hexachlorobutadiene	ND	2.00	ND	21.3		10
Isopropanol	ND	5.00	ND	12.3		10
Methylene chloride	ND	2.00	ND	6.94		10
4-Methyl-2-pentanone	ND	2.00	ND	8.19		10
Methyl tert butyl ether	ND	2.00	ND	7.20		10
p/m-Xylene	ND	4.00	ND	17.4		10
o-Xylene	ND	2.00	ND	8.68		10
Heptane	ND	2.00	ND	8.19		10
n-Hexane	ND	2.00	ND	7.04		10
Propylene	ND	2.00	ND	3.44		10



Project Name: STEEL EQUITIES
Project Number: Not Specified

Lab Number: L0802694
Report Date: 03/05/08

SAMPLE RESULTS

Lab ID: L0802694-02
Client ID: SS-02
Sample Location: BETHPAGE, NY

Date Collected: 02/25/08 18:01
Date Received: 02/26/08
Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Low Level Volatile Organic Compounds in Air						
Styrene	ND	2.00	ND	8.51		10
Tetrachloroethene	20.4	2.00	138	13.6		10
Tetrahydrofuran	ND	2.00	ND	5.89		10
Toluene	ND	2.00	ND	7.53		10
trans-1,2-Dichloroethene	ND	2.00	ND	7.92		10
trans-1,3-Dichloropropene	ND	2.00	ND	9.07		10
Trichloroethene	135	2.00	723	10.7		10
Trichlorofluoromethane	ND	2.00	ND	11.2		10
Vinyl acetate	ND	2.00	ND	7.04		10
Vinyl bromide	ND	2.00	ND	8.74		10
Vinyl chloride	ND	2.00	ND	5.11		10



Project Name: STEEL EQUITIES

Lab Number: L0802694

Project Number: Not Specified

Report Date: 03/05/08

SAMPLE RESULTS

Lab ID: L0802694-03
 Client ID: SS-03
 Sample Location: BETHPAGE, NY
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 03/03/08 15:35
 Analyst: HM

Date Collected: 02/25/08 17:58
 Date Received: 02/26/08
 Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Low Level Volatile Organic Compounds in Air						
1,1,1-Trichloroethane	376	2.00	2050	10.9		10
1,1,2,2-Tetrachloroethane	ND	2.00	ND	13.7		10
1,1,2-Trichloroethane	ND	2.00	ND	10.9		10
1,1-Dichloroethane	ND	2.00	ND	8.09		10
1,1-Dichloroethene	ND	2.00	ND	7.92		10
1,2,4-Trichlorobenzene	ND	2.00	ND	14.8		10
1,2,4-Trimethylbenzene	ND	2.00	ND	9.82		10
1,2-Dibromoethane	ND	2.00	ND	15.4		10
1,2-Dichlorobenzene	ND	2.00	ND	12.0		10
1,2-Dichloroethane	ND	2.00	ND	8.09		10
1,2-Dichloropropane	ND	2.00	ND	9.24		10
1,3,5-Trimethybenzene	ND	2.00	ND	9.82		10
1,3-Butadiene	ND	2.00	ND	4.42		10
1,3-Dichlorobenzene	ND	2.00	ND	12.0		10
1,4-Dichlorobenzene	ND	2.00	ND	12.0		10
1,4-Dioxane	ND	2.00	ND	7.20		10
2,2,4-Trimethylpentane	ND	2.00	ND	9.34		10
2-Butanone	5.12	2.00	15.1	5.89	J	10
2-Hexanone	ND	2.00	ND	8.19		10
3-Chloropropene	ND	2.00	ND	6.26		10
4-Ethyltoluene	ND	2.00	ND	9.82		10
Acetone	40.6	2.00	96.3	4.75	J	10
Benzene	ND	2.00	ND	6.38		10
Benzyl chloride	ND	2.00	ND	10.3		10
Bromodichloromethane	ND	2.00	ND	13.4		10



Project Name: STEEL EQUITIES

Lab Number: L0802694

Project Number: Not Specified

Report Date: 03/05/08

SAMPLE RESULTS

Lab ID: L0802694-03
 Client ID: SS-03
 Sample Location: BETHPAGE, NY

Date Collected: 02/25/08 17:58
 Date Received: 02/26/08
 Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Low Level Volatile Organic Compounds in Air						
Bromoform	ND	2.00	ND	20.6		10
Bromomethane	ND	2.00	ND	7.76		10
Carbon disulfide	ND	2.00	ND	6.22		10
Carbon tetrachloride	ND	2.00	ND	12.6		10
Chlorobenzene	ND	2.00	ND	9.20		10
Chloroethane	ND	2.00	ND	5.27		10
Chloroform	4.91	2.00	24.0	9.76		10
Chloromethane	ND	2.00	ND	4.13		10
cis-1,2-Dichloroethene	ND	2.00	ND	7.92		10
cis-1,3-Dichloropropene	ND	2.00	ND	9.07		10
Cyclohexane	ND	2.00	ND	6.88		10
Dibromochloromethane	ND	2.00	ND	17.0		10
Dichlorodifluoromethane	ND	2.00	ND	9.88		10
Ethanol	49.6	25.0	93.4	47.1		10
Ethyl Acetate	ND	5.00	ND	18.0		10
Ethylbenzene	ND	2.00	ND	8.68		10
Freon-113	ND	2.00	ND	15.3		10
Freon-114	ND	2.00	ND	14.0		10
Hexachlorobutadiene	ND	2.00	ND	21.3		10
Isopropanol	ND	5.00	ND	12.3		10
Methylene chloride	ND	2.00	ND	6.94		10
4-Methyl-2-pentanone	ND	2.00	ND	8.19		10
Methyl tert butyl ether	ND	2.00	ND	7.20		10
p/m-Xylene	ND	4.00	ND	17.4		10
o-Xylene	ND	2.00	ND	8.68		10
Heptane	ND	2.00	ND	8.19		10
n-Hexane	ND	2.00	ND	7.04		10
Propylene	ND	2.00	ND	3.44		10



Project Name: STEEL EQUITIES

Lab Number: L0802694

Project Number: Not Specified

Report Date: 03/05/08

SAMPLE RESULTS

Lab ID: L0802694-03
 Client ID: SS-03
 Sample Location: BETHPAGE, NY

Date Collected: 02/25/08 17:58
 Date Received: 02/26/08
 Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Low Level Volatile Organic Compounds in Air						
Styrene	ND	2.00	ND	8.51		10
Tetrachloroethene	ND	2.00	ND	13.6		10
Tetrahydrofuran	ND	2.00	ND	5.89		10
Toluene	3.10	2.00	11.7	7.53		10
trans-1,2-Dichloroethene	ND	2.00	ND	7.92		10
trans-1,3-Dichloropropene	ND	2.00	ND	9.07		10
Trichloroethene	246	2.00	1320	10.7		10
Trichlorofluoromethane	2.44	2.00	13.7	11.2		10
Vinyl acetate	ND	2.00	ND	7.04		10
Vinyl bromide	ND	2.00	ND	8.74		10
Vinyl chloride	ND	2.00	ND	5.11		10



Project Name: STEEL EQUITIES

Lab Number: L0802694

Project Number: Not Specified

Report Date: 03/05/08

SAMPLE RESULTS

Lab ID: L0802694-04 R
 Client ID: SS-04
 Sample Location: BETHPAGE, NY
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 03/03/08 18:41
 Analyst: HM

Date Collected: 02/25/08 17:39
 Date Received: 02/26/08
 Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Low Level Volatile Organic Compounds in Air						
1,1,1-Trichloroethane	0.735	0.500	4.01	2.72		2.5
1,1,2,2-Tetrachloroethane	ND	0.500	ND	3.43		2.5
1,1,2-Trichloroethane	ND	0.500	ND	2.72		2.5
1,1-Dichloroethane	ND	0.500	ND	2.02		2.5
1,1-Dichloroethene	ND	0.500	ND	1.98		2.5
1,2,4-Trichlorbenzene	ND	0.500	ND	3.71		2.5
1,2,4-Trimethylbenzene	13.8	0.500	67.8	2.46		2.5
1,2-Dibromoethane	ND	0.500	ND	3.84		2.5
1,2-Dichlorobenzene	ND	0.500	ND	3.00		2.5
1,2-Dichloroethane	ND	0.500	ND	2.02		2.5
1,2-Dichloropropane	ND	0.500	ND	2.31		2.5
1,3,5-Trimethybenzene	4.95	0.500	24.3	2.46		2.5
1,3-Butadiene	0.832	0.500	1.84	1.10		2.5
1,3-Dichlorobenzene	ND	0.500	ND	3.00		2.5
1,4-Dichlorobenzene	ND	0.500	ND	3.00		2.5
1,4-Dioxane	ND	0.500	ND	1.80		2.5
2,2,4-Trimethylpentane	ND	0.500	ND	2.33		2.5
2-Butanone	5.83	0.500	17.2	1.47	J	2.5
2-Hexanone	ND	0.500	ND	2.05		2.5
3-Chloropropene	ND	0.500	ND	1.56		2.5
4-Ethyltoluene	2.08	0.500	10.2	2.46		2.5
Acetone	138	0.500	327	1.19	J	2.5
Benzene	1.28	0.500	4.10	1.60		2.5
Benzyl chloride	ND	0.500	ND	2.59		2.5
Bromodichloromethane	ND	0.500	ND	3.35		2.5



Project Name: STEEL EQUITIES

Lab Number: L0802694

Project Number: Not Specified

Report Date: 03/05/08

SAMPLE RESULTS

Lab ID: L0802694-04 R

Date Collected: 02/25/08 17:39

Client ID: SS-04

Date Received: 02/26/08

Sample Location: BETHPAGE, NY

Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Low Level Volatile Organic Compounds in Air						
Bromoform	ND	0.500	ND	5.16		2.5
Bromomethane	ND	0.500	ND	1.94		2.5
Carbon disulfide	1.27	0.500	3.96	1.56		2.5
Carbon tetrachloride	ND	0.500	ND	3.14		2.5
Chlorobenzene	ND	0.500	ND	2.30		2.5
Chloroethane	ND	0.500	ND	1.32		2.5
Chloroform	0.760	0.500	3.71	2.44		2.5
Chloromethane	ND	0.500	ND	1.03		2.5
cis-1,2-Dichloroethene	0.729	0.500	2.89	1.98		2.5
cis-1,3-Dichloropropene	ND	0.500	ND	2.27		2.5
Cyclohexane	ND	0.500	ND	1.72		2.5
Dibromochloromethane	ND	0.500	ND	4.26		2.5
Dichlorodifluoromethane	ND	0.500	ND	2.47		2.5
Ethanol	24.8	6.25	46.7	11.8		2.5
Ethyl Acetate	ND	1.25	ND	4.50		2.5
Ethylbenzene	3.93	0.500	17.1	2.17		2.5
Freon-113	ND	0.500	ND	3.83		2.5
Freon-114	ND	0.500	ND	3.49		2.5
Hexachlorobutadiene	ND	0.500	ND	5.33		2.5
Isopropanol	3.15	1.25	7.74	3.07		2.5
Methylene chloride	ND	0.500	ND	1.74		2.5
4-Methyl-2-pentanone	72.6	0.500	297	2.05		2.5
Methyl tert butyl ether	ND	0.500	ND	1.80		2.5
p/m-Xylene	21.0	1.00	91.3	4.34		2.5
o-Xylene	8.31	0.500	36.1	2.17		2.5
Heptane	0.718	0.500	2.94	2.05		2.5
n-Hexane	0.645	0.500	2.27	1.76		2.5
Propylene	4.85	0.500	8.34	0.860		2.5



Project Name: STEEL EQUITIES
Project Number: Not Specified

Lab Number: L0802694
Report Date: 03/05/08

SAMPLE RESULTS

Lab ID: L0802694-04 R
Client ID: SS-04
Sample Location: BETHPAGE, NY

Date Collected: 02/25/08 17:39
Date Received: 02/26/08
Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Low Level Volatile Organic Compounds in Air						
Styrene	ND	0.500	ND	2.13		2.5
Tetrachloroethene	0.934	0.500	6.33	3.39		2.5
Tetrahydrofuran	ND	0.500	ND	1.47		2.5
Toluene	5.87	0.500	22.1	1.88		2.5
trans-1,2-Dichloroethene	ND	0.500	ND	1.98		2.5
trans-1,3-Dichloropropene	ND	0.500	ND	2.27		2.5
Trichloroethene	135	0.500	724	2.68		2.5
Trichlorofluoromethane	0.625	0.500	3.51	2.81		2.5
Vinyl acetate	ND	0.500	ND	1.76		2.5
Vinyl bromide	ND	0.500	ND	2.18		2.5
Vinyl chloride	ND	0.500	ND	1.28		2.5



Project Name: STEEL EQUITIES
Project Number: Not Specified

Lab Number: L0802694
Report Date: 03/05/08

SAMPLE RESULTS

Lab ID: L0802694-05
Client ID: SS-05
Sample Location: BETHPAGE, NY
Matrix: Air
Analytical Method: 48,TO-15
Analytical Date: 03/03/08 16:47
Analyst: HM

Date Collected: 02/25/08 17:40
Date Received: 02/26/08
Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Low Level Volatile Organic Compounds in Air						
1,1,1-Trichloroethane	2.15	2.00	11.7	10.9		10
1,1,2,2-Tetrachloroethane	ND	2.00	ND	13.7		10
1,1,2-Trichloroethane	ND	2.00	ND	10.9		10
1,1-Dichloroethane	ND	2.00	ND	8.09		10
1,1-Dichloroethene	ND	2.00	ND	7.92		10
1,2,4-Trichlorbenzene	ND	2.00	ND	14.8		10
1,2,4-Trimethylbenzene	35.7	2.00	175	9.82		10
1,2-Dibromoethane	ND	2.00	ND	15.4		10
1,2-Dichlorobenzene	ND	2.00	ND	12.0		10
1,2-Dichloroethane	ND	2.00	ND	8.09		10
1,2-Dichloropropane	ND	2.00	ND	9.24		10
1,3,5-Trimethybenzene	5.16	2.00	25.4	9.82		10
1,3-Butadiene	ND	2.00	ND	4.42		10
1,3-Dichlorobenzene	ND	2.00	ND	12.0		10
1,4-Dichlorobenzene	ND	2.00	ND	12.0		10
1,4-Dioxane	ND	2.00	ND	7.20		10
2,2,4-Trimethylpentane	ND	2.00	ND	9.34		10
2-Butanone	8.24	2.00	24.3	5.89	J	10
2-Hexanone	ND	2.00	ND	8.19		10
3-Chloropropene	ND	2.00	ND	6.26		10
4-Ethyltoluene	3.30	2.00	16.2	9.82		10
Acetone	58.2	2.00	138	4.75	J	10
Benzene	ND	2.00	ND	6.38		10
Benzyl chloride	ND	2.00	ND	10.3		10
Bromodichloromethane	ND	2.00	ND	13.4		10



Project Name: STEEL EQUITIES

Lab Number: L0802694

Project Number: Not Specified

Report Date: 03/05/08

SAMPLE RESULTS

Lab ID: L0802694-05
 Client ID: SS-05
 Sample Location: BETHPAGE, NY

Date Collected: 02/25/08 17:40
 Date Received: 02/26/08
 Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Low Level Volatile Organic Compounds in Air						
Bromoform	ND	2.00	ND	20.6		10
Bromomethane	ND	2.00	ND	7.76		10
Carbon disulfide	ND	2.00	ND	6.22		10
Carbon tetrachloride	ND	2.00	ND	12.6		10
Chlorobenzene	ND	2.00	ND	9.20		10
Chloroethane	ND	2.00	ND	5.27		10
Chloroform	ND	2.00	ND	9.76		10
Chloromethane	ND	2.00	ND	4.13		10
cis-1,2-Dichloroethene	ND	2.00	ND	7.92		10
cis-1,3-Dichloropropene	ND	2.00	ND	9.07		10
Cyclohexane	ND	2.00	ND	6.88		10
Dibromochloromethane	ND	2.00	ND	17.0		10
Dichlorodifluoromethane	ND	2.00	ND	9.88		10
Ethanol	134	25.0	252	47.1		10
Ethyl Acetate	ND	5.00	ND	18.0		10
Ethylbenzene	ND	2.00	ND	8.68		10
Freon-113	ND	2.00	ND	15.3		10
Freon-114	ND	2.00	ND	14.0		10
Hexachlorobutadiene	ND	2.00	ND	21.3		10
Isopropanol	ND	5.00	ND	12.3		10
Methylene chloride	ND	2.00	ND	6.94		10
4-Methyl-2-pentanone	ND	2.00	ND	8.19		10
Methyl tert butyl ether	ND	2.00	ND	7.20		10
p/m-Xylene	ND	4.00	ND	17.4		10
o-Xylene	ND	2.00	ND	8.68		10
Heptane	ND	2.00	ND	8.19		10
n-Hexane	ND	2.00	ND	7.04		10
Propylene	ND	2.00	ND	3.44		10



Project Name: STEEL EQUITIES

Lab Number: L0802694

Project Number: Not Specified

Report Date: 03/05/08

SAMPLE RESULTS

Lab ID: L0802694-05
 Client ID: SS-05
 Sample Location: BETHPAGE, NY

Date Collected: 02/25/08 17:40
 Date Received: 02/26/08
 Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Low Level Volatile Organic Compounds in Air						
Styrene	ND	2.00	ND	8.51		10
Tetrachloroethene	ND	2.00	ND	13.6		10
Tetrahydrofuran	ND	2.00	ND	5.89		10
Toluene	5.82	2.00	21.9	7.53		10
trans-1,2-Dichloroethene	ND	2.00	ND	7.92		10
trans-1,3-Dichloropropene	ND	2.00	ND	9.07		10
Trichloroethene	54.1	2.00	290	10.7		10
Trichlorofluoromethane	ND	2.00	ND	11.2		10
Vinyl acetate	ND	2.00	ND	7.04		10
Vinyl bromide	ND	2.00	ND	8.74		10
Vinyl chloride	ND	2.00	ND	5.11		10



Project Name: STEEL EQUITIES
Project Number: Not Specified

Lab Number: L0802694
Report Date: 03/05/08

SAMPLE RESULTS

Lab ID: L0802694-06 R
Client ID: SS-06
Sample Location: BETHPAGE, NY
Matrix: Air
Analytical Method: 48,TO-15
Analytical Date: 03/04/08 07:50
Analyst: HM

Date Collected: 02/25/08 17:55
Date Received: 02/26/08
Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Low Level Volatile Organic Compounds in Air						
1,1,1-Trichloroethane	4.34	0.400	23.7	2.18		2
1,1,2,2-Tetrachloroethane	ND	0.400	ND	2.74		2
1,1,2-Trichloroethane	ND	0.400	ND	2.18		2
1,1-Dichloroethane	ND	0.400	ND	1.62		2
1,1-Dichloroethene	ND	0.400	ND	1.58		2
1,2,4-Trichlorobenzene	ND	0.400	ND	2.97		2
1,2,4-Trimethylbenzene	2.53	0.400	12.4	1.96		2
1,2-Dibromoethane	ND	0.400	ND	3.07		2
1,2-Dichlorobenzene	ND	0.400	ND	2.40		2
1,2-Dichloroethane	ND	0.400	ND	1.62		2
1,2-Dichloropropane	ND	0.400	ND	1.85		2
1,3,5-Trimethybenzene	0.673	0.400	3.30	1.96		2
1,3-Butadiene	ND	0.400	ND	0.884		2
1,3-Dichlorobenzene	ND	0.400	ND	2.40		2
1,4-Dichlorobenzene	ND	0.400	ND	2.40		2
1,4-Dioxane	ND	0.400	ND	1.44		2
2,2,4-Trimethylpentane	ND	0.400	ND	1.87		2
2-Butanone	3.75	0.400	11.0	1.18	J	2
2-Hexanone	ND	0.400	ND	1.64		2
3-Chloropropene	ND	0.400	ND	1.25		2
4-Ethyltoluene	0.606	0.400	2.98	1.96		2
Acetone	24.8	0.400	58.8	0.949	J	2
Benzene	0.791	0.400	2.53	1.28		2
Benzyl chloride	ND	0.400	ND	2.07		2
Bromodichloromethane	ND	0.400	ND	2.68		2



Project Name: STEEL EQUITIES

Lab Number: L0802694

Project Number: Not Specified

Report Date: 03/05/08

SAMPLE RESULTS

Lab ID: L0802694-06 R
 Client ID: SS-06
 Sample Location: BETHPAGE, NY

Date Collected: 02/25/08 17:55
 Date Received: 02/26/08
 Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Low Level Volatile Organic Compounds in Air						
Bromoform	ND	0.400	ND	4.13		2
Bromomethane	ND	0.400	ND	1.55		2
Carbon disulfide	0.630	0.400	1.96	1.24		2
Carbon tetrachloride	ND	0.400	ND	2.51		2
Chlorobenzene	ND	0.400	ND	1.84		2
Chloroethane	ND	0.400	ND	1.05		2
Chloroform	3.20	0.400	15.6	1.95		2
Chloromethane	ND	0.400	ND	0.825		2
cis-1,2-Dichloroethene	ND	0.400	ND	1.58		2
cis-1,3-Dichloropropene	ND	0.400	ND	1.81		2
Cyclohexane	ND	0.400	ND	1.38		2
Dibromochloromethane	ND	0.400	ND	3.40		2
Dichlorodifluoromethane	1.47	0.400	7.25	1.98		2
Ethanol	5.08	5.00	9.56	9.41		2
Ethyl Acetate	ND	1.00	ND	3.60		2
Ethylbenzene	0.888	0.400	3.85	1.74		2
Freon-113	ND	0.400	ND	3.06		2
Freon-114	ND	0.400	ND	2.79		2
Hexachlorobutadiene	ND	0.400	ND	4.26		2
Isopropanol	2.50	1.00	6.15	2.46		2
Methylene chloride	ND	0.400	ND	1.39		2
4-Methyl-2-pentanone	1.49	0.400	6.10	1.64		2
Methyl tert butyl ether	ND	0.400	ND	1.44		2
p/m-Xylene	3.24	0.800	14.0	3.47		2
o-Xylene	0.804	0.400	3.49	1.74		2
Heptane	0.567	0.400	2.32	1.64		2
n-Hexane	0.630	0.400	2.22	1.41		2
Propylene	ND	0.400	ND	0.688		2



Project Name: STEEL EQUITIES

Lab Number: L0802694

Project Number: Not Specified

Report Date: 03/05/08

SAMPLE RESULTS

Lab ID: L0802694-06 R

Date Collected: 02/25/08 17:55

Client ID: SS-06

Date Received: 02/26/08

Sample Location: BETHPAGE, NY

Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Low Level Volatile Organic Compounds in Air						
Styrene	ND	0.400	ND	1.70		2
Tetrachloroethene	0.421	0.400	2.86	2.71		2
Tetrahydrofuran	ND	0.400	ND	1.18		2
Toluene	3.78	0.400	14.2	1.51		2
trans-1,2-Dichloroethene	ND	0.400	ND	1.58		2
trans-1,3-Dichloropropene	ND	0.400	ND	1.81		2
Trichloroethene	73.6	0.400	395	2.15		2
Trichlorofluoromethane	2.99	0.400	16.8	2.24		2
Vinyl acetate	ND	0.400	ND	1.41		2
Vinyl bromide	ND	0.400	ND	1.75		2
Vinyl chloride	ND	0.400	ND	1.02		2

