US ERA ARCHIVE DOCUMENT



### ANALYTICAL REPORT

Job Number: 680-56625-1

Job Description: WGK Vapor Sampling 3/29/2010

For: Solutia Inc. 575 Maryville Centre Dr.

Attention: Mr. William G Johnson

Saint Louis, MO 63141

Lideja galicia

Approved for release Lidya Gulizia Project Manager I 4/21/2010 10:36 AM

Lidya Gulizia Project Manager I lidya.gulizia@testamericainc.com 04/21/2010

cc: Mr. Scott Crawford Erin Stanisewski

The test results in this report meet NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted. Results pertain only to samples listed in this report. This report may not be reproduced, except in full, without the written approval of the laboratory. Questions should be directed to the person who signed this report.

Savannah Certifications and ID #s: A2LA: 0399.01; AL: 41450; ARDEQ: 88-0692; ARDOH; CA: 03217CA; CO; CT: PH0161; DE; FL: E87052; GA: 803; Guam; HI; IL: 200022; IN; IA: 353; KS: E-10322; KY EPPC: 90084; KY UST; LA DEQ: 30690; LA DHH: LA080008; ME: 2008022; MD: 250; MA: M-GA006; MI: 9925; MS; NFESC: 249; NV: GA00006; NJ: GA769; NM; NY: 10842; NC DWQ: 269; NC DHHS: 13701; PA: 68-00474; PR: GA00006; RI: LAO00244; SC: 98001001; TN: TN0296; TX: T104704185; USEPA: GA00006; VT: VT-87052; VA: 00302; WA; WV DEP: 094; WV DHHR: 9950 C; WI DNR: 999819810; WY/EPAR8: 8TMS-Q

TestAmerica Laboratories, Inc.

TestAmerica Savannah 5102 LaRoche Avenue, Savannah, GA 31404 Tel (912) 354-7858 Fax (912) 352-0165 <a href="https://www.testamericainc.com">www.testamericainc.com</a>



### Job Narrative Savannah 680-56625-1 / Knoxville H0C300411

### Receipt

Following sample collection, the air sample was sent directly to TestAmerica Knoxville for analysis and was received in good condition on March 30, 2010. Please refer to the sample receiving information contained in the body of the Knoxville report for more detailed information regarding receipt.

### **Subcontract Work**

Method(s) VOCs in Ambient Air / Tedlar Bag: The sample has been subcontracted to TestAmerica Knoxville the subcontract certifications are different from those listed on the TestAmerica cover page of this final report.

### **METHOD SUMMARY**

Client: Solutia Inc. Job Number: 680-56625-1

Description	Lab Location	Method	Preparation Method
Matrix: Air - Tedlar Bag			
EPA TO-15	TAL KNX	EPA-21 TO-15	

### Lab References:

TAL KNX = TestAmerica Knoxville

### **Method References:**

EPA-21 = "Compendium Of Methods For The Determination Of Toxic Organic Compounds In Ambient Air", Second Edition, EPA/625/R-96/010B, January 1999

### **SAMPLE SUMMARY**

Client: Solutia Inc. Job Number: 680-56625-1

			Date/Time	Date/Time
Lab Sample ID	Client Sample ID	Client Matrix	Sampled	Received
680-56625-1	WGK-BIGMO-SVE-Line	Air - Tedlar Bag	03/29/2010 1500	03/30/2010 0930

### **SAMPLE RESULTS**

H0C300411 Analytical Report	1
Sample Receipt Documentation	13
Total Number of Pages	15



TestAmerica Laboratories, Inc.

### ANALYTICAL REPORT

PROJECT NO. 680-56625

Solutia Vapor Sampling

Lot #: H0C300411

Lidya Gulizia

TestAmerica Savannah 5102 Laroche Avenue Savannah, GA 31404

TESTAMERICA LABORATORIES, INC.

Project Manager

April 19, 2010

### ANALYTICAL METHODS SUMMARY

### H0C300411

PARAMETER ANALYTICAL METHOD

Volatile Organics by TO15

EPA-2 TO-15

### References:

EPA-2

"Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air", EPA-625/R-96/010b, January 1999.

### SAMPLE SUMMARY

### H0C300411

			SAMPLED	SAMP
WO # S	AMPLE#	CLIENT SAMPLE ID	DATE	TIME
LW9NW	001	WGK-BIGMO-SVE-LINE A-V	03/29/10	15:00

### NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor.

  paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

### PROJECT NARRATIVE H0C300411

The results reported herein are applicable to the samples submitted for analysis only.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

### Sample Receipt

Sample WGK-BIGMO-TMX-INF-A listed on the chain of custody appears not to have been collected. Only one sample was received and the client was notified.

Custody seals were not present.

### **Quality Control and Data Interpretation**

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by TestAmerica Knoxville.

The sample was received on 03/30/10 in a Tedlar bag and transferred into a Summa Canister within 72 hours of sampling.

TestAmerica Knoxville maintains the following certifications, approvals and accreditations: Arkansas DEQ Lab #88-0688, California DHS ELAP Cert. #2423, Colorado DPHE, Connecticut DPH Lab #PH-0223, Florida DOH Lab #E87177, Georgia DNR Lab #906, Hawaii DOH, Illinois EPA Lab #200012, Indiana DOH Lab #C-TN-02, Iowa DNR Lab #375, Kansas DHE Cert. #E-10349, Kentucky DEP Lab #90101, Louisiana DEQ Cert. #03079, Louisiana DOHH, Maryland DOE Cert. #277, Michigan DEQ Lab #9933, Nevada DEP, New Jersey DEP Lab #TN001, New York DOH Lab #10781, North Carolina DPH Lab #21705, North Carolina DEHNR Cert. #64, Ohio EPA VAP Lab #CL0059, Oklahoma DEQ Lab #9415, Pennsylvania DEP Lab #68-00576, South Carolina DHEC Cert #84001001, Tennessee DOH Lab #02014, Texas CEQ, Utah DOH Lab # QUAN3, Virginia DGS Lab #00165, Washington DOE Lab #C1314, West Virginia DEP Cert. #345, West Virginia DHHR Cert #9955C, Wisconsin DNR Lab #998044300, Naval Facilities Engineering Service Center and USDA Soil Permit #S-46424. This list of approvals is subject to change and does not imply that laboratory certification is available for all parameters reported in this environmental sample data report.

### TestAmerica Savannah

### Client Sample ID: WGK-BIGMO-SVE-LINE A-V

### GC/MS Volatiles

Lot-Sample #...: H0C300411-001 Work Order #...: LW9NW1AA Matrix...... AIR

 Date Sampled...:
 03/29/10
 Date Received...:
 03/30/10

 Prep Date.....:
 04/02/10
 Analysis Date...:
 04/02/10

**Prep Batch #...:** 0092254

Dilution Factor: 159900.1 Method.....: EPA-2 TO-15

		REPORTIN	G
PARAMETER	RESULT	LIMIT	UNITS
Dichlorodifluoromethane	ND	32000	ppb (v/v)
1,2-Dichloro-	ND	32000	ppb(v/v)
1,1,2,2-tetrafluoroethane			
Chloromethane	ND	80000	ppb(v/v)
Vinyl chloride	ND	32000	ppb(v/v)
Bromomethane	ND	32000	ppb(v/v)
Chloroethane	ND	32000	ppb(v/v)
Trichlorofluoromethane	ND	32000	ppb(v/v)
1,1-Dichloroethene	ND	32000	ppb(v/v)
1,1,2-Trichloro-	ND	32000	ppb(v/v)
1,2,2-trifluoroethane			
Methylene chloride	ND	80000	ppb (v/v)
1,1-Dichloroethane	ND	32000	ppb(v/v)
cis-1,2-Dichloroethene	ND	32000	ppb(v/v)
Chloroform	ND	32000	ppb(v/v)
1,1,1-Trichloroethane	ND	32000	ppb(v/v)
Carbon tetrachloride	ND	32000	ppb(v/v)
Benzene	1400000	32000	ppb(v/v)
1,2-Dichloroethane	ND	32000	ppb(v/v)
Trichloroethene	ND	32000	ppb(v/v)
1,2-Dichloropropane	ND	32000	ppb(v/v)
cis-1,3-Dichloropropene	ND	32000	ppb(v/v)
Toluene	ND	32000	ppb(v/v)
trans-1,3-Dichloropropene	ND	32000	ppb(v/v)
1,1,2-Trichloroethane	ND	32000	ppb (v/v)
Tetrachloroethene	ND	32000	ppb(v/v)
1,2-Dibromoethane (EDB)	ND	32000	ppb(v/v)
Chlorobenzene	ND	32000	ppb(v/v)
Ethylbenzene	ND	32000	ppb(v/v)
m-Xylene & p-Xylene	ND	32000	ppb(v/v)
o-Xylene	ND	32000	ppb(v/v)
Styrene	ND	32000	ppb(v/v)
1,1,2,2-Tetrachloroethane	ND	32000	ppb(v/v)
1,3,5-Trimethylbenzene	ND	32000	ppb(v/v)
1,2,4-Trimethylbenzene	ND	32000	ppb(v/v)
1,3-Dichlorobenzene	ND	32000	ppb (v/v)
1,4-Dichlorobenzene	ND	32000	ppb(v/v)
1,2-Dichlorobenzene	ND	32000	ppb(v/v)
Benzyl chloride	ND	64000	ppb(v/v)

(Continued on next page)

### TestAmerica Savannah

### Client Sample ID: WGK-BIGMO-SVE-LINE A-V

### GC/MS Volatiles

Work Order #:	LW9NW1AA	Matrix AIR
	REPORTING	
RESULT	LIMIT	UNITS
ND	160000	ppb(v/v)
ND	160000	ppb(v/v)
PERCENT	RECOVERY	
		•
	RESULT ND	RESULT LIMIT ND 160000  ND 160000  PERCENT RECOVERY RECOVERY LIMITS

## **US EPA ARCHIVE DOCUMENT**

benzene

### METHOD BLANK REPORT

### GC/MS Volatiles

Client Lot #...: H0C300411 Work Order #...: LXG0L1AA Matrix...... AIR

MB Lot-Sample #: H0D020000-254

Prep Date....: 04/02/10

Analysis Date..: 04/02/10

Prep Batch #...: 0092254

Dilution Factor: 1

		REPORTING	<del>,</del>	
PARAMETER	RESULT	LIMIT	UNITS	METHOD
Dichlorodifluoromethane	ND	0.20	ppb (v/v)	EPA-2 TO-15
1,2-Dichloro-	ND	0.20	ppb (v/v)	EPA-2 TO-15
1,1,2,2-tetrafluoroethane				4
Chloromethane	ND	0.50	ppb(v/v)	EPA-2 TO-15
Vinyl chloride	ND	0.20	ppb (v/v)	EPA-2 TO-15
Bromomethane	ND	0.20	ppb(v/v)	EPA-2 TO-15
Chloroethane	ND	0.20	ppb (v/v)	EPA-2 TO-15
Trichlorofluoromethane	ND	0.20	ppb(v/v)	EPA-2 TO-15
1,1-Dichloroethene	ND	0.20	ppb (v/v)	EPA-2 TO-15
1,1,2-Trichloro-	ND	0.20	ppb(v/v)	EPA-2 TO-15
1,2,2-trifluoroethane				
Methylene chloride	ND	0.50	ppb(v/v)	EPA-2 TO-15
1,1-Dichloroethane	ND	0.20	ppb(v/v)	EPA-2 TO-15
cis-1,2-Dichloroethene	ND	0.20	ppb (v/v)	EPA-2 TO-15
Chloroform	ND	0.20	ppb(v/v)	EPA-2 TO-15
1,1,1-Trichloroethane	ND	0.20	ppb(v/v)	EPA-2 TO-15
Carbon tetrachloride	ND	0.20	ppb (v/v)	EPA-2 TO-15
Benzene	ND	0.20	ppb (v/v)	EPA-2 TO-15
1,2-Dichloroethane	ND	0.20	ppb(v/v)	EPA-2 TO-15
Trichloroethene	ND	0.20	ppb(v/v)	EPA-2 TO-15
1,2-Dichloropropane	ND	0.20	ppb(v/v)	EPA-2 TO-15
cis-1,3-Dichloropropene	ND	0.20	ppb (v/v)	EPA-2 TO-15
Toluene	ND	0.20	ppb(v/v)	EPA-2 TO-15
trans-1,3-Dichloropropene	ND	0.20	ppb(v/v)	EPA-2 TO-15
1,1,2-Trichloroethane	ND	0.20	ppb(v/v)	EPA-2 TO-15
Tetrachloroethene	ND	0.20	ppb(v/v)	EPA-2 TO-15
1,2-Dibromoethane (EDB)	ND	0.20	ppb (v/v)	EPA-2 TO-15
Chlorobenzene	ND	0.20	ppb(v/v)	EPA-2 TO-15
Ethylbenzene	ND	0.20	ppb(v/v)	EPA-2 TO-15
m-Xylene & p-Xylene	ND	0.20	ppb(v/v)	EPA-2 TO-15
o-Xylene	ND	0.20	ppb(v/v)	EPA-2 TO-15
Styrene	ND	0.20	ppb (v/v)	EPA-2 TO-15
1,1,2,2-Tetrachloroethane	ND	0.20	ppb(v/v)	EPA-2 TO-15
1,3,5-Trimethylbenzene	ND	0.20	ppb(v/v)	EPA-2 TO-15
1,2,4-Trimethylbenzene	ND	0.20	ppb(v/v)	EPA-2 TO-15
1,3-Dichlorobenzene	ND	0.20	ppb(v/v)	EPA-2 TO-15
1,4-Dichlorobenzene	ND	0.20	ppb (v/v)	EPA-2 TO-15
1,2-Dichlorobenzene	ND	0.20	ppb (v/v)	EPA-2 TO-15
Benzyl chloride	ND	0.40	ppb(v/v)	EPA-2 TO-15
1,2,4-Trichloro-	ND	1.0	ppb (v/v)	EPA-2 TO-15

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### METHOD BLANK REPORT

### GC/MS Volatiles

Client Lot #: H0C300411	Work Order	#: LXG0L1A	A <b>Ma</b>	trix Alr
PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Hexachlorobutadiene	ND	1.0	ppb(v/v)	EPA-2 TO-15
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
4-Bromofluorobenzene	98	(60 - 140	)	
NOTE (S):				9

Calculations are performed before rounding to avoid round-off errors in calculated results.

## **EPA ARCHIVE DOCUMENT**

### LABORATORY CONTROL SAMPLE EVALUATION REPORT

### GC/MS Volatiles

Client Lot #...: HOC300411 Work Order #...: LXG0L1AC Matrix...... AIR

LCS Lot-Sample#: H0D020000-254

Prep Date....: 04/02/10 Analysis Date..: 04/02/10

Prep Batch #...: 0092254

Dilution Factor: 1

Dichlorodifluoromethane   105		PERCENT	RECOVERY	
1,2-Dichloro- 1,1,2,2-tetrafluoroethane Chloromethane Vinyl chloride 106 106 (70 - 130) EPA-2 TO-15  Bromomethane 109 (70 - 130) EPA-2 TO-15  Bromomethane 109 (70 - 130) EPA-2 TO-15  Chloroethane 110 (70 - 130) EPA-2 TO-15  Trichlorofluoromethane 104 (60 - 140) EPA-2 TO-15  EPA-2 TO-15  Chloroethane 110 (70 - 130) EPA-2 TO-15  Trichlorofluoromethane 104 (60 - 140) EPA-2 TO-15  Trichlorofluoromethane 104 (60 - 140) EPA-2 TO-15  Trichloroethane 92 (70 - 130) EPA-2 TO-15  1,1,2-Trichloro- 92 (70 - 130) EPA-2 TO-15  1,2,2-trifluoroethane  Wethylene chloride 89 (70 - 130) EPA-2 TO-15  1,1,1-Dichloroethane 100 (70 - 130) EPA-2 TO-15  Chloroform 100 (70 - 130) EPA-2 TO-15  Chloroform 100 (70 - 130) EPA-2 TO-15  Carbon tetrachloride 100 (70 - 130) EPA-2 TO-15  1,2-Dichloroethane 100 (70 - 130) EPA-2 TO-15  Trichloroethane 100 (70 - 130) EPA-2 TO-15  Trichloroethane 100 (70 - 130) EPA-2 TO-15  Trichloropropane 110 Trichloropr	PARAMETER	RECOVERY	LIMITS	METHOD
Chloromethane Chloromethane Chloromethane Chloromethane Chloromethane 106 Cro - 140) EPA-2 TO-15 Eromomethane 109 Cro - 130) EPA-2 TO-15 Eromomethane 110 Cro - 130) EPA-2 TO-15 EPA-2 TO-15 Chloroethane 110 Cro - 130) EPA-2 TO-15 EPA-2 TO-15 Trichlorofluoromethane 104 CfO - 130) EPA-2 TO-15 Trichloroethene 92 Cro - 130) EPA-2 TO-15 I,1,2-Trichloro- 92 Cro - 130) EPA-2 TO-15 I,1,2-Trichloroethane Methylene chloride 89 Cro - 130) EPA-2 TO-15 I,1-Dichloroethane 100 Cro - 130) EPA-2 TO-15 Chloroform 100 Cro - 130) EPA-2 TO-15 Chloroform 100 Cro - 130) EPA-2 TO-15 I,1,1-Trichloroethane 102 Cro - 130) EPA-2 TO-15 Carbon tetrachloride 100 Cro - 130) EPA-2 TO-15 EPA-2 TO-15 I,2-Dichloroethane 100 Cro - 130) EPA-2 TO-15 EPA-2 TO-15 Carbon tetrachloride 100 Cro - 130) EPA-2 TO-15 EPA-2 TO-15 Carbon tetrachloride 100 Cro - 130) EPA-2 TO-15 Carbon tetrachloride 100 Cro - 130) EPA-2 TO-15 EPA-2 TO-15 Carbon tetrachloride 100 Cro - 130) EPA-2 TO-15 Carbon tetrachloroethane 100 Cro - 130) EPA-2 TO-15 Carbon tetrachloroethane 100 Cro - 130) EPA-2 TO-15 Crichloroethane 100 Cro - 130) EPA-2 TO-15 Crichloropropane 100 Cro - 130) EPA-2 TO-15 Crichloroethane 100 Cro - 130) EPA-2 TO-15 Crichloroethane 110 Cro - 130) EPA-2 TO-15 Crichloroethane 1110 Cro - 130) EPA-2 TO-15 Crichloroethane 112 Cro - 130) EPA-2 TO-15 Chlorobenzene 112 Cro - 130)	Dichlorodifluoromethane	105	(60 - 140)	EPA-2 TO-15
Chloromethane Chloromethane Vinyl chloride Chloromethane Vinyl chloride Vinyl chloride Chloromethane Vinyl chloride Vinyl chlorofluoromethane Vinyl chlorofluoromethane Vinyl chlorofluoromethane Vinyl chlorofluoromethane Vinyl chlorofluoromethane Vinyl chloromethane Vinyl chlo	1,2-Dichloro-	119	(60 - 140)	EPA-2 TO-15
Vinyl chloride         106         (70 - 130)         EPA-2 TO-15           Bromomethane         109         (70 - 130)         EPA-2 TO-15           Chloroethane         110         (70 - 130)         EPA-2 TO-15           Trichlorofluoromethane         104         (60 - 140)         EPA-2 TO-15           1,1-Dichloroethene         92         (70 - 130)         EPA-2 TO-15           1,1,2-Trichloro-         92         (70 - 130)         EPA-2 TO-15           1,2,2-trifluoroethane         89         (70 - 130)         EPA-2 TO-15           1,1-Dichloroethane         100         (70 - 130)         EPA-2 TO-15           1,1-Dichloroethane         100         (70 - 130)         EPA-2 TO-15           1,1-Trichloroethane         100         (70 - 130)         EPA-2 TO-15           Chloroform         100         (70 - 130)         EPA-2 TO-15           Carbon tetrachloride         100         (70 - 130)         EPA-2 TO-15           Carbon tetrachloride         100         (70 - 130)         EPA-2 TO-15           1,2-Dichloroethane         100         (70 - 130)         EPA-2 TO-15           1,2-Dichloropropane         108         (70 - 130)         EPA-2 TO-15           1,2-Dichloropropane         108 <td>1,1,2,2-tetrafluoroethane</td> <td></td> <td></td> <td>•</td>	1,1,2,2-tetrafluoroethane			•
Bromomethane 109 (70 - 130) EPA-2 TO-15 Chloroethane 110 (70 - 130) EPA-2 TO-15 Trichlorofluoromethane 104 (60 - 140) EPA-2 TO-15 1,1-Dichloroethene 92 (70 - 130) EPA-2 TO-15 1,1,2-Trichloro- 92 (70 - 130) EPA-2 TO-15 1,2,2-trifluoroethane Methylene chloride 89 (70 - 130) EPA-2 TO-15 1,1-Dichloroethane 100 (70 - 130) EPA-2 TO-15 1,1-Dichloroethane 100 (70 - 130) EPA-2 TO-15 Chloroform 100 (70 - 130) EPA-2 TO-15 Chloroform 100 (70 - 130) EPA-2 TO-15 1,1,1-Trichloroethane 102 (70 - 130) EPA-2 TO-15 Carbon tetrachloride 100 (70 - 130) EPA-2 TO-15 Carbon tetrachloride 100 (70 - 130) EPA-2 TO-15 1,2-Dichloroethane 100 (70 - 130) EPA-2 TO-15 1,2-Dichloroethane 100 (70 - 130) EPA-2 TO-15 Trichloroethane 100 (70 - 130) EPA-2 TO-15 1,2-Dichloropropane 108 (70 - 130) EPA-2 TO-15 Toluene 107 (70 - 130) EPA-2 TO-15 Toluene 107 (70 - 130) EPA-2 TO-15 Trichloroethane 110 (70 - 130) EPA-2 TO-15 Trans-1,3-Dichloropropene 110 (70 - 130) EPA-2 TO-15 Tetrachloroethane 113 (70 - 130) EPA-2 TO-15 Tetrachloroethane 113 (70 - 130) EPA-2 TO-15 Tetrachloroethane 113 (70 - 130) EPA-2 TO-15 Tetrachloroethane (EDB) 109 (70 - 130) EPA-2 TO-15 Chlorobenzene 102 (70 - 130) EPA-2 TO-15 Chlorobenzene 112 (70 - 130) EPA-2 TO-15 Ethylbenzene 112 (70 - 130) EPA-2 TO-15 Ethylbenzene 112 (70 - 130) EPA-2 TO-15 Styrene 122 (70 - 130) EPA-2 TO-15 Styrene 122 (70 - 130) EPA-2 TO-15 Styrene 122 (70 - 130) EPA-2 TO-15	Chloromethane	104	(60 - 140)	EPA-2 TO-15
Chloroethane 110 (70 - 130) EPA-2 TO-15 Trichlorofluoromethane 104 (60 - 140) EPA-2 TO-15 1,1-Dichloroethene 92 (70 - 130) EPA-2 TO-15 1,1,2-Trichloro- 92 (70 - 130) EPA-2 TO-15 1,2,2-trifluoroethane  Methylene chloride 89 (70 - 130) EPA-2 TO-15 1,1-Dichloroethane 100 (70 - 130) EPA-2 TO-15 1,1-Dichloroethane 100 (70 - 130) EPA-2 TO-15 Cis-1,2-Dichloroethane 100 (70 - 130) EPA-2 TO-15 Chloroform 100 (70 - 130) EPA-2 TO-15 1,1,1-Trichloroethane 102 (70 - 130) EPA-2 TO-15 Carbon tetrachloride 100 (70 - 130) EPA-2 TO-15 Benzene 96 (70 - 130) EPA-2 TO-15 1,2-Dichloroethane 100 (70 - 130) EPA-2 TO-15 Trichloroethane 100 (70 - 130) EPA-2 TO-15 1,2-Dichloropropane 100 (70 - 130) EPA-2 TO-15 1,2-Dichloropropane 108 (70 - 130) EPA-2 TO-15 1,2-Dichloropropane 110 (70 - 130) EPA-2 TO-15 Toluene 107 (70 - 130) EPA-2 TO-15 Toluene 107 (70 - 130) EPA-2 TO-15 Toluene 107 (70 - 130) EPA-2 TO-15 1,1,2-Trichloroethane 113 (70 - 130) EPA-2 TO-15 1,1,2-Trichloroethane 113 (70 - 130) EPA-2 TO-15 Chlorobenzene 102 (70 - 130) EPA-2 TO-15 Chlorobenzene 102 (70 - 130) EPA-2 TO-15 Chlorobenzene 102 (70 - 130) EPA-2 TO-15 Ethylbenzene 112 (70 - 130) EPA-2 TO-15 EXTYRENE 112 (70 - 130) EPA-2 TO-15 Styrene 122 (70 - 130) EPA-2 TO-15	Vinyl chloride	106	(70 - 130)	EPA-2 TO-15
Trichlorofluoromethane 104 (60 - 140) EPA-2 TO-15 1,1-Dichloroethene 92 (70 - 130) EPA-2 TO-15 1,1,2-Trichloro- 92 (70 - 130) EPA-2 TO-15 1,2,2-trifluoroethane Methylene chloride 89 (70 - 130) EPA-2 TO-15 1,1-Dichloroethane 100 (70 - 130) EPA-2 TO-15 cis-1,2-Dichloroethene 100 (70 - 130) EPA-2 TO-15 cis-1,2-Dichloroethane 100 (70 - 130) EPA-2 TO-15 cis-1,1-Trichloroethane 102 (70 - 130) EPA-2 TO-15 1,1,1-Trichloroethane 102 (70 - 130) EPA-2 TO-15 carbon tetrachloride 100 (70 - 130) EPA-2 TO-15 Benzene 96 (70 - 130) EPA-2 TO-15 1,2-Dichloroethane 100 (70 - 130) EPA-2 TO-15 1,2-Dichloroethane 100 (70 - 130) EPA-2 TO-15 1,2-Dichloropropane 108 (70 - 130) EPA-2 TO-15 1,2-Dichloropropane 108 (70 - 130) EPA-2 TO-15 1,2-Dichloropropane 110 (70 - 130) EPA-2 TO-15 tis-1,3-Dichloropropene 110 (70 - 130) EPA-2 TO-15 Toluene 107 (70 - 130) EPA-2 TO-15 trans-1,3-Dichloropropene 110 (70 - 130) EPA-2 TO-15 Chlorobethane 113 (70 - 130) EPA-2 TO-15 Tetrachloroethane (EDB) 109 (70 - 130) EPA-2 TO-15 Chlorobenzene 102 (70 - 130) EPA-2 TO-15 Ethylbenzene 112 (70 - 130) EPA-2 TO-15 Ethylbenzene 112 (70 - 130) EPA-2 TO-15 Styrene 112 (70 - 130) EPA-2 TO-15 Styrene 122 (70 - 130) EPA-2 TO-15 Styrene 122 (70 - 130) EPA-2 TO-15 Styrene 122 (70 - 130) EPA-2 TO-15	Bromomethane	109	(70 - 130)	EPA-2 TO-15
1,1-Dichloroethene 92 (70 - 130) EPA-2 TO-15 1,1,2-Trichloro- 92 (70 - 130) EPA-2 TO-15 1,2,2-trifluoroethane  Methylene chloride 89 (70 - 130) EPA-2 TO-15 1,1-Dichloroethane 100 (70 - 130) EPA-2 TO-15 1,1-Dichloroethane 100 (70 - 130) EPA-2 TO-15 1,1-Dichloroethene 100 (70 - 130) EPA-2 TO-15 Chloroform 100 (70 - 130) EPA-2 TO-15 Chloroform 100 (70 - 130) EPA-2 TO-15 1,1,1-Trichloroethane 102 (70 - 130) EPA-2 TO-15 Carbon tetrachloride 100 (70 - 130) EPA-2 TO-15 Benzene 96 (70 - 130) EPA-2 TO-15 1,2-Dichloroethane 100 (70 - 130) EPA-2 TO-15 Trichloroethene 92 (70 - 130) EPA-2 TO-15 1,2-Dichloropropane 108 (70 - 130) EPA-2 TO-15 Cis-1,3-Dichloropropene 110 (70 - 130) EPA-2 TO-15 Toluene 107 (70 - 130) EPA-2 TO-15 Trans-1,3-Dichloropropene 110 (70 - 130) EPA-2 TO-15 Trans-1,3-Dichloropropene 110 (70 - 130) EPA-2 TO-15 Tetrachloroethane 97 (70 - 130) EPA-2 TO-15 Tetrachloroethene 97 (70 - 130) EPA-2 TO-15 Tetrachloroethene 97 (70 - 130) EPA-2 TO-15 Chlorobenzene EDB) 109 (70 - 130) EPA-2 TO-15 Chlorobenzene 102 (70 - 130) EPA-2 TO-15 EKbylbenzene 112 (70 - 130) EPA-2 TO-15 EXTRENE & p-Xylene 113 (70 - 130) EPA-2 TO-15 Styrene 122 (70 - 130) EPA-2 TO-15	Chloroethane	110	(70 - 130)	
1,1,2-Trichloro- 1,2,2-trifluoroethane  Methylene chloride 89 (70 - 130) EPA-2 TO-15  1,1-Dichloroethane 100 (70 - 130) EPA-2 TO-15  1,1-Dichloroethane 100 (70 - 130) EPA-2 TO-15  Cis-1,2-Dichloroethene 100 (70 - 130) EPA-2 TO-15  Chloroform 100 (70 - 130) EPA-2 TO-15  1,1,1-Trichloroethane 102 (70 - 130) EPA-2 TO-15  Carbon tetrachloride 100 (70 - 130) EPA-2 TO-15  Benzene 96 (70 - 130) EPA-2 TO-15  1,2-Dichloroethane 100 (70 - 130) EPA-2 TO-15  1,2-Dichloroethane 100 (70 - 130) EPA-2 TO-15  1,2-Dichloropropane 108 (70 - 130) EPA-2 TO-15  Cis-1,3-Dichloropropene 110 (70 - 130) EPA-2 TO-15  Toluene 107 (70 - 130) EPA-2 TO-15  trans-1,3-Dichloropropene 110 (70 - 130) EPA-2 TO-15  trans-1,3-Dichloropropene 110 (70 - 130) EPA-2 TO-15  T-1,2-Trichloroethane 113 (70 - 130) EPA-2 TO-15  Tetrachloroethene 97 (70 - 130) EPA-2 TO-15  Tetrachloroethene 97 (70 - 130) EPA-2 TO-15  Tetrachloroethane (EDB) 109 (70 - 130) EPA-2 TO-15  Chlorobenzene 102 (70 - 130) EPA-2 TO-15  Ethylbenzene 112 (70 - 130) EPA-2 TO-15  Ethylbenzene 112 (70 - 130) EPA-2 TO-15  EN-Xylene & p-Xylene 113 (70 - 130) EPA-2 TO-15  Styrene 122 (70 - 130) EPA-2 TO-15	Trichlorofluoromethane	104	(60 - 140)	EPA-2 TO-15
1,2,2-trifluoroethane       89       (70 - 130)       EPA-2       TO-15         1,1-Dichloroethane       100       (70 - 130)       EPA-2       TO-15         cis-1,2-Dichloroethene       100       (70 - 130)       EPA-2       TO-15         Chloroform       100       (70 - 130)       EPA-2       TO-15         1,1,1-Trichloroethane       102       (70 - 130)       EPA-2       TO-15         Carbon tetrachloride       100       (70 - 130)       EPA-2       TO-15         Benzene       96       (70 - 130)       EPA-2       TO-15         1,2-Dichloroethane       100       (70 - 130)       EPA-2       TO-15         1,2-Dichloropropane       108       (70 - 130)       EPA-2       TO-15         1,2-Dichloropropane       110       (70 - 130)       EPA-2       TO-15         10uene       107       (70 - 130)       EPA-2       TO-15         trans-1,3-Dichloropropene       110       (70 - 130)       EPA-2       TO-15         1,1,2-Trichloroethane       113       (70 - 130)       EPA-2       TO-15         1,2-Dibromoethane (EDB)       109       (70 - 130)       EPA-2       TO-15         1,2-Dibromoethane (EDB)       109       (	1,1-Dichloroethene	92	(70 - 130)	EPA-2 TO-15
Methylene chloride         89         (70 - 130)         EPA-2 TO-15           1,1-Dichloroethane         100         (70 - 130)         EPA-2 TO-15           cis-1,2-Dichloroethene         100         (70 - 130)         EPA-2 TO-15           Chloroform         100         (70 - 130)         EPA-2 TO-15           1,1,1-Trichloroethane         102         (70 - 130)         EPA-2 TO-15           Carbon tetrachloride         100         (70 - 130)         EPA-2 TO-15           Benzene         96         (70 - 130)         EPA-2 TO-15           1,2-Dichloroethane         100         (70 - 130)         EPA-2 TO-15           Trichloroethene         92         (70 - 130)         EPA-2 TO-15           1,2-Dichloropropane         108         (70 - 130)         EPA-2 TO-15           cis-1,3-Dichloropropene         110         (70 - 130)         EPA-2 TO-15           Trans-1,3-Dichloropropene         110         (70 - 130)         EPA-2 TO-15           1,1,2-Trichloroethane         113         (70 - 130)         EPA-2 TO-15           Tetrachloroethane         97         (70 - 130)         EPA-2 TO-15           1,2-Dibromoethane         102         (70 - 130)         EPA-2 TO-15           Chlorobenzene	1,1,2-Trichloro-	92	(70 - 130)	EPA-2 TO-15
1,1-Dichloroethane 100 (70 - 130) EPA-2 TO-15 cis-1,2-Dichloroethene 100 (70 - 130) EPA-2 TO-15 Chloroform 100 (70 - 130) EPA-2 TO-15 1,1,1-Trichloroethane 102 (70 - 130) EPA-2 TO-15 Carbon tetrachloride 100 (70 - 130) EPA-2 TO-15 EPA	1,2,2-trifluoroethane			
Cis-1,2-Dichloroethene       100       (70 - 130)       EPA-2 TO-15         Chloroform       100       (70 - 130)       EPA-2 TO-15         1,1,1-Trichloroethane       102       (70 - 130)       EPA-2 TO-15         Carbon tetrachloride       100       (70 - 130)       EPA-2 TO-15         Benzene       96       (70 - 130)       EPA-2 TO-15         1,2-Dichloroethane       100       (70 - 130)       EPA-2 TO-15         Trichloroethene       92       (70 - 130)       EPA-2 TO-15         1,2-Dichloropropane       108       (70 - 130)       EPA-2 TO-15         cis-1,3-Dichloropropene       110       (70 - 130)       EPA-2 TO-15         trans-1,3-Dichloropropene       110       (70 - 130)       EPA-2 TO-15         1,1,2-Trichloroethane       113       (70 - 130)       EPA-2 TO-15         1,2-Dibromoethane (EDB)       109       (70 - 130)       EPA-2 TO-15         Chlorobenzene       102       (70 - 130)       EPA-2 TO-15         Ethylbenzene       112       (70 - 130)       EPA-2 TO-15         m-Xylene & p-Xylene       113       (70 - 130)       EPA-2 TO-15         Styrene       122       (70 - 130)       EPA-2 TO-15         1,1,2,2-Tetrachloroethane	Methylene chloride	89	(70 - 130)	EPA-2 TO-15
Chloroform 100 (70 - 130) EPA-2 TO-15  1,1,1-Trichloroethane 102 (70 - 130) EPA-2 TO-15  Carbon tetrachloride 100 (70 - 130) EPA-2 TO-15  Benzene 96 (70 - 130) EPA-2 TO-15  1,2-Dichloroethane 100 (70 - 130) EPA-2 TO-15  Trichloroethene 92 (70 - 130) EPA-2 TO-15  1,2-Dichloropropane 108 (70 - 130) EPA-2 TO-15  cis-1,3-Dichloropropene 110 (70 - 130) EPA-2 TO-15  Toluene 107 (70 - 130) EPA-2 TO-15  trans-1,3-Dichloropropene 110 (70 - 130) EPA-2 TO-15  1,1,2-Trichloroethane 113 (70 - 130) EPA-2 TO-15  Tetrachloroethane 97 (70 - 130) EPA-2 TO-15  Tetrachloroethane (EDB) 109 (70 - 130) EPA-2 TO-15  Chlorobenzene 102 (70 - 130) EPA-2 TO-15  Ethylbenzene 112 (70 - 130) EPA-2 TO-15  m-Xylene & p-Xylene 113 (70 - 130) EPA-2 TO-15  Styrene 122 (70 - 130) EPA-2 TO-15  Styrene 122 (70 - 130) EPA-2 TO-15  1,1,2,2-Tetrachloroethane 122 (70 - 130) EPA-2 TO-15	1,1-Dichloroethane	100	(70 - 130)	EPA-2 TO-15
1,1,1-Trichloroethane 102 (70 - 130) EPA-2 TO-15 Carbon tetrachloride 100 (70 - 130) EPA-2 TO-15 Benzene 96 (70 - 130) EPA-2 TO-15 1,2-Dichloroethane 100 (70 - 130) EPA-2 TO-15 Trichloroethene 92 (70 - 130) EPA-2 TO-15 1,2-Dichloropropane 108 (70 - 130) EPA-2 TO-15 1,2-Dichloropropane 110 (70 - 130) EPA-2 TO-15 Cis-1,3-Dichloropropene 110 (70 - 130) EPA-2 TO-15 Toluene 107 (70 - 130) EPA-2 TO-15 trans-1,3-Dichloropropene 110 (70 - 130) EPA-2 TO-15 trans-1,3-Dichloropropene 110 (70 - 130) EPA-2 TO-15 1,1,2-Trichloroethane 113 (70 - 130) EPA-2 TO-15 Tetrachloroethene 97 (70 - 130) EPA-2 TO-15 1,2-Dibromoethane (EDB) 109 (70 - 130) EPA-2 TO-15 Chlorobenzene 102 (70 - 130) EPA-2 TO-15 Ethylbenzene 112 (70 - 130) EPA-2 TO-15 m-Xylene & p-Xylene 113 (70 - 130) EPA-2 TO-15 Styrene 122 (70 - 130) EPA-2 TO-15 Styrene 122 (70 - 130) EPA-2 TO-15 1,1,2,2-Tetrachloroethane 122 (70 - 130) EPA-2 TO-15	cis-1,2-Dichloroethene	100	(70 - 130)	EPA-2 TO-15
Carbon tetrachloride 100 (70 - 130) EPA-2 TO-15 Benzene 96 (70 - 130) EPA-2 TO-15 1,2-Dichloroethane 100 (70 - 130) EPA-2 TO-15 Trichloroethene 92 (70 - 130) EPA-2 TO-15 1,2-Dichloropropane 108 (70 - 130) EPA-2 TO-15 cis-1,3-Dichloropropene 110 (70 - 130) EPA-2 TO-15 Toluene 107 (70 - 130) EPA-2 TO-15 trans-1,3-Dichloropropene 110 (70 - 130) EPA-2 TO-15 trans-1,3-Dichloropropene 110 (70 - 130) EPA-2 TO-15 1,1,2-Trichloroethane 113 (70 - 130) EPA-2 TO-15 Tetrachloroethene 97 (70 - 130) EPA-2 TO-15 1,2-Dibromoethane (EDB) 109 (70 - 130) EPA-2 TO-15 Chlorobenzene 102 (70 - 130) EPA-2 TO-15 Ethylbenzene 112 (70 - 130) EPA-2 TO-15 m-Xylene & p-Xylene 113 (70 - 130) EPA-2 TO-15 styrene 122 (70 - 130) EPA-2 TO-15 Styrene 122 (70 - 130) EPA-2 TO-15 1,1,2,2-Tetrachloroethane 122 (70 - 130) EPA-2 TO-15	Chloroform	100	(70 - 130)	EPA-2 TO-15
Benzene 96 (70 - 130) EPA-2 TO-15  1,2-Dichloroethane 100 (70 - 130) EPA-2 TO-15  Trichloroethene 92 (70 - 130) EPA-2 TO-15  1,2-Dichloropropane 108 (70 - 130) EPA-2 TO-15  cis-1,3-Dichloropropene 110 (70 - 130) EPA-2 TO-15  Toluene 107 (70 - 130) EPA-2 TO-15  trans-1,3-Dichloropropene 110 (70 - 130) EPA-2 TO-15  trans-1,3-Dichloropropene 110 (70 - 130) EPA-2 TO-15  1,1,2-Trichloroethane 113 (70 - 130) EPA-2 TO-15  Tetrachloroethene 97 (70 - 130) EPA-2 TO-15  1,2-Dibromoethane (EDB) 109 (70 - 130) EPA-2 TO-15  Chlorobenzene 102 (70 - 130) EPA-2 TO-15  Ethylbenzene 112 (70 - 130) EPA-2 TO-15  m-Xylene & p-Xylene 113 (70 - 130) EPA-2 TO-15  o-Xylene 112 (70 - 130) EPA-2 TO-15  Styrene 122 (70 - 130) EPA-2 TO-15  Styrene 122 (70 - 130) EPA-2 TO-15  1,1,2,2-Tetrachloroethane 122 (70 - 130) EPA-2 TO-15	1,1,1-Trichloroethane	102	(70 - 130)	EPA-2 TO-15
1,2-Dichloroethane 100 (70 - 130) EPA-2 TO-15 Trichloroethene 92 (70 - 130) EPA-2 TO-15 1,2-Dichloropropane 108 (70 - 130) EPA-2 TO-15 cis-1,3-Dichloropropene 110 (70 - 130) EPA-2 TO-15 Toluene 107 (70 - 130) EPA-2 TO-15 trans-1,3-Dichloropropene 110 (70 - 130) EPA-2 TO-15 1,1,2-Trichloroethane 113 (70 - 130) EPA-2 TO-15 Tetrachloroethene 97 (70 - 130) EPA-2 TO-15 1,2-Dibromoethane (EDB) 109 (70 - 130) EPA-2 TO-15 Chlorobenzene 102 (70 - 130) EPA-2 TO-15 Ethylbenzene 112 (70 - 130) EPA-2 TO-15 m-Xylene & p-Xylene 113 (70 - 130) EPA-2 TO-15 styrene 122 (70 - 130) EPA-2 TO-15 Styrene 122 (70 - 130) EPA-2 TO-15 1,1,2,2-Tetrachloroethane 122 (70 - 130) EPA-2 TO-15	Carbon tetrachloride	100	(70 - 130)	EPA-2 TO-15
Trichloroethene 92 (70 - 130) EPA-2 TO-15  1,2-Dichloropropane 108 (70 - 130) EPA-2 TO-15  cis-1,3-Dichloropropene 110 (70 - 130) EPA-2 TO-15  Toluene 107 (70 - 130) EPA-2 TO-15  trans-1,3-Dichloropropene 110 (70 - 130) EPA-2 TO-15  trans-1,3-Dichloropropene 110 (70 - 130) EPA-2 TO-15  1,1,2-Trichloroethane 113 (70 - 130) EPA-2 TO-15  Tetrachloroethene 97 (70 - 130) EPA-2 TO-15  1,2-Dibromoethane (EDB) 109 (70 - 130) EPA-2 TO-15  Chlorobenzene 102 (70 - 130) EPA-2 TO-15  Ethylbenzene 112 (70 - 130) EPA-2 TO-15  m-Xylene & p-Xylene 113 (70 - 130) EPA-2 TO-15  o-Xylene 112 (70 - 130) EPA-2 TO-15  Styrene 122 (70 - 130) EPA-2 TO-15  1,1,2,2-Tetrachloroethane 122 (70 - 130) EPA-2 TO-15	Benzene	96		EPA-2 TO-15
1,2-Dichloropropane 108 (70 - 130) EPA-2 TO-15 cis-1,3-Dichloropropene 110 (70 - 130) EPA-2 TO-15 Toluene 107 (70 - 130) EPA-2 TO-15 trans-1,3-Dichloropropene 110 (70 - 130) EPA-2 TO-15 1,1,2-Trichloroethane 113 (70 - 130) EPA-2 TO-15 Tetrachloroethene 97 (70 - 130) EPA-2 TO-15 1,2-Dibromoethane (EDB) 109 (70 - 130) EPA-2 TO-15 Chlorobenzene 102 (70 - 130) EPA-2 TO-15 Ethylbenzene 112 (70 - 130) EPA-2 TO-15 m-Xylene & p-Xylene 113 (70 - 130) EPA-2 TO-15 co-Xylene 112 (70 - 130) EPA-2 TO-15 Styrene 122 (70 - 130) EPA-2 TO-15 1,1,2,2-Tetrachloroethane 122 (70 - 130) EPA-2 TO-15 EPA-2 TO-15 Styrene 122 (70 - 130) EPA-2 TO-15	1,2-Dichloroethane	100		EPA-2 TO-15
Cis-1,3-Dichloropropene 110 (70 - 130) EPA-2 TO-15 Toluene 107 (70 - 130) EPA-2 TO-15 trans-1,3-Dichloropropene 110 (70 - 130) EPA-2 TO-15 1,1,2-Trichloroethane 113 (70 - 130) EPA-2 TO-15 Tetrachloroethene 97 (70 - 130) EPA-2 TO-15 1,2-Dibromoethane (EDB) 109 (70 - 130) EPA-2 TO-15 Chlorobenzene 102 (70 - 130) EPA-2 TO-15 Ethylbenzene 112 (70 - 130) EPA-2 TO-15 m-Xylene & p-Xylene 113 (70 - 130) EPA-2 TO-15 o-Xylene 112 (70 - 130) EPA-2 TO-15 Styrene 122 (70 - 130) EPA-2 TO-15 1,1,2,2-Tetrachloroethane 122 (70 - 130) EPA-2 TO-15	Trichloroethene	92	(70 - 130)	
Toluene 107 (70 - 130) EPA-2 TO-15 trans-1,3-Dichloropropene 110 (70 - 130) EPA-2 TO-15 1,1,2-Trichloroethane 113 (70 - 130) EPA-2 TO-15 Tetrachloroethene 97 (70 - 130) EPA-2 TO-15 1,2-Dibromoethane (EDB) 109 (70 - 130) EPA-2 TO-15 Chlorobenzene 102 (70 - 130) EPA-2 TO-15 Ethylbenzene 112 (70 - 130) EPA-2 TO-15 m-Xylene & p-Xylene 113 (70 - 130) EPA-2 TO-15 co-Xylene 112 (70 - 130) EPA-2 TO-15 Styrene 122 (70 - 130) EPA-2 TO-15 1,1,2,2-Tetrachloroethane 122 (70 - 130) EPA-2 TO-15 EPA-2 TO-15 (70 - 130) EPA-2 TO-15 (70 - 13	1,2-Dichloropropane	108	(70 - 130)	
trans-1,3-Dichloropropene 110 (70 - 130) EPA-2 TO-15 1,1,2-Trichloroethane 113 (70 - 130) EPA-2 TO-15 Tetrachloroethene 97 (70 - 130) EPA-2 TO-15 1,2-Dibromoethane (EDB) 109 (70 - 130) EPA-2 TO-15 Chlorobenzene 102 (70 - 130) EPA-2 TO-15 Ethylbenzene 112 (70 - 130) EPA-2 TO-15 m-Xylene & p-Xylene 113 (70 - 130) EPA-2 TO-15 o-Xylene 112 (70 - 130) EPA-2 TO-15 Styrene 122 (70 - 130) EPA-2 TO-15 1,1,2,2-Tetrachloroethane 122 (70 - 130) EPA-2 TO-15	cis-1,3-Dichloropropene	110	(70 - 130)	EPA-2 TO-15
1,1,2-Trichloroethane 113 (70 - 130) EPA-2 TO-15 Tetrachloroethene 97 (70 - 130) EPA-2 TO-15 1,2-Dibromoethane (EDB) 109 (70 - 130) EPA-2 TO-15 Chlorobenzene 102 (70 - 130) EPA-2 TO-15 Ethylbenzene 112 (70 - 130) EPA-2 TO-15 m-Xylene & p-Xylene 113 (70 - 130) EPA-2 TO-15 o-Xylene 112 (70 - 130) EPA-2 TO-15 Styrene 122 (70 - 130) EPA-2 TO-15 1,1,2,2-Tetrachloroethane 122 (70 - 130) EPA-2 TO-15	Toluene	107	(70 - 130)	EPA-2 TO-15
Tetrachloroethene 97 (70 - 130) EPA-2 TO-15 1,2-Dibromoethane (EDB) 109 (70 - 130) EPA-2 TO-15 Chlorobenzene 102 (70 - 130) EPA-2 TO-15 Ethylbenzene 112 (70 - 130) EPA-2 TO-15 m-Xylene & p-Xylene 113 (70 - 130) EPA-2 TO-15 o-Xylene 112 (70 - 130) EPA-2 TO-15 Styrene 122 (70 - 130) EPA-2 TO-15 1,1,2,2-Tetrachloroethane 122 (70 - 130) EPA-2 TO-15	trans-1,3-Dichloropropene	110	(70 - 130)	EPA-2 TO-15
1,2-Dibromoethane (EDB) 109 (70 - 130) EPA-2 TO-15 Chlorobenzene 102 (70 - 130) EPA-2 TO-15 Ethylbenzene 112 (70 - 130) EPA-2 TO-15 m-Xylene & p-Xylene 113 (70 - 130) EPA-2 TO-15 o-Xylene 112 (70 - 130) EPA-2 TO-15 Styrene 122 (70 - 130) EPA-2 TO-15 1,1,2,2-Tetrachloroethane 122 (70 - 130) EPA-2 TO-15	1,1,2-Trichloroethane	113	•	EPA-2 TO-15
Chlorobenzene       102       (70 - 130)       EPA-2 TO-15         Ethylbenzene       112       (70 - 130)       EPA-2 TO-15         m-Xylene & p-Xylene       113       (70 - 130)       EPA-2 TO-15         o-Xylene       112       (70 - 130)       EPA-2 TO-15         Styrene       122       (70 - 130)       EPA-2 TO-15         1,1,2,2-Tetrachloroethane       122       (70 - 130)       EPA-2 TO-15	Tetrachloroethene	97		EPA-2 TO-15
Ethylbenzene       112       (70 - 130)       EPA-2 TO-15         m-Xylene & p-Xylene       113       (70 - 130)       EPA-2 TO-15         o-Xylene       112       (70 - 130)       EPA-2 TO-15         Styrene       122       (70 - 130)       EPA-2 TO-15         1,1,2,2-Tetrachloroethane       122       (70 - 130)       EPA-2 TO-15	1,2-Dibromoethane (KDB)	109	(70 - 130)	EPA-2 TO-15
m-Xylene & p-Xylene 113 (70 - 130) EPA-2 TO-15 o-Xylene 112 (70 - 130) EPA-2 TO-15 Styrene 122 (70 - 130) EPA-2 TO-15 1,1,2,2-Tetrachloroethane 122 (70 - 130) EPA-2 TO-15	Chlorobenzene	102	(70 - 130)	EPA-2 TO-15
O-Xylene 112 (70 - 130) EPA-2 TO-15 Styrene 122 (70 - 130) EPA-2 TO-15 1,1,2,2-Tetrachloroethane 122 (70 - 130) EPA-2 TO-15	Ethylbenzene	112	(70 - 130)	EPA-2 TO-15
Styrene       122       (70 - 130)       EPA-2 TO-15         1,1,2,2-Tetrachloroethane       122       (70 - 130)       EPA-2 TO-15	m-Xylene & p-Xylene	113		EPA-2 TO-15
1,1,2,2-Tetrachloroethane 122 (70 - 130) EPA-2 TO-15	o-Xylene	112		EPA-2 TO-15
$\cdot$ $\cdot$ $\cdot$	Styrene	122		EPA-2 TO-15
100 (70 120) FDX 2 MO 15	1,1,2,2-Tetrachloroethane	122	(70 - 130)	EPA-2 TO-15
1,3,5-Trimetnylpenzene 122 (70 - 130) BPA-2 TO-15	1,3,5-Trimethylbenzene	122	(70 - 130)	EPA-2 TO-15

(Continued on next page)

### LABORATORY CONTROL SAMPLE EVALUATION REPORT

### GC/MS Volatiles

Client Lot #...: HOC300411 Work Order #...: LXG0L1AC Matrix...... AIR

LCS Lot-Sample#: H0D020000-254

	PERCENT	RECOVERY	
PARAMETER	RECOVERY	LIMITS	METHOD
1,2,4-Trimethylbenzene	127	(70 - 130)	EPA-2 TO-15
1,3-Dichlorobenzene	111	(70 - 130)	EPA-2 TO-15
1,4-Dichlorobenzene	112	(70 - 130)	EPA-2 TO-15
1,2-Dichlorobenzene	119	(70 - 130)	EPA-2 TO-15
Benzyl chloride	128	(70 - 130)	EPA-2 TO-15
1,2,4-Trichloro- benzene	121	(60 - 140)	EPA-2 TO-15
Hexachlorobutadiene	113	(60 - 140)	EPA-2 TO-15
		PERCENT	RECOVERY
SURROGATE		RECOVERY	LIMITS
4-Bromofluorobenzene		100	(60 - 140)

### NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

### LABORATORY CONTROL SAMPLE DATA REPORT

### GC/MS Volatiles

Client Lot #...: H0C300411

Work Order #...: LXG0L1AC

Analysis Date..: 04/02/10

Matrix..... AIR

LCS Lot-Sample#: H0D020000-254

**Prep Date....:** 04/02/10

Prep Batch #...: 0092254

Dilution Factor: 1

SPIKE MEASURED PERCENT  PARAMETER AMOUNT AMOUNT UNITS RECOVERY METHOD  Dichlorodifluoromethane 10.0 10.5 ppb(v/v) 105 EPA-2 TO	
	<b>)-15</b>
1,2-Dichloro- 10.0 11.9 ppb(v/v) 119 EPA-2 TO	
1,1,2,2-tetrafluoroethane	
Chloromethane 10.0 10.4 ppb(v/v) 104 EPA-2 TO	)- <b>1</b> 5
Vinyl chloride 10.0 10.6 ppb(v/v) 106 EPA-2 TO	)- <b>1</b> 5
Bromomethane 10.0 10.9 ppb(v/v) 109 EPA-2 TO	<b>)-15</b>
Chloroethane 10.0 11.0 ppb(v/v) 110 EPA-2 TO	<b>)-15</b>
Trichlorofluoromethane 10.0 10.4 ppb(v/v) 104 EPA-2 TO	D-15
1,1-Dichloroethene 10.0 9.22 ppb(v/v) 92 EPA-2 TO	D-15
1,1,2-Trichloro- 10.0 9.20 ppb(v/v) 92 EPA-2 TO	D- <b>1</b> 5
1,2,2-trifluoroethane	
Methylene chloride 10.0 8.92 ppb(v/v) 89 EPA-2 TO	D-15
1,1-Dichloroethane 10.0 10.0 ppb(v/v) 100 EPA-2 TO	D-15
cis-1,2-Dichloroethene 10.0 10.0 ppb(v/v) 100 EPA-2 TO	D-15
Chloroform 10.0 10.0 ppb(v/v) 100 EPA-2 TO	D-15
1,1,1-Trichloroethane 10.0 10.2 ppb(v/v) 102 EPA-2 TO	D-15
Carbon tetrachloride 10.0 10.0 ppb(v/v) 100 EPA-2 TO	0-15
Benzene 10.0 9.64 ppb(v/v) 96 EPA-2 TO	D-15
1,2-Dichloroethane 10.0 9.96 ppb(v/v) 100 EPA-2 TC	0-15
Trichloroethene 10.0 9.22 ppb(v/v) 92 EPA-2 TO	D-15
1,2-Dichloropropane 10.0 10.8 ppb(v/v) 108 EPA-2 TC	<b>D-15</b>
cis-1,3-Dichloropropene 10.0 11.0 ppb(v/v) 110 EPA-2 TC	0-15
Toluene 10.0 10.7 ppb(v/v) 107 EPA-2 TC	<b>D-15</b>
trans-1,3-Dichloropropene 10.0 11.0 ppb(v/v) 110 EPA-2 TC	0-15
1,1,2-Trichloroethane 10.0 11.3 ppb(v/v) 113 EPA-2 TC	
Tetrachloroethene 10.0 9.68 ppb(v/v) 97 EPA-2 TC	0-15
1,2-Dibromoethane (EDB) 10.0 10.9 ppb(v/v) 109 EPA-2 TC	
Chlorobenzene $10.0$ $10.2$ $ppb(v/v)$ $102$ EPA-2 TO	0-15
Ethylbenzene $10.0$ $11.2$ $ppb(v/v)$ $112$ EPA-2 TO	0-15
m-Xylene & p-Xylene 20.0 22.7 ppb(v/v) 113 EPA-2 TC	0-15
o-Xylene 10.0 11.2 ppb(v/v) 112 EPA-2 TC	0-15
Styrene 10.0 12.2 ppb(v/v) 122 EPA-2 TO	
1,1,2,2-Tetrachloroethane 10.0 12.2 ppb(v/v) 122 EPA-2 TC	0-15
1,3,5-Trimethylbenzene 10.0 12.2 ppb(v/v) 122 EPA-2 TC	0-15

(Continued on next page)

### LABORATORY CONTROL SAMPLE DATA REPORT

### GC/MS Volatiles

Client Lot #...: HOC300411 Work Order #...: LXGOL1AC Matrix...... AIR

LCS Lot-Sample#: H0D020000-254

	SPIKE	MEASURED		PERCENT	
PARAMETER	AMOUNT	AMOUNT	UNITS	RECOVERY	METHOD
1,2,4-Trimethylbenzene	10.0	12.7	ppb(v/v)	127	EPA-2 TO-15
1,3-Dichlorobenzene	10.0	11.1	ppb(v/v)	111	BPA-2 TO-15
1,4-Dichlorobenzene	10.0	11.2	ppb(v/v)	112	EPA-2 TO-15
1,2-Dichlorobenzene	10.0	11.9	ppb(v/v)	119	EPA-2 TO-15
Benzyl chloride	10.0	12.8	ppb(v/v)	128	EPA-2 TO-15
1,2,4-Trichloro- benzene	10.0	12.1	ppb(v/v)	121	EPA-2 TO-15
Hexachlorobutadiene	10.0	11.3	ppb(v/v)	113	EPA-2 TO-15
SURROGATE 4-Bromofluorobenzene		PERCENT RECOVERY 100	RECOVERY LIMITS (60 - 140)	-	

### NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

### **US EPA ARCHIVE DOCUMENT**

Chain of Custody Record 1402-3004899

TestAmerica

HOCSOUTH

13 M - Hexane
N - None
O - Ashao2
P - Na204S
Q - Na2SO3
R - Na2SSS3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - ph 4-5
Z - other (specify) Special Instructions/Note: 3/30/10 Sompany Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For Mont Special Instructions/QC Requirements: reservation Codes G - Amchlor H - Ascorbic Acid D - Nitric Acid E - NaHSO4 J - DI Water K - EDTA L - EDA LA Job #: 1907 BAK からな様とて Page: 1 of 1 Total Number of containers 学 Date/Time; Date/Time: Method of Shipment: Carrier Tracking No(s): FEDEX CUNTO ED SU 甘くTO K **Analysis Requested** Cooler Temperature(s) °C and Other Remarks: 2 Lab PM: Lidya Gulizia E-Mall: rgardner@pscnow.com Received by: × US EPA TO-15 (Level 2) Perform MS/MSD (Yes or No) Field Filtered Sample (Yes or No.) Sample (Wewster, EType Second) C=comp, C=wasterloid, G=grab) BIT Stribsub, APAR) Preservation Code: Matrix Ø Ø Company Company 29/10 @ 2000 PSC Radiological ტ Ø Sample Project #: Solutia - Sauget BIG MO 3 1242000 1500 Sampler:
Reggie Gardner - PSC
Phone:
618-407-3811 Date: Unknown FAT Requested (days): Due Date Requested: Sample Date / /2009 Date/Time: Date/Time: SSOW#: ₩OW Poison B ₩ Od Skin Irritant ☐ Non-Hazard ☐ Flammable ☐ Skin Irril Deliverable Requested: I, II, III, IV, Other (specify) Custody Seals Intact: Custody Seal No.: Possible Hazard Identification WGK-BIGMO-SVE-Line A-V WGK-BIGMO-TMX-INF-A Empty Kit Relinquishad-by: 575 Maryville Centre Dr. Client Information <sup>a</sup>roject Name: XDD - Solutia BIG MO Sample Identification crawford@xdd-llc.com Phone: 603-778-1100 x234 Client Contact: William Johnson State, Zip: Missouri 63141 Relinquished by: Relinquished by: Relinquished by: Company: Solutía Inc. Saint Louis Sauget, IL

## **US EPA ARCHIVE DOCUMENT**

					11 11 25 21 11	
Re	Review Items	Yes	Š.	ž	If No, what was the problem?	Comments/Actions Taken
<u>L</u>	Do sample container labels match COC?				☐ 1a Do not match COC	
	(IDs, Dates, Times)	~			☐ 1b Incomplete information	
					☐ 1c Marking smeared	
					☐ 1d Label torn	
					□ 1e No label	10) 10 43511 0 = JN - TWL= JW-J 0- 771 1
					☐ If COC not received  Zig Other:	1-1
2.	Is the cooler temperature within limits? (> freezing				☐ 2a Temp Blank =	
	temp. of water to 6 °C; NC, 1668, 1613B: 0-4°C;			<del></del> >	□ 2b Cooler Temp =	
	VOST: 10°C; MA: 2-6 °C)					
. <del>.</del>	Were samples received with correct chemical preservative (excluding Encore)?			>	☐ 3a Sample preservative =	
4.	Were custody seals present/intact on cooler and/or				√ 4a Not present	
	containers?		_>		☐ 4b Not intact	
		_			□ 4c Other:	
5.	Were all of the samples listed on the COC received?				☐ 5a Samples received-not on COC	
		7			☐ 5b Samples not received-on COC	
9	Were all of the sample containers received intact?				□ <b>6a</b> Leaking	
		7		7	☐ 6b Broken	the state of the s
7.	Were VOA samples received without headspace?	_		~	☐ 7a Headspace (VOA only)	AMAZONIA MARIONI POR PORTO POR
∞.	Were samples received in appropriate containers?	>			☐ 8a Improper container	
6.	Did you check for residual chlorine, if necessary?	_		_	☐ 9a Could not be determined due	
				>	to matrix interference	The state of the s
10.	Were samples received within holding time?	~		7	☐ 10a Holding time expired	To the state of th
Ξ.	For rad samples, was sample activity info. provided?			<i>\</i>	☐ Incomplete information	
12.	For 1613B water samples is pH<9?				If no, was pH adjusted to pH 7 - 9 with sulfuric acid?	
13.	Are the shipping containers intact?			<b>.</b>	☐ 13a Leaking	
		>_`			□ 13b Other:	
14.	Was COC relinquished? (Signed/Dated/Timed)	7			☐ 14a Not relinguished	
15.	Are tests/parameters listed for each sample?	>			☐ 15a Incomplete information	
16.	Is the matrix of the samples noted?	<u> </u>			☐ 15a Incomplete information	
17.	Is the date/time of sample collection noted?	<i>\</i> /			☐ 15a Incomplete information	
18.	18. Is the client and project name/# identified?	<u>//</u>			☐ 15a Incomplete information	ę
16.	<ol><li>Was the sampler identified on the COC?</li></ol>	>				
Ö	Quote #: \$00\$\left() PM Instructions:					
San	Sample Receiving Associate:				Date: 3/102 C-3ate: Date: 3/102	QA026R21.doc, 090409

# US EPA ARCHIVE DOCUMENT Lot Number: <u>H0C300411</u>

Subsequent Dilutions				Comments	+26.8 8582
	1,5 Final	Pres.	Ť	(bsid)	428.8
		:	ю /	(mL)	Sm
		Serial	Dilution	Can #	12838 2m
	Third InCan Final	Pres.	<u>-</u>	(psig)	
	Third First Second InCan In-can Final	Final Pres.	Pres. Pf	(bsig)	139.7
	First InCan	Final	Pres. P	(bsig)	
		Final	Pres. F	(psig)	
			Pres.	Pi (in)	
		ā	Pbarr	S (in)	
	*****		_	S	
				Analyst/Date	
Initial Can Pressure	Adj. Initial	Pres. (-	+ JO U	psig)	
	Pres. Adj. upon Initial	receipt	(-in or	+ psig)	
				Can #	
				Sample ID	TW9NW
		č	Pbarr	(ju)	2899
		Tedlar	Rag	Time	PP36 2501
				Analyst/Date	3-31-10