Gulf Coast ACCUTEST LABORATORIES

09/12/14

Technical Report for

Weston Solutions

CES- Chemical Spill/4904 Griggs, Houston, TX

Accutest Job Number: TC54039

Sampling Date: 08/29/14

Report to:

Weston Solutions

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Total number of pages in report: **66**

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

9856334

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Certifications: TX (T104704220-14-15, 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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Accutest Laboratories

Sample Summary

Weston Solutions

Job No: TC54039

CES- Chemical Spill/4904 Griggs, Houston, TX

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
TC54039-1	08/29/14	10:22		08/29/14	AQ	Water	FT-1002

Summary of Hits

Job Number: TC54039
Account: Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Collected: 08/29/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	MQL	SDL	Units	Method
TC54039-1	**FT-1002**					
Acetone [a]		168 J	250	50	ug/l	SW846 8260C
Carbon disulfide [a]		4.5 J	5.0	1.8	ug/l	SW846 8260C
Ethylbenzene [a]		3.3 J	5.0	1.6	ug/l	SW846 8260C
Methyl ethyl ketone [a]		47.1 J	50	14	ug/l	SW846 8260C
Naphthalene [a]		8.5 J	25	7.8	ug/l	SW846 8260C
Styrene [a]		2.3 J	5.0	1.5	ug/l	SW846 8260C
1,2,4-Trimethylbenzene [a]		3.2 J	5.0	1.6	ug/l	SW846 8260C
Toluene [a]		23.4	5.0	1.6	ug/l	SW846 8260C
Xylene (total) [a]		15.7	15	4.3	ug/l	SW846 8260C
m,p-Xylene [a]		6.5 J	10	2.9	ug/l	SW846 8260C
o-Xylene [a]		9.1	5.0	1.4	ug/l	SW846 8260C
4-Chloro-3-methyl phenol [b]		23.8 J	53	12	ug/l	SW846 8270D
2,4-Dichlorophenol [b]		50.8 J	53	12	ug/l	SW846 8270D
2,4-Dimethylphenol		6660	1100	230	ug/l	SW846 8270D
2-Methylphenol		11900	1100	210	ug/l	SW846 8270D
3&4-Methylphenol		8630	1100	230	ug/l	SW846 8270D
Phenol		1680	1100	310	ug/l	SW846 8270D
2,4,6-Trichlorophenol [b]		551	53	12	ug/l	SW846 8270D
1-Methylnaphthalene [b]		14.6 J	53	11	ug/l	SW846 8270D
2-Methylnaphthalene [b]		15.2 J	53	13	ug/l	SW846 8270D
TPH (C6-C12)		14.1	2.4	0.78	mg/l	TNRCC 1005
TPH (> C12-C28)		108	2.4	0.85	mg/l	TNRCC 1005
TPH (> C28-C35)		23.8	2.4	0.85	mg/l	TNRCC 1005
TPH (C6-C35)		146	2.4	0.78	mg/l	TNRCC 1005
Aluminum		2.02	0.20	0.018	mg/l	SW846 6010B
Antimony		0.0033 J	0.0050	0.0011	mg/l	SW846 6010B
Arsenic		0.0126	0.0050	0.0047	mg/l	SW846 6010B
Barium		0.0486 J	0.20	0.00039	mg/l	SW846 6010B
Beryllium		0.00040 J	0.0040	0.00018	mg/l	SW846 6010B
Cadmium		0.00038 J	0.0040	0.00023	mg/l	SW846 6010B
Calcium		21.6	5.0	0.034	mg/l	SW846 6010B
Chromium		0.0109	0.010	0.00062	mg/l	SW846 6010B
Cobalt		0.0077 J	0.050	0.00023	mg/l	SW846 6010B
Copper		0.0278	0.020	0.0029	mg/l	SW846 6010B
Iron		21.9	0.10	0.030	mg/l	SW846 6010B
Lead		0.0136	0.0030	0.00077	mg/l	SW846 6010B
Magnesium		1.75 J	5.0	0.019	mg/l	SW846 6010B
Manganese		0.517	0.015	0.00025	mg/l	SW846 6010B
Mercury		0.000089 J	0.00020	0.000050	mg/l	SW846 7470A
Nickel		0.0476	0.040	0.00040	mg/l	SW846 6010B
Potassium		83.2	5.0	0.052	mg/l	SW846 6010B
Selenium		0.0036 J	0.0050	0.0024	mg/l	SW846 6010B
Sodium		181	5.0	0.023	mg/l	SW846 6010B

Summary of Hits

Job Number: TC54039
Account: Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Collected: 08/29/14

Lab Sample ID Client Sample ID Analyte	Result/ Qual	MQL	SDL	Units	Method
Vanadium	0.0068 J	0.050	0.00051	mg/l	SW846 6010B
Zinc	0.698	0.020	0.0015	mg/l	SW846 6010B
Heat Content, BTU [c]	8300	100		BTU/lb	ASTM D240-92
Ignitability (Flashpoint)	> 200			Deg. F	SW846 1010
Sulfide	4.0	0.40	0.025	mg/l	SM 4500S+ F
pH [d]	6.84			su	SM 4500H+ B/9040

(a) Dilution required due to matrix interference.
(b) Elevated reporting limits due to matrix interference. Dilution required due to high concentration of non-target compounds.
(c) Analysis performed at Accutest Laboratories, Dayton, NJ.
(d) Field analysis required. Received out of hold time and analyzed by request.TEMP 20.1 C

Gulf Coast ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	FT-1002		
Lab Sample ID:	TC54039-1	**Date Sampled:**	08/29/14
Matrix:	AQ - Water	**Date Received:**	08/29/14
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]	G0252732.D	5	09/08/14	CF	n/a	n/a	VG1430
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	168	250	50	ug/l	J
71-43-2	Benzene	1.7 U	5.0	1.7	ug/l	
108-86-1	Bromobenzene	1.5 U	5.0	1.5	ug/l	
74-97-5	Bromochloromethane	2.1 U	5.0	2.1	ug/l	
75-27-4	Bromodichloromethane	1.7 U	5.0	1.7	ug/l	
75-25-2	Bromoform	2.2 U	5.0	2.2	ug/l	
104-51-8	n-Butylbenzene	2.0 U	5.0	2.0	ug/l	
135-98-8	sec-Butylbenzene	2.3 U	5.0	2.3	ug/l	
98-06-6	tert-Butylbenzene	2.2 U	5.0	2.2	ug/l	
108-90-7	Chlorobenzene	1.3 U	5.0	1.3	ug/l	
75-00-3	Chloroethane	3.6 U	5.0	3.6	ug/l	
67-66-3	Chloroform	1.7 U	5.0	1.7	ug/l	
95-49-8	o-Chlorotoluene	1.8 U	5.0	1.8	ug/l	
106-43-4	p-Chlorotoluene	1.6 U	5.0	1.6	ug/l	
75-15-0	Carbon disulfide	4.5	5.0	1.8	ug/l	J
56-23-5	Carbon tetrachloride	2.2 U	5.0	2.2	ug/l	
75-34-3	1,1-Dichloroethane	1.7 U	5.0	1.7	ug/l	
75-35-4	1,1-Dichloroethylene	2.3 U	5.0	2.3	ug/l	
563-58-6	1,1-Dichloropropene	3.1 U	5.0	3.1	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	7.9 U	10	7.9	ug/l	
106-93-4	1,2-Dibromoethane	1.7 U	5.0	1.7	ug/l	
107-06-2	1,2-Dichloroethane	1.8 U	5.0	1.8	ug/l	
78-87-5	1,2-Dichloropropane	1.7 U	5.0	1.7	ug/l	
142-28-9	1,3-Dichloropropane	1.6 U	5.0	1.6	ug/l	
594-20-7	2,2-Dichloropropane	2.5 U	5.0	2.5	ug/l	
124-48-1	Dibromochloromethane	1.8 U	5.0	1.8	ug/l	
75-71-8	Dichlorodifluoromethane	7.4 U	10	7.4	ug/l	
156-59-2	cis-1,2-Dichloroethylene	2.0 U	5.0	2.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	1.4 U	5.0	1.4	ug/l	
541-73-1	m-Dichlorobenzene	1.7 U	5.0	1.7	ug/l	
95-50-1	o-Dichlorobenzene	1.4 U	5.0	1.4	ug/l	
106-46-7	p-Dichlorobenzene	1.6 U	5.0	1.6	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:	FT-1002		
Lab Sample ID:	TC54039-1	**Date Sampled:**	08/29/14
Matrix:	AQ - Water	**Date Received:**	08/29/14
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	2.4 U	5.0	2.4	ug/l	
10061-02-6	trans-1,3-Dichloropropene	1.6 U	5.0	1.6	ug/l	
100-41-4	Ethylbenzene	3.3	5.0	1.6	ug/l	J
591-78-6	2-Hexanone	13 U	50	13	ug/l	
87-68-3	Hexachlorobutadiene	2.4 U	5.0	2.4	ug/l	
98-82-8	Isopropylbenzene	2.0 U	5.0	2.0	ug/l	
99-87-6	p-Isopropyltoluene	1.8 U	5.0	1.8	ug/l	
108-10-1	4-Methyl-2-pentanone	11 U	50	11	ug/l	
74-83-9	Methyl bromide	2.5 U	5.0	2.5	ug/l	
74-87-3	Methyl chloride	3.2 U	5.0	3.2	ug/l	
74-95-3	Methylene bromide	2.2 U	5.0	2.2	ug/l	
75-09-2	Methylene chloride	8.1 U	25	8.1	ug/l	
78-93-3	Methyl ethyl ketone	47.1	50	14	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	1.5 U	5.0	1.5	ug/l	
91-20-3	Naphthalene	8.5	25	7.8	ug/l	J
103-65-1	n-Propylbenzene	1.8 U	5.0	1.8	ug/l	
100-42-5	Styrene	2.3	5.0	1.5	ug/l	J
630-20-6	1,1,1,2-Tetrachloroethane	1.8 U	5.0	1.8	ug/l	
71-55-6	1,1,1-Trichloroethane	2.1 U	5.0	2.1	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	2.0 U	5.0	2.0	ug/l	
79-00-5	1,1,2-Trichloroethane	1.7 U	5.0	1.7	ug/l	
87-61-6	1,2,3-Trichlorobenzene	2.1 U	5.0	2.1	ug/l	
96-18-4	1,2,3-Trichloropropane	2.3 U	5.0	2.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	2.0 U	5.0	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	3.2	5.0	1.6	ug/l	J
108-67-8	1,3,5-Trimethylbenzene	1.7 U	5.0	1.7	ug/l	
127-18-4	Tetrachloroethylene	2.3 U	5.0	2.3	ug/l	
108-88-3	Toluene	23.4	5.0	1.6	ug/l	
79-01-6	Trichloroethylene	2.4 U	5.0	2.4	ug/l	
75-69-4	Trichlorofluoromethane	3.8 U	5.0	3.8	ug/l	
75-01-4	Vinyl chloride	4.0 U	5.0	4.0	ug/l	
1330-20-7	Xylene (total)	15.7	15	4.3	ug/l	
	m,p-Xylene	6.5	10	2.9	ug/l	J
95-47-6	o-Xylene	9.1	5.0	1.4	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		72-122%
17060-07-0	1,2-Dichloroethane-D4	87%		68-124%
2037-26-5	Toluene-D8	92%		80-119%

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:	FT-1002		
Lab Sample ID:	TC54039-1	**Date Sampled:**	08/29/14
Matrix:	AQ - Water	**Date Received:**	08/29/14
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	90%		72-126%

(a) Dilution required due to matrix interference.

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:	FT-1002		
Lab Sample ID:	TC54039-1	**Date Sampled:**	08/29/14
Matrix:	AQ - Water	**Date Received:**	08/29/14
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]	J174769.D	10	09/03/14	SC	09/03/14	OP33775	EJ1929
Run #2	J174780.D	200	09/04/14	SC	09/03/14	OP33775	EJ1930

	Initial Volume	Final Volume
Run #1	940 ml	1.0 ml
Run #2	940 ml	1.0 ml

ABN Full List

CAS No.	Compound	Result	MQL	SDL	Units	Q
65-85-0	Benzoic Acid	110 U	210	110	ug/l	
95-57-8	2-Chlorophenol	10 U	53	10	ug/l	
59-50-7	4-Chloro-3-methyl phenol	23.8	53	12	ug/l	J
120-83-2	2,4-Dichlorophenol	50.8	53	12	ug/l	J
105-67-9	2,4-Dimethylphenol	6660 [b]	1100	230	ug/l	
51-28-5	2,4-Dinitrophenol	110 U	270	110	ug/l	
534-52-1	4,6-Dinitro-o-cresol	59 U	110	59	ug/l	
95-48-7	2-Methylphenol	11900 [b]	1100	210	ug/l	
	3&4-Methylphenol	8630 [b]	1100	230	ug/l	
88-75-5	2-Nitrophenol	12 U	53	12	ug/l	
100-02-7	4-Nitrophenol	76 U	270	76	ug/l	
87-86-5	Pentachlorophenol	110 U	270	110	ug/l	
108-95-2	Phenol	1680 [b]	1100	310	ug/l	
95-95-4	2,4,5-Trichlorophenol	10 U	53	10	ug/l	
88-06-2	2,4,6-Trichlorophenol	551	53	12	ug/l	
83-32-9	Acenaphthene	13 U	53	13	ug/l	
208-96-8	Acenaphthylene	12 U	53	12	ug/l	
62-53-3	Aniline	14 U	53	14	ug/l	
120-12-7	Anthracene	15 U	53	15	ug/l	
92-87-5	Benzidine	100 U	270	100	ug/l	
56-55-3	Benzo(a)anthracene	16 U	53	16	ug/l	
50-32-8	Benzo(a)pyrene	14 U	53	14	ug/l	
205-99-2	Benzo(b)fluoranthene	13 U	53	13	ug/l	
191-24-2	Benzo(g,h,i)perylene	16 U	53	16	ug/l	
207-08-9	Benzo(k)fluoranthene	16 U	53	16	ug/l	
101-55-3	4-Bromophenyl phenyl ether	13 U	53	13	ug/l	
85-68-7	Butyl benzyl phthalate	13 U	53	13	ug/l	
100-51-6	Benzyl Alcohol	9.3 U	53	9.3	ug/l	
91-58-7	2-Chloronaphthalene	14 U	53	14	ug/l	
106-47-8	4-Chloroaniline	12 U	53	12	ug/l	
86-74-8	Carbazole	15 U	53	15	ug/l	
218-01-9	Chrysene	17 U	53	17	ug/l	

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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:	FT-1002		
Lab Sample ID:	TC54039-1	**Date Sampled:**	08/29/14
Matrix:	AQ - Water	**Date Received:**	08/29/14
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	53	12	ug/l	
111-44-4	bis(2-Chloroethyl)ether	10 U	53	10	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	9.5 U	53	9.5	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	14 U	53	14	ug/l	
95-50-1	1,2-Dichlorobenzene	11 U	53	11	ug/l	
122-66-7	1,2-Diphenylhydrazine	14 U	53	14	ug/l	
541-73-1	1,3-Dichlorobenzene	12 U	53	12	ug/l	
106-46-7	1,4-Dichlorobenzene	11 U	53	11	ug/l	
121-14-2	2,4-Dinitrotoluene	13 U	53	13	ug/l	
606-20-2	2,6-Dinitrotoluene	11 U	53	11	ug/l	
91-94-1	3,3'-Dichlorobenzidine	14 U	110	14	ug/l	
53-70-3	Dibenzo(a,h)anthracene	14 U	53	14	ug/l	
132-64-9	Dibenzofuran	13 U	53	13	ug/l	
84-74-2	Di-n-butyl phthalate	14 U	53	14	ug/l	
117-84-0	Di-n-octyl phthalate	12 U	53	12	ug/l	
84-66-2	Diethyl phthalate	15 U	53	15	ug/l	
131-11-3	Dimethyl phthalate	15 U	53	15	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	16 U	53	16	ug/l	
206-44-0	Fluoranthene	15 U	53	15	ug/l	
86-73-7	Fluorene	13 U	53	13	ug/l	
118-74-1	Hexachlorobenzene	16 U	53	16	ug/l	
87-68-3	Hexachlorobutadiene	13 U	53	13	ug/l	
77-47-4	Hexachlorocyclopentadiene	13 U	110	13	ug/l	
67-72-1	Hexachloroethane	13 U	53	13	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	11 U	53	11	ug/l	
78-59-1	Isophorone	13 U	53	13	ug/l	
90-12-0	1-Methylnaphthalene	14.6	53	11	ug/l	J
91-57-6	2-Methylnaphthalene	15.2	53	13	ug/l	J
88-74-4	2-Nitroaniline	14 U	53	14	ug/l	
99-09-2	3-Nitroaniline	13 U	53	13	ug/l	
100-01-6	4-Nitroaniline	14 U	53	14	ug/l	
91-20-3	Naphthalene	11 U	53	11	ug/l	
98-95-3	Nitrobenzene	12 U	53	12	ug/l	
62-75-9	n-Nitrosodimethylamine	11 U	53	11	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	11 U	53	11	ug/l	
86-30-6	N-Nitrosodiphenylamine	15 U	53	15	ug/l	
85-01-8	Phenanthrene	16 U	53	16	ug/l	
129-00-0	Pyrene	15 U	53	15	ug/l	
110-86-1	Pyridine	13 U	53	13	ug/l	
120-82-1	1,2,4-Trichlorobenzene	11 U	53	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:	FT-1002		
Lab Sample ID:	TC54039-1	**Date Sampled:**	08/29/14
Matrix:	AQ - Water	**Date Received:**	08/29/14
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	16%	0% c	10-66%
4165-62-2	Phenol-d5	13%	0% c	10-63%
118-79-6	2,4,6-Tribromophenol	39%	0% c	32-128%
4165-60-0	Nitrobenzene-d5	53%	0% c	29-115%
321-60-8	2-Fluorobiphenyl	45%	0% c	34-113%
1718-51-0	Terphenyl-d14	54%	0% c	23-138%

(a) Elevated reporting limits due to matrix interference. Dilution required due to high concentration of 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:	FT-1002		
Lab Sample ID:	TC54039-1	**Date Sampled:**	08/29/14
Matrix:	AQ - Water	**Date Received:**	08/29/14
Method:	SW846 8151 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]	DD773126.D	1	09/10/14	FO	09/08/14	OP33837	GDD2395
Run #2							

	Initial Volume	Final Volume
Run #1	920 ml	10.0 ml
Run #2		

Herbicide List

CAS No.	Compound	Result	MQL	SDL	Units	Q
94-75-7	2,4-D	0.22 U	1.1	0.22	ug/l	
93-72-1	2,4,5-TP (Silvex)	0.044 U	0.22	0.044	ug/l	
93-76-5	2,4,5-T	0.036 U	0.22	0.036	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	1404% [b]		40-168%

(a) Sample extracted beyond hold time.
(b) Outside control limits biased high due to matrix interference. Analyte not detected in associated sample.

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:	FT-1002		
Lab Sample ID:	TC54039-1	**Date Sampled:**	08/29/14
Matrix:	AQ - Water	**Date Received:**	08/29/14
Method:	SW846 8081A 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	NN176727.D	50	09/11/14	SC	09/08/14	OP33839	GNN1482
Run #2							

	Initial Volume	Final Volume
Run #1	910 ml	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	MQL	SDL	Units	Q
309-00-2	Aldrin	0.55 U	2.7	0.55	ug/l	
319-84-6	alpha-BHC	1.2 U	2.7	1.2	ug/l	
319-85-7	beta-BHC	0.63 U	2.7	0.63	ug/l	
319-86-8	delta-BHC	0.55 U	2.7	0.55	ug/l	
58-89-9	gamma-BHC (Lindane)	0.94 U	2.7	0.94	ug/l	
5103-71-9	alpha-Chlordane	0.59 U	2.7	0.59	ug/l	
5103-74-2	gamma-Chlordane	0.58 U	2.7	0.58	ug/l	
60-57-1	Dieldrin	1.1 U	5.5	1.1	ug/l	
72-54-8	4,4'-DDD	1.8 U	5.5	1.8	ug/l	
72-55-9	4,4'-DDE	1.4 U	5.5	1.4	ug/l	
50-29-3	4,4'-DDT	2.0 U	5.5	2.0	ug/l	
72-20-8	Endrin	1.1 U	5.5	1.1	ug/l	
1031-07-8	Endosulfan sulfate	1.1 U	5.5	1.1	ug/l	
7421-93-4	Endrin aldehyde	2.0 U	5.5	2.0	ug/l	
53494-70-5	Endrin ketone	1.7 U	5.5	1.7	ug/l	
959-98-8	Endosulfan-I	1.0 U	5.5	1.0	ug/l	
33213-65-9	Endosulfan-II	1.1 U	5.5	1.1	ug/l	
76-44-8	Heptachlor	0.55 U	2.7	0.55	ug/l	
1024-57-3	Heptachlor epoxide	0.62 U	2.7	0.62	ug/l	
72-43-5	Methoxychlor	7.0 U	27	7.0	ug/l	
8001-35-2	Toxaphene	6.8 U	27	6.8	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	2668% [a]		39-122%
2051-24-3	Decachlorobiphenyl	46%		28-123%

(a) 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:	FT-1002		
Lab Sample ID:	TC54039-1	**Date Sampled:**	08/29/14
Matrix:	AQ - Water	**Date Received:**	08/29/14
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]	MM071623.D	25	09/10/14	SC	09/08/14	OP33838	GMM477
Run #2							

	Initial Volume	Final Volume
Run #1	910 ml	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	MQL	SDL	Units	Q
12674-11-2	Aroclor 1016	5.8 U	14	5.8	ug/l	
11104-28-2	Aroclor 1221	5.5 U	14	5.5	ug/l	
11141-16-5	Aroclor 1232	4.7 U	14	4.7	ug/l	
53469-21-9	Aroclor 1242	3.3 U	14	3.3	ug/l	
12672-29-6	Aroclor 1248	2.7 U	14	2.7	ug/l	
11097-69-1	Aroclor 1254	2.7 U	14	2.7	ug/l	
11096-82-5	Aroclor 1260	3.3 U	14	3.3	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	0% [b]		30-112%
2051-24-3	Decachlorobiphenyl	0% [b]		27-119%

(a) Elevated reporting limits due to matrix interference.
(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:	FT-1002		
Lab Sample ID:	TC54039-1	**Date Sampled:**	08/29/14
Matrix:	AQ - Water	**Date Received:**	08/29/14
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	JF59248.D	1	09/05/14	ZL	09/03/14	OP33783	GJF948
Run #2							

	Initial Volume	Final Volume
Run #1	31.0 ml	3.0 ml
Run #2		

CAS No.	Compound	Result	MQL	SDL	Units	Q
	TPH (C6-C12)	14.1	2.4	0.78	mg/l	
	TPH (> C12-C28)	108	2.4	0.85	mg/l	
	TPH (> C28-C35)	23.8	2.4	0.85	mg/l	
	TPH (C6-C35)	146	2.4	0.78	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	79%		70-130%
98-08-8	aaa-Trifluorotoluene	71%		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:	FT-1002		
Lab Sample ID:	TC54039-1	**Date Sampled:**	08/29/14
Matrix:	AQ - Water	**Date Received:**	08/29/14
		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	2.02	0.20	0.018	mg/l	1	09/02/14	09/03/14	NS	SW846 6010B [1]	SW846 3010A [3]
Antimony	0.0033 J	0.0050	0.0011	mg/l	1	09/02/14	09/03/14	NS	SW846 6010B [1]	SW846 3010A [3]
Arsenic	0.0126	0.0050	0.0047	mg/l	1	09/02/14	09/03/14	NS	SW846 6010B [1]	SW846 3010A [3]
Barium	0.0486 J	0.20	0.00039	mg/l	1	09/02/14	09/03/14	NS	SW846 6010B [1]	SW846 3010A [3]
Beryllium	0.00040 J	0.0040	0.00018	mg/l	1	09/02/14	09/03/14	NS	SW846 6010B [1]	SW846 3010A [3]
Cadmium	0.00038 J	0.0040	0.00023	mg/l	1	09/02/14	09/03/14	NS	SW846 6010B [1]	SW846 3010A [3]
Calcium	21.6	5.0	0.034	mg/l	1	09/02/14	09/03/14	NS	SW846 6010B [1]	SW846 3010A [3]
Chromium	0.0109	0.010	0.00062	mg/l	1	09/02/14	09/03/14	NS	SW846 6010B [1]	SW846 3010A [3]
Cobalt	0.0077 J	0.050	0.00023	mg/l	1	09/02/14	09/03/14	NS	SW846 6010B [1]	SW846 3010A [3]
Copper	0.0278	0.020	0.0029	mg/l	1	09/02/14	09/03/14	NS	SW846 6010B [1]	SW846 3010A [3]
Iron	21.9	0.10	0.030	mg/l	1	09/02/14	09/03/14	NS	SW846 6010B [1]	SW846 3010A [3]
Lead	0.0136	0.0030	0.00077	mg/l	1	09/02/14	09/03/14	NS	SW846 6010B [1]	SW846 3010A [3]
Magnesium	1.75 J	5.0	0.019	mg/l	1	09/02/14	09/03/14	NS	SW846 6010B [1]	SW846 3010A [3]
Manganese	0.517	0.015	0.00025	mg/l	1	09/02/14	09/03/14	NS	SW846 6010B [1]	SW846 3010A [3]
Mercury	0.000089 J	0.00020	0.000050	mg/l	1	09/05/14	09/05/14	CC	SW846 7470A [2]	SW846 7470A [4]
Nickel	0.0476	0.040	0.00040	mg/l	1	09/02/14	09/03/14	NS	SW846 6010B [1]	SW846 3010A [3]
Potassium	83.2	5.0	0.052	mg/l	1	09/02/14	09/03/14	NS	SW846 6010B [1]	SW846 3010A [3]
Selenium	0.0036 J	0.0050	0.0024	mg/l	1	09/02/14	09/03/14	NS	SW846 6010B [1]	SW846 3010A [3]
Silver	0.00059 U	0.010	0.00059	mg/l	1	09/02/14	09/03/14	NS	SW846 6010B [1]	SW846 3010A [3]
Sodium	181	5.0	0.023	mg/l	1	09/02/14	09/03/14	NS	SW846 6010B [1]	SW846 3010A [3]
Thallium	0.0021 U	0.010	0.0021	mg/l	1	09/02/14	09/03/14	NS	SW846 6010B [1]	SW846 3010A [3]
Vanadium	0.0068 J	0.050	0.00051	mg/l	1	09/02/14	09/03/14	NS	SW846 6010B [1]	SW846 3010A [3]
Zinc	0.698	0.020	0.0015	mg/l	1	09/02/14	09/03/14	NS	SW846 6010B [1]	SW846 3010A [3]

(1) Instrument QC Batch: MA10097
(2) Instrument QC Batch: MA10113
(3) Prep QC Batch: MP24120
(4) Prep QC Batch: MP24148

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:	FT-1002		
Lab Sample ID:	TC54039-1	**Date Sampled:**	08/29/14
Matrix:	AQ - Water	**Date Received:**	08/29/14
		Percent Solids:	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

General Chemistry

Analyte	Result	MQL	SDL	Units	DF	Analyzed	By	Method
Cyanide	0.0050 U	0.0050	0.0050	mg/l	1	09/04/14 14:05	CV	EPA 335.4/SW 9012
Heat Content, BTU [a]	8300	100		BTU/lb	1	09/09/14	ANJ	ASTM D240-92
Ignitability (Flashpoint)	> 200			Deg. F	1	09/05/14 13:00	DP	SW846 1010
Sulfide	4.0	0.40	0.025	mg/l	2	09/04/14	DP	SM 4500S+ F
pH [b]	6.84			su	1	09/03/14	JG	SM 4500H+ B/9040

(a) Analysis performed at Accutest Laboratories, Dayton, NJ.
(b) Field analysis required. Received out of hold time and analyzed by request.TEMP 20.1 C

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 1 OF 1

FED-EX Tracking #:
Bottle Order Control #:
Accutest Quote #:
Accutest Job #: TC54039

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

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

Accutest Sample #	Field ID / Point of Collection	Collection Date	Time	Sampled By	Matrix	# of bottles	HCl	NaOH	ZA/NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	TSP	NaHSO4	ENCORE	OTHER	Total VOC	Total SVOC	Total Metals & Hg	Total Pesticides	Total Herbicides	PCBs	TPH	Total Cyanides	Total Sulfides	flashpoint/Ingt	PH & BTU	LAB USE ONLY
1	FT-1002	8/29/14	1022	DC	WW	13													X	X	X	X	X	X	X	X	X	X	X	

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	8/29/14 1430	1	2		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.

4.1
4

TC54039: Chain of Custody
Page 1 of 3

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: TC54039 **Client:** WESTON SOLUTIONS **Project:** CES

Date / Time Received: 8/29/2014 **Delivery Method:** **Airbill #'s:**

No. Coolers: 1 **Therm ID:** IR-5; **Temp Adjustment Factor:** 0;

Cooler Temps (Initial/Adjusted): #1: (1.2/1.2);

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

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

Quality Control Preservation	Y	or 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	or N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

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

Sample Integrity - Instructions	Y	or 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

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

TC54039: Chain of Custody
Page 2 of 3

Sample Receipt Log

Job #: TC54039 **Date / Time Received:** 8/29/2014 2:30:00 PM **Initials:** bh

Client: WESTON SOLUTIONS

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	TC54039-1	LAG	1	4QQ	N/P	Note #2 - Preservative check not applicable.	IR-5	1.2	0	1.2
1	TC54039-1	LAG	2	4QQ	N/P	Note #2 - Preservative check not applicable.	IR-5	1.2	0	1.2
1	TC54039-1	LAG	3	4QQ	N/P	Note #2 - Preservative check not applicable.	IR-5	1.2	0	1.2
1	TC54039-1	LAG	4	4QQ	N/P	Note #2 - Preservative check not applicable.	IR-5	1.2	0	1.2
1	TC54039-1	LAG	5	4QQ	N/P	Note #2 - Preservative check not applicable.	IR-5	1.2	0	1.2
1	TC54039-1	LAG	6	4QQ	N/P	Note #2 - Preservative check not applicable.	IR-5	1.2	0	1.2
1	TC54039-1	LAG	7	4QQ	N/P	Note #2 - Preservative check not applicable.	IR-5	1.2	0	1.2
1	TC54039-1	40ml	8	4QQ	N/P	Note #2 - Preservative check not applicable.	IR-5	1.2	0	1.2
1	TC54039-1	40ml	9	4QQ	N/P	Note #2 - Preservative check not applicable.	IR-5	1.2	0	1.2
1	TC54039-1	40ml	10	4QQ	N/P	Note #2 - Preservative check not applicable.	IR-5	1.2	0	1.2
1	TC54039-1	40ml	11	VOA	N/P	Note #2 - Preservative check not applicable.	IR-5	1.2	0	1.2
1	TC54039-1	40ml	12	VOA	N/P	Note #2 - Preservative check not applicable.	IR-5	1.2	0	1.2
1	TC54039-1	40ml	13	VOA	N/P	Note #2 - Preservative check not applicable.	IR-5	1.2	0	1.2

TC54039: Chain of Custody
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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: TC54039
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VG1430-MB	G0252713.D	1	09/08/14	CF	n/a	n/a	VG1430

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

TC54039-1

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: TC54039
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VG1430-MB	G0252713.D	1	09/08/14	CF	n/a	n/a	VG1430

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

TC54039-1

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	95%	72-122%
17060-07-0	1,2-Dichloroethane-D4	85%	68-124%

Method Blank Summary

Job Number: TC54039
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VG1430-MB	G0252713.D	1	09/08/14	CF	n/a	n/a	VG1430

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

TC54039-1

CAS No.	Surrogate Recoveries		Limits
2037-26-5	Toluene-D8	92%	80-119%
460-00-4	4-Bromofluorobenzene	89%	72-126%

Blank Spike Summary

Job Number: TC54039
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VG1430-BS	G0252711.D	1	09/08/14	CF	n/a	n/a	VG1430

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

TC54039-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	114	91	46-129
71-43-2	Benzene	25	26.2	105	68-119
108-86-1	Bromobenzene	25	26.3	105	71-119
74-97-5	Bromochloromethane	25	26.5	106	71-118
75-27-4	Bromodichloromethane	25	24.5	98	72-118
75-25-2	Bromoform	25	24.7	99	54-123
104-51-8	n-Butylbenzene	25	28.9	116	66-123
135-98-8	sec-Butylbenzene	25	28.6	114	72-123
98-06-6	tert-Butylbenzene	25	26.6	106	70-124
108-90-7	Chlorobenzene	25	25.1	100	74-120
75-00-3	Chloroethane	25	30.1	120	61-132
67-66-3	Chloroform	25	25.1	100	73-122
95-49-8	o-Chlorotoluene	25	25.6	102	71-122
106-43-4	p-Chlorotoluene	25	26.0	104	73-120
75-15-0	Carbon disulfide	25	26.6	106	55-140
56-23-5	Carbon tetrachloride	25	27.5	110	68-133
75-34-3	1,1-Dichloroethane	25	26.1	104	72-121
75-35-4	1,1-Dichloroethylene	25	27.1	108	67-140
563-58-6	1,1-Dichloropropene	25	28.2	113	73-130
96-12-8	1,2-Dibromo-3-chloropropane	25	24.6	98	47-133
106-93-4	1,2-Dibromoethane	25	24.7	99	69-121
107-06-2	1,2-Dichloroethane	25	24.5	98	68-121
78-87-5	1,2-Dichloropropane	25	25.3	101	72-116
142-28-9	1,3-Dichloropropane	25	25.0	100	70-118
594-20-7	2,2-Dichloropropane	25	28.2	113	57-141
124-48-1	Dibromochloromethane	25	24.9	100	68-119
75-71-8	Dichlorodifluoromethane	25	28.0	112	29-182
156-59-2	cis-1,2-Dichloroethylene	25	25.8	103	72-117
10061-01-5	cis-1,3-Dichloropropene	25	24.5	98	71-118
541-73-1	m-Dichlorobenzene	25	26.2	105	73-117
95-50-1	o-Dichlorobenzene	25	25.7	103	71-117
106-46-7	p-Dichlorobenzene	25	26.9	108	71-116
156-60-5	trans-1,2-Dichloroethylene	25	26.5	106	68-124
10061-02-6	trans-1,3-Dichloropropene	25	26.3	105	72-127
100-41-4	Ethylbenzene	25	26.5	106	71-117
591-78-6	2-Hexanone	125	117	94	49-124

* = Outside of Control Limits.

Blank Spike Summary

Job Number: TC54039
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VG1430-BS	G0252711.D	1	09/08/14	CF	n/a	n/a	VG1430

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

TC54039-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
87-68-3	Hexachlorobutadiene	25	32.6	130	62-143
98-82-8	Isopropylbenzene	25	27.0	108	74-141
99-87-6	p-Isopropyltoluene	25	28.4	114	72-126
108-10-1	4-Methyl-2-pentanone	125	119	95	54-122
74-83-9	Methyl bromide	25	24.7	99	53-138
74-87-3	Methyl chloride	25	26.8	107	50-145
74-95-3	Methylene bromide	25	24.5	98	71-117
75-09-2	Methylene chloride	25	25.3	101	60-125
78-93-3	Methyl ethyl ketone	125	122	98	51-129
1634-04-4	Methyl Tert Butyl Ether	25	25.9	104	65-119
91-20-3	Naphthalene	25	26.4	106	43-139
103-65-1	n-Propylbenzene	25	26.8	107	72-123
100-42-5	Styrene	25	27.0	108	74-119
630-20-6	1,1,1,2-Tetrachloroethane	25	25.6	102	74-119
71-55-6	1,1,1-Trichloroethane	25	27.0	108	72-129
79-34-5	1,1,2,2-Tetrachloroethane	25	25.4	102	62-121
79-00-5	1,1,2-Trichloroethane	25	24.2	97	70-119
87-61-6	1,2,3-Trichlorobenzene	25	26.6	106	44-144
96-18-4	1,2,3-Trichloropropane	25	24.6	98	61-124
120-82-1	1,2,4-Trichlorobenzene	25	27.4	110	57-132
95-63-6	1,2,4-Trimethylbenzene	25	27.0	108	70-121
108-67-8	1,3,5-Trimethylbenzene	25	27.2	109	66-119
127-18-4	Tetrachloroethylene	25	29.9	120	72-132
108-88-3	Toluene	25	26.3	105	73-119
79-01-6	Trichloroethylene	25	25.7	103	73-121
75-69-4	Trichlorofluoromethane	25	27.8	111	46-152
75-01-4	Vinyl chloride	25	26.8	107	54-126
1330-20-7	Xylene (total)	75	76.9	103	74-119
	m,p-Xylene	50	51.7	103	74-119
95-47-6	o-Xylene	25	25.2	101	73-121

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	91%	72-122%
17060-07-0	1,2-Dichloroethane-D4	87%	68-124%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: TC54039
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VG1430-BS	G0252711.D	1	09/08/14	CF	n/a	n/a	VG1430

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

TC54039-1

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	92%	80-119%
460-00-4	4-Bromofluorobenzene	91%	72-126%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC54039
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TC54320-4MS	G0252720.D	500	09/08/14	CF	n/a	n/a	VG1430
TC54320-4MSD	G0252721.D	500	09/08/14	CF	n/a	n/a	VG1430
TC54320-4	G0252718.D	10	09/08/14	CF	n/a	n/a	VG1430
TC54320-4	G0252719.D	500	09/08/14	CF	n/a	n/a	VG1430

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

TC54039-1

CAS No.	Compound	TC54320-4 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	500 U		62500	58200	93	62500	59800	96	3	46-129/25
71-43-2	Benzene	10 U		12500	13400	107	12500	12800	102	5	68-119/12
108-86-1	Bromobenzene	10 U		12500	13400	107	12500	12800	102	5	71-119/12
74-97-5	Bromochloromethane	10 U		12500	12800	102	12500	12900	103	1	71-118/13
75-27-4	Bromodichloromethane	10 U		12500	12500	100	12500	11900	95	5	72-118/16
75-25-2	Bromoform	10 U		12500	12400	99	12500	12000	96	3	54-123/17
104-51-8	n-Butylbenzene	10 U		12500	14500	116	12500	14000	112	4	66-123/14
135-98-8	sec-Butylbenzene	10 U		12500	14400	115	12500	13900	111	4	72-123/13
98-06-6	tert-Butylbenzene	10 U		12500	13500	108	12500	13100	105	3	70-124/15
108-90-7	Chlorobenzene	10 U		12500	12800	102	12500	12200	98	5	74-120/12
75-00-3	Chloroethane	10 U		12500	15100	121	12500	15300	122	1	61-132/16
67-66-3	Chloroform	10 U		12500	12700	102	12500	12700	102	0	73-122/13
95-49-8	o-Chlorotoluene	10 U		12500	13100	105	12500	12500	100	5	71-122/12
106-43-4	p-Chlorotoluene	10 U		12500	13400	107	12500	12900	103	4	73-120/12
75-15-0	Carbon disulfide	10 U		12500	13500	108	12500	13400	107	1	55-140/24
56-23-5	Carbon tetrachloride	10 U		12500	13800	110	12500	13300	106	4	68-133/20
75-34-3	1,1-Dichloroethane	1120		12500	14100	104	12500	14100	104	0	72-121/14
75-35-4	1,1-Dichloroethylene	7000 [a]		12500	20700	110	12500	20500	108	1	67-140/18
563-58-6	1,1-Dichloropropene	10 U		12500	13900	111	12500	13900	111	0	73-130/15
96-12-8	1,2-Dibromo-3-chloropropane	20 U		12500	12200	98	12500	12100	97	1	47-133/23
106-93-4	1,2-Dibromoethane	10 U		12500	12800	102	12500	12400	99	3	69-121/13
107-06-2	1,2-Dichloroethane	45.2		12500	12700	101	12500	12200	97	4	68-121/12
78-87-5	1,2-Dichloropropane	10 U		12500	13100	105	12500	12400	99	5	72-116/12
142-28-9	1,3-Dichloropropane	10 U		12500	12900	103	12500	12400	99	4	70-118/12
594-20-7	2,2-Dichloropropane	10 U		12500	14000	112	12500	14000	112	0	57-141/16
124-48-1	Dibromochloromethane	10 U		12500	12800	102	12500	12100	97	6	68-119/15
75-71-8	Dichlorodifluoromethane	68.9		12500	13500	107	12500	14700	117	9	29-182/23
156-59-2	cis-1,2-Dichloroethylene	10 U		12500	12900	103	12500	13000	104	1	72-117/13
10061-01-5	cis-1,3-Dichloropropene	10 U		12500	12500	100	12500	12000	96	4	71-118/18
541-73-1	m-Dichlorobenzene	10 U		12500	13300	106	12500	12800	102	4	73-117/12
95-50-1	o-Dichlorobenzene	10 U		12500	12900	103	12500	12400	99	4	71-117/11
106-46-7	p-Dichlorobenzene	10 U		12500	13700	110	12500	13100	105	4	71-116/11
156-60-5	trans-1,2-Dichloroethylene	10 U		12500	13500	108	12500	13300	106	1	68-124/15
10061-02-6	trans-1,3-Dichloropropene	10 U		12500	13300	106	12500	12800	102	4	72-127/17
100-41-4	Ethylbenzene	10 U		12500	13500	108	12500	13100	105	3	71-117/12
591-78-6	2-Hexanone	100 U		62500	60800	97	62500	58300	93	4	49-124/21

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC54039
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TC54320-4MS	G0252720.D	500	09/08/14	CF	n/a	n/a	VG1430
TC54320-4MSD	G0252721.D	500	09/08/14	CF	n/a	n/a	VG1430
TC54320-4	G0252718.D	10	09/08/14	CF	n/a	n/a	VG1430
TC54320-4	G0252719.D	500	09/08/14	CF	n/a	n/a	VG1430

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

TC54039-1

CAS No.	Compound	TC54320-4 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	10 U		12500	16100	129	12500	15900	127	1	62-143/18
98-82-8	Isopropylbenzene	10 U		12500	13700	110	12500	13200	106	4	74-141/13
99-87-6	p-Isopropyltoluene	10 U		12500	14000	112	12500	13600	109	3	72-126/13
108-10-1	4-Methyl-2-pentanone	100 U		62500	60500	97	62500	57800	92	5	54-122/20
74-83-9	Methyl bromide	10 U		12500	12200	98	12500	12800	102	5	53-138/16
74-87-3	Methyl chloride	10 U		12500	13600	109	12500	14400	115	6	50-145/17
74-95-3	Methylene bromide	10 U		12500	12300	98	12500	12000	96	2	71-117/12
75-09-2	Methylene chloride	50 U		12500	12900	103	12500	12700	102	2	60-125/16
78-93-3	Methyl ethyl ketone	100 U		62500	60600	97	62500	61800	99	2	51-129/22
1634-04-4	Methyl Tert Butyl Ether	10 U		12500	12700	102	12500	12600	101	1	65-119/13
91-20-3	Naphthalene	50 U		12500	13300	106	12500	13200	106	1	43-139/28
103-65-1	n-Propylbenzene	10 U		12500	13600	109	12500	13200	106	3	72-123/13
100-42-5	Styrene	10 U		12500	13800	110	12500	13200	106	4	74-119/19
630-20-6	1,1,1,2-Tetrachloroethane	10 U		12500	13000	104	12500	12200	98	6	74-119/14
71-55-6	1,1,1-Trichloroethane	10 U		12500	13400	107	12500	13200	106	2	72-129/14
79-34-5	1,1,2,2-Tetrachloroethane	10 U		12500	13100	105	12500	12500	100	5	62-121/17
79-00-5	1,1,2-Trichloroethane	10 U		12500	12400	99	12500	12100	97	2	70-119/13
87-61-6	1,2,3-Trichlorobenzene	10 U		12500	13700	110	12500	13600	109	1	44-144/27
96-18-4	1,2,3-Trichloropropane	10 U		12500	17200	138*	12500	16100	129*	7	61-124/16
120-82-1	1,2,4-Trichlorobenzene	10 U		12500	13900	111	12500	13500	108	3	57-132/18
95-63-6	1,2,4-Trimethylbenzene	10 U		12500	13600	109	12500	13100	105	4	70-121/15
108-67-8	1,3,5-Trimethylbenzene	10 U		12500	13800	110	12500	13200	106	4	66-119/15
127-18-4	Tetrachloroethylene	10 U		12500	14900	119	12500	14500	116	3	72-132/14
108-88-3	Toluene	10 U		12500	13500	108	12500	12900	103	5	73-119/13
79-01-6	Trichloroethylene	10 U		12500	13200	106	12500	12500	100	5	73-121/13
75-69-4	Trichlorofluoromethane	10 U		12500	13700	110	12500	14300	114	4	46-152/25
75-01-4	Vinyl chloride	232		12500	13600	107	12500	14100	111	4	54-126/17
1330-20-7	Xylene (total)	30 U		37500	39100	104	37500	37800	101	3	74-119/13
	m,p-Xylene	20 U		25000	26300	105	25000	25400	102	3	74-119/13
95-47-6	o-Xylene	10 U		12500	12900	103	12500	12400	99	4	73-121/13

CAS No.	Surrogate Recoveries	MS	MSD	TC54320-4	TC54320-4	Limits
1868-53-7	Dibromofluoromethane	90%	94%	94%	94%	72-122%
17060-07-0	1,2-Dichloroethane-D4	87%	86%	87%	86%	68-124%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC54039
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TC54320-4MS	G0252720.D	500	09/08/14	CF	n/a	n/a	VG1430
TC54320-4MSD	G0252721.D	500	09/08/14	CF	n/a	n/a	VG1430
TC54320-4	G0252718.D	10	09/08/14	CF	n/a	n/a	VG1430
TC54320-4	G0252719.D	500	09/08/14	CF	n/a	n/a	VG1430

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

TC54039-1

CAS No.	Surrogate Recoveries	MS	MSD	TC54320-4	TC54320-4	Limits
2037-26-5	Toluene-D8	93%	93%	90%	92%	80-119%
460-00-4	4-Bromofluorobenzene	92%	90%	88%	89%	72-126%

(a) Result is from Run #2.

* = 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: TC54039
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33775-MB	P35316A.D	1	09/03/14	SC	09/03/14	OP33775	EP1702

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

TC54039-1

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: TC54039
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33775-MB	P35316A.D	1	09/03/14	SC	09/03/14	OP33775	EP1702

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

TC54039-1

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: TC54039
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33775-MB	P35316A.D	1	09/03/14	SC	09/03/14	OP33775	EP1702

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

TC54039-1

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	36%	10-66%
4165-62-2	Phenol-d5	24%	10-63%
118-79-6	2,4,6-Tribromophenol	68%	32-128%
4165-60-0	Nitrobenzene-d5	77%	29-115%
321-60-8	2-Fluorobiphenyl	78%	34-113%
1718-51-0	Terphenyl-d14	101%	23-138%

Blank Spike/Blank Spike Duplicate Summary

Job Number: TC54039
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33775-BS	P35322.D	1	09/03/14	SC	09/03/14	OP33775	EP1702
OP33775-BSD [a]	P35323.D	1	09/03/14	SC	09/03/14	OP33775	EP1702

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

TC54039-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	50	10	20	11.9	24	17	10-91/30
95-57-8	2-Chlorophenol	50	38.4	77	38.6	77	1	38-102/30
59-50-7	4-Chloro-3-methyl phenol	50	39.1	78	39.3	79	1	30-110/30
120-83-2	2,4-Dichlorophenol	50	39.5	79	39.5	79	0	41-107/30
105-67-9	2,4-Dimethylphenol	50	40.9	82	41.0	82	0	39-107/30
51-28-5	2,4-Dinitrophenol	50	40.6	81	39.8	80	2	24-119/30
534-52-1	4,6-Dinitro-o-cresol	50	45.6	91	45.5	91	0	40-121/30
95-48-7	2-Methylphenol	50	36.6	73	36.5	73	0	33-93/30
	3&4-Methylphenol	50	35.8	72	35.3	71	1	28-99/30
88-75-5	2-Nitrophenol	50	39.1	78	39.9	80	2	38-107/30
100-02-7	4-Nitrophenol	50	26.6	53	25.2	50	5	10-78/30
87-86-5	Pentachlorophenol	50	33.3	67	30.7	61	8	28-116/30
108-95-2	Phenol	50	26.4	53	26.1	52	1	15-70/30
95-95-4	2,4,5-Trichlorophenol	50	40.4	81	40.4	81	0	47-116/30
88-06-2	2,4,6-Trichlorophenol	50	41.4	83	41.6	83	0	44-112/30
83-32-9	Acenaphthene	50	41.0	82	41.0	82	0	44-106/30
208-96-8	Acenaphthylene	50	42.3	85	42.3	85	0	46-111/30
62-53-3	Aniline	50	38.9	78	38.4	77	1	15-112/30
120-12-7	Anthracene	50	43.0	86	42.8	86	0	53-114/30
92-87-5	Benzidine	100	40.8	41	41.4	41	1	13-148/30
56-55-3	Benzo(a)anthracene	50	43.6	87	43.5	87	0	57-113/30
50-32-8	Benzo(a)pyrene	50	45.3	91	45.5	91	0	50-109/30
205-99-2	Benzo(b)fluoranthene	50	45.4	91	45.4	91	0	50-117/30
191-24-2	Benzo(g,h,i)perylene	50	52.7	105	53.6	107	2	43-127/30
207-08-9	Benzo(k)fluoranthene	50	47.4	95	48.0	96	1	52-123/30
101-55-3	4-Bromophenyl phenyl ether	50	42.3	85	42.4	85	0	48-113/30
85-68-7	Butyl benzyl phthalate	50	47.4	95	46.8	94	1	42-120/30
100-51-6	Benzyl Alcohol	50	39.3	79	38.7	77	2	31-97/30
91-58-7	2-Chloronaphthalene	50	43.6	87	43.2	86	1	35-123/30
106-47-8	4-Chloroaniline	50	41.4	83	41.3	83	0	36-104/30
86-74-8	Carbazole	50	45.6	91	44.7	89	2	50-113/30
218-01-9	Chrysene	50	44.5	89	44.6	89	0	59-116/30
111-91-1	bis(2-Chloroethoxy)methane	50	41.4	83	41.5	83	0	34-103/30
111-44-4	bis(2-Chloroethyl)ether	50	38.2	76	38.3	77	0	36-100/30
108-60-1	bis(2-Chloroisopropyl)ether	50	38.1	76	38.2	76	0	30-110/30
7005-72-3	4-Chlorophenyl phenyl ether	50	40.2	80	39.6	79	2	45-112/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: TC54039
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33775-BS	P35322.D	1	09/03/14	SC	09/03/14	OP33775	EP1702
OP33775-BSD [a]	P35323.D	1	09/03/14	SC	09/03/14	OP33775	EP1702

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

TC54039-1

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	31.6	63	31.9	64	1	37-100/30
122-66-7	1,2-Diphenylhydrazine	50	45.6	91	45.8	92	0	44-113/30
541-73-1	1,3-Dichlorobenzene	50	30.4	61	30.6	61	1	34-99/30
106-46-7	1,4-Dichlorobenzene	50	31.6	63	31.6	63	0	36-99/30
121-14-2	2,4-Dinitrotoluene	50	40.9	82	40.1	80	2	52-115/30
606-20-2	2,6-Dinitrotoluene	50	41.2	82	40.8	82	1	52-111/30
91-94-1	3,3'-Dichlorobenzidine	50	43.3	87	43.6	87	1	37-125/30
53-70-3	Dibenzo(a,h)anthracene	50	48.0	96	48.1	96	0	47-125/30
132-64-9	Dibenzofuran	50	41.8	84	41.3	83	1	45-108/30
84-74-2	Di-n-butyl phthalate	50	45.7	91	45.3	91	1	47-118/30
117-84-0	Di-n-octyl phthalate	50	50.7	101	50.8	102	0	41-124/30
84-66-2	Diethyl phthalate	50	43.9	88	43.5	87	1	38-121/30
131-11-3	Dimethyl phthalate	50	44.9	90	44.7	89	0	41-116/30
117-81-7	bis(2-Ethylhexyl)phthalate	50	48.6	97	48.9	98	1	50-123/30
206-44-0	Fluoranthene	50	42.0	84	41.1	82	2	50-118/30
86-73-7	Fluorene	50	40.8	82	39.9	80	2	47-113/30
118-74-1	Hexachlorobenzene	50	41.1	82	41.7	83	1	49-114/30
87-68-3	Hexachlorobutadiene	50	31.5	63	32.3	65	3	30-104/30
77-47-4	Hexachlorocyclopentadiene	50	22.9	46	24.8	50	8	10-97/30
67-72-1	Hexachloroethane	50	32.9	66	33.0	66	0	30-100/30
193-39-5	Indeno(1,2,3-cd)pyrene	50	49.1	98	49.1	98	0	45-127/30
78-59-1	Isophorone	50	43.2	86	43.3	87	0	40-103/30
90-12-0	1-Methylnaphthalene	50	38.1	76	38.2	76	0	38-105/30
91-57-6	2-Methylnaphthalene	50	36.6	73	36.6	73	0	36-104/30
88-74-4	2-Nitroaniline	50	44.7	89	44.7	89	0	41-117/30
99-09-2	3-Nitroaniline	50	43.0	86	42.4	85	1	37-117/30
100-01-6	4-Nitroaniline	50	42.9	86	41.2	82	4	47-121/30
91-20-3	Naphthalene	50	37.8	76	37.8	76	0	40-104/30
98-95-3	Nitrobenzene	50	41.1	82	41.5	83	1	40-103/30
62-75-9	n-Nitrosodimethylamine	50	33.9	68	33.8	68	0	11-89/30
621-64-7	N-Nitroso-di-n-propylamine	50	38.9	78	38.1	76	2	36-112/30
86-30-6	N-Nitrosodiphenylamine	100	81.9	82	81.9	82	0	39-109/30
85-01-8	Phenanthrene	50	43.0	86	43.1	86	0	53-114/30
129-00-0	Pyrene	50	44.5	89	44.0	88	1	51-117/30
110-86-1	Pyridine	50	25.0	50	24.9	50	0	10-77/30
120-82-1	1,2,4-Trichlorobenzene	50	34.0	68	34.7	69	2	32-103/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: TC54039
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33775-BS	P35322.D	1	09/03/14	SC	09/03/14	OP33775	EP1702
OP33775-BSD [a]	P35323.D	1	09/03/14	SC	09/03/14	OP33775	EP1702

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

TC54039-1

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
367-12-4	2-Fluorophenol	55%	55%	10-66%
4165-62-2	Phenol-d5	40%	39%	10-63%
118-79-6	2,4,6-Tribromophenol	73%	74%	32-128%
4165-60-0	Nitrobenzene-d5	72%	73%	29-115%
321-60-8	2-Fluorobiphenyl	76%	76%	34-113%
1718-51-0	Terphenyl-d14	87%	87%	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: TC54039
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33783-MB	LB104269.D	1	09/03/14	ZL	09/03/14	OP33783	GLB1542

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

TC54039-1

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	93%	70-130%
98-08-8	aaa-Trifluorotoluene	96%	70-130%

Method Blank Summary

Job Number: TC54039
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33837-MB	DD773140.D	1	09/11/14	FO	09/08/14	OP33837	GDD2395

The QC reported here applies to the following samples: **Method:** SW846 8151

TC54039-1

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	1.0	0.20	ug/l	
93-72-1	2,4,5-TP (Silvex)	ND	0.20	0.040	ug/l	
93-76-5	2,4,5-T	ND	0.20	0.033	ug/l	

CAS No.	Surrogate Recoveries		Limits
19719-28-9	2,4-DCAA	118%	40-168%

Method Blank Summary

Job Number: TC54039
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33838-MB	MM071552.D	1	09/08/14	SC	09/08/14	OP33838	GMM475

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

TC54039-1

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	98%	30-112%
2051-24-3	Decachlorobiphenyl	89%	27-119%

Blank Spike Summary

Job Number: TC54039
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33837-BS	DD773139.D	1	09/11/14	FO	09/08/14	OP33837	GDD2395

The QC reported here applies to the following samples: **Method:** SW846 8151

TC54039-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
94-75-7	2,4-D	2	1.8	90	64-130
93-72-1	2,4,5-TP (Silvex)	0.4	0.32	80	58-136
93-76-5	2,4,5-T	0.4	0.34	85	48-125

CAS No.	Surrogate Recoveries	BSP	Limits
19719-28-9	2,4-DCAA	106%	40-168%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: TC54039
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33783-BS	LB104267.D	1	09/03/14	ZL	09/03/14	OP33783	GLB1542
OP33783-BSD	LF104268.D	1	09/03/14	ZL	09/03/14	OP33783	GLF1542

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

TC54039-1

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (C6-C12)	50	39.0	78	40.1	80	3	75-125/20
	TPH (> C12-C28)	50	38.5	77	43.6	87	12	75-125/20
	TPH (C6-C35)	100	77.5	78	83.6	84	8	75-125/20

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
84-15-1	o-Terphenyl	87%	97%	70-130%
98-08-8	aaa-Trifluorotoluene	86%	85%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: TC54039
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33838-BS	MM071555.D	1	09/08/14	SC	09/08/14	OP33838	GMM475
OP33838-BSD	MM071556.D	1	09/08/14	SC	09/08/14	OP33838	GMM475

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

TC54039-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	2	2.0	100	2.2	110	10	59-126/31
11096-82-5	Aroclor 1260	2	2.0	100	2.2	110	10	65-126/35

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	89%	98%	30-112%
2051-24-3	Decachlorobiphenyl	83%	90%	27-119%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC54039
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33783-MS	LB104333.D	1	09/04/14	ZL	09/03/14	OP33783	GLB1543
OP33783-MSD	LF104334.D	1	09/04/14	ZL	09/03/14	OP33783	GLF1543
TC53981-1	LB104335.D	1	09/04/14	ZL	09/03/14	OP33783	GLB1543

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

TC54039-1

CAS No.	Compound	TC53981-1 mg/l	Q	Spike mg/l	MS mg/l	MS %	Spike mg/l	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH (C6-C12)	1.69	J	47.7	38.6	77	47.8	35.6	71*	8	75-125/20
	TPH (> C12-C28)	1.71	J	47.7	32.5	65*	47.8	32.7	65*	1	75-125/20
	TPH (C6-C35)	3.40		95.3	71.1	71*	95.6	68.2	68*	4	75-125/20

CAS No.	Surrogate Recoveries	MS	MSD	TC53981-1	Limits
84-15-1	o-Terphenyl	92%	94%	92%	70-130%
98-08-8	aaa-Trifluorotoluene	103%	84%	96%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC54039
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33837-MS	DD773128.D	1	09/11/14	FO	09/08/14	OP33837	GDD2395
OP33837-MSD	DD773129.D	1	09/11/14	FO	09/08/14	OP33837	GDD2395
TC54344-1	DD773130.D	1	09/11/14	FO	09/08/14	OP33837	GDD2395

The QC reported here applies to the following samples: **Method:** SW846 8151

TC54039-1

CAS No.	Compound	TC54344-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
94-75-7	2,4-D	1.0	U	2.04	2.1	103	2.04	1.8	88	15	64-130/20
93-72-1	2,4,5-TP (Silvex)	0.20	U	0.408	0.76	186* [a]	0.408	0.79	194* [a]	4	58-136/22
93-76-5	2,4,5-T	0.20	U	0.408	0.93	228* [a]	0.408	1.1	269* [a]	17	48-125/27

CAS No.	Surrogate Recoveries	MS	MSD	TC54344-1	Limits
19719-28-9	2,4-DCAA	199%* [b]	218%* [b]	158%	40-168%

(a) Outside control limits due to matrix interference.
(b) Outside control limits due to matrix interference. Confirmed by MS/MSD.

* = 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: TC54039
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24120
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 09/02/14

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	6.9	18	22.9	<200
Antimony	5.0	.56	1.1	0.35	<5.0
Arsenic	5.0	1	4.7	0.80	<5.0
Barium	200	.16	.39	0.040	<200
Beryllium	4.0	.1	.18	-0.070	<4.0
Boron	100	.39	5.9		
Cadmium	4.0	.15	.23	0.020	<4.0
Calcium	5000	4	34	16.6	<5000
Chromium	10	.22	.62	0.070	<10
Cobalt	50	.25	.23	0.18	<50
Copper	20	.24	2.9	-0.21	<20
Iron	100	4.6	30	3.3	<100
Lead	3.0	.65	.77	-0.16	<3.0
Lithium	300	.65	2.2		
Magnesium	5000	7.7	19	-16	<5000
Manganese	15	.09	.25	-0.050	<15
Molybdenum	10	.62	.41		
Nickel	40	.22	.4	0.14	<40
Potassium	5000	7.6	52	42.8	<5000
Selenium	5.0	1.2	2.4	1.6	<5.0
Silver	10	.2	.59	-0.15	<10
Sodium	5000	5.7	23	138	<5000
Strontium	10	.07	.21		
Thallium	10	.83	2.1	-0.050	<10
Tin	50	.67	1		
Titanium	20	.19	.4		
Vanadium	50	.18	.51	-0.080	<50
Zinc	20	.13	1.5	-0.51	<20
Sulfur	50		5.8		

Associated samples MP24120: TC54039-1

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

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: TC54039
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24120
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date:			09/02/14					09/02/14	
Metal	BSP Result	Spikelot MPTW11	% Rec	QC Limits	BSD Result	Spikelot MPTW11	% Rec	BSD RPD	QC Limit
Aluminum	45900	50000	91.8	80-120	49600	50000	99.2	7.7	
Antimony	374	400	93.5	80-120	403	400	100.8	7.5	
Arsenic	375	400	93.8	80-120	397	400	99.3	5.7	
Barium	389	400	97.3	80-120	405	400	101.3	4.0	
Beryllium	370	400	92.5	80-120	399	400	99.8	7.5	
Boron	anr								
Cadmium	370	400	92.5	80-120	400	400	100.0	7.8	
Calcium	47500	50000	95.0	80-120	50900	50000	101.8	6.9	
Chromium	365	400	91.3	80-120	390	400	97.5	6.6	
Cobalt	373	400	93.3	80-120	404	400	101.0	8.0	
Copper	366	400	91.5	80-120	397	400	99.3	8.1	
Iron	46400	50000	92.8	80-120	49800	50000	99.6	7.1	
Lead	362	400	90.5	80-120	388	400	97.0	6.9	
Lithium	anr								
Magnesium	46900	50000	93.8	80-120	50800	50000	101.6	8.0	
Manganese	368	400	92.0	80-120	393	400	98.3	6.6	
Molybdenum	anr								
Nickel	363	400	90.8	80-120	389	400	97.3	6.9	
Potassium	44900	50000	89.8	80-120	48400	50000	96.8	7.5	
Selenium	384	400	96.0	80-120	411	400	102.8	6.8	
Silver	349	400	87.3	80-120	378	400	94.5	8.0	
Sodium	48600	50000	97.2	80-120	50900	50000	101.8	4.6	
Strontium									
Thallium	369	400	92.3	80-120	397	400	99.3	7.3	
Tin	anr								
Titanium	anr								
Vanadium	354	400	88.5	80-120	381	400	95.3	7.3	
Zinc	438	400	109.5	80-120	450	400	112.5	2.7	
Sulfur									

Associated samples MP24120: TC54039-1

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

SERIAL DILUTION RESULTS SUMMARY

Login Number: TC54039
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24120
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 09/02/14

Metal	TC54038-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum	118	166	41.2 (a)	0-10
Antimony	1.34	4.35	224.6(a)	0-10
Arsenic	1.18	0.00	100.0(a)	0-10
Barium	292	292	0.1	0-10
Beryllium	0.130	0.550	323.1(a)	0-10
Boron	anr			
Cadmium	0.190	0.00	100.0(a)	0-10
Calcium	51000	51800	1.5	0-10
Chromium	1.15	1.89	64.3 (a)	0-10
Cobalt	6.21	7.18	15.6 (a)	0-10
Copper	4.18	4.48	7.2	0-10
Iron	11900	12000	0.8	0-10
Lead	8.00	8.33	4.1	0-10
Lithium	anr			
Magnesium	7620	7740	1.6	0-10
Manganese	581	586	0.8	0-10
Molybdenum	anr			
Nickel	26.3	26.8	2.2	0-10
Potassium	10800	10800	0.6	0-10
Selenium	2.12	0.00	100.0(a)	0-10
Silver	0.00	0.00	NC	0-10
Sodium	21700	22400	2.8	0-10
Strontium				
Thallium	0.00	0.00	NC	0-10
Tin	anr			
Titanium	anr			
Vanadium	1.23	0.980	20.3 (a)	0-10
Zinc	214	219	2.7	0-10
Sulfur				

Associated samples MP24120: TC54039-1

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).

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: TC54039
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24148
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 09/05/14

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.20	.05	.05	-0.078	<0.20

Associated samples MP24148: TC54039-1

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: TC54039
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24148 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 09/05/14

Metal	TC53937-1 Original	MS	Spikelot HGTXAQ40	% Rec	QC Limits
Mercury	74.5	59.1	3	-513.3(a	75-125

Associated samples MP24148: TC54039-1

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.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TC54039
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24148 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 09/05/14

Metal	TC53937-1 Original	MSD	Spikelot HGTXAQ40	% Rec	MSD RPD	QC Limit
Mercury	74.5	59.8	3	-490.0(a	1.2	20

Associated samples MP24148: TC54039-1

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: TC54039
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24148
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 09/05/14

Metal	BSP Result	Spikelot HGTXAQ40	% Rec	QC Limits
Mercury	3.2	3	106.7	81-122

Associated samples MP24148: TC54039-1

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: TC54039
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
Cyanide	GP29328/GN60814	0.0050	0.0	mg/l	0.1	0.100	100.0	91-108%
Sulfide	GN60816	0.20	0.0	mg/l	1600	1520	95.0	90-105%

Associated Samples:
Batch GN60816: TC54039-1
Batch GP29328: TC54039-1
(*) Outside of QC limits

BLANK SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TC54039
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Analyte	Batch ID	Units	Spike Amount	BSD Result	RPD	QC Limit
Sulfide	GN60816	mg/l	1600	1540	1.3	

Associated Samples:
Batch GN60816: TC54039-1
(*) Outside of QC limits

9.2
9

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TC54039
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
Cyanide	GP29328/GN60814	TC54000-1	mg/l	0.0	0.0	0.0	0-20%
Ignitability (Flashpoint)	GN60833	TC54038-1	Deg. F	>200	>200	0.0	0-10%
pH	GN60784	TC54157-1	su	7.81	7.81(a)	0.0	0-10%

Associated Samples:
Batch GN60784: TC54039-1
Batch GN60833: TC54039-1
Batch GP29328: TC54039-1
(*) Outside of QC limits
(a) TEMP 20.2 C

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TC54039
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
Cyanide	GP29328/GN60814	TC54000-1	mg/l	0.0	0.2	0.22	110.0	90-110%

Associated Samples:
Batch GP29328: TC54039-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

Gulf Coast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

(Accutest New Jersey)

Includes the following where applicable:

- Chain of Custody

SUBCONTRACT COC

ACCUTEST Laboratories

10165 Harwin, Suite 150 - Houston, TX 77036 - 713-271-4700 fax: 713-271-4770

FED-EX Tracking # 5642 4618 2998
Bottle Order Control #
Accutest Quote #
Accutest Job #

Client Information	Subcontract Information
Company Name: Accutest Gulf Coast	Subcontract Laboratory: ACCUTEST **NEW JERSEY**
Project Contact: Sylvia Garza — Email:	Laboratory Contact: Sample Receiving — Email:
Address: 10165 Harwin Dr, Suite 150	Address:
City: Houston — State: TX — Zip: 77036	City: — State: — Zip:
Phone No.: 713-271-4700	Phone No.:

Requested Analyses

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Wastewater; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Liquid; SOL - Other Solid

Accutest Sample Number	Collection Date	Collection Time	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	DI/MeOH	TSP	NONE	OTHER	BTU	LAB USE ONLY
TC54039-1	8/29/2014	10:22	W	1									X	
														534

Turnaround Time (Business days): STANDARD; 7 Day; 4 Day RUSH; 3 Day EMERGENCY; 2 Day EMERGENCY; 1 Day EMERGENCY; Other — Approved By:/ Date:

Real time analytical data available via Lablink

Data Deliverable Information: Commercial "A"; Commercial "B"; Reduced Tier 1; Full Data Package; TRRP-13; EDD Format; Other NARR+

Commercial "A" = Results Only
Commercial "B" = Results & Standard QC

Comments / Remarks: 32 — 4oz — 8oz 500ml glass

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	9/3/14	1 Fedex	2 Fedex	9/4/14 1010	2
Relinquished by: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # N/A	Preserved where applicable ☐	On Ice ☐ Cooler Temp. 4.0°C IP

JR IM

MB

10.1 10

TC54039: Chain of Custody
Page 1 of 2
Accutest New Jersey

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: TC54039 **Client:** _____ **Project:** _____

Date / Time Received: 9/4/2014 **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Initial/Adjusted): #1: (4/4); 0

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

Cooler Temperature	Y	or N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:	IR Gun	
3. Cooler media:	Ice (Bag)	
4. No. Coolers:	1	

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

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

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

Sample Integrity - Instructions	Y	or 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

Accutest Laboratories
V:732.329.0200
2235 US Highway 130
F: 732.329.3499
Dayton, New Jersey
www/accutest.com

TC54039: Chain of Custody
Page 2 of 2

Gulf Coast ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

(Accutest New Jersey)

Includes the following where applicable:

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

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TC54039
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.
Project: RFWTXHO: CES- Chemical Spill/4904 Griggs, Houston, TX

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Heat Content, BTU	GP82817/GN11249	TC53874-2	BTU/lb	14600	15700	7.5	0-41%

Associated Samples:
Batch GP82817: TC54039-1
(*) Outside of QC limits

11.1
11