



PWS\_1120014\_AC\_20200220\_Analysis Report  
LCRA Environmental Laboratory Services  
3505 Montopolis Drive  
Austin, TX 78744  
Phone: (512) 730-6022  
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March 20, 2020

MICHAEL RAWSON  
PO BOX 1160  
SULPHUR SPRINGS, TX 75483

RE: Final Analytical Report Q2006545

Attn: MICHAEL RAWSON

Enclosed are the analytical results for sample(s) received by LCRA Environmental Laboratory Services. Results reported herein conform to the most current NELAP standards, where applicable, unless otherwise narrated in the body of the report. This final report provides results related only to the sample(s) as received for the above referenced work order.

Thank you for selecting ELS for your analytical needs. If you have any questions regarding this report, please contact us at (512) 730-6022. We look forward to assisting you again.

Authorized for release by:

Bhanu Acharya  
Account Manager  
bhanu.acharya@lcra.org



Enclosures:



## Sample Summary

Lab ID	Sample ID	Matrix	Method	Date Collected	Date Received
Q2006545001	2002661	DW	E524.2 Volatiles by GC/MS	2/20/2020 10:43	2/21/2020 10:00
Q2006545005	2027780	DW	E335.4 CN, SemiAuto Col	2/20/2020 10:43	2/21/2020 10:00
Q2006545006	2029517	DW	E335.4 CN, SemiAuto Col	2/20/2020 10:15	2/21/2020 10:00
Q2006545007	2036309	DW	E300.0, Anions	2/20/2020 10:43	2/21/2020 10:00
Q2006545008	2039706	DW	E300.0, Anions	2/20/2020 10:15	2/21/2020 10:00
Q2006545009	2049861	DW	552.2 Haloacetic Acids by GC	2/20/2020 11:24	2/21/2020 10:00
Q2006545009	2049861	DW	E524.2 Volatiles by GC/MS	2/20/2020 11:24	2/21/2020 10:00
Q2006545010	2049862	DW	552.2 Haloacetic Acids by GC	2/20/2020 11:08	2/21/2020 10:00
Q2006545010	2049862	DW	E524.2 Volatiles by GC/MS	2/20/2020 11:08	2/21/2020 10:00

## Report Definitions

- MRL - Minimum Reporting Limit**
- LOD - Limit of Detection**
- ML - Maximum Limit - Client Specified**
- MCL - Maximum Contaminant Level**
- MDL - Method Detection Limit**
- LOQ - Limit of Quantitation - Client Specified**
- DF - Dilution Factor**
- Qual - Qualifier**
- (S) - Surrogate Spike**
- QC Qual - red font indicates Result Value outside acceptable range**
- B- Analyte detected in method blank**
- S - Spike recovery outside limit**
- R - RPD outside duplicate precision limit**
- J - Analyte detected below quantitation limit**
- RPD - Relative Percent Difference**
- SL - Spike Recovery Low**
- SH - Spike Recovery High**

## Project Summary

### Rec Code Comments

**Lab ID:** Q2006545003      **Sample ID:** 2004861

- Can't ID

**Lab ID:** Q2006545004      **Sample ID:** 2004861

- Can't ID

### Sample Analysis Comments

**Lab ID:** Q2006545001      **Sample ID:** 2002661

- Not Accredited - 1,1,1,2-Tetrachloroethane
- Not Accredited - 1,1,2,2-Tetrachloroethane
- Not Accredited - 1,1-Dichloroethane
- Not Accredited - 1,1-Dichloropropene
- Not Accredited - 1,2,3-Trichlorobenzene
- Not Accredited - 1,2,3-Trichloropropane
- Not Accredited - 1,2,4-Trimethylbenzene
- Not Accredited - 1,3,5-Trimethylbenzene
- Not Accredited - 1,3-Dichlorobenzene
- Not Accredited - 1,3-Dichloropropane
- Not Accredited - 2,2-Dichloropropane
- Not Accredited - 2-Butanone
- Not Accredited - 2-Chlorotoluene
- Not Accredited - 2-Hexanone
- Not Accredited - 4-Chlorotoluene
- Not Accredited - 4-Isopropyltoluene
- Not Accredited - 4-Methyl-2-pentanone
- Not Accredited - Acetone
- Not Accredited - Acrylonitrile
- Not Accredited - Bromobenzene
- Not Accredited - Bromochloromethane
- Not Accredited - Bromodichloromethane
- Not Accredited - Bromoform
- Not Accredited - Bromomethane
- Not Accredited - Carbon disulfide
- Not Accredited - Chloroethane
- Not Accredited - Chloroform
- Not Accredited - Chloromethane
- Not Accredited - Dibromochloromethane
- Not Accredited - Dibromomethane
- Not Accredited - Dichlorodifluoromethane
- Not Accredited - Ethyl methacrylate
- Not Accredited - Hexachlorobutadiene
- Not Accredited - Isopropylbenzene (Cumene)
- Not Accredited - Methyl iodide
- Not Accredited - Methyl methacrylate
- Not Accredited - Naphthalene
- Not Accredited - Tetrahydrofuran
- Not Accredited - Trichlorofluoromethane

## Project Summary (cont.)

### Sample Analysis Comments

**Lab ID:** Q2006545001

**Sample ID:** 2002661

- Not Accredited - Vinyl acetate
- Not Accredited - cis-1,3-Dichloropropene
- Not Accredited - n-Butylbenzene
- Not Accredited - n-Propylbenzene
- Not Accredited - sec-Butylbenzene
- Not Accredited - tert-Butyl methyl ether (MTBE)
- Not Accredited - tert-Butylbenzene
- Not Accredited - trans-1,3-Dichloropropene

**Lab ID:** Q2006545009

**Sample ID:** 2049861

- Not Accredited - Bromochloroacetic Acid
- Not Accredited - Bromodichloromethane
- Not Accredited - Bromoform
- Not Accredited - Chloroform
- Not Accredited - Dibromoacetic Acid
- Not Accredited - Dibromochloromethane
- Not Accredited - Dichloroacetic Acid
- Not Accredited - Monobromoacetic Acid
- Not Accredited - Monochloroacetic Acid
- Not Accredited - Trichloroacetic acid

**Lab ID:** Q2006545010

**Sample ID:** 2049862

- Not Accredited - Bromochloroacetic Acid
- Not Accredited - Bromodichloromethane
- Not Accredited - Bromoform
- Not Accredited - Chloroform
- Not Accredited - Dibromoacetic Acid
- Not Accredited - Dibromochloromethane
- Not Accredited - Dichloroacetic Acid
- Not Accredited - Monobromoacetic Acid
- Not Accredited - Monochloroacetic Acid
- Not Accredited - Trichloroacetic acid



## Analytical Results

Lab ID: Q2006545001	Date Received: 2/21/2020 10:00	Matrix: Drinking Water
Sample ID: 2002661	Date Collected: 2/20/2020 10:43	Sample Type: SAMPLE
Project ID: DRINKING WATER PROGRAM	Location: IN PH	
Facility: EP001	Client ID: TX1120014	
Sample Point: TRT-TAP		

Parameter	Results	Units	MRL	LOD	MCL	DF	Prepared	By	Analyzed	By	Qual
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### E524.2 Regulated (E524.2 Volatiles by GC/MS)

Vinyl chloride	<0.500	ug/L	0.500	0.250	2	1			02/21/20 18:43	DD	
1,1-Dichloroethene	<0.500	ug/L	0.500	0.250	7	1			02/21/20 18:43	DD	
Methylene chloride	<0.500	ug/L	0.500	0.250	5	1			02/21/20 18:43	DD	
trans-1,2-Dichloroethene	<0.500	ug/L	0.500	0.250	100	1			02/21/20 18:43	DD	
cis-1,2-Dichloroethene	<0.500	ug/L	0.500	0.250	70	1			02/21/20 18:43	DD	
1,1,1-Trichloroethane	<0.500	ug/L	0.500	0.250	200	1			02/21/20 18:43	DD	
Carbon tetrachloride	<0.500	ug/L	0.500	0.250	5	1			02/21/20 18:43	DD	
1,2-Dichloroethane	<0.500	ug/L	0.500	0.250	5	1			02/21/20 18:43	DD	
Benzene	<0.500	ug/L	0.500	0.250	5	1			02/21/20 18:43	DD	
Trichloroethene	<0.500	ug/L	0.500	0.250	5	1			02/21/20 18:43	DD	
1,2-Dichloropropane	<0.500	ug/L	0.500	0.250	5	1			02/21/20 18:43	DD	
Toluene	<0.500	ug/L	0.500	0.250	1000	1			02/21/20 18:43	DD	
1,1,2-Trichloroethane	<0.500	ug/L	0.500	0.250	5	1			02/21/20 18:43	DD	
Tetrachloroethene	<0.500	ug/L	0.500	0.250	5	1			02/21/20 18:43	DD	
Chlorobenzene	<0.500	ug/L	0.500	0.250	100	1			02/21/20 18:43	DD	
Ethyl Benzene	<0.500	ug/L	0.500	0.250	700	1			02/21/20 18:43	DD	
m,p-Xylene	<0.500	ug/L	1.00	0.500		1			02/21/20 18:43	DD	
Styrene	<0.500	ug/L	0.500	0.250	100	1			02/21/20 18:43	DD	
1,4-Dichlorobenzene	<0.500	ug/L	0.500	0.250	75	1			02/21/20 18:43	DD	
1,2-Dichlorobenzene	<0.500	ug/L	0.500	0.250	600	1			02/21/20 18:43	DD	
1,2,4-Trichlorobenzene	<0.500	ug/L	0.500	0.250	70	1			02/21/20 18:43	DD	
Xylene (total)	<0.500	ug/L	0.500	0.250	10000	1			02/21/20 18:43	DD	

### Surrogate(s)

Parameter	Units	% Spike Recovery	Control Limits %
1,2-Dichlorobenzene-d4 (S)	%	98.6	70 - 130
4-Bromofluorobenzene (S)	%	93.3	70 - 130

### E524.2 Unregulated (E524.2 Volatiles by GC/MS)

Dichlorodifluoromethane	<0.500	ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
Chloromethane	<0.500	ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
Bromomethane	1.18	ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
Chloroethane	<0.500	ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
4-Chlorotoluene	<0.500	ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
Trichlorofluoromethane	<0.500	ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
Acetone	<5.00	ug/L	5.00	2.50		1			02/21/20 18:43	DD	*
Methyl iodide	<0.500	ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
Carbon disulfide	<0.500	ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
Acrylonitrile	<0.500	ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
tert-Butyl methyl ether (MTBE)	<0.500	ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
1,1-Dichloroethane	<0.500	ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
Vinyl acetate	<0.500	ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
2,2-Dichloropropane	<0.500	ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
2-Butanone	<0.500	ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
Bromochloromethane	<0.500	ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
Tetrahydrofuran	<0.500	ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
Chloroform	1.77	ug/L	1.00	0.500		1			02/21/20 18:43	DD	*



## Analytical Results (cont.)

<b>Lab ID:</b> Q2006545001	<b>Date Received:</b> 2/21/2020 10:00	<b>Matrix:</b> Drinking Water
<b>Sample ID:</b> 2002661	<b>Date Collected:</b> 2/20/2020 10:43	<b>Sample Type:</b> SAMPLE
<b>Project ID:</b> DRINKING WATER PROGRAM	<b>Location:</b> IN PH	
<b>Facility:</b> EP001	<b>Client ID:</b> TX1120014	
<b>Sample Point:</b> TRT-TAP		

Parameter	Results Units	MRL	LOD	MCL	DF	Prepared	By	Analyzed	By	Qual
1,1-Dichloropropene	<0.500 ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
Methyl methacrylate	<0.500 ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
Dibromomethane	<0.500 ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
Bromodichloromethane	4.63 ug/L	1.00	0.500		1			02/21/20 18:43	DD	*
cis-1,3-Dichloropropene	<0.500 ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
4-Methyl-2-pentanone	<0.500 ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
trans-1,3-Dichloropropene	<0.500 ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
Ethyl methacrylate	<0.500 ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
1,3-Dichloropropane	<0.500 ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
2-Hexanone	<0.500 ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
Dibromochloromethane	11.7 ug/L	1.00	0.500		1			02/21/20 18:43	DD	*
1,1,1,2-Tetrachloroethane	<0.500 ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
o-Xylene	<0.500 ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
Bromoform	13.4 ug/L	1.00	0.500		1			02/21/20 18:43	DD	*
Isopropylbenzene (Cumene)	<0.500 ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
1,1,1,2-Tetrachloroethane	<0.500 ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
Bromobenzene	<0.500 ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
1,2,3-Trichloropropane	<0.500 ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
n-Propylbenzene	<0.500 ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
2-Chlorotoluene	<0.500 ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
1,3,5-Trimethylbenzene	<0.500 ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
tert-Butylbenzene	<0.500 ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
1,2,4-Trimethylbenzene	<0.500 ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
sec-Butylbenzene	<0.500 ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
1,3-Dichlorobenzene	<0.500 ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
4-Isopropyltoluene	<0.500 ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
n-Butylbenzene	<0.500 ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
Hexachlorobutadiene	<0.500 ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
Naphthalene	<0.500 ug/L	0.500	0.250		1			02/21/20 18:43	DD	*
1,2,3-Trichlorobenzene	<0.500 ug/L	0.500	0.250		1			02/21/20 18:43	DD	*



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## Analytical Results (cont.)

Lab ID: Q2006545005	Date Received: 2/21/2020 10:00	Matrix: Drinking Water
Sample ID: 2027780	Date Collected: 2/20/2020 10:43	Sample Type: SAMPLE
Project ID: DRINKING WATER PROGRAM	Location: IN PH	
Facility: EP001	Client ID: TX1120014	
Sample Point: TRT-TAP		

Parameter	Results	Units	MRL	LOD	MCL	DF	Prepared	By	Analyzed	By	Qual
<b>CYANIDE, TOTAL (E335.4 CN, SemiAuto Col)</b>											
Cyanide, Total	<0.0200	mg/L	0.0200	0.0050	0.2	1	02/24/20 16:33	ERR	02/25/20 00:00	MO	



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## Analytical Results (cont.)

Lab ID: Q2006545006	Date Received: 2/21/2020 10:00	Matrix: Drinking Water
Sample ID: 2029517	Date Collected: 2/20/2020 10:15	Sample Type: SAMPLE
Project ID: DRINKING WATER PROGRAM	Location: MT ZION PLANT - STANDPIPE	
Facility: EP002	Client ID: TX1120014	
Sample Point: TRT-TAP		

Parameter	Results	Units	MRL	LOD	MCL	DF	Prepared	By	Analyzed	By	Qual
<b>CYANIDE, TOTAL (E335.4 CN, SemiAuto Col)</b>											
Cyanide, Total	<0.0200	mg/L	0.0200	0.0050	0.2	1	02/24/20 16:33	ERR	02/25/20 00:00	MO	



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## Analytical Results (cont.)

Lab ID: Q2006545007	Date Received: 2/21/2020 10:00	Matrix: Drinking Water
Sample ID: 2036309	Date Collected: 2/20/2020 10:43	Sample Type: SAMPLE
Project ID: DRINKING WATER PROGRAM	Location: IN PH	
Facility: EP001	Client ID: TX1120014	
Sample Point: TRT-TAP		

Parameter	Results	Units	MRL	LOD	MCL	DF	Prepared	By	Analyzed	By	Qual
<b>ANIONS by ION CHROMATOGRAPHY (E300.0, Anions)</b>											
Nitrate (as N)	0.0725	mg/L	0.0100	0.0050	10	1			02/21/20 16:11		FO



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**Analytical Results (cont.)**

Lab ID: Q2006545008	Date Received: 2/21/2020 10:00	Matrix: Drinking Water
Sample ID: 2039706	Date Collected: 2/20/2020 10:15	Sample Type: SAMPLE
Project ID: DRINKING WATER PROGRAM	Location: MT ZION PLANT - STANDPIPE	
Facility: EP002	Client ID: TX1120014	
Sample Point: TRT-TAP		

Parameter	Results	Units	MRL	LOD	MCL	DF	Prepared	By	Analyzed	By	Qual
<b>ANIONS by ION CHROMATOGRAPHY (E300.0, Anions)</b>											
Nitrate (as N)	0.0510	mg/L	0.0100	0.0050	10	1			02/21/20 16:29	FO	



## Analytical Results (cont.)

Lab ID: Q2006545009	Date Received: 2/21/2020 10:00	Matrix: Drinking Water
Sample ID: 2049861	Date Collected: 2/20/2020 11:24	Sample Type: SAMPLE
Project ID: DRINKING WATER PROGRAM	Location: 145 CR 4701, SULPHUR SPRINGS	
Facility: DS01	Client ID: TX1120014	
Sample Point: DBP2-01		

Parameter	Results Units	MRL	LOD	MCL	DF	Prepared	By	Analyzed	By	Qual
<b>HALOACETIC ACIDS (552.2 Haloacetic Acids by GC)</b>										
Bromochloroacetic Acid	2.80 ug/L	1.00	0.500		1	02/27/20 15:17	SMD	02/27/20 19:57	MF	*
Dibromoacetic Acid	<1.00 ug/L	1.00	0.500		1	02/27/20 15:17	SMD	02/27/20 19:57	MF	*
Dichloroacetic Acid	11.5 ug/L	1.00	0.500		1	02/27/20 15:17	SMD	02/27/20 19:57	MF	*
Monobromoacetic Acid	<1.00 ug/L	1.00	0.500		1	02/27/20 15:17	SMD	02/27/20 19:57	MF	*
Monochloroacetic Acid	1.60 ug/L	1.00	0.500		1	02/27/20 15:17	SMD	02/27/20 19:57	MF	*
Total Regulated HAA	21.8 ug/L	1.00	0.500	60		02/27/20 15:17	SMD	02/27/20 19:57	MF	
Trichloroacetic acid	8.70 ug/L	1.00	0.500		1	02/27/20 15:17	SMD	02/27/20 19:57	MF	*

### Surrogate(s)

Parameter	Units	% Spike Recovery	Control Limits %
2,3-Dibromopropionic acid (S)	%	119	70 - 130

### Volatiles (E524.2 Volatiles by GC/MS)

Parameter	Results Units	MRL	LOD	MCL	DF	Prepared	By	Analyzed	By	Qual
Chloroform	18.2 ug/L	1.00	0.500		1			02/25/20 20:24	MH	*
Bromodichloromethane	6.22 ug/L	1.00	0.500		1			02/25/20 20:24	MH	*
Dibromochloromethane	1.14 ug/L	1.00	0.500		1			02/25/20 20:24	MH	*
Bromoform	<1.00 ug/L	1.00	0.500		1			02/25/20 20:24	MH	*
Total Trihalomethanes	25.5 ug/L	1.00	0.500	80				02/25/20 20:24	MH	

### Surrogate(s)

Parameter	Units	% Spike Recovery	Control Limits %
1,2-Dichlorobenzene-d4 (S)	%	92.4	70 - 130
4-Bromofluorobenzene (S)	%	91.6	70 - 130



## Analytical Results (cont.)

Lab ID: Q2006545010	Date Received: 2/21/2020 10:00	Matrix: Drinking Water
Sample ID: 2049862	Date Collected: 2/20/2020 11:08	Sample Type: SAMPLE
Project ID: DRINKING WATER PROGRAM	Location: 6839 HWY 11 W, SULPHUR SPRINGS	
Facility: DS01	Client ID: TX1120014	
Sample Point: DBP2-02		

Parameter	Results Units	MRL	LOD	MCL	DF	Prepared	By	Analyzed	By	Qual
<b>HALOACETIC ACIDS (552.2 Haloacetic Acids by GC)</b>										
Bromochloroacetic Acid	2.40 ug/L	1.00	0.500		1	02/27/20 15:17	SMD	02/27/20 20:13	MF	*
Dibromoacetic Acid	7.90 ug/L	1.00	0.500		1	02/27/20 15:17	SMD	02/27/20 20:13	MF	*
Dichloroacetic Acid	<1.00 ug/L	1.00	0.500		1	02/27/20 15:17	SMD	02/27/20 20:13	MF	*
Monobromoacetic Acid	1.30 ug/L	1.00	0.500		1	02/27/20 15:17	SMD	02/27/20 20:13	MF	*
Monochloroacetic Acid	<1.00 ug/L	1.00	0.500		1	02/27/20 15:17	SMD	02/27/20 20:13	MF	*
Total Regulated HAA	9.20 ug/L	1.00	0.500	60		02/27/20 15:17	SMD	02/27/20 20:13	MF	
Trichloroacetic acid	<1.00 ug/L	1.00	0.500		1	02/27/20 15:17	SMD	02/27/20 20:13	MF	*

### Surrogate(s)

Parameter	Units	% Spike Recovery	Control Limits %
2,3-Dibromopropionic acid (S)	%	114	70 - 130

### Volatiles (E524.2 Volatiles by GC/MS)

Parameter	Results Units	MRL	LOD	MCL	DF	Prepared	By	Analyzed	By	Qual
Chloroform	1.35 ug/L	1.00	0.500		1			02/24/20 13:27	MH	*
Bromodichloromethane	3.50 ug/L	1.00	0.500		1			02/24/20 13:27	MH	*
Dibromochloromethane	14.7 ug/L	1.00	0.500		1			02/24/20 13:27	MH	*
Bromoform	35.7 ug/L	1.00	0.500		1			02/24/20 13:27	MH	*
Total Trihalomethanes	55.3 ug/L	1.00	0.500	80				02/24/20 13:27	MH	

### Surrogate(s)

Parameter	Units	% Spike Recovery	Control Limits %
1,2-Dichlorobenzene-d4 (S)	%	94.8	70 - 130
4-Bromofluorobenzene (S)	%	95.2	70 - 130



PWS\_1120014\_AC\_20200220\_Analysis Report  
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## Quality Control

<b>Preparation Batch:</b> WET / 21417	<b>Analysis Method:</b> E335.4 CN, SemiAuto Col
<b>Preparation Method:</b> E335.4 CN, SemiAuto Col	
<b>Associated Lab IDs:</b> Q2006545005, Q2006545006	

### Method Reporting Limit Check (1407689)

Parameter	Units	Spiked Amount	Spike Result	% Spike Recovery	Control Limits %	Qual
Cyanide, Total	mg/L	.02	.0153	76.6	50 - 150	



## Quality Control (cont.)

**Preparation Batch:** OVOL / 4555      **Analysis Method:** E524.2 Volatiles by GC/MS  
**Preparation Method:** E524.2 Volatiles by GC/MS  
**Associated Lab IDs:** Q2006545010

### Laboratory Fortified Blank (1407259); Lab Fortified Blank Duplicate (1407260)

Parameter	Units	Spiked Amount	Spike Result	% Spike Recovery	Control Limits %	Dup Result	% Dup Recovery	RPD	RPD Limit %	Qual
Chloroform	ug/L	50	44.9	89.7	70 - 130	45.5	91	1.33	30	
Bromodichloromethane	ug/L	50	43.5	87.1	70 - 130	43.7	87.3	.459	30	
Dibromochloromethane	ug/L	50	42.6	85.3	70 - 130	42.8	85.7	.468	30	
Bromoform	ug/L	50	43.2	86.4	70 - 130	43.3	86.7	.231	30	

### Surrogate(s)

Parameter	Units	% Spike Recovery	Control Limits %	% Dup Recovery
1,2-Dichlorobenzene-d4 (S)	%	96.4	70 - 130	97
4-Bromofluorobenzene (S)	%	94.9	70 - 130	96.6

### Laboratory Reagent Blank (1407261)

Parameter	Results	Units	MRL	LOD	Qualifier
Chloroform	<1.00	ug/L	1.00	0.500	
Bromodichloromethane	<1.00	ug/L	1.00	0.500	
Dibromochloromethane	<1.00	ug/L	1.00	0.500	
Bromoform	<1.00	ug/L	1.00	0.500	

### Surrogate(s)

Parameter	Units	% Spike Recovery	Control Limits %
1,2-Dichlorobenzene-d4 (S)	%	96.9	70 - 130
4-Bromofluorobenzene (S)	%	95.5	70 - 130

### Method Reporting Limit Check (1407262)

Parameter	Units	Spiked Amount	Spike Result	% Spike Recovery	Control Limits %	Qual
Chloroform	ug/L	1	1.18	118	50 - 150	
Bromodichloromethane	ug/L	1	1.06	106	50 - 150	
Dibromochloromethane	ug/L	1	1	100	50 - 150	
Bromoform	ug/L	1	.94	94	50 - 150	

### Surrogate(s)

Parameter	Units	% Spike Recovery	Control Limits %	% Dup Recovery
1,2-Dichlorobenzene-d4 (S)	%	96.6	50 - 150	
4-Bromofluorobenzene (S)	%	93.6	50 - 150	



## Quality Control (cont.)

<b>Preparation Batch:</b> WET / 21405	<b>Analysis Method:</b> E300.0, Anions
<b>Preparation Method:</b> E300.0, Anions	
<b>Associated Lab IDs:</b> Q2006545007, Q2006545008	

### Laboratory Reagent Blank (1407049)

Parameter	Results	Units	MRL	LOD	Qualifier
Nitrate (as N)	<0.0100	mg/L	0.0100	0.00500	

### Method Reporting Limit Check (1407051)

Parameter	Units	Spiked Amount	Spike Result	% Spike Recovery	Control Limits %	Qual
Nitrate (as N)	mg/L	.01	.0121	121	50 - 150	

### Laboratory Fortified Blank (1407052)

Parameter	Units	Spiked Amount	Spike Result	% Spike Recovery	Control Limits %	Qual
Nitrate (as N)	mg/L	1	1	100	90 - 110	

### Limit of Quantitation Check (1407053)

Parameter	Units	Spiked Amount	Spike Result	% Spike Recovery	Control Limits %	Qual
Nitrate (as N)	mg/L	.02	.021	105	70 - 130	

### Laboratory Fortified Matrix (1407054) Original: Q2006531004

Parameter	Units	Spiked Amount	Spike Result	% Spike Recovery	Control Limits %	Qual
Nitrate (as N)	mg/L	1	1.14	101	80 - 120	



## Quality Control (cont.)

<b>Preparation Batch:</b> WETP / 4948	<b>Analysis Method:</b> E335.4 CN, SemiAuto Col
<b>Preparation Method:</b> E335.4 CN, SemiAuto Col	
<b>Associated Lab IDs:</b> Q2006545005, Q2006545006	

### Laboratory Reagent Blank (1407453)

Parameter	Results	Units	MRL	LOD	Qualifier
Cyanide, Total	<0.0200	mg/L	0.0200	0.00500	

### Laboratory Fortified Blank (1407454); Lab Fortified Blank Duplicate (1407455)

Parameter	Units	Spiked Amount	Spike Result	% Spike Recovery	Control Limits %	Dup Result	% Dup Recovery	RPD	RPD Limit %	Qual
Cyanide, Total	mg/L	.4	.369	92.2	90 - 110	.388	97.1	5.02	20	

### Laboratory Fortified Matrix (1407456) Original: Q2006437005

Parameter	Units	Spiked Amount	Spike Result	% Spike Recovery	Control Limits %	Qual
Cyanide, Total	mg/L	.4	.307	76.6	90 - 110	SL



## Quality Control (cont.)

**Preparation Batch:** OVOL / 4552      **Analysis Method:** E524.2 Volatiles by GC/MS  
**Preparation Method:** E524.2 Volatiles by GC/MS  
**Associated Lab IDs:** Q2006545001

### Laboratory Fortified Blank (1407063)

Parameter	Units	Spiked Amount	Spike Result	% Spike Recovery	Control Limits %	Qual
Dichlorodifluoromethane	ug/L	5	5.9	118	70 - 130	
Chloromethane	ug/L	5	5.35	107	70 - 130	
Vinyl chloride	ug/L	5	5.27	105	70 - 130	
Bromomethane	ug/L	5	5.59	112	70 - 130	
Chloroethane	ug/L	5	5.36	107	70 - 130	
4-Chlorotoluene	ug/L	5	5.02	100	70 - 130	
Trichlorofluoromethane	ug/L	5	5.21	104	70 - 130	
1,1-Dichloroethene	ug/L	5	5.16	103	70 - 130	
Acetone	ug/L	5	5.11	102	70 - 130	
Methyl iodide	ug/L	5	5.64	113	70 - 130	
Carbon disulfide	ug/L	5	5.34	107	70 - 130	
Methylene chloride	ug/L	5	5.11	102	70 - 130	
trans-1,2-Dichloroethene	ug/L	5	5.23	105	70 - 130	
Acrylonitrile	ug/L	5	5.44	109	70 - 130	
tert-Butyl methyl ether (MTBE)	ug/L	5	5.33	107	70 - 130	
1,1-Dichloroethane	ug/L	5	5.14	103	70 - 130	
Vinyl acetate	ug/L	5	5.24	105	70 - 130	
2,2-Dichloropropane	ug/L	5	5.18	104	70 - 130	
2-Butanone	ug/L	5	5.21	104	70 - 130	
cis-1,2-Dichloroethene	ug/L	5	5.26	105	70 - 130	
Bromochloromethane	ug/L	5	5.12	102	70 - 130	
Tetrahydrofuran	ug/L	5	5.52	110	70 - 130	
Chloroform	ug/L	5	5.08	102	70 - 130	
1,1,1-Trichloroethane	ug/L	5	5.01	100	70 - 130	
1,1-Dichloropropene	ug/L	5	5.24	105	70 - 130	
Carbon tetrachloride	ug/L	5	4.67	93.4	70 - 130	
1,2-Dichloroethane	ug/L	5	5.31	106	70 - 130	
Benzene	ug/L	5	5.16	103	70 - 130	
Trichloroethene	ug/L	5	5.32	106	70 - 130	
1,2-Dichloropropane	ug/L	5	5.2	104	70 - 130	
Methyl methacrylate	ug/L	5	5.46	109	70 - 130	
Dibromomethane	ug/L	5	5.17	103	70 - 130	
Bromodichloromethane	ug/L	5	4.84	96.8	70 - 130	
cis-1,3-Dichloropropene	ug/L	5	4.45	89	70 - 130	
4-Methyl-2-pentanone	ug/L	5	5.18	104	70 - 130	
Toluene	ug/L	5	5.11	102	70 - 130	
trans-1,3-Dichloropropene	ug/L	5	4.39	87.8	70 - 130	
Ethyl methacrylate	ug/L	5	5.26	105	70 - 130	
1,1,2-Trichloroethane	ug/L	5	5.21	104	70 - 130	
Tetrachloroethene	ug/L	5	5.11	102	70 - 130	
1,3-Dichloropropane	ug/L	5	5.14	103	70 - 130	
2-Hexanone	ug/L	5	5.3	106	70 - 130	
Dibromochloromethane	ug/L	5	4.45	89	70 - 130	
Chlorobenzene	ug/L	5	5.03	101	70 - 130	
1,1,1,2-Tetrachloroethane	ug/L	5	4.43	88.6	70 - 130	
Ethyl Benzene	ug/L	5	5.09	102	70 - 130	
m,p-Xylene	ug/L	10	10.3	103	70 - 130	
o-Xylene	ug/L	5	5.16	103	70 - 130	
Styrene	ug/L	5	5.18	104	70 - 130	
Bromoform	ug/L	5	4.5	90	70 - 130	
Isopropylbenzene (Cumene)	ug/L	5	5.13	103	70 - 130	
1,1,2,2-Tetrachloroethane	ug/L	5	5.31	106	70 - 130	
Bromobenzene	ug/L	5	5	100	70 - 130	



## Quality Control (cont.)

**Preparation Batch:** OVOL / 4552      **Analysis Method:** E524.2 Volatiles by GC/MS  
**Preparation Method:** E524.2 Volatiles by GC/MS  
**Associated Lab IDs:** Q2006545001

(continued)

Parameter	Units	Spiked Amount	Spike Result	% Spike Recovery	Control Limits %	Qual
1,2,3-Trichloropropane	ug/L	5	5.42	108	70 - 130	
n-Propylbenzene	ug/L	5	5.11	102	70 - 130	
2-Chlorotoluene	ug/L	5	5.04	101	70 - 130	
1,3,5-Trimethylbenzene	ug/L	5	5.17	103	70 - 130	
tert-Butylbenzene	ug/L	5	5.1	102	70 - 130	
1,2,4-Trimethylbenzene	ug/L	5	5.08	102	70 - 130	
sec-Butylbenzene	ug/L	5	5.15	103	70 - 130	
1,3-Dichlorobenzene	ug/L	5	5.07	101	70 - 130	
4-Isopropyltoluene	ug/L	5	5.13	103	70 - 130	
1,4-Dichlorobenzene	ug/L	5	5.05	101	70 - 130	
n-Butylbenzene	ug/L	5	5.04	101	70 - 130	
1,2-Dichlorobenzene	ug/L	5	5.04	101	70 - 130	
1,2,4-Trichlorobenzene	ug/L	5	5.29	106	70 - 130	
Hexachlorobutadiene	ug/L	5	5.26	105	70 - 130	
Naphthalene	ug/L	5	5.46	109	70 - 130	
1,2,3-Trichlorobenzene	ug/L	5	5.38	108	70 - 130	

### Surrogate(s)

Parameter	Units	% Spike Recovery	Control Limits %	% Dup Recovery
1,2-Dichlorobenzene-d4 (S)	%	97.8	70 - 130	
4-Bromofluorobenzene (S)	%	97.2	70 - 130	

### Method Reporting Limit Check (1407064)

Parameter	Units	Spiked Amount	Spike Result	% Spike Recovery	Control Limits %	Qual
Acetone	ug/L	5	5.11	102	50 - 150	
2-Butanone	ug/L	5	5.21	104	50 - 150	
Tetrahydrofuran	ug/L	5	5.52	110	50 - 150	

### Method Reporting Limit Check (1407064)

Parameter	Units	Spiked Amount	Spike Result	% Spike Recovery	Control Limits %	Qual
Dichlorodifluoromethane	ug/L	.5	.56	112	50 - 150	
Chloromethane	ug/L	.5	.6	120	50 - 150	
Vinyl chloride	ug/L	.5	.55	110	50 - 150	
Bromomethane	ug/L	.5	.6	120	50 - 150	
Chloroethane	ug/L	.5	.55	110	50 - 150	
4-Chlorotoluene	ug/L	.5	.54	108	50 - 150	
Trichlorofluoromethane	ug/L	.5	.58	116	50 - 150	
1,1-Dichloroethene	ug/L	.5	.58	116	50 - 150	
Methyl iodide	ug/L	.5	.54	108	50 - 150	
Carbon disulfide	ug/L	.5	.48	96	50 - 150	
Methylene chloride	ug/L	.5	.54	108	50 - 150	
trans-1,2-Dichloroethene	ug/L	.5	.56	112	50 - 150	
Acrylonitrile	ug/L	.5	.49	98	50 - 150	
tert-Butyl methyl ether (MTBE)	ug/L	.5	.52	104	50 - 150	
1,1-Dichloroethane	ug/L	.5	.53	106	50 - 150	
Vinyl acetate	ug/L	.5	.52	104	50 - 150	
2,2-Dichloropropane	ug/L	.5	.52	104	50 - 150	
cis-1,2-Dichloroethene	ug/L	.5	.53	106	50 - 150	
Bromochloromethane	ug/L	.5	.57	114	50 - 150	



## Quality Control (cont.)

**Preparation Batch:** OVOL / 4552      **Analysis Method:** E524.2 Volatiles by GC/MS  
**Preparation Method:** E524.2 Volatiles by GC/MS  
**Associated Lab IDs:** Q2006545001

(continued)

Parameter	Units	Spiked Amount	Spike Result	% Spike Recovery	Control Limits %	Qual
Chloroform	ug/L	.5	.51	102	50 - 150	
1,1,1-Trichloroethane	ug/L	.5	.46	92	50 - 150	
1,1-Dichloropropene	ug/L	.5	.56	112	50 - 150	
Carbon tetrachloride	ug/L	.5	.43	86	50 - 150	
1,2-Dichloroethane	ug/L	.5	.52	104	50 - 150	
Benzene	ug/L	.5	.53	106	50 - 150	
Trichloroethene	ug/L	.5	.55	110	50 - 150	
1,2-Dichloropropane	ug/L	.5	.5	100	50 - 150	
Methyl methacrylate	ug/L	.5	.54	108	50 - 150	
Dibromomethane	ug/L	.5	.46	92	50 - 150	
Bromodichloromethane	ug/L	.5	.41	82	50 - 150	
cis-1,3-Dichloropropene	ug/L	.5	.37	74	50 - 150	
4-Methyl-2-pentanone	ug/L	.5	.49	98	50 - 150	
Toluene	ug/L	.5	.49	98	50 - 150	
trans-1,3-Dichloropropene	ug/L	.5	.35	70	50 - 150	
Ethyl methacrylate	ug/L	.5	.47	94	50 - 150	
1,1,2-Trichloroethane	ug/L	.5	.51	102	50 - 150	
Tetrachloroethene	ug/L	.5	.53	106	50 - 150	
1,3-Dichloropropane	ug/L	.5	.51	102	50 - 150	
2-Hexanone	ug/L	.5	.62	124	50 - 150	
Dibromochloromethane	ug/L	.5	.35	70	50 - 150	
Chlorobenzene	ug/L	.5	.53	106	50 - 150	
1,1,1,2-Tetrachloroethane	ug/L	.5	.35	70	50 - 150	
Ethyl Benzene	ug/L	.5	.48	96	50 - 150	
m,p-Xylene	ug/L	1	.95	95	50 - 150	
o-Xylene	ug/L	.5	.46	92	50 - 150	
Styrene	ug/L	.5	.48	96	50 - 150	
Bromoform	ug/L	.5	.3	60	50 - 150	
Isopropylbenzene (Cumene)	ug/L	.5	.48	96	50 - 150	
1,1,2,2-Tetrachloroethane	ug/L	.5	.53	106	50 - 150	
Bromobenzene	ug/L	.5	.54	108	50 - 150	
1,2,3-Trichloropropane	ug/L	.5	.5	100	50 - 150	
n-Propylbenzene	ug/L	.5	.52	104	50 - 150	
2-Chlorotoluene	ug/L	.5	.54	108	50 - 150	
1,3,5-Trimethylbenzene	ug/L	.5	.49	98	50 - 150	
tert-Butylbenzene	ug/L	.5	.47	94	50 - 150	
1,2,4-Trimethylbenzene	ug/L	.5	.5	100	50 - 150	
sec-Butylbenzene	ug/L	.5	.49	98	50 - 150	
1,3-Dichlorobenzene	ug/L	.5	.58	116	50 - 150	
4-Isopropyltoluene	ug/L	.5	.48	96	50 - 150	
1,4-Dichlorobenzene	ug/L	.5	.58	116	50 - 150	
n-Butylbenzene	ug/L	.5	.57	114	50 - 150	
1,2-Dichlorobenzene	ug/L	.5	.57	114	50 - 150	
1,2,4-Trichlorobenzene	ug/L	.5	.63	126	50 - 150	
Hexachlorobutadiene	ug/L	.5	.67	134	50 - 150	
Naphthalene	ug/L	.5	.61	122	50 - 150	
1,2,3-Trichlorobenzene	ug/L	.5	.64	128	50 - 150	

### Surrogate(s)

Parameter	Units	% Spike Recovery	Control Limits %	% Dup Recovery
1,2-Dichlorobenzene-d4 (S)	%	98.5	50 - 150	
4-Bromofluorobenzene (S)	%	97.8	50 - 150	



## Quality Control (cont.)

**Preparation Batch:** OVOL / 4552      **Analysis Method:** E524.2 Volatiles by GC/MS  
**Preparation Method:** E524.2 Volatiles by GC/MS  
**Associated Lab IDs:** Q2006545001

### Laboratory Reagent Blank (1407065)

Parameter	Results	Units	MRL	LOD	Qualifier
Dichlorodifluoromethane	<0.500	ug/L	0.500	0.250	
Chloromethane	<0.500	ug/L	0.500	0.250	
Vinyl chloride	<0.500	ug/L	0.500	0.250	
Bromomethane	<0.500	ug/L	0.500	0.250	
Chloroethane	<0.500	ug/L	0.500	0.250	
4-Chlorotoluene	<0.500	ug/L	0.500	0.250	
Trichlorofluoromethane	<0.500	ug/L	0.500	0.250	
1,1-Dichloroethene	<0.500	ug/L	0.500	0.250	
Acetone	<5.00	ug/L	5.00	2.50	
Methyl iodide	<0.500	ug/L	0.500	0.250	
Carbon disulfide	<0.500	ug/L	0.500	0.250	
Methylene chloride	<0.500	ug/L	0.500	0.250	
trans-1,2-Dichloroethene	<0.500	ug/L	0.500	0.250	
Acrylonitrile	<0.500	ug/L	0.500	0.250	
tert-Butyl methyl ether (MTBE)	<0.500	ug/L	0.500	0.250	
1,1-Dichloroethane	<0.500	ug/L	0.500	0.250	
Vinyl acetate	<0.500	ug/L	0.500	0.250	
2,2-Dichloropropane	<0.500	ug/L	0.500	0.250	
2-Butanone	<0.500	ug/L	0.500	0.250	
cis-1,2-Dichloroethene	<0.500	ug/L	0.500	0.250	
Bromochloromethane	<0.500	ug/L	0.500	0.250	
Tetrahydrofuran	<0.500	ug/L	0.500	0.250	
Chloroform	<1.00	ug/L	1.00	0.500	
1,1,1-Trichloroethane	<0.500	ug/L	0.500	0.250	
1,1-Dichloropropene	<0.500	ug/L	0.500	0.250	
Carbon tetrachloride	<0.500	ug/L	0.500	0.250	
1,2-Dichloroethane	<0.500	ug/L	0.500	0.250	
Benzene	<0.500	ug/L	0.500	0.250	
Trichloroethene	<0.500	ug/L	0.500	0.250	
1,2-Dichloropropane	<0.500	ug/L	0.500	0.250	
Methyl methacrylate	<0.500	ug/L	0.500	0.250	
Dibromomethane	<0.500	ug/L	0.500	0.250	
Bromodichloromethane	<1.00	ug/L	1.00	0.500	
cis-1,3-Dichloropropene	<0.500	ug/L	0.500	0.250	
4-Methyl-2-pentanone	<0.500	ug/L	0.500	0.250	
Toluene	<0.500	ug/L	0.500	0.250	
trans-1,3-Dichloropropene	<0.500	ug/L	0.500	0.250	
Ethyl methacrylate	<0.500	ug/L	0.500	0.250	
1,1,2-Trichloroethane	<0.500	ug/L	0.500	0.250	
Tetrachloroethene	<0.500	ug/L	0.500	0.250	
1,3-Dichloropropane	<0.500	ug/L	0.500	0.250	
2-Hexanone	<0.500	ug/L	0.500	0.250	
Dibromochloromethane	<1.00	ug/L	1.00	0.500	
Chlorobenzene	<0.500	ug/L	0.500	0.250	
1,1,1,2-Tetrachloroethane	<0.500	ug/L	0.500	0.250	
Ethyl Benzene	<0.500	ug/L	0.500	0.250	
m,p-Xylene	<0.500	ug/L	1.00	0.500	
o-Xylene	<0.500	ug/L	0.500	0.250	
Styrene	<0.500	ug/L	0.500	0.250	
Bromoform	<1.00	ug/L	1.00	0.500	
Isopropylbenzene (Cumene)	<0.500	ug/L	0.500	0.250	
1,1,2,2-Tetrachloroethane	<0.500	ug/L	0.500	0.250	
Bromobenzene	<0.500	ug/L	0.500	0.250	
1,2,3-Trichloropropane	<0.500	ug/L	0.500	0.250	



## Quality Control (cont.)

**Preparation Batch:** OVOL / 4552      **Analysis Method:** E524.2 Volatiles by GC/MS  
**Preparation Method:** E524.2 Volatiles by GC/MS  
**Associated Lab IDs:** Q2006545001

(continued)

Parameter	Results	Units	MRL	LOD	Qualifier
n-Propylbenzene	<0.500	ug/L	0.500	0.250	
2-Chlorotoluene	<0.500	ug/L	0.500	0.250	
1,3,5-Trimethylbenzene	<0.500	ug/L	0.500	0.250	
tert-Butylbenzene	<0.500	ug/L	0.500	0.250	
1,2,4-Trimethylbenzene	<0.500	ug/L	0.500	0.250	
sec-Butylbenzene	<0.500	ug/L	0.500	0.250	
1,3-Dichlorobenzene	<0.500	ug/L	0.500	0.250	
4-Isopropyltoluene	<0.500	ug/L	0.500	0.250	
1,4-Dichlorobenzene	<0.500	ug/L	0.500	0.250	
n-Butylbenzene	<0.500	ug/L	0.500	0.250	
1,2-Dichlorobenzene	<0.500	ug/L	0.500	0.250	
1,2,4-Trichlorobenzene	<0.500	ug/L	0.500	0.250	
Hexachlorobutadiene	<0.500	ug/L	0.500	0.250	
Naphthalene	<0.500	ug/L	0.500	0.250	
1,2,3-Trichlorobenzene	<0.500	ug/L	0.500	0.250	

### Surrogate(s)

Parameter	Units	% Spike Recovery	Control Limits %
1,2-Dichlorobenzene-d4 (S)	%	99.2	70 - 130
4-Bromofluorobenzene (S)	%	97.1	70 - 130

### Duplicate (1407066); Original: Q2006544014

Parameter	Original	Duplicate	Units	RPD %	Limit	Qual
Dichlorodifluoromethane	0	0	ug/L	0	20	
Chloromethane	0	0	ug/L	0	20	
Vinyl chloride	0	0	ug/L	0	20	
Bromomethane	0	0	ug/L	0	20	
Chloroethane	0	0	ug/L	0	20	
4-Chlorotoluene	0	0	ug/L	0	20	
Trichlorofluoromethane	0	0	ug/L	0	20	
1,1-Dichloroethene	0	0	ug/L	0	20	
Acetone	0	0	ug/L	0	20	
Methyl iodide	0	0	ug/L	0	20	
Carbon disulfide	0	0	ug/L	0	20	
Methylene chloride	0	0	ug/L	0	20	
trans-1,2-Dichloroethene	0	0	ug/L	0	20	
Acrylonitrile	0	0	ug/L	0	20	
tert-Butyl methyl ether (MTBE)	0	0	ug/L	0	20	
1,1-Dichloroethane	0	0	ug/L	0	20	
Vinyl acetate	0	0	ug/L	0	20	
2,2-Dichloropropane	0	0	ug/L	0	20	
2-Butanone	0	0	ug/L	0	20	
cis-1,2-Dichloroethene	0	0	ug/L	0	20	
Bromochloromethane	0	0	ug/L	0	20	
Tetrahydrofuran	0	0	ug/L	0	20	
Chloroform	.43	.44	ug/L	2.3	20	
1,1,1-Trichloroethane	0	0	ug/L	0	20	
1,1-Dichloropropene	0	0	ug/L	0	20	
Carbon tetrachloride	0	0	ug/L	0	20	
1,2-Dichloroethane	0	0	ug/L	0	20	
Benzene	0	0	ug/L	0	20	
Trichloroethene	0	0	ug/L	0	20	
1,2-Dichloropropane	0	0	ug/L	0	20	



## Quality Control (cont.)

**Preparation Batch:** OVOL / 4552      **Analysis Method:** E524.2 Volatiles by GC/MS  
**Preparation Method:** E524.2 Volatiles by GC/MS  
**Associated Lab IDs:** Q2006545001

(continued)

Parameter	Original	Duplicate	Units	RPD %	Limit	Qual
Methyl methacrylate	0	0	ug/L	0	20	
Dibromomethane	0	0	ug/L	0	20	
Bromodichloromethane	1.36	1.47	ug/L	7.77	20	
cis-1,3-Dichloropropene	0	0	ug/L	0	20	
4-Methyl-2-pentanone	0	0	ug/L	0	20	
Toluene	0	0	ug/L	0	20	
trans-1,3-Dichloropropene	0	0	ug/L	0	20	
Ethyl methacrylate	0	0	ug/L	0	20	
1,1,2-Trichloroethane	0	0	ug/L	0	20	
Tetrachloroethene	0	0	ug/L	0	20	
1,3-Dichloropropane	0	0	ug/L	0	20	
2-Hexanone	0	0	ug/L	0	20	
Dibromochloromethane	2.64	2.93	ug/L	10.4	20	
Chlorobenzene	0	0	ug/L	0	20	
1,1,1,2-Tetrachloroethane	0	0	ug/L	0	20	
Ethyl Benzene	0	0	ug/L	0	20	
m,p-Xylene	0	0	ug/L	0	20	
o-Xylene	0	0	ug/L	0	20	
Styrene	0	0	ug/L	0	20	
Bromoform	2.12	2.45	ug/L	14.4	20	
Isopropylbenzene (Cumene)	0	0	ug/L	0	20	
1,1,2,2-Tetrachloroethane	0	0	ug/L	0	20	
Bromobenzene	0	0	ug/L	0	20	
1,2,3-Trichlorobenzene	0	0	ug/L	0	20	
n-Propylbenzene	0	0	ug/L	0	20	
2-Chlorotoluene	0	0	ug/L	0	20	
1,3,5-Trimethylbenzene	0	0	ug/L	0	20	
tert-Butylbenzene	0	0	ug/L	0	20	
1,2,4-Trimethylbenzene	0	0	ug/L	0	20	
sec-Butylbenzene	0	0	ug/L	0	20	
1,3-Dichlorobenzene	0	0	ug/L	0	20	
4-Isopropyltoluene	0	0	ug/L	0	20	
1,4-Dichlorobenzene	0	0	ug/L	0	20	
n-Butylbenzene	0	0	ug/L	0	20	
1,2-Dichlorobenzene	0	0	ug/L	0	20	
1,2,4-Trichlorobenzene	0	0	ug/L	0	20	
Hexachlorobutadiene	0	0	ug/L	0	20	
Naphthalene	0	0	ug/L	0	20	
1,2,3-Trichloropropane	0	0	ug/L	0	20	
Xylene (total)	0	0	ug/L	0		

### Surrogate(s)

Parameter	Units	% Spike Recovery	Control Limits %	% Dup Recovery
1,2-Dichlorobenzene-d4 (S)	%			101
4-Bromofluorobenzene (S)	%			97.6

## Quality Control (cont.)

**Preparation Batch:** OVOL / 4557

**Analysis Method:** E524.2 Volatiles by GC/MS

**Preparation Method:** E524.2 Volatiles by GC/MS

**Associated Lab IDs:** Q2006545009

### Laboratory Fortified Blank (1407610); Lab Fortified Blank Duplicate (1407611)

Parameter	Units	Spiked Amount	Spike Result	% Spike Recovery	Control Limits %	Dup Result	% Dup Recovery	RPD	RPD Limit %	Qual
Chloroform	ug/L	50	49.6	99.3	70 - 130	50	100	.803	30	
Bromodichloromethane	ug/L	50	49	97.9	70 - 130	48.8	97.5	.409	30	
Dibromochloromethane	ug/L	50	48.7	97.3	70 - 130	48.7	97.4	0	30	
Bromoform	ug/L	50	48.4	96.8	70 - 130	49.8	99.6	2.85	30	

#### Surrogate(s)

Parameter	Units	% Spike Recovery	Control Limits %	% Dup Recovery
1,2-Dichlorobenzene-d4 (S)	%	93.6	70 - 130	92.8
4-Bromofluorobenzene (S)	%	92.7	70 - 130	92.9

### Laboratory Reagent Blank (1407612)

Parameter	Results	Units	MRL	LOD	Qualifier
Chloroform	<1.00	ug/L	1.00	0.500	
Bromodichloromethane	<1.00	ug/L	1.00	0.500	
Dibromochloromethane	<1.00	ug/L	1.00	0.500	
Bromoform	<1.00	ug/L	1.00	0.500	

#### Surrogate(s)

Parameter	Units	% Spike Recovery	Control Limits %
1,2-Dichlorobenzene-d4 (S)	%	94.9	70 - 130
4-Bromofluorobenzene (S)	%	93.4	70 - 130

### Method Reporting Limit Check (1407613)

Parameter	Units	Spiked Amount	Spike Result	% Spike Recovery	Control Limits %	Qual
Chloroform	ug/L	1	1.09	109	50 - 150	
Bromodichloromethane	ug/L	1	1.06	106	50 - 150	
Dibromochloromethane	ug/L	1	.96	96	50 - 150	
Bromoform	ug/L	1	1.03	103	50 - 150	

#### Surrogate(s)

Parameter	Units	% Spike Recovery	Control Limits %	% Dup Recovery
1,2-Dichlorobenzene-d4 (S)	%	92.7	50 - 150	
4-Bromofluorobenzene (S)	%	91.1	50 - 150	

### Laboratory Fortified Blank (1407615); Lab Fortified Blank Duplicate (1407616)

Parameter	Units	Spiked Amount	Spike Result	% Spike Recovery	Control Limits %	Dup Result	% Dup Recovery	RPD	RPD Limit %	Qual
Chloroform	ug/L	50	49.7	99.4	70 - 130	49.7	99.3	0	30	
Bromodichloromethane	ug/L	50	48.5	97	70 - 130	48.2	96.3	.62	30	
Dibromochloromethane	ug/L	50	48.9	97.8	70 - 130	47.7	95.4	2.48	30	
Bromoform	ug/L	50	48.6	97.1	70 - 130	47.1	94.2	3.13	30	

#### Surrogate(s)

Parameter	Units	% Spike Recovery	Control Limits %	% Dup Recovery
1,2-Dichlorobenzene-d4 (S)	%	93.7	70 - 130	91.3
4-Bromofluorobenzene (S)	%	93.8	70 - 130	92.9



## Quality Control (cont.)

**Preparation Batch:** OVOL / 4557      **Analysis Method:** E524.2 Volatiles by GC/MS  
**Preparation Method:** E524.2 Volatiles by GC/MS  
**Associated Lab IDs:** Q2006545009

### Laboratory Reagent Blank (1407617)

Parameter	Results	Units	MRL	LOD	Qualifier
Chloroform	<1.00	ug/L	1.00	0.500	
Bromodichloromethane	<1.00	ug/L	1.00	0.500	
Dibromochloromethane	<1.00	ug/L	1.00	0.500	
Bromoform	<1.00	ug/L	1.00	0.500	

### Surrogate(s)

Parameter	Units	% Spike Recovery	Control Limits %
1,2-Dichlorobenzene-d4 (S)	%	94.5	70 - 130
4-Bromofluorobenzene (S)	%	94.3	70 - 130

## Quality Control (cont.)

**Preparation Batch:** OEXT / 7757

**Analysis Method:** 552.2 Haloacetic Acids by GC

**Preparation Method:** 552.2 Haloacetic Acids by GC

**Associated Lab IDs:** Q2006545009, Q2006545010

### Laboratory Fortified Blank (1408743); Lab Fortified Blank Duplicate (1408744)

Parameter	Units	Spiked Amount	Spike Result	% Spike Recovery	Control Limits %	Dup Result	% Dup Recovery	RPD	RPD Limit %	Qual
Monochloroacetic Acid	ug/L	50	51	102	70 - 130	54	108	5.71	30	
Monobromoacetic Acid	ug/L	50	49.9	99.8	70 - 130	51.9	104	3.93	30	
Dichloroacetic Acid	ug/L	50	51.5	103	70 - 130	53.3	107	3.44	30	
Trichloroacetic acid	ug/L	50	52	104	70 - 130	54.1	108	3.96	30	
Bromochloroacetic Acid	ug/L	50	51.8	104	70 - 130	52.8	106	1.91	30	
Dibromoacetic Acid	ug/L	50	51.9	104	70 - 130	53.1	106	2.29	30	

### Surrogate(s)

Parameter	Units	% Spike Recovery	Control Limits %	% Dup Recovery
2,3-Dibromopropionic acid (S)	%	99.2	70 - 130	106

### Laboratory Fortified Matrix (1408750) Original: Q2006545009

Parameter	Units	Spiked Amount	Spike Result	% Spike Recovery	Control Limits %	Qual
Monochloroacetic Acid	ug/L	100	94.7	93.1	70 - 130	
Monobromoacetic Acid	ug/L	100	102	102	70 - 130	
Dichloroacetic Acid	ug/L	100	115	104	70 - 130	
Trichloroacetic acid	ug/L	100	124	115	70 - 130	
Bromochloroacetic Acid	ug/L	100	110	107	70 - 130	
Dibromoacetic Acid	ug/L	100	110	110	70 - 130	

### Surrogate(s)

Parameter	Units	% Spike Recovery	Control Limits %	% Dup Recovery	Control Limits %
2,3-Dibromopropionic acid (S)	%	106	70 - 130		70 - 130

### Laboratory Fortified Blank (1408751); Lab Fortified Blank Duplicate (1408752)

Parameter	Units	Spiked Amount	Spike Result	% Spike Recovery	Control Limits %	Dup Result	% Dup Recovery	RPD	RPD Limit %	Qual
Monochloroacetic Acid	ug/L	50	54	108	70 - 130	51.6	103	4.55	30	
Monobromoacetic Acid	ug/L	50	51.9	104	70 - 130	50.7	101	2.34	30	
Dichloroacetic Acid	ug/L	50	53.3	107	70 - 130	52.2	104	2.09	30	
Trichloroacetic acid	ug/L	50	54.1	108	70 - 130	53	106	2.05	30	
Bromochloroacetic Acid	ug/L	50	52.8	106	70 - 130	52.5	105	.57	30	
Dibromoacetic Acid	ug/L	50	53.1	106	70 - 130	52.6	105	.946	30	

### Surrogate(s)

Parameter	Units	% Spike Recovery	Control Limits %	% Dup Recovery
2,3-Dibromopropionic acid (S)	%	106	70 - 130	101

### Laboratory Fortified Matrix (1408753) Original: Q2006547001

Parameter	Units	Spiked Amount	Spike Result	% Spike Recovery	Control Limits %	Qual
Monochloroacetic Acid	ug/L	100	94.8	92.8	70 - 130	
Monobromoacetic Acid	ug/L	100	102	102	70 - 130	
Dichloroacetic Acid	ug/L	100	118	106	70 - 130	
Trichloroacetic acid	ug/L	100	123	115	70 - 130	
Bromochloroacetic Acid	ug/L	100	111	108	70 - 130	
Dibromoacetic Acid	ug/L	100	110	110	70 - 130	



### Quality Control (cont.)

**Preparation Batch:** OEXT / 7757      **Analysis Method:** 552.2 Haloacetic Acids by GC  
**Preparation Method:** 552.2 Haloacetic Acids by GC  
**Associated Lab IDs:** Q2006545009, Q2006545010

*(continued)*

Parameter	Units	Spiked Amount	Spike Result	% Spike Recovery	Control Limits %	Qual
<b>Surrogate(s)</b>						
Parameter	Units	% Spike Recovery	Control Limits %	% Dup Recovery	Control Limits %	
2,3-Dibromopropionic acid (S)	%	102	70 - 130		70 - 130	



## Quality Control Cross Reference

### ORG/9028 - 552.2 Haloacetic Acids by GC

Lab ID	Sample ID	Prep Batch	Prep Method
Q2006545009	2049861	OEXT/7757	552.2 Haloacetic Acids by GC
Q2006545010	2049862	OEXT/7757	552.2 Haloacetic Acids by GC

### OVOL/4552 - E524.2 Volatiles by GC/MS

Lab ID	Sample ID	Prep Batch	Prep Method
Q2006545001	2002661		

### OVOL/4555 - E524.2 Volatiles by GC/MS

Lab ID	Sample ID	Prep Batch	Prep Method
Q2006545010	2049862		

### OVOL/4557 - E524.2 Volatiles by GC/MS

Lab ID	Sample ID	Prep Batch	Prep Method
Q2006545009	2049861		

### WET/21405 - E300.0, Anions

Lab ID	Sample ID	Prep Batch	Prep Method
Q2006545007	2036309		
Q2006545008	2039706		

### WET/21417 - E335.4 CN, SemiAuto Col

Lab ID	Sample ID	Prep Batch	Prep Method
Q2006545005	2027780	WETP/4948	E335.4 CN, SemiAuto Col
Q2006545006	2029517	WETP/4948	E335.4 CN, SemiAuto Col