Gulf Coast ACCUTEST LABORATORIES

09/09/14

Technical Report for

Weston Solutions

CES- Chemical Spill/4904 Griggs, Houston, TX

Accutest Job Number: TC53875

Sampling Date: 08/26/14

Report to:

Weston Solutions

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Total number of pages in report: **133**

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Richard Rodriguez
Laboratory Director

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Accutest Laboratories

Sample Summary

Weston Solutions

CES- Chemical Spill/4904 Griggs, Houston, TX

Job No: TC53875

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
TC53875-1	08/26/14	11:05		08/27/14	SO	Sludge	VB-640
TC53875-1A	08/26/14	11:05		08/27/14	SO	Sludge	VB-640
TC53875-2	08/26/14	12:55		08/27/14	SO	Sludge	VB-25141
TC53875-2A	08/26/14	12:55		08/27/14	SO	Sludge	VB-25141

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Summary of Hits

Job Number: TC53875
Account: Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Collected: 08/26/14

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	MQL	SDL	Units	Method
TC53875-1	**VB-640**					
Acetone		42000	18000	4500	ug/kg	SW846 8260C
Benzene		13900	1800	300	ug/kg	SW846 8260C
sec-Butylbenzene		3710	1800	390	ug/kg	SW846 8260C
Chloroform		109000	18000	1900	ug/kg	SW846 8260C
Carbon disulfide		74000	1800	260	ug/kg	SW846 8260C
Ethylbenzene		30500	1800	430	ug/kg	SW846 8260C
Isopropylbenzene		12100	1800	500	ug/kg	SW846 8260C
p-Isopropyltoluene		3730	1800	580	ug/kg	SW846 8260C
Methyl ethyl ketone		18600	18000	2200	ug/kg	SW846 8260C
Naphthalene		60600	1800	890	ug/kg	SW846 8260C
n-Propylbenzene		12600	1800	460	ug/kg	SW846 8260C
1,2,4-Trimethylbenzene		73700	1800	180	ug/kg	SW846 8260C
1,3,5-Trimethylbenzene		22400	1800	420	ug/kg	SW846 8260C
Toluene		66900	1800	450	ug/kg	SW846 8260C
Xylene (total)		156000	5300	1200	ug/kg	SW846 8260C
m,p-Xylene		112000	3600	800	ug/kg	SW846 8260C
o-Xylene		44000	1800	450	ug/kg	SW846 8260C
2,4-Dichlorophenol [a]		57600 J	150000	50000	ug/kg	SW846 8270D
2,4-Dimethylphenol		3020000	1500000	530000	ug/kg	SW846 8270D
2-Methylphenol		3330000	1500000	670000	ug/kg	SW846 8270D
3&4-Methylphenol [a]		2830000	150000	67000	ug/kg	SW846 8270D
Phenol [a]		966000	150000	71000	ug/kg	SW846 8270D
2,4,6-Trichlorophenol [a]		144000 J	150000	41000	ug/kg	SW846 8270D
1-Methylnaphthalene [a]		109000 J	150000	59000	ug/kg	SW846 8270D
2-Methylnaphthalene [a]		164000	150000	59000	ug/kg	SW846 8270D
Naphthalene [a]		180000	150000	56000	ug/kg	SW846 8270D
TPH (C6-C12)		24800	1200	670	mg/kg	TNRCC 1005
TPH (> C12-C28)		62500	1200	680	mg/kg	TNRCC 1005
TPH (> C28-C35)		1410	1200	680	mg/kg	TNRCC 1005
TPH (C6-C35)		88800	1200	670	mg/kg	TNRCC 1005
Aluminum		195	10	1.2	mg/kg	SW846 6010B
Antimony [b]		0.54 J	1.3	0.46	mg/kg	SW846 6010B
Arsenic [b]		6.5	1.3	0.44	mg/kg	SW846 6010B
Barium		26.1	10	0.013	mg/kg	SW846 6010B
Cadmium [b]		0.14 J	1.0	0.064	mg/kg	SW846 6010B
Calcium		1040	260	0.40	mg/kg	SW846 6010B
Chromium		47.6	0.51	0.072	mg/kg	SW846 6010B
Cobalt		44.9	2.6	0.020	mg/kg	SW846 6010B
Copper		74.9	1.0	0.11	mg/kg	SW846 6010B
Iron [b]		31800	26	3.7	mg/kg	SW846 6010B
Lead [b]		83.2	0.77	0.57	mg/kg	SW846 6010B
Magnesium		171 J	260	1.4	mg/kg	SW846 6010B
Manganese		161	0.77	0.020	mg/kg	SW846 6010B

Summary of Hits

Job Number: TC53875
Account: Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Collected: 08/26/14

Lab Sample ID Client Sample ID Analyte	Result/ Qual	MQL	SDL	Units	Method
Mercury	0.98	0.062	0.025	mg/kg	SW846 7471A
Nickel	157	2.0	0.038	mg/kg	SW846 6010B
Potassium	250 J	260	2.2	mg/kg	SW846 6010B
Selenium [b]	0.60 J	1.3	0.48	mg/kg	SW846 6010B
Silver [b]	0.67 J	2.6	0.18	mg/kg	SW846 6010B
Sodium	6050	260	0.78	mg/kg	SW846 6010B
Vanadium	3.7	2.6	0.021	mg/kg	SW846 6010B
Zinc [b]	135	5.1	1.4	mg/kg	SW846 6010B
Heat Content, BTU [c]	7820	100		BTU/lb	ASTM D240-92
Ignitability (Flashpoint)	> 200			Deg. F	SW846 CHAP7
Sulfide, Neutral Extraction [c]	223	3.9	3.7	mg/kg	EPA 376.1M/9034 M
pH [d]	7.41			su	SW846 9045C
TC53875-1A VB-640					
Benzene	0.275	0.010	0.0034	mg/l	SW846 8260C
Chloroform	2.71	0.050	0.017	mg/l	SW846 8260C
Methyl ethyl ketone	1.24	0.10	0.027	mg/l	SW846 8260C
2-Methylphenol [e]	57.4	3.0	0.58	mg/l	SW846 8270D
3&4-Methylphenol [e]	24.9	3.0	0.65	mg/l	SW846 8270D
Arsenic	0.045 J	0.050	0.0050	mg/l	SW846 6010B
Barium	0.053 J	5.0	0.017	mg/l	SW846 6010B
Cadmium	0.00070 J	0.020	0.00045	mg/l	SW846 6010B
Chromium	0.14	0.050	0.0014	mg/l	SW846 6010B
Lead	0.0090 J	0.025	0.0089	mg/l	SW846 6010B
Selenium	0.0069 J	0.25	0.0049	mg/l	SW846 6010B
Silver	0.0013 J	0.050	0.0012	mg/l	SW846 6010B
TC53875-2 VB-25141					
Acetone	52800	19000	4700	ug/kg	SW846 8260C
Benzene	9000	1900	320	ug/kg	SW846 8260C
sec-Butylbenzene	1870 J	1900	410	ug/kg	SW846 8260C
Chloroform	6610	1900	200	ug/kg	SW846 8260C
Carbon disulfide	51600	1900	270	ug/kg	SW846 8260C
Ethylbenzene	19900	1900	450	ug/kg	SW846 8260C
Isopropylbenzene	8480	1900	520	ug/kg	SW846 8260C
p-Isopropyltoluene	2890	1900	610	ug/kg	SW846 8260C
Methyl ethyl ketone	21900	19000	2300	ug/kg	SW846 8260C
Naphthalene	31900	1900	930	ug/kg	SW846 8260C
n-Propylbenzene	8130	1900	490	ug/kg	SW846 8260C
1,2,4-Trimethylbenzene	43500	1900	190	ug/kg	SW846 8260C
1,3,5-Trimethylbenzene	13400	1900	440	ug/kg	SW846 8260C
Toluene	41500	1900	480	ug/kg	SW846 8260C
Xylene (total)	101000	5600	1300	ug/kg	SW846 8260C

Summary of Hits

Job Number: TC53875
Account: Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Collected: 08/26/14

Lab Sample ID Client Sample ID Analyte	Result/ Qual	MQL	SDL	Units	Method
m,p-Xylene	72500	3700	840	ug/kg	SW846 8260C
o-Xylene	28900	1900	470	ug/kg	SW846 8260C
2-Chlorophenol [f]	42400 J	79000	34000	ug/kg	SW846 8270D
2,4-Dichlorophenol [f]	26500 J	79000	25000	ug/kg	SW846 8270D
2,4-Dimethylphenol	2830000	790000	270000	ug/kg	SW846 8270D
2-Methylphenol	4290000	790000	340000	ug/kg	SW846 8270D
3&4-Methylphenol	3430000	790000	340000	ug/kg	SW846 8270D
Phenol	1680000	790000	360000	ug/kg	SW846 8270D
2,4,6-Trichlorophenol [f]	51200 J	79000	21000	ug/kg	SW846 8270D
1-Methylnaphthalene [f]	37300 J	79000	30000	ug/kg	SW846 8270D
2-Methylnaphthalene [f]	53900 J	79000	30000	ug/kg	SW846 8270D
Naphthalene [f]	56300 J	79000	29000	ug/kg	SW846 8270D
TPH (C6-C12)	26900	1200	670	mg/kg	TNRCC 1005
TPH (> C12-C28)	56100	1200	670	mg/kg	TNRCC 1005
TPH (> C28-C35)	10600	1200	670	mg/kg	TNRCC 1005
TPH (C6-C35)	93600	1200	670	mg/kg	TNRCC 1005
Aluminum	181	10	1.2	mg/kg	SW846 6010B
Antimony	0.59	0.25	0.090	mg/kg	SW846 6010B
Arsenic	5.0	0.25	0.087	mg/kg	SW846 6010B
Barium	79.4	10	0.013	mg/kg	SW846 6010B
Cadmium	0.037 J	0.20	0.013	mg/kg	SW846 6010B
Calcium	1100	250	0.39	mg/kg	SW846 6010B
Chromium	17.4	0.50	0.070	mg/kg	SW846 6010B
Cobalt	27.3	2.5	0.020	mg/kg	SW846 6010B
Copper	64.7	1.0	0.11	mg/kg	SW846 6010B
Iron	22400	5.0	0.72	mg/kg	SW846 6010B
Lead	63.7	0.15	0.11	mg/kg	SW846 6010B
Magnesium	14.8 J	250	1.4	mg/kg	SW846 6010B
Manganese	83.1	0.75	0.020	mg/kg	SW846 6010B
Mercury	7.2	0.30	0.12	mg/kg	SW846 7471A
Nickel	545	2.0	0.038	mg/kg	SW846 6010B
Potassium	61.0 J	250	2.1	mg/kg	SW846 6010B
Silver	0.037 J	0.50	0.035	mg/kg	SW846 6010B
Sodium	5870	250	0.77	mg/kg	SW846 6010B
Vanadium	4.2	2.5	0.021	mg/kg	SW846 6010B
Zinc	91.6	1.0	0.28	mg/kg	SW846 6010B
Heat Content, BTU [c]	7070	100		BTU/lb	ASTM D240-92
Ignitability (Flashpoint)	> 200			Deg. F	SW846 CHAP7
Sulfide, Neutral Extraction [c]	40.7	3.9	3.7	mg/kg	EPA 376.1M/9034 M
pH [g]	5.96			su	SW846 9045C
TC53875-2A VB-25141					
Benzene	0.275	0.010	0.0034	mg/l	SW846 8260C
Chloroform	0.265	0.010	0.0035	mg/l	SW846 8260C

Summary of Hits

Job Number: TC53875
Account: Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Collected: 08/26/14

Lab Sample ID Client Sample ID Analyte	Result/ Qual	MQL	SDL	Units	Method
Methyl ethyl ketone	2.25	0.10	0.027	mg/l	SW846 8260C
2-Methylphenol	300	50	9.6	mg/l	SW846 8270D
3&4-Methylphenol	221	50	11	mg/l	SW846 8270D
2,4,6-Trichlorophenol [h]	0.474 J	0.50	0.11	mg/l	SW846 8270D
Arsenic	0.023 J	0.050	0.0050	mg/l	SW846 6010B
Barium	0.069 J	5.0	0.017	mg/l	SW846 6010B
Cadmium	0.00048 J	0.020	0.00045	mg/l	SW846 6010B
Chromium	0.0067 J	0.050	0.0014	mg/l	SW846 6010B
Selenium	0.027 J	0.25	0.0049	mg/l	SW846 6010B

(a) Elevated reporting limits due to matrix interference; final volume 10 ml. Dilution required due to high concentration of non-target compounds.
(b) Elevated reporting limit due to dilution required for high interfering element.
(c) Analysis performed at Accutest Laboratories, Dayton, NJ.
(d) temp. 21.5 c
(e) Elevated reporting limits due to matrix interference, final volume 3 ml. Dilution require due to high concentration of non-target compounds.
(f) Elevated reporting limits due to matrix interference; final volume 5 ml. Dilution required due to high concentration of non-target compounds.
(g) temp. 21.3 c
(h) Elevated reporting limits due to matrix interference.

Gulf Coast ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	VB-640		
Lab Sample ID:	TC53875-1	**Date Sampled:**	08/26/14
Matrix:	SO - Sludge	**Date Received:**	08/27/14
Method:	SW846 8260C SW846 5030A	**Percent Solids:**	n/a [a]
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y1070601.D	10	09/04/14	KS	08/29/14 09:53	n/a	VY3741
Run #2	Y1070656.D	100	09/05/14	KS	08/29/14 09:53	n/a	VY3743

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.61 g	5.0 ml	100 ul
Run #2	5.61 g	5.0 ml	100 ul

VOA 8260 List

CAS No.	Compound	Result	MQL	SDL	Units	Q
67-64-1	Acetone	42000	18000	4500	ug/kg	
71-43-2	Benzene	13900	1800	300	ug/kg	
108-86-1	Bromobenzene	180 U	1800	180	ug/kg	
74-97-5	Bromochloromethane	490 U	1800	490	ug/kg	
75-27-4	Bromodichloromethane	200 U	1800	200	ug/kg	
75-25-2	Bromoform	340 U	1800	340	ug/kg	
104-51-8	n-Butylbenzene	200 U	1800	200	ug/kg	
135-98-8	sec-Butylbenzene	3710	1800	390	ug/kg	
98-06-6	tert-Butylbenzene	350 U	1800	350	ug/kg	
108-90-7	Chlorobenzene	420 U	1800	420	ug/kg	
75-00-3	Chloroethane	700 U	1800	700	ug/kg	
67-66-3	Chloroform	109000 [b]	18000	1900	ug/kg	
95-49-8	o-Chlorotoluene	210 U	1800	210	ug/kg	
106-43-4	p-Chlorotoluene	180 U	1800	180	ug/kg	
75-15-0	Carbon disulfide	74000	1800	260	ug/kg	
56-23-5	Carbon tetrachloride	380 U	1800	380	ug/kg	
75-34-3	1,1-Dichloroethane	180 U	1800	180	ug/kg	
75-35-4	1,1-Dichloroethylene	190 U	1800	190	ug/kg	
563-58-6	1,1-Dichloropropene	200 U	1800	200	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	1400 U	1800	1400	ug/kg	
106-93-4	1,2-Dibromoethane	190 U	1800	190	ug/kg	
107-06-2	1,2-Dichloroethane	210 U	1800	210	ug/kg	
78-87-5	1,2-Dichloropropane	260 U	1800	260	ug/kg	
142-28-9	1,3-Dichloropropane	450 U	1800	450	ug/kg	
594-20-7	2,2-Dichloropropane	240 U	1800	240	ug/kg	
124-48-1	Dibromochloromethane	400 U	1800	400	ug/kg	
75-71-8	Dichlorodifluoromethane	490 U	1800	490	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	200 U	1800	200	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	200 U	1800	200	ug/kg	
541-73-1	m-Dichlorobenzene	280 U	1800	280	ug/kg	
95-50-1	o-Dichlorobenzene	430 U	1800	430	ug/kg	
106-46-7	p-Dichlorobenzene	380 U	1800	380	ug/kg	

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

Report of Analysis

Client Sample ID:	VB-640		
Lab Sample ID:	TC53875-1	**Date Sampled:**	08/26/14
Matrix:	SO - Sludge	**Date Received:**	08/27/14
Method:	SW846 8260C SW846 5030A	**Percent Solids:**	n/a [a]
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

VOA 8260 List

CAS No.	Compound	Result	MQL	SDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	190 U	1800	190	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	230 U	1800	230	ug/kg	
100-41-4	Ethylbenzene	30500	1800	430	ug/kg	
591-78-6	2-Hexanone	3300 U	18000	3300	ug/kg	
87-68-3	Hexachlorobutadiene	310 U	1800	310	ug/kg	
98-82-8	Isopropylbenzene	12100	1800	500	ug/kg	
99-87-6	p-Isopropyltoluene	3730	1800	580	ug/kg	
108-10-1	4-Methyl-2-pentanone	2800 U	18000	2800	ug/kg	
74-83-9	Methyl bromide	830 U	1800	830	ug/kg	
74-87-3	Methyl chloride	340 U	1800	340	ug/kg	
74-95-3	Methylene bromide	290 U	1800	290	ug/kg	
75-09-2	Methylene chloride	1100 U	4500	1100	ug/kg	
78-93-3	Methyl ethyl ketone	18600	18000	2200	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	230 U	1800	230	ug/kg	
91-20-3	Naphthalene	60600	1800	890	ug/kg	
103-65-1	n-Propylbenzene	12600	1800	460	ug/kg	
100-42-5	Styrene	410 U	1800	410	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	220 U	1800	220	ug/kg	
71-55-6	1,1,1-Trichloroethane	280 U	1800	280	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	300 U	1800	300	ug/kg	
79-00-5	1,1,2-Trichloroethane	300 U	1800	300	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	230 U	1800	230	ug/kg	
96-18-4	1,2,3-Trichloropropane	400 U	1800	400	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	220 U	1800	220	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	73700	1800	180	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	22400	1800	420	ug/kg	
127-18-4	Tetrachloroethylene	450 U	1800	450	ug/kg	
108-88-3	Toluene	66900	1800	450	ug/kg	
79-01-6	Trichloroethylene	210 U	1800	210	ug/kg	
75-69-4	Trichlorofluoromethane	280 U	1800	280	ug/kg	
75-01-4	Vinyl chloride	260 U	1800	260	ug/kg	
1330-20-7	Xylene (total)	156000	5300	1200	ug/kg	
	m,p-Xylene	112000	3600	800	ug/kg	
95-47-6	o-Xylene	44000	1800	450	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%	98%	59-126%
2037-26-5	Toluene-D8	99%	100%	70-139%
460-00-4	4-Bromofluorobenzene	63%	79%	63-138%

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

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

Report of Analysis

Client Sample ID:	VB-640		
Lab Sample ID:	TC53875-1	**Date Sampled:**	08/26/14
Matrix:	SO - Sludge	**Date Received:**	08/27/14
Method:	SW846 8260C SW846 5030A	**Percent Solids:**	n/a [a]
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	72%	74%	54-123%

(a) All results reported on a wet weight basis.
(b) Result is from Run# 2

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

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

Report of Analysis

Client Sample ID:	VB-640		
Lab Sample ID:	TC53875-1	**Date Sampled:**	08/26/14
Matrix:	SO - Sludge	**Date Received:**	08/27/14
Method:	SW846 8270D SW846 3550B	**Percent Solids:**	n/a [a]
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [b]	O11963.D	10	09/02/14	GJ	09/02/14	OP33754	EO663
Run #2	O11965.D	100	09/02/14	GJ	09/02/14	OP33754	EO663

	Initial Weight	Final Volume
Run #1	3.23 g	10.0 ml
Run #2	3.23 g	10.0 ml

ABN Full List

CAS No.	Compound	Result	MQL	SDL	Units	Q
65-85-0	Benzoic acid	250000 U	770000	250000	ug/kg	
95-57-8	2-Chlorophenol	67000 U	150000	67000	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	53000 U	150000	53000	ug/kg	
120-83-2	2,4-Dichlorophenol	57600	150000	50000	ug/kg	J
105-67-9	2,4-Dimethylphenol	3020000 [c]	1500000	530000	ug/kg	
51-28-5	2,4-Dinitrophenol	250000 U	770000	250000	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	37000 U	310000	37000	ug/kg	
95-48-7	2-Methylphenol	3330000 [c]	1500000	670000	ug/kg	
	3&4-Methylphenol	2830000	150000	67000	ug/kg	
88-75-5	2-Nitrophenol	53000 U	150000	53000	ug/kg	
100-02-7	4-Nitrophenol	44000 U	770000	44000	ug/kg	
87-86-5	Pentachlorophenol	120000 U	770000	120000	ug/kg	
108-95-2	Phenol	966000	150000	71000	ug/kg	
95-95-4	2,4,5-Trichlorophenol	48000 U	150000	48000	ug/kg	
88-06-2	2,4,6-Trichlorophenol	144000	150000	41000	ug/kg	J
83-32-9	Acenaphthene	44000 U	150000	44000	ug/kg	
208-96-8	Acenaphthylene	42000 U	150000	42000	ug/kg	
62-53-3	Aniline	63000 U	770000	63000	ug/kg	
120-12-7	Anthracene	39000 U	150000	39000	ug/kg	
92-87-5	Benzidine	3000000 U	6200000	3000000	ug/kg	
56-55-3	Benzo(a)anthracene	61000 U	150000	61000	ug/kg	
50-32-8	Benzo(a)pyrene	48000 U	150000	48000	ug/kg	
205-99-2	Benzo(b)fluoranthene	39000 U	150000	39000	ug/kg	
191-24-2	Benzo(g,h,i)perylene	42000 U	150000	42000	ug/kg	
207-08-9	Benzo(k)fluoranthene	68000 U	150000	68000	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	47000 U	150000	47000	ug/kg	
85-68-7	Butyl benzyl phthalate	50000 U	150000	50000	ug/kg	
100-51-6	Benzyl Alcohol	61000 U	150000	61000	ug/kg	
91-58-7	2-Chloronaphthalene	45000 U	150000	45000	ug/kg	
106-47-8	4-Chloroaniline	58000 U	150000	58000	ug/kg	
86-74-8	Carbazole	50000 U	150000	50000	ug/kg	
218-01-9	Chrysene	66000 U	150000	66000	ug/kg	

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

Report of Analysis

Client Sample ID:	VB-640		
Lab Sample ID:	TC53875-1	**Date Sampled:**	08/26/14
Matrix:	SO - Sludge	**Date Received:**	08/27/14
Method:	SW846 8270D SW846 3550B	**Percent Solids:**	n/a [a]
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

ABN Full List

CAS No.	Compound	Result	MQL	SDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	49000 U	150000	49000	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	68000 U	150000	68000	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	60000 U	150000	60000	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	59000 U	150000	59000	ug/kg	
95-50-1	1,2-Dichlorobenzene	62000 U	150000	62000	ug/kg	
122-66-7	1,2-Diphenylhydrazine	39000 U	150000	39000	ug/kg	
541-73-1	1,3-Dichlorobenzene	55000 U	150000	55000	ug/kg	
106-46-7	1,4-Dichlorobenzene	58000 U	150000	58000	ug/kg	
121-14-2	2,4-Dinitrotoluene	49000 U	150000	49000	ug/kg	
606-20-2	2,6-Dinitrotoluene	43000 U	150000	43000	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	59000 U	310000	59000	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	54000 U	150000	54000	ug/kg	
132-64-9	Dibenzofuran	51000 U	150000	51000	ug/kg	
84-74-2	Di-n-butyl phthalate	49000 U	150000	49000	ug/kg	
117-84-0	Di-n-octyl phthalate	41000 U	150000	41000	ug/kg	
84-66-2	Diethyl phthalate	45000 U	150000	45000	ug/kg	
131-11-3	Dimethyl phthalate	44000 U	150000	44000	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	120000 U	150000	120000	ug/kg	
206-44-0	Fluoranthene	51000 U	150000	51000	ug/kg	
86-73-7	Fluorene	46000 U	150000	46000	ug/kg	
118-74-1	Hexachlorobenzene	50000 U	150000	50000	ug/kg	
87-68-3	Hexachlorobutadiene	57000 U	150000	57000	ug/kg	
77-47-4	Hexachlorocyclopentadiene	74000 U	770000	74000	ug/kg	
67-72-1	Hexachloroethane	57000 U	150000	57000	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	56000 U	150000	56000	ug/kg	
78-59-1	Isophorone	48000 U	150000	48000	ug/kg	
90-12-0	1-Methylnaphthalene	109000	150000	59000	ug/kg	J
91-57-6	2-Methylnaphthalene	164000	150000	59000	ug/kg	
88-74-4	2-Nitroaniline	49000 U	150000	49000	ug/kg	
99-09-2	3-Nitroaniline	46000 U	150000	46000	ug/kg	
100-01-6	4-Nitroaniline	51000 U	310000	51000	ug/kg	
91-20-3	Naphthalene	180000	150000	56000	ug/kg	
98-95-3	Nitrobenzene	45000 U	150000	45000	ug/kg	
62-75-9	n-Nitrosodimethylamine	48000 U	150000	48000	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	63000 U	150000	63000	ug/kg	
86-30-6	N-Nitrosodiphenylamine	44000 U	150000	44000	ug/kg	
85-01-8	Phenanthrene	44000 U	150000	44000	ug/kg	
129-00-0	Pyrene	69000 U	150000	69000	ug/kg	
110-86-1	Pyridine	41000 U	150000	41000	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	55000 U	150000	55000	ug/kg	

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

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

Report of Analysis

Client Sample ID:	VB-640		
Lab Sample ID:	TC53875-1	**Date Sampled:**	08/26/14
Matrix:	SO - Sludge	**Date Received:**	08/27/14
Method:	SW846 8270D SW846 3550B	**Percent Solids:**	n/a [a]
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	0% [d]	0% [d]	26-124%
4165-62-2	Phenol-d5	0% [d]	0% [d]	19-106%
118-79-6	2,4,6-Tribromophenol	0% [d]	0% [d]	18-129%
4165-60-0	Nitrobenzene-d5	0% [d]	0% [d]	18-104%
321-60-8	2-Fluorobiphenyl	73%	0% [d]	21-114%
1718-51-0	Terphenyl-d14	102%	0% [d]	24-149%

(a) All results reported on a wet weight basis.
(b) Elevated reporting limits due to matrix interference; final volume 10 ml. Dilution required due to high concentration of non-target compounds.
(c) Result is from Run# 2
(d) Outside control limits due to dilution.

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

Report of Analysis

Client Sample ID:	VB-640		
Lab Sample ID:	TC53875-1	**Date Sampled:**	08/26/14
Matrix:	SO - Sludge	**Date Received:**	08/27/14
Method:	SW846 8151 SW846 3550B	**Percent Solids:**	n/a [a]
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	DD773072.D	25	09/08/14	FO	09/03/14	OP33773	GDD2393
Run #2							

	Initial Weight	Final Volume
Run #1	3.42 g	10.0 ml
Run #2		

Herbicide List

CAS No.	Compound	Result	MQL	SDL	Units	Q
94-75-7	2,4-D	3500 U	7300	3500	ug/kg	
93-72-1	2,4,5-TP (Silvex)	760 U	1500	760	ug/kg	
93-76-5	2,4,5-T	500 U	1500	500	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	44144% [b]		30-154%

(a) All results reported on a wet weight basis.
(b) Outside control limits biased high due to matrix interference. Analyte not detected in associated sample.

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

Report of Analysis

Client Sample ID:	VB-640		
Lab Sample ID:	TC53875-1	**Date Sampled:**	08/26/14
Matrix:	SO - Sludge	**Date Received:**	08/27/14
Method:	SW846 8081A SW846 3550B	**Percent Solids:**	n/a [a]
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [b]	NN176270.D	50	09/04/14	SC	08/29/14	OP33730	GNN1475
Run #2							

	Initial Weight	Final Volume
Run #1	3.20 g	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	MQL	SDL	Units	Q
309-00-2	Aldrin	270 U	780	270	ug/kg	
319-84-6	alpha-BHC	340 U	780	340	ug/kg	
319-85-7	beta-BHC	230 U	780	230	ug/kg	
319-86-8	delta-BHC	290 U	780	290	ug/kg	
58-89-9	gamma-BHC (Lindane)	290 U	780	290	ug/kg	
5103-71-9	alpha-Chlordane	170 U	780	170	ug/kg	
5103-74-2	gamma-Chlordane	180 U	780	180	ug/kg	
60-57-1	Dieldrin	610 U	1600	610	ug/kg	
72-54-8	4,4'-DDD	550 U	1600	550	ug/kg	
72-55-9	4,4'-DDE	590 U	1600	590	ug/kg	
50-29-3	4,4'-DDT	660 U	1600	660	ug/kg	
72-20-8	Endrin	590 U	1600	590	ug/kg	
1031-07-8	Endosulfan sulfate	670 U	1600	670	ug/kg	
7421-93-4	Endrin aldehyde	660 U	1600	660	ug/kg	
53494-70-5	Endrin ketone	610 U	1600	610	ug/kg	
959-98-8	Endosulfan-I	340 U	1600	340	ug/kg	
33213-65-9	Endosulfan-II	630 U	1600	630	ug/kg	
76-44-8	Heptachlor	230 U	780	230	ug/kg	
1024-57-3	Heptachlor epoxide	330 U	780	330	ug/kg	
72-43-5	Methoxychlor	3100 U	7800	3100	ug/kg	
8001-35-2	Toxaphene	3900 U	7800	3900	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	0% [c]		27-125%
2051-24-3	Decachlorobiphenyl	0% [c]		21-130%

(a) All results reported on a wet weight basis.
(b) Dilution due to matrix interference.
(c) Outside control limits due to dilution.

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

Report of Analysis

Client Sample ID:	VB-640		
Lab Sample ID:	TC53875-1	**Date Sampled:**	08/26/14
Matrix:	SO - Sludge	**Date Received:**	08/27/14
Method:	SW846 8082 SW846 3550B	**Percent Solids:**	n/a [a]
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [b]	MM071414.D	25	09/03/14	SC	08/29/14	OP33729	GMM472
Run #2							

	Initial Weight	Final Volume
Run #1	3.20 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	MQL	SDL	Units	Q
12674-11-2	Aroclor 1016	780 U	3900	780	ug/kg	
11104-28-2	Aroclor 1221	1600 U	3900	1600	ug/kg	
11141-16-5	Aroclor 1232	1600 U	3900	1600	ug/kg	
53469-21-9	Aroclor 1242	800 U	3900	800	ug/kg	
12672-29-6	Aroclor 1248	930 U	3900	930	ug/kg	
11097-69-1	Aroclor 1254	910 U	3900	910	ug/kg	
11096-82-5	Aroclor 1260	2000 U	3900	2000	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	0% [c]		30-118%
2051-24-3	Decachlorobiphenyl	0% [c]		29-122%

(a) All results reported on a wet weight basis.
(b) Elevated reporting limits due to high levels of non-target analytes.
(c) Outside control limits due to dilution.

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

Report of Analysis

Client Sample ID:	VB-640		
Lab Sample ID:	TC53875-1	**Date Sampled:**	08/26/14
Matrix:	SO - Sludge	**Date Received:**	08/27/14
Method:	TNRCC 1005 TX1005	**Percent Solids:**	n/a [a]
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JF59109.D	50	08/29/14	ZL	08/29/14	OP33718	GJF944
Run #2							

	Initial Weight	Final Volume
Run #1	10.1 g	10.0 ml
Run #2		

CAS No.	Compound	Result	MQL	SDL	Units	Q
	TPH (C6-C12)	24800	1200	670	mg/kg	
	TPH (> C12-C28)	62500	1200	680	mg/kg	
	TPH (> C28-C35)	1410	1200	680	mg/kg	
	TPH (C6-C35)	88800	1200	670	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% [b]		70-130%
98-08-8	aaa-Trifluorotoluene	0% [b]		70-130%

(a) All results reported on a wet weight basis.
(b) Outside control limits due to dilution.

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

Report of Analysis

Client Sample ID:	VB-640		
Lab Sample ID:	TC53875-1	**Date Sampled:**	08/26/14
Matrix:	SO - Sludge	**Date Received:**	08/27/14
		Percent Solids:	n/a [a]
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

Metals Analysis

Analyte	Result	MQL	SDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	195	10	1.2	mg/kg	1	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Antimony [b]	0.54 J	1.3	0.46	mg/kg	5	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Arsenic [b]	6.5	1.3	0.44	mg/kg	5	08/29/14	09/03/14	NS	SW846 6010B [3]	SW846 3050B [4]
Barium	26.1	10	0.013	mg/kg	1	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Beryllium	0.035 U	0.20	0.035	mg/kg	1	08/29/14	09/03/14	NS	SW846 6010B [3]	SW846 3050B [4]
Cadmium [b]	0.14 J	1.0	0.064	mg/kg	5	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Calcium	1040	260	0.40	mg/kg	1	08/29/14	09/03/14	NS	SW846 6010B [3]	SW846 3050B [4]
Chromium	47.6	0.51	0.072	mg/kg	1	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Cobalt	44.9	2.6	0.020	mg/kg	1	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Copper	74.9	1.0	0.11	mg/kg	1	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Iron [b]	31800	26	3.7	mg/kg	5	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Lead [b]	83.2	0.77	0.57	mg/kg	5	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Magnesium	171 J	260	1.4	mg/kg	1	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Manganese	161	0.77	0.020	mg/kg	1	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Mercury	0.98	0.062	0.025	mg/kg	2	09/03/14	09/03/14	CC	SW846 7471A [2]	SW846 7471A [5]
Nickel	157	2.0	0.038	mg/kg	1	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Potassium	250 J	260	2.2	mg/kg	1	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Selenium [b]	0.60 J	1.3	0.48	mg/kg	5	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Silver [b]	0.67 J	2.6	0.18	mg/kg	5	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Sodium	6050	260	0.78	mg/kg	1	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Thallium [b]	0.60 U	2.6	0.60	mg/kg	5	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Vanadium	3.7	2.6	0.021	mg/kg	1	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Zinc [b]	135	5.1	1.4	mg/kg	5	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]

(1) Instrument QC Batch: MA10092
(2) Instrument QC Batch: MA10101
(3) Instrument QC Batch: MA10104
(4) Prep QC Batch: MP24110
(5) Prep QC Batch: MP24134

(a) All results reported on a wet weight basis.
(b) Elevated reporting limit due to dilution required for high interfering element.

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:	VB-640		
Lab Sample ID:	TC53875-1	**Date Sampled:**	08/26/14
Matrix:	SO - Sludge	**Date Received:**	08/27/14
		Percent Solids:	n/a [a]
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

General Chemistry

Analyte	Result	MQL	SDL	Units	DF	Analyzed	By	Method
Cyanide	0.79 U	1.4	0.79	mg/kg	1	09/03/14 18:08	CV	SW846 9012 M
Heat Content, BTU [b]	7820	100		BTU/lb	1	09/05/14	ANJ	ASTM D240-92
Ignitability (Flashpoint)	> 200			Deg. F	1	08/28/14	DP	SW846 CHAP7
Sulfide, Neutral Extraction [b]	223	3.9	3.7	mg/kg	1	09/02/14	ANJ	EPA 376.1M/9034 M
pH [c]	7.41			su	1	08/28/14 19:00	PA	SW846 9045C

(a) All results reported on a wet weight basis.
(b) Analysis performed at Accutest Laboratories, Dayton, NJ.
(c) temp. 21.5 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:	VB-640		
Lab Sample ID:	TC53875-1A	**Date Sampled:**	08/26/14
Matrix:	SO - Sludge	**Date Received:**	08/27/14
Method:	SW846 8260C SW846 1311	**Percent Solids:**	n/a [a]
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	E0035026.D	10	09/04/14	CF	09/03/14	OP33782	VE1582
Run #2	E0035069.D	50	09/05/14	CF	09/03/14	OP33782	VE1585

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

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

CAS No.	Compound	Result	HW#	MCL	MQL	SDL	Units	Q
71-43-2	Benzene	0.275	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	2.71 [b]	D022	6.0	0.050	0.017	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	1.24	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%	93%	72-122%
17060-07-0	1,2-Dichloroethane-D4	86%	72%	68-124%
2037-26-5	Toluene-D8	92%	92%	80-119%
460-00-4	4-Bromofluorobenzene	94%	98%	72-126%

(a) All results reported on a wet weight basis.
(b) 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:	VB-640		
Lab Sample ID:	TC53875-1A	**Date Sampled:**	08/26/14
Matrix:	SO - Sludge	**Date Received:**	08/27/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a [a]
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [b]	P35357.D	20	09/04/14	SC	09/03/14	OP33774	EP1703
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	3.0 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	57.4	D023	200	3.0	0.58	mg/l	
	3&4-Methylphenol	24.9	D024	200	3.0	0.65	mg/l	
87-86-5	Pentachlorophenol	6.0 U	D037	100	15	6.0	mg/l	
95-95-4	2,4,5-Trichlorophenol	0.59 U	D041	400	3.0	0.59	mg/l	
88-06-2	2,4,6-Trichlorophenol	0.67 U	D042	2.0	3.0	0.67	mg/l	
106-46-7	1,4-Dichlorobenzene	0.65 U	D027	7.5	3.0	0.65	mg/l	
121-14-2	2,4-Dinitrotoluene	0.75 U	D030	0.13	3.0	0.75	mg/l	
118-74-1	Hexachlorobenzene	0.93 U	D032	0.13	3.0	0.93	mg/l	
87-68-3	Hexachlorobutadiene	0.73 U	D033	0.50	3.0	0.73	mg/l	
67-72-1	Hexachloroethane	0.75 U	D034	3.0	3.0	0.75	mg/l	
98-95-3	Nitrobenzene	0.69 U	D036	2.0	3.0	0.69	mg/l	
110-86-1	Pyridine	0.76 U	D038	5.0	3.0	0.76	mg/l	

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

(a) All results reported on a wet weight basis.
(b) Elevated reporting limits due to matrix interference, final volume 3 ml. Dilution require due to high concentration of non-target compounds.
(c) 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-640		
Lab Sample ID:	TC53875-1A	**Date Sampled:**	08/26/14
Matrix:	SO - Sludge	**Date Received:**	08/27/14
Method:	SW846 8151 SW846 3510C	**Percent Solids:**	n/a [a]
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	DD773055.D	10	09/07/14	FO	09/05/14	OP33819	GDD2393
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	0.014 U	D016	10	0.10	0.014	mg/l	
93-72-1	2,4,5-TP (Silvex)	0.0040 U	D017	1.0	0.020	0.0040	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	24212% [b]		40-168%

(a) All results reported on a wet weight basis.
(b) 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-640		
Lab Sample ID:	TC53875-1A	**Date Sampled:**	08/26/14
Matrix:	SO - Sludge	**Date Received:**	08/27/14
Method:	SW846 8081A SW846 3510C	**Percent Solids:**	n/a [a]
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [b]	NN176460.D	50	09/08/14	SC	09/05/14	OP33817	GNN1479
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)	0.0086 U	D013	0.40	0.025	0.0086	mg/l	
12789-03-6	Chlordane	0.073 U	D020	0.030	0.25	0.073	mg/l	
72-20-8	Endrin	0.0089 U	D012	0.020	0.050	0.0089	mg/l	
76-44-8	Heptachlor	0.0042 U	D031	0.0080	0.025	0.0042	mg/l	
1024-57-3	Heptachlor epoxide	0.0057 U	D031	0.0080	0.025	0.0057	mg/l	
72-43-5	Methoxychlor	0.064 U	D014	10	0.25	0.064	mg/l	
8001-35-2	Toxaphene	0.062 U	D015	0.50	0.25	0.062	mg/l	

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

(a) All results reported on a wet weight basis.
(b) Elevated reporting limits due to high levels of non-target analytes.
(c) 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-640		
Lab Sample ID:	TC53875-1A	**Date Sampled:**	08/26/14
Matrix:	SO - Sludge	**Date Received:**	08/27/14
		Percent Solids:	n/a [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	0.045 J	D004	5.0	0.050	0.0050	mg/l	5	09/04/14	09/05/14	NS	SW846 6010B [2]
Barium	0.053 J	D005	100	5.0	0.017	mg/l	5	09/04/14	09/05/14	NS	SW846 6010B [2]
Cadmium	0.00070 J	D006	1.0	0.020	0.00045	mg/l	5	09/04/14	09/05/14	NS	SW846 6010B [2]
Chromium	0.14	D007	5.0	0.050	0.0014	mg/l	5	09/04/14	09/05/14	NS	SW846 6010B [2]
Lead	0.0090 J	D008	5.0	0.025	0.0089	mg/l	5	09/04/14	09/05/14	NS	SW846 6010B [2]
Mercury	0.000050 U	D009	0.20	0.00020	0.000050	mg/l	1	09/05/14	09/05/14	CC	SW846 7470A [1]
Selenium	0.0069 J	D010	1.0	0.25	0.0049	mg/l	5	09/04/14	09/05/14	NS	SW846 6010B [2]
Silver	0.0013 J	D011	5.0	0.050	0.0012	mg/l	5	09/04/14	09/05/14	NS	SW846 6010B [2]

(1) Instrument QC Batch: MA10113
(2) Instrument QC Batch: MA10114
(3) Prep QC Batch: MP24141
(4) Prep QC Batch: MP24146

(a) All results reported on a wet weight basis.

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-25141		
Lab Sample ID:	TC53875-2	**Date Sampled:**	08/26/14
Matrix:	SO - Sludge	**Date Received:**	08/27/14
Method:	SW846 8260C SW846 5030A	**Percent Solids:**	n/a [a]
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y1070602.D	10	09/04/14	KS	08/29/14 09:57	n/a	VY3741
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.35 g	5.0 ml	100 ul
Run #2			

VOA 8260 List

CAS No.	Compound	Result	MQL	SDL	Units	Q
67-64-1	Acetone	52800	19000	4700	ug/kg	
71-43-2	Benzene	9000	1900	320	ug/kg	
108-86-1	Bromobenzene	190 U	1900	190	ug/kg	
74-97-5	Bromochloromethane	510 U	1900	510	ug/kg	
75-27-4	Bromodichloromethane	210 U	1900	210	ug/kg	
75-25-2	Bromoform	350 U	1900	350	ug/kg	
104-51-8	n-Butylbenzene	210 U	1900	210	ug/kg	
135-98-8	sec-Butylbenzene	1870	1900	410	ug/kg	J
98-06-6	tert-Butylbenzene	360 U	1900	360	ug/kg	
108-90-7	Chlorobenzene	440 U	1900	440	ug/kg	
75-00-3	Chloroethane	730 U	1900	730	ug/kg	
67-66-3	Chloroform	6610	1900	200	ug/kg	
95-49-8	o-Chlorotoluene	220 U	1900	220	ug/kg	
106-43-4	p-Chlorotoluene	190 U	1900	190	ug/kg	
75-15-0	Carbon disulfide	51600	1900	270	ug/kg	
56-23-5	Carbon tetrachloride	400 U	1900	400	ug/kg	
75-34-3	1,1-Dichloroethane	190 U	1900	190	ug/kg	
75-35-4	1,1-Dichloroethylene	190 U	1900	190	ug/kg	
563-58-6	1,1-Dichloropropene	210 U	1900	210	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	1500 U	1900	1500	ug/kg	
106-93-4	1,2-Dibromoethane	200 U	1900	200	ug/kg	
107-06-2	1,2-Dichloroethane	220 U	1900	220	ug/kg	
78-87-5	1,2-Dichloropropane	270 U	1900	270	ug/kg	
142-28-9	1,3-Dichloropropane	480 U	1900	480	ug/kg	
594-20-7	2,2-Dichloropropane	250 U	1900	250	ug/kg	
124-48-1	Dibromochloromethane	420 U	1900	420	ug/kg	
75-71-8	Dichlorodifluoromethane	520 U	1900	520	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	210 U	1900	210	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	210 U	1900	210	ug/kg	
541-73-1	m-Dichlorobenzene	290 U	1900	290	ug/kg	
95-50-1	o-Dichlorobenzene	450 U	1900	450	ug/kg	
106-46-7	p-Dichlorobenzene	400 U	1900	400	ug/kg	

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

Report of Analysis

Client Sample ID:	VB-25141		
Lab Sample ID:	TC53875-2	**Date Sampled:**	08/26/14
Matrix:	SO - Sludge	**Date Received:**	08/27/14
Method:	SW846 8260C SW846 5030A	**Percent Solids:**	n/a [a]
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

VOA 8260 List

CAS No.	Compound	Result	MQL	SDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	200 U	1900	200	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	240 U	1900	240	ug/kg	
100-41-4	Ethylbenzene	19900	1900	450	ug/kg	
591-78-6	2-Hexanone	3500 U	19000	3500	ug/kg	
87-68-3	Hexachlorobutadiene	320 U	1900	320	ug/kg	
98-82-8	Isopropylbenzene	8480	1900	520	ug/kg	
99-87-6	p-Isopropyltoluene	2890	1900	610	ug/kg	
108-10-1	4-Methyl-2-pentanone	2900 U	19000	2900	ug/kg	
74-83-9	Methyl bromide	870 U	1900	870	ug/kg	
74-87-3	Methyl chloride	360 U	1900	360	ug/kg	
74-95-3	Methylene bromide	300 U	1900	300	ug/kg	
75-09-2	Methylene chloride	1200 U	4700	1200	ug/kg	
78-93-3	Methyl ethyl ketone	21900	19000	2300	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	240 U	1900	240	ug/kg	
91-20-3	Naphthalene	31900	1900	930	ug/kg	
103-65-1	n-Propylbenzene	8130	1900	490	ug/kg	
100-42-5	Styrene	430 U	1900	430	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	240 U	1900	240	ug/kg	
71-55-6	1,1,1-Trichloroethane	290 U	1900	290	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	320 U	1900	320	ug/kg	
79-00-5	1,1,2-Trichloroethane	310 U	1900	310	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	240 U	1900	240	ug/kg	
96-18-4	1,2,3-Trichloropropane	420 U	1900	420	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	230 U	1900	230	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	43500	1900	190	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	13400	1900	440	ug/kg	
127-18-4	Tetrachloroethylene	470 U	1900	470	ug/kg	
108-88-3	Toluene	41500	1900	480	ug/kg	
79-01-6	Trichloroethylene	220 U	1900	220	ug/kg	
75-69-4	Trichlorofluoromethane	290 U	1900	290	ug/kg	
75-01-4	Vinyl chloride	270 U	1900	270	ug/kg	
1330-20-7	Xylene (total)	101000	5600	1300	ug/kg	
	m,p-Xylene	72500	3700	840	ug/kg	
95-47-6	o-Xylene	28900	1900	470	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		59-126%
2037-26-5	Toluene-D8	98%		70-139%
460-00-4	4-Bromofluorobenzene	72%		63-138%

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

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

Report of Analysis

Client Sample ID:	VB-25141		
Lab Sample ID:	TC53875-2	**Date Sampled:**	08/26/14
Matrix:	SO - Sludge	**Date Received:**	08/27/14
Method:	SW846 8260C SW846 5030A	**Percent Solids:**	n/a [a]
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	74%		54-123%

(a) All results reported on a wet weight basis.

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

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

Report of Analysis

Client Sample ID:	VB-25141		
Lab Sample ID:	TC53875-2	**Date Sampled:**	08/26/14
Matrix:	SO - Sludge	**Date Received:**	08/27/14
Method:	SW846 8270D SW846 3550B	**Percent Solids:**	n/a [a]
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [b]	O11964.D	10	09/02/14	GJ	09/02/14	OP33754	EO663
Run #2	O11966.D	100	09/02/14	GJ	09/02/14	OP33754	EO663

	Initial Weight	Final Volume
Run #1	3.17 g	5.0 ml
Run #2	3.17 g	5.0 ml

ABN Full List

CAS No.	Compound	Result	MQL	SDL	Units	Q
65-85-0	Benzoic acid	130000 U	390000	130000	ug/kg	
95-57-8	2-Chlorophenol	42400	79000	34000	ug/kg	J
59-50-7	4-Chloro-3-methyl phenol	27000 U	79000	27000	ug/kg	
120-83-2	2,4-Dichlorophenol	26500	79000	25000	ug/kg	J
105-67-9	2,4-Dimethylphenol	2830000 [c]	790000	270000	ug/kg	
51-28-5	2,4-Dinitrophenol	130000 U	390000	130000	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	19000 U	160000	19000	ug/kg	
95-48-7	2-Methylphenol	4290000 [c]	790000	340000	ug/kg	
	3&4-Methylphenol	3430000 [c]	790000	340000	ug/kg	
88-75-5	2-Nitrophenol	27000 U	79000	27000	ug/kg	
100-02-7	4-Nitrophenol	22000 U	390000	22000	ug/kg	
87-86-5	Pentachlorophenol	59000 U	390000	59000	ug/kg	
108-95-2	Phenol	1680000 [c]	790000	360000	ug/kg	
95-95-4	2,4,5-Trichlorophenol	25000 U	79000	25000	ug/kg	
88-06-2	2,4,6-Trichlorophenol	51200	79000	21000	ug/kg	J
83-32-9	Acenaphthene	23000 U	79000	23000	ug/kg	
208-96-8	Acenaphthylene	21000 U	79000	21000	ug/kg	
62-53-3	Aniline	32000 U	390000	32000	ug/kg	
120-12-7	Anthracene	20000 U	79000	20000	ug/kg	
92-87-5	Benzidine	1500000 U	3200000	1500000	ug/kg	
56-55-3	Benzo(a)anthracene	31000 U	79000	31000	ug/kg	
50-32-8	Benzo(a)pyrene	25000 U	79000	25000	ug/kg	
205-99-2	Benzo(b)fluoranthene	20000 U	79000	20000	ug/kg	
191-24-2	Benzo(g,h,i)perylene	21000 U	79000	21000	ug/kg	
207-08-9	Benzo(k)fluoranthene	35000 U	79000	35000	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	24000 U	79000	24000	ug/kg	
85-68-7	Butyl benzyl phthalate	26000 U	79000	26000	ug/kg	
100-51-6	Benzyl Alcohol	31000 U	79000	31000	ug/kg	
91-58-7	2-Chloronaphthalene	23000 U	79000	23000	ug/kg	
106-47-8	4-Chloroaniline	29000 U	79000	29000	ug/kg	
86-74-8	Carbazole	25000 U	79000	25000	ug/kg	
218-01-9	Chrysene	34000 U	79000	34000	ug/kg	

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

Report of Analysis

Client Sample ID:	VB-25141		
Lab Sample ID:	TC53875-2	**Date Sampled:**	08/26/14
Matrix:	SO - Sludge	**Date Received:**	08/27/14
Method:	SW846 8270D SW846 3550B	**Percent Solids:**	n/a [a]
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

ABN Full List

CAS No.	Compound	Result	MQL	SDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	25000 U	79000	25000	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	35000 U	79000	35000	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	30000 U	79000	30000	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	30000 U	79000	30000	ug/kg	
95-50-1	1,2-Dichlorobenzene	32000 U	79000	32000	ug/kg	
122-66-7	1,2-Diphenylhydrazine	20000 U	79000	20000	ug/kg	
541-73-1	1,3-Dichlorobenzene	28000 U	79000	28000	ug/kg	
106-46-7	1,4-Dichlorobenzene	30000 U	79000	30000	ug/kg	
121-14-2	2,4-Dinitrotoluene	25000 U	79000	25000	ug/kg	
606-20-2	2,6-Dinitrotoluene	22000 U	79000	22000	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	30000 U	160000	30000	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	28000 U	79000	28000	ug/kg	
132-64-9	Dibenzofuran	26000 U	79000	26000	ug/kg	
84-74-2	Di-n-butyl phthalate	25000 U	79000	25000	ug/kg	
117-84-0	Di-n-octyl phthalate	21000 U	79000	21000	ug/kg	
84-66-2	Diethyl phthalate	23000 U	79000	23000	ug/kg	
131-11-3	Dimethyl phthalate	23000 U	79000	23000	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	63000 U	79000	63000	ug/kg	
206-44-0	Fluoranthene	26000 U	79000	26000	ug/kg	
86-73-7	Fluorene	24000 U	79000	24000	ug/kg	
118-74-1	Hexachlorobenzene	26000 U	79000	26000	ug/kg	
87-68-3	Hexachlorobutadiene	29000 U	79000	29000	ug/kg	
77-47-4	Hexachlorocyclopentadiene	38000 U	390000	38000	ug/kg	
67-72-1	Hexachloroethane	29000 U	79000	29000	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	29000 U	79000	29000	ug/kg	
78-59-1	Isophorone	24000 U	79000	24000	ug/kg	
90-12-0	1-Methylnaphthalene	37300	79000	30000	ug/kg	J
91-57-6	2-Methylnaphthalene	53900	79000	30000	ug/kg	J
88-74-4	2-Nitroaniline	25000 U	79000	25000	ug/kg	
99-09-2	3-Nitroaniline	23000 U	79000	23000	ug/kg	
100-01-6	4-Nitroaniline	26000 U	160000	26000	ug/kg	
91-20-3	Naphthalene	56300	79000	29000	ug/kg	J
98-95-3	Nitrobenzene	23000 U	79000	23000	ug/kg	
62-75-9	n-Nitrosodimethylamine	25000 U	79000	25000	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	32000 U	79000	32000	ug/kg	
86-30-6	N-Nitrosodiphenylamine	22000 U	79000	22000	ug/kg	
85-01-8	Phenanthrene	22000 U	79000	22000	ug/kg	
129-00-0	Pyrene	35000 U	79000	35000	ug/kg	
110-86-1	Pyridine	21000 U	79000	21000	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	28000 U	79000	28000	ug/kg	

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

Report of Analysis

Client Sample ID:	VB-25141		
Lab Sample ID:	TC53875-2	**Date Sampled:**	08/26/14
Matrix:	SO - Sludge	**Date Received:**	08/27/14
Method:	SW846 8270D SW846 3550B	**Percent Solids:**	n/a [a]
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	0% [d]	0% [d]	26-124%
4165-62-2	Phenol-d5	44%	0% [d]	19-106%
118-79-6	2,4,6-Tribromophenol	0% [d]	0% [d]	18-129%
4165-60-0	Nitrobenzene-d5	93%	0% [d]	18-104%
321-60-8	2-Fluorobiphenyl	57%	0% [d]	21-114%
1718-51-0	Terphenyl-d14	70%	0% [d]	24-149%

(a) All results reported on a wet weight basis.
(b) Elevated reporting limits due to matrix interference; final volume 5 ml. Dilution required due to high concentration of non-target compounds.
(c) Result is from Run# 2
(d) Outside control limits due to dilution.

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

Report of Analysis

Client Sample ID:	VB-25141		
Lab Sample ID:	TC53875-2	**Date Sampled:**	08/26/14
Matrix:	SO - Sludge	**Date Received:**	08/27/14
Method:	SW846 8151 SW846 3550B	**Percent Solids:**	n/a [a]
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	DD773074.D	25	09/08/14	FO	09/03/14	OP33773	GDD2393
Run #2							

	Initial Weight	Final Volume
Run #1	3.37 g	10.0 ml
Run #2		

Herbicide List

CAS No.	Compound	Result	MQL	SDL	Units	Q
94-75-7	2,4-D	3500 U	7400	3500	ug/kg	
93-72-1	2,4,5-TP (Silvex)	770 U	1500	770	ug/kg	
93-76-5	2,4,5-T	500 U	1500	500	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	22271% [b]		30-154%

(a) All results reported on a wet weight basis.
(b) Outside control limits biased high due to matrix interference. Analyte not detected in associated sample.

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

Report of Analysis

Client Sample ID:	VB-25141		
Lab Sample ID:	TC53875-2	**Date Sampled:**	08/26/14
Matrix:	SO - Sludge	**Date Received:**	08/27/14
Method:	SW846 8081A SW846 3550B	**Percent Solids:**	n/a [a]
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [b]	NN176275.D	50	09/04/14	SC	08/29/14	OP33730	GNN1475
Run #2							

	Initial Weight	Final Volume
Run #1	3.15 g	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	MQL	SDL	Units	Q
309-00-2	Aldrin	270 U	790	270	ug/kg	
319-84-6	alpha-BHC	340 U	790	340	ug/kg	
319-85-7	beta-BHC	240 U	790	240	ug/kg	
319-86-8	delta-BHC	300 U	790	300	ug/kg	
58-89-9	gamma-BHC (Lindane)	290 U	790	290	ug/kg	
5103-71-9	alpha-Chlordane	170 U	790	170	ug/kg	
5103-74-2	gamma-Chlordane	180 U	790	180	ug/kg	
60-57-1	Dieldrin	620 U	1600	620	ug/kg	
72-54-8	4,4'-DDD	560 U	1600	560	ug/kg	
72-55-9	4,4'-DDE	600 U	1600	600	ug/kg	
50-29-3	4,4'-DDT	670 U	1600	670	ug/kg	
72-20-8	Endrin	600 U	1600	600	ug/kg	
1031-07-8	Endosulfan sulfate	680 U	1600	680	ug/kg	
7421-93-4	Endrin aldehyde	670 U	1600	670	ug/kg	
53494-70-5	Endrin ketone	620 U	1600	620	ug/kg	
959-98-8	Endosulfan-I	350 U	1600	350	ug/kg	
33213-65-9	Endosulfan-II	640 U	1600	640	ug/kg	
76-44-8	Heptachlor	230 U	790	230	ug/kg	
1024-57-3	Heptachlor epoxide	330 U	790	330	ug/kg	
72-43-5	Methoxychlor	3200 U	7900	3200	ug/kg	
8001-35-2	Toxaphene	4000 U	7900	4000	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	0% [c]		27-125%
2051-24-3	Decachlorobiphenyl	0% [c]		21-130%

(a) All results reported on a wet weight basis.
(b) Dilution due to matrix interference.
(c) Outside control limits due to dilution.

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

Report of Analysis

Client Sample ID:	VB-25141		
Lab Sample ID:	TC53875-2	**Date Sampled:**	08/26/14
Matrix:	SO - Sludge	**Date Received:**	08/27/14
Method:	SW846 8082 SW846 3550B	**Percent Solids:**	n/a [a]
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [b]	MM071417.D	25	09/03/14	SC	08/29/14	OP33729	GMM472
Run #2							

	Initial Weight	Final Volume
Run #1	3.15 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	MQL	SDL	Units	Q
12674-11-2	Aroclor 1016	790 U	4000	790	ug/kg	
11104-28-2	Aroclor 1221	1600 U	4000	1600	ug/kg	
11141-16-5	Aroclor 1232	1600 U	4000	1600	ug/kg	
53469-21-9	Aroclor 1242	820 U	4000	820	ug/kg	
12672-29-6	Aroclor 1248	940 U	4000	940	ug/kg	
11097-69-1	Aroclor 1254	920 U	4000	920	ug/kg	
11096-82-5	Aroclor 1260	2000 U	4000	2000	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	0% [c]		30-118%
2051-24-3	Decachlorobiphenyl	0% [c]		29-122%

(a) All results reported on a wet weight basis.
(b) Elevated reporting limits due to high levels of non-target analytes.
(c) Outside control limits due to dilution.

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

Report of Analysis

Client Sample ID:	VB-25141		
Lab Sample ID:	TC53875-2	**Date Sampled:**	08/26/14
Matrix:	SO - Sludge	**Date Received:**	08/27/14
Method:	TNRCC 1005 TX1005	**Percent Solids:**	n/a [a]
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LF104320.D	50	09/04/14	ZL	09/03/14	OP33778	GLF1542
Run #2							

	Initial Weight	Final Volume
Run #1	10.2 g	10.0 ml
Run #2		

CAS No.	Compound	Result	MQL	SDL	Units	Q
	TPH (C6-C12)	26900	1200	670	mg/kg	
	TPH (> C12-C28)	56100	1200	670	mg/kg	
	TPH (> C28-C35)	10600	1200	670	mg/kg	
	TPH (C6-C35)	93600	1200	670	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% [b]		70-130%
98-08-8	aaa-Trifluorotoluene	0% [b]		70-130%

(a) All results reported on a wet weight basis.
(b) Outside control limits due to dilution.

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

Report of Analysis

Client Sample ID:	VB-25141		
Lab Sample ID:	TC53875-2	**Date Sampled:**	08/26/14
Matrix:	SO - Sludge	**Date Received:**	08/27/14
		Percent Solids:	n/a [a]
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

Metals Analysis

Analyte	Result	MQL	SDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	181	10	1.2	mg/kg	1	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Antimony	0.59	0.25	0.090	mg/kg	1	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Arsenic	5.0	0.25	0.087	mg/kg	1	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Barium	79.4	10	0.013	mg/kg	1	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Beryllium	0.034 U	0.20	0.034	mg/kg	1	08/29/14	09/03/14	NS	SW846 6010B [3]	SW846 3050B [4]
Cadmium	0.037 J	0.20	0.013	mg/kg	1	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Calcium	1100	250	0.39	mg/kg	1	08/29/14	09/03/14	NS	SW846 6010B [3]	SW846 3050B [4]
Chromium	17.4	0.50	0.070	mg/kg	1	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Cobalt	27.3	2.5	0.020	mg/kg	1	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Copper	64.7	1.0	0.11	mg/kg	1	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Iron	22400	5.0	0.72	mg/kg	1	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Lead	63.7	0.15	0.11	mg/kg	1	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Magnesium	14.8 J	250	1.4	mg/kg	1	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Manganese	83.1	0.75	0.020	mg/kg	1	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Mercury	7.2	0.30	0.12	mg/kg	10	09/03/14	09/03/14	CC	SW846 7471A [2]	SW846 7471A [5]
Nickel	545	2.0	0.038	mg/kg	1	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Potassium	61.0 J	250	2.1	mg/kg	1	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Selenium [b]	0.47 U	1.3	0.47	mg/kg	5	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Silver	0.037 J	0.50	0.035	mg/kg	1	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Sodium	5870	250	0.77	mg/kg	1	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Thallium [b]	0.59 U	2.5	0.59	mg/kg	5	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Vanadium	4.2	2.5	0.021	mg/kg	1	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]
Zinc	91.6	1.0	0.28	mg/kg	1	08/29/14	08/30/14	NS	SW846 6010B [1]	SW846 3050B [4]

(1) Instrument QC Batch: MA10092
(2) Instrument QC Batch: MA10101
(3) Instrument QC Batch: MA10104
(4) Prep QC Batch: MP24110
(5) Prep QC Batch: MP24134

(a) All results reported on a wet weight basis.
(b) Elevated reporting limit due to dilution required for matrix interference.

MQL = Method Quantitation Limit
SDL = Sample Detection Limit

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

Report of Analysis

Client Sample ID:	VB-25141		
Lab Sample ID:	TC53875-2	**Date Sampled:**	08/26/14
Matrix:	SO - Sludge	**Date Received:**	08/27/14
		Percent Solids:	n/a [a]
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

General Chemistry

Analyte	Result	MQL	SDL	Units	DF	Analyzed	By	Method
Cyanide	0.15 U	0.27	0.15	mg/kg	1	09/03/14 18:09	CV	SW846 9012 M
Heat Content, BTU [b]	7070	100		BTU/lb	1	09/05/14	ANJ	ASTM D240-92
Ignitability (Flashpoint)	> 200			Deg. F	1	08/28/14	DP	SW846 CHAP7
Sulfide, Neutral Extraction [b]	40.7	3.9	3.7	mg/kg	1	09/02/14	ANJ	EPA 376.1M/9034 M
pH [c]	5.96			su	1	08/28/14 19:00	PA	SW846 9045C

(a) All results reported on a wet weight basis.
(b) Analysis performed at Accutest Laboratories, Dayton, NJ.
(c) temp. 21.3 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:	VB-25141		
Lab Sample ID:	TC53875-2A	**Date Sampled:**	08/26/14
Matrix:	SO - Sludge	**Date Received:**	08/27/14
Method:	SW846 8260C SW846 1311	**Percent Solids:**	n/a [a]
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	E0035027.D	10	09/04/14	CF	09/03/14	OP33782	VE1582
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	0.275	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	0.265	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	2.25	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	97%		72-122%
17060-07-0	1,2-Dichloroethane-D4	84%		68-124%
2037-26-5	Toluene-D8	92%		80-119%
460-00-4	4-Bromofluorobenzene	95%		72-126%

(a) All results reported on a wet weight basis.

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-25141		
Lab Sample ID:	TC53875-2A	**Date Sampled:**	08/26/14
Matrix:	SO - Sludge	**Date Received:**	08/27/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a [a]
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [b]	P35358.D	10	09/04/14	SC	09/03/14	OP33774	EP1703
Run #2	O12018.D	1000	09/05/14	GJ	09/03/14	OP33774	EO666

	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	300 [c]	D023	200	50	9.6	mg/l	
	3&4-Methylphenol	221 [c]	D024	200	50	11	mg/l	
87-86-5	Pentachlorophenol	1.0 U	D037	100	2.5	1.0	mg/l	
95-95-4	2,4,5-Trichlorophenol	0.098 U	D041	400	0.50	0.098	mg/l	
88-06-2	2,4,6-Trichlorophenol	0.474	D042	2.0	0.50	0.11	mg/l	J
106-46-7	1,4-Dichlorobenzene	0.11 U	D027	7.5	0.50	0.11	mg/l	
121-14-2	2,4-Dinitrotoluene	0.13 U	D030	0.13	0.50	0.13	mg/l	
118-74-1	Hexachlorobenzene	0.16 U	D032	0.13	0.50	0.16	mg/l	
87-68-3	Hexachlorobutadiene	0.12 U	D033	0.50	0.50	0.12	mg/l	
67-72-1	Hexachloroethane	0.13 U	D034	3.0	0.50	0.13	mg/l	
98-95-3	Nitrobenzene	0.12 U	D036	2.0	0.50	0.12	mg/l	
110-86-1	Pyridine	0.13 U	D038	5.0	0.50	0.13	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	73%	0% [d]	10-86%
4165-62-2	Phenol-d5	61%	0% [d]	10-83%
118-79-6	2,4,6-Tribromophenol	59%	0% [d]	32-128%
4165-60-0	Nitrobenzene-d5	92%	0% [d]	29-115%
321-60-8	2-Fluorobiphenyl	92%	0% [d]	34-113%
1718-51-0	Terphenyl-d14	94%	0% [d]	23-138%

(a) All results reported on a wet weight basis.
(b) Elevated reporting limits due to matrix interference.
(c) Result is from Run# 2
(d) 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-25141		
Lab Sample ID:	TC53875-2A	**Date Sampled:**	08/26/14
Matrix:	SO - Sludge	**Date Received:**	08/27/14
Method:	SW846 8151 SW846 3510C	**Percent Solids:**	n/a [a]
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	DD773057.D	1	09/07/14	FO	09/05/14	OP33819	GDD2393
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	665% [b]		40-168%

(a) All results reported on a wet weight basis.
(b) 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-25141		
Lab Sample ID:	TC53875-2A	**Date Sampled:**	08/26/14
Matrix:	SO - Sludge	**Date Received:**	08/27/14
Method:	SW846 8081A SW846 3510C	**Percent Solids:**	n/a [a]
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [b]	NN176475.D	50	09/08/14	SC	09/05/14	OP33817	GNN1479
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)	0.0086 U	D013	0.40	0.025	0.0086	mg/l	
12789-03-6	Chlordane	0.073 U	D020	0.030	0.25	0.073	mg/l	
72-20-8	Endrin	0.0089 U	D012	0.020	0.050	0.0089	mg/l	
76-44-8	Heptachlor	0.0042 U	D031	0.0080	0.025	0.0042	mg/l	
1024-57-3	Heptachlor epoxide	0.0057 U	D031	0.0080	0.025	0.0057	mg/l	
72-43-5	Methoxychlor	0.064 U	D014	10	0.25	0.064	mg/l	
8001-35-2	Toxaphene	0.062 U	D015	0.50	0.25	0.062	mg/l	

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

(a) All results reported on a wet weight basis.
(b) Elevated reporting limits due to high levels of non-target analytes.
(c) 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-25141		
Lab Sample ID:	TC53875-2A	**Date Sampled:**	08/26/14
Matrix:	SO - Sludge	**Date Received:**	08/27/14
		Percent Solids:	n/a [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	0.023 J	D004	5.0	0.050	0.0050	mg/l	5	09/04/14	09/05/14	NS	SW846 6010B [2]
Barium	0.069 J	D005	100	5.0	0.017	mg/l	5	09/04/14	09/05/14	NS	SW846 6010B [2]
Cadmium	0.00048 J	D006	1.0	0.020	0.00045	mg/l	5	09/04/14	09/05/14	NS	SW846 6010B [2]
Chromium	0.0067 J	D007	5.0	0.050	0.0014	mg/l	5	09/04/14	09/05/14	NS	SW846 6010B [2]
Lead	0.0089 U	D008	5.0	0.025	0.0089	mg/l	5	09/04/14	09/05/14	NS	SW846 6010B [2]
Mercury	0.000050 U	D009	0.20	0.00020	0.000050	mg/l	1	09/05/14	09/05/14	CC	SW846 7470A [1]
Selenium	0.027 J	D010	1.0	0.25	0.0049	mg/l	5	09/04/14	09/05/14	NS	SW846 6010B [2]
Silver	0.0012 U	D011	5.0	0.050	0.0012	mg/l	5	09/04/14	09/05/14	NS	SW846 6010B [2]

(1) Instrument QC Batch: MA10113
(2) Instrument QC Batch: MA10114
(3) Prep QC Batch: MP24141
(4) Prep QC Batch: MP24146

(a) All results reported on a wet weight basis.

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

CHAIN OF CUSTODY

ACCUTEST Laboratories

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

PAGE 1 OF 1

FED-EX Tracking #:
Bottle Order Control #:
Accutest Quote #:
Accutest Job #: TC53875

Client / Reporting Information

Company Name: Weston Solutions, Inc.
Street Address: 5599 San Felipe, Suite 700
City / State / Zip: Houston, TX 77056
Project Contact / E-mail: Tom Walzer/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: Derrick Cobb

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

Requested Analyses

Accutest Sample #	Field ID / Point of Collection	Collection Date	Time	Sampled By	Matrix	# of bottles	HCl	NaOH	Zn/NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	TSP	NaHSO4	ENCORE	OTHER	Total / TCLP VOCs	Total / TCLP SVOCs	Total / TCLP Metals & Hg	Total / TCLP Pesticides	Total / TCLP Herbicides	PCBs	TPH	Total Cyanides	Total Sulfide	Flash point / Ignitability	pH and BTU	LAB USE ONLY
1	VB-640	8/26/14	1105	DC	SL	5													X	X	X	X	X	X	X	X	X	X	X	
2	VB-25141	8/26/14	1255	DC	SL	5													X	X	X	X	X	X	X	X	X	X	X	

Number of preserved Bottles

Matrix Codes

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

Turnaround Time (Business days)

- [ ] Standard
- [ ] 5 Day *RUSH*
- [ ] 4 Day *RUSH*
- [ ] 3 Day *RUSH*
- [ ] 2 Day *RUSH*
- [ ] 1 Day *EMERGENCY*

Approved By (Accutest PM): / Date:

Emergency & Rush T/A data available VIA Lablink

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 Vanessa	8/27/14 1430	1 ACCUTEST DRIVER	2 ACCUTEST DRIVER	8/27/14 1600	2
3		3	4		4
5		5			

Custody Seal # ☐ Intact ☐ Not intact — Preserved where applicable ☐ — On Ice ☐ — Cooler Temp.

TC53875: Chain of Custody
Page 1 of 3

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: TC53875 **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: (3.2/3.2);

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

TC53875: Chain of Custody
Page 2 of 3

Sample Receipt Log

Job #: TC53875 **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	TC53875-1	32oz	1	2-90	N/P	Note #2 - Preservative check not applicable.	IR-5	3.2	0	3.2
1	TC53875-1	32oz	2	2-90	N/P	Note #2 - Preservative check not applicable.	IR-5	3.2	0	3.2
1	TC53875-1	32oz	3	2-90	N/P	Note #2 - Preservative check not applicable.	IR-5	3.2	0	3.2
1	TC53875-1	32oz	4	2-90	N/P	Note #2 - Preservative check not applicable.	IR-5	3.2	0	3.2
1	TC53875-1	32oz	5	2-90	N/P	Note #2 - Preservative check not applicable.	IR-5	3.2	0	3.2
1	TC53875-2	32oz	1	2-87	N/P	Note #2 - Preservative check not applicable.	IR-5	3.2	0	3.2
1	TC53875-2	32oz	2	2-87	N/P	Note #2 - Preservative check not applicable.	IR-5	3.2	0	3.2
1	TC53875-2	32oz	3	2-87	N/P	Note #2 - Preservative check not applicable.	IR-5	3.2	0	3.2
1	TC53875-2	32oz	4	2-87	N/P	Note #2 - Preservative check not applicable.	IR-5	3.2	0	3.2
1	TC53875-2	32oz	5	2-87	N/P	Note #2 - Preservative check not applicable.	IR-5	3.2	0	3.2

Gulf Coast ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Job Number: TC53875
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]	E0035066.D	10	09/05/14	CF	08/29/14	OP33725	VE1585

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

TC53875-1A

CAS No.	Compound	Result	RL	MDL	Units	Q
67-66-3	Chloroform	ND	10	3.5	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	95%	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%

(a) TCLP Method Blank.

Method Blank Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VY3741-MB	Y1070600.D	1	09/04/14	KS	n/a	n/a	VY3741

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

TC53875-1, TC53875-2

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	40	9.9	ug/kg	
71-43-2	Benzene	ND	4.0	0.67	ug/kg	
108-86-1	Bromobenzene	ND	4.0	0.40	ug/kg	
74-97-5	Bromochloromethane	ND	4.0	1.1	ug/kg	
75-27-4	Bromodichloromethane	ND	4.0	0.44	ug/kg	
75-25-2	Bromoform	ND	4.0	0.75	ug/kg	
104-51-8	n-Butylbenzene	ND	4.0	0.43	ug/kg	
135-98-8	sec-Butylbenzene	ND	4.0	0.86	ug/kg	
98-06-6	tert-Butylbenzene	ND	4.0	0.77	ug/kg	
108-90-7	Chlorobenzene	ND	4.0	0.92	ug/kg	
75-00-3	Chloroethane	ND	4.0	1.6	ug/kg	
67-66-3	Chloroform	ND	4.0	0.43	ug/kg	
95-49-8	o-Chlorotoluene	ND	4.0	0.47	ug/kg	
106-43-4	p-Chlorotoluene	ND	4.0	0.41	ug/kg	
75-15-0	Carbon disulfide	ND	4.0	0.58	ug/kg	
56-23-5	Carbon tetrachloride	ND	4.0	0.85	ug/kg	
75-34-3	1,1-Dichloroethane	ND	4.0	0.40	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	4.0	0.41	ug/kg	
563-58-6	1,1-Dichloropropene	ND	4.0	0.44	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	4.0	3.1	ug/kg	
106-93-4	1,2-Dibromoethane	ND	4.0	0.42	ug/kg	
107-06-2	1,2-Dichloroethane	ND	4.0	0.47	ug/kg	
78-87-5	1,2-Dichloropropane	ND	4.0	0.57	ug/kg	
142-28-9	1,3-Dichloropropane	ND	4.0	1.0	ug/kg	
594-20-7	2,2-Dichloropropane	ND	4.0	0.53	ug/kg	
124-48-1	Dibromochloromethane	ND	4.0	0.90	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	4.0	1.1	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	4.0	0.45	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	4.0	0.45	ug/kg	
541-73-1	m-Dichlorobenzene	ND	4.0	0.62	ug/kg	
95-50-1	o-Dichlorobenzene	ND	4.0	0.96	ug/kg	
106-46-7	p-Dichlorobenzene	ND	4.0	0.85	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	4.0	0.43	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	4.0	0.51	ug/kg	
100-41-4	Ethylbenzene	ND	4.0	0.96	ug/kg	
591-78-6	2-Hexanone	ND	40	7.3	ug/kg	

Method Blank Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VY3741-MB	Y1070600.D	1	09/04/14	KS	n/a	n/a	VY3741

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

TC53875-1, TC53875-2

CAS No.	Compound	Result	RL	MDL	Units	Q
87-68-3	Hexachlorobutadiene	ND	4.0	0.68	ug/kg	
98-82-8	Isopropylbenzene	ND	4.0	1.1	ug/kg	
99-87-6	p-Isopropyltoluene	ND	4.0	1.3	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	40	6.2	ug/kg	
74-83-9	Methyl bromide	ND	4.0	1.8	ug/kg	
74-87-3	Methyl chloride	ND	4.0	0.76	ug/kg	
74-95-3	Methylene bromide	ND	4.0	0.64	ug/kg	
75-09-2	Methylene chloride	ND	9.9	2.5	ug/kg	
78-93-3	Methyl ethyl ketone	ND	40	5.0	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	4.0	0.50	ug/kg	
91-20-3	Naphthalene	ND	4.0	2.0	ug/kg	
103-65-1	n-Propylbenzene	ND	4.0	1.0	ug/kg	
100-42-5	Styrene	ND	4.0	0.91	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	4.0	0.50	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	4.0	0.62	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	4.0	0.67	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	4.0	0.66	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	4.0	0.52	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	4.0	0.90	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	4.0	0.49	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	4.0	0.40	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	4.0	0.93	ug/kg	
127-18-4	Tetrachloroethylene	ND	4.0	1.0	ug/kg	
108-88-3	Toluene	ND	4.0	1.0	ug/kg	
79-01-6	Trichloroethylene	ND	4.0	0.46	ug/kg	
75-69-4	Trichlorofluoromethane	ND	4.0	0.62	ug/kg	
75-01-4	Vinyl chloride	ND	4.0	0.57	ug/kg	
1330-20-7	Xylene (total)	ND	12	2.8	ug/kg	
	m,p-Xylene	ND	7.9	1.8	ug/kg	
95-47-6	o-Xylene	ND	4.0	1.0	ug/kg	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	95%	59-126%
2037-26-5	Toluene-D8	99%	70-139%

Method Blank Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VY3741-MB	Y1070600.D	1	09/04/14	KS	n/a	n/a	VY3741

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

TC53875-1, TC53875-2

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	79%	63-138%
17060-07-0	1,2-Dichloroethane-D4	72%	54-123%

Method Blank Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VY3743-MB	Y1070654.D	1	09/05/14	KS	n/a	n/a	VY3743

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

TC53875-1

CAS No.	Compound	Result	RL	MDL	Units	Q
67-66-3	Chloroform	ND	3.5	0.38	ug/kg	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	98%	59-126%
2037-26-5	Toluene-D8	94%	70-139%
460-00-4	4-Bromofluorobenzene	82%	63-138%
17060-07-0	1,2-Dichloroethane-D4	74%	54-123%

Leachate Blank Summary

Job Number: TC53875
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 [a]	E0035010.D	10	09/04/14	CF	09/03/14	OP33782	VE1582

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

TC53875-1A, TC53875-2A

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	99%	72-122%
17060-07-0	1,2-Dichloroethane-D4	91%	68-124%
2037-26-5	Toluene-D8	94%	80-119%
460-00-4	4-Bromofluorobenzene	96%	72-126%

(a) TCLP Method Blank.

Leachate Blank Summary

Job Number: TC53875
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

TC53875-1A, TC53875-2A

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: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VE1582-BS	E0035008.D	10	09/04/14	CF	n/a	n/a	VE1582

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

TC53875-1A, TC53875-2A

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.

Blank Spike Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VY3741-BS	Y1070598.D	1	09/04/14	KS	n/a	n/a	VY3741

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

TC53875-1, TC53875-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	249	195	78	43-141
71-43-2	Benzene	49.8	44.0	88	58-124
108-86-1	Bromobenzene	49.8	45.9	92	72-110
74-97-5	Bromochloromethane	49.8	53.3	107	71-122
75-27-4	Bromodichloromethane	49.8	44.2	89	72-119
75-25-2	Bromoform	49.8	48.1	97	61-120
104-51-8	n-Butylbenzene	49.8	44.2	89	58-118
135-98-8	sec-Butylbenzene	49.8	43.9	88	63-119
98-06-6	tert-Butylbenzene	49.8	41.1	83	67-121
108-90-7	Chlorobenzene	49.8	44.3	89	74-116
75-00-3	Chloroethane	49.8	50.7	102	48-133
67-66-3	Chloroform	49.8	46.6	94	72-119
95-49-8	o-Chlorotoluene	49.8	41.4	83	65-121
106-43-4	p-Chlorotoluene	49.8	42.3	85	67-118
75-15-0	Carbon disulfide	49.8	46.8	94	45-133
56-23-5	Carbon tetrachloride	49.8	44.5	89	58-128
75-34-3	1,1-Dichloroethane	49.8	45.0	90	69-122
75-35-4	1,1-Dichloroethylene	49.8	44.5	89	60-131
563-58-6	1,1-Dichloropropene	49.8	47.6	96	66-123
96-12-8	1,2-Dibromo-3-chloropropane	49.8	44.9	90	55-125
106-93-4	1,2-Dibromoethane	49.8	46.7	94	73-120
107-06-2	1,2-Dichloroethane	49.8	42.7	86	69-121
78-87-5	1,2-Dichloropropane	49.8	42.1	85	71-121
142-28-9	1,3-Dichloropropane	49.8	43.4	87	72-117
594-20-7	2,2-Dichloropropane	49.8	47.0	94	57-129
124-48-1	Dibromochloromethane	49.8	45.6	92	71-121
75-71-8	Dichlorodifluoromethane	49.8	47.2	95	22-158
156-59-2	cis-1,2-Dichloroethylene	49.8	48.2	97	70-119
10061-01-5	cis-1,3-Dichloropropene	49.8	42.3	85	75-117
541-73-1	m-Dichlorobenzene	49.8	45.2	91	70-119
95-50-1	o-Dichlorobenzene	49.8	44.8	90	73-116
106-46-7	p-Dichlorobenzene	49.8	47.3	95	70-119
156-60-5	trans-1,2-Dichloroethylene	49.8	45.1	91	62-119
10061-02-6	trans-1,3-Dichloropropene	49.8	43.8	88	78-125
100-41-4	Ethylbenzene	49.8	43.9	88	57-124
591-78-6	2-Hexanone	249	202	81	58-124

* = Outside of Control Limits.

Blank Spike Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VY3741-BS	Y1070598.D	1	09/04/14	KS	n/a	n/a	VY3741

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

TC53875-1, TC53875-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
87-68-3	Hexachlorobutadiene	49.8	52.3	105	57-127
98-82-8	Isopropylbenzene	49.8	42.5	85	77-135
99-87-6	p-Isopropyltoluene	49.8	46.6	94	66-120
108-10-1	4-Methyl-2-pentanone	249	206	83	60-127
74-83-9	Methyl bromide	49.8	46.5	93	47-137
74-87-3	Methyl chloride	49.8	40.8	82	46-139
74-95-3	Methylene bromide	49.8	46.0	92	72-118
75-09-2	Methylene chloride	49.8	39.8	80	50-134
78-93-3	Methyl ethyl ketone	249	218	88	60-131
1634-04-4	Methyl Tert Butyl Ether	49.8	50.3	101	65-119
91-20-3	Naphthalene	49.8	51.5	103	56-122
103-65-1	n-Propylbenzene	49.8	42.9	86	65-119
100-42-5	Styrene	49.8	46.7	94	74-117
630-20-6	1,1,1,2-Tetrachloroethane	49.8	46.6	94	74-119
71-55-6	1,1,1-Trichloroethane	49.8	46.6	94	63-126
79-34-5	1,1,2,2-Tetrachloroethane	49.8	61.8	124*	65-120
79-00-5	1,1,2-Trichloroethane	49.8	44.2	89	72-119
87-61-6	1,2,3-Trichlorobenzene	49.8	49.6	100	62-116
96-18-4	1,2,3-Trichloropropane	49.8	45.0	90	68-118
120-82-1	1,2,4-Trichlorobenzene	49.8	50.3	101	58-122
95-63-6	1,2,4-Trimethylbenzene	49.8	44.7	90	61-119
108-67-8	1,3,5-Trimethylbenzene	49.8	43.9	88	53-123
127-18-4	Tetrachloroethylene	49.8	41.2	83	64-130
108-88-3	Toluene	49.8	43.4	87	67-119
79-01-6	Trichloroethylene	49.8	38.9	78	70-122
75-69-4	Trichlorofluoromethane	49.8	47.2	95	41-137
75-01-4	Vinyl chloride	49.8	43.7	88	43-120
1330-20-7	Xylene (total)	149	130	87	62-120
	m,p-Xylene	99.6	87.1	87	62-120
95-47-6	o-Xylene	49.8	42.8	86	62-121

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	99%	59-126%
2037-26-5	Toluene-D8	93%	70-139%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VY3741-BS	Y1070598.D	1	09/04/14	KS	n/a	n/a	VY3741

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

TC53875-1, TC53875-2

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	83%	63-138%
17060-07-0	1,2-Dichloroethane-D4	77%	54-123%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VE1585-BS	E0035063.D	10	09/05/14	CF	n/a	n/a	VE1585

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

TC53875-1A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-66-3	Chloroform	250	202	81	73-122

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	90%	72-122%
17060-07-0	1,2-Dichloroethane-D4	87%	68-124%
2037-26-5	Toluene-D8	93%	80-119%
460-00-4	4-Bromofluorobenzene	98%	72-126%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VY3743-BS	Y1070652.D	1	09/05/14	KS	n/a	n/a	VY3743

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

TC53875-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-66-3	Chloroform	48.4	45.0	93	72-119

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	95%	59-126%
2037-26-5	Toluene-D8	94%	70-139%
460-00-4	4-Bromofluorobenzene	83%	63-138%
17060-07-0	1,2-Dichloroethane-D4	78%	54-123%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TC53874-2AMS	E0035016.D	10	09/04/14	CF	n/a	n/a	VE1582
TC53874-2AMSD	E0035017.D	10	09/04/14	CF	n/a	n/a	VE1582
TC53874-2A	E0035014.D	10	09/04/14	CF	09/03/14	OP33782	VE1582

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

TC53875-1A, TC53875-2A

CAS No.	Compound	TC53874-2A 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	10 U		250	240	96	250	235	94	2	68-119/12
108-90-7	Chlorobenzene	10 U		250	228	91	250	223	89	2	74-120/12
67-66-3	Chloroform	10 U		250	229	92	250	224	90	2	73-122/13
56-23-5	Carbon tetrachloride	10 U		250	258	103	250	253	101	2	68-133/20
75-35-4	1,1-Dichloroethylene	10 U		250	228	91	250	230	92	1	67-140/18
107-06-2	1,2-Dichloroethane	10 U		250	228	91	250	224	90	2	68-121/12
78-93-3	Methyl ethyl ketone	100 U		1250	1180	94	1250	1130	90	4	51-129/22
127-18-4	Tetrachloroethylene	10 U		250	266	106	250	262	105	2	72-132/14
79-01-6	Trichloroethylene	10 U		250	237	95	250	233	93	2	73-121/13
75-01-4	Vinyl chloride	10 U		250	243	97	250	232	93	5	54-126/17

CAS No.	Surrogate Recoveries	MS	MSD	TC53874-2A	Limits
1868-53-7	Dibromofluoromethane	93%	92%	100%	72-122%
17060-07-0	1,2-Dichloroethane-D4	90%	90%	91%	68-124%
2037-26-5	Toluene-D8	96%	95%	94%	80-119%
460-00-4	4-Bromofluorobenzene	99%	97%	95%	72-126%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TC53933-1MS	Y1070609.D	100	09/04/14	KS	n/a	n/a	VY3741
TC53933-1MSD	Y1070610.D	100	09/04/14	KS	n/a	n/a	VY3741
TC53933-1	Y1070608.D	100	09/04/14	KS	n/a	n/a	VY3741

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

TC53875-1, TC53875-2

CAS No.	Compound	TC53933-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	880000	U	5480000	3900000	71	5480000	4030000	74	3	43-141/33
71-43-2	Benzene	132000		1100000	1080000	86	1100000	1030000	82	5	58-124/26
108-86-1	Bromobenzene	88000	U	1100000	1070000	98	1100000	955000	87	11	72-110/28
74-97-5	Bromochloromethane	88000	U	1100000	1090000	99	1100000	1030000	94	6	71-122/25
75-27-4	Bromodichloromethane	88000	U	1100000	957000	87	1100000	906000	83	5	72-119/25
75-25-2	Bromoform	88000	U	1100000	988000	90	1100000	1040000	95	5	61-120/27
104-51-8	n-Butylbenzene	88000	U	1100000	1170000	107	1100000	1020000	93	14	58-118/32
135-98-8	sec-Butylbenzene	37300	J	1100000	1100000	97	1100000	997000	88	10	63-119/31
98-06-6	tert-Butylbenzene	88000	U	1100000	1020000	93	1100000	902000	82	12	67-121/30
108-90-7	Chlorobenzene	88000	U	1100000	1000000	91	1100000	953000	87	5	74-116/26
75-00-3	Chloroethane	88000	U	1100000	1100000	100	1100000	967000	88	13	48-133/38
67-66-3	Chloroform	88000	U	1100000	1000000	91	1100000	918000	84	9	72-119/25
95-49-8	o-Chlorotoluene	88000	U	1100000	1060000	97	1100000	965000	88	9	65-121/30
106-43-4	p-Chlorotoluene	88000	U	1100000	974000	89	1100000	874000	80	11	67-118/29
75-15-0	Carbon disulfide	88000	U	1100000	1040000	95	1100000	910000	83	13	45-133/34
56-23-5	Carbon tetrachloride	88000	U	1100000	1050000	96	1100000	924000	84	13	58-128/28
75-34-3	1,1-Dichloroethane	88000	U	1100000	974000	89	1100000	893000	81	9	69-122/25
75-35-4	1,1-Dichloroethylene	88000	U	1100000	1010000	92	1100000	876000	80	14	60-131/31
563-58-6	1,1-Dichloropropene	88000	U	1100000	1090000	99	1100000	965000	88	12	66-123/27
96-12-8	1,2-Dibromo-3-chloropropane	88000	U	1100000	923000	84	1100000	979000	89	6	55-125/33
106-93-4	1,2-Dibromoethane	88000	U	1100000	963000	88	1100000	1010000	92	5	73-120/26
107-06-2	1,2-Dichloroethane	88000	U	1100000	889000	81	1100000	888000	81	0	69-121/24
78-87-5	1,2-Dichloropropane	88000	U	1100000	937000	85	1100000	869000	79	8	71-121/26
142-28-9	1,3-Dichloropropane	88000	U	1100000	946000	86	1100000	946000	86	0	72-117/25
594-20-7	2,2-Dichloropropane	88000	U	1100000	1080000	98	1100000	951000	87	13	57-129/29
124-48-1	Dibromochloromethane	88000	U	1100000	998000	91	1100000	988000	90	1	71-121/26
75-71-8	Dichlorodifluoromethane	88000	U	1100000	1020000	93	1100000	852000	78	18	22-158/38
156-59-2	cis-1,2-Dichloroethylene	88000	U	1100000	1030000	94	1100000	972000	89	6	70-119/25
10061-01-5	cis-1,3-Dichloropropene	88000	U	1100000	890000	81	1100000	850000	78	5	75-117/27
541-73-1	m-Dichlorobenzene	88000	U	1100000	1050000	96	1100000	923000	84	13	70-119/30
95-50-1	o-Dichlorobenzene	88000	U	1100000	977000	89	1100000	932000	85	5	73-116/30
106-46-7	p-Dichlorobenzene	88000	U	1100000	1100000	100	1100000	985000	90	11	70-119/30
156-60-5	trans-1,2-Dichloroethylene	88000	U	1100000	991000	90	1100000	874000	80	13	62-119/29
10061-02-6	trans-1,3-Dichloropropene	88000	U	1100000	979000	89	1100000	919000	84	6	78-125/27
100-41-4	Ethylbenzene	260000		1100000	1280000	93	1100000	1220000	88	5	57-124/29
591-78-6	2-Hexanone	880000	U	5480000	3810000	69	5480000	4070000	74	7	58-124/32

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TC53933-1MS	Y1070609.D	100	09/04/14	KS	n/a	n/a	VY3741
TC53933-1MSD	Y1070610.D	100	09/04/14	KS	n/a	n/a	VY3741
TC53933-1	Y1070608.D	100	09/04/14	KS	n/a	n/a	VY3741

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

TC53875-1, TC53875-2

CAS No.	Compound	TC53933-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
87-68-3	Hexachlorobutadiene	88000	U	1100000	1250000	114	1100000	1090000	99	14	57-127/33
98-82-8	Isopropylbenzene	53600	J	1100000	1090000	95	1100000	933000	80	16	77-135/29
99-87-6	p-Isopropyltoluene	31700	J	1100000	1100000	97	1100000	1020000	90	8	66-120/30
108-10-1	4-Methyl-2-pentanone	880000	U	5480000	4180000	76	5480000	4430000	81	6	60-127/30
74-83-9	Methyl bromide	88000	U	1100000	976000	89	1100000	857000	78	13	47-137/37
74-87-3	Methyl chloride	88000	U	1100000	892000	81	1100000	775000	71	14	46-139/36
74-95-3	Methylene bromide	88000	U	1100000	936000	85	1100000	945000	86	1	72-118/25
75-09-2	Methylene chloride	220000	U	1100000	844000	77	1100000	770000	70	9	50-134/35
78-93-3	Methyl ethyl ketone	880000	U	5480000	4290000	78	5480000	4510000	82	5	60-131/31
1634-04-4	Methyl Tert Butyl Ether	88000	U	1100000	1000000	91	1100000	990000	90	1	65-119/29
91-20-3	Naphthalene	621000		1100000	1620000	91	1100000	1600000	89	1	56-122/36
103-65-1	n-Propylbenzene	122000		1100000	1130000	92	1100000	1040000	84	8	65-119/31
100-42-5	Styrene	76300	J	1100000	1110000	94	1100000	1050000	89	6	74-117/28
630-20-6	1,1,1,2-Tetrachloroethane	88000	U	1100000	1060000	97	1100000	1020000	93	4	74-119/27
71-55-6	1,1,1-Trichloroethane	88000	U	1100000	1060000	97	1100000	960000	88	10	63-126/27
79-34-5	1,1,2,2-Tetrachloroethane	88000	U	1100000	1290000	118	1100000	1360000	124*	5	65-120/31
79-00-5	1,1,2-Trichloroethane	88000	U	1100000	1010000	92	1100000	1030000	94	2	72-119/27
87-61-6	1,2,3-Trichlorobenzene	88000	U	1100000	1140000	104	1100000	1090000	99	4	62-116/33
96-18-4	1,2,3-Trichloropropane	88000	U	1100000	1010000	92	1100000	957000	87	5	68-118/31
120-82-1	1,2,4-Trichlorobenzene	88000	U	1100000	1230000	112	1100000	1100000	100	11	58-122/34
95-63-6	1,2,4-Trimethylbenzene	758000		1100000	1670000	83	1100000	1590000	76	5	61-119/30
108-67-8	1,3,5-Trimethylbenzene	237000		1100000	1210000	89	1100000	1100000	79	10	53-123/30
127-18-4	Tetrachloroethylene	88000	U	1100000	981000	89	1100000	920000	84	6	64-130/28
108-88-3	Toluene	532000		1100000	1480000	86	1100000	1460000	85	1	67-119/28
79-01-6	Trichloroethylene	88000	U	1100000	884000	81	1100000	813000	74	8	70-122/27
75-69-4	Trichlorofluoromethane	88000	U	1100000	1080000	98	1100000	932000	85	15	41-137/39
75-01-4	Vinyl chloride	88000	U	1100000	973000	89	1100000	827000	75	16	43-120/38
1330-20-7	Xylene (total)	1460000		3290000	4210000	84	3290000	4080000	80	3	62-120/27
	m,p-Xylene	1080000		2190000	2930000	84	2190000	2780000	78	5	62-120/28
95-47-6	o-Xylene	376000		1100000	1280000	82	1100000	1290000	83	1	62-121/28

CAS No.	Surrogate Recoveries	MS	MSD	TC53933-1	Limits
1868-53-7	Dibromofluoromethane	93%	92%	96%	59-126%
2037-26-5	Toluene-D8	97%	97%	97%	70-139%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TC53933-1MS	Y1070609.D	100	09/04/14	KS	n/a	n/a	VY3741
TC53933-1MSD	Y1070610.D	100	09/04/14	KS	n/a	n/a	VY3741
TC53933-1	Y1070608.D	100	09/04/14	KS	n/a	n/a	VY3741

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

TC53875-1, TC53875-2

CAS No.	Surrogate Recoveries	MS	MSD	TC53933-1	Limits
460-00-4	4-Bromofluorobenzene	83%	80%	81%	63-138%
17060-07-0	1,2-Dichloroethane-D4	71%	74%	73%	54-123%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TC53875-1AMS	E0035070.D	50	09/05/14	CF	n/a	n/a	VE1585
TC53875-1AMSD	E0035071.D	50	09/05/14	CF	n/a	n/a	VE1585
TC53875-1A	E0035069.D	50	09/05/14	CF	09/03/14	OP33782	VE1585

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

TC53875-1A

CAS No.	Compound	TC53875-1A ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-66-3	Chloroform	2710		1250	3730	82	1250	3820	89	2	73-122/13

CAS No.	Surrogate Recoveries	MS	MSD	TC53875-1A	Limits
1868-53-7	Dibromofluoromethane	90%	91%	93%	72-122%
17060-07-0	1,2-Dichloroethane-D4	85%	86%	72%	68-124%
2037-26-5	Toluene-D8	92%	93%	92%	80-119%
460-00-4	4-Bromofluorobenzene	97%	100%	98%	72-126%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TC54040-1MS	Y1070658.D	10	09/05/14	KS	n/a	n/a	VY3743
TC54040-1MSD	Y1070659.D	10	09/05/14	KS	n/a	n/a	VY3743
TC54040-1	Y1070661.D	10	09/05/14	KS	n/a	n/a	VY3743

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

TC53875-1

CAS No.	Compound	TC54040-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
67-66-3	Chloroform	7000	U	87400	91100	104	87400	90300	103	1	72-119/25

CAS No.	Surrogate Recoveries	MS	MSD	TC54040-1	Limits
1868-53-7	Dibromofluoromethane	93%	95%	94%	59-126%
2037-26-5	Toluene-D8	97%	97%	98%	70-139%
460-00-4	4-Bromofluorobenzene	84%	83%	84%	63-138%
17060-07-0	1,2-Dichloroethane-D4	72%	73%	71%	54-123%

* = 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: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33754-MB	P35294A.D	1	09/02/14	SC	09/02/14	OP33754	EP1701

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

TC53875-1, TC53875-2

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	830	270	ug/kg	
95-57-8	2-Chlorophenol	ND	170	72	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	170	57	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	170	53	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	170	57	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	830	270	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	330	40	ug/kg	
95-48-7	2-Methylphenol	ND	170	73	ug/kg	
	3&4-Methylphenol	ND	170	72	ug/kg	
88-75-5	2-Nitrophenol	ND	170	57	ug/kg	
100-02-7	4-Nitrophenol	ND	830	47	ug/kg	
87-86-5	Pentachlorophenol	ND	830	120	ug/kg	
108-95-2	Phenol	ND	170	76	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	170	52	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	170	44	ug/kg	
83-32-9	Acenaphthene	ND	170	48	ug/kg	
208-96-8	Acenaphthylene	ND	170	45	ug/kg	
62-53-3	Aniline	ND	830	68	ug/kg	
120-12-7	Anthracene	ND	170	42	ug/kg	
92-87-5	Benzidine	ND	6700	3200	ug/kg	
56-55-3	Benzo(a)anthracene	ND	170	66	ug/kg	
50-32-8	Benzo(a)pyrene	ND	170	52	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	170	42	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	170	45	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	170	74	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	170	51	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	170	54	ug/kg	
100-51-6	Benzyl Alcohol	ND	170	66	ug/kg	
91-58-7	2-Chloronaphthalene	ND	170	49	ug/kg	
106-47-8	4-Chloroaniline	ND	170	62	ug/kg	
86-74-8	Carbazole	ND	170	53	ug/kg	
218-01-9	Chrysene	ND	170	71	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	170	52	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	170	74	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	170	64	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	170	64	ug/kg	

Method Blank Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33754-MB	P35294A.D	1	09/02/14	SC	09/02/14	OP33754	EP1701

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

TC53875-1, TC53875-2

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	170	67	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	170	42	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	170	59	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	170	63	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	170	52	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	170	46	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	330	63	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	170	58	ug/kg	
132-64-9	Dibenzofuran	ND	170	55	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	170	53	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	170	44	ug/kg	
84-66-2	Diethyl phthalate	ND	170	49	ug/kg	
131-11-3	Dimethyl phthalate	ND	170	48	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	170	130	ug/kg	
206-44-0	Fluoranthene	ND	170	55	ug/kg	
86-73-7	Fluorene	ND	170	50	ug/kg	
118-74-1	Hexachlorobenzene	ND	170	54	ug/kg	
87-68-3	Hexachlorobutadiene	ND	170	61	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	830	79	ug/kg	
67-72-1	Hexachloroethane	ND	170	61	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	170	61	ug/kg	
78-59-1	Isophorone	ND	170	51	ug/kg	
90-12-0	1-Methylnaphthalene	ND	170	63	ug/kg	
91-57-6	2-Methylnaphthalene	ND	170	63	ug/kg	
88-74-4	2-Nitroaniline	ND	170	52	ug/kg	
99-09-2	3-Nitroaniline	ND	170	49	ug/kg	
100-01-6	4-Nitroaniline	ND	330	55	ug/kg	
91-20-3	Naphthalene	ND	170	60	ug/kg	
98-95-3	Nitrobenzene	ND	170	48	ug/kg	
62-75-9	n-Nitrosodimethylamine	ND	170	52	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	170	68	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	170	47	ug/kg	
85-01-8	Phenanthrene	ND	170	47	ug/kg	
129-00-0	Pyrene	ND	170	75	ug/kg	
110-86-1	Pyridine	ND	170	44	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	170	60	ug/kg	

Method Blank Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33754-MB	P35294A.D	1	09/02/14	SC	09/02/14	OP33754	EP1701

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

TC53875-1, TC53875-2

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	76%	26-124%
4165-62-2	Phenol-d5	81%	19-106%
118-79-6	2,4,6-Tribromophenol	77%	18-129%
4165-60-0	Nitrobenzene-d5	74%	18-104%
321-60-8	2-Fluorobiphenyl	80%	21-114%
1718-51-0	Terphenyl-d14	99%	24-149%

Method Blank Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33774-MB	P35327.D	1	09/03/14	SC	09/03/14	OP33774	EP1702

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

TC53875-1A, TC53875-2A

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	81%	10-86%
4165-62-2	Phenol-d5	74%	10-83%
118-79-6	2,4,6-Tribromophenol	78%	32-128%
4165-60-0	Nitrobenzene-d5	89%	29-115%
321-60-8	2-Fluorobiphenyl	88%	34-113%
1718-51-0	Terphenyl-d14	100%	23-138%

Blank Spike Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33754-BS	P35296.D	1	09/02/14	SC	09/02/14	OP33754	EP1701

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

TC53875-1, TC53875-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
65-85-0	Benzoic acid	1670	802	48	10-122
95-57-8	2-Chlorophenol	1670	972	58	49-106
59-50-7	4-Chloro-3-methyl phenol	1670	1000	60	35-116
120-83-2	2,4-Dichlorophenol	1670	998	60	53-107
105-67-9	2,4-Dimethylphenol	1670	1010	61	51-109
51-28-5	2,4-Dinitrophenol	1670	930	56	30-125
534-52-1	4,6-Dinitro-o-cresol	1670	1130	68	41-125
95-48-7	2-Methylphenol	1670	914	55	46-105
	3&4-Methylphenol	1670	955	57	43-120
88-75-5	2-Nitrophenol	1670	931	56	49-104
100-02-7	4-Nitrophenol	1670	1030	62	29-129
87-86-5	Pentachlorophenol	1670	890	53	36-122
108-95-2	Phenol	1670	985	59	48-117
95-95-4	2,4,5-Trichlorophenol	1670	1070	64	57-116
88-06-2	2,4,6-Trichlorophenol	1670	1070	64	54-112
83-32-9	Acenaphthene	1670	1060	64	52-109
208-96-8	Acenaphthylene	1670	1100	66	54-115
62-53-3	Aniline	1670	999	60	28-116
120-12-7	Anthracene	1670	1130	68	57-114
92-87-5	Benzidine	3330	1500	45	15-156
56-55-3	Benzo(a)anthracene	1670	1160	70	59-114
50-32-8	Benzo(a)pyrene	1670	1170	70	53-106
205-99-2	Benzo(b)fluoranthene	1670	1220	73	54-115
191-24-2	Benzo(g,h,i)perylene	1670	1280	77	44-127
207-08-9	Benzo(k)fluoranthene	1670	1260	76	52-124
101-55-3	4-Bromophenyl phenyl ether	1670	1120	67	51-116
85-68-7	Butyl benzyl phthalate	1670	1280	77	52-117
100-51-6	Benzyl Alcohol	1670	980	59	52-104
91-58-7	2-Chloronaphthalene	1670	1150	69	47-125
106-47-8	4-Chloroaniline	1670	998	60	38-113
86-74-8	Carbazole	1670	1220	73	53-113
218-01-9	Chrysene	1670	1210	73	62-117
111-91-1	bis(2-Chloroethoxy)methane	1670	975	59	41-106
111-44-4	bis(2-Chloroethyl)ether	1670	915	55	36-108
108-60-1	bis(2-Chloroisopropyl)ether	1670	871	52	33-111
7005-72-3	4-Chlorophenyl phenyl ether	1670	1050	63	52-113

* = Outside of Control Limits.

Blank Spike Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33754-BS	P35296.D	1	09/02/14	SC	09/02/14	OP33754	EP1701

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

TC53875-1, TC53875-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
95-50-1	1,2-Dichlorobenzene	1670	903	54	41-106
122-66-7	1,2-Diphenylhydrazine	1670	1170	70	51-113
541-73-1	1,3-Dichlorobenzene	1670	902	54	39-104
106-46-7	1,4-Dichlorobenzene	1670	924	55	40-105
121-14-2	2,4-Dinitrotoluene	1670	1050	63	55-117
606-20-2	2,6-Dinitrotoluene	1670	1060	64	56-112
91-94-1	3,3'-Dichlorobenzidine	1670	1140	68	33-129
53-70-3	Dibenzo(a,h)anthracene	1670	1280	77	47-126
132-64-9	Dibenzofuran	1670	1090	65	51-112
84-74-2	Di-n-butyl phthalate	1670	1230	74	54-117
117-84-0	Di-n-octyl phthalate	1670	1320	79	47-119
84-66-2	Diethyl phthalate	1670	1150	69	53-114
131-11-3	Dimethyl phthalate	1670	1160	70	55-111
117-81-7	bis(2-Ethylhexyl)phthalate	1670	1300	78	51-123
206-44-0	Fluoranthene	1670	1140	68	54-118
86-73-7	Fluorene	1670	1050	63	55-114
118-74-1	Hexachlorobenzene	1670	1130	68	51-117
87-68-3	Hexachlorobutadiene	1670	953	57	37-111
77-47-4	Hexachlorocyclopentadiene	1670	704	42	10-121
67-72-1	Hexachloroethane	1670	998	60	42-100
193-39-5	Indeno(1,2,3-cd)pyrene	1670	1260	76	45-129
78-59-1	Isophorone	1670	1020	61	47-102
90-12-0	1-Methylnaphthalene	1670	980	59	50-106
91-57-6	2-Methylnaphthalene	1670	966	58	45-104
88-74-4	2-Nitroaniline	1670	1110	67	46-121
99-09-2	3-Nitroaniline	1670	1000	60	33-107
100-01-6	4-Nitroaniline	1670	951	57	52-110
91-20-3	Naphthalene	1670	975	59	47-108
98-95-3	Nitrobenzene	1670	975	59	45-105
62-75-9	n-Nitrosodimethylamine	1670	953	57	33-103
621-64-7	N-Nitroso-di-n-propylamine	1670	907	54	42-110
86-30-6	N-Nitrosodiphenylamine	3330	2200	66	37-114
85-01-8	Phenanthrene	1670	1130	68	57-116
129-00-0	Pyrene	1670	1180	71	52-120
110-86-1	Pyridine	1670	924	55	17-105
120-82-1	1,2,4-Trichlorobenzene	1670	965	58	40-101

* = Outside of Control Limits.

Blank Spike Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33754-BS	P35296.D	1	09/02/14	SC	09/02/14	OP33754	EP1701

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

TC53875-1, TC53875-2

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	63%	26-124%
4165-62-2	Phenol-d5	65%	19-106%
118-79-6	2,4,6-Tribromophenol	73%	18-129%
4165-60-0	Nitrobenzene-d5	61%	18-104%
321-60-8	2-Fluorobiphenyl	69%	21-114%
1718-51-0	Terphenyl-d14	84%	24-149%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33774-BS	P35328.D	1	09/03/14	SC	09/03/14	OP33774	EP1702

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

TC53875-1A, TC53875-2A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-48-7	2-Methylphenol	500	365	73	33-113
	3&4-Methylphenol	500	357	71	28-119
87-86-5	Pentachlorophenol	500	306	61	28-136
95-95-4	2,4,5-Trichlorophenol	500	404	81	47-116
88-06-2	2,4,6-Trichlorophenol	500	418	84	44-112
106-46-7	1,4-Dichlorobenzene	500	315	63	36-99
121-14-2	2,4-Dinitrotoluene	500	413	83	52-115
118-74-1	Hexachlorobenzene	500	416	83	49-114
87-68-3	Hexachlorobutadiene	500	319	64	30-104
67-72-1	Hexachloroethane	500	331	66	30-100
98-95-3	Nitrobenzene	500	414	83	40-103
110-86-1	Pyridine	500	250	50	10-77

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	55%	10-86%
4165-62-2	Phenol-d5	40%	10-83%
118-79-6	2,4,6-Tribromophenol	73%	32-128%
4165-60-0	Nitrobenzene-d5	73%	29-115%
321-60-8	2-Fluorobiphenyl	76%	34-113%
1718-51-0	Terphenyl-d14	87%	23-138%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33754-MS	O11968.D	1	09/02/14	GJ	09/02/14	OP33754	EO663
OP33754-MSD	O11969.D	1	09/02/14	GJ	09/02/14	OP33754	EO663
TC53822-1	O11967.D	1	09/02/14	GJ	09/02/14	OP33754	EO663
TC53822-1	O11970.D	10	09/02/14	GJ	09/02/14	OP33754	EO663

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

TC53875-1, TC53875-2

CAS No.	Compound	TC53822-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic acid	850 U		1710	342	20	1700	398	23	15	10-122/40
95-57-8	2-Chlorophenol	170 U		1710	1060	62	1700	1240	73	16	49-106/36
59-50-7	4-Chloro-3-methyl phenol	170 U		1710	1190	70	1700	1340	79	12	35-116/37
120-83-2	2,4-Dichlorophenol	170 U		1710	1150	67	1700	1350	79	16	53-107/37
105-67-9	2,4-Dimethylphenol	170 U		1710	1140	67	1700	1310	77	14	51-109/35
51-28-5	2,4-Dinitrophenol	850 U		1710	ND	0*	1700	ND	0*	nc	30-125/43
534-52-1	4,6-Dinitro-o-cresol	340 U		1710	307	18*	1700	368	22*	18	41-125/39
95-48-7	2-Methylphenol	170 U		1710	1080	63	1700	1230	72	13	46-105/36
	3&4-Methylphenol	170 U		1710	1110	65	1700	1240	73	11	43-120/34
88-75-5	2-Nitrophenol	170 U		1710	1070	63	1700	1280	75	18	49-104/40
100-02-7	4-Nitrophenol	850 U		1710	852	50	1700	999	59	16	29-129/41
87-86-5	Pentachlorophenol	850 U		1710	537	31*	1700	724	43	30	36-122/39
108-95-2	Phenol	170 U		1710	1080	63	1700	1260	74	15	48-117/36
95-95-4	2,4,5-Trichlorophenol	170 U		1710	1160	68	1700	1380	81	17	57-116/37
88-06-2	2,4,6-Trichlorophenol	170 U		1710	1200	70	1700	1400	82	15	54-112/36
83-32-9	Acenaphthene	112	J	1710	1310	70	1700	1510	82	14	52-109/35
208-96-8	Acenaphthylene	170 U		1710	1240	73	1700	1430	84	14	54-115/33
62-53-3	Aniline	850 U		1710	1090	64	1700	1270	75	15	28-116/39
120-12-7	Anthracene	240		1710	1460	71	1700	1660	83	13	57-114/35
92-87-5	Benzidine	6800 U		3410	1300	38	3410	1500	43	12	15-156/40
56-55-3	Benzo(a)anthracene	2400		1710	4030	95	1700	4170	104	3	59-114/38
50-32-8	Benzo(a)pyrene	4380 [b]		1710	6810	142* [a]	1700	6710	137* [a]	1	53-106/37
205-99-2	Benzo(b)fluoranthene	6320 [b]		1710	9430	182* [a]	1700	9340	177* [a]	1	54-115/40
191-24-2	Benzo(g,h,i)perylene	4310 [b]		1710	4200	-6* [a]	1700	4250	-4* [a]	1	44-127/39
207-08-9	Benzo(k)fluoranthene	2250		1710	3450	70	1700	3740	87	8	52-124/38
101-55-3	4-Bromophenyl phenyl ether	170 U		1710	1260	74	1700	1460	86	15	51-116/35
85-68-7	Butyl benzyl phthalate	170 U		1710	1380	81	1700	1570	92	13	52-117/36
100-51-6	Benzyl Alcohol	170 U		1710	1120	66	1700	1350	79	19	52-104/37
91-58-7	2-Chloronaphthalene	170 U		1710	1280	75	1700	1600	94	22	47-125/36
106-47-8	4-Chloroaniline	170 U		1710	1150	67	1700	1310	77	13	38-113/36
86-74-8	Carbazole	110	J	1710	1370	74	1700	1560	85	13	53-113/36
218-01-9	Chrysene	3000		1710	4670	98	1700	4890	111	5	62-117/38
111-91-1	bis(2-Chloroethoxy)methane	170 U		1710	1120	66	1700	1310	77	16	41-106/35
111-44-4	bis(2-Chloroethyl)ether	170 U		1710	1010	59	1700	1220	72	19	36-108/37
108-60-1	bis(2-Chloroisopropyl)ether	170 U		1710	1070	63	1700	1250	73	16	33-111/39
7005-72-3	4-Chlorophenyl phenyl ether	170 U		1710	1180	69	1700	1370	80	15	52-113/34

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33754-MS	O11968.D	1	09/02/14	GJ	09/02/14	OP33754	EO663
OP33754-MSD	O11969.D	1	09/02/14	GJ	09/02/14	OP33754	EO663
TC53822-1	O11967.D	1	09/02/14	GJ	09/02/14	OP33754	EO663
TC53822-1	O11970.D	10	09/02/14	GJ	09/02/14	OP33754	EO663

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

TC53875-1, TC53875-2

CAS No.	Compound	TC53822-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
95-50-1	1,2-Dichlorobenzene	170 U		1710	996	58	1700	1220	72	20	41-106/38
122-66-7	1,2-Diphenylhydrazine	170 U		1710	1350	79	1700	1580	93	16	51-113/34
541-73-1	1,3-Dichlorobenzene	170 U		1710	986	58	1700	1200	70	20	39-104/39
106-46-7	1,4-Dichlorobenzene	170 U		1710	995	58	1700	1230	72	21	40-105/39
121-14-2	2,4-Dinitrotoluene	170 U		1710	1170	69	1700	1350	79	14	55-117/37
606-20-2	2,6-Dinitrotoluene	170 U		1710	1210	71	1700	1370	80	12	56-112/36
91-94-1	3,3'-Dichlorobenzidine	340 U		1710	1240	73	1700	1480	87	18	33-129/39
53-70-3	Dibenzo(a,h)anthracene	944		1710	1860	54	1700	1950	59	5	47-126/38
132-64-9	Dibenzofuran	170 U		1710	1300	76	1700	1520	89	16	51-112/34
84-74-2	Di-n-butyl phthalate	170 U		1710	1310	77	1700	1510	89	14	54-117/36
117-84-0	Di-n-octyl phthalate	170 U		1710	1360	80	1700	1610	95	17	47-119/40
84-66-2	Diethyl phthalate	170 U		1710	1330	78	1700	1490	87	11	53-114/36
131-11-3	Dimethyl phthalate	170 U		1710	1350	79	1700	1520	89	12	55-111/34
117-81-7	bis(2-Ethylhexyl)phthalate	170 U		1710	1450	85	1700	1650	97	13	51-123/40
206-44-0	Fluoranthene	2600		1710	4030	84	1700	4150	91	3	54-118/39
86-73-7	Fluorene	70.6	J	1710	1260	70	1700	1470	82	15	55-114/37
118-74-1	Hexachlorobenzene	170 U		1710	1250	73	1700	1470	86	16	51-117/37
87-68-3	Hexachlorobutadiene	170 U		1710	1130	66	1700	1330	78	16	37-111/38
77-47-4	Hexachlorocyclopentadiene	850 U		1710	457	27	1700	514	30	12	10-121/45
67-72-1	Hexachloroethane	170 U		1710	1230	72	1700	1480	87	18	42-100/41
193-39-5	Indeno(1,2,3-cd)pyrene	4600 [b]		1710	4930	19* [a]	1700	4920	19* [a]	0	45-129/38
78-59-1	Isophorone	170 U		1710	1210	71	1700	1390	82	14	47-102/35
90-12-0	1-Methylnaphthalene	170 U		1710	1190	70	1700	1380	81	15	50-106/38
91-57-6	2-Methylnaphthalene	170 U		1710	1150	67	1700	1340	79	15	45-104/37
88-74-4	2-Nitroaniline	170 U		1710	1360	80	1700	1590	93	16	46-121/40
99-09-2	3-Nitroaniline	170 U		1710	1200	70	1700	1380	81	14	33-107/37
100-01-6	4-Nitroaniline	340 U		1710	1110	65	1700	1260	74	13	52-110/36
91-20-3	Naphthalene	170 U		1710	1160	68	1700	1360	80	16	47-108/34
98-95-3	Nitrobenzene	170 U		1710	1130	66	1700	1340	79	17	45-105/36
62-75-9	n-Nitrosodimethylamine	170 U		1710	1120	66	1700	1350	79	19	33-103/39
621-64-7	N-Nitroso-di-n-propylamine	170 U		1710	1090	64	1700	1270	75	15	42-110/36
86-30-6	N-Nitrosodiphenylamine	170 U		3410	2470	72	3410	2860	84	15	37-114/35
85-01-8	Phenanthrene	1040		1710	2290	73	1700	2540	88	10	57-116/42
129-00-0	Pyrene	2630		1710	4300	98	1700	4380	103	2	52-120/40
110-86-1	Pyridine	170 U		1710	869	51	1700	1070	63	21	17-105/43
120-82-1	1,2,4-Trichlorobenzene	170 U		1710	1090	64	1700	1330	78	20	40-101/36

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33754-MS	O11968.D	1	09/02/14	GJ	09/02/14	OP33754	EO663
OP33754-MSD	O11969.D	1	09/02/14	GJ	09/02/14	OP33754	EO663
TC53822-1	O11967.D	1	09/02/14	GJ	09/02/14	OP33754	EO663
TC53822-1	O11970.D	10	09/02/14	GJ	09/02/14	OP33754	EO663

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

TC53875-1, TC53875-2

CAS No.	Surrogate Recoveries	MS	MSD	TC53822-1	TC53822-1	Limits
367-12-4	2-Fluorophenol	65%	77%	75%	66%	26-124%
4165-62-2	Phenol-d5	68%	78%	79%	68%	19-106%
118-79-6	2,4,6-Tribromophenol	73%	82%	75%	60%	18-129%
4165-60-0	Nitrobenzene-d5	69%	80%	84%	75%	18-104%
321-60-8	2-Fluorobiphenyl	72%	83%	84%	76%	21-114%
1718-51-0	Terphenyl-d14	84%	96%	98%	97%	24-149%

(a) Outside control limits due to high level in sample relative to spike amount.
(b) Result is from Run #2.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33774-MS	P35330.D	1	09/03/14	SC	09/03/14	OP33774	EP1702
OP33774-MSD	P35331.D	1	09/03/14	SC	09/03/14	OP33774	EP1702
TC53114-1B	P35329.D	1	09/03/14	SC	09/03/14	OP33774	EP1702

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

TC53875-1A, TC53875-2A

CAS No.	Compound	TC53114-1B 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	353	71	500	361	72	2	33-113/35
	3&4-Methylphenol	ND		500	342	68	500	346	69	1	28-119/36
87-86-5	Pentachlorophenol	ND		500	370	74	500	392	78	6	28-136/29
95-95-4	2,4,5-Trichlorophenol	ND		500	386	77	500	384	77	1	47-116/27
88-06-2	2,4,6-Trichlorophenol	ND		500	402	80	500	400	80	0	44-112/26
106-46-7	1,4-Dichlorobenzene	ND		500	393	79	500	401	80	2	36-99/31
121-14-2	2,4-Dinitrotoluene	ND		500	383	77	500	383	77	0	52-115/30
118-74-1	Hexachlorobenzene	ND		500	398	80	500	396	79	1	49-114/25
87-68-3	Hexachlorobutadiene	ND		500	397	79	500	402	80	1	30-104/31
67-72-1	Hexachloroethane	ND		500	438	88	500	447	89	2	30-100/34
98-95-3	Nitrobenzene	ND		500	402	80	500	406	81	1	40-103/31
110-86-1	Pyridine	ND		500	263	53	500	263	53	0	10-77/41

CAS No.	Surrogate Recoveries	MS	MSD	TC53114-1B	Limits
367-12-4	2-Fluorophenol	84%	84%	67%	10-86%
4165-62-2	Phenol-d5	75%	74%	60%	10-83%
118-79-6	2,4,6-Tribromophenol	87%	86%	73%	32-128%
4165-60-0	Nitrobenzene-d5	89%	87%	75%	29-115%
321-60-8	2-Fluorobiphenyl	93%	89%	78%	34-113%
1718-51-0	Terphenyl-d14	100%	94%	87%	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: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33718-MB	VB14549.D	1	08/29/14	ZL	08/29/14	OP33718	GVB342

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

TC53875-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C6-C12)	ND	25	14	mg/kg	
	TPH (> C12-C28)	ND	25	14	mg/kg	
	TPH (> C28-C35)	ND	25	14	mg/kg	
	TPH (C6-C35)	ND	25	14	mg/kg	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	83%	70-130%
98-08-8	aaa-Trifluorotoluene	109%	70-130%

Method Blank Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33778-MB	LF104270.D	1	09/03/14	ZL	09/03/14	OP33778	GLF1542

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

TC53875-2

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C6-C12)	ND	25	14	mg/kg	
	TPH (> C12-C28)	ND	25	14	mg/kg	
	TPH (> C28-C35)	ND	25	14	mg/kg	
	TPH (C6-C35)	ND	25	14	mg/kg	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	106%	70-130%
98-08-8	aaa-Trifluorotoluene	94%	70-130%

Method Blank Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33773-MB	DD773076.D	1	09/08/14	FO	09/03/14	OP33773	GDD2393

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

TC53875-1, TC53875-2

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	33	16	ug/kg	
93-72-1	2,4,5-TP (Silvex)	ND	6.7	3.5	ug/kg	
93-76-5	2,4,5-T	ND	6.7	2.3	ug/kg	

CAS No.	Surrogate Recoveries		Limits
19719-28-9	2,4-DCAA	113%	30-154%

Method Blank Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33819-MB	DD773063.D	1	09/07/14	FO	09/05/14	OP33819	GDD2393

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

TC53875-1A, TC53875-2A

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	112%	40-168%

Method Blank Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33730-MB	NN176173.D	1	09/02/14	SC	08/29/14	OP33730	GNN1473

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

TC53875-1, TC53875-2

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	1.7	0.58	ug/kg	
319-84-6	alpha-BHC	ND	1.7	0.72	ug/kg	
319-85-7	beta-BHC	ND	1.7	0.50	ug/kg	
319-86-8	delta-BHC	ND	1.7	0.62	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	1.7	0.62	ug/kg	
5103-71-9	alpha-Chlordane	ND	1.7	0.36	ug/kg	
5103-74-2	gamma-Chlordane	ND	1.7	0.39	ug/kg	
60-57-1	Dieldrin	ND	3.3	1.3	ug/kg	
72-54-8	4,4'-DDD	ND	3.3	1.2	ug/kg	
72-55-9	4,4'-DDE	ND	3.3	1.3	ug/kg	
50-29-3	4,4'-DDT	ND	3.3	1.4	ug/kg	
72-20-8	Endrin	ND	3.3	1.3	ug/kg	
1031-07-8	Endosulfan sulfate	ND	3.3	1.4	ug/kg	
7421-93-4	Endrin aldehyde	ND	3.3	1.4	ug/kg	
53494-70-5	Endrin ketone	ND	3.3	1.3	ug/kg	
959-98-8	Endosulfan-I	ND	3.3	0.73	ug/kg	
33213-65-9	Endosulfan-II	ND	3.3	1.3	ug/kg	
76-44-8	Heptachlor	ND	1.7	0.49	ug/kg	
1024-57-3	Heptachlor epoxide	ND	1.7	0.70	ug/kg	
72-43-5	Methoxychlor	ND	17	6.7	ug/kg	
8001-35-2	Toxaphene	ND	17	8.3	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	75%	27-125%
2051-24-3	Decachlorobiphenyl	79%	21-130%

Method Blank Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33817-MB	NN176481.D	1	09/08/14	SC	09/05/14	OP33817	GNN1479

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

TC53875-1A, TC53875-2A

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	99%	39-122%
2051-24-3	Decachlorobiphenyl	93%	28-123%

Method Blank Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33729-MB [a]	MM071366.D	1	09/02/14	SC	08/29/14	OP33729	GMM471

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

TC53875-1, TC53875-2

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	17	3.3	ug/kg	
11104-28-2	Aroclor 1221	ND	17	6.7	ug/kg	
11141-16-5	Aroclor 1232	ND	17	6.7	ug/kg	
53469-21-9	Aroclor 1242	ND	17	3.4	ug/kg	
12672-29-6	Aroclor 1248	ND	17	4.0	ug/kg	
11097-69-1	Aroclor 1254	ND	17	3.9	ug/kg	
11096-82-5	Aroclor 1260	ND	17	8.6	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	82%	30-118%
2051-24-3	Decachlorobiphenyl	72%	29-122%

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

Blank Spike Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33773-BS	DD773075.D	1	09/08/14	FO	09/03/14	OP33773	GDD2393

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

TC53875-1, TC53875-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
94-75-7	2,4-D	66.1	62.5	94	42-148
93-72-1	2,4,5-TP (Silvex)	13.2	17.3	131	48-134
93-76-5	2,4,5-T	13.2	11.0	83	27-124

CAS No.	Surrogate Recoveries	BSP	Limits
19719-28-9	2,4-DCAA	116%	30-154%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33819-BS	DD773052.D	1	09/07/14	FO	09/05/14	OP33819	GDD2393

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

TC53875-1A, TC53875-2A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
94-75-7	2,4-D	20	19.6	98	64-130
93-72-1	2,4,5-TP (Silvex)	4	3.2	80	58-136

CAS No.	Surrogate Recoveries	BSP	Limits
19719-28-9	2,4-DCAA	120%	40-168%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33730-BS	NN176172.D	1	09/02/14	SC	08/29/14	OP33730	GNN1473

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

TC53875-1, TC53875-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
309-00-2	Aldrin	8.33	5.8	70	51-119
319-84-6	alpha-BHC	8.33	7.4	89	51-144
319-85-7	beta-BHC	8.33	10.7	128	45-144
319-86-8	delta-BHC	8.33	7.5	90	53-142
58-89-9	gamma-BHC (Lindane)	8.33	7.6	91	54-132
5103-71-9	alpha-Chlordane	8.33	7.2	86	53-135
5103-74-2	gamma-Chlordane	8.33	7.3	88	51-133
60-57-1	Dieldrin	16.7	13.3	80	61-135
72-54-8	4,4'-DDD	16.7	14.9	89	62-151
72-55-9	4,4'-DDE	16.7	13.6	82	56-142
50-29-3	4,4'-DDT	16.7	14.2	85	62-146
72-20-8	Endrin	16.7	14.7	88	63-153
1031-07-8	Endosulfan sulfate	16.7	14.1	85	55-139
7421-93-4	Endrin aldehyde	16.7	13.9	83	37-119
53494-70-5	Endrin ketone	16.7	14.4	86	56-136
959-98-8	Endosulfan-I	8.33	7.1	85	59-136
33213-65-9	Endosulfan-II	16.7	14.6	88	62-140
76-44-8	Heptachlor	8.33	7.0	84	53-130
1024-57-3	Heptachlor epoxide	8.33	6.5	78	53-131
72-43-5	Methoxychlor	83.3	72.8	87	59-142

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	76%	27-125%
2051-24-3	Decachlorobiphenyl	75%	21-130%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33817-BS	NN176482.D	1	09/08/14	SC	09/05/14	OP33817	GNN1479

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

TC53875-1A, TC53875-2A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
58-89-9	gamma-BHC (Lindane)	2.5	2.5	100	62-131
72-20-8	Endrin	5	6.0	120	74-154
76-44-8	Heptachlor	2.5	2.6	104	51-131
1024-57-3	Heptachlor epoxide	2.5	2.5	100	66-129
72-43-5	Methoxychlor	25	25.1	100	64-140

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	92%	39-122%
2051-24-3	Decachlorobiphenyl	91%	28-123%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33729-BS [a]	MM071367.D	1	09/02/14	SC	08/29/14	OP33729	GMM471

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

TC53875-1, TC53875-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
12674-11-2	Aroclor 1016	66.6	61.9	93	73-123
11096-82-5	Aroclor 1260	66.6	55.8	84	73-124

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	77%	30-118%
2051-24-3	Decachlorobiphenyl	69%	29-122%

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

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33718-BS	VB14537.D	1	08/29/14	ZL	08/29/14	OP33718	GVB342
OP33718-BSD	VB14541.D	1	08/29/14	ZL	08/29/14	OP33718	GVB342

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

TC53875-1

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	BSD mg/kg	BSD %	RPD	Limits Rec/RPD
	TPH (C6-C12)	250	215	86	236	94	9	75-125/20
	TPH (> C12-C28)	250	196	78	216	86	10	75-125/20
	TPH (C6-C35)	500	411	82	452	90	10	75-125/20

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
84-15-1	o-Terphenyl	85%	93%	70-130%
98-08-8	aaa-Trifluorotoluene	87%	96%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33778-BS	LB104263.D	1	09/03/14	ZL	09/03/14	OP33778	GLB1542
OP33778-BSD	LF104264.D	1	09/03/14	ZL	09/03/14	OP33778	GLF1542

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

TC53875-2

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	BSD mg/kg	BSD %	RPD	Limits Rec/RPD
	TPH (C6-C12)	250	246	98	236	94	4	75-125/20
	TPH (> C12-C28)	250	225	90	251	100	11	75-125/20
	TPH (C6-C35)	500	472	94	487	97	3	75-125/20

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
84-15-1	o-Terphenyl	94%	105%	70-130%
98-08-8	aaa-Trifluorotoluene	109%	99%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33718-MS	VB14543.D	1	08/29/14	ZL	08/29/14	OP33718	GVB342
OP33718-MSD	VB14545.D	1	08/29/14	ZL	08/29/14	OP33718	GVB342
TC53840-22	VB14547.D	1	08/29/14	ZL	08/29/14	OP33718	GVB342

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

TC53875-1

CAS No.	Compound	TC53840-22 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	Spike mg/kg	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH (C6-C12)	ND		294	227	77	288	248	86	9	75-125/20
	TPH (> C12-C28)	ND		294	201	68*	288	216	75	7	75-125/20
	TPH (C6-C35)	ND		588	428	73*	575	464	81	8	75-125/20

CAS No.	Surrogate Recoveries	MS	MSD	TC53840-22	Limits
84-15-1	o-Terphenyl	72%	81%	83%	70-130%
98-08-8	aaa-Trifluorotoluene	76%	101%	104%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33778-MS	LF104274.D	1	09/03/14	ZL	09/03/14	OP33778	GLF1542
OP33778-MSD	LF104276.D	1	09/03/14	ZL	09/03/14	OP33778	GLF1542
TC54044-2	LF104272.D	1	09/03/14	ZL	09/03/14	OP33778	GLF1542

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

TC53875-2

CAS No.	Compound	TC54044-2 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	Spike mg/kg	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH (C6-C12)	101		367	425	88	373	518	112	20	75-125/20
	TPH (> C12-C28)	530		367	622	25*	373	868	91	33*	75-125/20
	TPH (C6-C35)	977		734	1360	52*	746	1890	122	33*	75-125/20

CAS No.	Surrogate Recoveries	MS	MSD	TC54044-2	Limits
84-15-1	o-Terphenyl	90%	94%	96%	70-130%
98-08-8	aaa-Trifluorotoluene	98%	97%	94%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33773-MS [a]	DD773083.D	10	09/08/14	FO	09/03/14	OP33773	GDD2393
OP33773-MSD	DD773084.D	10	09/08/14	FO	09/03/14	OP33773	GDD2393
TC53875-1 [b]	DD773071.D	1	09/08/14	FO	09/03/14	OP33773	GDD2393
TC53875-1	DD773072.D	25	09/08/14	FO	09/03/14	OP33773	GDD2393

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

TC53875-1, TC53875-2

CAS No.	Compound	TC53875-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
94-75-7	2,4-D	7300	U [c]	664	ND	0*	662	ND	0*	nc	42-148/36
93-72-1	2,4,5-TP (Silvex)	1500	U [c]	133	ND	0*	132	ND	0*	nc	48-134/35
93-76-5	2,4,5-T	1500	U [c]	133	ND	0*	132	ND	0*	nc	27-124/35

CAS No.	Surrogate Recoveries	MS	MSD	TC53875-1	TC53875-1	Limits
19719-28-9	2,4-DCAA	40744%* [f]	41964%* [e]		44144%* [d]	30-154%

(a) Outside control limits due to dilution.
(b) Sample used for QC purposes only.
(c) Result is from Run #2.
(d) Outside control limits biased high due to matrix interference. Analyte not detected in associated sample.
(e) Outside control limits due to dilution matrix interference.
(f) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33819-MS	DD773061.D	1	09/07/14	FO	09/05/14	OP33819	GDD2393
OP33819-MSD	DD773067.D	1	09/08/14	FO	09/05/14	OP33819	GDD2393
TC53875-2A	DD773057.D	1	09/07/14	FO	09/05/14	OP33819	GDD2393

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

TC53875-1A, TC53875-2A

CAS No.	Compound	TC53875-2A 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	10 U		20	68.7	344*	20	21.1	106	106*	64-130/20
93-72-1	2,4,5-TP (Silvex)	2.0 U		4	14.1	238*	4	1.9	-68*	153*	58-136/22

CAS No.	Surrogate Recoveries	MS	MSD	TC53875-2A	Limits
19719-28-9	2,4-DCAA	301%* b	365%* b	665%* a	40-168%

(a) Outside control limits biased high due to matrix interference. Analyte not detected in associated sample.
(b) Outside control limits due to matrix interference. Confirmed by MS/MSD.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33730-MS [a]	NN176271.D	50	09/04/14	SC	08/29/14	OP33730	GNN1475
OP33730-MSD [a]	NN176272.D	50	09/04/14	SC	08/29/14	OP33730	GNN1475
TC53875-1 [a]	NN176270.D	50	09/04/14	SC	08/29/14	OP33730	GNN1475

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

TC53875-1, TC53875-2

CAS No.	Compound	TC53875-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
309-00-2	Aldrin	780	U	78.9	ND	0*	79.9	ND	0*	nc	51-119/36
319-84-6	alpha-BHC	780	U	78.9	ND	0*	79.9	ND	0*	nc	51-144/31
319-85-7	beta-BHC	780	U	78.9	ND	0*	79.9	ND	0*	nc	45-144/34
319-86-8	delta-BHC	780	U	78.9	ND	0*	79.9	ND	0*	nc	53-142/29
58-89-9	gamma-BHC (Lindane)	780	U	78.9	ND	0*	79.9	ND	0*	nc	54-132/28
5103-71-9	alpha-Chlordane	780	U	78.9	ND	0*	79.9	ND	0*	nc	53-135/32
5103-74-2	gamma-Chlordane	780	U	78.9	ND	0*	79.9	ND	0*	nc	51-133/37
60-57-1	Dieldrin	1600	U	158	ND	0*	160	ND	0*	nc	61-135/32
72-54-8	4,4'-DDD	1600	U	158	ND	0*	160	ND	0*	nc	62-151/31
72-55-9	4,4'-DDE	1600	U	158	ND	0*	160	ND	0*	nc	56-142/29
50-29-3	4,4'-DDT	1600	U	158	ND	0*	160	ND	0*	nc	62-146/27
72-20-8	Endrin	1600	U	158	ND	0*	160	ND	0*	nc	63-153/28
1031-07-8	Endosulfan sulfate	1600	U	158	ND	0*	160	ND	0*	nc	55-139/33
7421-93-4	Endrin aldehyde	1600	U	158	ND	0*	160	ND	0*	nc	37-119/27
53494-70-5	Endrin ketone	1600	U	158	ND	0*	160	ND	0*	nc	56-136/28
959-98-8	Endosulfan-I	1600	U	78.9	ND	0*	79.9	ND	0*	nc	59-136/29
33213-65-9	Endosulfan-II	1600	U	158	ND	0*	160	ND	0*	nc	62-140/33
76-44-8	Heptachlor	780	U	78.9	ND	0*	79.9	ND	0*	nc	53-130/32
1024-57-3	Heptachlor epoxide	780	U	78.9	ND	0*	79.9	ND	0*	nc	53-131/32
72-43-5	Methoxychlor	7800	U	789	ND	0*	799	ND	0*	nc	59-142/27

CAS No.	Surrogate Recoveries	MS	MSD	TC53875-1	Limits
877-09-8	Tetrachloro-m-xylene	0%* [b]	0%* [b]	0%* [b]	27-125%
2051-24-3	Decachlorobiphenyl	0%* [b]	0%* [b]	0%* [b]	21-130%

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

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33817-MS	NN176478.D	1	09/08/14	SC	09/05/14	OP33817	GNN1479
OP33817-MSD	NN176479.D	1	09/08/14	SC	09/05/14	OP33817	GNN1479
TC53874-2A	NN176477.D	1	09/08/14	SC	09/05/14	OP33817	GNN1479

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

TC53875-1A, TC53875-2A

CAS No.	Compound	TC53874-2A 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)	0.50	U	2.5	2.4	96	2.5	2.4	96	0	62-131/23
72-20-8	Endrin	1.0	U	5	6.1	122	5	6.3	126	3	74-154/22
76-44-8	Heptachlor	0.50	U	2.5	2.5	100	2.5	2.7	108	8	51-131/31
1024-57-3	Heptachlor epoxide	0.50	U	2.5	2.1	84	2.5	2.2	88	5	66-129/21
72-43-5	Methoxychlor	5.0	U	25	23.4	94	25	22.2	89	5	64-140/20

CAS No.	Surrogate Recoveries	MS	MSD	TC53874-2A	Limits
877-09-8	Tetrachloro-m-xylene	148%*	79%	81%	39-122%
2051-24-3	Decachlorobiphenyl	74%	80%	80%	28-123%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC53875
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33729-MS	MM071415.D	25	09/03/14	SC	08/29/14	OP33729	GMM472
OP33729-MSD	MM071416.D	25	09/03/14	SC	08/29/14	OP33729	GMM472
TC53875-1 [a]	MM071414.D	25	09/03/14	SC	08/29/14	OP33729	GMM472

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

TC53875-1, TC53875-2

CAS No.	Compound	TC53875-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	3900	U	610	ND	0*	645	ND	0*	nc	73-123/33
11096-82-5	Aroclor 1260	3900	U	610	ND	0*	645	ND	0*	nc	73-124/30

CAS No.	Surrogate Recoveries	MS	MSD	TC53875-1	Limits
877-09-8	Tetrachloro-m-xylene	0%* [b]	0%* [b]	0%* [b]	30-118%
2051-24-3	Decachlorobiphenyl	0%* [b]	0%* [b]	0%* [b]	29-122%

(a) Elevated reporting limits due to high levels of non-target analytes.
(b) Outside control limits due to dilution.

* = 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: TC53875
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24110
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 08/29/14

Metal	RL	IDL	MDL	MB raw	final
Aluminum	10	.35	1.2		
Antimony	0.25	.028	.09		
Arsenic	0.25	.05	.087	-0.024	<0.25
Barium	10	.008	.013	0.014	<10
Beryllium	0.20	.005	.034		
Boron	5.0	.02	.29		
Cadmium	0.20	.0075	.013	0.0030	<0.20
Calcium	250	.2	.39	0.39	<250
Chromium	0.50	.011	.07	0.022	<0.50
Cobalt	2.5	.013	.02		
Copper	1.0	.012	.11	0.024	<1.0
Iron	5.0	.23	.72	0.66	<5.0
Lead	0.15	.033	.11	0.025	<0.15
Lithium	15	.033	.074		
Magnesium	250	.38	1.4	-1.1	<250
Manganese	0.75	.0045	.02	0.019	<0.75
Molybdenum	0.50	.031	.026		
Nickel	2.0	.011	.038	0.016	<2.0
Potassium	250	.38	2.1		
Selenium	0.25	.06	.094	-0.069	<0.25
Silver	0.50	.01	.035	0.0045	<0.50
Sodium	250	.29	.77	0.72	<250
Sulfur	2.5		.41		
Strontium	0.50	.0035	.006		
Thallium	0.50	.042	.12		
Tin	2.5	.034	.38		
Titanium	1.0	.0095	.034		
Vanadium	2.5	.009	.021		
Zinc	1.0	.0065	.28	0.090	<1.0

Associated samples MP24110: TC53875-1, TC53875-2

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: TC53875
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24110 Methods: SW846 6010B
Matrix Type: SOLID Units: mg/kg

Prep Date: 08/29/14

Metal	TC53682-1 Original	MS	Spikelot MPTW11	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	2.4	16.1	21.7	63.0N(a)	75-125
Barium	66.1	245	21.7	823.3N(b	75-125
Beryllium					
Boron					
Cadmium	0.077	14.6	21.7	66.8N(a)	75-125
Calcium	59100	68600	2720	349.8(c)	75-125
Chromium	5.7	16.9	21.7	51.5N(a)	75-125
Cobalt					
Copper	4.8	17.9	21.7	66.7N(a)	75-125
Iron	11700	13700	2720	73.6 (c)	75-125
Lead	3.0	22.4	21.7	89.3	75-125
Lithium					
Magnesium	37100	43700	2720	243.0(c)	75-125
Manganese	755	425	21.7	-248974359.1c	75-125
Molybdenum					
Nickel	9.8	29.2	21.7	89.3	75-125
Potassium					
Selenium	0.0	12.8	21.7	58.9N(a)	75-125
Silver	0.0	14.2	21.7	65.4N(a)	75-125
Sodium	202	2860	2720	97.9	75-125
Sulfur					
Strontium					
Thallium					
Tin					
Titanium					
Vanadium					
Zinc	12.1	25.9	21.7	63.5N(a)	75-125

Associated samples MP24110: TC53875-1, TC53875-2

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
(a) Spike recovery indicates possible matrix interference.
(b) Spike recovery indicates possible matrix interference or sample non-homogeneity.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TC53875
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24110 Methods: SW846 6010B
Matrix Type: SOLID Units: mg/kg

Prep Date: 08/29/14

Metal	TC53682-1 Original MS	Spikelot MPTW11	% Rec	QC Limits

(c) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

8.1.2

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MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TC53875
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24110 Methods: SW846 6010B
Matrix Type: SOLID Units: mg/kg

Prep Date: 08/29/14

Metal	TC53682-1 Original	MSD	Spikelot MPTW11	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	6.7	16.9	21.6	67.0N(a)	4.8	20
Barium	66.1	100	21.6	156.7N(b	84.1 (c)	20
Beryllium						
Boron						
Cadmium	0.077	15.6	21.6	71.7N(a)	6.6	20
Calcium	59100	56200	2700	-107.2(d	19.9	20
Chromium	5.7	18.6	21.6	59.6N(a)	9.6	20
Cobalt						
Copper	4.8	19.1	21.6	72.6N(a)	6.5	20
Iron	11700	13300	2700	59.2 (d)	3.0	20
Lead	3.8	22.6	21.6	90.6	0.9	20
Lithium						
Magnesium	37100	35400	2700	-62.9(d)	21.0 (c)	20
Manganese	755	679	21.6	-351.2(d	46.0 (c)	20
Molybdenum						
Nickel	9.8	29.6	21.6	91.5	1.4	20
Potassium						
Selenium	0.0	13.7	21.6	63.3N(a)	6.8	20
Silver	0.0	15.3	21.6	70.7N(a)	7.5	20
Sodium	202	2810	2700	96.4	1.8	20
Sulfur						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc	12.1	27.5	21.6	71.2N(a)	6.0	20

Associated samples MP24110: TC53875-1, TC53875-2

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
(a) Spike recovery indicates possible matrix interference.
(b) Spike recovery indicates possible matrix interference or sample non-homogeneity.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TC53875
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24110 Methods: SW846 6010B
Matrix Type: SOLID Units: mg/kg

Prep Date: 08/29/14

Metal	TC53682-1 Original MSD	Spikelot MPTW11	% Rec	MSD RPD	QC Limit

(c) High RPD due to possible sample nonhomogeneity or matrix interference.
(d) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: TC53875
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24110
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 08/29/14

Metal	LCS Result	Spikelot MPLCD064	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	107	122	87.7	78-122
Barium	143	167	85.6	82-117
Beryllium				
Boron				
Cadmium	77.9	88	88.5	82-118
Calcium	5260	5920	88.9	82-118
Chromium	91.3	102	89.5	79-121
Cobalt				
Copper	73.8	78	94.6	80-120
Iron	11700	15100	77.5	47-153
Lead	88.9	94.5	94.1	81-119
Lithium				
Magnesium	2600	3020	86.1	75-124
Manganese	347	401	86.5	81-119
Molybdenum				
Nickel	56.3	56.3	100.0	82-118
Potassium				
Selenium	137	157	87.3	77-122
Silver	29.6	34.2	86.5	74-125
Sodium	217	246	88.2	70-130
Sulfur				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc	184	207	88.9	80-121

Associated samples MP24110: TC53875-1, TC53875-2

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

SERIAL DILUTION RESULTS SUMMARY

Login Number: TC53875
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24110
Matrix Type: SOLID

Methods: SW846 6010B
Units: ug/l

Prep Date: 08/29/14

Metal	TC53682-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	44.3	81.1	83.2 (a)	0-10
Barium	1220	1260	3.4	0-10
Beryllium				
Boron				
Cadmium	1.43	0.00	100.0(a)	0-10
Calcium	1090000	1130000	3.9	0-10
Chromium	105	159	51.6*	0-10
Cobalt				
Copper	88.1	87.9	38.5*	0-10
Iron	216000	228000	5.4	0-10
Lead	56.2	61.8	10.0	0-10
Lithium				
Magnesium	686000	701000	2.2	0-10
Manganese	14000	12900	100.0*	0-10
Molybdenum				
Nickel	181	195	7.8	0-10
Potassium				
Selenium	0.00	0.00	NC	0-10
Silver	0.00	0.00	NC	0-10
Sodium	3740	7790	108.5*(b	0-10
Sulfur				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc	223	309	38.4*	0-10

Associated samples MP24110: TC53875-1, TC53875-2

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).
(b) Serial dilution indicates possible matrix interference.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: TC53875
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24134 Methods: SW846 7471A
Matrix Type: SOLID Units: mg/kg

Prep Date: 09/03/14

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.031	.0075	.012	0.0055	<0.031

Associated samples MP24134: TC53875-1, TC53875-2

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: TC53875
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24134 Methods: SW846 7471A
Matrix Type: SOLID Units: mg/kg

Prep Date: 09/03/14

Metal	TC53831-1 Original	MS	Spikelot HGTXWS1	% Rec	QC Limits
Mercury	0.034	0.49	0.445	102.4	75-125

Associated samples MP24134: TC53875-1, TC53875-2

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: TC53875
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24134 Methods: SW846 7471A
Matrix Type: SOLID Units: mg/kg

Prep Date: 09/03/14

Metal	TC53831-1 Original	MSD	Spikelot HGTXWS1	% Rec	MSD RPD	QC Limit
Mercury	0.034	0.49	0.445	102.5	0.0	20

Associated samples MP24134: TC53875-1, TC53875-2

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: TC53875
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24134
Matrix Type: SOLID

Methods: SW846 7471A
Units: mg/kg

Prep Date: 09/03/14

Metal	LCS Result	Spikelot HGLCD064	% Rec	QC Limits
Mercury	4.0	3.98	100.5	75-126

Associated samples MP24134: TC53875-1, TC53875-2

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

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: TC53875
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24141
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: mg/l

Prep Date:					09/04/14		09/04/14
Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Aluminum	1.0	.035	.061				
Antimony	0.025	.0028	.0051				
Arsenic	0.050	.005	.005	-0.033	<0.050	0.018	<0.050
Barium	5.0	.0008	.017	0.0016	<5.0	0.00093	<5.0
Beryllium	0.025	.0005	.0008				
Boron	0.50	.002	.039				
Cadmium	0.020	.00075	.00045	0.0015	<0.020	0.000030	<0.020
Calcium	25	.02	.12				
Chromium	0.050	.0011	.0014	-0.00017	<0.050	0.000010	<0.050
Cobalt	0.25	.0013	.0011				
Copper	0.13	.0012	.03				
Iron	0.50	.023	.12				
Lead	0.025	.0033	.0089	-0.0010	<0.025	0.0011	<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	0.25	.006	.0049	0.0076	<0.25	0.0036	<0.25
Silver	0.050	.001	.0012	0.00078	<0.050	0.0012	<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 MP24141: TC53875-1A, TC53875-2A

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: TC53875
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24141
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: mg/l

Prep Date: 09/04/14

Metal	TC54002-1 Original	MS	Spikelot MPTW11	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	0.0	0.32	0.40	80.0	75-125
Barium	0.62	0.81	0.40	47.5N(a)	75-125
Beryllium					
Boron					
Cadmium	0.0017	0.37	0.40	92.1	75-125
Calcium					
Chromium	0.0060	0.36	0.40	88.5	75-125
Cobalt					
Copper	anr				
Iron					
Lead	0.0034	0.36	0.40	89.2	75-125
Lithium					
Magnesium					
Manganese					
Molybdenum					
Nickel	anr				
Potassium					
Selenium	0.024	0.37	0.40	86.5	75-125
Silver	0.0014	0.35	0.40	87.2	75-125
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Vanadium					
Zinc	anr				

Associated samples MP24141: TC53875-1A, TC53875-2A

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.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TC53875
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24141
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: mg/l

Prep Date: 09/04/14

Metal	TC54002-1 Original	MSD	Spikelot MPTW11	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	0.0	0.36	0.40	90.0	11.8	20
Barium	0.62	0.81	0.40	47.5N(a)	0.0	20
Beryllium						
Boron						
Cadmium	0.0017	0.39	0.40	97.1	5.3	20
Calcium						
Chromium	0.0060	0.39	0.40	96.0	8.0	20
Cobalt						
Copper	anr					
Iron						
Lead	0.0034	0.38	0.40	94.2	5.4	20
Lithium						
Magnesium						
Manganese						
Molybdenum						
Nickel	anr					
Potassium						
Selenium	0.024	0.41	0.40	96.5	10.3	20
Silver	0.0014	0.37	0.40	92.2	5.6	20
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc	anr					

Associated samples MP24141: TC53875-1A, TC53875-2A

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.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: TC53875
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24141
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: mg/l

Prep Date: 09/04/14

Metal	BSP Result	Spikelot MPTW11	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	0.34	0.40	85.0	80-120
Barium	0.36	0.40	90.0	80-120
Beryllium				
Boron				
Cadmium	0.38	0.40	95.0	80-120
Calcium				
Chromium	0.36	0.40	90.0	80-120
Cobalt				
Copper	anr			
Iron				
Lead	0.36	0.40	90.0	80-120
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Potassium				
Selenium	0.40	0.40	100.0	80-120
Silver	0.36	0.40	90.0	80-120
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc	anr			

Associated samples MP24141: TC53875-1A, TC53875-2A

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

SERIAL DILUTION RESULTS SUMMARY

Login Number: TC53875
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24141
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: ug/l

Prep Date: 09/04/14

Metal	TC54002-1 Original	SDL 5:25	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	0.00	64.6	NC	0-10
Barium	620	625	1.0	0-10
Beryllium				
Boron				
Cadmium	1.66	0.00	100.0(a)	0-10
Calcium				
Chromium	6.04	6.47	7.1	0-10
Cobalt				
Copper	anr			
Iron				
Lead	3.37	0.00	100.0(a)	0-10
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Potassium				
Selenium	23.6	0.00	100.0(a)	0-10
Silver	1.43	0.00	100.0(a)	0-10
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc	anr			

Associated samples MP24141: TC53875-1A, TC53875-2A

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: TC53875
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24146
Matrix Type: LEACHATE

Methods: SW846 7470A
Units: mg/l

Prep Date: 09/05/14

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.00020	.00005	.00005	-0.000066	<0.00020

Associated samples MP24146: TC53875-1A, TC53875-2A

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: TC53875
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24146
Matrix Type: LEACHATE

Methods: SW846 7470A
Units: mg/l

Prep Date: 09/05/14

Metal	TC54002-1 Original	MS	Spikelot HGTXAQ40	% Rec	QC Limits
Mercury	0.0	0.0025	0.0030	83.3	75-125

Associated samples MP24146: TC53875-1A, TC53875-2A

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

8.4.2

8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TC53875
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24146 | Methods: SW846 7470A
Matrix Type: LEACHATE | Units: mg/l

Prep Date: 09/05/14

Metal	TC54002-1 Original	MSD	Spikelot HGTXAQ40	% Rec	MSD RPD	QC Limit
Mercury	0.0	0.0026	0.0030	86.7	3.9	20

Associated samples MP24146: TC53875-1A, TC53875-2A

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: TC53875
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24146
Matrix Type: LEACHATE

Methods: SW846 7470A
Units: mg/l

Prep Date: 09/05/14

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

Associated samples MP24146: TC53875-1A, TC53875-2A

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

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: TC53875
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	GP29315/GN60790	0.060	0.0	mg/kg	1.2	1.17	97.5	90-110%

Associated Samples:
Batch GP29315: TC53875-1, TC53875-2
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TC53875
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	GP29315/GN60790	TC53874-1	mg/kg	0.15 U	0.0	0.0	0-20%
Ignitability (Flashpoint)	GN60698	TC52664-1A	Deg. F	>200	>200	0.0	0-10%
pH	GN60709	TC53874-2	su	5.85	5.85(a)	0.0	0-20%

Associated Samples:
Batch GN60698: TC53875-1, TC53875-2
Batch GN60709: TC53875-1, TC53875-2
Batch GP29315: TC53875-1, TC53875-2
(*) Outside of QC limits
(a) temp. 21.5 c

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TC53875
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	GP29315/GN60790	TC53874-1	mg/kg	0.15 U	10.7	0.0	0.0N(a)	90-110%

Associated Samples:
Batch GP29315: TC53875-1, TC53875-2
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Outside control limits due to matrix interference.

Gulf Coast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

(Accutest New Jersey)

Includes the following where applicable:

- Chain of Custody

SUBCONTRACT COC

ACCUTEST Laboratories

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

FED-EX Tracking # 5642 4618 2443

Bottle Order Control # TC53875

Accutest Quote #

Accutest Job # ~~TC36127~~

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

Requested Analyses

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

Accutest Sample Number	Collection Date	Collection Time	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	DI/MeOH	TSP	NONE	OTHER	Total Sulfide	BTU	LAB USE ONLY
TC53875-1	8/26/2014	11:05	SL	1									X	X	
TC53875-2	8/26/2014	12:55	SL	1									X	X	
															52F

Turnaround Time (Business days)

- STANDARD
- 7 Day
- 4 Day RUSH
- 3 Day EMERGENCY
- 2 Day EMERGENCY
- 1 Day EMERGENCY
- Other

Approved By:/ Date:

Real time analytical data available via Lablink 17:56

Data Deliverable Information

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

Commercial "A" = Results Only

Commercial "B" = Results & Standard QC

Comments / Remarks

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 Brianlee Henry	8/29/14	1 Red Ex	2 Red Ex	8/30/14 935	2
Relinquished by: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable ☐	On Ice ☑ Cooler Temp. 3.5°C

HOOD NRT

NM

10.1 10

TC53875: Chain of Custody

Page 1 of 2

Accutest New Jersey

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: TC53875 **Client:** _____ **Project:** _____

Date / Time Received: 8/30/2014 **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Initial/Adjusted): #1: (3.5/3.5); 0

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

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

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

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

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

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

Comments

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TC53875: Chain of Custody
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Gulf Coast ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

(Accutest New Jersey)

Includes the following where applicable:

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

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TC53875
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.
Project: RFWTXHO: CES- Chemical Spill/4904 Griggs, Houston, TX

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Sulfide, Neutral Extraction	GP82632/GN11108	4.0	0.0	mg/kg	36	36.0	100.0	80-120%

Associated Samples:
Batch GP82632: TC53875-1, TC53875-2
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TC53875
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.
Project: RFWTXHO: CES- Chemical Spill/4904 Griggs, Houston, TX

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Heat Content, BTU	GP82817/GN11249	TC53874-2	BTU/lb	14600	15700	7.5	0-41%
Sulfide, Neutral Extraction	GP82632/GN10773	JB74978-1	mg/kg	0.0	0.0	0.0	0-30%

Associated Samples:
Batch GP82632: TC53875-1, TC53875-2
Batch GP82817: TC53875-1, TC53875-2
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TC53875
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.
Project: RFWTXHO: CES- Chemical Spill/4904 Griggs, Houston, TX

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Sulfide, Neutral Extraction	GP82632/GN10773	JB74978-1	mg/kg	0.0	38	33.8	88.9	25-119%

Associated Samples:
Batch GP82632: TC53875-1, TC53875-2
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits