Gulf Coast ACCUTEST LABORATORIES

10/06/14

Technical Report for

Weston Solutions

CES- Chemical Spill/4904 Griggs, Houston, TX

Accutest Job Number: TC55451

Sampling Date: 09/24/14

Report to:

Weston Solutions

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Total number of pages in report: **58**

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.

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

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Sample Summary

Weston Solutions

CES- Chemical Spill/4904 Griggs, Houston, TX

Job No: TC55451

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
TC55451-1	09/24/14	11:15		09/24/14	AQ	Water	WMU-123
TC55451-2	09/24/14	12:55		09/24/14	AQ	Water	OT-2
TC55451-3	09/24/14	14:20		09/24/14	AQ	Water	S.TANK 7

2

Summary of Hits

Job Number: TC55451
Account: Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Collected: 09/24/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	MQL	SDL	Units	Method
TC55451-1	**WMU-123**					
Ignitability (Flashpoint)		> 200			Deg. F	SW846 1010
Sulfide		4.0	0.80	0.025	mg/l	SM 4500S+ F
pH [a]		7.21			su	SM 4500H+ B/9040
Benzene		0.0448	0.010	0.0034	mg/l	SW846 8260C
2-Methylphenol		0.0374 J	0.050	0.0096	mg/l	SW846 8270D
3&4-Methylphenol		0.0154 J	0.050	0.011	mg/l	SW846 8270D
Arsenic		0.0069 J	0.050	0.0050	mg/l	SW846 6010B
Barium		0.36 J	5.0	0.017	mg/l	SW846 6010B
Chromium		0.0065 J	0.050	0.0014	mg/l	SW846 6010B
Selenium		0.014 J	0.050	0.0049	mg/l	SW846 6010B
Silver		0.0017 J	0.050	0.0012	mg/l	SW846 6010B
TC55451-2	**OT-2**					
Ignitability (Flashpoint)		> 200			Deg. F	SW846 1010
Sulfide		40.0	4.0	0.025	mg/l	SM 4500S+ F
pH [b]		6.02			su	SM 4500H+ B/9040
Benzene [c]		0.221	0.020	0.0068	mg/l	SW846 8260C
Methyl ethyl ketone [c]		1.32	0.20	0.054	mg/l	SW846 8260C
Tetrachloroethylene [c]		0.0130 J	0.020	0.0092	mg/l	SW846 8260C
2-Methylphenol		0.721	0.050	0.0096	mg/l	SW846 8270D
3&4-Methylphenol		0.531	0.050	0.011	mg/l	SW846 8270D
Barium		0.45 J	5.0	0.017	mg/l	SW846 6010B
Chromium		0.0047 J	0.050	0.0014	mg/l	SW846 6010B
Selenium		0.013 J	0.050	0.0049	mg/l	SW846 6010B
Silver		0.0017 J	0.050	0.0012	mg/l	SW846 6010B
TC55451-3	**S.TANK 7**					
Ignitability (Flashpoint)		> 200			Deg. F	SW846 1010
Sulfide		60.0	4.0	0.025	mg/l	SM 4500S+ F
pH [d]		13.07			su	SM 4500H+ B/9040
Benzene [c]		0.0111 J	0.020	0.0068	mg/l	SW846 8260C
Methyl ethyl ketone [c]		1.06	0.20	0.054	mg/l	SW846 8260C
2-Methylphenol		5.91	0.50	0.096	mg/l	SW846 8270D
3&4-Methylphenol		5.06	0.50	0.11	mg/l	SW846 8270D
2,4,6-Trichlorophenol		0.0506	0.050	0.011	mg/l	SW846 8270D
Arsenic		0.028	0.010	0.0010	mg/l	SW846 6010B
Barium		0.0075 J	1.0	0.0034	mg/l	SW846 6010B
Chromium		0.0017 J	0.010	0.00027	mg/l	SW846 6010B
Mercury		0.010	0.0020	0.00050	mg/l	SW846 7470A

(a) Field analysis required. Received out of hold time and analyzed by request.TEMP 20.9 C

Summary of Hits

Job Number: TC55451
Account: Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Collected: 09/24/14

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	MQL	SDL	Units	Method

(b) Field analysis required. Received out of hold time and analyzed by request. TEMP 20.8 C
(c) Dilution required due to matrix interference.
(d) Field analysis required. Received out of hold time and analyzed by request. TEMP 24.3 C

Gulf Coast ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	WMU-123		
Lab Sample ID:	TC55451-1	**Date Sampled:**	09/24/14
Matrix:	AQ - Water	**Date Received:**	09/24/14
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	K28082.D	10	09/29/14	EM	09/26/14	OP34089	VK1199
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	0.0448	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	90%		72-122%
17060-07-0	1,2-Dichloroethane-D4	82%		68-124%
2037-26-5	Toluene-D8	89%		80-119%
460-00-4	4-Bromofluorobenzene	87%		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:	WMU-123		
Lab Sample ID:	TC55451-1	**Date Sampled:**	09/24/14
Matrix:	AQ - Water	**Date Received:**	09/24/14
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	W20287.D	1	09/29/14	GJ	09/26/14	OP34088	EW1073
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	0.0374	D023	200	0.050	0.0096	mg/l	J
	3&4-Methylphenol	0.0154	D024	200	0.050	0.011	mg/l	J
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	67%		10-86%
4165-62-2	Phenol-d5	66%		10-83%
118-79-6	2,4,6-Tribromophenol	71%		32-128%
4165-60-0	Nitrobenzene-d5	76%		29-115%
321-60-8	2-Fluorobiphenyl	78%		34-113%
1718-51-0	Terphenyl-d14	81%		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:	WMU-123		
Lab Sample ID:	TC55451-1	**Date Sampled:**	09/24/14
Matrix:	AQ - Water	**Date Received:**	09/24/14
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	NN177002.D	1	09/30/14	SC	09/26/14	OP34093	GNN1490
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	101%		39-122%
2051-24-3	Decachlorobiphenyl	81%		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:	WMU-123		
Lab Sample ID:	TC55451-1	**Date Sampled:**	09/24/14
Matrix:	AQ - Water	**Date Received:**	09/24/14
		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	0.0069 J	D004	5.0	0.050	0.0050	mg/l	5	09/26/14	09/27/14	NS	SW846 6010B [1]
Barium	0.36 J	D005	100	5.0	0.017	mg/l	5	09/26/14	09/27/14	NS	SW846 6010B [1]
Cadmium	0.00045 U	D006	1.0	0.020	0.00045	mg/l	5	09/26/14	09/27/14	NS	SW846 6010B [1]
Chromium	0.0065 J	D007	5.0	0.050	0.0014	mg/l	5	09/26/14	09/27/14	NS	SW846 6010B [1]
Lead	0.0089 U	D008	5.0	0.025	0.0089	mg/l	5	09/26/14	09/27/14	NS	SW846 6010B [1]
Mercury	0.000050 U	D009	0.20	0.00020	0.000050	mg/l	1	10/01/14	10/01/14	CC	SW846 7470A [2]
Selenium	0.014 J	D010	1.0	0.050	0.0049	mg/l	5	09/26/14	09/27/14	NS	SW846 6010B [1]
Silver	0.0017 J	D011	5.0	0.050	0.0012	mg/l	5	09/26/14	09/27/14	NS	SW846 6010B [1]

(1) Instrument QC Batch: MA10191
(2) Instrument QC Batch: MA10205
(3) Prep QC Batch: MP24281
(4) Prep QC Batch: MP24311

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:	WMU-123		
Lab Sample ID:	TC55451-1	**Date Sampled:**	09/24/14
Matrix:	AQ - Water	**Date Received:**	09/24/14
		Percent Solids:	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

General Chemistry

Analyte	Result	MQL	SDL	Units	DF	Analyzed	By	Method
Cyanide [a]	0.050 U	0.050	0.050	mg/l	10	09/26/14 16:22	CV	EPA 335.4/SW 9012
Ignitability (Flashpoint)	> 200			Deg. F	1	09/30/14	EB	SW846 1010
Sulfide	4.0	0.80	0.025	mg/l	4	09/29/14 09:00	DP	SM 4500S+ F
pH [b]	7.21			su	1	09/26/14	JG	SM 4500H+ B/9040

(a) Elevated reporting limit due to matrix interference.
(b) Field analysis required. Received out of hold time and analyzed by request.TEMP 20.9 C

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:	OT-2		
Lab Sample ID:	TC55451-2	**Date Sampled:**	09/24/14
Matrix:	AQ - Water	**Date Received:**	09/24/14
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]	K28056.D	20	09/28/14	CF	09/26/14	OP34089	VK1198
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	0.221	D018	0.50	0.020	0.0068	mg/l	
108-90-7	Chlorobenzene	0.0053 U	D021	100	0.020	0.0053	mg/l	
67-66-3	Chloroform	0.0069 U	D022	6.0	0.020	0.0069	mg/l	
56-23-5	Carbon tetrachloride	0.0087 U	D019	0.50	0.020	0.0087	mg/l	
75-35-4	1,1-Dichloroethylene	0.0090 U	D029	0.70	0.020	0.0090	mg/l	
107-06-2	1,2-Dichloroethane	0.0070 U	D028	0.50	0.020	0.0070	mg/l	
78-93-3	Methyl ethyl ketone	1.32	D035	200	0.20	0.054	mg/l	
127-18-4	Tetrachloroethylene	0.0130	D039	0.70	0.020	0.0092	mg/l	J
79-01-6	Trichloroethylene	0.0098 U	D040	0.50	0.020	0.0098	mg/l	
75-01-4	Vinyl chloride	0.016 U	D043	0.20	0.020	0.016	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		72-122%
17060-07-0	1,2-Dichloroethane-D4	81%		68-124%
2037-26-5	Toluene-D8	90%		80-119%
460-00-4	4-Bromofluorobenzene	87%		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:	OT-2		
Lab Sample ID:	TC55451-2	**Date Sampled:**	09/24/14
Matrix:	AQ - Water	**Date Received:**	09/24/14
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	W20288.D	1	09/29/14	GJ	09/26/14	OP34088	EW1073
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	0.721	D023	200	0.050	0.0096	mg/l	
	3&4-Methylphenol	0.531	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	50%		10-86%
4165-62-2	Phenol-d5	49%		10-83%
118-79-6	2,4,6-Tribromophenol	56%		32-128%
4165-60-0	Nitrobenzene-d5	58%		29-115%
321-60-8	2-Fluorobiphenyl	61%		34-113%
1718-51-0	Terphenyl-d14	83%		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:	OT-2		
Lab Sample ID:	TC55451-2	**Date Sampled:**	09/24/14
Matrix:	AQ - Water	**Date Received:**	09/24/14
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	NN177003.D	5	09/30/14	SC	09/26/14	OP34093	GNN1490
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)	0.00086 U	D013	0.40	0.0025	0.00086	mg/l	
12789-03-6	Chlordane	0.0073 U	D020	0.030	0.025	0.0073	mg/l	
72-20-8	Endrin	0.00089 U	D012	0.020	0.0050	0.00089	mg/l	
76-44-8	Heptachlor	0.00042 U	D031	0.0080	0.0025	0.00042	mg/l	
1024-57-3	Heptachlor epoxide	0.00057 U	D031	0.0080	0.0025	0.00057	mg/l	
72-43-5	Methoxychlor	0.0064 U	D014	10	0.025	0.0064	mg/l	
8001-35-2	Toxaphene	0.0062 U	D015	0.50	0.025	0.0062	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	117%		39-122%
2051-24-3	Decachlorobiphenyl	84%		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:	OT-2		
Lab Sample ID:	TC55451-2	**Date Sampled:**	09/24/14
Matrix:	AQ - Water	**Date Received:**	09/24/14
		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	0.0050 U	D004	5.0	0.050	0.0050	mg/l	5	09/26/14	09/27/14	NS	SW846 6010B [1]
Barium	0.45 J	D005	100	5.0	0.017	mg/l	5	09/26/14	09/27/14	NS	SW846 6010B [1]
Cadmium	0.00045 U	D006	1.0	0.020	0.00045	mg/l	5	09/26/14	09/27/14	NS	SW846 6010B [1]
Chromium	0.0047 J	D007	5.0	0.050	0.0014	mg/l	5	09/26/14	09/27/14	NS	SW846 6010B [1]
Lead	0.0089 U	D008	5.0	0.025	0.0089	mg/l	5	09/26/14	09/27/14	NS	SW846 6010B [1]
Mercury	0.000050 U	D009	0.20	0.00020	0.000050	mg/l	1	10/01/14	10/01/14	CC	SW846 7470A [2]
Selenium	0.013 J	D010	1.0	0.050	0.0049	mg/l	5	09/26/14	09/27/14	NS	SW846 6010B [1]
Silver	0.0017 J	D011	5.0	0.050	0.0012	mg/l	5	09/26/14	09/27/14	NS	SW846 6010B [1]

(1) Instrument QC Batch: MA10191
(2) Instrument QC Batch: MA10205
(3) Prep QC Batch: MP24281
(4) Prep QC Batch: MP24311

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:	OT-2		
Lab Sample ID:	TC55451-2	**Date Sampled:**	09/24/14
Matrix:	AQ - Water	**Date Received:**	09/24/14
		Percent Solids:	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

General Chemistry

Analyte	Result	MQL	SDL	Units	DF	Analyzed	By	Method
Cyanide [a]	0.10 U	0.10	0.10	mg/l	20	09/26/14 16:23	CV	EPA 335.4/SW 9012
Ignitability (Flashpoint)	> 200			Deg. F	1	09/30/14	EB	SW846 1010
Sulfide	40.0	4.0	0.025	mg/l	20	09/29/14 09:00	DP	SM 4500S+ F
pH [b]	6.02			su	1	09/26/14	JG	SM 4500H+ B/9040

(a) Elevated reporting limit due to matrix interference.
(b) Field analysis required. Received out of hold time and analyzed by request.TEMP 20.8 C

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:	S.TANK 7		
Lab Sample ID:	TC55451-3	**Date Sampled:**	09/24/14
Matrix:	AQ - Water	**Date Received:**	09/24/14
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]	K28058.D	20	09/28/14	CF	09/26/14	OP34089	VK1198
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	0.0111	D018	0.50	0.020	0.0068	mg/l	J
108-90-7	Chlorobenzene	0.0053 U	D021	100	0.020	0.0053	mg/l	
67-66-3	Chloroform	0.0069 U	D022	6.0	0.020	0.0069	mg/l	
56-23-5	Carbon tetrachloride	0.0087 U	D019	0.50	0.020	0.0087	mg/l	
75-35-4	1,1-Dichloroethylene	0.0090 U	D029	0.70	0.020	0.0090	mg/l	
107-06-2	1,2-Dichloroethane	0.0070 U	D028	0.50	0.020	0.0070	mg/l	
78-93-3	Methyl ethyl ketone	1.06	D035	200	0.20	0.054	mg/l	
127-18-4	Tetrachloroethylene	0.0092 U	D039	0.70	0.020	0.0092	mg/l	
79-01-6	Trichloroethylene	0.0098 U	D040	0.50	0.020	0.0098	mg/l	
75-01-4	Vinyl chloride	0.016 U	D043	0.20	0.020	0.016	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		72-122%
17060-07-0	1,2-Dichloroethane-D4	84%		68-124%
2037-26-5	Toluene-D8	89%		80-119%
460-00-4	4-Bromofluorobenzene	85%		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:	S.TANK 7		
Lab Sample ID:	TC55451-3	**Date Sampled:**	09/24/14
Matrix:	AQ - Water	**Date Received:**	09/24/14
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	W20293.D	1	09/29/14	GJ	09/26/14	OP34088	EW1073
Run #2	W20292.D	10	09/29/14	GJ	09/26/14	OP34088	EW1073

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

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

CAS No.	Compound	Result	HW#	MCL	MQL	SDL	Units	Q
95-48-7	2-Methylphenol	5.91 [a]	D023	200	0.50	0.096	mg/l	
	3&4-Methylphenol	5.06 [a]	D024	200	0.50	0.11	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	0.0506	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	59%	51%	10-86%
4165-62-2	Phenol-d5	49%	46%	10-83%
118-79-6	2,4,6-Tribromophenol	49%	45%	32-128%
4165-60-0	Nitrobenzene-d5	46%	48%	29-115%
321-60-8	2-Fluorobiphenyl	56%	60%	34-113%
1718-51-0	Terphenyl-d14	66%	63%	23-138%

(a) Result is from Run# 2

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:	S.TANK 7		
Lab Sample ID:	TC55451-3	**Date Sampled:**	09/24/14
Matrix:	AQ - Water	**Date Received:**	09/24/14
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]	NN177092.D	5	10/02/14	SC	09/26/14	OP34093	GNN1492
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)	0.00086 U	D013	0.40	0.0025	0.00086	mg/l	
12789-03-6	Chlordane	0.0073 U	D020	0.030	0.025	0.0073	mg/l	
72-20-8	Endrin	0.00089 U	D012	0.020	0.0050	0.00089	mg/l	
76-44-8	Heptachlor	0.00042 U	D031	0.0080	0.0025	0.00042	mg/l	
1024-57-3	Heptachlor epoxide	0.00057 U	D031	0.0080	0.0025	0.00057	mg/l	
72-43-5	Methoxychlor	0.0064 U	D014	10	0.025	0.0064	mg/l	
8001-35-2	Toxaphene	0.0062 U	D015	0.50	0.025	0.0062	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	107%		39-122%
2051-24-3	Decachlorobiphenyl	101%		28-123%

(a) Closing CCV outside control limits biased low due to matrix interference from the previous samples. Confirmed by re-anaylsis.

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:	S.TANK 7		
Lab Sample ID:	TC55451-3	**Date Sampled:**	09/24/14
Matrix:	AQ - Water	**Date Received:**	09/24/14
		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	0.028	D004	5.0	0.010	0.0010	mg/l	1	09/26/14	09/27/14	NS	SW846 6010B [1]
Barium	0.0075 J	D005	100	1.0	0.0034	mg/l	1	09/26/14	09/27/14	NS	SW846 6010B [1]
Cadmium	0.000090 U	D006	1.0	0.0040	0.000090	mg/l	1	09/26/14	09/27/14	NS	SW846 6010B [1]
Chromium	0.0017 J	D007	5.0	0.010	0.00027	mg/l	1	09/26/14	09/27/14	NS	SW846 6010B [1]
Lead	0.0018 U	D008	5.0	0.0050	0.0018	mg/l	1	09/26/14	09/27/14	NS	SW846 6010B [1]
Mercury	0.010	D009	0.20	0.0020	0.00050	mg/l	10	10/01/14	10/01/14	CC	SW846 7470A [2]
Selenium	0.00098 U	D010	1.0	0.010	0.00098	mg/l	1	09/26/14	09/27/14	NS	SW846 6010B [1]
Silver	0.00024 U	D011	5.0	0.010	0.00024	mg/l	1	09/26/14	09/27/14	NS	SW846 6010B [1]

(1) Instrument QC Batch: MA10191
(2) Instrument QC Batch: MA10205
(3) Prep QC Batch: MP24281
(4) Prep QC Batch: MP24311

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:	S.TANK 7		
Lab Sample ID:	TC55451-3	**Date Sampled:**	09/24/14
Matrix:	AQ - Water	**Date Received:**	09/24/14
		Percent Solids:	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

General Chemistry

Analyte	Result	MQL	SDL	Units	DF	Analyzed	By	Method
Cyanide [a]	0.10 U	0.10	0.10	mg/l	20	09/26/14 16:25	CV	EPA 335.4/SW 9012
Ignitability (Flashpoint)	> 200			Deg. F	1	09/30/14	EB	SW846 1010
Sulfide	60.0	4.0	0.025	mg/l	20	09/29/14 09:00	DP	SM 4500S+ F
pH [b]	13.07			su	1	09/26/14	JG	SM 4500H+ B/9040

(a) Elevated reporting limit due to matrix interference.
(b) Field analysis required. Received out of hold time and analyzed by request.TEMP 24.3 C

MQL = Method Quantitation Limit
SDL = Sample Detection Limit

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

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Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

ACCUTEST Laboratories

CHAIN OF CUSTODY

PAGE ___ OF ___

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

FED-EX Tracking #:
Bottle Order Control #:
Accutest Quote #:
Accutest Job #: TC55451

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	ZnAcOH	HNO3	H2SO4	NONE	DI Water	MEOH	TSP	NaHSO4	ENCORE	OTHER	TCLP VOCs	TCLP SVOCs	TCLP Metals	TCLP Pesticides	Total Cyanides/Sulfides	pH	Flash point	LAB USE ONLY
1	WMU-123	9/24/14	1115	DC		4												X	X	X	X	X	X	X	X	
2	OT-2	9/24/14	1255	DC		4												X	X	X	X	X	X	X	X	
3	S. Tank 2	9/24/14	1420	DC		4												X	X	X	X	X	X	X	X	

Turnaround Time (Business days)

- [ ] Standard
- [ ] 6 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	9-24-14 1500	1	2	9-24-14 1550	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

TC55451: Chain of Custody
Page 1 of 5

Sylvia Garza

From: Warr (Kettler), Kristie [K.Warr@WestonSolutions.com]
Sent: Wednesday, October 01, 2014 2:40 PM
To: Sylvia Garza
Cc: Cobb, Derrick; Nguyen, Tuyen
Subject: CES SDG TC55451

Sylvia,

The COC associated with this SDG has a sample ID written incorrectly. The third sample (55451-3) is listed on the COC as S. Tank 2. This sample ID should be S. Tank 7. Please make this revision prior to issuing the report. Please include this email with the COC for documentation purposes. If you need a revised COC, please let me know.

Kristie

Kristie Warr
Weston Solutions, Inc.
5599 San Felipe, Suite 700
Houston, TX 77056
email: K.Warr@WestonSolutions.com
Office: 713.985.6636
Cell: 832.444.7976

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Accutest Laboratories Sample Receipt Summary

Accutest Job Number: TC55451 **Client:** WESTON SOLUTIONS **Project:** CES

Date / Time Received: 9/24/2014 4:20:00 PM **Delivery Method:** **Airbill #'s:**

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

Cooler Temps (Initial/Adjusted): #1: (3.3/3.3);

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

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

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

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

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

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

Comments
Matrix is oil& water on sample "wmu-123" & "ot-2"
Matrix is water on sample "s. tank 2"
Id on coc is "s tank 2 " but label has "s tank 7"

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

TC55451: Chain of Custody
Page 3 of 5

Problem Resolution

Accutest Job Number: TC55451

CSR: _____ **Response Date:** _____

Response:

Sample Receipt Log

Job #: TC55451 **Date / Time Received:** 9/24/2014 3:50:00 PM **Initials:** BG

Client: WESTON SOLUTIONS

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	TC55451-1	32oz	1	2-28	N/P	Note #2 - Preservative check not applicable.	IR-5	3.3	0	3.3
1	TC55451-1	32oz	2	2-28	N/P	Note #2 - Preservative check not applicable.	IR-5	3.3	0	3.3
1	TC55451-1	32oz	3	2-28	N/P	Note #2 - Preservative check not applicable.	IR-5	3.3	0	3.3
1	TC55451-1	32oz	4	2-28	N/P	Note #2 - Preservative check not applicable.	IR-5	3.3	0	3.3
1	TC55451-2	32oz	1	2-28	N/P	Note #2 - Preservative check not applicable.	IR-5	3.3	0	3.3
1	TC55451-2	32oz	2	2-28	N/P	Note #2 - Preservative check not applicable.	IR-5	3.3	0	3.3
1	TC55451-2	32oz	3	2-28	N/P	Note #2 - Preservative check not applicable.	IR-5	3.3	0	3.3
1	TC55451-2	32oz	4	2-28	N/P	Note #2 - Preservative check not applicable.	IR-5	3.3	0	3.3
	TC55451-3	32oz	1	4Q	N/P	Note #2 - Preservative check not applicable.				
	TC55451-3	32oz	2	4Q	N/P	Note #2 - Preservative check not applicable.				
	TC55451-3	32oz	3	4Q	N/P	Note #2 - Preservative check not applicable.				
	TC55451-3	32oz	4	4Q	N/P	Note #2 - Preservative check not applicable.				

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: TC55451
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP34107-LB [a]	K28088.D	10	09/29/14	EM	09/29/14	OP34107	VK1199

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

TC55451-1

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	87%	72-122%
17060-07-0	1,2-Dichloroethane-D4	81%	68-124%
2037-26-5	Toluene-D8	89%	80-119%
460-00-4	4-Bromofluorobenzene	86%	72-126%

(a) TCLP Method Blank.

Leachate Blank Summary

Job Number: TC55451
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP34089-LB [a]	K28048.D	10	09/28/14	CF	09/26/14	OP34089	VK1198

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

TC55451-1, TC55451-2, TC55451-3

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	89%	72-122%
17060-07-0	1,2-Dichloroethane-D4	84%	68-124%
2037-26-5	Toluene-D8	89%	80-119%
460-00-4	4-Bromofluorobenzene	87%	72-126%

(a) TCLP Method Blank.

Leachate Blank Summary

Job Number: TC55451
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP34089-LB [a]	K28081.D	10	09/29/14	EM	09/26/14	OP34089	VK1199

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

TC55451-1, TC55451-2, TC55451-3

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	90%	72-122%
17060-07-0	1,2-Dichloroethane-D4	79%	68-124%
2037-26-5	Toluene-D8	89%	80-119%
460-00-4	4-Bromofluorobenzene	88%	72-126%

(a) TCLP Method Blank.

Blank Spike Summary

Job Number: TC55451
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VK1198-BS	K28046.D	10	09/28/14	CF	n/a	n/a	VK1198

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

TC55451-2, TC55451-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	250	242	97	68-119
108-90-7	Chlorobenzene	250	225	90	74-120
67-66-3	Chloroform	250	231	92	73-122
56-23-5	Carbon tetrachloride	250	248	99	68-133
75-35-4	1,1-Dichloroethylene	250	237	95	67-140
107-06-2	1,2-Dichloroethane	250	223	89	68-121
78-93-3	Methyl ethyl ketone	1250	981	78	51-129
127-18-4	Tetrachloroethylene	250	271	108	72-132
79-01-6	Trichloroethylene	250	235	94	73-121
75-01-4	Vinyl chloride	250	213	85	54-126

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	86%	72-122%
17060-07-0	1,2-Dichloroethane-D4	82%	68-124%
2037-26-5	Toluene-D8	89%	80-119%
460-00-4	4-Bromofluorobenzene	85%	72-126%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: TC55451
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VK1199-BS	K28084.D	10	09/29/14	EM	n/a	n/a	VK1199

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

TC55451-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	250	235	94	68-119
108-90-7	Chlorobenzene	250	221	88	74-120
67-66-3	Chloroform	250	224	90	73-122
56-23-5	Carbon tetrachloride	250	236	94	68-133
75-35-4	1,1-Dichloroethylene	250	237	95	67-140
107-06-2	1,2-Dichloroethane	250	215	86	68-121
78-93-3	Methyl ethyl ketone	1250	831	66	51-129
127-18-4	Tetrachloroethylene	250	266	106	72-132
79-01-6	Trichloroethylene	250	225	90	73-121
75-01-4	Vinyl chloride	250	215	86	54-126

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	87%	72-122%
17060-07-0	1,2-Dichloroethane-D4	78%	68-124%
2037-26-5	Toluene-D8	89%	80-119%
460-00-4	4-Bromofluorobenzene	86%	72-126%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC55451
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TC55451-1MS	K28053.D	500	09/28/14	CF	n/a	n/a	VK1198
TC55451-1MSD	K28054.D	500	09/28/14	CF	n/a	n/a	VK1198
TC55451-1 [a]	K28052.D	500	09/28/14	CF	09/26/14	OP34089	VK1198

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

TC55451-2, TC55451-3

CAS No.	Compound	TC55451-1 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	500	U	12500	11700	94	12500	11300	90	3	68-119/12
108-90-7	Chlorobenzene	500	U	12500	11100	89	12500	10500	84	6	74-120/12
67-66-3	Chloroform	500	U	12500	10800	86	12500	11300	90	5	73-122/13
56-23-5	Carbon tetrachloride	500	U	12500	12100	97	12500	11400	91	6	68-133/20
75-35-4	1,1-Dichloroethylene	500	U	12500	11700	94	12500	11900	95	2	67-140/18
107-06-2	1,2-Dichloroethane	500	U	12500	11000	88	12500	10900	87	1	68-121/12
78-93-3	Methyl ethyl ketone	5000	U	62500	44500	71	62500	47700	76	7	51-129/22
127-18-4	Tetrachloroethylene	500	U	12500	12900	103	12500	12300	98	5	72-132/14
79-01-6	Trichloroethylene	500	U	12500	11500	92	12500	10800	86	6	73-121/13
75-01-4	Vinyl chloride	500	U	12500	10400	83	12500	10700	86	3	54-126/17

CAS No.	Surrogate Recoveries	MS	MSD	TC55451-1	Limits
1868-53-7	Dibromofluoromethane	85%	89%		72-122%
17060-07-0	1,2-Dichloroethane-D4	82%	82%		68-124%
2037-26-5	Toluene-D8	89%	88%		80-119%
460-00-4	4-Bromofluorobenzene	85%	84%		72-126%

(a) Sample used for QC purposes only.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC55451
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TC55451-1MS	K28085.D	10	09/29/14	EM	n/a	n/a	VK1199
TC55451-1MSD	K28086.D	10	09/29/14	EM	n/a	n/a	VK1199
TC55451-1	K28082.D	10	09/29/14	EM	09/26/14	OP34089	VK1199

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

TC55451-1

CAS No.	Compound	TC55451-1 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	44.8		250	289	98	250	275	92	5	68-119/12
108-90-7	Chlorobenzene	10 U		250	232	93	250	225	90	3	74-120/12
67-66-3	Chloroform	10 U		250	236	94	250	234	94	1	73-122/13
56-23-5	Carbon tetrachloride	10 U		250	249	100	250	239	96	4	68-133/20
75-35-4	1,1-Dichloroethylene	10 U		250	246	98	250	237	95	4	67-140/18
107-06-2	1,2-Dichloroethane	10 U		250	227	91	250	226	90	0	68-121/12
78-93-3	Methyl ethyl ketone	100 U		1250	992	79	1250	1010	81	2	51-129/22
127-18-4	Tetrachloroethylene	10 U		250	275	110	250	262	105	5	72-132/14
79-01-6	Trichloroethylene	10 U		250	240	96	250	230	92	4	73-121/13
75-01-4	Vinyl chloride	10 U		250	222	89	250	214	86	4	54-126/17

CAS No.	Surrogate Recoveries	MS	MSD	TC55451-1	Limits
1868-53-7	Dibromofluoromethane	86%	88%	90%	72-122%
17060-07-0	1,2-Dichloroethane-D4	81%	79%	82%	68-124%
2037-26-5	Toluene-D8	91%	89%	89%	80-119%
460-00-4	4-Bromofluorobenzene	85%	86%	87%	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: TC55451
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP34088-MB	W20256.D	1	09/26/14	GJ	09/26/14	OP34088	EW1072

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

TC55451-1, TC55451-2, TC55451-3

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	79%	10-86%
4165-62-2	Phenol-d5	71%	10-83%
118-79-6	2,4,6-Tribromophenol	82%	32-128%
4165-60-0	Nitrobenzene-d5	87%	29-115%
321-60-8	2-Fluorobiphenyl	86%	34-113%
1718-51-0	Terphenyl-d14	106%	23-138%

Blank Spike Summary

Job Number: TC55451
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP34088-BS	W20257.D	1	09/26/14	GJ	09/26/14	OP34088	EW1072

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

TC55451-1, TC55451-2, TC55451-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-48-7	2-Methylphenol	500	358	72	33-113
	3&4-Methylphenol	500	377	75	28-119
87-86-5	Pentachlorophenol	500	353	71	28-136
95-95-4	2,4,5-Trichlorophenol	500	375	75	47-116
88-06-2	2,4,6-Trichlorophenol	500	368	74	44-112
106-46-7	1,4-Dichlorobenzene	500	346	69	36-99
121-14-2	2,4-Dinitrotoluene	500	416	83	52-115
118-74-1	Hexachlorobenzene	500	372	74	49-114
87-68-3	Hexachlorobutadiene	500	347	69	30-104
67-72-1	Hexachloroethane	500	392	78	30-100
98-95-3	Nitrobenzene	500	435	87	40-103
110-86-1	Pyridine	500	246	49	10-77

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	75%	10-86%
4165-62-2	Phenol-d5	72%	10-83%
118-79-6	2,4,6-Tribromophenol	75%	32-128%
4165-60-0	Nitrobenzene-d5	78%	29-115%
321-60-8	2-Fluorobiphenyl	82%	34-113%
1718-51-0	Terphenyl-d14	97%	23-138%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC55451
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP34088-MS	W20259.D	1	09/26/14	GJ	09/26/14	OP34088	EW1072
OP34088-MSD	W20260.D	1	09/26/14	GJ	09/26/14	OP34088	EW1072
TC55420-1	W20258.D	1	09/26/14	GJ	09/26/14	OP34088	EW1072

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

TC55451-1, TC55451-2, TC55451-3

CAS No.	Compound	TC55420-1 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	ND		500	319	64	500	329	66	3	33-113/35
	3&4-Methylphenol	ND		500	332	66	500	346	69	4	28-119/36
87-86-5	Pentachlorophenol	ND		500	302	60	500	288	58	5	28-136/29
95-95-4	2,4,5-Trichlorophenol	ND		500	328	66	500	329	66	0	47-116/27
88-06-2	2,4,6-Trichlorophenol	ND		500	317	63	500	296	59	7	44-112/26
106-46-7	1,4-Dichlorobenzene	ND		500	309	62	500	286	57	8	36-99/31
121-14-2	2,4-Dinitrotoluene	ND		500	365	73	500	371	74	2	52-115/30
118-74-1	Hexachlorobenzene	ND		500	334	67	500	338	68	1	49-114/25
87-68-3	Hexachlorobutadiene	ND		500	306	61	500	294	59	4	30-104/31
67-72-1	Hexachloroethane	ND		500	346	69	500	326	65	6	30-100/34
98-95-3	Nitrobenzene	ND		500	389	78	500	391	78	1	40-103/31
110-86-1	Pyridine	ND		500	230	46	500	269	54	16	10-77/41

CAS No.	Surrogate Recoveries	MS	MSD	TC55420-1	Limits
367-12-4	2-Fluorophenol	67%	67%	82%	10-86%
4165-62-2	Phenol-d5	63%	67%	74%	10-83%
118-79-6	2,4,6-Tribromophenol	66%	68%	78%	32-128%
4165-60-0	Nitrobenzene-d5	67%	68%	89%	29-115%
321-60-8	2-Fluorobiphenyl	72%	74%	88%	34-113%
1718-51-0	Terphenyl-d14	83%	85%	105%	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: TC55451
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP34093-MB	NN176958.D	1	09/29/14	SC	09/26/14	OP34093	GNN1489

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

TC55451-1, TC55451-2, TC55451-3

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	86%	39-122%
2051-24-3	Decachlorobiphenyl	83%	28-123%

Blank Spike Summary

Job Number: TC55451
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP34093-BS	NN176959.D	1	09/29/14	SC	09/26/14	OP34093	GNN1489

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

TC55451-1, TC55451-2, TC55451-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
58-89-9	gamma-BHC (Lindane)	2.5	2.4	96	62-131
72-20-8	Endrin	5	6.3	126	74-154
76-44-8	Heptachlor	2.5	2.9	116	51-131
1024-57-3	Heptachlor epoxide	2.5	2.6	104	66-129
72-43-5	Methoxychlor	25	32.3	129	64-140

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	93%	39-122%
2051-24-3	Decachlorobiphenyl	95%	28-123%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC55451
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP34093-MS	NN176966.D	1	09/29/14	SC	09/26/14	OP34093	GNN1489
OP34093-MSD	NN176967.D	1	09/29/14	SC	09/26/14	OP34093	GNN1489
TC55463-1	NN176965.D	1	09/29/14	SC	09/26/14	OP34093	GNN1489

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

TC55451-1, TC55451-2, TC55451-3

CAS No.	Compound	TC55463-1 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	2.5	100	2.5	2.5	100	0	62-131/23
72-20-8	Endrin	ND		5	6.0	120	5	5.8	116	3	74-154/22
76-44-8	Heptachlor	ND		2.5	2.6	104	2.5	2.5	100	4	51-131/31
1024-57-3	Heptachlor epoxide	ND		2.5	2.5	100	2.5	2.5	100	0	66-129/21
72-43-5	Methoxychlor	ND		25	30.5	122	25	29.6	118	3	64-140/20

CAS No.	Surrogate Recoveries	MS	MSD	TC55463-1	Limits
877-09-8	Tetrachloro-m-xylene	89%	86%	79%	39-122%
2051-24-3	Decachlorobiphenyl	89%	86%	79%	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: TC55451
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24281
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: mg/l

Prep Date: 09/26/14

Metal	RL	IDL	MDL	MB raw	final
Aluminum	1.0	.035	.061		
Antimony	0.025	.0028	.0051		
Arsenic	0.050	.005	.005	-0.0082	<0.050
Barium	5.0	.0008	.017	0.00023	<5.0
Beryllium	0.025	.0005	.0008		
Boron	0.50	.002	.039		
Cadmium	0.020	.00075	.00045	-0.00057	<0.020
Calcium	25	.02	.12		
Chromium	0.050	.0011	.0014	0.00083	<0.050
Cobalt	0.25	.0013	.0011		
Copper	0.13	.0012	.03		
Iron	0.50	.023	.12		
Lead	0.025	.0033	.0089	0.0029	<0.025
Lithium	1.5	.0033	.01		
Magnesium	25	.038	.04		
Manganese	0.075	.00045	.0093		
Molybdenum	0.050	.0031	.001		
Nickel	0.20	.0011	.007		
Potassium	25	.038	.22		
Selenium	0.050	.006	.0049	0.0054	<0.050
Silver	0.050	.001	.0012	0.00024	<0.050
Sodium	25	.029	.52		
Strontium	0.050	.00035	.002		
Thallium	0.050	.0042	.0058		
Tin	0.10	.0034	.014		
Titanium	0.10	.00095	.0015		
Vanadium	0.25	.0009	.0015		
Zinc	0.50	.00065	.017		

Associated samples MP24281: TC55451-1, TC55451-2, TC55451-3

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

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TC55451
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24281
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: mg/l

Prep Date: 09/26/14

Metal	TC55451-1 Original	MS	Spikelot MPTW11	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	0.0069	0.35	0.40	85.8	75-125
Barium	0.36	0.70	0.40	85.0	75-125
Beryllium					
Boron					
Cadmium	0.0	0.35	0.40	87.5	75-125
Calcium					
Chromium	0.0065	0.35	0.40	85.9	75-125
Cobalt					
Copper					
Iron					
Lead	0.0	0.35	0.40	87.5	75-125
Lithium					
Magnesium					
Manganese					
Molybdenum					
Nickel					
Potassium					
Selenium	0.014	0.36	0.40	86.5	75-125
Silver	0.0017	0.34	0.40	84.6	75-125
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Vanadium					
Zinc					

Associated samples MP24281: TC55451-1, TC55451-2, TC55451-3

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

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TC55451
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24281
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: mg/l

Prep Date: 09/26/14

Metal	TC55451-1 Original	MSD	Spikelot MPTW11	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	0.0069	0.30	0.40	73.3N(a)	15.4	20
Barium	0.36	0.64	0.40	70.0N(a)	9.0	20
Beryllium						
Boron						
Cadmium	0.0	0.29	0.40	72.5N(a)	18.8	20
Calcium						
Chromium	0.0065	0.29	0.40	70.9N(a)	18.8	20
Cobalt						
Copper						
Iron						
Lead	0.0	0.29	0.40	72.5N(a)	18.8	20
Lithium						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium	0.014	0.29	0.40	69.0N(a)	21.5 (b)	20
Silver	0.0017	0.28	0.40	69.6N(a)	19.4	20
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP24281: TC55451-1, TC55451-2, TC55451-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike recovery indicates possible matrix interference.
(b) High RPD due to possible sample nonhomogeneity or matrix interference.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: TC55451
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24281
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: mg/l

Prep Date: 09/26/14

Metal	BSP Result	Spikelot MPTW11	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	0.41	0.40	102.5	80-120
Barium	0.42	0.40	105.0	80-120
Beryllium				
Boron				
Cadmium	0.42	0.40	105.0	80-120
Calcium				
Chromium	0.41	0.40	102.5	80-120
Cobalt				
Copper				
Iron				
Lead	0.42	0.40	105.0	80-120
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium	0.43	0.40	107.5	80-120
Silver	0.40	0.40	100.0	80-120
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP24281: TC55451-1, TC55451-2, TC55451-3

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

SERIAL DILUTION RESULTS SUMMARY

Login Number: TC55451
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24281
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: ug/l

Prep Date: 09/26/14

Metal	TC55451-1 Original	SDL 5:25	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	6.87	0.00	100.0(a)	0-10
Barium	360	358	0.6	0-10
Beryllium				
Boron				
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	6.51	6.30	3.2	0-10
Cobalt				
Copper				
Iron				
Lead	0.00	21.4	NC	0-10
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium	13.9	0.00	100.0(a)	0-10
Silver	1.69	0.00	100.0(a)	0-10
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP24281: TC55451-1, TC55451-2, TC55451-3

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

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: TC55451
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24311 | Methods: SW846 7470A
Matrix Type: LEACHATE | Units: mg/l

Prep Date: 10/01/14

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.00020	.00005	.00005	-0.000063	<0.00020

Associated samples MP24311: TC55451-1, TC55451-2, TC55451-3

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

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TC55451
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24311
Matrix Type: LEACHATE

Methods: SW846 7470A
Units: mg/l

Prep Date: 10/01/14

Metal	TC55451-1 Original	MS	Spikelot HGTXAQ40	% Rec	QC Limits
Mercury	0.0	0.0031	0.0030	103.3	75-125

Associated samples MP24311: TC55451-1, TC55451-2, TC55451-3

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

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TC55451
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24311 Methods: SW846 7470A
Matrix Type: LEACHATE Units: mg/l

Prep Date: 10/01/14

Metal	TC55451-1 Original	MSD	Spikelot HGTXAQ40	% Rec	MSD RPD	QC Limit
Mercury	0.0	0.0031	0.0030	103.3	0.0	20

Associated samples MP24311: TC55451-1, TC55451-2, TC55451-3

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

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: TC55451
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24311
Matrix Type: LEACHATE

Methods: SW846 7470A
Units: mg/l

Prep Date: 10/01/14

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

Associated samples MP24311: TC55451-1, TC55451-2, TC55451-3

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

8.2.3

8

Gulf Coast ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

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

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TC55451
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	GP29593/GN61307	0.0050	0.0	mg/l	0.1	0.0969	96.9	91-108%
Sulfide	GN61329	0.20	0.0	mg/l	1600	1520	95.0	90-105%

Associated Samples:
Batch GN61329: TC55451-1, TC55451-2, TC55451-3
Batch GP29593: TC55451-1, TC55451-2, TC55451-3
(*) Outside of QC limits

BLANK SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TC55451
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Analyte	Batch ID	Units	Spike Amount	BSD Result	RPD	QC Limit
Sulfide	GN61329	mg/l	1600	1520	0.0	

Associated Samples:
Batch GN61329: TC55451-1, TC55451-2, TC55451-3
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TC55451
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	GP29593/GN61307	TC55432-1	mg/l	0.061	0.061	0.0	0-20%
Ignitability (Flashpoint)	GN61366	TC55413-1	Deg. F	>200	>200	0.0	0-10%
pH	GN61324	TC55451-1	su	7.21	7.21(a)	0.0	0-10%

Associated Samples:
Batch GN61324: TC55451-1, TC55451-2, TC55451-3
Batch GN61366: TC55451-1, TC55451-2, TC55451-3
Batch GP29593: TC55451-1, TC55451-2, TC55451-3
(*) Outside of QC limits
(a) TEMP 20.9 C

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TC55451
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	GP29593/GN61307	TC55432-1	mg/l	0.061	0.2	0.26	99.5	90-110%

Associated Samples:
Batch GP29593: TC55451-1, TC55451-2, TC55451-3
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits