Gulf Coast ACCUTEST LABORATORIES

10/09/14

Technical Report for

Weston Solutions

CES- Chemical Spill/4904 Griggs, Houston, TX

Accutest Job Number: TC55870

Sampling Date: 10/02/14

Report to:

Weston Solutions

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Total number of pages in report: **80**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Richard Rodriguez
Laboratory Director

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Certifications: TX (T104704220-14-17, 1M104704220-14-1) AR (14-016-0) AZ (AZ0769) FL (E87628) KS (E-10366) LA (85695/04004) NJ (TX010) OK (2014-139) VA (2085)

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Sample Summary

Weston Solutions

CES- Chemical Spill/4904 Griggs, Houston, TX

Job No: TC55870

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
TC55870-1	10/02/14	10:10		10/02/14	AQ	Water	WWT-9,10+ 12 COMP
TC55870-2	10/02/14	10:45		10/02/14	AQ	Water	WWT-6,7+ 8 COMP
TC55870-3	10/02/14	11:00		10/02/14	AQ	Water	WWT-1,4,5+ VAT COMP

Summary of Hits

Job Number: TC55870
Account: Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Collected: 10/02/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	MQL	SDL	Units	Method
TC55870-1	**WWT-9,10+ 12 COMP**					
Acetone [a]		2780	1000	200	ug/l	SW846 8260C
Chloroform [a]		11.8 J	20	6.9	ug/l	SW846 8260C
2-Hexanone [a]		52.2 J	200	51	ug/l	SW846 8260C
4-Methyl-2-pentanone [a]		309	200	43	ug/l	SW846 8260C
Methylene chloride [a]		41.3 J	100	32	ug/l	SW846 8260C
Methyl ethyl ketone [a]		1160	200	54	ug/l	SW846 8260C
Toluene [a]		10.8 J	20	6.5	ug/l	SW846 8260C
2-Chlorophenol [b]		55.3 J	100	19	ug/l	SW846 8270D
4-Chloro-3-methyl phenol [b]		393	100	23	ug/l	SW846 8270D
2,4-Dichlorophenol [b]		91.4 J	100	22	ug/l	SW846 8270D
2,4-Dimethylphenol [b]		140	100	21	ug/l	SW846 8270D
2-Methylphenol [b]		328	100	19	ug/l	SW846 8270D
3&4-Methylphenol		2090	510	110	ug/l	SW846 8270D
Phenol [b]		962	100	29	ug/l	SW846 8270D
2,4,6-Trichlorophenol [b]		200	100	23	ug/l	SW846 8270D
Aniline [b]		39.3 J	100	26	ug/l	SW846 8270D
Naphthalene [b]		31.6 J	100	21	ug/l	SW846 8270D
TPH (C6-C12)		6.63	2.4	0.77	mg/l	TNRCC 1005
TPH (> C12-C28)		12.5	2.4	0.83	mg/l	TNRCC 1005
TPH (C6-C35)		19.1	2.4	0.77	mg/l	TNRCC 1005
Aluminum		0.0426 J	0.20	0.018	mg/l	SW846 6010B
Antimony		0.0082	0.0050	0.0011	mg/l	SW846 6010B
Arsenic		0.0208	0.0050	0.0047	mg/l	SW846 6010B
Barium		0.0437 J	0.20	0.00039	mg/l	SW846 6010B
Calcium		714	5.0	0.034	mg/l	SW846 6010B
Chromium		0.0640	0.010	0.00062	mg/l	SW846 6010B
Cobalt		0.0435 J	0.050	0.00023	mg/l	SW846 6010B
Iron		286	0.10	0.030	mg/l	SW846 6010B
Lead		0.0026 J	0.0030	0.00077	mg/l	SW846 6010B
Magnesium		11.2	5.0	0.019	mg/l	SW846 6010B
Manganese		4.10	0.015	0.00025	mg/l	SW846 6010B
Nickel		1.56	0.040	0.00040	mg/l	SW846 6010B
Potassium		596	25	0.26	mg/l	SW846 6010B
Sodium		4620	50	0.23	mg/l	SW846 6010B
Vanadium		0.0156 J	0.050	0.00051	mg/l	SW846 6010B
Zinc		0.0444	0.020	0.0015	mg/l	SW846 6010B
Solids, Total Suspended		198	12	6.0	mg/l	SM 2540D
Total Organic Carbon		7320	200	63	mg/l	SM5310B/9060A
TC55870-2	**WWT-6,7+ 8 COMP**					
Acetone [a]		358 J	500	100	ug/l	SW846 8260C
Carbon disulfide [a]		52.3	10	3.6	ug/l	SW846 8260C

Summary of Hits

Job Number: TC55870
Account: Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Collected: 10/02/14

Lab Sample ID Client Sample ID Analyte	Result/ Qual	MQL	SDL	Units	Method
Methyl ethyl ketone [a]	119	100	27	ug/l	SW846 8260C
2-Chlorophenol [c]	27.3 J	51	9.7	ug/l	SW846 8270D
2,4-Dichlorophenol [c]	73.4	51	11	ug/l	SW846 8270D
2,4-Dimethylphenol [c]	87.1	51	11	ug/l	SW846 8270D
2-Methylphenol [c]	198	51	9.7	ug/l	SW846 8270D
3&4-Methylphenol [c]	290	51	11	ug/l	SW846 8270D
Phenol [c]	424	51	15	ug/l	SW846 8270D
2,4,6-Trichlorophenol [c]	816	51	11	ug/l	SW846 8270D
Benzyl Alcohol [c]	329	51	8.8	ug/l	SW846 8270D
Pyridine [c]	14.8 J	51	13	ug/l	SW846 8270D
TPH (C6-C12)	5.16	2.4	0.76	mg/l	TNRCC 1005
TPH (> C12-C28)	18.7	2.4	0.83	mg/l	TNRCC 1005
TPH (> C28-C35)	3.73	2.4	0.83	mg/l	TNRCC 1005
TPH (C6-C35)	27.6	2.4	0.76	mg/l	TNRCC 1005
Aluminum	0.184 J	0.20	0.018	mg/l	SW846 6010B
Antimony	0.0173	0.0050	0.0011	mg/l	SW846 6010B
Arsenic	0.0365	0.0050	0.0047	mg/l	SW846 6010B
Barium	0.0315 J	0.20	0.00039	mg/l	SW846 6010B
Cadmium	0.00090 J	0.0040	0.00023	mg/l	SW846 6010B
Calcium	472	5.0	0.034	mg/l	SW846 6010B
Chromium	0.115	0.010	0.00062	mg/l	SW846 6010B
Cobalt	0.0341 J	0.050	0.00023	mg/l	SW846 6010B
Copper	0.0659	0.020	0.0029	mg/l	SW846 6010B
Iron	35.6	0.10	0.030	mg/l	SW846 6010B
Lead	0.0063	0.0030	0.00077	mg/l	SW846 6010B
Magnesium	24.6	5.0	0.019	mg/l	SW846 6010B
Manganese	1.33	0.015	0.00025	mg/l	SW846 6010B
Nickel	1.78	0.040	0.00040	mg/l	SW846 6010B
Potassium	1650	25	0.26	mg/l	SW846 6010B
Selenium	0.0035 J	0.0050	0.0024	mg/l	SW846 6010B
Sodium	8390	100	0.45	mg/l	SW846 6010B
Vanadium	0.0074 J	0.050	0.00051	mg/l	SW846 6010B
Zinc	2.17	0.020	0.0015	mg/l	SW846 6010B
Solids, Total Suspended	23.3	2.0	1.0	mg/l	SM 2540D
Total Organic Carbon	7430	200	63	mg/l	SM5310B/9060A
TC55870-3 WWT-1,4,5+ VAT COMP					
Acetone [a]	152 J	500	100	ug/l	SW846 8260C
Methyl ethyl ketone [a]	77.1 J	100	27	ug/l	SW846 8260C
4-Chloro-3-methyl phenol [c]	25.8	20	4.7	ug/l	SW846 8270D
2,4-Dichlorophenol [c]	10.8 J	20	4.5	ug/l	SW846 8270D
2,4-Dimethylphenol [c]	5.9 J	20	4.3	ug/l	SW846 8270D
Aniline [c]	6.2 J	20	5.2	ug/l	SW846 8270D
TPH (> C12-C28)	2.14 J	2.4	0.83	mg/l	TNRCC 1005

Summary of Hits

Job Number: TC55870
Account: Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Collected: 10/02/14

Lab Sample ID Client Sample ID Analyte	Result/ Qual	MQL	SDL	Units	Method
TPH (C6-C35)	2.14 J	2.4	0.77	mg/l	TNRCC 1005
Aluminum	0.190 J	0.20	0.018	mg/l	SW846 6010B
Antimony	0.0029 J	0.0050	0.0011	mg/l	SW846 6010B
Arsenic	0.0438	0.0050	0.0047	mg/l	SW846 6010B
Barium	0.0198 J	0.20	0.00039	mg/l	SW846 6010B
Calcium	24.4	5.0	0.034	mg/l	SW846 6010B
Chromium	0.0566	0.010	0.00062	mg/l	SW846 6010B
Cobalt	0.0084 J	0.050	0.00023	mg/l	SW846 6010B
Copper	0.0056 J	0.020	0.0029	mg/l	SW846 6010B
Iron	2.39	0.10	0.030	mg/l	SW846 6010B
Lead	0.0011 J	0.0030	0.00077	mg/l	SW846 6010B
Magnesium	18.3	5.0	0.019	mg/l	SW846 6010B
Manganese	0.237	0.015	0.00025	mg/l	SW846 6010B
Mercury	0.000066 J	0.00020	0.000050	mg/l	SW846 7470A
Nickel	0.434	0.040	0.00040	mg/l	SW846 6010B
Potassium	105	5.0	0.052	mg/l	SW846 6010B
Sodium	3140	100	0.45	mg/l	SW846 6010B
Vanadium	0.0185 J	0.050	0.00051	mg/l	SW846 6010B
Zinc	0.0522	0.020	0.0015	mg/l	SW846 6010B
Solids, Total Suspended	16.3	2.0	1.0	mg/l	SM 2540D
Total Organic Carbon	981	20	6.3	mg/l	SM5310B/9060A

(a) Dilution required due to excessive foaming.
(b) Elevated reporting limits due to matrix interference. Dilution required due to high concentration of target and non-target compounds.
(c) Elevated reporting limits due to matrix interference. Dilution required due to high concentration of non-target compounds.

Gulf Coast ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	WWT-9,10+ 12 COMP		
Lab Sample ID:	TC55870-1	**Date Sampled:**	10/02/14
Matrix:	AQ - Water	**Date Received:**	10/02/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	G0253262.D	20	10/03/14	EM	n/a	n/a	VG1454
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	MQL	SDL	Units	Q
67-64-1	Acetone	2780	1000	200	ug/l	
71-43-2	Benzene	6.8 U	20	6.8	ug/l	
108-86-1	Bromobenzene	5.9 U	20	5.9	ug/l	
74-97-5	Bromochloromethane	8.4 U	20	8.4	ug/l	
75-27-4	Bromodichloromethane	6.8 U	20	6.8	ug/l	
75-25-2	Bromoform	8.7 U	20	8.7	ug/l	
104-51-8	n-Butylbenzene	7.8 U	20	7.8	ug/l	
135-98-8	sec-Butylbenzene	9.1 U	20	9.1	ug/l	
98-06-6	tert-Butylbenzene	8.9 U	20	8.9	ug/l	
108-90-7	Chlorobenzene	5.3 U	20	5.3	ug/l	
75-00-3	Chloroethane	14 U	20	14	ug/l	
67-66-3	Chloroform	11.8	20	6.9	ug/l	J
95-49-8	o-Chlorotoluene	7.3 U	20	7.3	ug/l	
106-43-4	p-Chlorotoluene	6.3 U	20	6.3	ug/l	
75-15-0	Carbon disulfide	7.2 U	20	7.2	ug/l	
56-23-5	Carbon tetrachloride	8.7 U	20	8.7	ug/l	
75-34-3	1,1-Dichloroethane	6.8 U	20	6.8	ug/l	
75-35-4	1,1-Dichloroethylene	9.0 U	20	9.0	ug/l	
563-58-6	1,1-Dichloropropene	12 U	20	12	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	32 U	40	32	ug/l	
106-93-4	1,2-Dibromoethane	6.7 U	20	6.7	ug/l	
107-06-2	1,2-Dichloroethane	7.0 U	20	7.0	ug/l	
78-87-5	1,2-Dichloropropane	6.7 U	20	6.7	ug/l	
142-28-9	1,3-Dichloropropane	6.4 U	20	6.4	ug/l	
594-20-7	2,2-Dichloropropane	10 U	20	10	ug/l	
124-48-1	Dibromochloromethane	7.4 U	20	7.4	ug/l	
75-71-8	Dichlorodifluoromethane	30 U	40	30	ug/l	
156-59-2	cis-1,2-Dichloroethylene	8.0 U	20	8.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	5.7 U	20	5.7	ug/l	
541-73-1	m-Dichlorobenzene	6.6 U	20	6.6	ug/l	
95-50-1	o-Dichlorobenzene	5.6 U	20	5.6	ug/l	
106-46-7	p-Dichlorobenzene	6.3 U	20	6.3	ug/l	

U = Not detected SDL = Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WWT-9,10+ 12 COMP		
Lab Sample ID:	TC55870-1	**Date Sampled:**	10/02/14
Matrix:	AQ - Water	**Date Received:**	10/02/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

VOA 8260 List

CAS No.	Compound	Result	MQL	SDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	9.4 U	20	9.4	ug/l	
10061-02-6	trans-1,3-Dichloropropene	6.4 U	20	6.4	ug/l	
100-41-4	Ethylbenzene	6.5 U	20	6.5	ug/l	
591-78-6	2-Hexanone	52.2	200	51	ug/l	J
87-68-3	Hexachlorobutadiene	9.8 U	20	9.8	ug/l	
98-82-8	Isopropylbenzene	8.0 U	20	8.0	ug/l	
99-87-6	p-Isopropyltoluene	7.3 U	20	7.3	ug/l	
108-10-1	4-Methyl-2-pentanone	309	200	43	ug/l	
74-83-9	Methyl bromide	10 U	20	10	ug/l	
74-87-3	Methyl chloride	13 U	20	13	ug/l	
74-95-3	Methylene bromide	9.0 U	20	9.0	ug/l	
75-09-2	Methylene chloride	41.3	100	32	ug/l	J
78-93-3	Methyl ethyl ketone	1160	200	54	ug/l	
1634-04-4	Methyl Tert Butyl Ether	6.0 U	20	6.0	ug/l	
91-20-3	Naphthalene	31 U	100	31	ug/l	
103-65-1	n-Propylbenzene	7.0 U	20	7.0	ug/l	
100-42-5	Styrene	5.9 U	20	5.9	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	7.4 U	20	7.4	ug/l	
71-55-6	1,1,1-Trichloroethane	8.6 U	20	8.6	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	8.1 U	20	8.1	ug/l	
79-00-5	1,1,2-Trichloroethane	6.9 U	20	6.9	ug/l	
87-61-6	1,2,3-Trichlorobenzene	8.3 U	20	8.3	ug/l	
96-18-4	1,2,3-Trichloropropane	9.2 U	20	9.2	ug/l	
120-82-1	1,2,4-Trichlorobenzene	8.1 U	20	8.1	ug/l	
95-63-6	1,2,4-Trimethylbenzene	6.4 U	20	6.4	ug/l	
108-67-8	1,3,5-Trimethylbenzene	6.9 U	20	6.9	ug/l	
127-18-4	Tetrachloroethylene	9.2 U	20	9.2	ug/l	
108-88-3	Toluene	10.8	20	6.5	ug/l	J
79-01-6	Trichloroethylene	9.8 U	20	9.8	ug/l	
75-69-4	Trichlorofluoromethane	15 U	20	15	ug/l	
75-01-4	Vinyl chloride	16 U	20	16	ug/l	
1330-20-7	Xylene (total)	17 U	60	17	ug/l	
	m,p-Xylene	12 U	40	12	ug/l	
95-47-6	o-Xylene	5.6 U	20	5.6	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		72-122%
17060-07-0	1,2-Dichloroethane-D4	88%		68-124%
2037-26-5	Toluene-D8	95%		80-119%

U = Not detected SDL = Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WWT-9,10+ 12 COMP		
Lab Sample ID:	TC55870-1	**Date Sampled:**	10/02/14
Matrix:	AQ - Water	**Date Received:**	10/02/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	95%		72-126%

(a) Dilution required due to excessive foaming.

U = Not detected SDL = Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WWT-9,10+ 12 COMP		
Lab Sample ID:	TC55870-1	**Date Sampled:**	10/02/14
Matrix:	AQ - Water	**Date Received:**	10/02/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	P35832.D	20	10/07/14	SC	10/06/14	OP34188	EP1727
Run #2	P35847.D	100	10/08/14	SC	10/06/14	OP34188	EP1728

	Initial Volume	Final Volume
Run #1	990 ml	1.0 ml
Run #2	990 ml	1.0 ml

ABN Full List

CAS No.	Compound	Result	MQL	SDL	Units	Q
65-85-0	Benzoic Acid	200 U	400	200	ug/l	
95-57-8	2-Chlorophenol	55.3	100	19	ug/l	J
59-50-7	4-Chloro-3-methyl phenol	393	100	23	ug/l	
120-83-2	2,4-Dichlorophenol	91.4	100	22	ug/l	J
105-67-9	2,4-Dimethylphenol	140	100	21	ug/l	
51-28-5	2,4-Dinitrophenol	200 U	510	200	ug/l	
534-52-1	4,6-Dinitro-o-cresol	110 U	200	110	ug/l	
95-48-7	2-Methylphenol	328	100	19	ug/l	
	3&4-Methylphenol	2090 [b]	510	110	ug/l	
88-75-5	2-Nitrophenol	23 U	100	23	ug/l	
100-02-7	4-Nitrophenol	140 U	510	140	ug/l	
87-86-5	Pentachlorophenol	200 U	510	200	ug/l	
108-95-2	Phenol	962	100	29	ug/l	
95-95-4	2,4,5-Trichlorophenol	20 U	100	20	ug/l	
88-06-2	2,4,6-Trichlorophenol	200	100	23	ug/l	
83-32-9	Acenaphthene	24 U	100	24	ug/l	
208-96-8	Acenaphthylene	24 U	100	24	ug/l	
62-53-3	Aniline	39.3	100	26	ug/l	J
120-12-7	Anthracene	28 U	100	28	ug/l	
92-87-5	Benzidine	200 U	510	200	ug/l	
56-55-3	Benzo(a)anthracene	30 U	100	30	ug/l	
50-32-8	Benzo(a)pyrene	27 U	100	27	ug/l	
205-99-2	Benzo(b)fluoranthene	24 U	100	24	ug/l	
191-24-2	Benzo(g,h,i)perylene	30 U	100	30	ug/l	
207-08-9	Benzo(k)fluoranthene	31 U	100	31	ug/l	
101-55-3	4-Bromophenyl phenyl ether	24 U	100	24	ug/l	
85-68-7	Butyl benzyl phthalate	25 U	100	25	ug/l	
100-51-6	Benzyl Alcohol	18 U	100	18	ug/l	
91-58-7	2-Chloronaphthalene	26 U	100	26	ug/l	
106-47-8	4-Chloroaniline	22 U	100	22	ug/l	
86-74-8	Carbazole	28 U	100	28	ug/l	
218-01-9	Chrysene	32 U	100	32	ug/l	

U = Not detected SDL = Sample Detection Limit J = Indicates an estimated value
MQL = Method Quantitation Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WWT-9,10+ 12 COMP		
Lab Sample ID:	TC55870-1	**Date Sampled:**	10/02/14
Matrix:	AQ - Water	**Date Received:**	10/02/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

ABN Full List

CAS No.	Compound	Result	MQL	SDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	23 U	100	23	ug/l	
111-44-4	bis(2-Chloroethyl)ether	19 U	100	19	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	18 U	100	18	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	26 U	100	26	ug/l	
95-50-1	1,2-Dichlorobenzene	22 U	100	22	ug/l	
122-66-7	1,2-Diphenylhydrazine	27 U	100	27	ug/l	
541-73-1	1,3-Dichlorobenzene	22 U	100	22	ug/l	
106-46-7	1,4-Dichlorobenzene	22 U	100	22	ug/l	
121-14-2	2,4-Dinitrotoluene	25 U	100	25	ug/l	
606-20-2	2,6-Dinitrotoluene	21 U	100	21	ug/l	
91-94-1	3,3'-Dichlorobenzidine	26 U	200	26	ug/l	
53-70-3	Dibenzo(a,h)anthracene	27 U	100	27	ug/l	
132-64-9	Dibenzofuran	25 U	100	25	ug/l	
84-74-2	Di-n-butyl phthalate	27 U	100	27	ug/l	
117-84-0	Di-n-octyl phthalate	24 U	100	24	ug/l	
84-66-2	Diethyl phthalate	28 U	100	28	ug/l	
131-11-3	Dimethyl phthalate	28 U	100	28	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	30 U	100	30	ug/l	
206-44-0	Fluoranthene	28 U	100	28	ug/l	
86-73-7	Fluorene	25 U	100	25	ug/l	
118-74-1	Hexachlorobenzene	31 U	100	31	ug/l	
87-68-3	Hexachlorobutadiene	24 U	100	24	ug/l	
77-47-4	Hexachlorocyclopentadiene	25 U	200	25	ug/l	
67-72-1	Hexachloroethane	25 U	100	25	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	21 U	100	21	ug/l	
78-59-1	Isophorone	24 U	100	24	ug/l	
90-12-0	1-Methylnaphthalene	22 U	100	22	ug/l	
91-57-6	2-Methylnaphthalene	25 U	100	25	ug/l	
88-74-4	2-Nitroaniline	26 U	100	26	ug/l	
99-09-2	3-Nitroaniline	25 U	100	25	ug/l	
100-01-6	4-Nitroaniline	27 U	100	27	ug/l	
91-20-3	Naphthalene	31.6	100	21	ug/l	J
98-95-3	Nitrobenzene	23 U	100	23	ug/l	
62-75-9	n-Nitrosodimethylamine	21 U	100	21	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	22 U	100	22	ug/l	
86-30-6	N-Nitrosodiphenylamine	29 U	100	29	ug/l	
85-01-8	Phenanthrene	30 U	100	30	ug/l	
129-00-0	Pyrene	29 U	100	29	ug/l	
110-86-1	Pyridine	25 U	100	25	ug/l	
120-82-1	1,2,4-Trichlorobenzene	21 U	100	21	ug/l	

U = Not detected SDL = Sample Detection Limit J = Indicates an estimated value
MQL = Method Quantitation Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WWT-9,10+ 12 COMP		
Lab Sample ID:	TC55870-1	**Date Sampled:**	10/02/14
Matrix:	AQ - Water	**Date Received:**	10/02/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	34%	0% c	10-66%
4165-62-2	Phenol-d5	45%	0% c	10-63%
118-79-6	2,4,6-Tribromophenol	41%	0% c	32-128%
4165-60-0	Nitrobenzene-d5	49%	0% c	29-115%
321-60-8	2-Fluorobiphenyl	47%	0% c	34-113%
1718-51-0	Terphenyl-d14	57%	0% c	23-138%

(a) Elevated reporting limits due to matrix interference. Dilution required due to high concentration of target and non-target compounds.
(b) Result is from Run# 2
(c) Outside control limits due to dilution.

U = Not detected SDL = Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WWT-9,10+ 12 COMP		
Lab Sample ID:	TC55870-1	**Date Sampled:**	10/02/14
Matrix:	AQ - Water	**Date Received:**	10/02/14
Method:	SW846 8082 SW846 3510C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	OO31621.D	1	10/06/14	SC	10/06/14	OP34192	GOO527
Run #2							

	Initial Volume	Final Volume
Run #1	990 ml	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	MQL	SDL	Units	Q
12674-11-2	Aroclor 1016	0.21 U	0.51	0.21	ug/l	
11104-28-2	Aroclor 1221	0.20 U	0.51	0.20	ug/l	
11141-16-5	Aroclor 1232	0.17 U	0.51	0.17	ug/l	
53469-21-9	Aroclor 1242	0.12 U	0.51	0.12	ug/l	
12672-29-6	Aroclor 1248	0.10 U	0.51	0.10	ug/l	
11097-69-1	Aroclor 1254	0.10 U	0.51	0.10	ug/l	
11096-82-5	Aroclor 1260	0.12 U	0.51	0.12	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	62%		30-112%
2051-24-3	Decachlorobiphenyl	57%		27-119%

(a) Acid clean-up performed by method 3665A.

U = Not detected SDL = Sample Detection Limit J = Indicates an estimated value
MQL = Method Quantitation Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WWT-9,10+ 12 COMP		
Lab Sample ID:	TC55870-1	**Date Sampled:**	10/02/14
Matrix:	AQ - Water	**Date Received:**	10/02/14
Method:	TNRCC 1005 TX1005	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LB106024.D	1	10/06/14	ZL	10/04/14	OP34183	GLB1565
Run #2							

	Initial Volume	Final Volume
Run #1	31.7 ml	3.0 ml
Run #2		

CAS No.	Compound	Result	MQL	SDL	Units	Q
	TPH (C6-C12)	6.63	2.4	0.77	mg/l	
	TPH (> C12-C28)	12.5	2.4	0.83	mg/l	
	TPH (> C28-C35)	0.83 U	2.4	0.83	mg/l	
	TPH (C6-C35)	19.1	2.4	0.77	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	80%		70-130%
98-08-8	aaa-Trifluorotoluene	74%		70-130%

U = Not detected SDL = Sample Detection Limit J = Indicates an estimated value
MQL = Method Quantitation Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WWT-9,10+ 12 COMP		
Lab Sample ID:	TC55870-1	**Date Sampled:**	10/02/14
Matrix:	AQ - Water	**Date Received:**	10/02/14
		Percent Solids:	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

Total Metals Analysis

Analyte	Result	MQL	SDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	0.0426 J	0.20	0.018	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Antimony	0.0082	0.0050	0.0011	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Arsenic	0.0208	0.0050	0.0047	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Barium	0.0437 J	0.20	0.00039	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Beryllium	0.00018 U	0.0040	0.00018	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Cadmium	0.00023 U	0.0040	0.00023	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Calcium	714	5.0	0.034	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Chromium	0.0640	0.010	0.00062	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Cobalt	0.0435 J	0.050	0.00023	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Copper	0.0029 U	0.020	0.0029	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Iron	286	0.10	0.030	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Lead	0.0026 J	0.0030	0.00077	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Magnesium	11.2	5.0	0.019	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Manganese	4.10	0.015	0.00025	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Mercury	0.000050 U	0.00020	0.000050	mg/l	1	10/08/14	10/08/14	CC	SW846 7470A [3]	SW846 7470A [5]
Nickel	1.56	0.040	0.00040	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Potassium	596	25	0.26	mg/l	5	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Selenium	0.0024 U	0.0050	0.0024	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Silver	0.00059 U	0.010	0.00059	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Sodium	4620	50	0.23	mg/l	10	10/06/14	10/08/14	NS	SW846 6010B [2]	SW846 3010A [4]
Thallium [a]	0.010 U	0.050	0.010	mg/l	5	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Vanadium	0.0156 J	0.050	0.00051	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Zinc	0.0444	0.020	0.0015	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]

(1) Instrument QC Batch: MA10216
(2) Instrument QC Batch: MA10224
(3) Instrument QC Batch: MA10226
(4) Prep QC Batch: MP24345
(5) Prep QC Batch: MP24364

(a) Elevated reporting limit due to dilution required for matrix interference.

MQL = Method Quantitation Limit
SDL = Sample Detection Limit

U = Indicates a result < SDL
J = Indicates a result > = SDL but < MQL

Report of Analysis

Client Sample ID:	WWT-9,10+ 12 COMP		
Lab Sample ID:	TC55870-1	**Date Sampled:**	10/02/14
Matrix:	AQ - Water	**Date Received:**	10/02/14
		Percent Solids:	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

General Chemistry

Analyte	Result	MQL	SDL	Units	DF	Analyzed	By	Method
Solids, Total Suspended	198	12	6.0	mg/l	1	10/07/14	KJ	SM 2540D
Total Organic Carbon	7320	200	63	mg/l	200	10/06/14 15:54	ES	SM5310B/9060A

MQL = Method Quantitation Limit
SDL = Sample Detection Limit

U = Indicates a result < SDL
J = Indicates a result > = SDL but < MQL

Report of Analysis

Client Sample ID:	WWT-6,7+ 8 COMP		
Lab Sample ID:	TC55870-2	**Date Sampled:**	10/02/14
Matrix:	AQ - Water	**Date Received:**	10/02/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	G0253260.D	10	10/03/14	EM	n/a	n/a	VG1454
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	MQL	SDL	Units	Q
67-64-1	Acetone	358	500	100	ug/l	J
71-43-2	Benzene	3.4 U	10	3.4	ug/l	
108-86-1	Bromobenzene	2.9 U	10	2.9	ug/l	
74-97-5	Bromochloromethane	4.2 U	10	4.2	ug/l	
75-27-4	Bromodichloromethane	3.4 U	10	3.4	ug/l	
75-25-2	Bromoform	4.4 U	10	4.4	ug/l	
104-51-8	n-Butylbenzene	3.9 U	10	3.9	ug/l	
135-98-8	sec-Butylbenzene	4.5 U	10	4.5	ug/l	
98-06-6	tert-Butylbenzene	4.5 U	10	4.5	ug/l	
108-90-7	Chlorobenzene	2.7 U	10	2.7	ug/l	
75-00-3	Chloroethane	7.2 U	10	7.2	ug/l	
67-66-3	Chloroform	3.5 U	10	3.5	ug/l	
95-49-8	o-Chlorotoluene	3.6 U	10	3.6	ug/l	
106-43-4	p-Chlorotoluene	3.1 U	10	3.1	ug/l	
75-15-0	Carbon disulfide	52.3	10	3.6	ug/l	
56-23-5	Carbon tetrachloride	4.3 U	10	4.3	ug/l	
75-34-3	1,1-Dichloroethane	3.4 U	10	3.4	ug/l	
75-35-4	1,1-Dichloroethylene	4.5 U	10	4.5	ug/l	
563-58-6	1,1-Dichloropropene	6.2 U	10	6.2	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	16 U	20	16	ug/l	
106-93-4	1,2-Dibromoethane	3.4 U	10	3.4	ug/l	
107-06-2	1,2-Dichloroethane	3.5 U	10	3.5	ug/l	
78-87-5	1,2-Dichloropropane	3.3 U	10	3.3	ug/l	
142-28-9	1,3-Dichloropropane	3.2 U	10	3.2	ug/l	
594-20-7	2,2-Dichloropropane	5.1 U	10	5.1	ug/l	
124-48-1	Dibromochloromethane	3.7 U	10	3.7	ug/l	
75-71-8	Dichlorodifluoromethane	15 U	20	15	ug/l	
156-59-2	cis-1,2-Dichloroethylene	4.0 U	10	4.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	2.9 U	10	2.9	ug/l	
541-73-1	m-Dichlorobenzene	3.3 U	10	3.3	ug/l	
95-50-1	o-Dichlorobenzene	2.8 U	10	2.8	ug/l	
106-46-7	p-Dichlorobenzene	3.2 U	10	3.2	ug/l	

U = Not detected SDL = Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WWT-6,7+ 8 COMP		
Lab Sample ID:	TC55870-2	**Date Sampled:**	10/02/14
Matrix:	AQ - Water	**Date Received:**	10/02/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

VOA 8260 List

CAS No.	Compound	Result	MQL	SDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	4.7 U	10	4.7	ug/l	
10061-02-6	trans-1,3-Dichloropropene	3.2 U	10	3.2	ug/l	
100-41-4	Ethylbenzene	3.2 U	10	3.2	ug/l	
591-78-6	2-Hexanone	26 U	100	26	ug/l	
87-68-3	Hexachlorobutadiene	4.9 U	10	4.9	ug/l	
98-82-8	Isopropylbenzene	4.0 U	10	4.0	ug/l	
99-87-6	p-Isopropyltoluene	3.6 U	10	3.6	ug/l	
108-10-1	4-Methyl-2-pentanone	22 U	100	22	ug/l	
74-83-9	Methyl bromide	5.1 U	10	5.1	ug/l	
74-87-3	Methyl chloride	6.3 U	10	6.3	ug/l	
74-95-3	Methylene bromide	4.5 U	10	4.5	ug/l	
75-09-2	Methylene chloride	16 U	50	16	ug/l	
78-93-3	Methyl ethyl ketone	119	100	27	ug/l	
1634-04-4	Methyl Tert Butyl Ether	3.0 U	10	3.0	ug/l	
91-20-3	Naphthalene	16 U	50	16	ug/l	
103-65-1	n-Propylbenzene	3.5 U	10	3.5	ug/l	
100-42-5	Styrene	2.9 U	10	2.9	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	3.7 U	10	3.7	ug/l	
71-55-6	1,1,1-Trichloroethane	4.3 U	10	4.3	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	4.0 U	10	4.0	ug/l	
79-00-5	1,1,2-Trichloroethane	3.5 U	10	3.5	ug/l	
87-61-6	1,2,3-Trichlorobenzene	4.2 U	10	4.2	ug/l	
96-18-4	1,2,3-Trichloropropane	4.6 U	10	4.6	ug/l	
120-82-1	1,2,4-Trichlorobenzene	4.1 U	10	4.1	ug/l	
95-63-6	1,2,4-Trimethylbenzene	3.2 U	10	3.2	ug/l	
108-67-8	1,3,5-Trimethylbenzene	3.5 U	10	3.5	ug/l	
127-18-4	Tetrachloroethylene	4.6 U	10	4.6	ug/l	
108-88-3	Toluene	3.3 U	10	3.3	ug/l	
79-01-6	Trichloroethylene	4.9 U	10	4.9	ug/l	
75-69-4	Trichlorofluoromethane	7.5 U	10	7.5	ug/l	
75-01-4	Vinyl chloride	7.9 U	10	7.9	ug/l	
1330-20-7	Xylene (total)	8.7 U	30	8.7	ug/l	
	m,p-Xylene	5.9 U	20	5.9	ug/l	
95-47-6	o-Xylene	2.8 U	10	2.8	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		72-122%
17060-07-0	1,2-Dichloroethane-D4	89%		68-124%
2037-26-5	Toluene-D8	94%		80-119%

U = Not detected SDL = Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WWT-6,7+ 8 COMP		
Lab Sample ID:	TC55870-2	**Date Sampled:**	10/02/14
Matrix:	AQ - Water	**Date Received:**	10/02/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	96%		72-126%

(a) Dilution required due to excessive foaming.

U = Not detected SDL = Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WWT-6,7+ 8 COMP		
Lab Sample ID:	TC55870-2	**Date Sampled:**	10/02/14
Matrix:	AQ - Water	**Date Received:**	10/02/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	P35833.D	10	10/07/14	SC	10/06/14	OP34188	EP1727
Run #2							

	Initial Volume	Final Volume
Run #1	990 ml	1.0 ml
Run #2		

ABN Full List

CAS No.	Compound	Result	MQL	SDL	Units	Q
65-85-0	Benzoic Acid	100 U	200	100	ug/l	
95-57-8	2-Chlorophenol	27.3	51	9.7	ug/l	J
59-50-7	4-Chloro-3-methyl phenol	12 U	51	12	ug/l	
120-83-2	2,4-Dichlorophenol	73.4	51	11	ug/l	
105-67-9	2,4-Dimethylphenol	87.1	51	11	ug/l	
51-28-5	2,4-Dinitrophenol	100 U	250	100	ug/l	
534-52-1	4,6-Dinitro-o-cresol	56 U	100	56	ug/l	
95-48-7	2-Methylphenol	198	51	9.7	ug/l	
	3&4-Methylphenol	290	51	11	ug/l	
88-75-5	2-Nitrophenol	11 U	51	11	ug/l	
100-02-7	4-Nitrophenol	72 U	250	72	ug/l	
87-86-5	Pentachlorophenol	100 U	250	100	ug/l	
108-95-2	Phenol	424	51	15	ug/l	
95-95-4	2,4,5-Trichlorophenol	9.8 U	51	9.8	ug/l	
88-06-2	2,4,6-Trichlorophenol	816	51	11	ug/l	
83-32-9	Acenaphthene	12 U	51	12	ug/l	
208-96-8	Acenaphthylene	12 U	51	12	ug/l	
62-53-3	Aniline	13 U	51	13	ug/l	
120-12-7	Anthracene	14 U	51	14	ug/l	
92-87-5	Benzidine	99 U	250	99	ug/l	
56-55-3	Benzo(a)anthracene	15 U	51	15	ug/l	
50-32-8	Benzo(a)pyrene	14 U	51	14	ug/l	
205-99-2	Benzo(b)fluoranthene	12 U	51	12	ug/l	
191-24-2	Benzo(g,h,i)perylene	15 U	51	15	ug/l	
207-08-9	Benzo(k)fluoranthene	15 U	51	15	ug/l	
101-55-3	4-Bromophenyl phenyl ether	12 U	51	12	ug/l	
85-68-7	Butyl benzyl phthalate	13 U	51	13	ug/l	
100-51-6	Benzyl Alcohol	329	51	8.8	ug/l	
91-58-7	2-Chloronaphthalene	13 U	51	13	ug/l	
106-47-8	4-Chloroaniline	11 U	51	11	ug/l	
86-74-8	Carbazole	14 U	51	14	ug/l	
218-01-9	Chrysene	16 U	51	16	ug/l	

U = Not detected SDL = Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WWT-6,7+ 8 COMP		
Lab Sample ID:	TC55870-2	**Date Sampled:**	10/02/14
Matrix:	AQ - Water	**Date Received:**	10/02/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

ABN Full List

CAS No.	Compound	Result	MQL	SDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	12 U	51	12	ug/l	
111-44-4	bis(2-Chloroethyl)ether	9.6 U	51	9.6	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	9.1 U	51	9.1	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	13 U	51	13	ug/l	
95-50-1	1,2-Dichlorobenzene	11 U	51	11	ug/l	
122-66-7	1,2-Diphenylhydrazine	13 U	51	13	ug/l	
541-73-1	1,3-Dichlorobenzene	11 U	51	11	ug/l	
106-46-7	1,4-Dichlorobenzene	11 U	51	11	ug/l	
121-14-2	2,4-Dinitrotoluene	13 U	51	13	ug/l	
606-20-2	2,6-Dinitrotoluene	10 U	51	10	ug/l	
91-94-1	3,3'-Dichlorobenzidine	13 U	100	13	ug/l	
53-70-3	Dibenzo(a,h)anthracene	14 U	51	14	ug/l	
132-64-9	Dibenzofuran	13 U	51	13	ug/l	
84-74-2	Di-n-butyl phthalate	14 U	51	14	ug/l	
117-84-0	Di-n-octyl phthalate	12 U	51	12	ug/l	
84-66-2	Diethyl phthalate	14 U	51	14	ug/l	
131-11-3	Dimethyl phthalate	14 U	51	14	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	15 U	51	15	ug/l	
206-44-0	Fluoranthene	14 U	51	14	ug/l	
86-73-7	Fluorene	12 U	51	12	ug/l	
118-74-1	Hexachlorobenzene	16 U	51	16	ug/l	
87-68-3	Hexachlorobutadiene	12 U	51	12	ug/l	
77-47-4	Hexachlorocyclopentadiene	12 U	100	12	ug/l	
67-72-1	Hexachloroethane	13 U	51	13	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	11 U	51	11	ug/l	
78-59-1	Isophorone	12 U	51	12	ug/l	
90-12-0	1-Methylnaphthalene	11 U	51	11	ug/l	
91-57-6	2-Methylnaphthalene	12 U	51	12	ug/l	
88-74-4	2-Nitroaniline	13 U	51	13	ug/l	
99-09-2	3-Nitroaniline	13 U	51	13	ug/l	
100-01-6	4-Nitroaniline	14 U	51	14	ug/l	
91-20-3	Naphthalene	10 U	51	10	ug/l	
98-95-3	Nitrobenzene	12 U	51	12	ug/l	
62-75-9	n-Nitrosodimethylamine	10 U	51	10	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	11 U	51	11	ug/l	
86-30-6	N-Nitrosodiphenylamine	14 U	51	14	ug/l	
85-01-8	Phenanthrene	15 U	51	15	ug/l	
129-00-0	Pyrene	14 U	51	14	ug/l	
110-86-1	Pyridine	14.8	51	13	ug/l	J
120-82-1	1,2,4-Trichlorobenzene	11 U	51	11	ug/l	

U = Not detected SDL = Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WWT-6,7+ 8 COMP		
Lab Sample ID:	TC55870-2	**Date Sampled:**	10/02/14
Matrix:	AQ - Water	**Date Received:**	10/02/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	36%		10-66%
4165-62-2	Phenol-d5	30%		10-63%
118-79-6	2,4,6-Tribromophenol	29% [b]		32-128%
4165-60-0	Nitrobenzene-d5	61%		29-115%
321-60-8	2-Fluorobiphenyl	53%		34-113%
1718-51-0	Terphenyl-d14	64%		23-138%

(a) Elevated reporting limits due to matrix interference. Dilution required due to high concentration of non-target compounds.
(b) Outside control limits due to dilution.

U = Not detected SDL = Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WWT-6,7+ 8 COMP		
Lab Sample ID:	TC55870-2	**Date Sampled:**	10/02/14
Matrix:	AQ - Water	**Date Received:**	10/02/14
Method:	SW846 8082 SW846 3510C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	OO31622.D	1	10/06/14	SC	10/06/14	OP34192	GOO527
Run #2							

	Initial Volume	Final Volume
Run #1	990 ml	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	MQL	SDL	Units	Q
12674-11-2	Aroclor 1016	0.21 U	0.51	0.21	ug/l	
11104-28-2	Aroclor 1221	0.20 U	0.51	0.20	ug/l	
11141-16-5	Aroclor 1232	0.17 U	0.51	0.17	ug/l	
53469-21-9	Aroclor 1242	0.12 U	0.51	0.12	ug/l	
12672-29-6	Aroclor 1248	0.10 U	0.51	0.10	ug/l	
11097-69-1	Aroclor 1254	0.10 U	0.51	0.10	ug/l	
11096-82-5	Aroclor 1260	0.12 U	0.51	0.12	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	76%		30-112%
2051-24-3	Decachlorobiphenyl	61%		27-119%

(a) Acid clean-up performed by method 3665A.

U = Not detected SDL = Sample Detection Limit J = Indicates an estimated value
MQL = Method Quantitation Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WWT-6,7+ 8 COMP		
Lab Sample ID:	TC55870-2	**Date Sampled:**	10/02/14
Matrix:	AQ - Water	**Date Received:**	10/02/14
Method:	TNRCC 1005 TX1005	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LB106116.D	1	10/07/14	ZL	10/04/14	OP34183	GLB1566
Run #2							

	Initial Volume	Final Volume
Run #1	31.8 ml	3.0 ml
Run #2		

CAS No.	Compound	Result	MQL	SDL	Units	Q
	TPH (C6-C12)	5.16	2.4	0.76	mg/l	
	TPH (> C12-C28)	18.7	2.4	0.83	mg/l	
	TPH (> C28-C35)	3.73	2.4	0.83	mg/l	
	TPH (C6-C35)	27.6	2.4	0.76	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	95%		70-130%
98-08-8	aaa-Trifluorotoluene	107%		70-130%

U = Not detected SDL = Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WWT-6,7+ 8 COMP		
Lab Sample ID:	TC55870-2	**Date Sampled:**	10/02/14
Matrix:	AQ - Water	**Date Received:**	10/02/14
		Percent Solids:	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

Total Metals Analysis

Analyte	Result	MQL	SDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	0.184 J	0.20	0.018	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Antimony	0.0173	0.0050	0.0011	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Arsenic	0.0365	0.0050	0.0047	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Barium	0.0315 J	0.20	0.00039	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Beryllium	0.00018 U	0.0040	0.00018	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Cadmium	0.00090 J	0.0040	0.00023	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Calcium	472	5.0	0.034	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Chromium	0.115	0.010	0.00062	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Cobalt	0.0341 J	0.050	0.00023	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Copper	0.0659	0.020	0.0029	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Iron	35.6	0.10	0.030	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Lead	0.0063	0.0030	0.00077	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Magnesium	24.6	5.0	0.019	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Manganese	1.33	0.015	0.00025	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Mercury	0.000050 U	0.00020	0.000050	mg/l	1	10/08/14	10/08/14	CC	SW846 7470A [3]	SW846 7470A [5]
Nickel	1.78	0.040	0.00040	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Potassium	1650	25	0.26	mg/l	5	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Selenium	0.0035 J	0.0050	0.0024	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Silver	0.00059 U	0.010	0.00059	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Sodium	8390	100	0.45	mg/l	20	10/06/14	10/08/14	NS	SW846 6010B [2]	SW846 3010A [4]
Thallium [a]	0.010 U	0.050	0.010	mg/l	5	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Vanadium	0.0074 J	0.050	0.00051	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Zinc	2.17	0.020	0.0015	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]

(1) Instrument QC Batch: MA10216
(2) Instrument QC Batch: MA10224
(3) Instrument QC Batch: MA10226
(4) Prep QC Batch: MP24345
(5) Prep QC Batch: MP24364

(a) Elevated reporting limit due to dilution required for matrix interference.

MQL = Method Quantitation Limit
SDL = Sample Detection Limit

U = Indicates a result < SDL
J = Indicates a result > = SDL but < MQL

Report of Analysis

Client Sample ID:	WWT-6,7+ 8 COMP		
Lab Sample ID:	TC55870-2	**Date Sampled:**	10/02/14
Matrix:	AQ - Water	**Date Received:**	10/02/14
		Percent Solids:	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

General Chemistry

Analyte	Result	MQL	SDL	Units	DF	Analyzed	By	Method
Solids, Total Suspended	23.3	2.0	1.0	mg/l	1	10/07/14	KJ	SM 2540D
Total Organic Carbon	7430	200	63	mg/l	200	10/06/14 16:06	ES	SM5310B/9060A

MQL = Method Quantitation Limit
SDL = Sample Detection Limit

U = Indicates a result < SDL
J = Indicates a result > = SDL but < MQL

Report of Analysis

Client Sample ID:	WWT-1,4,5+ VAT COMP		
Lab Sample ID:	TC55870-3	**Date Sampled:**	10/02/14
Matrix:	AQ - Water	**Date Received:**	10/02/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	G0253258.D	10	10/03/14	EM	n/a	n/a	VG1454
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	MQL	SDL	Units	Q
67-64-1	Acetone	152	500	100	ug/l	J
71-43-2	Benzene	3.4 U	10	3.4	ug/l	
108-86-1	Bromobenzene	2.9 U	10	2.9	ug/l	
74-97-5	Bromochloromethane	4.2 U	10	4.2	ug/l	
75-27-4	Bromodichloromethane	3.4 U	10	3.4	ug/l	
75-25-2	Bromoform	4.4 U	10	4.4	ug/l	
104-51-8	n-Butylbenzene	3.9 U	10	3.9	ug/l	
135-98-8	sec-Butylbenzene	4.5 U	10	4.5	ug/l	
98-06-6	tert-Butylbenzene	4.5 U	10	4.5	ug/l	
108-90-7	Chlorobenzene	2.7 U	10	2.7	ug/l	
75-00-3	Chloroethane	7.2 U	10	7.2	ug/l	
67-66-3	Chloroform	3.5 U	10	3.5	ug/l	
95-49-8	o-Chlorotoluene	3.6 U	10	3.6	ug/l	
106-43-4	p-Chlorotoluene	3.1 U	10	3.1	ug/l	
75-15-0	Carbon disulfide	3.6 U	10	3.6	ug/l	
56-23-5	Carbon tetrachloride	4.3 U	10	4.3	ug/l	
75-34-3	1,1-Dichloroethane	3.4 U	10	3.4	ug/l	
75-35-4	1,1-Dichloroethylene	4.5 U	10	4.5	ug/l	
563-58-6	1,1-Dichloropropene	6.2 U	10	6.2	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	16 U	20	16	ug/l	
106-93-4	1,2-Dibromoethane	3.4 U	10	3.4	ug/l	
107-06-2	1,2-Dichloroethane	3.5 U	10	3.5	ug/l	
78-87-5	1,2-Dichloropropane	3.3 U	10	3.3	ug/l	
142-28-9	1,3-Dichloropropane	3.2 U	10	3.2	ug/l	
594-20-7	2,2-Dichloropropane	5.1 U	10	5.1	ug/l	
124-48-1	Dibromochloromethane	3.7 U	10	3.7	ug/l	
75-71-8	Dichlorodifluoromethane	15 U	20	15	ug/l	
156-59-2	cis-1,2-Dichloroethylene	4.0 U	10	4.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	2.9 U	10	2.9	ug/l	
541-73-1	m-Dichlorobenzene	3.3 U	10	3.3	ug/l	
95-50-1	o-Dichlorobenzene	2.8 U	10	2.8	ug/l	
106-46-7	p-Dichlorobenzene	3.2 U	10	3.2	ug/l	

U = Not detected SDL = Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WWT-1,4,5+ VAT COMP		
Lab Sample ID:	TC55870-3	**Date Sampled:**	10/02/14
Matrix:	AQ - Water	**Date Received:**	10/02/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

VOA 8260 List

CAS No.	Compound	Result	MQL	SDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	4.7 U	10	4.7	ug/l	
10061-02-6	trans-1,3-Dichloropropene	3.2 U	10	3.2	ug/l	
100-41-4	Ethylbenzene	3.2 U	10	3.2	ug/l	
591-78-6	2-Hexanone	26 U	100	26	ug/l	
87-68-3	Hexachlorobutadiene	4.9 U	10	4.9	ug/l	
98-82-8	Isopropylbenzene	4.0 U	10	4.0	ug/l	
99-87-6	p-Isopropyltoluene	3.6 U	10	3.6	ug/l	
108-10-1	4-Methyl-2-pentanone	22 U	100	22	ug/l	
74-83-9	Methyl bromide	5.1 U	10	5.1	ug/l	
74-87-3	Methyl chloride	6.3 U	10	6.3	ug/l	
74-95-3	Methylene bromide	4.5 U	10	4.5	ug/l	
75-09-2	Methylene chloride	16 U	50	16	ug/l	
78-93-3	Methyl ethyl ketone	77.1	100	27	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	3.0 U	10	3.0	ug/l	
91-20-3	Naphthalene	16 U	50	16	ug/l	
103-65-1	n-Propylbenzene	3.5 U	10	3.5	ug/l	
100-42-5	Styrene	2.9 U	10	2.9	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	3.7 U	10	3.7	ug/l	
71-55-6	1,1,1-Trichloroethane	4.3 U	10	4.3	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	4.0 U	10	4.0	ug/l	
79-00-5	1,1,2-Trichloroethane	3.5 U	10	3.5	ug/l	
87-61-6	1,2,3-Trichlorobenzene	4.2 U	10	4.2	ug/l	
96-18-4	1,2,3-Trichloropropane	4.6 U	10	4.6	ug/l	
120-82-1	1,2,4-Trichlorobenzene	4.1 U	10	4.1	ug/l	
95-63-6	1,2,4-Trimethylbenzene	3.2 U	10	3.2	ug/l	
108-67-8	1,3,5-Trimethylbenzene	3.5 U	10	3.5	ug/l	
127-18-4	Tetrachloroethylene	4.6 U	10	4.6	ug/l	
108-88-3	Toluene	3.3 U	10	3.3	ug/l	
79-01-6	Trichloroethylene	4.9 U	10	4.9	ug/l	
75-69-4	Trichlorofluoromethane	7.5 U	10	7.5	ug/l	
75-01-4	Vinyl chloride	7.9 U	10	7.9	ug/l	
1330-20-7	Xylene (total)	8.7 U	30	8.7	ug/l	
	m,p-Xylene	5.9 U	20	5.9	ug/l	
95-47-6	o-Xylene	2.8 U	10	2.8	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		72-122%
17060-07-0	1,2-Dichloroethane-D4	89%		68-124%
2037-26-5	Toluene-D8	96%		80-119%

U = Not detected SDL = Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WWT-1,4,5+ VAT COMP		
Lab Sample ID:	TC55870-3	**Date Sampled:**	10/02/14
Matrix:	AQ - Water	**Date Received:**	10/02/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	96%		72-126%

(a) Dilution required due to excessive foaming.

U = Not detected SDL = Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WWT-1,4,5+ VAT COMP		
Lab Sample ID:	TC55870-3	**Date Sampled:**	10/02/14
Matrix:	AQ - Water	**Date Received:**	10/02/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	P35855.D	4	10/08/14	SC	10/06/14	OP34188	EP1728
Run #2							

	Initial Volume	Final Volume
Run #1	990 ml	1.0 ml
Run #2		

ABN Full List

CAS No.	Compound	Result	MQL	SDL	Units	Q
65-85-0	Benzoic Acid	40 U	81	40	ug/l	
95-57-8	2-Chlorophenol	3.9 U	20	3.9	ug/l	
59-50-7	4-Chloro-3-methyl phenol	25.8	20	4.7	ug/l	
120-83-2	2,4-Dichlorophenol	10.8	20	4.5	ug/l	J
105-67-9	2,4-Dimethylphenol	5.9	20	4.3	ug/l	J
51-28-5	2,4-Dinitrophenol	40 U	100	40	ug/l	
534-52-1	4,6-Dinitro-o-cresol	22 U	40	22	ug/l	
95-48-7	2-Methylphenol	3.9 U	20	3.9	ug/l	
	3&4-Methylphenol	4.4 U	20	4.4	ug/l	
88-75-5	2-Nitrophenol	4.5 U	20	4.5	ug/l	
100-02-7	4-Nitrophenol	29 U	100	29	ug/l	
87-86-5	Pentachlorophenol	40 U	100	40	ug/l	
108-95-2	Phenol	5.9 U	20	5.9	ug/l	
95-95-4	2,4,5-Trichlorophenol	3.9 U	20	3.9	ug/l	
88-06-2	2,4,6-Trichlorophenol	4.5 U	20	4.5	ug/l	
83-32-9	Acenaphthene	4.8 U	20	4.8	ug/l	
208-96-8	Acenaphthylene	4.7 U	20	4.7	ug/l	
62-53-3	Aniline	6.2	20	5.2	ug/l	J
120-12-7	Anthracene	5.7 U	20	5.7	ug/l	
92-87-5	Benzidine	40 U	100	40	ug/l	
56-55-3	Benzo(a)anthracene	6.0 U	20	6.0	ug/l	
50-32-8	Benzo(a)pyrene	5.4 U	20	5.4	ug/l	
205-99-2	Benzo(b)fluoranthene	4.8 U	20	4.8	ug/l	
191-24-2	Benzo(g,h,i)perylene	6.0 U	20	6.0	ug/l	
207-08-9	Benzo(k)fluoranthene	6.1 U	20	6.1	ug/l	
101-55-3	4-Bromophenyl phenyl ether	4.8 U	20	4.8	ug/l	
85-68-7	Butyl benzyl phthalate	5.1 U	20	5.1	ug/l	
100-51-6	Benzyl Alcohol	3.5 U	20	3.5	ug/l	
91-58-7	2-Chloronaphthalene	5.3 U	20	5.3	ug/l	
106-47-8	4-Chloroaniline	4.4 U	20	4.4	ug/l	
86-74-8	Carbazole	5.6 U	20	5.6	ug/l	
218-01-9	Chrysene	6.3 U	20	6.3	ug/l	

U = Not detected SDL = Sample Detection Limit J = Indicates an estimated value
MQL = Method Quantitation Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WWT-1,4,5+ VAT COMP		
Lab Sample ID:	TC55870-3	**Date Sampled:**	10/02/14
Matrix:	AQ - Water	**Date Received:**	10/02/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

ABN Full List

CAS No.	Compound	Result	MQL	SDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	4.7 U	20	4.7	ug/l	
111-44-4	bis(2-Chloroethyl)ether	3.8 U	20	3.8	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	3.6 U	20	3.6	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	5.1 U	20	5.1	ug/l	
95-50-1	1,2-Dichlorobenzene	4.4 U	20	4.4	ug/l	
122-66-7	1,2-Diphenylhydrazine	5.4 U	20	5.4	ug/l	
541-73-1	1,3-Dichlorobenzene	4.4 U	20	4.4	ug/l	
106-46-7	1,4-Dichlorobenzene	4.4 U	20	4.4	ug/l	
121-14-2	2,4-Dinitrotoluene	5.1 U	20	5.1	ug/l	
606-20-2	2,6-Dinitrotoluene	4.1 U	20	4.1	ug/l	
91-94-1	3,3'-Dichlorobenzidine	5.3 U	40	5.3	ug/l	
53-70-3	Dibenzo(a,h)anthracene	5.5 U	20	5.5	ug/l	
132-64-9	Dibenzofuran	5.1 U	20	5.1	ug/l	
84-74-2	Di-n-butyl phthalate	5.4 U	20	5.4	ug/l	
117-84-0	Di-n-octyl phthalate	4.7 U	20	4.7	ug/l	
84-66-2	Diethyl phthalate	5.6 U	20	5.6	ug/l	
131-11-3	Dimethyl phthalate	5.6 U	20	5.6	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	5.9 U	20	5.9	ug/l	
206-44-0	Fluoranthene	5.6 U	20	5.6	ug/l	
86-73-7	Fluorene	5.0 U	20	5.0	ug/l	
118-74-1	Hexachlorobenzene	6.3 U	20	6.3	ug/l	
87-68-3	Hexachlorobutadiene	4.9 U	20	4.9	ug/l	
77-47-4	Hexachlorocyclopentadiene	4.9 U	40	4.9	ug/l	
67-72-1	Hexachloroethane	5.1 U	20	5.1	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	4.2 U	20	4.2	ug/l	
78-59-1	Isophorone	4.8 U	20	4.8	ug/l	
90-12-0	1-Methylnaphthalene	4.3 U	20	4.3	ug/l	
91-57-6	2-Methylnaphthalene	5.0 U	20	5.0	ug/l	
88-74-4	2-Nitroaniline	5.3 U	20	5.3	ug/l	
99-09-2	3-Nitroaniline	5.0 U	20	5.0	ug/l	
100-01-6	4-Nitroaniline	5.5 U	20	5.5	ug/l	
91-20-3	Naphthalene	4.2 U	20	4.2	ug/l	
98-95-3	Nitrobenzene	4.6 U	20	4.6	ug/l	
62-75-9	n-Nitrosodimethylamine	4.2 U	20	4.2	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	4.4 U	20	4.4	ug/l	
86-30-6	N-Nitrosodiphenylamine	5.7 U	20	5.7	ug/l	
85-01-8	Phenanthrene	6.0 U	20	6.0	ug/l	
129-00-0	Pyrene	5.8 U	20	5.8	ug/l	
110-86-1	Pyridine	5.1 U	20	5.1	ug/l	
120-82-1	1,2,4-Trichlorobenzene	4.3 U	20	4.3	ug/l	

U = Not detected SDL = Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WWT-1,4,5+ VAT COMP		
Lab Sample ID:	TC55870-3	**Date Sampled:**	10/02/14
Matrix:	AQ - Water	**Date Received:**	10/02/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	37%		10-66%
4165-62-2	Phenol-d5	23%		10-63%
118-79-6	2,4,6-Tribromophenol	67%		32-128%
4165-60-0	Nitrobenzene-d5	54%		29-115%
321-60-8	2-Fluorobiphenyl	59%		34-113%
1718-51-0	Terphenyl-d14	83%		23-138%

(a) Elevated reporting limits due to matrix interference. Dilution required due to high concentration of non-target compounds.

U = Not detected SDL = Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WWT-1,4,5+ VAT COMP		
Lab Sample ID:	TC55870-3	**Date Sampled:**	10/02/14
Matrix:	AQ - Water	**Date Received:**	10/02/14
Method:	SW846 8082 SW846 3510C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	OO31623.D	1	10/06/14	SC	10/06/14	OP34192	GOO527
Run #2							

	Initial Volume	Final Volume
Run #1	990 ml	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	MQL	SDL	Units	Q
12674-11-2	Aroclor 1016	0.21 U	0.51	0.21	ug/l	
11104-28-2	Aroclor 1221	0.20 U	0.51	0.20	ug/l	
11141-16-5	Aroclor 1232	0.17 U	0.51	0.17	ug/l	
53469-21-9	Aroclor 1242	0.12 U	0.51	0.12	ug/l	
12672-29-6	Aroclor 1248	0.10 U	0.51	0.10	ug/l	
11097-69-1	Aroclor 1254	0.10 U	0.51	0.10	ug/l	
11096-82-5	Aroclor 1260	0.12 U	0.51	0.12	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	72%		30-112%
2051-24-3	Decachlorobiphenyl	51%		27-119%

(a) Acid clean-up performed by method 3665A.

U = Not detected SDL = Sample Detection Limit J = Indicates an estimated value
MQL = Method Quantitation Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WWT-1,4,5+ VAT COMP		
Lab Sample ID:	TC55870-3	**Date Sampled:**	10/02/14
Matrix:	AQ - Water	**Date Received:**	10/02/14
Method:	TNRCC 1005 TX1005	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LB106026.D	1	10/06/14	ZL	10/04/14	OP34183	GLB1565
Run #2							

	Initial Volume	Final Volume
Run #1	31.5 ml	3.0 ml
Run #2		

CAS No.	Compound	Result	MQL	SDL	Units	Q
	TPH (C6-C12)	0.77 U	2.4	0.77	mg/l	
	TPH (> C12-C28)	2.14	2.4	0.83	mg/l	J
	TPH (> C28-C35)	0.83 U	2.4	0.83	mg/l	
	TPH (C6-C35)	2.14	2.4	0.77	mg/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	82%		70-130%
98-08-8	aaa-Trifluorotoluene	83%		70-130%

U = Not detected SDL = Sample Detection Limit J = Indicates an estimated value
MQL = Method Quantitation Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WWT-1,4,5+ VAT COMP		
Lab Sample ID:	TC55870-3	**Date Sampled:**	10/02/14
Matrix:	AQ - Water	**Date Received:**	10/02/14
		Percent Solids:	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

Total Metals Analysis

Analyte	Result	MQL	SDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	0.190 J	0.20	0.018	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Antimony	0.0029 J	0.0050	0.0011	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Arsenic	0.0438	0.0050	0.0047	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Barium	0.0198 J	0.20	0.00039	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Beryllium	0.00018 U	0.0040	0.00018	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Cadmium	0.00023 U	0.0040	0.00023	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Calcium	24.4	5.0	0.034	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Chromium	0.0566	0.010	0.00062	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Cobalt	0.0084 J	0.050	0.00023	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Copper	0.0056 J	0.020	0.0029	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Iron	2.39	0.10	0.030	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Lead	0.0011 J	0.0030	0.00077	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Magnesium	18.3	5.0	0.019	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Manganese	0.237	0.015	0.00025	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Mercury	0.000066 J	0.00020	0.000050	mg/l	1	10/08/14	10/08/14	CC	SW846 7470A [3]	SW846 7470A [5]
Nickel	0.434	0.040	0.00040	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Potassium	105	5.0	0.052	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Selenium	0.0024 U	0.0050	0.0024	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Silver	0.00059 U	0.010	0.00059	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Sodium	3140	100	0.45	mg/l	20	10/06/14	10/08/14	NS	SW846 6010B [2]	SW846 3010A [4]
Thallium	0.0021 U	0.010	0.0021	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Vanadium	0.0185 J	0.050	0.00051	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]
Zinc	0.0522	0.020	0.0015	mg/l	1	10/06/14	10/07/14	NS	SW846 6010B [1]	SW846 3010A [4]

(1) Instrument QC Batch: MA10216
(2) Instrument QC Batch: MA10224
(3) Instrument QC Batch: MA10226
(4) Prep QC Batch: MP24345
(5) Prep QC Batch: MP24364

MQL = Method Quantitation Limit
SDL = Sample Detection Limit

U = Indicates a result < SDL
J = Indicates a result > = SDL but < MQL

Report of Analysis

Client Sample ID:	WWT-1,4,5+ VAT COMP		
Lab Sample ID:	TC55870-3	**Date Sampled:**	10/02/14
Matrix:	AQ - Water	**Date Received:**	10/02/14
		Percent Solids:	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

General Chemistry

Analyte	Result	MQL	SDL	Units	DF	Analyzed	By	Method
Solids, Total Suspended	16.3	2.0	1.0	mg/l	1	10/07/14	KJ	SM 2540D
Total Organic Carbon	981	20	6.3	mg/l	20	10/06/14 16:34	ES	SM5310B/9060A

MQL = Method Quantitation Limit
SDL = Sample Detection Limit

U = Indicates a result < SDL
J = Indicates a result > = SDL but < MQL

Gulf Coast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

ACCUTEST Laboratories

10165 Harwin Dr, Ste 150 Houston, TX 77036
TEL 713-271-4700 FAX 713-271-4770
www.accutest.com

PAGE ___ OF ___

FED-EX Tracking #:
Bottle Order Control #:
Accutest Quote #:
Accutest Job #: TC55870

Client / Reporting Information

Company Name: Weston Solutions, Inc.
Street Address: 5599 San Felipe, Suite 700
City: Houston, State: TX, Zip: 77056
Project Contact: Tom Walzer/Kristi Warr, E-mail:
Phone #: , Fax #:
Sampler(s) Name(s): , Phone #:

Project Information

Project Name: CES -
Street: 4904 Griggs
City: Houston, State: TX
Project #:
Client Purchase Order #:
Project Manager: Derrick Cobb

Billing Information (if different from Report to)
Company Name: Weston Solutions
Street Address: 5599 San Felipe Suite 700
City: Houston, State: TX, Zip: 77056
Attention: Kristi Warr

Requested Analyses

Accutest Sample #	Field ID / Point of Collection	Collection Date	Time	Sampled By	Matrix	# of bottles	HCl	NaOH	ZnAcNaOH	HNO3	H2SO4	NONE	DI Water	MEOH	TSP	NaHSO4	ENCORE	OTHER	VOCs	SVOCs	Metals	PCB	TPH	TSS	TOC					Matrix Codes / LAB USE ONLY
1	WWT-9, 10+12 Comp	10/2/14	1010			12												X	X	X	X	X	X	X	X					
2	WWT-6, 7, +8 Comp	10/2/14	1045			12												X	X	X	X	X	X	X	X					
3	WWT-1, 4, 5 + VAT Comp	10/2/14	1100			12												X	X	X	X	X	X	X	X					

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank

Turnaround Time (Business days)

- ☐ Standard
- ☐ 5 Day *RUSH*
- ☐ 4 Day *RUSH*
- ☐ 3 Day *RUSH*
- ☐ 2 Day *RUSH*
- ☐ 1 Day *EMERGENCY*

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information

- ☐ Commercial "A" (Level 1)
- ☐ Commercial "B" (Level 2)
- ☐ FULT1 (Level 3+4)
- ☐ REDT1 (Level 3+4)
- ☐ Commercial "C"
- ☐ TRRP
- ☐ EDD Format
- ☐ Other _____

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC & Surrogate Summary

Comments / Special Instructions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	10/2/14 1540	2	2	10/2/14 1640	2
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	☐ Intact ☐ Not intact	Preserved where applicable ☐	On Ice ☐	Cooler Temp.

TC55870: Chain of Custody
Page 1 of 5

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: TC55870 **Client:** WESTON SOLUTIONS **Project:** CES

Date / Time Received: 10/2/2014 4:26:00 PM **Delivery Method:** **Airbill #'s:**

No. Coolers: 4 **Therm ID:** IR-5; **Temp Adjustment Factor:** 0;

Cooler Temps (Initial/Adjusted): #1: (3.2/3.2); #2: (3.4/3.4); #3: (3.6/3.6);

Cooler Security	Y	N		Y	N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:		
3. Cooler media:	Ice (Bag)	

Quality Control Preservation	Y	N	N/A	WTB	STB
1. Trip Blank present / cooler:	☐	☐	☑	☐	☐
2. Trip Blank listed on COC:	☐	☐	☑		
3. Samples preserved properly:	☑	☐			
4. VOCs headspace free:	☐	☑	☐		

Sample Integrity - Documentation	Y	N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments Matrix is water
Received 6 of 8 vials with headspace > 6mm. On samples "wwt-9,10,12 comp" and "wwt-6,7,8 comp"
Received sample "wwt 1,4,5 & vat com" 1 of 8 vials with headspace >6mm.

Accutest Laboratories
V:713.271.4700
10165 Harwin Drive
F: 713.271.4770
Houston, TX 77036
www/accutest.com

Problem Resolution

Accutest Job Number: TC55870

CSR: _____ **Response Date:** _____

Response:

Sample Receipt Log

Job #: TC55870 **Date / Time Received:** 10/2/2014 4:26:00 PM 4:26:0 **Initials:** BG

Client: WESTON SOLUTIONS

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
3	TC55870-1	32oz	1	4V	N/P	Note #2 - Preservative check not applicable.	IR-5	3.6	0	3.6
3	TC55870-1	LAG	2	4V	N/P	Note #2 - Preservative check not applicable.	IR-5	3.6	0	3.6
3	TC55870-1	LAG	3	4V	N/P	Note #2 - Preservative check not applicable.	IR-5	3.6	0	3.6
3	TC55870-1	LAG	4	4V	N/P	Note #2 - Preservative check not applicable.	IR-5	3.6	0	3.6
3	TC55870-1	40ml	5	4V	N/P	Note #2 - Preservative check not applicable.	IR-5	3.6	0	3.6
3	TC55870-1	40ml	6	4V	N/P	Note #2 - Preservative check not applicable.	IR-5	3.6	0	3.6
3	TC55870-1	40ml	7	4V	N/P	Note #2 - Preservative check not applicable.	IR-5	3.6	0	3.6
3	TC55870-1	40ml	8	VR	N/P	Note #2 - Preservative check not applicable.	IR-5	3.6	0	3.6
3	TC55870-1	40ml	9	VR	N/P	Note #2 - Preservative check not applicable.	IR-5	3.6	0	3.6
3	TC55870-1	40ml	10	VR	N/P	Note #2 - Preservative check not applicable.	IR-5	3.6	0	3.6
3	TC55870-1	40ml	11	1H	N/P	Note #2 - Preservative check not applicable.	IR-5	3.6	0	3.6
3	TC55870-1	40ml	12	1H	N/P	Note #2 - Preservative check not applicable.	IR-5	3.6	0	3.6
2	TC55870-2	32oz	1	4V	N/P	Note #2 - Preservative check not applicable.	IR-5	3.4	0	3.4
2	TC55870-2	LAG	2	4V	N/P	Note #2 - Preservative check not applicable.	IR-5	3.4	0	3.4
2	TC55870-2	LAG	3	4V	N/P	Note #2 - Preservative check not applicable.	IR-5	3.4	0	3.4
2	TC55870-2	LAG	4	4V	N/P	Note #2 - Preservative check not applicable.	IR-5	3.4	0	3.4
2	TC55870-2	40ml	5	4V	N/P	Note #2 - Preservative check not applicable.	IR-5	3.4	0	3.4
2	TC55870-2	40ml	6	4V	N/P	Note #2 - Preservative check not applicable.	IR-5	3.4	0	3.4
2	TC55870-2	40ml	7	4V	N/P	Note #2 - Preservative check not applicable.	IR-5	3.4	0	3.4
2	TC55870-2	40ml	8	VR	N/P	Note #2 - Preservative check not applicable.	IR-5	3.4	0	3.4
2	TC55870-2	40ml	9	VR	N/P	Note #2 - Preservative check not applicable.	IR-5	3.4	0	3.4
2	TC55870-2	40ml	10	VR	N/P	Note #2 - Preservative check not applicable.	IR-5	3.4	0	3.4
2	TC55870-2	40ml	11	1H	N/P	Note #2 - Preservative check not applicable.	IR-5	3.4	0	3.4

Sample Receipt Log

Job #: TC55870 **Date / Time Received:** 10/2/2014 4:26:00 PM 4:26:0 **Initials:** BG

Client: WESTON SOLUTIONS

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
2	TC55870-2	40ml	12	1H	N/P	Note #2 - Preservative check not applicable.	IR-5	3.4	0	3.4
1	TC55870-3	32oz	1	4V	N/P	Note #2 - Preservative check not applicable.	IR-5	3.2	0	3.2
1	TC55870-3	LAG	2	4V	N/P	Note #2 - Preservative check not applicable.	IR-5	3.2	0	3.2
1	TC55870-3	LAG	3	4V	N/P	Note #2 - Preservative check not applicable.	IR-5	3.2	0	3.2
1	TC55870-3	LAG	4	4V	N/P	Note #2 - Preservative check not applicable.	IR-5	3.2	0	3.2
1	TC55870-3	40ml	5	4V	N/P	Note #2 - Preservative check not applicable.	IR-5	3.2	0	3.2
1	TC55870-3	40ml	6	4V	N/P	Note #2 - Preservative check not applicable.	IR-5	3.2	0	3.2
1	TC55870-3	40ml	7	4V	N/P	Note #2 - Preservative check not applicable.	IR-5	3.2	0	3.2
1	TC55870-3	40ml	8	VR	N/P	Note #2 - Preservative check not applicable.	IR-5	3.2	0	3.2
1	TC55870-3	40ml	9	VR	N/P	Note #2 - Preservative check not applicable.	IR-5	3.2	0	3.2
1	TC55870-3	40ml	10	VR	N/P	Note #2 - Preservative check not applicable.	IR-5	3.2	0	3.2
1	TC55870-3	40ml	11	1H	N/P	Note #2 - Preservative check not applicable.	IR-5	3.2	0	3.2
1	TC55870-3	40ml	12	1H	N/P	Note #2 - Preservative check not applicable.	IR-5	3.2	0	3.2

Gulf Coast ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: TC55870
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VG1454-MB	G0253248.D	1	10/03/14	EM	n/a	n/a	VG1454

The QC reported here applies to the following samples: **Method:** SW846 8260C

TC55870-1, TC55870-2, TC55870-3

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	10	ug/l	
71-43-2	Benzene	ND	1.0	0.34	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.29	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.42	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.34	ug/l	
75-25-2	Bromoform	ND	1.0	0.44	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.39	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.45	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.45	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.27	ug/l	
75-00-3	Chloroethane	ND	1.0	0.72	ug/l	
67-66-3	Chloroform	ND	1.0	0.35	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.36	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.31	ug/l	
75-15-0	Carbon disulfide	ND	1.0	0.36	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.43	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.45	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.62	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.6	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.33	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.32	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.51	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.5	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.40	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.33	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.28	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.32	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.32	ug/l	
591-78-6	2-Hexanone	ND	10	2.6	ug/l	

Method Blank Summary

Job Number: TC55870
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VG1454-MB	G0253248.D	1	10/03/14	EM	n/a	n/a	VG1454

The QC reported here applies to the following samples: **Method:** SW846 8260C

TC55870-1, TC55870-2, TC55870-3

CAS No.	Compound	Result	RL	MDL	Units	Q
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.40	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.36	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	2.2	ug/l	
74-83-9	Methyl bromide	ND	1.0	0.51	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.63	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.45	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.6	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	2.7	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.30	ug/l	
91-20-3	Naphthalene	ND	5.0	1.6	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.35	ug/l	
100-42-5	Styrene	ND	1.0	0.29	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.37	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.43	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.40	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.35	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.42	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	0.46	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.41	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	0.32	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	0.35	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.46	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.49	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.75	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.87	ug/l	
	m,p-Xylene	ND	2.0	0.59	ug/l	
95-47-6	o-Xylene	ND	1.0	0.28	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	97%	72-122%
17060-07-0	1,2-Dichloroethane-D4	90%	68-124%

Method Blank Summary

Job Number: TC55870
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VG1454-MB	G0253248.D	1	10/03/14	EM	n/a	n/a	VG1454

The QC reported here applies to the following samples: **Method:** SW846 8260C

TC55870-1, TC55870-2, TC55870-3

CAS No.	Surrogate Recoveries		Limits
2037-26-5	Toluene-D8	94%	80-119%
460-00-4	4-Bromofluorobenzene	94%	72-126%

Blank Spike Summary

Job Number: TC55870
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VG1454-BS	G0253246.D	1	10/03/14	EM	n/a	n/a	VG1454

The QC reported here applies to the following samples: **Method:** SW846 8260C

TC55870-1, TC55870-2, TC55870-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	106	85	46-129
71-43-2	Benzene	25	28.0	112	68-119
108-86-1	Bromobenzene	25	27.9	112	71-119
74-97-5	Bromochloromethane	25	25.9	104	71-118
75-27-4	Bromodichloromethane	25	26.3	105	72-118
75-25-2	Bromoform	25	25.6	102	54-123
104-51-8	n-Butylbenzene	25	30.1	120	66-123
135-98-8	sec-Butylbenzene	25	30.4	122	72-123
98-06-6	tert-Butylbenzene	25	29.0	116	70-124
108-90-7	Chlorobenzene	25	26.7	107	74-120
75-00-3	Chloroethane	25	22.2	89	61-132
67-66-3	Chloroform	25	26.1	104	73-122
95-49-8	o-Chlorotoluene	25	27.5	110	71-122
106-43-4	p-Chlorotoluene	25	28.4	114	73-120
75-15-0	Carbon disulfide	25	25.1	100	55-140
56-23-5	Carbon tetrachloride	25	28.9	116	68-133
75-34-3	1,1-Dichloroethane	25	27.3	109	72-121
75-35-4	1,1-Dichloroethylene	25	26.8	107	67-140
563-58-6	1,1-Dichloropropene	25	28.7	115	73-130
96-12-8	1,2-Dibromo-3-chloropropane	25	26.2	105	47-133
106-93-4	1,2-Dibromoethane	25	26.5	106	69-121
107-06-2	1,2-Dichloroethane	25	26.1	104	68-121
78-87-5	1,2-Dichloropropane	25	27.9	112	72-116
142-28-9	1,3-Dichloropropane	25	26.9	108	70-118
594-20-7	2,2-Dichloropropane	25	27.7	111	57-141
124-48-1	Dibromochloromethane	25	26.2	105	68-119
75-71-8	Dichlorodifluoromethane	25	15.6	62	29-182
156-59-2	cis-1,2-Dichloroethylene	25	26.9	108	72-117
10061-01-5	cis-1,3-Dichloropropene	25	26.1	104	71-118
541-73-1	m-Dichlorobenzene	25	28.2	113	73-117
95-50-1	o-Dichlorobenzene	25	26.5	106	71-117
106-46-7	p-Dichlorobenzene	25	28.0	112	71-116
156-60-5	trans-1,2-Dichloroethylene	25	27.8	111	68-124
10061-02-6	trans-1,3-Dichloropropene	25	25.7	103	72-127
100-41-4	Ethylbenzene	25	28.3	113	71-117
591-78-6	2-Hexanone	125	123	98	49-124

* = Outside of Control Limits.

Blank Spike Summary

Job Number: TC55870
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VG1454-BS	G0253246.D	1	10/03/14	EM	n/a	n/a	VG1454

The QC reported here applies to the following samples: **Method:** SW846 8260C

TC55870-1, TC55870-2, TC55870-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
87-68-3	Hexachlorobutadiene	25	31.8	127	62-143
98-82-8	Isopropylbenzene	25	29.4	118	74-141
99-87-6	p-Isopropyltoluene	25	29.5	118	72-126
108-10-1	4-Methyl-2-pentanone	125	123	98	54-122
74-83-9	Methyl bromide	25	17.3	69	53-138
74-87-3	Methyl chloride	25	19.3	77	50-145
74-95-3	Methylene bromide	25	26.1	104	71-117
75-09-2	Methylene chloride	25	26.0	104	60-125
78-93-3	Methyl ethyl ketone	125	123	98	51-129
1634-04-4	Methyl Tert Butyl Ether	25	25.7	103	65-119
91-20-3	Naphthalene	25	29.4	118	43-139
103-65-1	n-Propylbenzene	25	29.2	117	72-123
100-42-5	Styrene	25	28.6	114	74-119
630-20-6	1,1,1,2-Tetrachloroethane	25	26.6	106	74-119
71-55-6	1,1,1-Trichloroethane	25	27.5	110	72-129
79-34-5	1,1,2,2-Tetrachloroethane	25	27.0	108	62-121
79-00-5	1,1,2-Trichloroethane	25	26.3	105	70-119
87-61-6	1,2,3-Trichlorobenzene	25	29.7	119	44-144
96-18-4	1,2,3-Trichloropropane	25	27.7	111	61-124
120-82-1	1,2,4-Trichlorobenzene	25	29.2	117	57-132
95-63-6	1,2,4-Trimethylbenzene	25	29.4	118	70-121
108-67-8	1,3,5-Trimethylbenzene	25	29.0	116	66-119
127-18-4	Tetrachloroethylene	25	30.6	122	72-132
108-88-3	Toluene	25	28.5	114	73-119
79-01-6	Trichloroethylene	25	27.4	110	73-121
75-69-4	Trichlorofluoromethane	25	19.8	79	46-152
75-01-4	Vinyl chloride	25	19.5	78	54-126
1330-20-7	Xylene (total)	75	82.3	110	74-119
	m,p-Xylene	50	55.2	110	74-119
95-47-6	o-Xylene	25	27.1	108	73-121

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	90%	72-122%
17060-07-0	1,2-Dichloroethane-D4	88%	68-124%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: TC55870
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VG1454-BS	G0253246.D	1	10/03/14	EM	n/a	n/a	VG1454

The QC reported here applies to the following samples: **Method:** SW846 8260C

TC55870-1, TC55870-2, TC55870-3

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	95%	80-119%
460-00-4	4-Bromofluorobenzene	97%	72-126%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC55870
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TC55870-1MS	G0253264.D	100	10/03/14	EM	n/a	n/a	VG1454
TC55870-1MSD	G0253265.D	100	10/03/14	EM	n/a	n/a	VG1454
TC55870-1 [a]	G0253262.D	20	10/03/14	EM	n/a	n/a	VG1454
TC55870-1 [b]	G0253263.D	100	10/03/14	EM	n/a	n/a	VG1454

The QC reported here applies to the following samples: **Method:** SW846 8260C

TC55870-1, TC55870-2, TC55870-3

CAS No.	Compound	TC55870-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	2780		12500	9430	53	12500	10000	58	6	46-129/25
71-43-2	Benzene	20 U		2500	2290	92	2500	2600	104	13*	68-119/12
108-86-1	Bromobenzene	20 U		2500	2310	92	2500	2590	104	11	71-119/12
74-97-5	Bromochloromethane	20 U		2500	2250	90	2500	2410	96	7	71-118/13
75-27-4	Bromodichloromethane	20 U		2500	2170	87	2500	2440	98	12	72-118/16
75-25-2	Bromoform	20 U		2500	2060	82	2500	2320	93	12	54-123/17
104-51-8	n-Butylbenzene	20 U		2500	2380	95	2500	2680	107	12	66-123/14
135-98-8	sec-Butylbenzene	20 U		2500	2450	98	2500	2750	110	12	72-123/13
98-06-6	tert-Butylbenzene	20 U		2500	2370	95	2500	2640	106	11	70-124/15
108-90-7	Chlorobenzene	20 U		2500	2150	86	2500	2460	98	13*	74-120/12
75-00-3	Chloroethane	20 U		2500	2310	92	2500	2770	111	18*	61-132/16
67-66-3	Chloroform	11.8	J	2500	2290	91	2500	2460	98	7	73-122/13
95-49-8	o-Chlorotoluene	20 U		2500	2300	92	2500	2550	102	10	71-122/12
106-43-4	p-Chlorotoluene	20 U		2500	2340	94	2500	2600	104	11	73-120/12
75-15-0	Carbon disulfide	20 U		2500	2050	82	2500	2340	94	13	55-140/24
56-23-5	Carbon tetrachloride	20 U		2500	2320	93	2500	2650	106	13	68-133/20
75-34-3	1,1-Dichloroethane	20 U		2500	2340	94	2500	2570	103	9	72-121/14
75-35-4	1,1-Dichloroethylene	20 U		2500	2340	94	2500	2630	105	12	67-140/18
563-58-6	1,1-Dichloropropene	20 U		2500	2470	99	2500	2670	107	8	73-130/15
96-12-8	1,2-Dibromo-3-chloropropane	40 U		2500	1930	77	2500	2090	84	8	47-133/23
106-93-4	1,2-Dibromoethane	20 U		2500	2130	85	2500	2420	97	13	69-121/13
107-06-2	1,2-Dichloroethane	20 U		2500	2130	85	2500	2400	96	12	68-121/12
78-87-5	1,2-Dichloropropane	20 U		2500	2290	92	2500	2600	104	13*	72-116/12
142-28-9	1,3-Dichloropropane	20 U		2500	2190	88	2500	2490	100	13*	70-118/12
594-20-7	2,2-Dichloropropane	20 U		2500	2320	93	2500	2540	102	9	57-141/16
124-48-1	Dibromochloromethane	20 U		2500	2130	85	2500	2400	96	12	68-119/15
75-71-8	Dichlorodifluoromethane	40 U		2500	1520	61	2500	1710	68	12	29-182/23
156-59-2	cis-1,2-Dichloroethylene	20 U		2500	2320	93	2500	2470	99	6	72-117/13
10061-01-5	cis-1,3-Dichloropropene	20 U		2500	2120	85	2500	2360	94	11	71-118/18
541-73-1	m-Dichlorobenzene	20 U		2500	2300	92	2500	2560	102	11	73-117/12
95-50-1	o-Dichlorobenzene	20 U		2500	2210	88	2500	2440	98	10	71-117/11
106-46-7	p-Dichlorobenzene	20 U		2500	2330	93	2500	2550	102	9	71-116/11
156-60-5	trans-1,2-Dichloroethylene	20 U		2500	2370	95	2500	2610	104	10	68-124/15
10061-02-6	trans-1,3-Dichloropropene	20 U		2500	2100	84	2500	2350	94	11	72-127/17
100-41-4	Ethylbenzene	20 U		2500	2350	94	2500	2620	105	11	71-117/12
591-78-6	2-Hexanone	52.2	J	12500	9200	73	12500	10300	82	11	49-124/21

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC55870
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TC55870-1MS	G0253264.D	100	10/03/14	EM	n/a	n/a	VG1454
TC55870-1MSD	G0253265.D	100	10/03/14	EM	n/a	n/a	VG1454
TC55870-1 [a]	G0253262.D	20	10/03/14	EM	n/a	n/a	VG1454
TC55870-1 [b]	G0253263.D	100	10/03/14	EM	n/a	n/a	VG1454

The QC reported here applies to the following samples: **Method:** SW846 8260C

TC55870-1, TC55870-2, TC55870-3

CAS No.	Compound	TC55870-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
87-68-3	Hexachlorobutadiene	20 U		2500	2330	93	2500	2730	109	16	62-143/18
98-82-8	Isopropylbenzene	20 U		2500	2430	97	2500	2710	108	11	74-141/13
99-87-6	p-Isopropyltoluene	20 U		2500	2370	95	2500	2660	106	12	72-126/13
108-10-1	4-Methyl-2-pentanone	309		12500	9830	76	12500	11000	86	11	54-122/20
74-83-9	Methyl bromide	20 U		2500	1900	76	2500	2220	89	16	53-138/16
74-87-3	Methyl chloride	20 U		2500	1910	76	2500	2190	88	14	50-145/17
74-95-3	Methylene bromide	20 U		2500	2200	88	2500	2410	96	9	71-117/12
75-09-2	Methylene chloride	41.3	J	2500	2260	89	2500	2520	99	11	60-125/16
78-93-3	Methyl ethyl ketone	1160		12500	9150	64	12500	9640	68	5	51-129/22
1634-04-4	Methyl Tert Butyl Ether	20 U		2500	2170	87	2500	2400	96	10	65-119/13
91-20-3	Naphthalene	100 U		2500	2310	92	2500	2630	105	13	43-139/28
103-65-1	n-Propylbenzene	20 U		2500	2390	96	2500	2680	107	11	72-123/13
100-42-5	Styrene	20 U		2500	2330	93	2500	2640	106	12	74-119/19
630-20-6	1,1,1,2-Tetrachloroethane	20 U		2500	2150	86	2500	2430	97	12	74-119/14
71-55-6	1,1,1-Trichloroethane	20 U		2500	2340	94	2500	2560	102	9	72-129/14
79-34-5	1,1,2,2-Tetrachloroethane	20 U		2500	2220	89	2500	2470	99	11	62-121/17
79-00-5	1,1,2-Trichloroethane	20 U		2500	2180	87	2500	2440	98	11	70-119/13
87-61-6	1,2,3-Trichlorobenzene	20 U		2500	2270	91	2500	2620	105	14	44-144/27
96-18-4	1,2,3-Trichloropropane	20 U		2500	2180	87	2500	2410	96	10	61-124/16
120-82-1	1,2,4-Trichlorobenzene	20 U		2500	2300	92	2500	2600	104	12	57-132/18
95-63-6	1,2,4-Trimethylbenzene	20 U		2500	2460	98	2500	2740	110	11	70-121/15
108-67-8	1,3,5-Trimethylbenzene	20 U		2500	2380	95	2500	2670	107	11	66-119/15
127-18-4	Tetrachloroethylene	20 U		2500	2450	98	2500	2880	115	16*	72-132/14
108-88-3	Toluene	10.8	J	2500	2310	92	2500	2620	104	13	73-119/13
79-01-6	Trichloroethylene	20 U		2500	2260	90	2500	2550	102	12	73-121/13
75-69-4	Trichlorofluoromethane	20 U		2500	1870	75	2500	2240	90	18	46-152/25
75-01-4	Vinyl chloride	20 U		2500	1860	74	2500	2230	89	18*	54-126/17
1330-20-7	Xylene (total)	60 U		7500	6760	90	7500	7660	102	12	74-119/13
	m,p-Xylene	40 U		5000	4530	91	5000	5130	103	12	74-119/13
95-47-6	o-Xylene	20 U		2500	2230	89	2500	2530	101	13	73-121/13

CAS No.	Surrogate Recoveries	MS	MSD	TC55870-1	TC55870-1	Limits
1868-53-7	Dibromofluoromethane	92%	90%	96%		72-122%
17060-07-0	1,2-Dichloroethane-D4	87%	87%	88%		68-124%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC55870
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TC55870-1MS	G0253264.D	100	10/03/14	EM	n/a	n/a	VG1454
TC55870-1MSD	G0253265.D	100	10/03/14	EM	n/a	n/a	VG1454
TC55870-1 [a]	G0253262.D	20	10/03/14	EM	n/a	n/a	VG1454
TC55870-1 [b]	G0253263.D	100	10/03/14	EM	n/a	n/a	VG1454

The QC reported here applies to the following samples: **Method:** SW846 8260C

TC55870-1, TC55870-2, TC55870-3

CAS No.	Surrogate Recoveries	MS	MSD	TC55870-1	TC55870-1	Limits
2037-26-5	Toluene-D8	93%	95%	95%		80-119%
460-00-4	4-Bromofluorobenzene	96%	95%	95%		72-126%

(a) Dilution required due to excessive foaming.
(b) Sample used for QC purposes only.

* = Outside of Control Limits.

Gulf Coast ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: TC55870
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP34188-MB	J175168.D	1	10/06/14	SC	10/06/14	OP34188	EJ1952

The QC reported here applies to the following samples: **Method:** SW846 8270D

TC55870-1, TC55870-2, TC55870-3

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	20	10	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.96	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	1.2	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.0	1.1	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	1.1	ug/l	
51-28-5	2,4-Dinitrophenol	ND	25	10	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	5.5	ug/l	
95-48-7	2-Methylphenol	ND	5.0	0.96	ug/l	
	3&4-Methylphenol	ND	5.0	1.1	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	1.1	ug/l	
100-02-7	4-Nitrophenol	ND	25	7.2	ug/l	
87-86-5	Pentachlorophenol	ND	25	10	ug/l	
108-95-2	Phenol	ND	5.0	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	0.98	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	1.1	ug/l	
83-32-9	Acenaphthene	ND	5.0	1.2	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.2	ug/l	
62-53-3	Aniline	ND	5.0	1.3	ug/l	
120-12-7	Anthracene	ND	5.0	1.4	ug/l	
92-87-5	Benzidine	ND	25	9.8	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.5	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	1.3	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	1.2	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	1.5	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	1.5	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	1.2	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	1.3	ug/l	
100-51-6	Benzyl Alcohol	ND	5.0	0.88	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.3	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	1.1	ug/l	
86-74-8	Carbazole	ND	5.0	1.4	ug/l	
218-01-9	Chrysene	ND	5.0	1.6	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	1.2	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.95	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.90	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.3	ug/l	

Method Blank Summary

Job Number: TC55870
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP34188-MB	J175168.D	1	10/06/14	SC	10/06/14	OP34188	EJ1952

The QC reported here applies to the following samples: **Method:** SW846 8270D

TC55870-1, TC55870-2, TC55870-3

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	5.0	1.1	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	1.3	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	1.1	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	1.1	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.0	1.3	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	1.0	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	10	1.3	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	1.4	ug/l	
132-64-9	Dibenzofuran	ND	5.0	1.3	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	1.3	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	1.2	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	1.4	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	1.4	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.0	1.5	ug/l	
206-44-0	Fluoranthene	ND	5.0	1.4	ug/l	
86-73-7	Fluorene	ND	5.0	1.2	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	1.6	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.2	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.2	ug/l	
67-72-1	Hexachloroethane	ND	5.0	1.3	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	1.0	ug/l	
78-59-1	Isophorone	ND	5.0	1.2	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	1.1	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.2	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	1.3	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	1.2	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	1.4	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
98-95-3	Nitrobenzene	ND	5.0	1.2	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	1.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	1.1	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	1.4	ug/l	
85-01-8	Phenanthrene	ND	5.0	1.5	ug/l	
129-00-0	Pyrene	ND	5.0	1.4	ug/l	
110-86-1	Pyridine	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.1	ug/l	

Method Blank Summary

Job Number: TC55870
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP34188-MB	J175168.D	1	10/06/14	SC	10/06/14	OP34188	EJ1952

The QC reported here applies to the following samples: **Method:** SW846 8270D

TC55870-1, TC55870-2, TC55870-3

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	44%	10-66%
4165-62-2	Phenol-d5	28%	10-63%
118-79-6	2,4,6-Tribromophenol	65%	32-128%
4165-60-0	Nitrobenzene-d5	71%	29-115%
321-60-8	2-Fluorobiphenyl	69%	34-113%
1718-51-0	Terphenyl-d14	113%	23-138%

Blank Spike/Blank Spike Duplicate Summary

Job Number: TC55870
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP34188-BS	J175169.D	1	10/06/14	SC	10/06/14	OP34188	EJ1952
OP34188-BSD [a]	J175170.D	1	10/06/14	SC	10/06/14	OP34188	EJ1952

The QC reported here applies to the following samples: **Method:** SW846 8270D

TC55870-1, TC55870-2, TC55870-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	50	23.8	48	23.1	46	3	10-91/30
95-57-8	2-Chlorophenol	50	31.7	63	31.5	63	1	38-102/30
59-50-7	4-Chloro-3-methyl phenol	50	37.5	75	38.8	78	3	30-110/30
120-83-2	2,4-Dichlorophenol	50	35.5	71	35.9	72	1	41-107/30
105-67-9	2,4-Dimethylphenol	50	36.6	73	36.1	72	1	39-107/30
51-28-5	2,4-Dinitrophenol	50	31.7	63	33.2	66	5	24-119/30
534-52-1	4,6-Dinitro-o-cresol	50	37.3	75	38.1	76	2	40-121/30
95-48-7	2-Methylphenol	50	29.5	59	29.9	60	1	33-93/30
	3&4-Methylphenol	50	28.7	57	28.4	57	1	28-99/30
88-75-5	2-Nitrophenol	50	34.6	69	34.7	69	0	38-107/30
100-02-7	4-Nitrophenol	50	24.9	50	25.8	52	4	10-78/30
87-86-5	Pentachlorophenol	50	44.5	89	45.3	91	2	28-116/30
108-95-2	Phenol	50	19.1	38	18.9	38	1	15-70/30
95-95-4	2,4,5-Trichlorophenol	50	41.2	82	41.1	82	0	47-116/30
88-06-2	2,4,6-Trichlorophenol	50	39.6	79	40.3	81	2	44-112/30
83-32-9	Acenaphthene	50	38.6	77	38.8	78	1	44-106/30
208-96-8	Acenaphthylene	50	39.7	79	39.9	80	1	46-111/30
62-53-3	Aniline	50	25.3	51	25.2	50	0	15-112/30
120-12-7	Anthracene	50	43.8	88	43.7	87	0	53-114/30
92-87-5	Benzidine	100	42.7	43	43.9	44	3	13-148/30
56-55-3	Benzo(a)anthracene	50	44.4	89	44.0	88	1	57-113/30
50-32-8	Benzo(a)pyrene	50	43.8	88	43.8	88	0	50-109/30
205-99-2	Benzo(b)fluoranthene	50	45.7	91	45.1	90	1	50-117/30
191-24-2	Benzo(g,h,i)perylene	50	48.0	96	47.5	95	1	43-127/30
207-08-9	Benzo(k)fluoranthene	50	46.7	93	46.7	93	0	52-123/30
101-55-3	4-Bromophenyl phenyl ether	50	43.0	86	43.6	87	1	48-113/30
85-68-7	Butyl benzyl phthalate	50	48.6	97	48.6	97	0	42-120/30
100-51-6	Benzyl Alcohol	50	33.4	67	32.9	66	2	31-97/30
91-58-7	2-Chloronaphthalene	50	41.8	84	42.5	85	2	35-123/30
106-47-8	4-Chloroaniline	50	32.9	66	33.4	67	2	36-104/30
86-74-8	Carbazole	50	48.6	97	48.1	96	1	50-113/30
218-01-9	Chrysene	50	45.1	90	45.0	90	0	59-116/30
111-91-1	bis(2-Chloroethoxy)methane	50	36.8	74	37.5	75	2	34-103/30
111-44-4	bis(2-Chloroethyl)ether	50	33.4	67	32.6	65	2	36-100/30
108-60-1	bis(2-Chloroisopropyl)ether	50	34.5	69	34.0	68	1	30-110/30
7005-72-3	4-Chlorophenyl phenyl ether	50	41.0	82	41.4	83	1	45-112/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: TC55870
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP34188-BS	J175169.D	1	10/06/14	SC	10/06/14	OP34188	EJ1952
OP34188-BSD [a]	J175170.D	1	10/06/14	SC	10/06/14	OP34188	EJ1952

The QC reported here applies to the following samples: **Method:** SW846 8270D

TC55870-1, TC55870-2, TC55870-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
95-50-1	1,2-Dichlorobenzene	50	34.7	69	34.6	69	0	37-100/30
122-66-7	1,2-Diphenylhydrazine	50	43.6	87	44.2	88	1	44-113/30
541-73-1	1,3-Dichlorobenzene	50	35.7	71	35.0	70	2	34-99/30
106-46-7	1,4-Dichlorobenzene	50	36.4	73	35.1	70	4	36-99/30
121-14-2	2,4-Dinitrotoluene	50	44.6	89	44.8	90	0	52-115/30
606-20-2	2,6-Dinitrotoluene	50	43.4	87	43.3	87	0	52-111/30
91-94-1	3,3'-Dichlorobenzidine	50	46.2	92	45.5	91	2	37-125/30
53-70-3	Dibenzo(a,h)anthracene	50	46.2	92	46.0	92	0	47-125/30
132-64-9	Dibenzofuran	50	41.4	83	42.0	84	1	45-108/30
84-74-2	Di-n-butyl phthalate	50	49.9	100	49.4	99	1	47-118/30
117-84-0	Di-n-octyl phthalate	50	49.3	99	49.3	99	0	41-124/30
84-66-2	Diethyl phthalate	50	47.9	96	48.0	96	0	38-121/30
131-11-3	Dimethyl phthalate	50	47.1	94	47.5	95	1	41-116/30
117-81-7	bis(2-Ethylhexyl)phthalate	50	49.1	98	49.2	98	0	50-123/30
206-44-0	Fluoranthene	50	46.0	92	44.7	89	3	50-118/30
86-73-7	Fluorene	50	41.5	83	41.7	83	0	47-113/30
118-74-1	Hexachlorobenzene	50	42.8	86	43.1	86	1	49-114/30
87-68-3	Hexachlorobutadiene	50	36.3	73	36.0	72	1	30-104/30
77-47-4	Hexachlorocyclopentadiene	50	25.2	50	25.8	52	2	10-97/30
67-72-1	Hexachloroethane	50	41.0	82	40.8	82	0	30-100/30
193-39-5	Indeno(1,2,3-cd)pyrene	50	45.6	91	45.7	91	0	45-127/30
78-59-1	Isophorone	50	39.1	78	39.8	80	2	40-103/30
90-12-0	1-Methylnaphthalene	50	37.6	75	37.6	75	0	38-105/30
91-57-6	2-Methylnaphthalene	50	36.2	72	36.8	74	2	36-104/30
88-74-4	2-Nitroaniline	50	43.8	88	45.3	91	3	41-117/30
99-09-2	3-Nitroaniline	50	39.5	79	40.9	82	3	37-117/30
100-01-6	4-Nitroaniline	50	46.1	92	46.2	92	0	47-121/30
91-20-3	Naphthalene	50	36.6	73	36.7	73	0	40-104/30
98-95-3	Nitrobenzene	50	37.2	74	37.5	75	1	40-103/30
62-75-9	n-Nitrosodimethylamine	50	24.9	50	24.2	48	3	11-89/30
621-64-7	N-Nitroso-di-n-propylamine	50	35.3	71	35.2	70	0	36-112/30
86-30-6	N-Nitrosodiphenylamine	100	85.1	85	84.5	85	1	39-109/30
85-01-8	Phenanthrene	50	43.5	87	44.0	88	1	53-114/30
129-00-0	Pyrene	50	43.7	87	43.4	87	1	51-117/30
110-86-1	Pyridine	50	15.5	31	15.7	31	1	10-77/30
120-82-1	1,2,4-Trichlorobenzene	50	36.1	72	36.6	73	1	32-103/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: TC55870
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP34188-BS	J175169.D	1	10/06/14	SC	10/06/14	OP34188	EJ1952
OP34188-BSD [a]	J175170.D	1	10/06/14	SC	10/06/14	OP34188	EJ1952

The QC reported here applies to the following samples: **Method:** SW846 8270D

TC55870-1, TC55870-2, TC55870-3

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
367-12-4	2-Fluorophenol	53%	53%	10-66%
4165-62-2	Phenol-d5	37%	37%	10-63%
118-79-6	2,4,6-Tribromophenol	90%	93%	32-128%
4165-60-0	Nitrobenzene-d5	77%	79%	29-115%
321-60-8	2-Fluorobiphenyl	79%	79%	34-113%
1718-51-0	Terphenyl-d14	102%	102%	23-138%

(a) Insufficient sample for MS/MSD.

* = Outside of Control Limits.

Gulf Coast ACCUTEST LABORATORIES

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: TC55870
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP34183-MB	LB106006.D	1	10/06/14	ZL	10/04/14	OP34183	GLB1565

The QC reported here applies to the following samples: **Method:** TNRCC 1005

TC55870-1, TC55870-2, TC55870-3

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C6-C12)	ND	2.5	0.81	mg/l	
	TPH (> C12-C28)	ND	2.5	0.88	mg/l	
	TPH (> C28-C35)	ND	2.5	0.88	mg/l	
	TPH (C6-C35)	ND	2.5	0.81	mg/l	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	82%	70-130%
98-08-8	aaa-Trifluorotoluene	72%	70-130%

Method Blank Summary

Job Number: TC55870
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP34192-MB [a]	OO31630.D	1	10/07/14	SC	10/06/14	OP34192	GOO527

The QC reported here applies to the following samples: **Method:** SW846 8082

TC55870-1, TC55870-2, TC55870-3

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.50	0.21	ug/l	
11104-28-2	Aroclor 1221	ND	0.50	0.20	ug/l	
11141-16-5	Aroclor 1232	ND	0.50	0.17	ug/l	
53469-21-9	Aroclor 1242	ND	0.50	0.12	ug/l	
12672-29-6	Aroclor 1248	ND	0.50	0.10	ug/l	
11097-69-1	Aroclor 1254	ND	0.50	0.10	ug/l	
11096-82-5	Aroclor 1260	ND	0.50	0.12	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	62%	30-112%
2051-24-3	Decachlorobiphenyl	69%	27-119%

(a) Acid clean-up performed by method 3665A.

Blank Spike/Blank Spike Duplicate Summary

Job Number: TC55870
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP34183-BS	LF106001.D	1	10/06/14	ZL	10/04/14	OP34183	GLF1565
OP34183-BSD	LF106003.D	1	10/06/14	ZL	10/04/14	OP34183	GLF1565

The QC reported here applies to the following samples: **Method:** TNRCC 1005

TC55870-1, TC55870-2, TC55870-3

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (C6-C12)	50	49.1	98	46.9	94	5	75-125/20
	TPH (> C12-C28)	50	58.2	116	57.1	114	2	75-125/20
	TPH (C6-C35)	100	107	107	104	104	3	75-125/20

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
84-15-1	o-Terphenyl	97%	95%	70-130%
98-08-8	aaa-Trifluorotoluene	96%	90%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: TC55870
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP34192-BS [a]	OO31628.D	1	10/07/14	SC	10/06/14	OP34192	GOO527
OP34192-BSD [a]	OO31629.D	1	10/07/14	SC	10/06/14	OP34192	GOO527

The QC reported here applies to the following samples: **Method:** SW846 8082

TC55870-1, TC55870-2, TC55870-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	2	1.5	75	1.7	85	13	59-126/31
11096-82-5	Aroclor 1260	2	1.7	85	2.0	100	16	65-126/35

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	64%	68%	30-112%
2051-24-3	Decachlorobiphenyl	65%	76%	27-119%

(a) Acid clean-up performed by method 3665A.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC55870
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP34183-MS	LB106004.D	1	10/06/14	ZL	10/04/14	OP34183	GLB1565
OP34183-MSD	LF106005.D	1	10/06/14	ZL	10/04/14	OP34183	GLF1565
TC55901-1	LF106007.D	1	10/06/14	ZL	10/04/14	OP34183	GLF1565

The QC reported here applies to the following samples: **Method:** TNRCC 1005

TC55870-1, TC55870-2, TC55870-3

CAS No.	Compound	TC55901-1 mg/l	Q	Spike mg/l	MS mg/l	MS %	Spike mg/l	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH (C6-C12)	ND		48.8	39.9	82	48.9	48.0	98	18	75-125/20
	TPH (> C12-C28)	ND		48.8	53.6	110	48.9	60.7	124	12	75-125/20
	TPH (C6-C35)	ND		97.6	93.5	96	97.8	109	111	15	75-125/20

CAS No.	Surrogate Recoveries	MS	MSD	TC55901-1	Limits
84-15-1	o-Terphenyl	86%	94%	93%	70-130%
98-08-8	aaa-Trifluorotoluene	82%	93%	92%	70-130%

* = Outside of Control Limits.

Gulf Coast ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: TC55870
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24345
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 10/06/14

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	8.3	18	65.2	<200
Antimony	5.0	1	1.1	1.2	<5.0
Arsenic	5.0	1.7	4.7	0.53	<5.0
Barium	200	.97	.39	-0.030	<200
Beryllium	4.0	.056	.18	-0.080	<4.0
Boron	100	1.4	5.9		
Cadmium	4.0	.11	.23	0.050	<4.0
Calcium	5000	7.4	34	123	<5000
Chromium	10	.23	.62	0.29	<10
Cobalt	50	.15	.23	0.080	<50
Copper	20	1.1	2.9	-1.8	<20
Iron	100	1.1	30	32.0	<100
Lead	3.0	1	.77	0.47	<3.0
Lithium	300	2	2.2		
Magnesium	5000	7.7	19	2.5	<5000
Manganese	15	.054	.25	0.30	<15
Molybdenum	10	.39	.41		
Nickel	40	.69	.4	0.22	<40
Potassium	5000	39	52	26.8	<5000
Selenium	5.0	1.5	2.4	-0.29	<5.0
Silver	10	1.2	.59	0.12	<10
Sodium	5000	9.2	23	45.2	<5000
Strontium	10	.061	.21		
Thallium	10	.67	2.1	-0.56	<10
Tin	50	.69	1		
Titanium	20	.29	.4		
Vanadium	50	.3	.51	0.060	<50
Zinc	20	.51	1.5	3.5	<20
Sulfur	50		5.8		

Associated samples MP24345: TC55870-1, TC55870-2, TC55870-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TC55870
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24345
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 10/06/14

Metal	TC55833-1 Original	MS	Spikelot MPTW11	% Rec	QC Limits
Aluminum	0.0	55200	50000	110.4	75-125
Antimony	0.0	446	400	111.5	75-125
Arsenic	0.0	450	400	112.5	75-125
Barium	3900	4180	400	70.0 (a)	75-125
Beryllium	0.50	409	400	102.1	75-125
Cadmium	1.0	466	400	116.3	75-125
Calcium	1960000	1980000	50000	40.0 (a)	75-125
Chromium	5.7	403	400	99.3	75-125
Cobalt	0.0	364	400	91.0	75-125
Iron	13300	56500	50000	86.4	75-125
Lead	0.0	408	400	102.0	75-125
Magnesium	237000	270000	50000	66.0 (a)	75-125
Manganese	1420	1790	400	92.5	75-125
Nickel	7.4	412	400	101.2	75-125
Potassium	518000	576000	50000	116.0	75-125
Selenium	0.0	458	400	114.5	75-125
Silver	0.0	504	400	126.0N(b	75-125
Thallium	0.0	385	400	96.3	75-125
Vanadium	0.0	398	400	99.5	75-125
Zinc	178	676	400	124.5	75-125

Associated samples MP24345: TC55870-1, TC55870-2, TC55870-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
(b) Spike recovery indicates possible matrix interference.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TC55870
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24345 Methods: SW846 6010B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 10/06/14

Metal	TC55833-1 Original	MSD	Spikelot MPTW11	% Rec	MSD RPD	QC Limit
Aluminum	0.0	52200	50000	104.4	5.6	20
Antimony	0.0	421	400	105.3	5.8	20
Arsenic	0.0	416	400	104.0	7.9	20
Barium	3900	4120	400	55.0 (a)	1.4	20
Beryllium	0.50	387	400	96.6	5.5	20
Cadmium	1.0	445	400	111.0	4.6	20
Calcium	1960000	1900000	50000	-120.0(a	4.1	20
Chromium	5.7	383	400	94.3	5.1	20
Cobalt	0.0	346	400	86.5	5.1	20
Iron	13300	54800	50000	83.0	3.1	20
Lead	0.0	389	400	97.3	4.8	20
Magnesium	237000	267000	50000	60.0 (a)	1.1	20
Manganese	1420	1730	400	77.5	3.4	20
Nickel	7.4	388	400	95.2	6.0	20
Potassium	518000	557000	50000	78.0	3.4	20
Selenium	0.0	449	400	112.3	2.0	20
Silver	0.0	484	400	121.0	4.0	20
Thallium	0.0	364	400	91.0	5.6	20
Vanadium	0.0	374	400	93.5	6.2	20
Zinc	178	650	400	118.0	3.9	20

Associated samples MP24345: TC55870-1, TC55870-2, TC55870-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: TC55870
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24345
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 10/06/14

Metal	BSP Result	Spikelot MPTW11	% Rec	QC Limits
Aluminum	50600	50000	101.2	80-120
Antimony	404	400	101.0	80-120
Arsenic	405	400	101.3	80-120
Barium	409	400	102.3	80-120
Beryllium	421	400	105.3	80-120
Boron				
Cadmium	401	400	100.3	80-120
Calcium	53500	50000	107.0	80-120
Chromium	400	400	100.0	80-120
Cobalt	408	400	102.0	80-120
Copper	399	400	99.8	80-120
Iron	51500	50000	103.0	80-120
Lead	374	400	93.5	80-120
Lithium				
Magnesium	51500	50000	103.0	80-120
Manganese	392	400	98.0	80-120
Molybdenum				
Nickel	375	400	93.8	80-120
Potassium	50600	50000	101.2	80-120
Selenium	410	400	102.5	80-120
Silver	383	400	95.8	80-120
Sodium	53000	50000	106.0	80-120
Strontium				
Thallium	376	400	94.0	80-120
Tin				
Titanium				
Vanadium	389	400	97.3	80-120
Zinc	428	400	107.0	80-120
Sulfur				

Associated samples MP24345: TC55870-1, TC55870-2, TC55870-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: TC55870
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24345
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 10/06/14

Metal	TC55833-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum	0.00	0.00	NC	0-10
Antimony	0.00	0.00	NC	0-10
Arsenic	0.00	0.00	NC	0-10
Barium	3900	3910	0.2	0-10
Beryllium	0.500	2.47	394.0(a)	0-10
Cadmium	1.02	4.11	302.9(a)	0-10
Calcium	1960000	2050000	4.2	0-10
Chromium	5.69	11.6	104.0(a)	0-10
Cobalt	0.00	0.00	NC	0-10
Iron	13300	15200	14.4*(b)	0-10
Lead	0.00	0.00	NC	0-10
Magnesium	237000	277000	17.1*(b)	0-10
Manganese	1420	1430	0.6	0-10
Nickel	7.40	0.00	100.0(a)	0-10
Potassium	518000	474000	8.4	0-10
Selenium	0.00	38.9	NC	0-10
Silver	0.00	0.00	NC	0-10
Thallium	0.00	0.00	NC	0-10
Vanadium	0.00	0.00	NC	0-10
Zinc	178	202	13.6*(b)	0-10

Associated samples MP24345: TC55870-1, TC55870-2, TC55870-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
(b) Serial dilution indicates possible matrix interference.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: TC55870
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24364 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 10/08/14

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.20	.05	.05	-0.023	<0.20

Associated samples MP24364: TC55870-1, TC55870-2, TC55870-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

8.2.1
8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TC55870
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24364 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 10/08/14

Metal	TC55843-23 Original	MS	Spikelot HGTXAQ40	% Rec	QC Limits
Mercury	0.0	3.5	3	116.7	75-125

Associated samples MP24364: TC55870-1, TC55870-2, TC55870-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TC55870
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24364 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 10/08/14

Metal	TC55843-23 Original	MSD	Spikelot HGTXAQ40	% Rec	MSD RPD	QC Limit
Mercury	0.0	3.4	3	113.3	2.9	20

Associated samples MP24364: TC55870-1, TC55870-2, TC55870-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

8.2.2

8

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: TC55870
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24364
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 10/08/14

Metal	BSP Result	Spikelot HGTXAQ40	% Rec	QC Limits
Mercury	3.5	3	116.7	81-122

Associated samples MP24364: TC55870-1, TC55870-2, TC55870-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

8.2.3

8

Gulf Coast ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TC55870
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Solids, Total Suspended	GN61508	2.0	0.0	mg/l	500	450	90.0	80-112%
Total Organic Carbon	GP29678/GN61482	1.0	0.0	mg/l	25	23.9	95.6	90-110%

Associated Samples:
Batch GN61508: TC55870-1, TC55870-2, TC55870-3
Batch GP29678: TC55870-1, TC55870-2, TC55870-3
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TC55870
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Solids, Total Suspended	GN61508	TC55991-1	mg/l	45.5	45.5	0.0	0-19%
Total Organic Carbon	GP29678/GN61482	TC55981-1	mg/l	8.0	7.7	3.8	0-17%

Associated Samples:
Batch GN61508: TC55870-1, TC55870-2, TC55870-3
Batch GP29678: TC55870-1, TC55870-2, TC55870-3
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TC55870
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Total Organic Carbon	GP29678/GN61482	TC55981-1	mg/l	8.0	25	31.2	92.8	90-110%

Associated Samples:
Batch GP29678: TC55870-1, TC55870-2, TC55870-3
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits