TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 280-3214-1

Job Description: 995|Waimanalo Gulch LF

For:
Waste Management
Waimanalo Gulch Landfill
92-460 Farrington Highway
Kapolei, HI 96707

Attention: Mr. Justin Lottig

Approved for release.
Betsy A Sara
Project Manager II
5/27/2010 4:01 PM

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05/27/2010

cc: Mr. John Fong
Mr. Tom Hanneman
Mr. Pete LaPlaca

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is E87667.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

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WMH002977

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CASE NARRATIVE

Client: Waste Management

Project: 995|Waimanalo Gulch LF

Report Number: 280-3214-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

This report may include reporting limits (RLs) less than TestAmerica's standard reporting limit. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Sample Receiving

The sample was received on 05/06/2010; the sample arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 4.6 C.

Holding Times

All holding times were met.

Method Blanks

The Method 625 Method Blank exhibited a surrogate recovery of 2-Fluorobiphenyl below the lower control limit at 33% (control limits 49% -120%). Because all Method 625 surrogate recoveries were within control limits for the associated sample CULVERT, corrective action was deemed unnecessary.

Oil/Grease Method 1664A, Total Kjeldahl Nitrogen Method 351.2 and Total Phosphorus Method 365.1 were detected in the Method Blanks below the project established reporting limits. No corrective action is taken for any values in Method Blanks that are below the requested reporting limits. The Method Blank data are included at the end of this report.

All other Method Blanks were within established control limits.

Laboratory Control Samples (LCS)

The Method 625 LCS and/or LCSD exhibited several compounds below the lower control limits. Because these compounds were not target compounds, corrective action was deemed unnecessary.

The Method 625 LCS exhibited a surrogate recovery of 2-Fluorobiphenyl below the lower control limit at 48% (control limits 49%-120%). Because all Method 625 surrogate recoveries were within control limits for the associated sample CULVERT, corrective action was deemed unnecessary.

All other Laboratory Control Samples were within established control limits.

Matrix Spike (MS) and Matrix Spike Duplicate (MSD)

The method required MS/MSD could not be performed for Method 625 Method 1664A HEM due to insufficient sample volume, however, a LCS/LCSD pair was analyzed to demonstrate method precision and accuracy.

The percent recoveries and/or the relative percent difference of the MS/MSD performed on a sample from another client were outside control limits for Total Iron during Method 200.7 analysis because the sample concentration was greater than four times the spike amount.

The Method 1664A MS/MSD performed on a sample from another client exhibited a RPD result outside the RPD limit for Oil/Grease. Because the corresponding Matrix Spike and Matrix Spike Duplicate recoveries, Laboratory Control Sample, and Method Blank sample were within control limits, this anomaly is considered to be due to matrix interference and no corrective action was taken.

The percent recoveries of the MS/MSD and/or the relative percent difference were not calculated for TKN Method 351.2 due to dilution or the presence of interfering analytes. The TKN MS/MSD was performed on a sample from another client.

Due to the result concentration exceeding the calibration range the MS/MSD results for Total Phosphorus Method 365.1 are estimated.

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Because the corresponding laboratory control sample and the method blank sample concentrations were within control limits, corrective action was deemed unnecessary.

All other MS and MSD samples were within established control limits.

EXECUTIVE SUMMARY - Detections

Client: Waste Management

Job Number: 280-3214-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
280-3214-1	**CULVERT**					
Field pH		7.10			SU	Field Sampling
Field Temperature		26.0			Degrees C	Field Sampling
HEM		1.6	J B	5.2	mg/L	1664A
Ammonia		0.057	J	0.10	mg/L	350.1
Nitrogen, Kjeldahl		1.1	B	0.50	mg/L	351.2
Nitrate Nitrite as N		1.2		0.10	mg/L	353.2
Phosphorus, Total		0.13	B	0.050	mg/L	365.1
Chemical Oxygen Demand		47		20	mg/L	410.4
Total Suspended Solids		1.2	J	4.0	mg/L	SM 2540D
Total Recoverable						
Iron		150		100	ug/L	200.7 Rev 4.4
Zinc		6.6	J	20	ug/L	200.7 Rev 4.4

METHOD SUMMARY

Client: Waste Management | Job Number: 280-3214-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Semivolatile Organic Compounds (GC/MS)	TAL DEN	40CFR136A 625	
Liquid-Liquid Extraction	TAL DEN		40CFR136A 625
Metals (ICP)	TAL DEN	EPA 200.7 Rev 4.4	
Preparation, Total Recoverable Metals	TAL DEN		EPA 200.7
HEM and SGT-HEM	TAL DEN	1664A 1664A	
HEM and SGT-HEM (SPE)	TAL DEN		1664A 1664A
Nitrogen, Ammonia	TAL DEN	MCAWW 350.1	
Nitrogen, Total Kjeldahl	TAL DEN	MCAWW 351.2	
Nitrogen, Total Kjeldahl	TAL DEN		MCAWW 351.2
Nitrogen, Nitrate-Nitrite	TAL DEN	MCAWW 353.2	
Phosphorus, Total	TAL DEN	EPA 365.1	
Phosphorus, Total	TAL DEN		MCAWW 365.2/365.3/365
COD	TAL DEN	MCAWW 410.4	
Solids, Total Suspended (TSS)	TAL DEN	SM SM 2540D	
Field Sampling	TAL DEN	EPA Field Sampling	

Lab References:

TAL DEN = TestAmerica Denver

Method References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: Waste Management

Job Number: 280-3214-1

Method	Analyst	Analyst ID
40CFR136A 625	Carpenter, Rhain L	RLC
EPA 200.7 Rev 4.4	Trudell, Lynn-Anne	LT
EPA Field Sampling	Field, Sampler	FS
1664A 1664A	Walsh, Stephanie G	SGW
MCAWW 350.1	Jarusewic, Lara E	LEJ
MCAWW 351.2	Rothmeyer, Brian	BR
MCAWW 353.2	Jarusewic, Lara E	LEJ
EPA 365.1	Gilbert, Bryan M	BMG
MCAWW 410.4	Derosia, Marcia R	MRD
SM SM 2540D	Walsh, Stephanie G	SGW

SAMPLE SUMMARY

Client: Waste Management

Job Number: 280-3214-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-3214-1	CULVERT	Water	05/03/2010 1117	05/06/2010 0930

SAMPLE RESULTS

Client: Waste Management

Job Number: 280-3214-1

Client Sample ID: **CULVERT**

Lab Sample ID: 280-3214-1

Client Matrix: Water

Date Sampled: 05/03/2010 1117

Date Received: 05/06/2010 0930

625 Semivolatile Organic Compounds (GC/MS)

Method:	625	Analysis Batch: 280-15935		Instrument ID:	MSS_Y
Preparation:	625	Prep Batch: 280-14583		Lab File ID:	Y2391.D
Dilution:	1.0			Initial Weight/Volume:	888 mL
Date Analyzed:	05/15/2010 0306			Final Weight/Volume:	1000 uL
Date Prepared:	05/09/2010 1700			Injection Volume:	0.5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Alpha-Terpineol	ND		2.3	11
Benzoic acid	ND		11	56
4-Methylphenol	ND		0.28	11
Phenol	ND		2.3	11

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	50		49 - 120
2-Fluorophenol	77		53 - 120
2,4,6-Tribromophenol	82		50 - 120
Nitrobenzene-d5	69		59 - 120
Phenol-d5	83		57 - 120
Terphenyl-d14	81		63 - 120

Client: Waste Management

Job Number: 280-3214-1

Client Sample ID: **CULVERT**

Lab Sample ID: 280-3214-1

Client Matrix: Water

Date Sampled: 05/03/2010 1117

Date Received: 05/06/2010 0930

200.7 Rev 4.4 Metals (ICP)-Total Recoverable

Method:	200.7 Rev 4.4	Analysis Batch: 280-14664		Instrument ID:	MT_026
Preparation:	200.7	Prep Batch: 280-14315		Lab File ID:	26b050810.txt
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	05/08/2010 1957			Final Weight/Volume:	50 mL
Date Prepared:	05/07/2010 0900				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Iron	150		22	100
Zinc	6.6	J	4.5	20

General Chemistry

Client Sample ID: **CULVERT**

Lab Sample ID: 280-3214-1 Date Sampled: 05/03/2010 1117
Client Matrix: Water Date Received: 05/06/2010 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
HEM	1.6	J B	mg/L	1.4	5.2	1.0	1664A
Analysis Batch: 280-14424	Date Analyzed: 05/07/2010 1223						
Prep Batch: 280-14422	Date Prepared: 05/07/2010 1216						
Ammonia	0.057	J	mg/L	0.022	0.10	1.0	350.1
Analysis Batch: 280-15180	Date Analyzed: 05/12/2010 1439						
Nitrogen, Kjeldahl	1.1	B	mg/L	0.077	0.50	1.0	351.2
Analysis Batch: 280-15103	Date Analyzed: 05/12/2010 1302						
Prep Batch: 280-14710	Date Prepared: 05/10/2010 1525						
Nitrate Nitrite as N	1.2		mg/L	0.019	0.10	1.0	353.2
Analysis Batch: 280-15653	Date Analyzed: 05/14/2010 1535						
Phosphorus, Total	0.13	B	mg/L	0.0050	0.050	1.0	365.1
Analysis Batch: 280-14849	Date Analyzed: 05/11/2010 1046						
Prep Batch: 280-14602	Date Prepared: 05/10/2010 0749						
Chemical Oxygen Demand	47		mg/L	4.1	20	1.0	410.4
Analysis Batch: 280-15550	Date Analyzed: 05/14/2010 1257						
Total Suspended Solids	1.2	J	mg/L	1.1	4.0	1.0	SM 2540D
Analysis Batch: 280-14230	Date Analyzed: 05/06/2010 1405						

Field Service / Mobile Lab

Client Sample ID: **CULVERT**

Lab Sample ID: 280-3214-1 Date Sampled: 05/03/2010 1117
Client Matrix: Water Date Received: 05/06/2010 0930

Analyte	Result	Qual	Units	Dil	Method	Analysis Batch	Date Analyzed Date Prepared
Field pH	7.10		SU	1.0	Field Sampling	280-14217	05/03/2010 1117
Field Temperature	26.0		Degrees C	1.0	Field Sampling	280-14217	05/03/2010 1117

DATA REPORTING QUALIFIERS

Client: Waste Management

Job Number: 280-3214-1

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	*	LCS or LCSD exceeds the control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	X	Surrogate is outside control limits
Metals		
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
General Chemistry		
	B	Compound was found in the blank and sample.
	F	MS or MSD exceeds the control limits
	E	Result exceeded calibration range.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	F	RPD of the MS and MSD exceeds the control limits

QUALITY CONTROL RESULTS

Client: Waste Management

Job Number: 280-3214-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 280-14583					
LCS 280-14583/4-A	Lab Control Sample	T	Water	625	
LCSD 280-14583/5-A	Lab Control Sample Duplicate	T	Water	625	
MB 280-14583/3-A	Method Blank	T	Water	625	
280-3214-1	CULVERT	T	Water	625	
Analysis Batch:280-15935					
LCS 280-14583/4-A	Lab Control Sample	T	Water	625	280-14583
LCSD 280-14583/5-A	Lab Control Sample Duplicate	T	Water	625	280-14583
MB 280-14583/3-A	Method Blank	T	Water	625	280-14583
280-3214-1	CULVERT	T	Water	625	280-14583

Report Basis
T = Total

Metals					
Prep Batch: 280-14315					
LCS 280-14315/2-A	Lab Control Sample	R	Water	200.7	
MB 280-14315/1-A	Method Blank	R	Water	200.7	
280-3158-A-1-E MS	Matrix Spike	R	Water	200.7	
280-3158-A-1-F MSD	Matrix Spike Duplicate	R	Water	200.7	
280-3214-1	CULVERT	R	Water	200.7	
Analysis Batch:280-14659					
LCS 280-14315/2-A	Lab Control Sample	R	Water	200.7 Rev 4.4	280-14315
MB 280-14315/1-A	Method Blank	R	Water	200.7 Rev 4.4	280-14315
Analysis Batch:280-14664					
280-3158-A-1-E MS	Matrix Spike	R	Water	200.7 Rev 4.4	280-14315
280-3158-A-1-F MSD	Matrix Spike Duplicate	R	Water	200.7 Rev 4.4	280-14315
280-3214-1	CULVERT	R	Water	200.7 Rev 4.4	280-14315

Report Basis
R = Total Recoverable

Field Service / Mobile Lab					
Analysis Batch:280-14217					
280-3214-1	CULVERT	T	Water	Field Sampling	

Report Basis
T = Total

Client: Waste Management

Job Number: 280-3214-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-14230					
LCS 280-14230/2	Lab Control Sample	T	Water	SM 2540D	
LCSD 280-14230/3	Lab Control Sample Duplicate	T	Water	SM 2540D	
MB 280-14230/1	Method Blank	T	Water	SM 2540D	
280-3162-B-2 DU	Duplicate	T	Water	SM 2540D	
280-3214-1	CULVERT	T	Water	SM 2540D	
Prep Batch: 280-14422					
LCS 280-14422/2-A	Lab Control Sample	T	Water	1664A	
LCSD 280-14422/3-A	Lab Control Sample Duplicate	T	Water	1664A	
MB 280-14422/1-A	Method Blank	T	Water	1664A	
280-3116-B-1-A MS	Matrix Spike	T	Water	1664A	
280-3116-C-1-A MSD	Matrix Spike Duplicate	T	Water	1664A	
280-3214-1	CULVERT	T	Water	1664A	
Analysis Batch:280-14424					
LCS 280-14422/2-A	Lab Control Sample	T	Water	1664A	280-14422
LCSD 280-14422/3-A	Lab Control Sample Duplicate	T	Water	1664A	280-14422
MB 280-14422/1-A	Method Blank	T	Water	1664A	280-14422
280-3116-B-1-A MS	Matrix Spike	T	Water	1664A	280-14422
280-3116-C-1-A MSD	Matrix Spike Duplicate	T	Water	1664A	280-14422
280-3214-1	CULVERT	T	Water	1664A	280-14422
Prep Batch: 280-14602					
LCS 280-14602/2-A	Lab Control Sample	T	Water	365.2/365.3/365	
LCSD 280-14602/3-A	Lab Control Sample Duplicate	T	Water	365.2/365.3/365	
MB 280-14602/1-A	Method Blank	T	Water	365.2/365.3/365	
280-3086-A-3-B MS	Matrix Spike	T	Water	365.2/365.3/365	
280-3086-A-3-C MSD	Matrix Spike Duplicate	T	Water	365.2/365.3/365	
280-3214-1	CULVERT	T	Water	365.2/365.3/365	
Prep Batch: 280-14710					
LCS 280-14710/1-A	Lab Control Sample	T	Water	351.2	
LCSD 280-14710/2-A	Lab Control Sample Duplicate	T	Water	351.2	
MB 280-14710/3-A	Method Blank	T	Water	351.2	
280-3171-D-1-B MS	Matrix Spike	T	Water	351.2	
280-3171-D-1-C MSD	Matrix Spike Duplicate	T	Water	351.2	
280-3214-1	CULVERT	T	Water	351.2	
Analysis Batch:280-14849					
LCS 280-14602/2-A	Lab Control Sample	T	Water	365.1	280-14602
LCSD 280-14602/3-A	Lab Control Sample Duplicate	T	Water	365.1	280-14602
MB 280-14602/1-A	Method Blank	T	Water	365.1	280-14602
280-3086-A-3-B MS	Matrix Spike	T	Water	365.1	280-14602
280-3086-A-3-C MSD	Matrix Spike Duplicate	T	Water	365.1	280-14602
280-3214-1	CULVERT	T	Water	365.1	280-14602

Client: Waste Management

Job Number: 280-3214-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-15103					
LCS 280-14710/1-A	Lab Control Sample	T	Water	351.2	280-14710
LCSD 280-14710/2-A	Lab Control Sample Duplicate	T	Water	351.2	280-14710
MB 280-14710/3-A	Method Blank	T	Water	351.2	280-14710
280-3171-D-1-B MS	Matrix Spike	T	Water	351.2	280-14710
280-3171-D-1-C MSD	Matrix Spike Duplicate	T	Water	351.2	280-14710
280-3214-1	CULVERT	T	Water	351.2	280-14710
Analysis Batch:280-15180					
LCS 280-15180/58	Lab Control Sample	T	Water	350.1	
LCSD 280-15180/59	Lab Control Sample Duplicate	T	Water	350.1	
MB 280-15180/57	Method Blank	T	Water	350.1	
280-3213-F-1 MS	Matrix Spike	T	Water	350.1	
280-3213-F-1 MSD	Matrix Spike Duplicate	T	Water	350.1	
280-3214-1	CULVERT	T	Water	350.1	
Analysis Batch:280-15550					
LCS 280-15550/3	Lab Control Sample	T	Water	410.4	
LCSD 280-15550/4	Lab Control Sample Duplicate	T	Water	410.4	
MB 280-15550/5	Method Blank	T	Water	410.4	
280-3155-K-2 MS	Matrix Spike	T	Water	410.4	
280-3155-K-2 MSD	Matrix Spike Duplicate	T	Water	410.4	
280-3214-1	CULVERT	T	Water	410.4	
Analysis Batch:280-15653					
LCS 280-15653/119	Lab Control Sample	T	Water	353.2	
LCSD 280-15653/120	Lab Control Sample Duplicate	T	Water	353.2	
MB 280-15653/118	Method Blank	T	Water	353.2	
280-3206-D-3 MS	Matrix Spike	T	Water	353.2	
280-3206-D-3 MSD	Matrix Spike Duplicate	T	Water	353.2	
280-3214-1	CULVERT	T	Water	353.2	

Report Basis
T = Total

Client: Waste Management

Job Number: 280-3214-1

Surrogate Recovery Report

625 Semivolatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	FBP %Rec	2FP %Rec	TBP %Rec	NBZ %Rec	PHL %Rec	TPH %Rec
280-3214-1	CULVERT	50	77	82	69	83	81
MB 280-14583/3-A		33X	71	71	68	76	84
LCS 280-14583/4-A		48X	70	75	69	74	67
LCSD 280-14583/5-A		57	75	81	76	79	74

Surrogate	Acceptance Limits
FBP = 2-Fluorobiphenyl	49-120
2FP = 2-Fluorophenol	53-120
TBP = 2,4,6-Tribromophenol	50-120
NBZ = Nitrobenzene-d5	59-120
PHL = Phenol-d5	57-120
TPH = Terphenyl-d14	63-120

Client: Waste Management

Job Number: 280-3214-1

Method Blank - Batch: 280-14583

Method: 625
Preparation: 625

Lab Sample ID:	MB 280-14583/3-A	Analysis Batch:	280-15935	Instrument ID:	MSS_Y
Client Matrix:	Water	Prep Batch:	280-14583	Lab File ID:	Y2361.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	1000 mL
Date Analyzed:	05/14/2010 1657			Final Weight/Volume:	1000 uL
Date Prepared:	05/09/2010 1700			Injection Volume:	0.5 uL

Analyte	Result	Qual	MDL	RL
Alpha-Terpineol	ND		2.0	10
Benzoic acid	ND		10	50
4-Methylphenol	ND		0.25	10
Phenol	ND		2.0	10

Surrogate	% Rec		Acceptance Limits
2-Fluorobiphenyl	33	X	49 - 120
2-Fluorophenol	71		53 - 120
2,4,6-Tribromophenol	71		50 - 120
Nitrobenzene-d5	68		59 - 120
Phenol-d5	76		57 - 120
Terphenyl-d14	84		63 - 120

Client: Waste Management

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Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-14583

Method: 625
Preparation: 625

LCS Lab Sample ID:	LCS 280-14583/4-A	Analysis Batch:	280-15935	Instrument ID:	MSS_Y
Client Matrix:	Water	Prep Batch:	280-14583	Lab File ID:	Y2362.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	1000 mL
Date Analyzed:	05/14/2010 1717			Final Weight/Volume:	1000 uL
Date Prepared:	05/09/2010 1700			Injection Volume:	0.5 uL

LCSD Lab Sample ID:	LCSD 280-14583/5-A	Analysis Batch:	280-15935	Instrument ID:	MSS_Y
Client Matrix:	Water	Prep Batch:	280-14583	Lab File ID:	Y2363.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	1000 mL
Date Analyzed:	05/14/2010 1737			Final Weight/Volume:	1000 uL
Date Prepared:	05/09/2010 1700			Injection Volume:	0.5 uL

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Acenaphthene	47	59	58 - 120	23	30	*	
Acenaphthylene	50	60	58 - 120	19	30	*	
Anthracene	68	75	62 - 120	10	30		
Benzidine	63	59	10 - 218	7	50	J	J
Benzo[a]anthracene	69	75	60 - 120	9	30		
Benzo[b]fluoranthene	64	81	55 - 120	23	90		
Benzo[k]fluoranthene	78	77	57 - 120	1	50		
Benzo[a]pyrene	59	67	58 - 120	13	73		
Bis(2-chloroethoxy)methane	73	80	56 - 120	10	30		
Bis(2-chloroethyl)ether	66	71	55 - 120	7	30		
Bis(2-ethylhexyl) phthalate	72	80	58 - 120	10	30		
4-Bromophenyl phenyl ether	63	69	61 - 120	9	34		
Butyl benzyl phthalate	77	83	60 - 120	7	30		
4-Chloro-3-methylphenol	77	85	63 - 120	10	30		
2-Chloronaphthalene	43	55	60 - 118	23	30	*	*
2-Chlorophenol	70	75	57 - 120	8	30		
4-Chlorophenyl phenyl ether	56	67	60 - 120	17	30	*	
Chrysene	70	74	60 - 120	6	30		
Dibenz(a,h)anthracene	71	80	58 - 120	12	78		
Di-n-butyl phthalate	77	87	62 - 118	11	30		
1,2-Dichlorobenzene	43	50	48 - 120	17	42	*	
1,3-Dichlorobenzene	41	47	45 - 120	15	47	*	
1,4-Dichlorobenzene	41	47	45 - 120	14	49	*	
3,3'-Dichlorobenzidine	53	46	34 - 120	14	50	J	J
2,4-Dichlorophenol	72	81	60 - 120	12	30		
Diethyl phthalate	80	87	61 - 114	8	30		
2,4-Dimethylphenol	63	75	44 - 119	18	35		
Dimethyl phthalate	80	87	61 - 112	9	30		
4,6-Dinitro-2-methylphenol	77	82	41 - 120	7	55		
2,4-Dinitrophenol	71	78	36 - 121	9	61	J	
2,4-Dinitrotoluene	79	91	60 - 120	15	35		
2,6-Dinitrotoluene	77	86	61 - 120	11	30		
Di-n-octyl phthalate	72	79	59 - 120	9	30		
Fluoranthene	76	83	59 - 120	9	30		

Client: Waste Management

Job Number: 280-3214-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-14583

Method: 625
Preparation: 625

LCS Lab Sample ID:	LCS 280-14583/4-A	Analysis Batch:	280-15935	Instrument ID:	MSS_Y
Client Matrix:	Water	Prep Batch:	280-14583	Lab File ID:	Y2362.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	1000 mL
Date Analyzed:	05/14/2010 1717			Final Weight/Volume:	1000 uL
Date Prepared:	05/09/2010 1700			Injection Volume:	0.5 uL

LCSD Lab Sample ID:	LCSD 280-14583/5-A	Analysis Batch:	280-15935	Instrument ID:	MSS_Y
Client Matrix:	Water	Prep Batch:	280-14583	Lab File ID:	Y2363.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	1000 mL
Date Analyzed:	05/14/2010 1737			Final Weight/Volume:	1000 uL
Date Prepared:	05/09/2010 1700			Injection Volume:	0.5 uL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Fluorene	57	68	60 - 120	17	30	*	
Hexachlorobenzene	68	78	62 - 120	13	30		
Hexachlorobutadiene	39	48	46 - 116	21	41	*	
Hexachlorocyclopentadiene	5	11	10 - 120	80	82	J *	J
Hexachloroethane	39	47	43 - 113	18	52	*	
Indeno[1,2,3-cd]pyrene	73	78	56 - 120	7	73		
Isophorone	73	81	54 - 120	10	30		
4-Methylphenol	74	80	58 - 120	7	39		
Naphthalene	42	52	52 - 120	20	30	*	
Nitrobenzene	65	77	58 - 120	16	30		
2-Nitrophenol	70	79	59 - 120	13	30		
4-Nitrophenol	88	98	53 - 120	10	42		
N-Nitrosodimethylamine	73	80	52 - 120	10	30		
N-Nitrosodiphenylamine	57	62	10 - 203	8	50		
N-Nitrosodi-n-propylamine	76	81	58 - 120	7	30		
Pentachlorophenol	71	73	49 - 120	3	30	J	J
Phenanthrene	67	77	63 - 120	13	30		
Phenol	77	84	58 - 112	9	30		
Pyrene	71	76	60 - 115	6	30		
1,2,4-Trichlorobenzene	38	47	50 - 120	21	35	*	*
2,4,6-Trichlorophenol	72	83	60 - 120	14	30		
2-Methylphenol	74	79	56 - 120	7	35		
Benzo[g,h,i]perylene	70	78	52 - 120	10	64		
2,2'-Oxybis(1-chloropropane)	59	67	57 - 120	13	30		

Surrogate	LCS % Rec		LCSD % Rec	Acceptance Limits
2-Fluorobiphenyl	48	X	57	49 - 120
2-Fluorophenol	70		75	53 - 120
2,4,6-Tribromophenol	75		81	50 - 120
Nitrobenzene-d5	69		76	59 - 120
Phenol-d5	74		79	57 - 120
Terphenyl-d14	67		74	63 - 120

Client: Waste Management

Job Number: 280-3214-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-14583

Method: 625
Preparation: 625

LCS Lab Sample ID: LCS 280-14583/4-A
Units: ug/L
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/14/2010 1717
Date Prepared: 05/09/2010 1700

LCSD Lab Sample ID: LCSD 280-14583/5-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/14/2010 1737
Date Prepared: 05/09/2010 1700

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual		LCSD Result/Qual	
Acenaphthene	80.0	80.0	37.4	*	47.1	
Acenaphthylene	80.0	80.0	39.6	*	47.8	
Anthracene	80.0	80.0	54.4		60.0	
Benzidine	200	200	127	J	118	J
Benzo[a]anthracene	80.0	80.0	55.0		59.9	
Benzo[b]fluoranthene	80.0	80.0	51.4		65.0	
Benzo[k]fluoranthene	80.0	80.0	62.2		61.7	
Benzo[a]pyrene	80.0	80.0	46.9		53.6	
Bis(2-chloroethoxy)methane	80.0	80.0	58.3		64.2	
Bis(2-chloroethyl)ether	80.0	80.0	53.1		57.0	
Bis(2-ethylhexyl) phthalate	80.0	80.0	57.6		63.7	
4-Bromophenyl phenyl ether	80.0	80.0	50.3		54.9	
Butyl benzyl phthalate	80.0	80.0	61.8		66.5	
4-Chloro-3-methylphenol	80.0	80.0	61.7		68.1	
2-Chloronaphthalene	80.0	80.0	34.7	*	43.6	*
2-Chlorophenol	80.0	80.0	55.7		60.3	
4-Chlorophenyl phenyl ether	80.0	80.0	45.0	*	53.3	
Chrysene	80.0	80.0	55.8		59.4	
Dibenz(a,h)anthracene	80.0	80.0	56.5		63.9	
Di-n-butyl phthalate	80.0	80.0	61.8		69.3	
1,2-Dichlorobenzene	80.0	80.0	34.0	*	40.3	
1,3-Dichlorobenzene	80.0	80.0	32.8	*	38.0	
1,4-Dichlorobenzene	80.0	80.0	32.5	*	37.5	
3,3'-Dichlorobenzidine	80.0	80.0	42.1	J	36.5	J
2,4-Dichlorophenol	80.0	80.0	57.9		65.1	
Diethyl phthalate	80.0	80.0	64.4		69.7	
2,4-Dimethylphenol	80.0	80.0	50.0		60.0	
Dimethyl phthalate	80.0	80.0	63.8		70.0	
4,6-Dinitro-2-methylphenol	80.0	80.0	61.6		65.7	
2,4-Dinitrophenol	80.0	80.0	56.7	J	62.2	
2,4-Dinitrotoluene	80.0	80.0	63.1		73.2	
2,6-Dinitrotoluene	80.0	80.0	61.5		69.0	
Di-n-octyl phthalate	80.0	80.0	57.8		63.5	
Fluoranthene	80.0	80.0	60.5		66.3	
Fluorene	80.0	80.0	45.6	*	54.1	
Hexachlorobenzene	80.0	80.0	54.7		62.6	
Hexachlorobutadiene	80.0	80.0	30.8	*	38.0	
Hexachlorocyclopentadiene	80.0	80.0	3.83	J *	8.92	J
Hexachloroethane	80.0	80.0	31.3	*	37.7	
Indeno[1,2,3-cd]pyrene	80.0	80.0	58.3		62.3	
Isophorone	80.0	80.0	58.4		64.5	

Client: Waste Management

Job Number: 280-3214-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-14583

Method: 625
Preparation: 625

LCS Lab Sample ID: LCS 280-14583/4-A
Units: ug/L
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/14/2010 1717
Date Prepared: 05/09/2010 1700

LCSD Lab Sample ID: LCSD 280-14583/5-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/14/2010 1737
Date Prepared: 05/09/2010 1700

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual		LCSD Result/Qual	
4-Methylphenol	160	160	119		128	
Naphthalene	80.0	80.0	33.8	*	41.4	
Nitrobenzene	80.0	80.0	52.4		61.4	
2-Nitrophenol	80.0	80.0	55.8		63.5	
4-Nitrophenol	80.0	80.0	70.5		78.1	
N-Nitrosodimethylamine	80.0	80.0	58.1		64.2	
N-Nitrosodiphenylamine	80.0	80.0	45.8		49.8	
N-Nitrosodi-n-propylamine	80.0	80.0	60.5		65.2	
Pentachlorophenol	80.0	80.0	56.9	J	58.5	J
Phenanthrene	80.0	80.0	54.0		61.5	
Phenol	80.0	80.0	61.4		67.3	
Pyrene	80.0	80.0	56.8		60.5	
1,2,4-Trichlorobenzene	80.0	80.0	30.4	*	37.6	*
2,4,6-Trichlorophenol	80.0	80.0	57.6		66.4	
2-Methylphenol	80.0	80.0	59.1		63.3	
Benzo[g,h,i]perylene	80.0	80.0	56.3		62.5	
2,2'-Oxybis(1-chloropropane)	80.0	80.0	47.0		53.7	

Client: Waste Management

Job Number: 280-3214-1

Method Blank - Batch: 280-14315

Method: 200.7 Rev 4.4
Preparation: 200.7
Total Recoverable

Lab Sample ID: MB 280-14315/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/08/2010 1341
Date Prepared: 05/07/2010 0900

Analysis Batch: 280-14659
Prep Batch: 280-14315
Units: ug/L

Instrument ID: MT_026
Lab File ID: 26a050810.txt
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Iron	ND		22	100
Zinc	ND		4.5	20

Lab Control Sample - Batch: 280-14315

Method: 200.7 Rev 4.4
Preparation: 200.7
Total Recoverable

Lab Sample ID: LCS 280-14315/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/08/2010 1343
Date Prepared: 05/07/2010 0900

Analysis Batch: 280-14659
Prep Batch: 280-14315
Units: ug/L

Instrument ID: MT_026
Lab File ID: 26a050810.txt
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Iron	1000	993	99	89 - 115	
Zinc	500	521	104	85 - 111	

Client: Waste Management

Job Number: 280-3214-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-14315

Method: 200.7 Rev 4.4
Preparation: 200.7
Total Recoverable

MS Lab Sample ID:	280-3158-A-1-E MS	Analysis Batch:	280-14664	Instrument ID:	MT_026
Client Matrix:	Water	Prep Batch:	280-14315	Lab File ID:	26b050810.txt
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	05/08/2010 1951			Final Weight/Volume:	50 mL
Date Prepared:	05/07/2010 0900				

MSD Lab Sample ID:	280-3158-A-1-F MSD	Analysis Batch:	280-14664	Instrument ID:	MT_026		
Client Matrix:	Water	Prep Batch:	280-14315	Lab File ID:	26b050810.txt		
Dilution:	1.0			Initial Weight/Volume:	50 mL		
Date Analyzed:	05/08/2010 1953			Final Weight/Volume:	50 mL		
Date Prepared:	05/07/2010 0900						

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Iron	139	115	89 - 115	3	20	4	4
Zinc	106	105	85 - 111	1	20		

Matrix Spike/
Matrix Spike Duplicate Data Report - Batch: 280-14315

Method: 200.7 Rev 4.4
Preparation: 200.7
Total Recoverable

MS Lab Sample ID:	280-3158-A-1-E MS	Units: ug/L	MSD Lab Sample ID:	280-3158-A-1-F MSD	
Client Matrix:	Water		Client Matrix:	Water	
Dilution:	1.0		Dilution:	1.0	
Date Analyzed:	05/08/2010 1951		Date Analyzed:	05/08/2010 1953	
Date Prepared:	05/07/2010 0900		Date Prepared:	05/07/2010 0900	

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Iron	7400	1000	1000	8780	4	8550	4
Zinc	26	500	500	558		552	

Client: Waste Management

Job Number: 280-3214-1

Method Blank - Batch: 280-14422

Method: 1664A
Preparation: 1664A

Lab Sample ID: MB 280-14422/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/07/2010 1223
Date Prepared: 05/07/2010 1216

Analysis Batch: 280-14424
Prep Batch: 280-14422
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 mL

Analyte	Result	Qual	MDL	RL
HEM	1.90	J	1.4	5.0

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-14422

Method: 1664A
Preparation: 1664A

LCS Lab Sample ID: LCS 280-14422/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/07/2010 1223
Date Prepared: 05/07/2010 1216

Analysis Batch: 280-14424
Prep Batch: 280-14422
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 mL

LCSD Lab Sample ID: LCSD 280-14422/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/07/2010 1223
Date Prepared: 05/07/2010 1216

Analysis Batch: 280-14424
Prep Batch: 280-14422
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
HEM	82	82	81 - 107	0	22		

Client: Waste Management

Job Number: 280-3214-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-14422

Method: 1664A
Preparation: 1664A

LCS Lab Sample ID: LCS 280-14422/2-A
Units: mg/L
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/07/2010 1223
Date Prepared: 05/07/2010 1216

LCSD Lab Sample ID: LCSD 280-14422/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/07/2010 1223
Date Prepared: 05/07/2010 1216

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
HEM	40.0	40.0	32.7	32.6

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-14422

Method: 1664A
Preparation: 1664A

MS Lab Sample ID: 280-3116-B-1-A MS
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/07/2010 1223
Date Prepared: 05/07/2010 1216

Analysis Batch: 280-14424
Prep Batch: 280-14422

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 903 mL
Final Weight/Volume: 1000 mL

MSD Lab Sample ID: 280-3116-C-1-A MSD
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/07/2010 1223
Date Prepared: 05/07/2010 1216

Analysis Batch: 280-14424
Prep Batch: 280-14422

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 864 mL
Final Weight/Volume: 1000 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
HEM	79	110	78 - 114	34	20		F

Client: Waste Management

Job Number: 280-3214-1

Matrix Spike/
Matrix Spike Duplicate Data Report - Batch: 280-14422

Method: 1664A
Preparation: 1664A

MS Lab Sample ID: 280-3116-B-1-A MS
Units: mg/L
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/07/2010 1223
Date Prepared: 05/07/2010 1216

MSD Lab Sample ID: 280-3116-C-1-A MSD
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/07/2010 1223
Date Prepared: 05/07/2010 1216

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual	
HEM	3.8	J	44.3	46.3	38.9	54.6	F

Client: Waste Management

Job Number: 280-3214-1

Method Blank - Batch: 280-15180

Method: 350.1
Preparation: N/A

Lab Sample ID: MB 280-15180/57
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/12/2010 1354
Date Prepared: N/A

Analysis Batch: 280-15180
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_Alp 2
Lab File ID: C:\FLOW_4\0512NH3.RST
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	MDL	RL
Ammonia	ND		0.022	0.10

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-15180

Method: 350.1
Preparation: N/A

LCS Lab Sample ID: LCS 280-15180/58
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/12/2010 1355
Date Prepared: N/A

Analysis Batch: 280-15180
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_Alp 2
Lab File ID: C:\FLOW_4\0512NH3.RST
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

LCSD Lab Sample ID: LCSD 280-15180/59
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/12/2010 1357
Date Prepared: N/A

Analysis Batch: 280-15180
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_Alp 2
Lab File ID: C:\FLOW_4\0512NH3.RST
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Ammonia	99	100	90 - 110	1	10		

Client: Waste Management

Job Number: 280-3214-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-15180

Method: 350.1
Preparation: N/A

LCS Lab Sample ID: LCS 280-15180/58
Units: mg/L
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/12/2010 1355
Date Prepared: N/A

LCSD Lab Sample ID: LCSD 280-15180/59
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/12/2010 1357
Date Prepared: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Ammonia	5.00	5.00	4.94	5.00

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-15180

Method: 350.1
Preparation: N/A

MS Lab Sample ID: 280-3213-F-1 MS
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/12/2010 1436
Date Prepared: N/A

Analysis Batch: 280-15180
Prep Batch: N/A

Instrument ID: WC_Alp 2
Lab File ID: C:\FLOW_4\0512NH3.RST
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

MSD Lab Sample ID: 280-3213-F-1 MSD
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/12/2010 1437
Date Prepared: N/A

Analysis Batch: 280-15180
Prep Batch: N/A

Instrument ID: WC_Alp 2
Lab File ID: C:\FLOW_4\0512NH3.RST
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Ammonia	103	102	82 - 122	1	20		

Client: Waste Management

Job Number: 280-3214-1

Matrix Spike/
Matrix Spike Duplicate Data Report - Batch: 280-15180

Method: 350.1
Preparation: N/A

MS Lab Sample ID: 280-3213-F-1 MS
Units: mg/L
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/12/2010 1436
Date Prepared: N/A

MSD Lab Sample ID: 280-3213-F-1 MSD
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/12/2010 1437
Date Prepared: N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Ammonia	0.027	J	4.00	4.00	4.14	4.10

Client: Waste Management

Job Number: 280-3214-1

Method Blank - Batch: 280-14710

Method: 351.2
Preparation: 351.2

Lab Sample ID: MB 280-14710/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/12/2010 1245
Date Prepared: 05/10/2010 1525

Analysis Batch: 280-15103
Prep Batch: 280-14710
Units: mg/L

Instrument ID: WC_Astoria
Lab File ID: 051210TKN.txt
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Result	Qual	MDL	RL
Nitrogen, Kjeldahl	0.135	J	0.077	0.50

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-14710

Method: 351.2
Preparation: 351.2

LCS Lab Sample ID: LCS 280-14710/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/12/2010 1243
Date Prepared: 05/10/2010 1525

Analysis Batch: 280-15103
Prep Batch: 280-14710
Units: mg/L

Instrument ID: WC_Astoria
Lab File ID: 051210TKN.txt
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

LCSD Lab Sample ID: LCSD 280-14710/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/12/2010 1244
Date Prepared: 05/10/2010 1525

Analysis Batch: 280-15103
Prep Batch: 280-14710
Units: mg/L

Instrument ID: WC_Astoria
Lab File ID: 051210TKN.txt
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Nitrogen, Kjeldahl	99	100	77 - 115	1	25		

Client: Waste Management

Job Number: 280-3214-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-14710

Method: 351.2
Preparation: 351.2

LCS Lab Sample ID: LCS 280-14710/1-A
Units: mg/L
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/12/2010 1243
Date Prepared: 05/10/2010 1525

LCSD Lab Sample ID: LCSD 280-14710/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/12/2010 1244
Date Prepared: 05/10/2010 1525

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Nitrogen, Kjeldahl	6.00	6.00	5.93	5.97

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-14710

Method: 351.2
Preparation: 351.2

MS Lab Sample ID: 280-3171-D-1-B MS
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/12/2010 1248
Date Prepared: 05/10/2010 1525

Analysis Batch: 280-15103
Prep Batch: 280-14710

Instrument ID: WC_Astoria
Lab File ID: 051210TKN.txt
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

MSD Lab Sample ID: 280-3171-D-1-C MSD
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/12/2010 1249
Date Prepared: 05/10/2010 1525

Analysis Batch: 280-15103
Prep Batch: 280-14710

Instrument ID: WC_Astoria
Lab File ID: 051210TKN.txt
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Nitrogen, Kjeldahl	0	0	54 - 131	NC	38	F	F

Client: Waste Management

Job Number: 280-3214-1

Matrix Spike/
Matrix Spike Duplicate Data Report - Batch: 280-14710

Method: 351.2
Preparation: 351.2

MS Lab Sample ID:	280-3171-D-1-B MS	Units: mg/L	MSD Lab Sample ID:	280-3171-D-1-C MSD
Client Matrix:	Water		Client Matrix:	Water
Dilution:	1.0		Dilution:	1.0
Date Analyzed:	05/12/2010 1248		Date Analyzed:	05/12/2010 1249
Date Prepared:	05/10/2010 1525		Date Prepared:	05/10/2010 1525

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Nitrogen, Kjeldahl	0.66	3.00	3.00	ND	F	ND	F

Client: Waste Management

Job Number: 280-3214-1

Method Blank - Batch: 280-15653

Method: 353.2
Preparation: N/A

Lab Sample ID: MB 280-15653/118
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/14/2010 1431
Date Prepared: N/A

Analysis Batch: 280-15653
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_Alp 2
Lab File ID: C:\FLOW_4\0514NXN.RST
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	MDL	RL
Nitrate Nitrite as N	ND		0.019	0.10

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-15653

Method: 353.2
Preparation: N/A

LCS Lab Sample ID: LCS 280-15653/119
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/14/2010 1432
Date Prepared: N/A

Analysis Batch: 280-15653
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_Alp 2
Lab File ID: C:\FLOW_4\0514NXN.RST
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

LCSD Lab Sample ID: LCSD 280-15653/120
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/14/2010 1434
Date Prepared: N/A

Analysis Batch: 280-15653
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_Alp 2
Lab File ID: C:\FLOW_4\0514NXN.RST
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Nitrate Nitrite as N	103	103	90 - 110	0	10		

Client: Waste Management

Job Number: 280-3214-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-15653

Method: 353.2
Preparation: N/A

LCS Lab Sample ID: LCS 280-15653/119
Units: mg/L
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/14/2010 1432
Date Prepared: N/A

LCSD Lab Sample ID: LCSD 280-15653/120
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/14/2010 1434
Date Prepared: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Nitrate Nitrite as N	5.00	5.00	5.14	5.14

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-15653

Method: 353.2
Preparation: N/A

MS Lab Sample ID: 280-3206-D-3 MS
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/14/2010 1513
Date Prepared: N/A

Analysis Batch: 280-15653
Prep Batch: N/A

Instrument ID: WC_Alp 2
Lab File ID: C:\FLOW_4\0514NXN.RST
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

MSD Lab Sample ID: 280-3206-D-3 MSD
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/14/2010 1514
Date Prepared: N/A

Analysis Batch: 280-15653
Prep Batch: N/A

Instrument ID: WC_Alp 2
Lab File ID: C:\FLOW_4\0514NXN.RST
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Nitrate Nitrite as N	99	98	72 - 113	1	17		

Client: Waste Management

Job Number: 280-3214-1

Matrix Spike/
Matrix Spike Duplicate Data Report - Batch: 280-15653

Method: 353.2
Preparation: N/A

MS Lab Sample ID:	280-3206-D-3 MS	Units: mg/L	MSD Lab Sample ID:	280-3206-D-3 MSD
Client Matrix:	Water		Client Matrix:	Water
Dilution:	1.0		Dilution:	1.0
Date Analyzed:	05/14/2010 1513		Date Analyzed:	05/14/2010 1514
Date Prepared:	N/A		Date Prepared:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Nitrate Nitrite as N	ND	4.00	4.00	3.97	3.92

Client: Waste Management

Job Number: 280-3214-1

Method Blank - Batch: 280-14602

Method: 365.1
Preparation: 365.2/365.3/365

Lab Sample ID: MB 280-14602/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/11/2010 1015
Date Prepared: 05/10/2010 0749

Analysis Batch: 280-14849
Prep Batch: 280-14602
Units: mg/L

Instrument ID: WC_Konelab
Lab File ID: 051110Tphos2.xls
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Phosphorus, Total	0.00689	J	0.0050	0.050

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-14602

Method: 365.1
Preparation: 365.2/365.3/365

LCS Lab Sample ID: LCS 280-14602/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/11/2010 1015
Date Prepared: 05/10/2010 0749

Analysis Batch: 280-14849
Prep Batch: 280-14602
Units: mg/L

Instrument ID: WC_Konelab
Lab File ID: 051110Tphos2.xls
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 280-14602/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/11/2010 1015
Date Prepared: 05/10/2010 0749

Analysis Batch: 280-14849
Prep Batch: 280-14602
Units: mg/L

Instrument ID: WC_Konelab
Lab File ID: 051110Tphos2.xls
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Phosphorus, Total	96	98	90 - 110	3	10		

Client: Waste Management

Job Number: 280-3214-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-14602

Method: 365.1
Preparation: 365.2/365.3/365

LCS Lab Sample ID: LCS 280-14602/2-A
Units: mg/L
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/11/2010 1015
Date Prepared: 05/10/2010 0749

LCSD Lab Sample ID: LCSD 280-14602/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/11/2010 1015
Date Prepared: 05/10/2010 0749

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Phosphorus, Total	0.500	0.500	0.478	0.491

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-14602

Method: 365.1
Preparation: 365.2/365.3/365

MS Lab Sample ID: 280-3086-A-3-B MS
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/11/2010 1046
Date Prepared: 05/10/2010 0749

Analysis Batch: 280-14849
Prep Batch: 280-14602

Instrument ID: WC_Konelab
Lab File ID: 051110Tphos2.xls
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 280-3086-A-3-C MSD
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/11/2010 1046
Date Prepared: 05/10/2010 0749

Analysis Batch: 280-14849
Prep Batch: 280-14602

Instrument ID: WC_Konelab
Lab File ID: 051110Tphos2.xls
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Phosphorus, Total	130	94	71 - 128	19	22	F E	

Client: Waste Management

Job Number: 280-3214-1

Matrix Spike/
Matrix Spike Duplicate Data Report - Batch: 280-14602

Method: 365.1
Preparation: 365.2/365.3/365

MS Lab Sample ID:	280-3086-A-3-B MS	Units: mg/L	MSD Lab Sample ID:	280-3086-A-3-C MSD
Client Matrix:	Water		Client Matrix:	Water
Dilution:	1.0		Dilution:	1.0
Date Analyzed:	05/11/2010 1046		Date Analyzed:	05/11/2010 1046
Date Prepared:	05/10/2010 0749		Date Prepared:	05/10/2010 0749

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual
Phosphorus, Total	0.40	0.500	0.500	1.05	F E	0.866

Client: Waste Management

Job Number: 280-3214-1

Method Blank - Batch: 280-15550

Method: 410.4
Preparation: N/A

Lab Sample ID: MB 280-15550/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/14/2010 1257
Date Prepared: N/A

Analysis Batch: 280-15550
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_HACH SPEC
Lab File ID: N/A
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL

Analyte	Result	Qual	MDL	RL
Chemical Oxygen Demand	ND		4.1	20

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-15550

Method: 410.4
Preparation: N/A

LCS Lab Sample ID: LCS 280-15550/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/14/2010 1257
Date Prepared: N/A

Analysis Batch: 280-15550
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_HACH SPEC
Lab File ID: N/A
Initial Weight/Volume: 10 mL
Final Weight/Volume: 100 mL

LCSD Lab Sample ID: LCSD 280-15550/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/14/2010 1257
Date Prepared: N/A

Analysis Batch: 280-15550
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_HACH SPEC
Lab File ID: N/A
Initial Weight/Volume: 10 mL
Final Weight/Volume: 100 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Chemical Oxygen Demand	109	105	80 - 115	4	11		

Client: Waste Management

Job Number: 280-3214-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-15550

Method: 410.4
Preparation: N/A

LCS Lab Sample ID: LCS 280-15550/3
Units: mg/L
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/14/2010 1257
Date Prepared: N/A

LCSD Lab Sample ID: LCSD 280-15550/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/14/2010 1257
Date Prepared: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Chemical Oxygen Demand	100	100	109	105

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-15550

Method: 410.4
Preparation: N/A

MS Lab Sample ID: 280-3155-K-2 MS
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/14/2010 1257
Date Prepared: N/A

Analysis Batch: 280-15550
Prep Batch: N/A

Instrument ID: WC_HACH SPEC
Lab File ID: N/A
Initial Weight/Volume: 2 mL
Final Weight/Volume: 100 mL

MSD Lab Sample ID: 280-3155-K-2 MSD
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/14/2010 1257
Date Prepared: N/A

Analysis Batch: 280-15550
Prep Batch: N/A

Instrument ID: WC_HACH SPEC
Lab File ID: N/A
Initial Weight/Volume: 2 mL
Final Weight/Volume: 100 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Chemical Oxygen Demand	86	85	74 - 109	1	11		

Client: Waste Management

Job Number: 280-3214-1

Matrix Spike/
Matrix Spike Duplicate Data Report - Batch: 280-15550

Method: 410.4
Preparation: N/A

MS Lab Sample ID: 280-3155-K-2 MS
Units: mg/L
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/14/2010 1257
Date Prepared: N/A

MSD Lab Sample ID: 280-3155-K-2 MSD
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/14/2010 1257
Date Prepared: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Chemical Oxygen Demand	28	50.0	50.0	71.1	70.5

Client: Waste Management

Job Number: 280-3214-1

Method Blank - Batch: 280-14230

Method: SM 2540D
Preparation: N/A

Lab Sample ID: MB 280-14230/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/06/2010 1405
Date Prepared: N/A

Analysis Batch: 280-14230
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 250 mL
Final Weight/Volume: 250 mL

Analyte	Result	Qual	MDL	RL
Total Suspended Solids	ND		1.1	4.0

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-14230

Method: SM 2540D
Preparation: N/A

LCS Lab Sample ID: LCS 280-14230/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/06/2010 1405
Date Prepared: N/A

Analysis Batch: 280-14230
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 100 mL
Final Weight/Volume: 250 mL

LCSD Lab Sample ID: LCSD 280-14230/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/06/2010 1405
Date Prepared: N/A

Analysis Batch: 280-14230
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 100 mL
Final Weight/Volume: 250 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Total Suspended Solids	89	98	86 - 114	10	20		

Client: Waste Management

Job Number: 280-3214-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-14230

Method: SM 2540D
Preparation: N/A

LCS Lab Sample ID: LCS 280-14230/2
Units: mg/L
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/06/2010 1405
Date Prepared: N/A

LCSD Lab Sample ID: LCSD 280-14230/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/06/2010 1405
Date Prepared: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Total Suspended Solids	100	100	89.0	98.0

Duplicate - Batch: 280-14230

Method: SM 2540D
Preparation: N/A

Lab Sample ID: 280-3162-B-2 DU
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/06/2010 1405
Date Prepared: N/A

Analysis Batch: 280-14230
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 250 mL
Final Weight/Volume: 250 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Suspended Solids	ND	ND	NC	20	

Client: Waste Management

Job Number: 280-3214-1

Laboratory Chronicle

Lab ID: **280-3214-1** **Client ID:** **CULVERT**

Sample Date/Time: 05/03/2010 11:17 Received Date/Time: 05/06/2010 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:625	280-3214-A-1-B		280-15935	280-14583	05/09/2010 17:00	1	TAL DEN	ASJ
A:625	280-3214-A-1-B		280-15935	280-14583	05/15/2010 03:06	1	TAL DEN	RLC
P:200.7	280-3214-A-1-A		280-14664	280-14315	05/07/2010 09:00	1	TAL DEN	JW
A:200.7 Rev 4.4	280-3214-A-1-A		280-14664	280-14315	05/08/2010 19:57	1	TAL DEN	LT
P:1664A	280-3214-D-1-A		280-14424	280-14422	05/07/2010 12:16	1	TAL DEN	SGW
A:1664A	280-3214-D-1-A		280-14424	280-14422	05/07/2010 12:23	1	TAL DEN	SGW
A:350.1	280-3214-F-1		280-15180		05/12/2010 14:39	1	TAL DEN	LEJ
P:351.2	280-3214-E-1-A		280-15103	280-14710	05/10/2010 15:25	1	TAL DEN	BR
A:351.2	280-3214-E-1-A		280-15103	280-14710	05/12/2010 13:02	1	TAL DEN	BR
A:353.2	280-3214-F-1		280-15653		05/14/2010 15:35	1	TAL DEN	LEJ
P:365.2/365.3/365	280-3214-F-1-A		280-14849	280-14602	05/10/2010 07:49	1	TAL DEN	BMG
A:365.1	280-3214-F-1-A		280-14849	280-14602	05/11/2010 10:46	1	TAL DEN	BMG
A:410.4	280-3214-E-1		280-15550		05/14/2010 12:57	1	TAL DEN	MRD
A:SM 2540D	280-3214-G-1		280-14230		05/06/2010 14:05	1	TAL DEN	SGW
A:Field Sampling	280-3214-A-1		280-14217		05/03/2010 11:17	1	TAL DEN	FS

Lab ID: **MB** **Client ID:** **N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:625	MB 280-14583/3-A		280-15935	280-14583	05/09/2010 17:00	1	TAL DEN	ASJ
A:625	MB 280-14583/3-A		280-15935	280-14583	05/14/2010 16:57	1	TAL DEN	RLC
P:200.7	MB 280-14315/1-A		280-14659	280-14315	05/07/2010 09:00	1	TAL DEN	JW
A:200.7 Rev 4.4	MB 280-14315/1-A		280-14659	280-14315	05/08/2010 13:41	1	TAL DEN	LT
P:1664A	MB 280-14422/1-A		280-14424	280-14422	05/07/2010 12:16	1	TAL DEN	SGW
A:1664A	MB 280-14422/1-A		280-14424	280-14422	05/07/2010 12:23	1	TAL DEN	SGW
A:350.1	MB 280-15180/57		280-15180		05/12/2010 13:54	1	TAL DEN	LEJ
P:351.2	MB 280-14710/3-A		280-15103	280-14710	05/10/2010 15:25	1	TAL DEN	BR
A:351.2	MB 280-14710/3-A		280-15103	280-14710	05/12/2010 12:45	1	TAL DEN	BR
A:353.2	MB 280-15653/118		280-15653		05/14/2010 14:31	1	TAL DEN	LEJ
P:365.2/365.3/365	MB 280-14602/1-A		280-14849	280-14602	05/10/2010 07:49	1	TAL DEN	BMG
A:365.1	MB 280-14602/1-A		280-14849	280-14602	05/11/2010 10:15	1	TAL DEN	BMG
A:410.4	MB 280-15550/5		280-15550		05/14/2010 12:57	1	TAL DEN	MRD
A:SM 2540D	MB 280-14230/1		280-14230		05/06/2010 14:05	1	TAL DEN	SGW

Client: Waste Management

Job Number: 280-3214-1

Laboratory Chronicle

Lab ID: **LCS** **Client ID:** **N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:625	LCS 280-14583/4-A		280-15935	280-14583	05/09/2010 17:00	1	TAL DEN	ASJ
A:625	LCS 280-14583/4-A		280-15935	280-14583	05/14/2010 17:17	1	TAL DEN	RLC
P:200.7	LCS 280-14315/2-A		280-14659	280-14315	05/07/2010 09:00	1	TAL DEN	JW
A:200.7 Rev 4.4	LCS 280-14315/2-A		280-14659	280-14315	05/08/2010 13:43	1	TAL DEN	LT
P:1664A	LCS 280-14422/2-A		280-14424	280-14422	05/07/2010 12:16	1	TAL DEN	SGW
A:1664A	LCS 280-14422/2-A		280-14424	280-14422	05/07/2010 12:23	1	TAL DEN	SGW
A:350.1	LCS 280-15180/58		280-15180		05/12/2010 13:55	1	TAL DEN	LEJ
P:351.2	LCS 280-14710/1-A		280-15103	280-14710	05/10/2010 15:25	1	TAL DEN	BR
A:351.2	LCS 280-14710/1-A		280-15103	280-14710	05/12/2010 12:43	1	TAL DEN	BR
A:353.2	LCS 280-15653/119		280-15653		05/14/2010 14:32	1	TAL DEN	LEJ
P:365.2/365.3/365	LCS 280-14602/2-A		280-14849	280-14602	05/10/2010 07:49	1	TAL DEN	BMG
A:365.1	LCS 280-14602/2-A		280-14849	280-14602	05/11/2010 10:15	1	TAL DEN	BMG
A:410.4	LCS 280-15550/3		280-15550		05/14/2010 12:57	1	TAL DEN	MRD
A:SM 2540D	LCS 280-14230/2		280-14230		05/06/2010 14:05	1	TAL DEN	SGW

Lab ID: **LCSD** **Client ID:** **N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:625	LCSD 280-14583/5-A		280-15935	280-14583	05/09/2010 17:00	1	TAL DEN	ASJ
A:625	LCSD 280-14583/5-A		280-15935	280-14583	05/14/2010 17:37	1	TAL DEN	RLC
P:1664A	LCSD 280-14422/3-A		280-14424	280-14422	05/07/2010 12:16	1	TAL DEN	SGW
A:1664A	LCSD 280-14422/3-A		280-14424	280-14422	05/07/2010 12:23	1	TAL DEN	SGW
A:350.1	LCSD 280-15180/59		280-15180		05/12/2010 13:57	1	TAL DEN	LEJ
P:351.2	LCSD 280-14710/2-A		280-15103	280-14710	05/10/2010 15:25	1	TAL DEN	BR
A:351.2	LCSD 280-14710/2-A		280-15103	280-14710	05/12/2010 12:44	1	TAL DEN	BR
A:353.2	LCSD 280-15653/120		280-15653		05/14/2010 14:34	1	TAL DEN	LEJ
P:365.2/365.3/365	LCSD 280-14602/3-A		280-14849	280-14602	05/10/2010 07:49	1	TAL DEN	BMG
A:365.1	LCSD 280-14602/3-A		280-14849	280-14602	05/11/2010 10:15	1	TAL DEN	BMG
A:410.4	LCSD 280-15550/4		280-15550		05/14/2010 12:57	1	TAL DEN	MRD
A:SM 2540D	LCSD 280-14230/3		280-14230		05/06/2010 14:05	1	TAL DEN	SGW

Client: Waste Management

Job Number: 280-3214-1

Laboratory Chronicle

Lab ID: MS **Client ID:** N/A

Sample Date/Time: 05/04/2010 12:00 Received Date/Time: 05/05/2010 10:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:200.7	280-3158-A-1-E MS		280-14664	280-14315	05/07/2010 09:00	1	TAL DEN	JW
A:200.7 Rev 4.4	280-3158-A-1-E MS		280-14664	280-14315	05/08/2010 19:51	1	TAL DEN	LT
P:1664A	280-3116-B-1-A MS		280-14424	280-14422	05/07/2010 12:16	1	TAL DEN	SGW
A:1664A	280-3116-B-1-A MS		280-14424	280-14422	05/07/2010 12:23	1	TAL DEN	SGW
A:350.1	280-3213-F-1 MS		280-15180		05/12/2010 14:36	1	TAL DEN	LEJ
P:351.2	280-3171-D-1-B MS		280-15103	280-14710	05/10/2010 15:25	1	TAL DEN	BR
A:351.2	280-3171-D-1-B MS		280-15103	280-14710	05/12/2010 12:48	1	TAL DEN	BR
A:353.2	280-3206-D-3 MS		280-15653		05/14/2010 15:13	1	TAL DEN	LEJ
P:365.2/365.3/365	280-3086-A-3-B MS		280-14849	280-14602	05/10/2010 07:49	1	TAL DEN	BMG
A:365.1	280-3086-A-3-B MS		280-14849	280-14602	05/11/2010 10:46	1	TAL DEN	BMG
A:410.4	280-3155-K-2 MS		280-15550		05/14/2010 12:57	1	TAL DEN	MRD

Lab ID: MSD **Client ID:** N/A

Sample Date/Time: 05/04/2010 12:00 Received Date/Time: 05/05/2010 10:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:200.7	280-3158-A-1-F MSD		280-14664	280-14315	05/07/2010 09:00	1	TAL DEN	JW
A:200.7 Rev 4.4	280-3158-A-1-F MSD		280-14664	280-14315	05/08/2010 19:53	1	TAL DEN	LT
P:1664A	280-3116-C-1-A MSD		280-14424	280-14422	05/07/2010 12:16	1	TAL DEN	SGW
A:1664A	280-3116-C-1-A MSD		280-14424	280-14422	05/07/2010 12:23	1	TAL DEN	SGW
A:350.1	280-3213-F-1 MSD		280-15180		05/12/2010 14:37	1	TAL DEN	LEJ
P:351.2	280-3171-D-1-C MSD		280-15103	280-14710	05/10/2010 15:25	1	TAL DEN	BR
A:351.2	280-3171-D-1-C MSD		280-15103	280-14710	05/12/2010 12:49	1	TAL DEN	BR
A:353.2	280-3206-D-3 MSD		280-15653		05/14/2010 15:14	1	TAL DEN	LEJ
P:365.2/365.3/365	280-3086-A-3-C MSD		280-14849	280-14602	05/10/2010 07:49	1	TAL DEN	BMG
A:365.1	280-3086-A-3-C MSD		280-14849	280-14602	05/11/2010 10:46	1	TAL DEN	BMG
A:410.4	280-3155-K-2 MSD		280-15550		05/14/2010 12:57	1	TAL DEN	MRD

Lab ID: DU **Client ID:** N/A

Sample Date/Time: 05/03/2010 11:30 Received Date/Time: 05/05/2010 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:SM 2540D	280-3162-B-2 DU		280-14230		05/06/2010 14:05	1	TAL DEN	SGW

Lab References:

TAL DEN = TestAmerica Denver

Chain of Custody Record

Sampler ID _____

Temperature on Receipt 4.6 LRI NDB 5/6

Drinking Water? Yes ☐ No ☒

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124-280 (1007)

Client	Project Manager	Date	Chain of Custody Number
AECOM Technical Services	TOBIAS ROEHLER	5/4/2010	105318
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 2 of 2**
1001 Bishop St. Ste 1600	(808) 356-5306 / (808) 523-8950		

City	State	Zip Code	Site Contact	Lab Contact
HONOLULU	HI	96813	John Fong	Betsy Sara (303-736-0189)

Project Name and Location (State)	Carrier/Waybill Number
Waste Management WGSL SW	8681 1295 1754

Contract/Purchase Order/Quote No.:

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil		Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH		Analysis (Attach list if more space is needed): TSS	TKN/Nitrate NH3	COD	Ammonia	Total Phosphorus	Oil & Grease	SVOCs	Iron	Zinc				Special Instructions/ Conditions of Receipt
Culvert	5/3/10	11:17		X				X	X	X					X	X	X	X	X	X	X	X	X				
Temp Blank																											

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Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard per contract

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	5/4/10	12:00	1. Received By: [signature]	5-6-10	0930
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments: All Sampled at Same time. Except O+G (~~[illegible]~~), samples are identical (note preservative)

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

WMH003026

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: Waimanalo Gulch Sanit. Landfill

Site No.: GULVERT Sample Point: Sample ID

This Waste Management Field Information Form is Required
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID: 3214-1

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
N/A					

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment ... Dedicated: Y or N

Filter Device: Y or N 0.45 µ or ____ µ (circle or fill in)

Purging Device: A- Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Filter Type: N/A — A-In-line Disposable, B-Pressure, C-Vacuum, X-Other

Sampling Device: Glass Beaker Collected O+G directly into bottle Collected remaining w/ Beaker

X-Other:

Sample Tube Type: A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:

WELL DATA

Well Elevation (at TOC) (ft/msl) — Depth to Water (DTW) (from TOC) (ft) — Groundwater Elevation (site datum, from TOC) (ft/msl)

Total Well Depth (from TOC) N/A (ft) — Stick Up (from ground elevation) (ft) — Casing ID (in) — Casing Material

Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (µmhos/cm @ 25 °C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
11:17	1st	1st						
	2nd	2nd						
	3rd	3rd						
	4th	4th						
Suggested range for 3 consec. readings or note Permit/State requirements:		+/- 0.2	+/- 3%	--	--	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.*

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: Units
050310	~~2600~~ 7.1		260				

Final Field Readings are required *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

FIELD COMMENTS

Sample Appearance: Slighty yellowish, clear — Odor: None — Color: Yellowish — Other:

Weather Conditions (required daily, or as conditions change): Direction/Speed: S/SW — Outlook: overcast w/ occ. showers — Precipitation: Y or N

Specific Comments (including purge/well volume calculations if required):

- Collected O+G volume directly into sample Bottles
- Collected 2 aliquots of remaining sample volume, composited and poured into remaining sample bottles
- 50/50 composite based on flow
- ~40 min spacing btwn aliquot

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
5/4/10	Tobias Koehler	[signature]	ATS

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

STL-8029WM R: 12/00

WMH003027

Login Sample Receipt Check List

Client: Waste Management

Job Number: 280-3214-1

Login Number: 3214

List Source: TestAmerica Denver

Creator: Harrington, Nicholas

List Number: 1

Question	T / F/ NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	