Gulf Coast ACCUTEST LABORATORIES

09/09/14

Technical Report for

Weston Solutions

CES- Chemical Spill/4904 Griggs, Houston, TX

Accutest Job Number: TC53868

Sampling Date: 08/27/14

Report to:

Weston Solutions

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Total number of pages in report: **48**

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Richard Rodriguez
Laboratory Director

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Sample Summary

Weston Solutions

CES- Chemical Spill/4904 Griggs, Houston, TX

Job No: TC53868

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
TC53868-1	08/27/14	10:28		08/27/14	LIQ	Liquid, Non-aqueous	VB-607
TC53868-2	08/27/14	12:38		08/27/14	LIQ	Liquid, Non-aqueous	VB-610

Summary of Hits

Job Number: TC53868
Account: Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Collected: 08/27/14

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	MQL	SDL	Units	Method
TC53868-1	**VB-607**					
2-Methylphenol		0.0156 J	0.050	0.0096	mg/l	SW846 8270D
TC53868-2	**VB-610**					
Benzene [a]		21.0	1.0	0.34	mg/l	SW846 8260C
Methyl ethyl ketone [a]		3.71 J	10	2.7	mg/l	SW846 8260C
2-Methylphenol [b]		3.41	1.0	0.19	mg/l	SW846 8270D
3&4-Methylphenol [b]		3.02	1.0	0.22	mg/l	SW846 8270D
Chromium		0.14 J	2.5	0.068	mg/l	SW846 6010B
Lead		1.7	1.3	0.45	mg/l	SW846 6010B
Mercury		0.0089	0.0040	0.0010	mg/l	SW846 7470A
Selenium		0.38 J	13	0.25	mg/l	SW846 6010B

(a) Dilution required due to matrix interference.
(b) Elevated reporting limits due to matrix interference, final volume 10 ml. Dilution required due to high concentration of non-target compounds.

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Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	VB-607		
Lab Sample ID:	TC53868-1	**Date Sampled:**	08/27/14
Matrix:	LIQ - Liquid, Non-aqueous	**Date Received:**	08/27/14
Method:	SW846 8260C SW846 1311	**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	E0035015.D	10	09/04/14	CF	08/28/14	OP33725	VE1583
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	MQL	SDL	Units	Q
71-43-2	Benzene	0.0034 U	D018	0.50	0.010	0.0034	mg/l	
108-90-7	Chlorobenzene	0.0027 U	D021	100	0.010	0.0027	mg/l	
67-66-3	Chloroform	0.0035 U	D022	6.0	0.010	0.0035	mg/l	
56-23-5	Carbon tetrachloride	0.0043 U	D019	0.50	0.010	0.0043	mg/l	
75-35-4	1,1-Dichloroethylene	0.0045 U	D029	0.70	0.010	0.0045	mg/l	
107-06-2	1,2-Dichloroethane	0.0035 U	D028	0.50	0.010	0.0035	mg/l	
78-93-3	Methyl ethyl ketone	0.027 U	D035	200	0.10	0.027	mg/l	
127-18-4	Tetrachloroethylene	0.0046 U	D039	0.70	0.010	0.0046	mg/l	
79-01-6	Trichloroethylene	0.0049 U	D040	0.50	0.010	0.0049	mg/l	
75-01-4	Vinyl chloride	0.0079 U	D043	0.20	0.010	0.0079	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		72-122%
17060-07-0	1,2-Dichloroethane-D4	91%		68-124%
2037-26-5	Toluene-D8	93%		80-119%
460-00-4	4-Bromofluorobenzene	99%		72-126%

U = Not detected SDL = Sample Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 6/96) 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:	VB-607		
Lab Sample ID:	TC53868-1	**Date Sampled:**	08/27/14
Matrix:	LIQ - Liquid, Non-aqueous	**Date Received:**	08/27/14
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	J174756.D	1	09/03/14	SC	08/31/14	OP33761	EJ1929
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

ABN TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	MQL	SDL	Units	Q
95-48-7	2-Methylphenol	0.0156	D023	200	0.050	0.0096	mg/l	J
	3&4-Methylphenol	0.011 U	D024	200	0.050	0.011	mg/l	
87-86-5	Pentachlorophenol	0.10 U	D037	100	0.25	0.10	mg/l	
95-95-4	2,4,5-Trichlorophenol	0.0098 U	D041	400	0.050	0.0098	mg/l	
88-06-2	2,4,6-Trichlorophenol	0.011 U	D042	2.0	0.050	0.011	mg/l	
106-46-7	1,4-Dichlorobenzene	0.011 U	D027	7.5	0.050	0.011	mg/l	
121-14-2	2,4-Dinitrotoluene	0.013 U	D030	0.13	0.050	0.013	mg/l	
118-74-1	Hexachlorobenzene	0.016 U	D032	0.13	0.050	0.016	mg/l	
87-68-3	Hexachlorobutadiene	0.012 U	D033	0.50	0.050	0.012	mg/l	
67-72-1	Hexachloroethane	0.013 U	D034	3.0	0.050	0.013	mg/l	
98-95-3	Nitrobenzene	0.012 U	D036	2.0	0.050	0.012	mg/l	
110-86-1	Pyridine	0.013 U	D038	5.0	0.050	0.013	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	73%		10-86%
4165-62-2	Phenol-d5	78%		10-83%
118-79-6	2,4,6-Tribromophenol	100%		32-128%
4165-60-0	Nitrobenzene-d5	72%		29-115%
321-60-8	2-Fluorobiphenyl	79%		34-113%
1718-51-0	Terphenyl-d14	117%		23-138%

U = Not detected SDL = Sample Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 6/96) 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:	VB-607		
Lab Sample ID:	TC53868-1	**Date Sampled:**	08/27/14
Matrix:	LIQ - Liquid, Non-aqueous	**Date Received:**	08/27/14
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	DD773001.D	1	09/03/14	FO	08/29/14	OP33744	GDD2392
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	10.0 ml
Run #2		

Herbicide TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	MQL	SDL	Units	Q
94-75-7	2,4-D	0.0014 U	D016	10	0.010	0.0014	mg/l	
93-72-1	2,4,5-TP (Silvex)	0.00040 U	D017	1.0	0.0020	0.00040	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	296%		40-168%
19719-28-9	2,4-DCAA	549% [a]		40-168%

(a) Outside control limits biased high due to matrix interference. Analyte not detected in associated sample.

U = Not detected SDL = Sample Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 6/96) 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:	VB-607		
Lab Sample ID:	TC53868-1	**Date Sampled:**	08/27/14
Matrix:	LIQ - Liquid, Non-aqueous	**Date Received:**	08/27/14
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	NN176158.D	1	09/02/14	SC	08/30/14	OP33749	GNN1473
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	10.0 ml
Run #2		

Pesticide TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	MQL	SDL	Units	Q
58-89-9	gamma-BHC (Lindane)	0.00017 U	D013	0.40	0.00050	0.00017	mg/l	
12789-03-6	Chlordane	0.0015 U	D020	0.030	0.0050	0.0015	mg/l	
72-20-8	Endrin	0.00018 U	D012	0.020	0.0010	0.00018	mg/l	
76-44-8	Heptachlor	0.000084 U	D031	0.0080	0.00050	0.000084	mg/l	
1024-57-3	Heptachlor epoxide	0.00011 U	D031	0.0080	0.00050	0.00011	mg/l	
72-43-5	Methoxychlor	0.0013 U	D014	10	0.0050	0.0013	mg/l	
8001-35-2	Toxaphene	0.0012 U	D015	0.50	0.0050	0.0012	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	88%		39-122%
2051-24-3	Decachlorobiphenyl	95%		28-123%

U = Not detected SDL = Sample Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 6/96) 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:	VB-607		
Lab Sample ID:	TC53868-1	**Date Sampled:**	08/27/14
Matrix:	LIQ - Liquid, Non-aqueous	**Date Received:**	08/27/14
		Percent Solids:	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	MQL	SDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.25 U	D004	5.0	2.5	0.25	mg/l	5	08/29/14	09/02/14	NS	SW846 6010B [2]
Barium	0.86 U	D005	100	250	0.86	mg/l	5	08/29/14	09/02/14	NS	SW846 6010B [2]
Cadmium	0.023 U	D006	1.0	1.0	0.023	mg/l	5	08/29/14	09/02/14	NS	SW846 6010B [2]
Chromium	0.068 U	D007	5.0	2.5	0.068	mg/l	5	08/29/14	09/02/14	NS	SW846 6010B [2]
Lead	0.45 U	D008	5.0	1.3	0.45	mg/l	5	08/29/14	09/02/14	NS	SW846 6010B [2]
Mercury	0.000050 U	D009	0.20	0.00020	0.000050	mg/l	1	09/02/14	09/02/14	CC	SW846 7470A [1]
Selenium	0.25 U	D010	1.0	13	0.25	mg/l	5	08/29/14	09/02/14	NS	SW846 6010B [2]
Silver	0.060 U	D011	5.0	2.5	0.060	mg/l	5	08/29/14	09/02/14	NS	SW846 6010B [2]

(1) Instrument QC Batch: MA10095
(2) Instrument QC Batch: MA10096
(3) Prep QC Batch: MP24117
(4) Prep QC Batch: MP24125

MQL = Method Quantitation Limit SDL = Sample Detection Limit U = Indicates a result < SDL
MCL = Maximum Contamination Level (40 CFR 261 6/96) J = Indicates a result > = SDL but < MQL

Report of Analysis

Client Sample ID:	VB-610		
Lab Sample ID:	TC53868-2	**Date Sampled:**	08/27/14
Matrix:	LIQ - Liquid, Non-aqueous	**Date Received:**	08/27/14
Method:	SW846 8260C SW846 1311	**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]	K27515.D	1000	09/03/14	EM	08/28/14	OP33725	VK1177
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	MQL	SDL	Units	Q
71-43-2	Benzene	21.0	D018	0.50	1.0	0.34	mg/l	
108-90-7	Chlorobenzene	0.27 U	D021	100	1.0	0.27	mg/l	
67-66-3	Chloroform	0.35 U	D022	6.0	1.0	0.35	mg/l	
56-23-5	Carbon tetrachloride	0.43 U	D019	0.50	1.0	0.43	mg/l	
75-35-4	1,1-Dichloroethylene	0.45 U	D029	0.70	1.0	0.45	mg/l	
107-06-2	1,2-Dichloroethane	0.35 U	D028	0.50	1.0	0.35	mg/l	
78-93-3	Methyl ethyl ketone	3.71	D035	200	10	2.7	mg/l	J
127-18-4	Tetrachloroethylene	0.46 U	D039	0.70	1.0	0.46	mg/l	
79-01-6	Trichloroethylene	0.49 U	D040	0.50	1.0	0.49	mg/l	
75-01-4	Vinyl chloride	0.79 U	D043	0.20	1.0	0.79	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		72-122%
17060-07-0	1,2-Dichloroethane-D4	90%		68-124%
2037-26-5	Toluene-D8	97%		80-119%
460-00-4	4-Bromofluorobenzene	95%		72-126%

(a) Dilution required due to matrix interference.

U = Not detected SDL = Sample Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 6/96) 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:	VB-610		
Lab Sample ID:	TC53868-2	**Date Sampled:**	08/27/14
Matrix:	LIQ - Liquid, Non-aqueous	**Date Received:**	08/27/14
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]	J174757.D	2	09/03/14	SC	08/31/14	OP33761	EJ1929
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	10.0 ml
Run #2		

ABN TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	MQL	SDL	Units	Q
95-48-7	2-Methylphenol	3.41	D023	200	1.0	0.19	mg/l	
	3&4-Methylphenol	3.02	D024	200	1.0	0.22	mg/l	
87-86-5	Pentachlorophenol	2.0 U	D037	100	5.0	2.0	mg/l	
95-95-4	2,4,5-Trichlorophenol	0.20 U	D041	400	1.0	0.20	mg/l	
88-06-2	2,4,6-Trichlorophenol	0.22 U	D042	2.0	1.0	0.22	mg/l	
106-46-7	1,4-Dichlorobenzene	0.22 U	D027	7.5	1.0	0.22	mg/l	
121-14-2	2,4-Dinitrotoluene	0.25 U	D030	0.13	1.0	0.25	mg/l	
118-74-1	Hexachlorobenzene	0.31 U	D032	0.13	1.0	0.31	mg/l	
87-68-3	Hexachlorobutadiene	0.24 U	D033	0.50	1.0	0.24	mg/l	
67-72-1	Hexachloroethane	0.25 U	D034	3.0	1.0	0.25	mg/l	
98-95-3	Nitrobenzene	0.23 U	D036	2.0	1.0	0.23	mg/l	
110-86-1	Pyridine	0.25 U	D038	5.0	1.0	0.25	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	0% [b]		10-86%
4165-62-2	Phenol-d5	21%		10-83%
118-79-6	2,4,6-Tribromophenol	0% [b]		32-128%
4165-60-0	Nitrobenzene-d5	93%		29-115%
321-60-8	2-Fluorobiphenyl	83%		34-113%
1718-51-0	Terphenyl-d14	96%		23-138%

(a) Elevated reporting limits due to matrix interference, final volume 10 ml. Dilution required due to high concentration of non-target compounds.
(b) Outside control limits due to dilution.

U = Not detected SDL = Sample Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 6/96) 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:	VB-610		
Lab Sample ID:	TC53868-2	**Date Sampled:**	08/27/14
Matrix:	LIQ - Liquid, Non-aqueous	**Date Received:**	08/27/14
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	DD772986.D	1	09/02/14	FO	08/29/14	OP33744	GDD2392
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	10.0 ml
Run #2		

Herbicide TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	MQL	SDL	Units	Q
94-75-7	2,4-D	0.0014 U	D016	10	0.010	0.0014	mg/l	
93-72-1	2,4,5-TP (Silvex)	0.00040 U	D017	1.0	0.0020	0.00040	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	928% [a]		40-168%

(a) Outside control limits biased high due to matrix interference. Analyte not detected in associated sample.

U = Not detected SDL = Sample Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 6/96) 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:	VB-610		
Lab Sample ID:	TC53868-2	**Date Sampled:**	08/27/14
Matrix:	LIQ - Liquid, Non-aqueous	**Date Received:**	08/27/14
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 [a]	NN176269.D	25	09/04/14	SC	08/30/14	OP33749	GNN1475
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	10.0 ml
Run #2		

Pesticide TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	MQL	SDL	Units	Q
58-89-9	gamma-BHC (Lindane)	0.0043 U	D013	0.40	0.013	0.0043	mg/l	
12789-03-6	Chlordane	0.037 U	D020	0.030	0.13	0.037	mg/l	
72-20-8	Endrin	0.0045 U	D012	0.020	0.025	0.0045	mg/l	
76-44-8	Heptachlor	0.0021 U	D031	0.0080	0.013	0.0021	mg/l	
1024-57-3	Heptachlor epoxide	0.0028 U	D031	0.0080	0.013	0.0028	mg/l	
72-43-5	Methoxychlor	0.032 U	D014	10	0.13	0.032	mg/l	
8001-35-2	Toxaphene	0.031 U	D015	0.50	0.13	0.031	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	0% [b]		39-122%
2051-24-3	Decachlorobiphenyl	0% [b]		28-123%

(a) Dilution due to matrix interference.
(b) Outside control limits due to dilution.

U = Not detected SDL = Sample Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 6/96) 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:	VB-610		
Lab Sample ID:	TC53868-2	**Date Sampled:**	08/27/14
Matrix:	LIQ - Liquid, Non-aqueous	**Date Received:**	08/27/14
		Percent Solids:	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	MQL	SDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.25 U	D004	5.0	2.5	0.25	mg/l	5	08/29/14	09/02/14	NS	SW846 6010B [2]
Barium	0.86 U	D005	100	250	0.86	mg/l	5	08/29/14	09/02/14	NS	SW846 6010B [2]
Cadmium	0.023 U	D006	1.0	1.0	0.023	mg/l	5	08/29/14	09/02/14	NS	SW846 6010B [2]
Chromium	0.14 J	D007	5.0	2.5	0.068	mg/l	5	08/29/14	09/02/14	NS	SW846 6010B [2]
Lead	1.7	D008	5.0	1.3	0.45	mg/l	5	08/29/14	09/02/14	NS	SW846 6010B [2]
Mercury	0.0089	D009	0.20	0.0040	0.0010	mg/l	1	09/02/14	09/02/14	CC	SW846 7470A [1]
Selenium	0.38 J	D010	1.0	13	0.25	mg/l	5	08/29/14	09/02/14	NS	SW846 6010B [2]
Silver	0.060 U	D011	5.0	2.5	0.060	mg/l	5	08/29/14	09/02/14	NS	SW846 6010B [2]

(1) Instrument QC Batch: MA10095
(2) Instrument QC Batch: MA10096
(3) Prep QC Batch: MP24117
(4) Prep QC Batch: MP24125

MQL = Method Quantitation Limit SDL = Sample Detection Limit U = Indicates a result < SDL
MCL = Maximum Contamination Level (40 CFR 261 6/96) 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

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

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 #: TC53868

Client / Reporting Information

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

Project Information

Project Name: CES
Street: 4904 Griggs
City / State: Houston TX
Project #:
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)

Company Name: Weston Solutions
Street Address:
City / State / Zip:
Attention: Kristi Warr

Requested Analyses

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	TCLP VOCs	TCLP SVOCs	TCLP Metals & Hg	TCLP Pesticides	TCLP Herbicides
1	VB-1007	8/27/14	1028	DC	LIQ	5													X	X	X	X	X
2	VB-1010	8/27/14	1238	DC	LIQ	5													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; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

LAB USE ONLY

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 [signature]	8/27/14 1430	1 ACCUTEST DRIVER	2 ACCUTEST DRIVER	8/27/14 1600	2 [signature]
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.

TC53868: Chain of Custody
Page 1 of 3

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: TC53868 **Client:** WESTON SOLUTION **Project:** CES

Date / Time Received: 8/27/2014 **Delivery Method:** **Airbill #'s:**

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

Cooler Temps (Initial/Adjusted): #1: (1.4/1.4);

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

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

TC53868: Chain of Custody
Page 2 of 3

Sample Receipt Log

Job #: TC53868 **Date / Time Received:** 8/27/2014 4:00:00 PM **Initials:** RE

Client: WESTON SOLUTION

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	TC53868-1	32oz	1	2-94	N/P	Note #2 - Preservative check not applicable.	IR-5	1.4	0	1.4
1	TC53868-1	32oz	2	2-94	N/P	Note #2 - Preservative check not applicable.	IR-5	1.4	0	1.4
1	TC53868-1	32oz	3	2-94	N/P	Note #2 - Preservative check not applicable.	IR-5	1.4	0	1.4
1	TC53868-1	32oz	4	2-94	N/P	Note #2 - Preservative check not applicable.	IR-5	1.4	0	1.4
1	TC53868-1	32oz	5	2-94	N/P	Note #2 - Preservative check not applicable.	IR-5	1.4	0	1.4
1	TC53868-2	32oz	1	2-94	N/P	Note #2 - Preservative check not applicable.	IR-5	1.4	0	1.4
1	TC53868-2	32oz	2	2-94	N/P	Note #2 - Preservative check not applicable.	IR-5	1.4	0	1.4
1	TC53868-2	32oz	3	2-94	N/P	Note #2 - Preservative check not applicable.	IR-5	1.4	0	1.4
1	TC53868-2	32oz	4	2-94	N/P	Note #2 - Preservative check not applicable.	IR-5	1.4	0	1.4
1	TC53868-2	32oz	5	2-94	N/P	Note #2 - Preservative check not applicable.	IR-5	1.4	0	1.4

TC53868: Chain of Custody
Page 3 of 3

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: TC53868
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33725-LB [a]	K27499.D	10	09/03/14	EM	08/29/14	OP33725	VK1177

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

TC53868-2

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	10	3.4	ug/l	
108-90-7	Chlorobenzene	ND	10	2.7	ug/l	
67-66-3	Chloroform	ND	10	3.5	ug/l	
56-23-5	Carbon tetrachloride	ND	10	4.3	ug/l	
75-35-4	1,1-Dichloroethylene	ND	10	4.5	ug/l	
107-06-2	1,2-Dichloroethane	ND	10	3.5	ug/l	
78-93-3	Methyl ethyl ketone	ND	100	27	ug/l	
127-18-4	Tetrachloroethylene	ND	10	4.6	ug/l	
79-01-6	Trichloroethylene	ND	10	4.9	ug/l	
75-01-4	Vinyl chloride	ND	10	7.9	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	98%	72-122%
17060-07-0	1,2-Dichloroethane-D4	93%	68-124%
2037-26-5	Toluene-D8	96%	80-119%
460-00-4	4-Bromofluorobenzene	90%	72-126%

(a) TCLP Method Blank.

Method Blank Summary

Job Number: TC53868
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33725-LB	E0035011.D	10	09/04/14	CF	08/29/14	OP33725	VE1583

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

TC53868-1

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	10	3.4	ug/l	
108-90-7	Chlorobenzene	ND	10	2.7	ug/l	
67-66-3	Chloroform	ND	10	3.5	ug/l	
56-23-5	Carbon tetrachloride	ND	10	4.3	ug/l	
75-35-4	1,1-Dichloroethylene	ND	10	4.5	ug/l	
107-06-2	1,2-Dichloroethane	ND	10	3.5	ug/l	
78-93-3	Methyl ethyl ketone	ND	100	27	ug/l	
127-18-4	Tetrachloroethylene	ND	10	4.6	ug/l	
79-01-6	Trichloroethylene	ND	10	4.9	ug/l	
75-01-4	Vinyl chloride	ND	10	7.9	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	97%	72-122%
17060-07-0	1,2-Dichloroethane-D4	91%	68-124%
2037-26-5	Toluene-D8	93%	80-119%
460-00-4	4-Bromofluorobenzene	96%	72-126%

Leachate Blank Summary

Job Number: TC53868
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33782-LB	E0035065.D	10	09/05/14	CF	09/03/14	OP33782	VE1585

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

VE1583-BS

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	10	3.4	ug/l	
108-90-7	Chlorobenzene	ND	10	2.7	ug/l	
67-66-3	Chloroform	ND	10	3.5	ug/l	
56-23-5	Carbon tetrachloride	ND	10	4.3	ug/l	
75-35-4	1,1-Dichloroethylene	ND	10	4.5	ug/l	
107-06-2	1,2-Dichloroethane	ND	10	3.5	ug/l	
78-93-3	Methyl ethyl ketone	ND	100	27	ug/l	
127-18-4	Tetrachloroethylene	ND	10	4.6	ug/l	
79-01-6	Trichloroethylene	ND	10	4.9	ug/l	
75-01-4	Vinyl chloride	ND	10	7.9	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	92%	72-122%
17060-07-0	1,2-Dichloroethane-D4	87%	68-124%
2037-26-5	Toluene-D8	92%	80-119%
460-00-4	4-Bromofluorobenzene	100%	72-126%

Blank Spike Summary

Job Number: TC53868
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VK1177-BS	K27508.D	10	09/03/14	EM	n/a	n/a	VK1177

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

TC53868-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	250	239	96	68-119
108-90-7	Chlorobenzene	250	225	90	74-120
67-66-3	Chloroform	250	233	93	73-122
56-23-5	Carbon tetrachloride	250	244	98	68-133
75-35-4	1,1-Dichloroethylene	250	241	96	67-140
107-06-2	1,2-Dichloroethane	250	227	91	68-121
78-93-3	Methyl ethyl ketone	1250	1070	86	51-129
127-18-4	Tetrachloroethylene	250	257	103	72-132
79-01-6	Trichloroethylene	250	234	94	73-121
75-01-4	Vinyl chloride	250	219	88	54-126

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	97%	72-122%
17060-07-0	1,2-Dichloroethane-D4	88%	68-124%
2037-26-5	Toluene-D8	98%	80-119%
460-00-4	4-Bromofluorobenzene	93%	72-126%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: TC53868
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VE1583-BS	E0035008.D	10	09/04/14	CF	n/a	n/a	VE1583

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

TC53868-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	250	229	92	68-119
108-90-7	Chlorobenzene	250	225	90	74-120
67-66-3	Chloroform	250	224	90	73-122
56-23-5	Carbon tetrachloride	250	254	102	68-133
75-35-4	1,1-Dichloroethylene	250	270	108	67-140
107-06-2	1,2-Dichloroethane	250	226	90	68-121
78-93-3	Methyl ethyl ketone	1250	1100	88	51-129
127-18-4	Tetrachloroethylene	250	257	103	72-132
79-01-6	Trichloroethylene	250	227	91	73-121
75-01-4	Vinyl chloride	250	265	106	54-126

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	92%	72-122%
17060-07-0	1,2-Dichloroethane-D4	90%	68-124%
2037-26-5	Toluene-D8	95%	80-119%
460-00-4	4-Bromofluorobenzene	89%	72-126%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC53868
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TC53684-2AMS	K27506.D	10	09/03/14	EM	n/a	n/a	VK1177
TC53684-2AMSD	K27507.D	10	09/03/14	EM	n/a	n/a	VK1177
TC53684-2A	K27500.D	10	09/03/14	EM	08/29/14	OP33725	VK1177

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

TC53868-2

CAS No.	Compound	TC53684-2A ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	6.9	J	250	246	96	250	240	93	2	68-119/12
108-90-7	Chlorobenzene	ND		250	227	91	250	220	88	3	74-120/12
67-66-3	Chloroform	ND		250	234	94	250	226	90	3	73-122/13
56-23-5	Carbon tetrachloride	ND		250	235	94	250	233	93	1	68-133/20
75-35-4	1,1-Dichloroethylene	ND		250	232	93	250	218	87	6	67-140/18
107-06-2	1,2-Dichloroethane	ND		250	233	93	250	217	87	7	68-121/12
78-93-3	Methyl ethyl ketone	ND		1250	988	79	1250	1060	85	7	51-129/22
127-18-4	Tetrachloroethylene	ND		250	257	103	250	248	99	4	72-132/14
79-01-6	Trichloroethylene	ND		250	233	93	250	220	88	6	73-121/13
75-01-4	Vinyl chloride	ND		250	234	94	250	225	90	4	54-126/17

CAS No.	Surrogate Recoveries	MS	MSD	TC53684-2A	Limits
1868-53-7	Dibromofluoromethane	96%	95%	94%	72-122%
17060-07-0	1,2-Dichloroethane-D4	91%	90%	91%	68-124%
2037-26-5	Toluene-D8	96%	98%	96%	80-119%
460-00-4	4-Bromofluorobenzene	93%	94%	92%	72-126%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC53868
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TC53868-1MS	E0035024.D	10	09/04/14	CF	n/a	n/a	VE1583
TC53868-1MSD	E0035019.D	10	09/04/14	CF	n/a	n/a	VE1583
TC53868-1	E0035015.D	10	09/04/14	CF	08/28/14	OP33725	VE1583

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

TC53868-1

CAS No.	Compound	TC53868-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	10 U		250	252	101	250	243	97	4	68-119/12
108-90-7	Chlorobenzene	10 U		250	237	95	250	216	86	9	74-120/12
67-66-3	Chloroform	10 U		250	238	95	250	224	90	6	73-122/13
56-23-5	Carbon tetrachloride	10 U		250	275	110	250	256	102	7	68-133/20
75-35-4	1,1-Dichloroethylene	10 U		250	293	117	250	211	84	33*	67-140/18
107-06-2	1,2-Dichloroethane	10 U		250	237	95	250	222	89	7	68-121/12
78-93-3	Methyl ethyl ketone	100 U		1250	916	73	1250	1130	90	21	51-129/22
127-18-4	Tetrachloroethylene	10 U		250	284	114	250	252	101	12	72-132/14
79-01-6	Trichloroethylene	10 U		250	252	101	250	229	92	10	73-121/13
75-01-4	Vinyl chloride	10 U		250	238	95	250	216	86	10	54-126/17

CAS No.	Surrogate Recoveries	MS	MSD	TC53868-1	Limits
1868-53-7	Dibromofluoromethane	93%	92%	98%	72-122%
17060-07-0	1,2-Dichloroethane-D4	88%	90%	91%	68-124%
2037-26-5	Toluene-D8	94%	95%	93%	80-119%
460-00-4	4-Bromofluorobenzene	96%	97%	99%	72-126%

* = 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: TC53868
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33761-MB	J174749.D	1	09/03/14	SC	08/31/14	OP33761	EJ1929

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

TC53868-1, TC53868-2

CAS No.	Compound	Result	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	50	9.6	ug/l	
	3&4-Methylphenol	ND	50	11	ug/l	
87-86-5	Pentachlorophenol	ND	250	100	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	50	9.8	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	50	11	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	50	11	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	50	13	ug/l	
118-74-1	Hexachlorobenzene	ND	50	16	ug/l	
87-68-3	Hexachlorobutadiene	ND	50	12	ug/l	
67-72-1	Hexachloroethane	ND	50	13	ug/l	
98-95-3	Nitrobenzene	ND	50	12	ug/l	
110-86-1	Pyridine	ND	50	13	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	76%	10-86%
4165-62-2	Phenol-d5	66%	10-83%
118-79-6	2,4,6-Tribromophenol	74%	32-128%
4165-60-0	Nitrobenzene-d5	86%	29-115%
321-60-8	2-Fluorobiphenyl	83%	34-113%
1718-51-0	Terphenyl-d14	102%	23-138%

Blank Spike Summary

Job Number: TC53868
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33761-BS	J174750.D	1	09/03/14	SC	08/31/14	OP33761	EJ1929

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

TC53868-1, TC53868-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-48-7	2-Methylphenol	500	402	80	33-113
	3&4-Methylphenol	1000	810	81	28-119
87-86-5	Pentachlorophenol	500	390	78	28-136
95-95-4	2,4,5-Trichlorophenol	500	454	91	47-116
88-06-2	2,4,6-Trichlorophenol	500	434	87	44-112
106-46-7	1,4-Dichlorobenzene	500	441	88	36-99
121-14-2	2,4-Dinitrotoluene	500	436	87	52-115
118-74-1	Hexachlorobenzene	500	429	86	49-114
87-68-3	Hexachlorobutadiene	500	424	85	30-104
67-72-1	Hexachloroethane	500	429	86	30-100
98-95-3	Nitrobenzene	500	447	89	40-103
110-86-1	Pyridine	500	290	58	10-77

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	85%	10-86%
4165-62-2	Phenol-d5	77%	10-83%
118-79-6	2,4,6-Tribromophenol	89%	32-128%
4165-60-0	Nitrobenzene-d5	93%	29-115%
321-60-8	2-Fluorobiphenyl	95%	34-113%
1718-51-0	Terphenyl-d14	102%	23-138%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC53868
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33761-MS	J174754.D	1	09/03/14	SC	08/31/14	OP33761	EJ1929
OP33761-MSD	J174755.D	1	09/03/14	SC	08/31/14	OP33761	EJ1929
TC53868-1	J174756.D	1	09/03/14	SC	08/31/14	OP33761	EJ1929

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

TC53868-1, TC53868-2

CAS No.	Compound	TC53868-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-48-7	2-Methylphenol	15.6	J	500	410	79	500	410	79	0	33-113/35
	3&4-Methylphenol	50 U		1000	784	78	1000	781	78	0	28-119/36
87-86-5	Pentachlorophenol	250 U		500	497	99	500	506	101	2	28-136/29
95-95-4	2,4,5-Trichlorophenol	50 U		500	455	91	500	447	89	2	47-116/27
88-06-2	2,4,6-Trichlorophenol	50 U		500	437	87	500	433	87	1	44-112/26
106-46-7	1,4-Dichlorobenzene	50 U		500	387	77	500	385	77	1	36-99/31
121-14-2	2,4-Dinitrotoluene	50 U		500	392	78	500	391	78	0	52-115/30
118-74-1	Hexachlorobenzene	50 U		500	381	76	500	385	77	1	49-114/25
87-68-3	Hexachlorobutadiene	50 U		500	345	69	500	350	70	1	30-104/31
67-72-1	Hexachloroethane	50 U		500	383	77	500	376	75	2	30-100/34
98-95-3	Nitrobenzene	50 U		500	359	72	500	365	73	2	40-103/31
110-86-1	Pyridine	50 U		500	226	45	500	231	46	2	10-77/41

CAS No.	Surrogate Recoveries	MS	MSD	TC53868-1	Limits
367-12-4	2-Fluorophenol	79%	80%	73%	10-86%
4165-62-2	Phenol-d5	74%	75%	78%	10-83%
118-79-6	2,4,6-Tribromophenol	93%	92%	100%	32-128%
4165-60-0	Nitrobenzene-d5	81%	80%	72%	29-115%
321-60-8	2-Fluorobiphenyl	85%	86%	79%	34-113%
1718-51-0	Terphenyl-d14	93%	94%	117%	23-138%

* = 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: TC53868
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33744-MB	DD773002.D	1	09/03/14	FO	08/29/14	OP33744	GDD2392

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

TC53868-1, TC53868-2

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	10	1.4	ug/l	
93-72-1	2,4,5-TP (Silvex)	ND	2.0	0.40	ug/l	

CAS No.	Surrogate Recoveries		Limits
19719-28-9	2,4-DCAA	121%	40-168%

Method Blank Summary

Job Number: TC53868
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33749-MB	NN176162.D	1	09/02/14	SC	08/30/14	OP33749	GNN1473

The QC reported here applies to the following samples: **Method:** SW846 8081A

TC53868-1, TC53868-2

CAS No.	Compound	Result	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane)	ND	0.50	0.17	ug/l	
12789-03-6	Chlordane	ND	5.0	1.5	ug/l	
72-20-8	Endrin	ND	1.0	0.18	ug/l	
76-44-8	Heptachlor	ND	0.50	0.084	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.50	0.11	ug/l	
72-43-5	Methoxychlor	ND	5.0	1.3	ug/l	
8001-35-2	Toxaphene	ND	5.0	1.2	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	94%	39-122%
2051-24-3	Decachlorobiphenyl	91%	28-123%

Blank Spike Summary

Job Number: TC53868
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33744-BS	DD773003.D	1	09/03/14	FO	08/29/14	OP33744	GDD2392

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

TC53868-1, TC53868-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
94-75-7	2,4-D	20	25.5	128	64-130
93-72-1	2,4,5-TP (Silvex)	4	4.1	103	58-136

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

* = Outside of Control Limits.

Blank Spike Summary

Job Number: TC53868
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33749-BS	NN176163.D	1	09/02/14	SC	08/30/14	OP33749	GNN1473

The QC reported here applies to the following samples: **Method:** SW846 8081A

TC53868-1, TC53868-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
58-89-9	gamma-BHC (Lindane)	2.5	2.3	92	62-131
72-20-8	Endrin	5	5.5	110	74-154
76-44-8	Heptachlor	2.5	2.4	96	51-131
1024-57-3	Heptachlor epoxide	2.5	2.5	100	66-129
72-43-5	Methoxychlor	25	27.1	108	64-140

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	86%	39-122%
2051-24-3	Decachlorobiphenyl	88%	28-123%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC53868
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33744-MS [a]	DD772996.D	1	09/03/14	FO	08/29/14	OP33744	GDD2392
OP33744-MSD [a]	DD773011.D	1	09/03/14	FO	08/29/14	OP33744	GDD2392
TC53499-1	DD772987.D	1	09/03/14	FO	08/29/14	OP33744	GDD2392

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

TC53868-1, TC53868-2

CAS No.	Compound	TC53499-1 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	ND		20	ND	0*	20	ND	0*	nc	64-130/20
93-72-1	2,4,5-TP (Silvex)	ND		4	0.64	16*	4	0.60	15*	6	58-136/22

CAS No.	Surrogate Recoveries	MS	MSD	TC53499-1	Limits
19719-28-9	2,4-DCAA	712%* [c]	805%* [c]	366%* [b]	40-168%

(a) Outside control limits biased low due to matrix interference. Confirmed by reanalysis of the MS/MSD.
(b) Outside control limits biased high due to matrix interference. Confirmed by MS/MSD.
(c) Outside control limits due to matrix interference. Confirmed by MS/MSD.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC53868
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33749-MS	NN176156.D	1	09/02/14	SC	08/30/14	OP33749	GNN1473
OP33749-MSD	NN176157.D	1	09/02/14	SC	08/30/14	OP33749	GNN1473
TC53499-1	NN176155.D	1	09/02/14	SC	08/30/14	OP33749	GNN1473

The QC reported here applies to the following samples: **Method:** SW846 8081A

TC53868-1, TC53868-2

CAS No.	Compound	TC53499-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
58-89-9	gamma-BHC (Lindane)	ND		2.5	2.2	88	2.5	2.2	88	0	62-131/23
72-20-8	Endrin	ND		5	5.2	104	5	5.3	106	2	74-154/22
76-44-8	Heptachlor	ND		2.5	2.3	92	2.5	2.3	92	0	51-131/31
1024-57-3	Heptachlor epoxide	ND		2.5	2.3	92	2.5	2.4	96	4	66-129/21
72-43-5	Methoxychlor	ND		25	26.0	104	25	26.6	106	2	64-140/20

CAS No.	Surrogate Recoveries	MS	MSD	TC53499-1	Limits
877-09-8	Tetrachloro-m-xylene	89%	87%	85%	39-122%
2051-24-3	Decachlorobiphenyl	93%	93%	91%	28-123%

* = 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: TC53868
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24117
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: mg/l

Prep Date:					08/29/14		08/29/14
Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Aluminum	1.0	.041	.061				
Antimony	0.025	.005	.0051				
Arsenic	0.050	.0085	.005	-0.00063	<0.050	-0.012	<0.050
Barium	5.0	.0049	.017	0.00094	<5.0	0.00026	<5.0
Beryllium	0.025	.00028	.0008				
Boron	0.50	.007	.039				
Cadmium	0.020	.00055	.00045	-0.00057	<0.020	-0.00078	<0.020
Calcium	25	.037	.12				
Chromium	0.050	.0012	.0014	0.00034	<0.050	0.00027	<0.050
Cobalt	0.25	.00075	.0011				
Copper	0.13	.0056	.03				
Iron	0.50	.0057	.12				
Lead	0.025	.005	.0089	0.0020	<0.025	0.0025	<0.025
Lithium	1.5	.01	.01				
Magnesium	25	.038	.04				
Manganese	0.075	.00027	.0093				
Molybdenum	0.050	.002	.001				
Nickel	0.20	.0035	.007				
Potassium	25	.2	.22				
Selenium	0.25	.0077	.0049	-0.0018	<0.25	-0.0043	<0.25
Silver	0.050	.0058	.0012	-0.00020	<0.050	0.00062	<0.050
Sodium	25	.046	.52				
Strontium	0.050	.00031	.002				
Thallium	0.050	.0034	.0058				
Tin	0.10	.0035	.014				
Titanium	0.10	.0015	.0015				
Vanadium	0.25	.0015	.0015				
Zinc	0.50	.0026	.017				

Associated samples MP24117: TC53868-1, TC53868-2

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: TC53868
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24117
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: mg/l

Prep Date: 08/29/14

Metal	TC53911-1 Original	MS	Spikelot MPTW11	% Rec	QC Limits
Aluminum					
Antimony	anr				
Arsenic	0.0	0.43	0.40	107.5	75-125
Barium	0.63	0.95	0.40	80.0	75-125
Beryllium	anr				
Boron					
Cadmium	0.016	0.44	0.40	106.0	75-125
Calcium					
Chromium	0.13	0.54	0.40	102.5	75-125
Cobalt					
Copper					
Iron					
Lead	0.28	0.67	0.40	97.5	75-125
Lithium					
Magnesium					
Manganese					
Molybdenum					
Nickel	anr				
Potassium					
Selenium	0.0	0.45	0.40	112.5	75-125
Silver	0.0	0.43	0.40	107.5	75-125
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Vanadium					
Zinc					

Associated samples MP24117: TC53868-1, TC53868-2

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: TC53868
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24117
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: mg/l

Prep Date: 08/29/14

Metal	TC53911-1 Original	MSD	Spikelot MPTW11	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	anr					
Arsenic	0.0	0.44	0.40	110.0	2.3	20
Barium	0.63	0.96	0.40	82.5	1.0	20
Beryllium	anr					
Boron						
Cadmium	0.016	0.44	0.40	106.0	0.0	20
Calcium						
Chromium	0.13	0.54	0.40	102.5	0.0	20
Cobalt						
Copper						
Iron						
Lead	0.28	0.66	0.40	95.0	1.5	20
Lithium						
Magnesium						
Manganese						
Molybdenum						
Nickel	anr					
Potassium						
Selenium	0.0	0.44	0.40	110.0	2.2	20
Silver	0.0	0.43	0.40	107.5	0.0	20
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP24117: TC53868-1, TC53868-2

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

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: TC53868
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24117
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: mg/l

Prep Date: 08/29/14

Metal	BSP Result	Spikelot MPTW11	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	0.41	0.40	102.5	80-120
Barium	0.41	0.40	102.5	80-120
Beryllium	anr			
Boron				
Cadmium	0.41	0.40	102.5	80-120
Calcium				
Chromium	0.42	0.40	105.0	80-120
Cobalt				
Copper				
Iron				
Lead	0.39	0.40	97.5	80-120
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Potassium				
Selenium	0.43	0.40	107.5	80-120
Silver	0.39	0.40	97.5	80-120
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP24117: TC53868-1, TC53868-2

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

SERIAL DILUTION RESULTS SUMMARY

Login Number: TC53868
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24117
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: ug/l

Prep Date: 08/29/14

Metal	TC53911-1 Original	SDL 5:25	%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	0.00	0.00	NC	0-10
Barium	635	630	0.8	0-10
Beryllium	anr			
Boron				
Cadmium	15.6	8.29	46.8 (a)	0-10
Calcium				
Chromium	132	125	4.7	0-10
Cobalt				
Copper				
Iron				
Lead	283	296	4.7	0-10
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Potassium				
Selenium	0.00	0.00	NC	0-10
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP24117: TC53868-1, TC53868-2

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: TC53868
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24125
Matrix Type: LEACHATE

Methods: SW846 7470A
Units: mg/l

Prep Date: 09/02/14

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.00020	.00005	.00005	0.000019	<0.00020

Associated samples MP24125: TC53868-1, TC53868-2

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: TC53868
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24125
Matrix Type: LEACHATE

Methods: SW846 7470A
Units: mg/l

Prep Date: 09/02/14

Metal	TC53911-1 Original MS		Spikelot HGTXAQ40	% Rec	QC Limits
Mercury	0.00016	0.0035	0.0030	111.3	75-125

Associated samples MP24125: TC53868-1, TC53868-2

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: TC53868
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24125 Methods: SW846 7470A
Matrix Type: LEACHATE Units: mg/l

Prep Date: 09/02/14

Metal	TC53911-1 Original	MSD	Spikelot HGTXAQ40	% Rec	MSD RPD	QC Limit
Mercury	0.00016	0.0033	0.0030	104.7	5.9	20

Associated samples MP24125: TC53868-1, TC53868-2

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

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: TC53868
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24125
Matrix Type: LEACHATE

Methods: SW846 7470A
Units: mg/l

Prep Date: 09/02/14

Metal	BSP Result	Spikelot HGTXAQ40	% Rec	QC Limits
Mercury	0.0031	0.0030	103.3	80-120

Associated samples MP24125: TC53868-1, TC53868-2

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

8.2.3

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