Steven Scharf - Stipulation Agreement Site 1-30-003C

From: Kevin Lumpe <klumpe@steelequities.com>
To: "sxscharf@gw.dec.state.ny.us" <sxscharf@gw.dec.state.ny.us>
Date: 11/1/2013 10:09 AM
Subject: Stipulation Agreement Site 1-30-003C
Attachments: SE-Plant2SVILtrRpt(050608).pdf; SE-Plant2SVILtrRpt(061509-NoDUSR).pdf

Steve,

As a follow-up to our conversation on 10/25/13 I have attached the 2 reports that we submitted to your office in connection with the implementation of the Stipulation Agreement.
The reports that were initially reviewed to determine the sub-slab/ IAQ locations in our Soil Vapor Intrusion Investigation are referenced in the second paragraph of the Background section of the May 6, 2008 submittal.

"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. ”

This should bring everyone up to date.
Please forward as needed, to Steve and Joe.
Regards

Kevin J. Lumpe
Steel Equities
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Environmental Resources Management

520 Broad Hollow Road
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6 May 2008

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 (µg/m³) 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 which includes laboratory data summary sheets is presented in Attachment 2. The validated analytical results are presented in Table 2. The full ASP Category B laboratory data deliverable is provided on the CD presented in Attachment 3. Detected compounds and associated concentrations are summarized below.

Detected Compounds (µg/m³)	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-Trimethybenzene	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

0 50' 100'
GRAPHIC SCALE IN FEET

NO.	DATE	APPR.	REVISION	NO.	DATE	APPR.	REVISION

STEEL LOS III

PLANT 2 BUILDING

ERM Environmental Resources Management

CHECKED	DATE	SOIL VAPOR SAMPLING LOCATIONS 25 February 2008			DRAWING NO. 1
DESIGN ENGINEER					REV. NO.
PROJECT ENGINEER					
PROJECT MANAGER					
APPROVED		DRAWN EMF/CWW	DATE 04/25/08	REVISION DATE:	
APPROVED		SCALE	JOB NO. 0072943	FILE NAME: new-M-2	SHEET OF

TABLES

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

	Area 25		Area 46			
Sample ID	**SS-01**	**SS-02**	**SS-03**	**SS-04**	**SS-05**	**SS-06**
Sampler's Name	KP/MJB	KP/MJB	KP/MJB	KP/MJB	KP/MJB	KP/MJB
Date, Time And PID Reading Following Purge	2/25/08 1000 0.0PPM	2/25/08 0955 0.0PPM	2/25/08 0950 50.3PPM	2/25/08 0945 9.1PPM	2/25/08 0940 18.1PPM	2/25/08 0935 29.1PPM
Date, Time And PID Reading in Room	2/25/08 1000 0.0PPM	2/25/08 0955 0.0PPM	2/25/08 0950 0.0PPM	2/25/08 0945 0.0PPM	2/25/08 0940 0.0PPM	2/25/08 0935 0.0PPM
Date And Time Of Sample Start And Stop	2/25/08 1003 1802	2/25/08 1002 1801	2/25/08 0959 1758	2/25/08 0958 1739	2/25/08 0957 1740	2/25/08 0956 1755
Summa® Canister Serial Number	210	235	459	393	320	198
Flow Controller ID Number	FC0084	FC0213	FC0283	FC0093	FC0398	FC0265
Initial And Final Summa® Canister Vacuum	-30"Hg+ -9"Hg	-30"Hg+ -4"Hg	-30"Hg+ -5"Hg	-30"Hg+ -3"Hg	-28"Hg -1"Hg	-30"Hg+ -5"Hg
Sample Identification, And Descriptive Location Of The Sampling Area	SS-01 See Figure of sampling locations.	SS-02 See Figure of sampling locations.	SS-03 See Figure of sampling locations.	SS-04 See Figure of sampling locations.	SS-05 See Figure of sampling locations.	SS-06 See Figure of sampling locations.
Sample Identification For Other Corresponding Samples At The Same Property	None	None	None	None	None	None
Weather Conditions Including Barometric Pressure, And Ambient Temperature Inside And Outside The Building	29.89" 43°F 70°F	29.89" 43°F 70°F	29.89" 43°F 70°F	29.89" 43°F 70°F	29.89" 43°F 70°F	29.89" 43°F 70°F
Floor Slab Thickness	8"	8"	10"	8"	8"	8"
Sampling Depth(S)	10" bgs	10" bgs	12" bgs	10" bgs	10" bgs	10" bgs
Soil Type At Sample Location, If Known						
Soil Vapor Purge Volumes	200 ml	200 ml	200 ml	200 ml	200 ml	200 ml
All Equipment Calibrations Performed.	2/25/08 0900	2/25/08 0900	2/25/08 0900	2/25/08 0900	2/25/08 0900	2/25/08 0900

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 ASP CATEGORY B LABORATORY DATA DELIVERABLE

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 + (in 2 shifts) Age of Occupants 18-60

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	School	(Commercial/Multi-use)
Industrial	Church	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	Heat pump	Hot water baseboard	Other Rooftop Package Units HVAC Fresh Air from roof level
Space Heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

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.

Rooftop 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 WD40, 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 UNKOWN 500 + employees in 2 shifts
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

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) No
Yes, use dry-cleaning infrequently (monthly or less) (Unknown)
Yes, work at a dry-cleaning service

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.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N

* 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.

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:

ERM Sample ID	*Alpha Sample ID*
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/m^3) 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 01/31/2008 @ 18:43-23:36	acetone 2-butanone	%RSD=40.93 %RSD=35.64	All samples

- 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: _____ Dated: 07 April 2008

Andrew J. Coenen
ERM QA Manager

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
Anaytical 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 Results	ppbV RDL	ug/m3 Results	ug/m3 RDL	Qualifier	Dilution Factor
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-Trichlorbenzene	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
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

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

Parameter	ppbV Results	ppbV RDL	ug/m3 Results	ug/m3 RDL	Qualifier	Dilution Factor
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
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

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

Parameter	ppbV Results	ppbV RDL	ug/m3 Results	ug/m3 RDL	Qualifier	Dilution Factor
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
Project Number: Not Specified

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

SAMPLE RESULTS

Lab ID: L0802694-01 R DL
Client ID: SS-01
Sample Location: BETHPAGE, NY
Matrix: Air
Anaytical 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 Results	ppbV RDL	ug/m3 Results	ug/m3 RDL	Qualifier	Dilution Factor
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
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
Matrix: Air
Anaytical 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 Results	ppbV RDL	ug/m3 Results	ug/m3 RDL	Qualifier	Dilution Factor
Low Level Volatile Organic Compounds in Air						
1,1,1-Trichloroethane	230	2.00	1260	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	32.2	2.00	130	8.09		10
1,1-Dichloroethene	3.61	2.00	14.3	7.92		10
1,2,4-Trichlorbenzene	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	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
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 Results	ppbV RDL	ug/m3 Results	ug/m3 RDL	Qualifier	Dilution Factor
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 Results	ppbV RDL	ug/m3 Results	ug/m3 RDL	Qualifier	Dilution Factor
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
Project Number: Not Specified

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

SAMPLE RESULTS

Lab ID: L0802694-03
Client ID: SS-03
Sample Location: BETHPAGE, NY
Matrix: Air
Anaytical 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 Results	ppbV RDL	ug/m3 Results	ug/m3 RDL	Qualifier	Dilution Factor
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-Trichlorbenzene	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
Project Number: Not Specified

Lab Number: L0802694
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 Results	ppbV RDL	ug/m3 Results	ug/m3 RDL	Qualifier	Dilution Factor
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
Project Number: Not Specified

Lab Number: L0802694
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 Results	ppbV RDL	ug/m3 Results	ug/m3 RDL	Qualifier	Dilution Factor
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
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
Matrix: Air
Anaytical 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 Results	ppbV RDL	ug/m3 Results	ug/m3 RDL	Qualifier	Dilution Factor
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
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 Results	ppbV RDL	ug/m3 Results	ug/m3 RDL	Qualifier	Dilution Factor
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 Results	ppbV RDL	ug/m3 Results	ug/m3 RDL	Qualifier	Dilution Factor
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
Anaytical 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 Results	ppbV RDL	ug/m3 Results	ug/m3 RDL	Qualifier	Dilution Factor
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
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

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

Parameter	ppbV Results	ppbV RDL	ug/m3 Results	ug/m3 RDL	Qualifier	Dilution Factor
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
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

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

Parameter	ppbV Results	ppbV RDL	ug/m3 Results	ug/m3 RDL	Qualifier	Dilution Factor
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
Anaytical 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 Results	ppbV RDL	ug/m3 Results	ug/m3 RDL	Qualifier	Dilution Factor
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-Trichlorbenzene	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
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

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

Parameter	ppbV Results	ppbV RDL	ug/m3 Results	ug/m3 RDL	Qualifier	Dilution Factor
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
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

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

Parameter	ppbV Results	ppbV RDL	ug/m3 Results	ug/m3 RDL	Qualifier	Dilution Factor
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

ATTACHMENT 2 - DATA VALIDATION REPORT

ATTACHMENT 3 - ALPHA ANALYTICAL LABORATORIES ASP CATEGORY B LABORATORY DATA DELIVERABLE (ON CD)

Environmental Resources Management

40 Marcus Drive
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15 June 2009

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: Supplemental Soil Vapor Intrusion/Indoor Air Quality 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 Supplemental Soil Vapor Intrusion (SVI)/Indoor Air Quality (IAQ) Investigation performed within the former Grumman Plant 2 building in certain office/break room areas, and 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 & Bartilucci in 1996.

Background

An initial SVI investigation was conducted on 25 February 2008 pursuant to the Stipulation Agreement between Steel Los III and New York State Department of Environmental Conservation (NYSDEC) dated 4 February 2008. The initial investigation involved collection of six (6) sub-slab vapor samples in accordance with ERM's 28 January 2008 Revised SVI Investigation Work Plan[1] that was approved by NYSDEC[2]. The purpose of the SVI investigation was 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.

The sampling was conducted on 25 February 2008 within the portion of the building occupied by the current tenant, the United States Postal Service (USPS). The integrity of the building concrete floor slab is very good throughout ranging in thickness from 6 to 12 inches with an

[1] Letter dated 28 January 2008 from Chris Wenczel-ERM to Steve Scharf-NYSDEC
[2] Letter dated 31 January 2008 from Steve Scharf-NYSDEC to Chris Wenczel-ERM

average thickness of approximately 8 inches. 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. Specific details are presented below.

According to Steel Los III, the HVAC system for USPS space in the former Grumman Plant 2 building (the space containing former AOCs 25 & 46) consists of 34 rooftop units that produce an airflow of 2,560,000 CFM. The nominal fresh air setting is at 20%, resulting in a fresh air flow of 512,000 CFM. The footprint of the USPS space is 373,000 square feet, with an interior volume of 10,440,000 cubic feet. The HVAC system provides a minimum of 3 air changes an hour. In general, fresh air influx through the HVAC system places the space under positive pressure. The space is not airtight, allowing communication between indoor and outdoor air, which also lessens vapor intrusion concerns.

Ceiling heights range from 9 to 38.5 feet with 96% of the space consisting of high bay areas with a ceiling height of 24 feet or greater.

The sub-slab vapor sampling findings were presented to NYSDEC in ERM's 6 May 2008 letter[3]. Based on those results, the NYSDEC and NYSDOH requested that Steel Los III perform additional soil vapor sampling along with the simultaneous collection of an indoor air sample at each location.

Accordingly, the supplemental investigation was performed and the results thereof are presented below.

Soil Vapor Intrusion/Indoor Air Quality Investigation

The SVI investigation was conducted on 16 March 2009 and sub-slab/indoor air/ambient air sampling locations 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 USPS.

Sampling was performed following the protocols outlined in the NYSDEC-approved Work Plan and in accordance with the applicable protocols identified in the New York State Department of Health (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.

[3] Letter dated 6 May 2008 from Chris Wenczel-ERM to Steve Scharf-NYSDEC.

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/indoor air/ambient air samples were collected over the same 8-hour period with individually-certified clean Summa® canisters fitted with appropriately programmed regulators. Sampling was discontinued while the canisters still exhibited a slight vacuum. All the pertinent data was recorded for each sampling location and is summarized in Table 1.

Sub-Slab Soil Vapor Samples

Four (4) sub-slab soil vapor samples (SS-07 through SS-10) were collected: one soil vapor sample was collected from each of Areas Nos. 25 & 46, and two additional locations that the NYSDOH now has requested to be sampled. Samples SS-07 and SS-09 correspond to the two additional locations requested by NYSDOH. Sample SS-08 corresponds to the highest VOC concentrations previously observed at Area No. 46 (SS-03). Sample SS-10 corresponds to the location closest to an occupied area within Area No 25.

The proposed sampling location in AOC 25 is considered representative of a worse-case location regarding soil vapor intrusion since it is located in an area with a low ceiling and a security office situated on top of an area of known sub-slab VOC concentrations in soil. Other office areas are located a minimum of 150 feet away from the AOCs associated with VOC concentrations in soil.

Indoor Air Samples

Four (4) indoor air samples (IA-07 through IA-10) were collected from the immediate locations of the sub-slab samples. Sample collection was through a section of dedicated Teflon tubing extending from the Summa® canister to the breathing zone of a seated person, approximately three (3) feet above the floor.

Ambient Air Sample

The Plant 2 building has roof-mounted 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. Accordingly, one ambient air sample (AA-01) was collected from an upwind location on the roof adjacent to a roof-top air intake for the building.

A section of dedicated Teflon tubing was extended from the Summa® canister to collect the sample from the breathing zone of a standing individual at four (4) to six (6) feet above the ground.

Laboratory Analysis

The nine canisters were shipped via overnight delivery to Accutest Laboratories (NYSDOH Certification No. 10983) in Dayton, New Jersey, an Environmental Laboratory Accreditation Program- (ELAP)-certified laboratory. All samples were analyzed for VOCs using USEPA Method TO-15, with a target detection limit of 1.0 micrograms per cubic meter (µg/m^3) or less for all parameters except trichloroethene (TCE). The target detection limit for TCE in indoor air samples was 0.25 ug/m^3 or less. This lower detection limit is required for TCE because the Decision Matrices in the NYSDOH Guidance used to evaluate indoor TCE concentrations, and Decision Matrix 1 evaluates the risks posed by TCE at concentrations as low as 0.25 ug/m^3 although the actual NYSDOH guidance value for indoor air is 5 ug/m^3 for TCE.

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 which includes laboratory data summary sheets is presented in Attachment 2. The validated analytical results are presented in Table 2. The full ASP Category B laboratory data deliverable is provided on the CD presented in Attachment 3. Detected compounds and associated concentrations are summarized in Table 2.

The exact sources of VOCs in sub-slab soil vapor and indoor air are presently unknown. The current tenant uses and stores minor amounts of detergents, lubricants and degreasers in servicing its package conveyance systems and for general housekeeping. Since the PID screening at each sampling location taken at the time of the sub-slab and indoor air sampling did not indicate the presence of VOCs, the tenant's use and storage of these VOC-containing products is unlikely to have influenced the sampling results.

Conclusions

Based on the sampling results, indoor air sample IA-07 contained a concentration of 11 ug/m^3, which exceeds the NYSDOH indoor air guideline of 5 ug/m^3 for TCE. Detected concentrations of TCE in the remaining three indoor air samples were below the 5 ug/m^3 for TCE guideline. Steel Los has adjusted the fresh air inlet damper on the HVAC unit that services the area of the building where sample IA-07 was

collected to provide a greater volume of fresh air to this area thereby reducing TCE concentrations in the indoor air.

We do not expect to observe additional impacts to indoor air quality from the sub-slab vapors above the NYSDOH indoor air guideline 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.

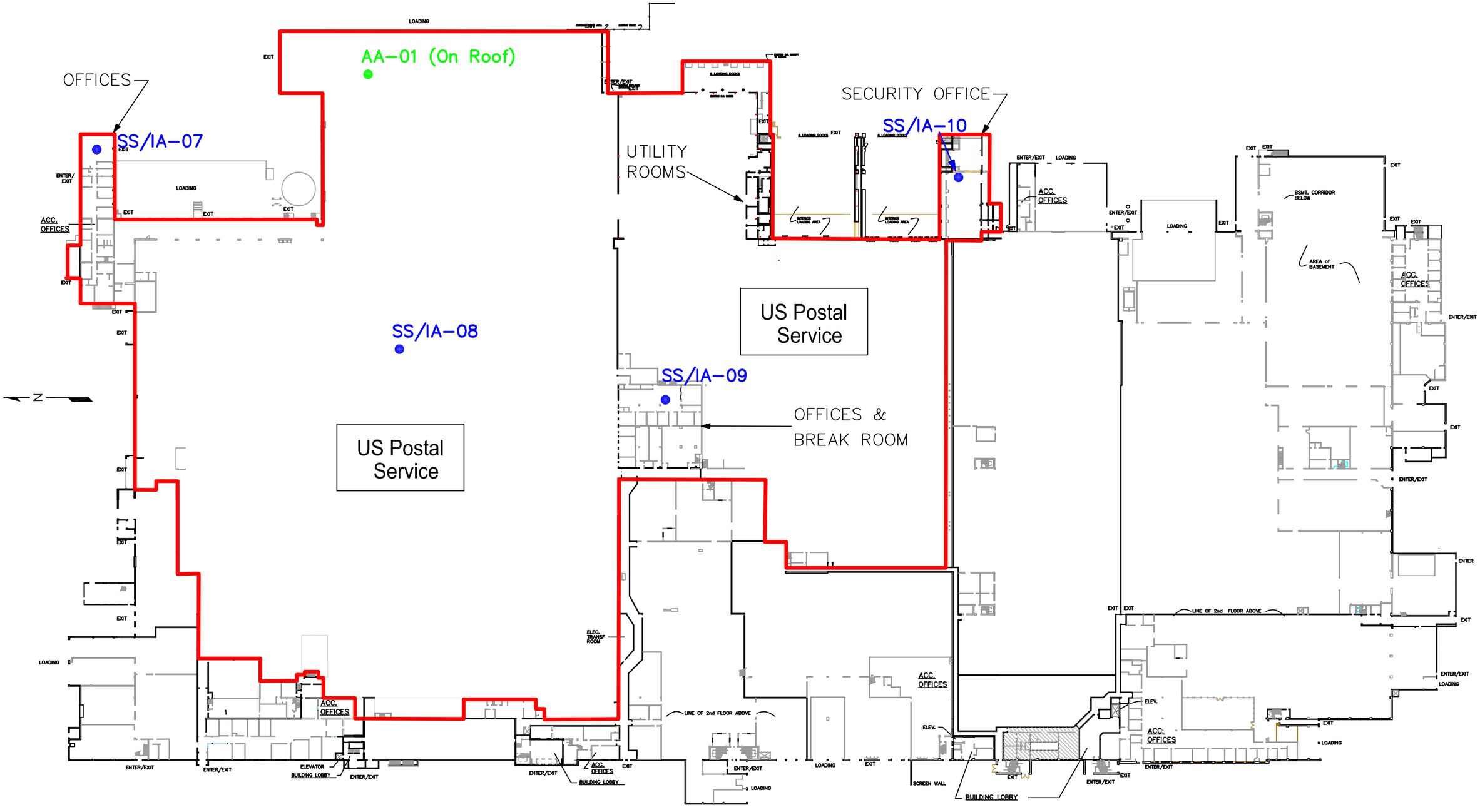
Very truly yours,

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

- US POSTAL SERVICE SPACE
- SOIL VAPOR/INDOOR AIR SAMPLING LOCATION
- OUTDOOR AMBIENT AIR SAMPLING LOCATION

SCALE

50'

0' 100'

US POSTAL SERVICE SPACE = ~373,000 SQ. FT.

US POSTAL SERVICE OFFICE & BREAKROOM SPACE = ~15,800 SQ. FT. (~4%)

TITLE

SUB-SLAB SOIL VAPOR & INDOOR AIR QUALITY SAMPLING LOCATIONS (3/16/09)

PREPARED FOR

STEEL LOS III

ERM Environmental Resources Management

DRAWN:	JOB NO.:	FILE NAME:	SCALE	FIGURE
EMF/CWW	0072943		GRAPHIC	1
			DATE 04/15/09	

TABLES

TABLE 1
SUB-SLAB/INDOOR AIR/AMBIENT AIR SAMPLING SUMMARY
16 MARCH 2009
STEEL LOS III, FORMER GRUMMAN PLANT 2
700 HICKSVILLE ROAD, BETHPAGE, NY

	NE Roof	Conference Room/ Mainenance Offices		Area 46		Storage Room (near Break Room)		Area 25	
Sample ID	**AA-01**	**IA-07**	**SS-07**	**IA-08**	**SS-08**	**IA-09**	**SS-09**	**IA-10**	**SS-10**
Sampler's Name	KP/TS	KP/TS	KP/TS	KP/TS	KP/TS	KP/TS	KP/TS	KP/TS	KP/TS
Date, Time And PID Reading Following Purge	3/16/09 0935 0.0PPM	3/16/09 1006 0.0PPM	3/16/09 1006 0.0PPM	3/16/09 0851 0.0PPM	3/16/09 0851 0.0PPM	3/16/09 0911 0.0PPM	3/16/09 0911 0.0PPM	3/16/09 0922 0.0PPM	3/16/09 0922 0.0PPM
Date, Time And PID Reading in Room	3/16/09 0935 0.0PPM	3/16/09 1006 0.0PPM	3/16/09 1006 0.0PPM	3/16/09 0851 0.0PPM	3/16/09 0851 0.0PPM	3/16/09 0911 0.0PPM	3/16/09 0911 0.0PPM	3/16/09 0922 0.0PPM	3/16/09 0922 0.0PPM
Date And Time Of Sample Start And Stop	3/16/09 0937 1736	3/16/09 1008 1807	3/16/09 1008 1807	3/16/09 0853 1652	3/16/09 0852 1651	3/16/09 0913 1712	3/16/09 0914 1713	3/16/09 0924 1723	3/16/09 0924 1723
Summa® Canister Serial Number	A871	A900	A901	A902	A903	A895	A899	A896	A905
Flow Controller ID Number	FC214	FC222	FC202	FC195	FC220	FC216	FC217	FC208	FC200
Initial And Final Summa® Canister Vacuum	-30"Hg+ -5.5"Hg	-30"Hg -6"Hg	-30"Hg+ -6"Hg	-30"Hg+ -11"Hg	-30"Hg -6"Hg	-30"Hg+ -6.5"Hg	-30"Hg -8"Hg	-30"Hg+ -5.5"Hg	-27"Hg -8"Hg
Sample Identification, And Descriptive Location Of The Sampling Area	AA-01 See Figure of sampling locations.	IA-07 See Figure of sampling locations.	SS-07 See Figure of sampling locations.	IA-08 See Figure of sampling locations.	SS-08 See Figure of sampling locations.	IA-09 See Figure of sampling locations.	SS-09 See Figure of sampling locations.	IA-10 See Figure of sampling locations.	SS-10 See Figure of sampling locations.
Sample Identification For Other Corresponding Samples At The Same Property	None	None	None	None	None	None	None	None	None
Weather Conditions Including Barometric Pressure, And Ambient Temperature Inside And Outside The Building	30.2" 70°F 45°F	30.2" 70°F 45°F	30.2" 70°F 45°F	30.2" 70°F 45°F	30.2" 70°F 45°F	30.2" 70°F 45°F	30.2" 70°F 45°F	30.2" 70°F 45°F	30.2" 70°F 45°F
Floor Slab Thickness			6"		6"		6"		6"
Sampling Depth(S)									
Soil Type At Sample Location, If Known									
Soil Vapor Purge Volumes	60 ml	60 ml	60 ml	60 ml	60 ml	60 ml	60 ml	60 ml	60 ml
All Equipment Calibrations Performed.	3/16/2009 0800	3/16/2009 0800	3/16/2009 0800	3/16/2009 0800	3/16/2009 0800	3/16/2009 0800	3/16/2009 0800	3/16/2009 0800	3/16/2009 0800

TABLE 2
SUB-SLAB/INDOOR AIR/AMBIENT AIR SAMPLING RESULT SUMMARY
16 MARCH 2009
STEEL LOS III, FORMER GRUMMAN PLANT 2
700 HICKSVILLE ROAD, BETHPAGE, NY

Sample ID Date Location Units	**OSHA PEL For Indoor Air[1] ug/m^3**	**NYSDOH Indoor Air Guideline[2] ug/m^3**	**SS-07** 3/16/2009 NE Offices ug/m^3	**IA-07** 3/16/2009 NE Offices ug/m^3	**SS-08** 3/16/2009 AOC 46 ug/m^3	**IA-08** 3/16/2009 AOC 46 ug/m^3	**SS-09** 3/16/2009 Break Room ug/m^3	**IA-09** 3/16/2009 Break Room ug/m^3	**SS-10** 3/16/2009 AOC 25 ug/m^3	**IA-10** 3/16/2009 AOC 25 ug/m^3	**AA-01** 3/16/2009 NE Roof ug/m^3
1,1,1-Trichloroethane	1,900,000	NGV	48	0.65	44	U	818	1.4	438	U	U
1,1,2,2-Tetrachloroethane	35,000	NGV	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	45,000	NGV	U	U	U	U	U	U	U	U	U
1,1-Dichloroethane	400,000	NGV	2.9	U	1.5	U	29	U	55.4	U	U
1,1-Dichloroethene	NS	NGV	U	U	0.44J	U	9.5	U	3	U	U
1,2,4-Trichlorbenzene	NS	NGV	U	U	U	U	U	U	U	U	U
1,2,4-Trimethylbenzene	NS	NGV	U	2.7	1.1	U	2.3	1.1	U	U	U
1,2-Dibromoethane	153,800	NGV	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	300,000	NGV	U	U	U	U	U	U	U	U	U
1,2-Dichloroethane	203,000	NGV	U	U	U	U	U	U	U	U	U
1,2-Dichloropropane	350,000	NGV	U	U	U	U	U	U	U	U	U
1,3,5-Trimethybenzene	NS	NGV	U	0.69J	U	U	0.54J	U	U	U	U
1,3-Butadiene	1,000	NGV	U	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	NS	NGV	U	U	U	U	U	U	U	U	U
1,4-Dichlorobenzene	450,000	NGV	1.5	91.4	2.7	1.6	80	16	1.1	U	U
1,4-Dioxane	360,000	NGV	U	U	U	U	1.2	U	U	U	U
2,2,4-Trimethylpentane	NS	NGV	U	1.4	U	0.98	0.75J	3.5	U	0.84J	U
2-Butanone	590,000	NGV	1.9	4.1	4.7	2.7	27	3.5	1	2.1	1.1
2-Chlorotoluene	NS	NGV	U	U	U	U	U	U	U	U	U
2-Hexanone	410,000	NGV	U	U	U	U	U	U	U	U	U
3-Chloropropene	3,000	NGV	U	U	U	U	U	U	U	U	U
4-Ethyltoluene	NS	NGV	U	0.64J	U	U	U	U	U	U	U
4-Methyl-2-pentanone	NS	NGV	U	U	7	U	1.6	U	U	U	U
Acetone	2,400,000	NGV	12	54.6	36.3	13	323	27.1	10	9.3	5.7
Benzene	3,190	NGV	0.54J	2	0.48J	1.4	4.8	1.7	0.64	1.3	0.89
Benzyl chloride	NS	NGV	U	U	U	U	U	U	U	U	U
Bromodichloromethane	NS	NGV	U	U	U	U	U	U	U	U	U
Bromoethene	NS	NGV	U	U	U	U	U	U	U	U	U
Bromoform	5,000	NGV	U	U	U	U	U	U	U	U	U
Bromomethane	NS	NGV	U	U	U	U	U	U	U	U	U
Carbon disulfide	62,000	NGV	4.7	U	0.62	U	3.7	U	U	U	U
Carbon tetrachloride	63,704	NGV	20	U	7.5	U	1.8	0.61	14	U	U
Chlorobenzene	350,000	NGV	U	U	U	U	U	U	U	U	U
Chloroethane	2,600,000	NGV	U	U	U	U	U	U	U	U	U
Chloroform	240,000	NGV	5.4	U	33	U	19	U	18	U	U
Chloromethane	100,000	NGV	U	1.3	0.6	1.3	0.97	1.3	0.33J	1.2	1.3
cis-1,2-Dichloroethene	790,000	NGV	3.9	U	0.48J	U	0.63J	U	7.1	U	U
cis-1,3-Dichloropropene	5,000	NGV	U	U	U	U	U	U	U	U	U
Cyclohexane	1,050,000	NGV	U	0.72	U	U	U	0.62J	1.6	U	U
Dibromochloromethane	87,000	NGV	U	U	U	U	U	U	U	U	U
Dichlorodifluoromethane	4,950,000	NGV	2.8	5.4	4	2.7	2.5	2.7	3.2	2.8	2.8
Ethanol	1,900,000	NGV	18	558J	13	33.5	28.8	126J	12	39.4	5.5
Ethyl Acetate	NS	NGV	2	4.7	5.8	4	3.6	3.6	24	2.2	U
Ethylbenzene	435,000	NGV	U	1.4	1	0.96	1.5	1.2	U	0.74J	U
Freon-113	NS	NGV	3.3	U	11	U	21	U	12	U	U
Freon-114	NS	NGV	U	U	U	U	U	U	U	U	U
Heptane	NS	NGV	U	6.1	U	1.1	3.2	1.6	U	0.86	U
Hexachlorobutadiene	NS	NGV	U	U	U	U	U	U	U	U	U
Isopropanol	980,000	NGV	U	1.7	0.56J	1.1	2	2	U	0.88	0.42J
Methyl tert butyl ether	NS	NGV	2.9	152J	1.8	11	8.8	110J	2.3	15	0.71
Methylene chloride	87,933	NGV	U	U	U	U	U	U	U	U	U
n-Hexane	1,800,000	NGV	0.49J	1.5	2.9	1.1	1	1.2	1.8	0.73	0.63J
o-Xylene	435,000	NGV	U	1.6	1.1	0.69J	1.4	0.96	U	0.65J	U
p/m-Xylene	435,000	NGV	0.56J	3.8	2.5	1.7	4	2.4	0.83J	1.5	0.56J
Propylene	NS	NGV	U	U	1.4	1.9	13	U	U	1.9	U
Styrene	NS	NGV	U	U	U	U	3.4	U	U	U	U
Tertiary Butyl Alcohol	300,000	NGV	U	2.1	U	U	U	U	U	U	U
Tetrachloroethene	678,000	100.0	28	1	20	0.88	26	1.3	132	0.75	U
Tetrahydrofuran	590,000	NS	U	U	U	U	U	U	U	U	U
Toluene	754,000	NS	1.1	14	8.7	9	18	13	2.4	3.4	1.5
trans-1,2-Dichloroethene	790,000	NS	0.99	U	U	U	U	U	U	U	U
trans-1,3-Dichloropropene	5,000	NS	U	U	U	U	U	U	U	U	U
Trichloroethene	537,000	5.00	844	11	464	1.2	742	1.1	436	U	U
Trichlorofluoromethane	NS	NS	1.7	2.7	13	2.8	2.6	2.5	3.7	2	1.6
Vinyl acetate	NS	NS	U	U	U	U	U	U	U	U	U
Vinyl bromide	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	3,000	NS	U	U	U	U	U	U	U	U	U
Xylenes (total)	435,000	NS	0.56J	5.2	3.6	2.3	5.2	3.4	0.83J	2.2	0.56J

Notes:
All units are in (ug/m^3)
1: PELs Permissible Exposure Limits For Chemicals In Indoor Air: United States Department of Labor - Occupational Health & Safety Administration: http://www.osha.gov/SLTC/pel/
2: New York State Department of Health: Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October 2006: Table 3.1 Air Guideline Values Derived By The NYSDOH
NGV = No Guidance Value

ATTACHMENTS

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

ATTACHMENT 2 - DATA VALIDATION REPORT

ATTACHMENT 3 – ACCUTEST LABORATORIES ASP CATEGORY B LABORATORY DATA DELIVERABLE (ON CD)

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

OSR – 3

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 03/16/09

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 + (in 2 shifts) Age of Occupants 18-60

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	School	(Commercial/Multi-use)
Industrial	Church	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	Heat pump	Hot water baseboard	Rooftop Package Units HVAC Fre
Space Heaters	Stream radiation	Radiant floor	Air from roof le
Electric baseboard	Wood stove	Outdoor wood boiler	Other _____

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: Natural Gas / Electric

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

Rooftop 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 WD40, 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 UNKOWN 500 + employees in 2 shifts
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

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

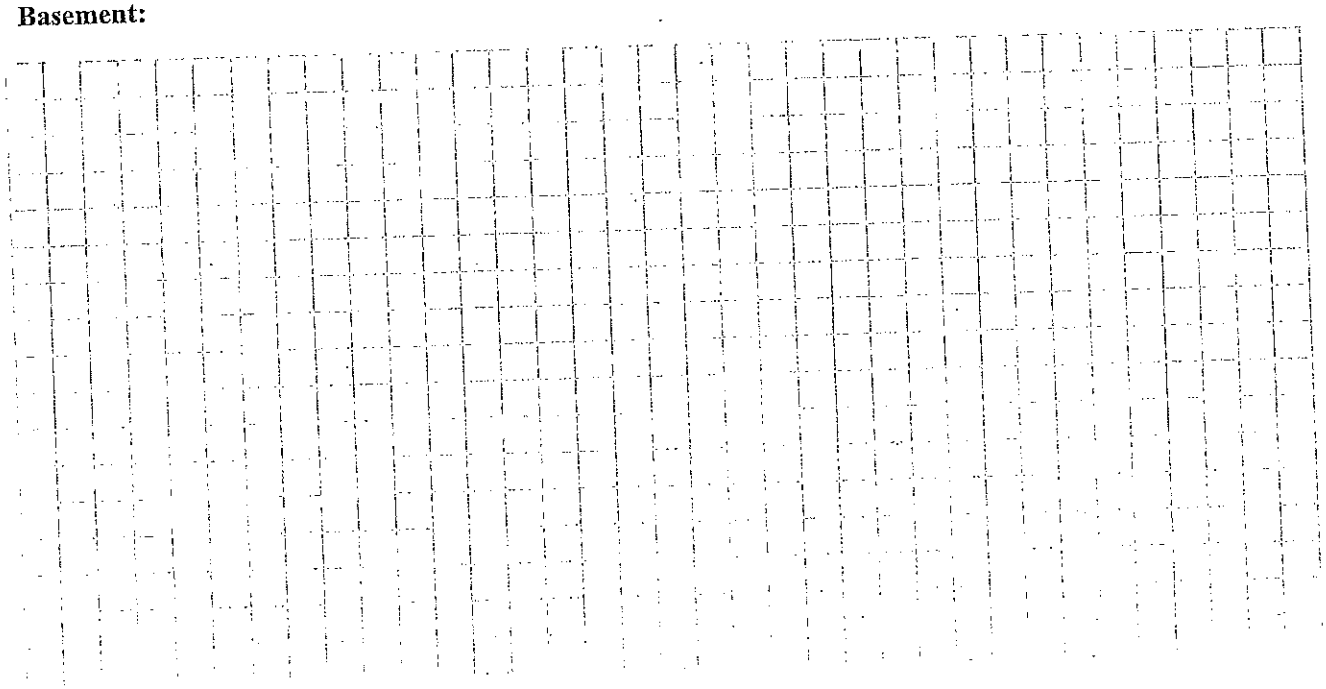
c. Responsibility for costs associated with reimbursement explained? Y / N

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:

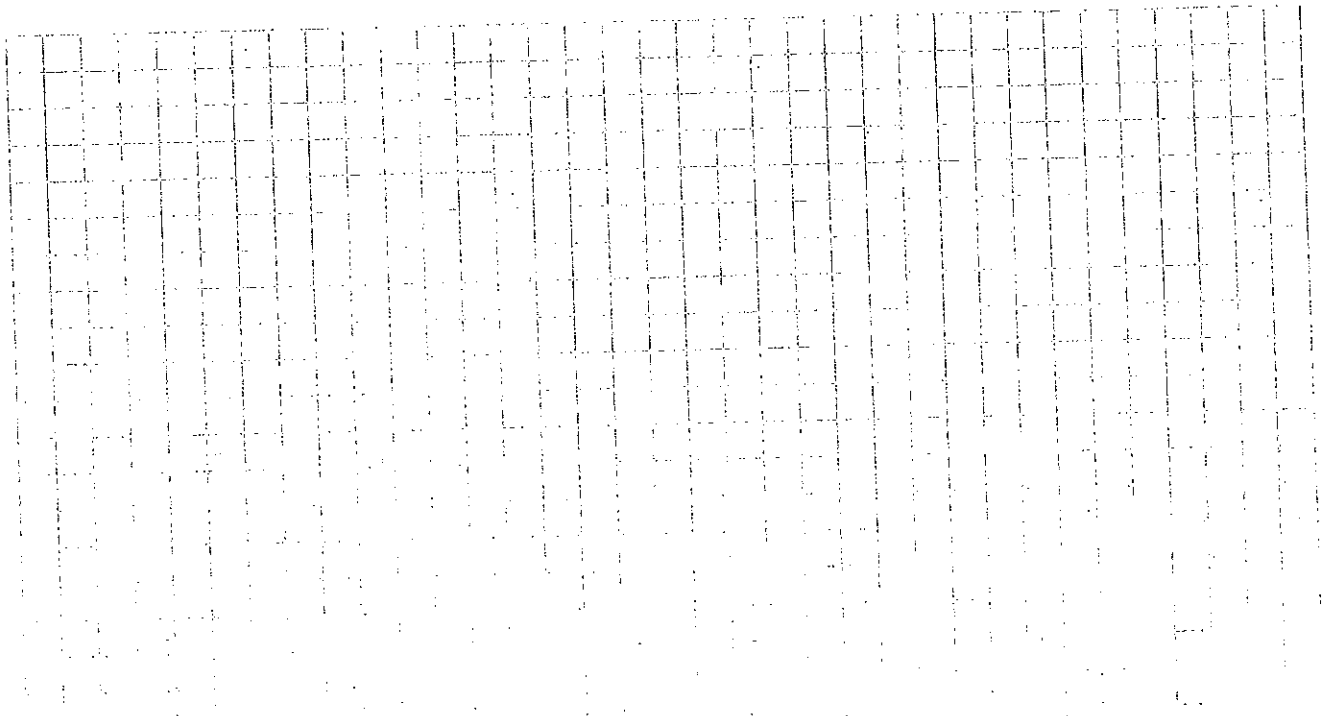


First Floor:

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.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo** Y / N

* 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