APPENDIX G

Section 4

Outfall 009 – March 17, 18, & 19, 2012

Test America Analytical Laboratory Report

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-5816-1
Client Project/Site: Boeing SSFL NPDES

For:
MWH Americas Inc
618 Michillinda Avenue, Suite 200
Arcadia, California 91007

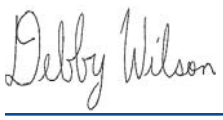
Attn: Bronwyn Kelly

Debby Wilson

Authorized for release by:
4/24/2012 3:47:57 PM

Debby Wilson
Project Manager I
debby.wilson@testamericainc.com

I certify under penalty of perjury that the information contained in this report and all attachments was produced in accordance with the indicated methods and laboratory standard operating procedures, except as noted, and are complete and accurate to the best of my knowledge and belief. Subcontract laboratory reports that are attached have been evaluated for completeness and quality control acceptability.



Debby Wilson
Project Manager I
4/24/2012 3:47:57 PM

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Sample Summary

Client: MWH Americas Inc
Project/Site: Boeing SSFL NPDES

TestAmerica Job ID: 440-5816-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-5816-3	Outfall 009	Water	03/17/12 12:35	03/17/12 14:40
440-5816-4	Trip Blanks	Water	03/17/12 12:35	03/17/12 14:40
440-5832-1	Outfall 009 (Composite)	Water	03/18/12 08:12	03/18/12 14:40
440-5832-3	Trip Blank	Water	03/19/12 18:03	03/18/12 14:40

Job ID: 440-5816-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-5816-1

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

GC/MS VOA
Method(s) 624: The preservative used in the sample containers provided is not compatible with the analytes requested. The following sample(s) was received preserved with hydrochloric acid: Trip Blanks (440-5816-4). The requested target analyte list contains 2-chloroethylvinyl ether, acrolein, and/or acrylonitrile, which are acid-labile compounds that degrade in an acidic medium. 5816-4. pH=4

No other analytical or quality issues were noted.

GC/MS Semi VOA
Method(s) 525.2: There was no MS/MSD analyzed for this batch. Please see the LCS/LCSD

Method(s) 625: The continuing calibration verification (CCV) for several compounds associated with batch 15425 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) 625: Insufficient sample volume was available to perform batch matrix spike/matrix spike duplicate (MS/MSD) associated with batch 15425. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

No other analytical or quality issues were noted.

HPLC
Method(s) 300.0: The continuing calibration verification (CCV) for analytical batch 14023 exceeded control criteria for nitrate. The data have been qualified and reported.

No other analytical or quality issues were noted.

GC Semi VOA
Method(s) 608: Insufficient sample volume was available to perform batch matrix spike/matrix spike duplicate (MS/MSD) associated with batch 14346. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

Method(s) 608: The continuing calibration verification (CCV) associated with batch 14342 recovered outside acceptance criteria, low biased, for DDT and Methoxychlor, high biased for DDD. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method(s) 608: Insufficient sample volume was available to perform batch matrix spike/matrix spike duplicate (MS/MSD) associated with batch 14342. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

No other analytical or quality issues were noted.

Metals
No analytical or quality issues were noted.

General Chemistry
Method(s) 1664A: Insufficient sample volume was available to perform batch matrix spike/matrix spike duplicate (MS/MSD) associated with batch 16301. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

No other analytical or quality issues were noted.

Job ID: 440-5816-1 (Continued)

Laboratory: TestAmerica Irvine (Continued)

Biology
No analytical or quality issues were noted.

WATER, 1613B, Dioxins/Furans with Totals
Sample: 1
Some analytes in this sample and the associated method blank (MB) have an ion abundance ratio that is outside of criteria. The analytes are considered as an "estimated maximum possible concentration" (EMPC) because the quantitation is based on the theoretical ion abundance ratio. Analytical results are reported with a "Q" flag.

Some analytes in the MB are reported at a concentration below the estimated detection limit (EDL). The data is reported as a positive detection because the peaks elute at the correct retention time for both characteristic ions and have a signal to noise ratio greater than the method required 2.5:1.

Organic Prep
No analytical or quality issues were noted.

Client: MWH Americas Inc
Project/Site: Boeing SSFL NPDES

TestAmerica Job ID: 440-5816-1

Client Sample ID: Outfall 009
Date Collected: 03/17/12 12:35
Date Received: 03/17/12 14:40

Lab Sample ID: 440-5816-3
Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.50	0.30	ug/L			03/27/12 10:00	1
2-Chloroethyl vinyl ether	ND		2.0	1.8	ug/L			03/20/12 14:24	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.30	ug/L			03/27/12 10:00	1
Acrolein	ND		5.0	4.0	ug/L			03/20/12 14:24	1
1,1,2-Trichloroethane	ND		0.50	0.30	ug/L			03/27/12 10:00	1
Acrylonitrile	ND		2.0	1.2	ug/L			03/20/12 14:24	1
1,1-Dichloroethane	ND		0.50	0.40	ug/L			03/27/12 10:00	1
1,1-Dichloroethene	ND		0.50	0.42	ug/L			03/27/12 10:00	1
1,2-Dichlorobenzene	ND		0.50	0.32	ug/L			03/27/12 10:00	1
1,2-Dichloroethane	ND		0.50	0.28	ug/L			03/27/12 10:00	1
1,2-Dichloropropane	ND		0.50	0.35	ug/L			03/27/12 10:00	1
1,3-Dichlorobenzene	ND		0.50	0.35	ug/L			03/27/12 10:00	1
1,2,3-Trichloropropane	ND		0.50	0.40	ug/L			03/27/12 10:00	1
1,4-Dichlorobenzene	ND		0.50	0.37	ug/L			03/27/12 10:00	1
Benzene	ND		0.50	0.28	ug/L			03/27/12 10:00	1
Bromoform	ND		0.50	0.40	ug/L			03/27/12 10:00	1
Bromomethane	ND		0.50	0.42	ug/L			03/27/12 10:00	1
Carbon tetrachloride	ND		0.50	0.28	ug/L			03/27/12 10:00	1
Chlorobenzene	ND		0.50	0.36	ug/L			03/27/12 10:00	1
Dibromochloromethane	ND		0.50	0.40	ug/L			03/27/12 10:00	1
Chloroethane	ND		0.50	0.40	ug/L			03/27/12 10:00	1
Chloroform	ND		0.50	0.33	ug/L			03/27/12 10:00	1
Chloromethane	ND		0.50	0.40	ug/L			03/27/12 10:00	1
cis-1,3-Dichloropropene	ND		0.50	0.22	ug/L			03/27/12 10:00	1
Bromodichloromethane	ND		0.50	0.30	ug/L			03/27/12 10:00	1
Ethylbenzene	ND		0.50	0.25	ug/L			03/27/12 10:00	1
Methylene Chloride	ND		1.0	0.95	ug/L			03/27/12 10:00	1
Tetrachloroethene	ND		0.50	0.32	ug/L			03/27/12 10:00	1
Toluene	ND		0.50	0.36	ug/L			03/27/12 10:00	1
trans-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/27/12 10:00	1
tert-Butanol	ND		10	6.5	ug/L			03/27/12 10:00	1
trans-1,3-Dichloropropene	ND		0.50	0.32	ug/L			03/27/12 10:00	1
Trichlorofluoromethane	ND		0.50	0.34	ug/L			03/27/12 10:00	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/27/12 10:00	1
Trichloroethene	ND		0.50	0.26	ug/L			03/27/12 10:00	1
cis-1,2-Dichloroethene	ND		0.50	0.32	ug/L			03/27/12 10:00	1
1,2-Dibromoethane (EDB)	ND		0.50	0.40	ug/L			03/27/12 10:00	1
Diisopropyl ether	ND		0.50	0.25	ug/L			03/27/12 10:00	1
Methyl tert-butyl ether	ND		0.50	0.32	ug/L			03/27/12 10:00	1
Naphthalene	ND		0.50	0.41	ug/L			03/27/12 10:00	1
Tert-amyl methyl ether	ND		0.50	0.33	ug/L			03/27/12 10:00	1
Ethyl tert-butyl ether	ND		0.50	0.28	ug/L			03/27/12 10:00	1
Xylenes, Total	ND		1.0	0.90	ug/L			03/27/12 10:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/20/12 14:24*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 120*		*03/20/12 14:24*	*1*
4-Bromofluorobenzene (Surr)	*112*		*80 - 120*		*03/27/12 10:00*	*1*
Dibromofluoromethane (Surr)	*110*		*80 - 120*		*03/27/12 10:00*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/27/12 10:00*	*1*

Client Sample ID: Outfall 009

Lab Sample ID: 440-5816-3

Date Collected: 03/17/12 12:35

Matrix: Water

Date Received: 03/17/12 14:40

Method: 218.6 - Chromium, Hexavalent (Ion Chromatography)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		1.0	0.25	ug/L			03/17/12 23:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	ND		4.7	1.3	mg/L		03/29/12 06:37	03/29/12 10:37	1

Method: SM 9221E - Coliforms, Fecal (Multiple-Tube Fermentation)

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Coliform, Fecal	**1600**				MPN/100mL			03/17/12 15:31	1

Method: SM 9221F - E.Coli (Multiple-Tube Fermentation; EC-MUG)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Escherichia coli	**1600**		2.0	2.0	MPN/100mL			03/17/12 15:31	1

Client Sample ID: Trip Blanks

Lab Sample ID: 440-5816-4

Date Collected: 03/17/12 12:35

Matrix: Water

Date Received: 03/17/12 14:40

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.50	0.30	ug/L			03/27/12 10:28	1
2-Chloroethyl vinyl ether	ND		2.0	1.8	ug/L			03/20/12 10:40	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.30	ug/L			03/27/12 10:28	1
Acrolein	ND		5.0	4.0	ug/L			03/20/12 10:40	1
1,1,2-Trichloroethane	ND		0.50	0.30	ug/L			03/27/12 10:28	1
Acrylonitrile	ND		2.0	1.2	ug/L			03/20/12 10:40	1
1,1-Dichloroethane	ND		0.50	0.40	ug/L			03/27/12 10:28	1
1,1-Dichloroethene	ND		0.50	0.42	ug/L			03/27/12 10:28	1
1,2-Dichlorobenzene	ND		0.50	0.32	ug/L			03/27/12 10:28	1
1,2-Dichloroethane	ND		0.50	0.28	ug/L			03/27/12 10:28	1
1,2-Dichloropropane	ND		0.50	0.35	ug/L			03/27/12 10:28	1
1,3-Dichlorobenzene	ND		0.50	0.35	ug/L			03/27/12 10:28	1
1,2,3-Trichloropropane	ND		0.50	0.40	ug/L			03/27/12 10:28	1
1,4-Dichlorobenzene	ND		0.50	0.37	ug/L			03/27/12 10:28	1
Benzene	ND		0.50	0.28	ug/L			03/27/12 10:28	1
Bromoform	ND		0.50	0.40	ug/L			03/27/12 10:28	1
Bromomethane	ND		0.50	0.42	ug/L			03/27/12 10:28	1
Carbon tetrachloride	ND		0.50	0.28	ug/L			03/27/12 10:28	1
Chlorobenzene	ND		0.50	0.36	ug/L			03/27/12 10:28	1
Dibromochloromethane	ND		0.50	0.40	ug/L			03/27/12 10:28	1
Chloroethane	ND		0.50	0.40	ug/L			03/27/12 10:28	1
Chloroform	ND		0.50	0.33	ug/L			03/27/12 10:28	1
Chloromethane	ND		0.50	0.40	ug/L			03/27/12 10:28	1
cis-1,3-Dichloropropene	ND		0.50	0.22	ug/L			03/27/12 10:28	1
Bromodichloromethane	ND		0.50	0.30	ug/L			03/27/12 10:28	1
Ethylbenzene	ND		0.50	0.25	ug/L			03/27/12 10:28	1
Methylene Chloride	ND		1.0	0.95	ug/L			03/27/12 10:28	1
Tetrachloroethene	ND		0.50	0.32	ug/L			03/27/12 10:28	1
Toluene	ND		0.50	0.36	ug/L			03/27/12 10:28	1
trans-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/27/12 10:28	1
tert-Butanol	ND		10	6.5	ug/L			03/27/12 10:28	1
trans-1,3-Dichloropropene	ND		0.50	0.32	ug/L			03/27/12 10:28	1

Client Sample ID: Trip Blanks

Lab Sample ID: 440-5816-4

Date Collected: 03/17/12 12:35

Matrix: Water

Date Received: 03/17/12 14:40

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	ND		0.50	0.34	ug/L			03/27/12 10:28	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/27/12 10:28	1
Trichloroethene	ND		0.50	0.26	ug/L			03/27/12 10:28	1
cis-1,2-Dichloroethene	ND		0.50	0.32	ug/L			03/27/12 10:28	1
1,2-Dibromoethane (EDB)	ND		0.50	0.40	ug/L			03/27/12 10:28	1
Diisopropyl ether	ND		0.50	0.25	ug/L			03/27/12 10:28	1
Methyl tert-butyl ether	ND		0.50	0.32	ug/L			03/27/12 10:28	1
Naphthalene	ND		0.50	0.41	ug/L			03/27/12 10:28	1
Tert-amyl methyl ether	ND		0.50	0.33	ug/L			03/27/12 10:28	1
Ethyl tert-butyl ether	ND		0.50	0.28	ug/L			03/27/12 10:28	1
Xylenes, Total	ND		1.0	0.90	ug/L			03/27/12 10:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*03/20/12 10:40*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*03/20/12 10:40*	*1*
4-Bromofluorobenzene (Surr)	*112*		*80 - 120*		*03/27/12 10:28*	*1*
Dibromofluoromethane (Surr)	*114*		*80 - 120*		*03/27/12 10:28*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/27/12 10:28*	*1*

Client Sample ID: Outfall 009 (Composite)

Lab Sample ID: 440-5832-1

Date Collected: 03/18/12 08:12

Matrix: Water

Date Received: 03/18/12 14:40

Method: 525.2 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorpyrifos	ND		0.96	0.077	ug/L		03/19/12 17:01	03/20/12 18:25	1
Diazinon	ND		0.24	0.038	ug/L		03/19/12 17:01	03/20/12 18:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dimethyl-2-nitrobenzene	*107*		*70 - 130*	*03/19/12 17:01*	*03/20/12 18:25*	*1*
Perylene-d12	*112*		*70 - 130*	*03/19/12 17:01*	*03/20/12 18:25*	*1*
Triphenylphosphate	*97*		*70 - 130*	*03/19/12 17:01*	*03/20/12 18:25*	*1*

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		9.80	2.45	ug/L		03/21/12 17:48	03/25/12 20:28	1
1,2-Dichlorobenzene	ND		9.80	2.94	ug/L		03/21/12 17:48	03/25/12 20:28	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		19.6	2.45	ug/L		03/21/12 17:48	03/25/12 20:28	1
1,3-Dichlorobenzene	ND		9.80	2.94	ug/L		03/21/12 17:48	03/25/12 20:28	1
1,4-Dichlorobenzene	ND		9.80	2.45	ug/L		03/21/12 17:48	03/25/12 20:28	1
2,4,6-Trichlorophenol	ND		19.6	4.41	ug/L		03/21/12 17:48	03/25/12 20:28	1
2,4-Dichlorophenol	ND		9.80	3.43	ug/L		03/21/12 17:48	03/25/12 20:28	1
2,4-Dimethylphenol	ND		19.6	3.43	ug/L		03/21/12 17:48	03/25/12 20:28	1
2,4-Dinitrophenol	ND		19.6	7.84	ug/L		03/21/12 17:48	03/25/12 20:28	1
2,4-Dinitrotoluene	ND		9.80	3.43	ug/L		03/21/12 17:48	03/25/12 20:28	1
2,6-Dinitrotoluene	ND		9.80	1.96	ug/L		03/21/12 17:48	03/25/12 20:28	1
2-Chloronaphthalene	ND		9.80	2.94	ug/L		03/21/12 17:48	03/25/12 20:28	1
2-Chlorophenol	ND		9.80	2.94	ug/L		03/21/12 17:48	03/25/12 20:28	1
2-Methylnaphthalene	ND		9.80	1.96	ug/L		03/21/12 17:48	03/25/12 20:28	1
2-Methylphenol	ND		9.80	2.94	ug/L		03/21/12 17:48	03/25/12 20:28	1
2-Nitroaniline	ND		19.6	1.96	ug/L		03/21/12 17:48	03/25/12 20:28	1

Client: MWH Americas Inc
Project/Site: Boeing SSFL NPDES

TestAmerica Job ID: 440-5816-1

Client Sample ID: Outfall 009 (Composite)
Date Collected: 03/18/12 08:12
Date Received: 03/18/12 14:40

Lab Sample ID: 440-5832-1
Matrix: Water

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitrophenol	ND		9.80	3.43	ug/L		03/21/12 17:48	03/25/12 20:28	1
3,3'-Dichlorobenzidine	ND		19.6	7.35	ug/L		03/21/12 17:48	03/25/12 20:28	1
3-Nitroaniline	ND		19.6	2.94	ug/L		03/21/12 17:48	03/25/12 20:28	1
4,6-Dinitro-2-methylphenol	ND		19.6	3.92	ug/L		03/21/12 17:48	03/25/12 20:28	1
4-Bromophenyl phenyl ether	ND		9.80	2.94	ug/L		03/21/12 17:48	03/25/12 20:28	1
4-Chloro-3-methylphenol	ND		19.6	2.45	ug/L		03/21/12 17:48	03/25/12 20:28	1
4-Chloroaniline	ND		9.80	1.96	ug/L		03/21/12 17:48	03/25/12 20:28	1
4-Chlorophenyl phenyl ether	ND		9.80	2.45	ug/L		03/21/12 17:48	03/25/12 20:28	1
4-Methylphenol	ND		9.80	2.94	ug/L		03/21/12 17:48	03/25/12 20:28	1
4-Nitroaniline	ND		19.6	3.92	ug/L		03/21/12 17:48	03/25/12 20:28	1
4-Nitrophenol	ND		19.6	5.39	ug/L		03/21/12 17:48	03/25/12 20:28	1
Acenaphthene	ND		9.80	2.94	ug/L		03/21/12 17:48	03/25/12 20:28	1
Acenaphthylene	ND		9.80	2.94	ug/L		03/21/12 17:48	03/25/12 20:28	1
Aniline	ND		9.80	3.43	ug/L		03/21/12 17:48	03/25/12 20:28	1
Anthracene	ND		9.80	2.45	ug/L		03/21/12 17:48	03/25/12 20:28	1
Benzidine	ND		19.6	9.80	ug/L		03/21/12 17:48	03/25/12 20:28	1
Benzo[a]anthracene	ND		9.80	2.45	ug/L		03/21/12 17:48	03/25/12 20:28	1
Benzo[a]pyrene	ND		9.80	2.94	ug/L		03/21/12 17:48	03/25/12 20:28	1
Benzo[b]fluoranthene	ND		9.80	1.96	ug/L		03/21/12 17:48	03/25/12 20:28	1
Benzo[g,h,i]perylene	ND		9.80	3.92	ug/L		03/21/12 17:48	03/25/12 20:28	1
Benzo[k]fluoranthene	ND		9.80	2.45	ug/L		03/21/12 17:48	03/25/12 20:28	1
Benzoic acid	ND		19.6	9.80	ug/L		03/21/12 17:48	03/25/12 20:28	1
Benzyl alcohol	ND		19.6	3.43	ug/L		03/21/12 17:48	03/25/12 20:28	1
Bis(2-chloroethoxy)methane	ND		9.80	2.94	ug/L		03/21/12 17:48	03/25/12 20:28	1
Bis(2-chloroethyl)ether	ND		9.80	2.94	ug/L		03/21/12 17:48	03/25/12 20:28	1
bis (2-chloroisopropyl) ether	ND		9.80	2.45	ug/L		03/21/12 17:48	03/25/12 20:28	1
Bis(2-ethylhexyl) phthalate	ND		49.0	3.92	ug/L		03/21/12 17:48	03/25/12 20:28	1
Butyl benzyl phthalate	ND		19.6	3.92	ug/L		03/21/12 17:48	03/25/12 20:28	1
Chrysene	ND		9.80	2.45	ug/L		03/21/12 17:48	03/25/12 20:28	1
Di-n-butyl phthalate	ND		19.6	2.94	ug/L		03/21/12 17:48	03/25/12 20:28	1
Di-n-octyl phthalate	ND		19.6	3.43	ug/L		03/21/12 17:48	03/25/12 20:28	1
Dibenz(a,h)anthracene	ND		19.6	2.94	ug/L		03/21/12 17:48	03/25/12 20:28	1
Dibenzofuran	ND		9.80	3.92	ug/L		03/21/12 17:48	03/25/12 20:28	1
Diethyl phthalate	ND		9.80	3.43	ug/L		03/21/12 17:48	03/25/12 20:28	1
Dimethyl phthalate	ND		9.80	2.45	ug/L		03/21/12 17:48	03/25/12 20:28	1
Fluoranthene	ND		9.80	2.94	ug/L		03/21/12 17:48	03/25/12 20:28	1
Fluorene	ND		9.80	2.94	ug/L		03/21/12 17:48	03/25/12 20:28	1
Hexachlorobenzene	ND		9.80	2.94	ug/L		03/21/12 17:48	03/25/12 20:28	1
Hexachlorobutadiene	ND		9.80	3.92	ug/L		03/21/12 17:48	03/25/12 20:28	1
Hexachlorocyclopentadiene	ND		19.6	4.90	ug/L		03/21/12 17:48	03/25/12 20:28	1
Hexachloroethane	ND		9.80	3.43	ug/L		03/21/12 17:48	03/25/12 20:28	1
Indeno[1,2,3-cd]pyrene	ND		19.6	3.43	ug/L		03/21/12 17:48	03/25/12 20:28	1
Isophorone	ND		9.80	2.94	ug/L		03/21/12 17:48	03/25/12 20:28	1
N-Nitrosodimethylamine	ND		19.6	2.45	ug/L		03/21/12 17:48	03/25/12 20:28	1
N-Nitrosodi-n-propylamine	ND		9.80	3.43	ug/L		03/21/12 17:48	03/25/12 20:28	1
N-Nitrosodiphenylamine	ND		9.80	1.96	ug/L		03/21/12 17:48	03/25/12 20:28	1
Naphthalene	ND		9.80	2.94	ug/L		03/21/12 17:48	03/25/12 20:28	1
Nitrobenzene	ND		19.6	2.94	ug/L		03/21/12 17:48	03/25/12 20:28	1
Pentachlorophenol	ND		19.6	3.43	ug/L		03/21/12 17:48	03/25/12 20:28	1
Phenanthrene	ND		9.80	3.43	ug/L		03/21/12 17:48	03/25/12 20:28	1
Phenol	ND		9.80	1.96	ug/L		03/21/12 17:48	03/25/12 20:28	1

Client: MWH Americas Inc
Project/Site: Boeing SSFL NPDES

TestAmerica Job ID: 440-5816-1

Client Sample ID: Outfall 009 (Composite)
Date Collected: 03/18/12 08:12
Date Received: 03/18/12 14:40

Lab Sample ID: 440-5832-1
Matrix: Water

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	ND		9.80	3.92	ug/L		03/21/12 17:48	03/25/12 20:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*86*		*50 - 120*	*03/21/12 17:48*	*03/25/12 20:28*	*1*
2-Fluorophenol	*82*		*30 - 120*	*03/21/12 17:48*	*03/25/12 20:28*	*1*
2,4,6-Tribromophenol	*102*		*40 - 120*	*03/21/12 17:48*	*03/25/12 20:28*	*1*
Nitrobenzene-d5	*93*		*45 - 120*	*03/21/12 17:48*	*03/25/12 20:28*	*1*
Terphenyl-d14	*84*		*50 - 125*	*03/21/12 17:48*	*03/25/12 20:28*	*1*
Phenol-d6	*92*		*35 - 120*	*03/21/12 17:48*	*03/25/12 20:28*	*1*

Method: 608 - Organochlorine Pesticides in Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.0049	0.0015	ug/L		03/19/12 13:37	03/20/12 18:32	1
alpha-BHC	ND		0.0049	0.0025	ug/L		03/19/12 13:37	03/20/12 18:32	1
beta-BHC	ND		0.0098	0.0039	ug/L		03/19/12 13:37	03/20/12 18:32	1
Chlordane (technical)	ND		0.098	0.0078	ug/L		03/19/12 13:37	03/20/12 18:32	1
delta-BHC	ND		0.0049	0.0034	ug/L		03/19/12 13:37	03/20/12 18:32	1
Dieldrin	ND		0.0049	0.0020	ug/L		03/19/12 13:37	03/20/12 18:32	1
Endosulfan I	ND		0.0049	0.0029	ug/L		03/19/12 13:37	03/20/12 18:32	1
Endosulfan II	ND		0.0049	0.0020	ug/L		03/19/12 13:37	03/20/12 18:32	1
Endosulfan sulfate	ND		0.0098	0.0029	ug/L		03/19/12 13:37	03/20/12 18:32	1
Endrin	ND		0.0049	0.0020	ug/L		03/19/12 13:37	03/20/12 18:32	1
Endrin aldehyde	ND		0.0098	0.0020	ug/L		03/19/12 13:37	03/20/12 18:32	1
gamma-BHC (Lindane)	ND		0.0098	0.0029	ug/L		03/19/12 13:37	03/20/12 18:32	1
Heptachlor	ND		0.0098	0.0029	ug/L		03/19/12 13:37	03/20/12 18:32	1
Heptachlor epoxide	ND		0.0049	0.0025	ug/L		03/19/12 13:37	03/20/12 18:32	1
Toxaphene	ND		0.49	0.25	ug/L		03/19/12 13:37	03/20/12 18:32	1
4,4'-DDD	ND		0.0049	0.0039	ug/L		03/19/12 13:37	03/20/12 18:32	1
4,4'-DDE	ND		0.0049	0.0029	ug/L		03/19/12 13:37	03/20/12 18:32	1
4,4'-DDT	ND		0.0098	0.0039	ug/L		03/19/12 13:37	03/20/12 18:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*54*		*35 - 115*	*03/19/12 13:37*	*03/20/12 18:32*	*1*

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		0.49	0.25	ug/L		03/19/12 13:37	03/20/12 17:42	1
Aroclor 1221	ND		0.49	0.25	ug/L		03/19/12 13:37	03/20/12 17:42	1
Aroclor 1232	ND		0.49	0.25	ug/L		03/19/12 13:37	03/20/12 17:42	1
Aroclor 1242	ND		0.49	0.25	ug/L		03/19/12 13:37	03/20/12 17:42	1
Aroclor 1248	ND		0.49	0.25	ug/L		03/19/12 13:37	03/20/12 17:42	1
Aroclor 1254	ND		0.49	0.25	ug/L		03/19/12 13:37	03/20/12 17:42	1
Aroclor 1260	ND		0.49	0.25	ug/L		03/19/12 13:37	03/20/12 17:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*82*		*45 - 120*	*03/19/12 13:37*	*03/20/12 17:42*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2.0**		0.50	0.40	mg/L			03/20/12 12:55	1
Nitrate Nitrite as N	**0.37**		0.26	0.19	mg/L			03/19/12 12:33	1
Sulfate	**7.1**		0.50	0.40	mg/L			03/20/12 12:55	1

Client: MWH Americas Inc
Project/Site: Boeing SSFL NPDES

TestAmerica Job ID: 440-5816-1

Client Sample ID: Outfall 009 (Composite)
Date Collected: 03/18/12 08:12
Date Received: 03/18/12 14:40

Lab Sample ID: 440-5832-1
Matrix: Water

Method: 314.0 - Perchlorate (IC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND		4.0	0.95	ug/L			03/19/12 10:49	1

Method: 1613B - Dioxins/Furans, HRGC/HRMS (1613B)

Analyte	Result	Qualifier	ML	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		0.000010	0.0000062	ug/L		03/26/12 09:00	03/29/12 05:07	0.99
Total TCDD	ND		0.000010	0.0000062	ug/L		03/26/12 09:00	03/29/12 05:07	0.99
1,2,3,7,8-PeCDD	ND		0.000050	0.0000081	ug/L		03/26/12 09:00	03/29/12 05:07	0.99
Total PeCDD	ND		0.000050	0.0000081	ug/L		03/26/12 09:00	03/29/12 05:07	0.99
1,2,3,4,7,8-HxCDD	**0.0000069**	**J Q**	0.000050	0.0000052	ug/L		03/26/12 09:00	03/29/12 05:07	0.99
1,2,3,6,7,8-HxCDD	**0.000015**	**J**	0.000050	0.0000050	ug/L		03/26/12 09:00	03/29/12 05:07	0.99
1,2,3,7,8,9-HxCDD	**0.000017**	**J**	0.000050	0.0000046	ug/L		03/26/12 09:00	03/29/12 05:07	0.99
Total HxCDD	**0.000083**	**J Q**	0.000050	0.0000046	ug/L		03/26/12 09:00	03/29/12 05:07	0.99
1,2,3,4,6,7,8-HpCDD	**0.00030**	**B**	0.000050	0.0000091	ug/L		03/26/12 09:00	03/29/12 05:07	0.99
Total HpCDD	**0.00069**	**B**	0.000050	0.0000091	ug/L		03/26/12 09:00	03/29/12 05:07	0.99
OCDD	**0.0035**	**B**	0.00010	0.000017	ug/L		03/26/12 09:00	03/29/12 05:07	0.99
2,3,7,8-TCDF	ND		0.000010	0.0000027	ug/L		03/26/12 09:00	03/29/12 05:07	0.99
Total TCDF	ND		0.000010	0.0000027	ug/L		03/26/12 09:00	03/29/12 05:07	0.99
1,2,3,7,8-PeCDF	ND		0.000050	0.0000099	ug/L		03/26/12 09:00	03/29/12 05:07	0.99
2,3,4,7,8-PeCDF	ND		0.000050	0.000010	ug/L		03/26/12 09:00	03/29/12 05:07	0.99
Total PeCDF	ND		0.000050	0.0000099	ug/L		03/26/12 09:00	03/29/12 05:07	0.99
1,2,3,4,7,8-HxCDF	**0.0000069**	**J B**	0.000050	0.0000043	ug/L		03/26/12 09:00	03/29/12 05:07	0.99
1,2,3,6,7,8-HxCDF	ND		0.000050	0.0000043	ug/L		03/26/12 09:00	03/29/12 05:07	0.99
2,3,4,6,7,8-HxCDF	**0.0000046**	**J Q**	0.000050	0.0000041	ug/L		03/26/12 09:00	03/29/12 05:07	0.99
1,2,3,7,8,9-HxCDF	ND		0.000050	0.0000055	ug/L		03/26/12 09:00	03/29/12 05:07	0.99
Total HxCDF	**0.000063**	**J Q B**	0.000050	0.0000041	ug/L		03/26/12 09:00	03/29/12 05:07	0.99
1,2,3,4,6,7,8-HpCDF	**0.000074**	**B**	0.000050	0.0000065	ug/L		03/26/12 09:00	03/29/12 05:07	0.99
1,2,3,4,7,8,9-HpCDF	ND		0.000050	0.0000093	ug/L		03/26/12 09:00	03/29/12 05:07	0.99
Total HpCDF	**0.00016**	**B**	0.000050	0.0000065	ug/L		03/26/12 09:00	03/29/12 05:07	0.99
OCDF	**0.00021**	**B**	0.00010	0.000011	ug/L		03/26/12 09:00	03/29/12 05:07	0.99

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*97*		*35 - 197*	*03/26/12 09:00*	*03/29/12 05:07*	*0.99*

Internal Standard	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*41*		*25 - 164*	*03/26/12 09:00*	*03/29/12 05:07*	*0.99*
13C-1,2,3,7,8-PeCDD	*35*		*25 - 181*	*03/26/12 09:00*	*03/29/12 05:07*	*0.99*
13C-1,2,3,4,7,8-HxCDD	*37*		*32 - 141*	*03/26/12 09:00*	*03/29/12 05:07*	*0.99*
13C-1,2,3,6,7,8-HxCDD	*40*		*28 - 130*	*03/26/12 09:00*	*03/29/12 05:07*	*0.99*
13C-1,2,3,4,6,7,8-HpCDD	*40*		*23 - 140*	*03/26/12 09:00*	*03/29/12 05:07*	*0.99*
13C-OCDD	*39*		*17 - 157*	*03/26/12 09:00*	*03/29/12 05:07*	*0.99*
13C-2,3,7,8-TCDF	*46*		*24 - 169*	*03/26/12 09:00*	*03/29/12 05:07*	*0.99*
13C-1,2,3,7,8-PeCDF	*38*		*24 - 185*	*03/26/12 09:00*	*03/29/12 05:07*	*0.99*
13C-2,3,4,7,8-PeCDF	*39*		*21 - 178*	*03/26/12 09:00*	*03/29/12 05:07*	*0.99*
13C-1,2,3,6,7,8-HxCDF	*50*		*26 - 123*	*03/26/12 09:00*	*03/29/12 05:07*	*0.99*
13C-2,3,4,6,7,8-HxCDF	*51*		*28 - 136*	*03/26/12 09:00*	*03/29/12 05:07*	*0.99*
13C-1,2,3,7,8,9-HxCDF	*46*		*29 - 147*	*03/26/12 09:00*	*03/29/12 05:07*	*0.99*
13C-1,2,3,4,6,7,8-HpCDF	*44*		*28 - 143*	*03/26/12 09:00*	*03/29/12 05:07*	*0.99*
13C-1,2,3,4,7,8,9-HpCDF	*44*		*26 - 138*	*03/26/12 09:00*	*03/29/12 05:07*	*0.99*
13C-1,2,3,4,7,8-HxCDF	*43*		*26 - 152*	*03/26/12 09:00*	*03/29/12 05:07*	*0.99*

Client: MWH Americas Inc
Project/Site: Boeing SSFL NPDES

TestAmerica Job ID: 440-5816-1

Client Sample ID: Outfall 009 (Composite) — **Lab Sample ID: 440-5832-1**
Date Collected: 03/18/12 08:12 — **Matrix: Water**
Date Received: 03/18/12 14:40

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1100		50	40	ug/L		03/20/12 11:38	03/29/12 15:04	1
Arsenic	ND		10	7.0	ug/L		03/20/12 11:38	03/21/12 12:11	1
Boron	0.031	J,DX MB	0.050	0.020	mg/L		03/20/12 11:38	03/21/12 12:11	1
Beryllium	ND		2.0	0.90	ug/L		03/20/12 11:38	03/21/12 12:11	1
Calcium	6.1		0.10	0.050	mg/L		03/20/12 11:38	03/21/12 12:11	1
Chromium	ND		5.0	2.0	ug/L		03/20/12 11:38	03/21/12 12:11	1
Iron	1.2		0.040	0.015	mg/L		03/20/12 11:38	03/21/12 12:11	1
Magnesium	1.7		0.020	0.012	mg/L		03/20/12 11:38	03/21/12 12:11	1
Nickel	2.9	J,DX	10	2.0	ug/L		03/20/12 11:38	03/21/12 12:11	1
Vanadium	4.4	J,DX	10	3.0	ug/L		03/20/12 11:38	03/21/12 12:11	1
Zinc	14	J,DX	20	6.0	ug/L		03/20/12 11:38	03/21/12 12:11	1
Silver	ND		10	6.0	ug/L		03/20/12 11:38	03/21/12 12:11	1
Hardness, as CaCO3	22	EY	0.33	0.17	mg/L		03/20/12 11:38	03/21/12 12:11	1

Method: 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	250		50	40	ug/L		03/23/12 09:50	03/24/12 19:26	1
Arsenic	ND		10	7.0	ug/L		03/23/12 09:50	03/24/12 19:26	1
Boron	0.027	J,DX	0.050	0.020	mg/L		03/23/12 09:50	03/24/12 19:26	1
Beryllium	ND		2.0	0.90	ug/L		03/23/12 09:50	03/24/12 19:26	1
Calcium	5.6		0.10	0.050	mg/L		03/23/12 09:50	03/24/12 19:26	1
Chromium	ND		5.0	2.0	ug/L		03/23/12 09:50	03/24/12 19:26	1
Iron	0.18		0.040	0.015	mg/L		03/23/12 09:50	03/24/12 19:26	1
Magnesium	1.5		0.020	0.012	mg/L		03/23/12 09:50	03/24/12 19:26	1
Nickel	ND		10	2.0	ug/L		03/23/12 09:50	03/24/12 19:26	1
Vanadium	ND		10	3.0	ug/L		03/23/12 09:50	03/24/12 19:26	1
Zinc	ND		20	6.0	ug/L		03/23/12 09:50	03/24/12 19:26	1
Silver	ND		10	6.0	ug/L		03/23/12 09:50	03/24/12 19:26	1
Hardness, as CaCO3	20	EY	0.33	0.17	mg/L		03/23/12 09:50	03/24/12 19:26	1

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.10	ug/L		03/20/12 11:00	03/20/12 16:27	1
Copper	4.2		2.0	0.50	ug/L		03/20/12 11:00	03/20/12 16:27	1
Lead	4.0		1.0	0.20	ug/L		03/20/12 11:00	03/20/12 16:27	1
Antimony	0.49	J,DX	2.0	0.30	ug/L		03/20/12 11:00	03/20/12 16:27	1
Selenium	ND		2.0	0.50	ug/L		03/20/12 11:00	03/20/12 16:27	1
Thallium	ND		1.0	0.20	ug/L		03/20/12 11:00	03/20/12 16:27	1

Method: 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.10	ug/L		03/23/12 09:53	03/23/12 23:14	1
Copper	3.3		2.0	0.50	ug/L		03/23/12 09:53	03/23/12 23:14	1
Lead	0.66	J,DX	1.0	0.20	ug/L		03/23/12 09:53	03/23/12 23:14	1
Antimony	0.45	J,DX	2.0	0.30	ug/L		03/23/12 09:53	03/23/12 23:14	1
Selenium	ND		2.0	0.50	ug/L		03/23/12 09:53	03/23/12 23:14	1
Thallium	ND		1.0	0.20	ug/L		03/23/12 09:53	03/23/12 23:14	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.10	ug/L		03/20/12 14:05	03/21/12 13:22	1

Client: MWH Americas Inc
Project/Site: Boeing SSFL NPDES

TestAmerica Job ID: 440-5816-1

Client Sample ID: Outfall 009 (Composite)

Lab Sample ID: 440-5832-1

Date Collected: 03/18/12 08:12

Matrix: Water

Date Received: 03/18/12 14:40

Method: 245.1 - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.10	ug/L		03/20/12 14:00	03/21/12 13:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**41**		10	10	mg/L			03/23/12 10:10	1
Total Suspended Solids	**14**		10	10	mg/L			03/21/12 20:39	1
Cyanide, Total	ND		0.0050	0.0030	mg/L		03/23/12 14:10	03/23/12 17:37	1
Fluoride	**0.18**		0.10	0.020	mg/L			03/20/12 08:35	1

Method: Asbestos - EPA 100.2 Asbestos in Drinking Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ASBESTOS	<2.2				MFL		03/20/12 00:00	03/22/12 00:00	1

Method: Gamma Spec K-40 CS-137 - General Sub Contract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cesium-137	-1.39	U	2.2		pCi/L		03/27/12 00:00	03/27/12 15:50	1
Potassium-40	-7.99	U	20		pCi/L		03/27/12 00:00	03/27/12 15:50	1

Method: Gross Alpha and Beta - Gross Alpha/Beta

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gross Alpha	1.37	J	0.46		pCi/L		03/29/12 00:00	04/02/12 15:09	1
Gross Beta	2.46	J	0.67		pCi/L		03/29/12 00:00	04/02/12 15:09	1

Method: Radium 226 - General Sub Contract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Radium-226	0.214	U	0.38		pCi/L		04/05/12 00:00	04/05/12 14:43	1

Method: Radium 228 - RAD-226-228 combined

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Radium-228	-0.055	U	0.13		pCi/L		04/06/12 00:00	04/06/12 13:23	1

Method: Strontium 90 - General Sub Contract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Strontium-90	-0.107	U	0.37		pCi/L		04/06/12 00:00	04/06/12 07:23	1

Method: Tritium - General Sub Contract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tritium	-34.6	U	85		pCi/L		03/27/12 00:00	03/27/12 22:03	1

Method: Uranium, Combined - General Sub Contract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium, Total	0.117	J	0.014		pCi/L		04/02/12 00:00	04/02/12 12:18	1

Client Sample ID: Trip Blank

Lab Sample ID: 440-5832-3

Date Collected: 03/19/12 18:03

Matrix: Water

Date Received: 03/18/12 14:40

Method: Gamma Spec K-40 CS-137 - General Sub Contract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cesium-137	-0.882	U	1.3		pCi/L		03/27/12 00:00	03/27/12 15:51	1
Potassium-40	-24.7	U	34		pCi/L		03/27/12 00:00	03/27/12 15:51	1

Client: MWH Americas Inc
Project/Site: Boeing SSFL NPDES

TestAmerica Job ID: 440-5816-1

Client Sample ID: Trip Blank
Date Collected: 03/19/12 18:03
Date Received: 03/18/12 14:40

Lab Sample ID: 440-5832-3
Matrix: Water

Method: Gross Alpha and Beta - Gross Alpha/Beta

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gross Alpha	-0.039	U	0.13		pCi/L		03/29/12 00:00	04/02/12 15:09	1
Gross Beta	-0.112	U	0.55		pCi/L		03/29/12 00:00	04/02/12 15:09	1

Method: Radium 226 - General Sub Contract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Radium-226	0.04	U	0.31		pCi/L		04/05/12 00:00	04/05/12 14:43	1

Method: Radium 228 - RAD-226-228 combined

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Radium-228	-0.114	U	0.18		pCi/L		04/06/12 00:00	04/06/12 13:23	1

Method: Strontium 90 - General Sub Contract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Strontium-90	-0.073	U	0.4		pCi/L		04/06/12 00:00	04/06/12 07:23	1

Method: Uranium, Combined - General Sub Contract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium, Total	0	U	0.007		pCi/L		04/02/12 00:00	04/02/12 12:25	1

Client Sample ID: Outfall 009

Lab Sample ID: 440-5816-3

Date Collected: 03/17/12 12:35

Matrix: Water

Date Received: 03/17/12 14:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	10 mL	10 mL	14240	03/20/12 14:24	YK	TAL IRV
Total/NA	Analysis	624		1	10 mL	10 mL	15688	03/27/12 10:00	CP	TAL IRV
Total/NA	Analysis	218.6		1	10 mL	10 mL	13936	03/17/12 23:48	SL	TAL IRV
Total/NA	Prep	1664A			1055 mL	1000 mL	16232	03/29/12 06:37	DA	TAL IRV
Total/NA	Analysis	1664A		1			16301	03/29/12 10:37	DA	TAL IRV
Total/NA	Analysis	SM 9221E		1	100 mL	100 mL	13970		ST	TAL IRV
								(Start) 03/17/12 15:31		
								(End) 03/20/12 13:54		
Total/NA	Analysis	SM 9221F		1	100 mL	100 mL	13971		ST	TAL IRV
								(Start) 03/17/12 15:31		
								(End) 03/20/12 13:54		

Client Sample ID: Trip Blanks

Lab Sample ID: 440-5816-4

Date Collected: 03/17/12 12:35

Matrix: Water

Date Received: 03/17/12 14:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	10 mL	10 mL	14240	03/20/12 10:40	YK	TAL IRV
Total/NA	Analysis	624		1	10 mL	10 mL	15688	03/27/12 10:28	CP	TAL IRV

Client Sample ID: Outfall 009 (Composite)

Lab Sample ID: 440-5832-1

Date Collected: 03/18/12 08:12

Matrix: Water

Date Received: 03/18/12 14:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	525.2			1045 mL	1 mL	14160	03/19/12 17:01	LA	TAL IRV
Total/NA	Analysis	525.2		1			14340	03/20/12 18:25	JM	TAL IRV
Total/NA	Prep	625			1020 mL	2 mL	14733	03/21/12 17:48	DM	TAL IRV
Total/NA	Analysis	625		1			15425	03/25/12 20:28	UP	TAL IRV
Total/NA	Prep	608			1020 mL	2 mL	14103	03/19/12 13:37	AB	TAL IRV
Total/NA	Analysis	608		1			14342	03/20/12 18:32	DD	TAL IRV
Total/NA	Analysis	608		1			14346	03/20/12 17:42	JM	TAL IRV
Total/NA	Analysis	314.0		1	5 mL	1.0 mL	14013	03/19/12 10:49	MN	TAL IRV
Total/NA	Analysis	300.0		1	1 mL	1.0 mL	14023	03/19/12 12:33	NN	TAL IRV
Total/NA	Analysis	300.0		1	1 mL	1.0 mL	14274	03/20/12 12:55	NN	TAL IRV
Total	Prep	3542			1014.5 mL	20 uL	2086060_P	03/26/12 09:00	BG	TAL WSC
Total	Analysis	1613B		0.99			2086060	03/29/12 05:07	LLH	TAL WSC
Total Recoverable	Prep	200.2			50 mL	50 mL	14324	03/20/12 11:00	EN	TAL IRV
Total Recoverable	Analysis	200.8		1			14540	03/20/12 16:27	RC	TAL IRV
Dissolved	Prep	245.1			20 mL	20 mL	14376	03/20/12 14:00	SN	TAL IRV
Dissolved	Analysis	245.1		1			14655	03/21/12 13:39	DB	TAL IRV
Total Recoverable	Prep	200.2			50 mL	50 mL	14335	03/20/12 11:38	EN	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1			14661	03/21/12 12:11	DP	TAL IRV
Total/NA	Prep	245.1			20 mL	20 mL	14384	03/20/12 14:05	SN	TAL IRV

Client Sample ID: Outfall 009 (Composite)

Lab Sample ID: 440-5832-1

Date Collected: 03/18/12 08:12

Matrix: Water

Date Received: 03/18/12 14:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	245.1		1			14706	03/21/12 13:22	DB	TAL IRV
Dissolved	Prep	200.2			50 mL	50 mL	15170	03/23/12 09:50	EN	TAL IRV
Dissolved	Analysis	200.7 Rev 4.4		1			15412	03/24/12 19:26	DP	TAL IRV
Dissolved	Prep	200.2			50 mL	50 mL	15171	03/23/12 09:53	EN	TAL IRV
Dissolved	Analysis	200.8		1			15439	03/23/12 23:14	NH	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1			16403	03/29/12 15:04	VS	TAL IRV
Total/NA	Analysis	SM 4500 F C		1			14334	03/20/12 08:35	FZ	TAL IRV
Total/NA	Analysis	SM 2540D		1	100 mL	100 mL	14783	03/21/12 20:39	DK	TAL IRV
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	15174	03/23/12 10:10	DC	TAL IRV
Total/NA	Prep	Distill/CN			50 mL	50 mL	15221	03/23/12 14:10	PQI	TAL IRV
Total/NA	Analysis	SM 4500 CN E		1			15270	03/23/12 17:37	PQI	TAL IRV
Total/NA	Prep	NA		1			149949_P	03/20/12 00:00		EMS Labs
Total/NA	Analysis	Asbestos		1			149949	03/22/12 00:00	LK	EMS Labs
Total/NA	Prep	General Prep		1			8602_P	03/27/12 00:00		Eber-Rich
Total/NA	Analysis	Gamma Spec K-40 CS-137		1			8602	03/27/12 15:50	RFM	Eber-Rich
Total/NA	Prep	General Prep		1			8602_P	03/29/12 00:00		Eber-Rich
Total/NA	Analysis	Gross Alpha and Beta		1			8602	04/02/12 15:09	DVP	Eber-Rich
Total/NA	Prep	General Prep		1			8602_P	04/05/12 00:00		Eber-Rich
Total/NA	Analysis	Radium 226		1			8602	04/05/12 14:43	TM	Eber-Rich
Total/NA	Prep	General Prep		1			8602_P	04/06/12 00:00		Eber-Rich
Total/NA	Analysis	Radium 228		1			8602	04/06/12 13:23	ASM	Eber-Rich
Total/NA	Analysis	Strontium 90		1			8602	04/06/12 07:23	TSC	Eber-Rich
Total/NA	Analysis	Tritium		1			8602	03/27/12 22:03	WL	Eber-Rich
Total/NA	Prep	General Prep		1			8602_P	04/02/12 00:00		Eber-Rich
Total/NA	Analysis	Uranium, Combined		1			8602	04/02/12 12:18	LS	Eber-Rich

Client Sample ID: Trip Blank

Lab Sample ID: 440-5832-3

Date Collected: 03/19/12 18:03

Matrix: Water

Date Received: 03/18/12 14:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	General Prep		1			8602_P	03/27/12 00:00		Eber-Rich
Total/NA	Analysis	Gamma Spec K-40 CS-137		1			8602	03/27/12 15:51	RFM	Eber-Rich
Total/NA	Prep	General Prep		1			8602_P	03/29/12 00:00		Eber-Rich
Total/NA	Analysis	Gross Alpha and Beta		1			8602	04/02/12 15:09	DVP	Eber-Rich
Total/NA	Prep	General Prep		1			8602_P	04/05/12 00:00		Eber-Rich
Total/NA	Analysis	Radium 226		1			8602	04/05/12 14:43	TM	Eber-Rich
Total/NA	Prep	General Prep		1			8602_P	04/06/12 00:00		Eber-Rich
Total/NA	Analysis	Radium 228		1			8602	04/06/12 13:23	ASM	Eber-Rich
Total/NA	Analysis	Strontium 90		1			8602	04/06/12 07:23	TSC	Eber-Rich
Total/NA	Prep	General Prep		1			8602_P	04/02/12 00:00		Eber-Rich

Client: MWH Americas Inc
Project/Site: Boeing SSFL NPDES

TestAmerica Job ID: 440-5816-1

Client Sample ID: Trip Blank
Date Collected: 03/19/12 18:03
Date Received: 03/18/12 14:40

Lab Sample ID: 440-5832-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Uranium, Combined		1			8602	04/02/12 12:25	LS	Eber-Rich

Laboratory References:

Eber-Rich = Eberline - Richmond, 2030 Wright Avenue, Richmond, CA 94804

EMS Labs = EMS Laboratories Pasadena, CA, 117 West Bellevue Drive, Pasadena, CA 91105-2503

EMSL = EMSL Analytical, Inc., 200 Rt 130 North, Cinnaminson, NJ 08077

SC0127 = Aquatic Testing Laboratories, 4350 Transport #107, Ventura, CA 93003

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TAL WSC = TestAmerica West Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Method: 624 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-14240/4
Matrix: Water
Analysis Batch: 14240

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		2.0	1.8	ug/L			03/20/12 09:09	1
Acrolein	ND		5.0	4.0	ug/L			03/20/12 09:09	1
Acrylonitrile	ND		2.0	1.2	ug/L			03/20/12 09:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*03/20/12 09:09*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*03/20/12 09:09*	*1*

Lab Sample ID: LCS 440-14240/5
Matrix: Water
Analysis Batch: 14240

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
2-Chloroethyl vinyl ether			25.0	24.8		ug/L		99	25 - 170		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*102*		*80 - 120*
Dibromofluoromethane (Surr)	*100*		*80 - 120*

Lab Sample ID: 440-5182-A-1 MS
Matrix: Water
Analysis Batch: 14240

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
2-Chloroethyl vinyl ether	ND		25.0	ND	LN	ug/L		0	25 - 170		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*102*		*80 - 120*
Dibromofluoromethane (Surr)	*97*		*80 - 120*

Lab Sample ID: 440-5182-A-1 MSD
Matrix: Water
Analysis Batch: 14240

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chloroethyl vinyl ether	ND		25.0	ND	AY	ug/L		0	25 - 170	NC	25

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*99*		*80 - 120*

Lab Sample ID: MB 440-15688/4
Matrix: Water
Analysis Batch: 15688

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.50	0.30	ug/L			03/27/12 08:44	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.30	ug/L			03/27/12 08:44	1

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-15688/4
Matrix: Water
Analysis Batch: 15688

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	ND		0.50	0.30	ug/L			03/27/12 08:44	1
1,1-Dichloroethane	ND		0.50	0.40	ug/L			03/27/12 08:44	1
1,1-Dichloroethene	ND		0.50	0.42	ug/L			03/27/12 08:44	1
1,2-Dichlorobenzene	ND		0.50	0.32	ug/L			03/27/12 08:44	1
1,2-Dichloroethane	ND		0.50	0.28	ug/L			03/27/12 08:44	1
1,2-Dichloropropane	ND		0.50	0.35	ug/L			03/27/12 08:44	1
1,3-Dichlorobenzene	ND		0.50	0.35	ug/L			03/27/12 08:44	1
1,2,3-Trichloropropane	ND		0.50	0.40	ug/L			03/27/12 08:44	1
1,4-Dichlorobenzene	ND		0.50	0.37	ug/L			03/27/12 08:44	1
Benzene	ND		0.50	0.28	ug/L			03/27/12 08:44	1
Bromoform	ND		0.50	0.40	ug/L			03/27/12 08:44	1
Bromomethane	ND		0.50	0.42	ug/L			03/27/12 08:44	1
Carbon tetrachloride	ND		0.50	0.28	ug/L			03/27/12 08:44	1
Chlorobenzene	ND		0.50	0.36	ug/L			03/27/12 08:44	1
Dibromochloromethane	ND		0.50	0.40	ug/L			03/27/12 08:44	1
Chloroethane	ND		0.50	0.40	ug/L			03/27/12 08:44	1
Chloroform	ND		0.50	0.33	ug/L			03/27/12 08:44	1
Chloromethane	ND		0.50	0.40	ug/L			03/27/12 08:44	1
cis-1,3-Dichloropropene	ND		0.50	0.22	ug/L			03/27/12 08:44	1
Bromodichloromethane	ND		0.50	0.30	ug/L			03/27/12 08:44	1
Ethylbenzene	ND		0.50	0.25	ug/L			03/27/12 08:44	1
Methylene Chloride	ND		1.0	0.95	ug/L			03/27/12 08:44	1
Tetrachloroethene	ND		0.50	0.32	ug/L			03/27/12 08:44	1
Toluene	ND		0.50	0.36	ug/L			03/27/12 08:44	1
trans-1,2-Dichloroethene	ND		0.50	0.30	ug/L			03/27/12 08:44	1
tert-Butanol	ND		10	6.5	ug/L			03/27/12 08:44	1
trans-1,3-Dichloropropene	ND		0.50	0.32	ug/L			03/27/12 08:44	1
Trichlorofluoromethane	ND		0.50	0.34	ug/L			03/27/12 08:44	1
Vinyl chloride	ND		0.50	0.40	ug/L			03/27/12 08:44	1
Trichloroethene	ND		0.50	0.26	ug/L			03/27/12 08:44	1
cis-1,2-Dichloroethene	ND		0.50	0.32	ug/L			03/27/12 08:44	1
1,2-Dibromoethane (EDB)	ND		0.50	0.40	ug/L			03/27/12 08:44	1
Diisopropyl ether	ND		0.50	0.25	ug/L			03/27/12 08:44	1
Methyl tert-butyl ether	ND		0.50	0.32	ug/L			03/27/12 08:44	1
Naphthalene	ND		0.50	0.41	ug/L			03/27/12 08:44	1
Tert-amyl methyl ether	ND		0.50	0.33	ug/L			03/27/12 08:44	1
Ethyl tert-butyl ether	ND		0.50	0.28	ug/L			03/27/12 08:44	1
Xylenes, Total	ND		1.0	0.90	ug/L			03/27/12 08:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*80 - 120*		*03/27/12 08:44*	*1*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*03/27/12 08:44*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/27/12 08:44*	*1*

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-15688/5
Matrix: Water
Analysis Batch: 15688

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	26.8		ug/L		107	65 - 135
1,1,2,2-Tetrachloroethane	25.0	25.8		ug/L		103	55 - 130
1,1,2-Trichloroethane	25.0	25.2		ug/L		101	70 - 125
1,1-Dichloroethane	25.0	26.9		ug/L		108	70 - 125
1,1-Dichloroethene	25.0	25.8		ug/L		103	70 - 125
1,2-Dichlorobenzene	25.0	26.1		ug/L		104	75 - 120
1,2-Dichloroethane	25.0	27.3		ug/L		109	60 - 140
1,2-Dichloropropane	25.0	25.3		ug/L		101	70 - 125
1,3-Dichlorobenzene	25.0	25.6		ug/L		102	75 - 120
1,2,3-Trichloropropane	25.0	24.9		ug/L		100	60 - 130
1,4-Dichlorobenzene	25.0	25.4		ug/L		102	75 - 120
Benzene	25.0	24.0		ug/L		96	70 - 120
Bromoform	25.0	25.9		ug/L		104	55 - 130
Bromomethane	25.0	27.1		ug/L		108	65 - 140
Carbon tetrachloride	25.0	26.2		ug/L		105	65 - 140
Chlorobenzene	25.0	25.3		ug/L		101	75 - 120
Dibromochloromethane	25.0	27.7		ug/L		111	70 - 140
Chloroethane	25.0	25.4		ug/L		102	60 - 140
Chloroform	25.0	26.3		ug/L		105	70 - 130
Chloromethane	25.0	24.5		ug/L		98	50 - 140
cis-1,3-Dichloropropene	25.0	26.6		ug/L		106	75 - 125
Bromodichloromethane	25.0	27.2		ug/L		109	70 - 135
Ethylbenzene	25.0	25.7		ug/L		103	75 - 125
Methylene Chloride	25.0	24.7		ug/L		99	55 - 130
Tetrachloroethene	25.0	25.9		ug/L		104	70 - 125
Toluene	25.0	25.7		ug/L		103	70 - 120
trans-1,2-Dichloroethene	25.0	25.9		ug/L		104	70 - 125
tert-Butanol	125	145		ug/L		116	70 - 135
trans-1,3-Dichloropropene	25.0	27.6		ug/L		110	70 - 125
Trichlorofluoromethane	25.0	28.1		ug/L		112	65 - 145
Vinyl chloride	25.0	25.2		ug/L		101	55 - 135
Trichloroethene	25.0	25.3		ug/L		101	70 - 125
cis-1,2-Dichloroethene	25.0	27.4		ug/L		110	70 - 125
1,2-Dibromoethane (EDB)	25.0	26.0		ug/L		104	75 - 125
Diisopropyl ether	25.0	26.8		ug/L		107	60 - 135
Methyl tert-butyl ether	25.0	26.4		ug/L		106	60 - 135
Naphthalene	25.0	27.2		ug/L		109	55 - 135
Tert-amyl methyl ether	25.0	26.9		ug/L		108	60 - 135
Ethyl tert-butyl ether	25.0	26.1		ug/L		104	65 - 135
Xylenes, Total	75.0	75.3		ug/L		100	70 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*80 - 120*
Dibromofluoromethane (Surr)	*100*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-5944-B-2 MS
Matrix: Water
Analysis Batch: 15688

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	ND		25.0	23.6		ug/L		94	65 - 140
1,1,2,2-Tetrachloroethane	ND		25.0	21.9		ug/L		88	55 - 135
1,1,2-Trichloroethane	ND		25.0	22.3		ug/L		89	65 - 130
1,1-Dichloroethane	ND		25.0	23.6		ug/L		94	65 - 130
1,1-Dichloroethene	4.0		25.0	25.8		ug/L		87	60 - 130
1,2-Dichlorobenzene	ND		25.0	22.5		ug/L		90	75 - 125
1,2-Dichloroethane	ND		25.0	24.4		ug/L		98	60 - 140
1,2-Dichloropropane	ND		25.0	22.9		ug/L		92	65 - 130
1,3-Dichlorobenzene	ND		25.0	22.4		ug/L		90	75 - 125
1,2,3-Trichloropropane	ND		25.0	20.3		ug/L		81	55 - 135
1,4-Dichlorobenzene	ND		25.0	22.3		ug/L		89	75 - 125
Benzene	ND		25.0	21.5		ug/L		86	65 - 125
Bromoform	ND		25.0	22.4		ug/L		90	55 - 135
Bromomethane	ND		25.0	22.3		ug/L		89	55 - 145
Carbon tetrachloride	ND		25.0	23.4		ug/L		94	65 - 140
Chlorobenzene	ND		25.0	22.5		ug/L		90	75 - 125
Dibromochloromethane	ND		25.0	24.1		ug/L		96	65 - 140
Chloroethane	ND		25.0	21.1		ug/L		84	55 - 140
Chloroform	ND		25.0	23.4		ug/L		94	65 - 135
Chloromethane	ND		25.0	18.9		ug/L		76	45 - 145
cis-1,3-Dichloropropene	ND		25.0	23.4		ug/L		94	70 - 130
Bromodichloromethane	ND		25.0	24.5		ug/L		98	70 - 135
Ethylbenzene	ND		25.0	22.9		ug/L		92	65 - 130
Methylene Chloride	ND		25.0	21.3		ug/L		85	50 - 135
Tetrachloroethene	41		25.0	61.4		ug/L		83	65 - 130
Toluene	ND		25.0	22.7		ug/L		91	70 - 125
trans-1,2-Dichloroethene	ND		25.0	22.7		ug/L		91	65 - 130
tert-Butanol	ND		125	134		ug/L		107	65 - 140
trans-1,3-Dichloropropene	ND		25.0	24.8		ug/L		99	65 - 135
Trichlorofluoromethane	ND		25.0	24.2		ug/L		97	60 - 145
Vinyl chloride	ND		25.0	20.3		ug/L		81	45 - 140
Trichloroethene	33		25.0	55.6		ug/L		89	65 - 125
cis-1,2-Dichloroethene	0.65		25.0	24.9		ug/L		97	65 - 130
1,2-Dibromoethane (EDB)	ND		25.0	22.4		ug/L		90	70 - 130
Diisopropyl ether	ND		25.0	23.7		ug/L		95	60 - 140
Methyl tert-butyl ether	ND		25.0	22.7		ug/L		91	55 - 145
Naphthalene	ND		25.0	22.4		ug/L		90	50 - 140
Tert-amyl methyl ether	ND		25.0	23.2		ug/L		93	60 - 140
Ethyl tert-butyl ether	ND		25.0	22.5		ug/L		90	60 - 135
Xylenes, Total	ND		75.0	67.1		ug/L		89	60 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*80 - 120*
Dibromofluoromethane (Surr)	*99*		*80 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-5944-B-2 MSD
Matrix: Water
Analysis Batch: 15688

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		25.0	22.1		ug/L		88	65 - 140	7	20
1,1,2,2-Tetrachloroethane	ND		25.0	21.5		ug/L		86	55 - 135	2	30
1,1,2-Trichloroethane	ND		25.0	21.2		ug/L		85	65 - 130	5	25
1,1-Dichloroethane	ND		25.0	21.9		ug/L		88	65 - 130	7	20
1,1-Dichloroethene	4.0		25.0	24.1		ug/L		80	60 - 130	7	20
1,2-Dichlorobenzene	ND		25.0	21.2		ug/L		85	75 - 125	6	20
1,2-Dichloroethane	ND		25.0	23.6		ug/L		94	60 - 140	3	20
1,2-Dichloropropane	ND		25.0	21.5		ug/L		86	65 - 130	6	20
1,3-Dichlorobenzene	ND		25.0	21.3		ug/L		85	75 - 125	5	20
1,2,3-Trichloropropane	ND		25.0	20.7		ug/L		83	55 - 135	2	30
1,4-Dichlorobenzene	ND		25.0	20.8		ug/L		83	75 - 125	7	20
Benzene	ND		25.0	20.0		ug/L		80	65 - 125	7	20
Bromoform	ND		25.0	21.9		ug/L		88	55 - 135	2	25
Bromomethane	ND		25.0	20.0		ug/L		80	55 - 145	11	25
Carbon tetrachloride	ND		25.0	22.3		ug/L		89	65 - 140	5	25
Chlorobenzene	ND		25.0	21.2		ug/L		85	75 - 125	6	20
Dibromochloromethane	ND		25.0	23.1		ug/L		92	65 - 140	4	25
Chloroethane	ND		25.0	19.5		ug/L		78	55 - 140	8	25
Chloroform	ND		25.0	22.0		ug/L		88	65 - 135	6	20
Chloromethane	ND		25.0	16.5		ug/L		66	45 - 145	14	25
cis-1,3-Dichloropropene	ND		25.0	22.3		ug/L		89	70 - 130	5	20
Bromodichloromethane	ND		25.0	23.2		ug/L		93	70 - 135	5	20
Ethylbenzene	ND		25.0	21.5		ug/L		86	65 - 130	6	20
Methylene Chloride	ND		25.0	19.9		ug/L		80	50 - 135	7	20
Tetrachloroethene	41		25.0	59.2		ug/L		74	65 - 130	4	20
Toluene	ND		25.0	21.4		ug/L		86	70 - 125	6	20
trans-1,2-Dichloroethene	ND		25.0	21.2		ug/L		85	65 - 130	7	20
tert-Butanol	ND		125	121		ug/L		97	65 - 140	10	25
trans-1,3-Dichloropropene	ND		25.0	23.4		ug/L		94	65 - 135	6	25
Trichlorofluoromethane	ND		25.0	21.9		ug/L		88	60 - 145	10	25
Vinyl chloride	ND		25.0	18.3		ug/L		73	45 - 140	10	30
Trichloroethene	33		25.0	53.6		ug/L		81	65 - 125	4	20
cis-1,2-Dichloroethene	0.65		25.0	23.3		ug/L		91	65 - 130	7	20
1,2-Dibromoethane (EDB)	ND		25.0	22.4		ug/L		90	70 - 130	0	25
Diisopropyl ether	ND		25.0	22.4		ug/L		90	60 - 140	6	25
Methyl tert-butyl ether	ND		25.0	21.9		ug/L		88	55 - 145	4	25
Naphthalene	ND		25.0	22.2		ug/L		89	50 - 140	1	30
Tert-amyl methyl ether	ND		25.0	22.4		ug/L		90	60 - 140	4	30
Ethyl tert-butyl ether	ND		25.0	21.7		ug/L		87	60 - 135	4	25
Xylenes, Total	ND		75.0	62.7		ug/L		84	60 - 130	7	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*80 - 120*
Dibromofluoromethane (Surr)	*100*		*80 - 120*
Toluene-d8 (Surr)	*103*		*80 - 120*

Method: 525.2 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-14160/1-A
Matrix: Water
Analysis Batch: 14340

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14160

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorpyrifos	ND		1.0	0.080	ug/L		03/19/12 16:59	03/20/12 12:55	1
Diazinon	ND		0.25	0.040	ug/L		03/19/12 16:59	03/20/12 12:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dimethyl-2-nitrobenzene	*94*		*70 - 130*	*03/19/12 16:59*	*03/20/12 12:55*	*1*
Perylene-d12	*109*		*70 - 130*	*03/19/12 16:59*	*03/20/12 12:55*	*1*
Triphenylphosphate	*87*		*70 - 130*	*03/19/12 16:59*	*03/20/12 12:55*	*1*

Lab Sample ID: LCS 440-14160/2-A
Matrix: Water
Analysis Batch: 14340

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14160

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chlorpyrifos			5.00	5.62		ug/L		112	70 - 130		
Diazinon			5.00	4.99		ug/L		100	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,3-Dimethyl-2-nitrobenzene	*89*		*70 - 130*
Perylene-d12	*112*		*70 - 130*
Triphenylphosphate	*90*		*70 - 130*

Lab Sample ID: LCSD 440-14160/3-A
Matrix: Water
Analysis Batch: 14340

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 14160

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chlorpyrifos			5.00	5.56		ug/L		111	70 - 130	1	30
Diazinon			5.00	4.96		ug/L		99	70 - 130	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,3-Dimethyl-2-nitrobenzene	*92*		*70 - 130*
Perylene-d12	*113*		*70 - 130*
Triphenylphosphate	*90*		*70 - 130*

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-14733/1-A
Matrix: Water
Analysis Batch: 15425

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14733

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10.0	2.50	ug/L		03/21/12 17:48	03/25/12 15:12	1
1,2-Dichlorobenzene	ND		10.0	3.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		20.0	2.50	ug/L		03/21/12 17:48	03/25/12 15:12	1
1,3-Dichlorobenzene	ND		10.0	3.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
1,4-Dichlorobenzene	ND		10.0	2.50	ug/L		03/21/12 17:48	03/25/12 15:12	1
2,4,6-Trichlorophenol	ND		20.0	4.50	ug/L		03/21/12 17:48	03/25/12 15:12	1
2,4-Dichlorophenol	ND		10.0	3.50	ug/L		03/21/12 17:48	03/25/12 15:12	1

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-14733/1-A
Matrix: Water
Analysis Batch: 15425

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14733

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	ND		20.0	3.50	ug/L		03/21/12 17:48	03/25/12 15:12	1
2,4-Dinitrophenol	ND		20.0	8.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
2,4-Dinitrotoluene	ND		10.0	3.50	ug/L		03/21/12 17:48	03/25/12 15:12	1
2,6-Dinitrotoluene	ND		10.0	2.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
2-Chloronaphthalene	ND		10.0	3.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
2-Chlorophenol	ND		10.0	3.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
2-Methylnaphthalene	ND		10.0	2.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
2-Methylphenol	ND		10.0	3.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
2-Nitroaniline	ND		20.0	2.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
2-Nitrophenol	ND		10.0	3.50	ug/L		03/21/12 17:48	03/25/12 15:12	1
3,3'-Dichlorobenzidine	ND		20.0	7.50	ug/L		03/21/12 17:48	03/25/12 15:12	1
3-Nitroaniline	ND		20.0	3.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
4,6-Dinitro-2-methylphenol	ND		20.0	4.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
4-Bromophenyl phenyl ether	ND		10.0	3.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
4-Chloro-3-methylphenol	ND		20.0	2.50	ug/L		03/21/12 17:48	03/25/12 15:12	1
4-Chloroaniline	ND		10.0	2.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
4-Chlorophenyl phenyl ether	ND		10.0	2.50	ug/L		03/21/12 17:48	03/25/12 15:12	1
4-Methylphenol	ND		10.0	3.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
4-Nitroaniline	ND		20.0	4.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
4-Nitrophenol	ND		20.0	5.50	ug/L		03/21/12 17:48	03/25/12 15:12	1
Acenaphthene	ND		10.0	3.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
Acenaphthylene	ND		10.0	3.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
Aniline	ND		10.0	3.50	ug/L		03/21/12 17:48	03/25/12 15:12	1
Anthracene	ND		10.0	2.50	ug/L		03/21/12 17:48	03/25/12 15:12	1
Benzidine	ND		20.0	10.0	ug/L		03/21/12 17:48	03/25/12 15:12	1
Benzo[a]anthracene	ND		10.0	2.50	ug/L		03/21/12 17:48	03/25/12 15:12	1
Benzo[a]pyrene	ND		10.0	3.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
Benzo[b]fluoranthene	ND		10.0	2.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
Benzo[g,h,i]perylene	ND		10.0	4.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
Benzo[k]fluoranthene	ND		10.0	2.50	ug/L		03/21/12 17:48	03/25/12 15:12	1
Benzoic acid	ND		20.0	10.0	ug/L		03/21/12 17:48	03/25/12 15:12	1
Benzyl alcohol	ND		20.0	3.50	ug/L		03/21/12 17:48	03/25/12 15:12	1
Bis(2-chloroethoxy)methane	ND		10.0	3.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
Bis(2-chloroethyl)ether	ND		10.0	3.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
bis (2-chloroisopropyl) ether	ND		10.0	2.50	ug/L		03/21/12 17:48	03/25/12 15:12	1
Bis(2-ethylhexyl) phthalate	ND		50.0	4.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
Butyl benzyl phthalate	ND		20.0	4.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
Chrysene	ND		10.0	2.50	ug/L		03/21/12 17:48	03/25/12 15:12	1
Di-n-butyl phthalate	ND		20.0	3.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
Di-n-octyl phthalate	ND		20.0	3.50	ug/L		03/21/12 17:48	03/25/12 15:12	1
Dibenz(a,h)anthracene	ND		20.0	3.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
Dibenzofuran	ND		10.0	4.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
Diethyl phthalate	ND		10.0	3.50	ug/L		03/21/12 17:48	03/25/12 15:12	1
Dimethyl phthalate	ND		10.0	2.50	ug/L		03/21/12 17:48	03/25/12 15:12	1
Fluoranthene	ND		10.0	3.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
Fluorene	ND		10.0	3.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
Hexachlorobenzene	ND		10.0	3.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
Hexachlorobutadiene	ND		10.0	4.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
Hexachlorocyclopentadiene	ND		20.0	5.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
Hexachloroethane	ND		10.0	3.50	ug/L		03/21/12 17:48	03/25/12 15:12	1

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-14733/1-A
Matrix: Water
Analysis Batch: 15425

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14733

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	ND		20.0	3.50	ug/L		03/21/12 17:48	03/25/12 15:12	1
Isophorone	ND		10.0	3.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
N-Nitrosodimethylamine	ND		20.0	2.50	ug/L		03/21/12 17:48	03/25/12 15:12	1
N-Nitrosodi-n-propylamine	ND		10.0	3.50	ug/L		03/21/12 17:48	03/25/12 15:12	1
N-Nitrosodiphenylamine	ND		10.0	2.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
Naphthalene	ND		10.0	3.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
Nitrobenzene	ND		20.0	3.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
Pentachlorophenol	ND		20.0	3.50	ug/L		03/21/12 17:48	03/25/12 15:12	1
Phenanthrene	ND		10.0	3.50	ug/L		03/21/12 17:48	03/25/12 15:12	1
Phenol	ND		10.0	2.00	ug/L		03/21/12 17:48	03/25/12 15:12	1
Pyrene	ND		10.0	4.00	ug/L		03/21/12 17:48	03/25/12 15:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*50 - 120*	*03/21/12 17:48*	*03/25/12 15:12*	*1*
2-Fluorophenol	*76*		*30 - 120*	*03/21/12 17:48*	*03/25/12 15:12*	*1*
2,4,6-Tribromophenol	*89*		*40 - 120*	*03/21/12 17:48*	*03/25/12 15:12*	*1*
Nitrobenzene-d5	*94*		*45 - 120*	*03/21/12 17:48*	*03/25/12 15:12*	*1*
Terphenyl-d14	*102*		*50 - 125*	*03/21/12 17:48*	*03/25/12 15:12*	*1*
Phenol-d6	*77*		*35 - 120*	*03/21/12 17:48*	*03/25/12 15:12*	*1*

Lab Sample ID: LCS 440-14733/2-A
Matrix: Water
Analysis Batch: 15425

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14733

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	100	73.60		ug/L		74	45 - 120
1,2-Dichlorobenzene	100	67.00		ug/L		67	40 - 120
1,2-Diphenylhydrazine(as Azobenzene)	100	106.8		ug/L		107	60 - 120
1,3-Dichlorobenzene	100	63.00		ug/L		63	35 - 120
1,4-Dichlorobenzene	100	64.40		ug/L		64	35 - 120
2,4,6-Trichlorophenol	100	92.20		ug/L		92	55 - 120
2,4-Dichlorophenol	100	89.60		ug/L		90	55 - 120
2,4-Dimethylphenol	100	81.20		ug/L		81	40 - 120
2,4-Dinitrophenol	100	89.80		ug/L		90	40 - 120
2,4-Dinitrotoluene	100	100.6		ug/L		101	65 - 120
2,6-Dinitrotoluene	100	99.40		ug/L		99	65 - 120
2-Chloronaphthalene	100	87.40		ug/L		87	60 - 120
2-Chlorophenol	100	80.40		ug/L		80	45 - 120
2-Methylnaphthalene	100	90.40		ug/L		90	55 - 120
2-Methylphenol	100	86.00		ug/L		86	50 - 120
2-Nitroaniline	100	113.0		ug/L		113	65 - 120
2-Nitrophenol	100	91.20		ug/L		91	50 - 120
3,3'-Dichlorobenzidine	100	84.80		ug/L		85	45 - 135
3-Nitroaniline	100	103.4		ug/L		103	60 - 120
4,6-Dinitro-2-methylphenol	100	99.00		ug/L		99	45 - 120
4-Bromophenyl phenyl ether	100	97.80		ug/L		98	60 - 120
4-Chloro-3-methylphenol	100	94.00		ug/L		94	60 - 120
4-Chloroaniline	100	95.20		ug/L		95	55 - 120
4-Chlorophenyl phenyl ether	100	97.00		ug/L		97	65 - 120

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-14733/2-A
Matrix: Water
Analysis Batch: 15425

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14733

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Methylphenol	100	86.40		ug/L		86	50 - 120
4-Nitroaniline	100	108.2		ug/L		108	55 - 125
4-Nitrophenol	100	97.40		ug/L		97	45 - 120
Acenaphthene	100	86.00		ug/L		86	60 - 120
Acenaphthylene	100	103.4		ug/L		103	60 - 120
Aniline	100	88.00		ug/L		88	35 - 120
Anthracene	100	98.00		ug/L		98	65 - 120
Benzidine	100	95.80		ug/L		96	30 - 160
Benzo[a]anthracene	100	94.00		ug/L		94	65 - 120
Benzo[a]pyrene	100	97.40		ug/L		97	55 - 130
Benzo[b]fluoranthene	100	89.80		ug/L		90	55 - 125
Benzo[g,h,i]perylene	100	100.6		ug/L		101	45 - 135
Benzo[k]fluoranthene	100	100.2		ug/L		100	50 - 125
Benzoic acid	100	76.40		ug/L		76	25 - 120
Benzyl alcohol	100	93.60		ug/L		94	50 - 120
Bis(2-chloroethoxy)methane	100	96.40		ug/L		96	55 - 120
Bis(2-chloroethyl)ether	100	88.20		ug/L		88	50 - 120
bis (2-chloroisopropyl) ether	100	99.40		ug/L		99	45 - 120
Bis(2-ethylhexyl) phthalate	100	98.20		ug/L		98	65 - 130
Butyl benzyl phthalate	100	100.0		ug/L		100	55 - 130
Chrysene	100	96.20		ug/L		96	65 - 120
Di-n-butyl phthalate	100	99.80		ug/L		100	60 - 125
Di-n-octyl phthalate	100	101.6		ug/L		102	65 - 135
Dibenz(a,h)anthracene	100	96.60		ug/L		97	50 - 135
Dibenzofuran	100	95.20		ug/L		95	65 - 120
Diethyl phthalate	100	94.60		ug/L		95	55 - 120
Dimethyl phthalate	100	95.60		ug/L		96	30 - 120
Fluoranthene	100	100.4		ug/L		100	60 - 120
Fluorene	100	96.40		ug/L		96	65 - 120
Hexachlorobenzene	100	97.00		ug/L		97	60 - 120
Hexachlorobutadiene	100	67.60		ug/L		68	40 - 120
Hexachlorocyclopentadiene	100	69.00		ug/L		69	25 - 120
Hexachloroethane	100	61.20		ug/L		61	35 - 120
Indeno[1,2,3-cd]pyrene	100	102.2		ug/L		102	45 - 135
Isophorone	100	104.8		ug/L		105	50 - 120
N-Nitrosodimethylamine	100	92.20		ug/L		92	45 - 120
N-Nitrosodi-n-propylamine	100	102.8		ug/L		103	45 - 120
N-Nitrosodiphenylamine	100	90.20		ug/L		90	60 - 120
Naphthalene	100	80.60		ug/L		81	55 - 120
Nitrobenzene	100	97.00		ug/L		97	55 - 120
Pentachlorophenol	100	91.20		ug/L		91	24 - 121
Phenanthrene	100	94.00		ug/L		94	65 - 120
Phenol	100	78.80		ug/L		79	40 - 120
Pyrene	100	107.4		ug/L		107	55 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*90*		*50 - 120*
2-Fluorophenol	*75*		*30 - 120*
2,4,6-Tribromophenol	*101*		*40 - 120*

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-14733/2-A
Matrix: Water
Analysis Batch: 15425

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14733

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5	99		45 - 120
Terphenyl-d14	115		50 - 125
Phenol-d6	77		35 - 120

Lab Sample ID: LCSD 440-14733/3-A
Matrix: Water
Analysis Batch: 15425

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 14733

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene			100	68.20		ug/L		68	45 - 120	8	20
1,2-Dichlorobenzene			100	69.20		ug/L		69	40 - 120	3	25
1,2-Diphenylhydrazine(as Azobenzene)			100	100.2		ug/L		100	60 - 120	6	25
1,3-Dichlorobenzene			100	63.80		ug/L		64	35 - 120	1	25
1,4-Dichlorobenzene			100	66.60		ug/L		67	35 - 120	3	25
2,4,6-Trichlorophenol			100	89.40		ug/L		89	55 - 120	3	30
2,4-Dichlorophenol			100	85.60		ug/L		86	55 - 120	5	20
2,4-Dimethylphenol			100	79.80		ug/L		80	40 - 120	2	25
2,4-Dinitrophenol			100	87.40		ug/L		87	40 - 120	3	25
2,4-Dinitrotoluene			100	96.20		ug/L		96	65 - 120	4	20
2,6-Dinitrotoluene			100	94.40		ug/L		94	65 - 120	5	20
2-Chloronaphthalene			100	84.40		ug/L		84	60 - 120	3	20
2-Chlorophenol			100	80.60		ug/L		81	45 - 120	0	25
2-Methylnaphthalene			100	84.00		ug/L		84	55 - 120	7	20
2-Methylphenol			100	87.00		ug/L		87	50 - 120	1	20
2-Nitroaniline			100	109.6		ug/L		110	65 - 120	3	20
2-Nitrophenol			100	86.80		ug/L		87	50 - 120	5	25
3,3'-Dichlorobenzidine			100	72.20		ug/L		72	45 - 135	16	25
3-Nitroaniline			100	99.40		ug/L		99	60 - 120	4	25
4,6-Dinitro-2-methylphenol			100	93.20		ug/L		93	45 - 120	6	25
4-Bromophenyl phenyl ether			100	92.60		ug/L		93	60 - 120	5	25
4-Chloro-3-methylphenol			100	89.40		ug/L		89	60 - 120	5	25
4-Chloroaniline			100	91.20		ug/L		91	55 - 120	4	25
4-Chlorophenyl phenyl ether			100	92.20		ug/L		92	65 - 120	5	20
4-Methylphenol			100	86.80		ug/L		87	50 - 120	0	20
4-Nitroaniline			100	100.6		ug/L		101	55 - 125	7	20
4-Nitrophenol			100	95.20		ug/L		95	45 - 120	2	30
Acenaphthene			100	85.00		ug/L		85	60 - 120	1	20
Acenaphthylene			100	97.80		ug/L		98	60 - 120	6	20
Aniline			100	96.40		ug/L		96	35 - 120	9	30
Anthracene			100	92.60		ug/L		93	65 - 120	6	20
Benzidine			100	116.8		ug/L		117	30 - 160	20	35
Benzo[a]anthracene			100	88.20		ug/L		88	65 - 120	6	20
Benzo[a]pyrene			100	92.40		ug/L		92	55 - 130	5	25
Benzo[b]fluoranthene			100	83.20		ug/L		83	55 - 125	8	25
Benzo[g,h,i]perylene			100	95.20		ug/L		95	45 - 135	6	25
Benzo[k]fluoranthene			100	95.60		ug/L		96	50 - 125	5	20
Benzoic acid			100	77.20		ug/L		77	25 - 120	1	30
Benzyl alcohol			100	93.80		ug/L		94	50 - 120	0	20
Bis(2-chloroethoxy)methane			100	90.40		ug/L		90	55 - 120	6	20

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 440-14733/3-A
Matrix: Water
Analysis Batch: 15425

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 14733

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bis(2-chloroethyl)ether			100	85.60		ug/L		86	50 - 120	3	20
bis (2-chloroisopropyl) ether			100	98.00		ug/L		98	45 - 120	1	20
Bis(2-ethylhexyl) phthalate			100	91.60		ug/L		92	65 - 130	7	20
Butyl benzyl phthalate			100	93.00		ug/L		93	55 - 130	7	20
Chrysene			100	90.40		ug/L		90	65 - 120	6	20
Di-n-butyl phthalate			100	92.80		ug/L		93	60 - 125	7	20
Di-n-octyl phthalate			100	94.80		ug/L		95	65 - 135	7	20
Dibenz(a,h)anthracene			100	92.80		ug/L		93	50 - 135	4	25
Dibenzofuran			100	91.40		ug/L		91	65 - 120	4	20
Diethyl phthalate			100	90.40		ug/L		90	55 - 120	5	30
Dimethyl phthalate			100	90.20		ug/L		90	30 - 120	6	30
Fluoranthene			100	94.80		ug/L		95	60 - 120	6	20
Fluorene			100	92.40		ug/L		92	65 - 120	4	20
Hexachlorobenzene			100	90.20		ug/L		90	60 - 120	7	20
Hexachlorobutadiene			100	62.00		ug/L		62	40 - 120	9	25
Hexachlorocyclopentadiene			100	64.40		ug/L		64	25 - 120	7	30
Hexachloroethane			100	62.40		ug/L		62	35 - 120	2	25
Indeno[1,2,3-cd]pyrene			100	98.00		ug/L		98	45 - 135	4	25
Isophorone			100	96.20		ug/L		96	50 - 120	9	20
N-Nitrosodimethylamine			100	89.80		ug/L		90	45 - 120	3	20
N-Nitrosodi-n-propylamine			100	103.2		ug/L		103	45 - 120	0	20
N-Nitrosodiphenylamine			100	86.00		ug/L		86	60 - 120	5	20
Naphthalene			100	79.00		ug/L		79	55 - 120	2	20
Nitrobenzene			100	91.80		ug/L		92	55 - 120	6	25
Pentachlorophenol			100	87.80		ug/L		88	24 - 121	4	25
Phenanthrene			100	89.40		ug/L		89	65 - 120	5	20
Phenol			100	80.80		ug/L		81	40 - 120	3	25
Pyrene			100	101.2		ug/L		101	55 - 125	6	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*87*		*50 - 120*
2-Fluorophenol	*74*		*30 - 120*
2,4,6-Tribromophenol	*98*		*40 - 120*
Nitrobenzene-d5	*93*		*45 - 120*
Terphenyl-d14	*108*		*50 - 125*
Phenol-d6	*80*		*35 - 120*

Method: 608 - Organochlorine Pesticides in Water

Lab Sample ID: MB 440-14103/1-A
Matrix: Water
Analysis Batch: 14342

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14103

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.0050	0.0015	ug/L		03/19/12 13:37	03/20/12 14:15	1
alpha-BHC	ND		0.0050	0.0025	ug/L		03/19/12 13:37	03/20/12 14:15	1
beta-BHC	ND		0.010	0.0040	ug/L		03/19/12 13:37	03/20/12 14:15	1
Chlordane (technical)	ND		0.10	0.0080	ug/L		03/19/12 13:37	03/20/12 14:15	1
delta-BHC	ND		0.0050	0.0035	ug/L		03/19/12 13:37	03/20/12 14:15	1

Method: 608 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: MB 440-14103/1-A
Matrix: Water
Analysis Batch: 14342

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14103

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dieldrin	ND		0.0050	0.0020	ug/L		03/19/12 13:37	03/20/12 14:15	1
Endosulfan I	ND		0.0050	0.0030	ug/L		03/19/12 13:37	03/20/12 14:15	1
Endosulfan II	ND		0.0050	0.0020	ug/L		03/19/12 13:37	03/20/12 14:15	1
Endosulfan sulfate	ND		0.010	0.0030	ug/L		03/19/12 13:37	03/20/12 14:15	1
Endrin	ND		0.0050	0.0020	ug/L		03/19/12 13:37	03/20/12 14:15	1
Endrin aldehyde	ND		0.010	0.0020	ug/L		03/19/12 13:37	03/20/12 14:15	1
gamma-BHC (Lindane)	ND		0.010	0.0030	ug/L		03/19/12 13:37	03/20/12 14:15	1
Heptachlor	ND		0.010	0.0030	ug/L		03/19/12 13:37	03/20/12 14:15	1
Heptachlor epoxide	ND		0.0050	0.0025	ug/L		03/19/12 13:37	03/20/12 14:15	1
Toxaphene	ND		0.50	0.25	ug/L		03/19/12 13:37	03/20/12 14:15	1
4,4'-DDD	ND		0.0050	0.0040	ug/L		03/19/12 13:37	03/20/12 14:15	1
4,4'-DDE	ND		0.0050	0.0030	ug/L		03/19/12 13:37	03/20/12 14:15	1
4,4'-DDT	ND		0.010	0.0040	ug/L		03/19/12 13:37	03/20/12 14:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*75*		*35 - 115*	*03/19/12 13:37*	*03/20/12 14:15*	*1*

Lab Sample ID: LCS 440-14103/2-A
Matrix: Water
Analysis Batch: 14342

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14103

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aldrin	0.500	0.441		ug/L		88	40 - 115
alpha-BHC	0.500	0.458		ug/L		92	45 - 115
beta-BHC	0.500	0.456		ug/L		91	55 - 115
delta-BHC	0.500	0.479		ug/L		96	55 - 115
Dieldrin	0.500	0.467		ug/L		93	55 - 115
Endosulfan I	0.500	0.453		ug/L		91	55 - 115
Endosulfan II	0.500	0.467		ug/L		93	55 - 120
Endosulfan sulfate	0.500	0.483		ug/L		97	60 - 120
Endrin	0.500	0.460		ug/L		92	55 - 115
Endrin aldehyde	0.500	0.508		ug/L		102	50 - 120
gamma-BHC (Lindane)	0.500	0.464		ug/L		93	45 - 115
Heptachlor	0.500	0.455		ug/L		91	45 - 115
Heptachlor epoxide	0.500	0.452		ug/L		90	55 - 115
4,4'-DDD	0.500	0.500		ug/L		100	55 - 120
4,4'-DDE	0.500	0.460		ug/L		92	50 - 120
4,4'-DDT	0.500	0.518		ug/L		104	55 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*77*		*35 - 115*

Lab Sample ID: LCSD 440-14103/3-A
Matrix: Water
Analysis Batch: 14342

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 14103

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aldrin	0.500	0.433		ug/L		87	40 - 115	2	30
alpha-BHC	0.500	0.449		ug/L		90	45 - 115	2	30

Method: 608 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: LCSD 440-14103/3-A
Matrix: Water
Analysis Batch: 14342

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 14103

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
beta-BHC			0.500	0.461		ug/L		92	55 - 115	1	30
delta-BHC			0.500	0.478		ug/L		96	55 - 115	0	30
Dieldrin			0.500	0.469		ug/L		94	55 - 115	0	30
Endosulfan I			0.500	0.455		ug/L		91	55 - 115	1	30
Endosulfan II			0.500	0.469		ug/L		94	55 - 120	0	30
Endosulfan sulfate			0.500	0.488		ug/L		98	60 - 120	1	30
Endrin			0.500	0.479		ug/L		96	55 - 115	4	30
Endrin aldehyde			0.500	0.506		ug/L		101	50 - 120	0	30
gamma-BHC (Lindane)			0.500	0.459		ug/L		92	45 - 115	1	30
Heptachlor			0.500	0.454		ug/L		91	45 - 115	0	30
Heptachlor epoxide			0.500	0.452		ug/L		90	55 - 115	0	30
4,4'-DDD			0.500	0.500		ug/L		100	55 - 120	0	30
4,4'-DDE			0.500	0.465		ug/L		93	50 - 120	1	30
4,4'-DDT			0.500	0.526		ug/L		105	55 - 120	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*74*		*35 - 115*

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 440-14103/1-A
Matrix: Water
Analysis Batch: 14346

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14103

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		0.50	0.25	ug/L		03/19/12 13:37	03/20/12 14:39	1
Aroclor 1221	ND		0.50	0.25	ug/L		03/19/12 13:37	03/20/12 14:39	1
Aroclor 1232	ND		0.50	0.25	ug/L		03/19/12 13:37	03/20/12 14:39	1
Aroclor 1242	ND		0.50	0.25	ug/L		03/19/12 13:37	03/20/12 14:39	1
Aroclor 1248	ND		0.50	0.25	ug/L		03/19/12 13:37	03/20/12 14:39	1
Aroclor 1254	ND		0.50	0.25	ug/L		03/19/12 13:37	03/20/12 14:39	1
Aroclor 1260	ND		0.50	0.25	ug/L		03/19/12 13:37	03/20/12 14:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*86*		*45 - 120*	*03/19/12 13:37*	*03/20/12 14:39*	*1*

Lab Sample ID: LCS 440-14103/4-A
Matrix: Water
Analysis Batch: 14346

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14103

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016			4.00	3.20		ug/L		80	50 - 115
Aroclor 1260			4.00	3.31		ug/L		83	60 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*83*		*45 - 120*

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Lab Sample ID: LCSD 440-14103/5-A
Matrix: Water
Analysis Batch: 14346

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 14103

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016			4.00	3.19		ug/L		80	50 - 115	0.000	30
Aroclor 1260			4.00	3.31		ug/L		83	60 - 120	0.000	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*82*		*45 - 120*

Method: 218.6 - Chromium, Hexavalent (Ion Chromatography)

Lab Sample ID: MB 440-13936/3
Matrix: Water
Analysis Batch: 13936

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		1.0	0.25	ug/L			03/17/12 23:03	1

Lab Sample ID: LCS 440-13936/2
Matrix: Water
Analysis Batch: 13936

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chromium, hexavalent			50.0	50.3		ug/L		101	90 - 110		

Lab Sample ID: 440-5816-3 MS
Matrix: Water
Analysis Batch: 13936

Client Sample ID: Outfall 009
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chromium, hexavalent	ND		50.0	51.2		ug/L		102	90 - 110		

Lab Sample ID: 440-5816-3 MSD
Matrix: Water
Analysis Batch: 13936

Client Sample ID: Outfall 009
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium, hexavalent	ND		50.0	51.2		ug/L		102	90 - 110	0	10

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 440-14023/3
Matrix: Water
Analysis Batch: 14023

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.26	0.19	mg/L			03/19/12 10:43	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 440-14274/3
Matrix: Water
Analysis Batch: 14274

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.40	mg/L			03/20/12 11:15	1
Sulfate	ND		0.50	0.40	mg/L			03/20/12 11:15	1

Lab Sample ID: LCS 440-14274/7
Matrix: Water
Analysis Batch: 14274

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	4.73		mg/L		95	90 - 110
Sulfate	10.0	9.31		mg/L		93	90 - 110

Lab Sample ID: 440-5901-G-1 MS
Matrix: Water
Analysis Batch: 14274

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	47		50.0	90.6		mg/L		88	80 - 120
Sulfate	140		100	249		mg/L		110	80 - 120

Lab Sample ID: 440-5901-G-1 MSD
Matrix: Water
Analysis Batch: 14274

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	47		50.0	90.2		mg/L		87	80 - 120	0	20
Sulfate	140		100	250		mg/L		111	80 - 120	0	20

Method: 314.0 - Perchlorate (IC)

Lab Sample ID: MB 440-14013/5
Matrix: Water
Analysis Batch: 14013

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND		4.0	0.95	ug/L			03/19/12 09:39	1

Lab Sample ID: LCS 440-14013/4
Matrix: Water
Analysis Batch: 14013

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perchlorate	25.0	24.7		ug/L		99	85 - 115

Lab Sample ID: 440-5832-1 MS
Matrix: Water
Analysis Batch: 14013

Client Sample ID: Outfall 009 (Composite)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Perchlorate	ND		25.0	23.6		ug/L		94	80 - 120

Method: 314.0 - Perchlorate (IC) (Continued)

Lab Sample ID: 440-5832-1 MSD
Matrix: Water
Analysis Batch: 14013

Client Sample ID: Outfall 009 (Composite)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perchlorate	ND		25.0	24.9		ug/L		100	80 - 120	5	20

Method: 1613B - Dioxins/Furans, HRGC/HRMS (1613B)

Lab Sample ID: G2C260000060B
Matrix: Water
Analysis Batch: 2086060

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 2086060_P

Analyte	MB Result	MB Qualifier	ML	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		0.000010	0.0000050	ug/L		03/26/12 09:00	03/29/12 04:25	1
Total TCDD	ND		0.000010	0.0000050	ug/L		03/26/12 09:00	03/29/12 04:25	1
1,2,3,7,8-PeCDD	ND		0.000050	0.0000057	ug/L		03/26/12 09:00	03/29/12 04:25	1
Total PeCDD	ND		0.000050	0.0000057	ug/L		03/26/12 09:00	03/29/12 04:25	1
1,2,3,4,7,8-HxCDD	ND		0.000050	0.0000031	ug/L		03/26/12 09:00	03/29/12 04:25	1
1,2,3,6,7,8-HxCDD	ND		0.000050	0.0000029	ug/L		03/26/12 09:00	03/29/12 04:25	1
1,2,3,7,8,9-HxCDD	ND		0.000050	0.0000027	ug/L		03/26/12 09:00	03/29/12 04:25	1
Total HxCDD	ND		0.000050	0.0000027	ug/L		03/26/12 09:00	03/29/12 04:25	1
1,2,3,4,6,7,8-HpCDD	0.0000029	J Q	0.000050	0.0000031	ug/L		03/26/12 09:00	03/29/12 04:25	1
Total HpCDD	0.0000055	J Q	0.000050	0.0000031	ug/L		03/26/12 09:00	03/29/12 04:25	1
OCDD	0.000023	J	0.00010	0.0000084	ug/L		03/26/12 09:00	03/29/12 04:25	1
2,3,7,8-TCDF	ND		0.000010	0.0000031	ug/L		03/26/12 09:00	03/29/12 04:25	1
Total TCDF	ND		0.000010	0.0000031	ug/L		03/26/12 09:00	03/29/12 04:25	1
1,2,3,7,8-PeCDF	ND		0.000050	0.0000070	ug/L		03/26/12 09:00	03/29/12 04:25	1
2,3,4,7,8-PeCDF	ND		0.000050	0.0000071	ug/L		03/26/12 09:00	03/29/12 04:25	1
Total PeCDF	ND		0.000050	0.0000070	ug/L		03/26/12 09:00	03/29/12 04:25	1
1,2,3,4,7,8-HxCDF	0.0000036	J	0.000050	0.0000027	ug/L		03/26/12 09:00	03/29/12 04:25	1
1,2,3,6,7,8-HxCDF	ND		0.000050	0.0000024	ug/L		03/26/12 09:00	03/29/12 04:25	1
2,3,4,6,7,8-HxCDF	ND		0.000050	0.0000024	ug/L		03/26/12 09:00	03/29/12 04:25	1
1,2,3,7,8,9-HxCDF	ND		0.000050	0.0000032	ug/L		03/26/12 09:00	03/29/12 04:25	1
Total HxCDF	0.0000069	J Q	0.000050	0.0000024	ug/L		03/26/12 09:00	03/29/12 04:25	1
1,2,3,4,6,7,8-HpCDF	0.0000022	J Q	0.000050	0.0000031	ug/L		03/26/12 09:00	03/29/12 04:25	1
1,2,3,4,7,8,9-HpCDF	ND		0.000050	0.0000044	ug/L		03/26/12 09:00	03/29/12 04:25	1
Total HpCDF	0.0000045	J Q	0.000050	0.0000031	ug/L		03/26/12 09:00	03/29/12 04:25	1
OCDF	0.0000056	J Q	0.00010	0.0000063	ug/L		03/26/12 09:00	03/29/12 04:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*94*		*35 - 197*	*03/26/12 09:00*	*03/29/12 04:25*	*1*

Internal Standard	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*52*		*25 - 164*	*03/26/12 09:00*	*03/29/12 04:25*	*1*
13C-1,2,3,7,8-PeCDD	*49*		*25 - 181*	*03/26/12 09:00*	*03/29/12 04:25*	*1*
13C-1,2,3,4,7,8-HxCDD	*52*		*32 - 141*	*03/26/12 09:00*	*03/29/12 04:25*	*1*
13C-1,2,3,6,7,8-HxCDD	*64*		*28 - 130*	*03/26/12 09:00*	*03/29/12 04:25*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*59*		*23 - 140*	*03/26/12 09:00*	*03/29/12 04:25*	*1*
13C-OCDD	*58*		*17 - 157*	*03/26/12 09:00*	*03/29/12 04:25*	*1*
13C-2,3,7,8-TCDF	*60*		*24 - 169*	*03/26/12 09:00*	*03/29/12 04:25*	*1*
13C-1,2,3,7,8-PeCDF	*53*		*24 - 185*	*03/26/12 09:00*	*03/29/12 04:25*	*1*
13C-2,3,4,7,8-PeCDF	*56*		*21 - 178*	*03/26/12 09:00*	*03/29/12 04:25*	*1*

Method: 1613B - Dioxins/Furans, HRGC/HRMS (1613B) (Continued)

Lab Sample ID: G2C260000060B
Matrix: Water
Analysis Batch: 2086060

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 2086060_P

Internal Standard	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,6,7,8-HxCDF	74		26 - 123	03/26/12 09:00	03/29/12 04:25	1
13C-2,3,4,6,7,8-HxCDF	74		28 - 136	03/26/12 09:00	03/29/12 04:25	1
13C-1,2,3,7,8,9-HxCDF	71		29 - 147	03/26/12 09:00	03/29/12 04:25	1
13C-1,2,3,4,6,7,8-HpCDF	67		28 - 143	03/26/12 09:00	03/29/12 04:25	1
13C-1,2,3,4,7,8,9-HpCDF	62		26 - 138	03/26/12 09:00	03/29/12 04:25	1
13C-1,2,3,4,7,8-HxCDF	63		26 - 152	03/26/12 09:00	03/29/12 04:25	1

Lab Sample ID: G2C260000060C
Matrix: Water
Analysis Batch: 2086060

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 2086060_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,3,7,8-TCDD	0.000200	0.000227		ug/L		113	67 - 158
1,2,3,7,8-PeCDD	0.00100	0.00113		ug/L		113	70 - 142
1,2,3,4,7,8-HxCDD	0.00100	0.00117		ug/L		117	70 - 164
1,2,3,6,7,8-HxCDD	0.00100	0.00114		ug/L		114	76 - 134
1,2,3,7,8,9-HxCDD	0.00100	0.00133		ug/L		133	64 - 162
1,2,3,4,6,7,8-HpCDD	0.00100	0.00117	B	ug/L		117	70 - 140
OCDD	0.00200	0.00232	B	ug/L		116	78 - 144
2,3,7,8-TCDF	0.000200	0.000211		ug/L		106	75 - 158
1,2,3,7,8-PeCDF	0.00100	0.00108		ug/L		108	80 - 134
2,3,4,7,8-PeCDF	0.00100	0.00109		ug/L		109	68 - 160
1,2,3,4,7,8-HxCDF	0.00100	0.00106	B	ug/L		106	72 - 134
1,2,3,6,7,8-HxCDF	0.00100	0.00112		ug/L		112	84 - 130
2,3,4,6,7,8-HxCDF	0.00100	0.00113		ug/L		113	70 - 156
1,2,3,7,8,9-HxCDF	0.00100	0.00110		ug/L		110	78 - 130
1,2,3,4,6,7,8-HpCDF	0.00100	0.00111	B	ug/L		111	82 - 122
1,2,3,4,7,8,9-HpCDF	0.00100	0.00112		ug/L		112	78 - 138
OCDF	0.00200	0.00242	B	ug/L		121	63 - 170

Surrogate	LCS %Recovery	LCS Qualifier	Limits
37Cl4-2,3,7,8-TCDD	96		31 - 191

Internal Standard	LCS %Recovery	LCS Qualifier	Limits
13C-2,3,7,8-TCDD	68		20 - 175
13C-1,2,3,7,8-PeCDD	66		21 - 227
13C-1,2,3,4,7,8-HxCDD	62		21 - 193
13C-1,2,3,6,7,8-HxCDD	78		25 - 163
13C-1,2,3,4,6,7,8-HpCDD	73		26 - 166
13C-OCDD	77		13 - 199
13C-2,3,7,8-TCDF	78		22 - 152
13C-1,2,3,7,8-PeCDF	72		21 - 192
13C-2,3,4,7,8-PeCDF	74		13 - 328
13C-1,2,3,6,7,8-HxCDF	87		21 - 159
13C-2,3,4,6,7,8-HxCDF	88		22 - 176
13C-1,2,3,7,8,9-HxCDF	89		17 - 205
13C-1,2,3,4,6,7,8-HpCDF	82		21 - 158
13C-1,2,3,4,7,8,9-HpCDF	82		20 - 186

Method: 1613B - Dioxins/Furans, HRGC/HRMS (1613B) (Continued)

Lab Sample ID: G2C260000060C
Matrix: Water
Analysis Batch: 2086060

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 2086060_P

Internal Standard	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C-1,2,3,4,7,8-HxCDF	*79*		*19 - 202*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 440-14335/1-A
Matrix: Water
Analysis Batch: 14661

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 14335

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10	7.0	ug/L		03/20/12 11:38	03/21/12 11:12	1
Boron	0.0334	J,DX	0.050	0.020	mg/L		03/20/12 11:38	03/21/12 11:12	1
Beryllium	ND		2.0	0.90	ug/L		03/20/12 11:38	03/21/12 11:12	1
Calcium	ND		0.10	0.050	mg/L		03/20/12 11:38	03/21/12 11:12	1
Chromium	ND		5.0	2.0	ug/L		03/20/12 11:38	03/21/12 11:12	1
Iron	ND		0.040	0.015	mg/L		03/20/12 11:38	03/21/12 11:12	1
Magnesium	ND		0.020	0.012	mg/L		03/20/12 11:38	03/21/12 11:12	1
Nickel	ND		10	2.0	ug/L		03/20/12 11:38	03/21/12 11:12	1
Vanadium	ND		10	3.0	ug/L		03/20/12 11:38	03/21/12 11:12	1
Zinc	ND		20	6.0	ug/L		03/20/12 11:38	03/21/12 11:12	1
Silver	ND		10	6.0	ug/L		03/20/12 11:38	03/21/12 11:12	1
Hardness, as CaCO3	ND		0.33	0.17	mg/L		03/20/12 11:38	03/21/12 11:12	1

Lab Sample ID: MB 440-14335/1-A
Matrix: Water
Analysis Batch: 16403

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 14335

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		50	40	ug/L		03/20/12 11:38	03/29/12 13:28	1

Lab Sample ID: LCS 440-14335/2-A
Matrix: Water
Analysis Batch: 14661

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 14335

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	500	509		ug/L		102	85 - 115
Boron	0.500	0.551		mg/L		110	85 - 115
Beryllium	500	514		ug/L		103	85 - 115
Calcium	2.50	2.64		mg/L		106	85 - 115
Chromium	500	539		ug/L		108	85 - 115
Iron	0.500	0.519		mg/L		104	85 - 115
Magnesium	2.50	2.60		mg/L		104	85 - 115
Nickel	500	516		ug/L		103	85 - 115
Vanadium	500	520		ug/L		104	85 - 115
Zinc	500	519		ug/L		104	85 - 115
Silver	250	268		ug/L		107	85 - 115

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCS 440-14335/2-A
Matrix: Water
Analysis Batch: 16403

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 14335

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	500	510		ug/L		102	85 - 115

Lab Sample ID: 440-5626-B-2-B MS
Matrix: Water
Analysis Batch: 14661

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 14335

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	ND		500	525		ug/L		105	70 - 130
Boron	0.15	MB	0.500	0.669		mg/L		104	70 - 130
Beryllium	ND		500	516		ug/L		103	70 - 130
Calcium	25		2.50	27.9	BB	mg/L		103	70 - 130
Chromium	7.2		500	535		ug/L		106	70 - 130
Iron	3.1		0.500	3.69	BB	mg/L		109	70 - 130
Magnesium	3.9		2.50	6.32		mg/L		99	70 - 130
Nickel	18		500	510		ug/L		98	70 - 130
Vanadium	3.3	J,DX	500	524		ug/L		104	70 - 130
Zinc	190		500	698		ug/L		102	70 - 130
Silver	ND		250	264		ug/L		106	70 - 130

Lab Sample ID: 440-5626-B-2-B MS
Matrix: Water
Analysis Batch: 16403

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 14335

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	220		500	760		ug/L		108	70 - 130

Lab Sample ID: 440-5626-B-2-C MSD
Matrix: Water
Analysis Batch: 14661

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 14335

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	ND		500	520		ug/L		104	70 - 130	1	20
Boron	0.15	MB	0.500	0.673		mg/L		105	70 - 130	1	20
Beryllium	ND		500	523		ug/L		105	70 - 130	1	20
Calcium	25		2.50	28.4	BB	mg/L		121	70 - 130	2	20
Chromium	7.2		500	536		ug/L		106	70 - 130	0	20
Iron	3.1		0.500	3.68	BB	mg/L		108	70 - 130	0	20
Magnesium	3.9		2.50	6.36		mg/L		100	70 - 130	1	20
Nickel	18		500	512		ug/L		99	70 - 130	0	20
Vanadium	3.3	J,DX	500	527		ug/L		105	70 - 130	1	20
Zinc	190		500	699		ug/L		103	70 - 130	0	20
Silver	ND		250	263		ug/L		105	70 - 130	0	20

Lab Sample ID: 440-5626-B-2-C MSD
Matrix: Water
Analysis Batch: 16403

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 14335

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	220		500	758		ug/L		108	70 - 130	0	20

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: MB 440-14095/1-D
Matrix: Water
Analysis Batch: 15412

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 15170

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		50	40	ug/L		03/23/12 09:50	03/24/12 19:21	1
Arsenic	ND		10	7.0	ug/L		03/23/12 09:50	03/24/12 19:21	1
Boron	0.0272	J,DX	0.050	0.020	mg/L		03/23/12 09:50	03/24/12 19:21	1
Beryllium	ND		2.0	0.90	ug/L		03/23/12 09:50	03/24/12 19:21	1
Calcium	ND		0.10	0.050	mg/L		03/23/12 09:50	03/24/12 19:21	1
Chromium	ND		5.0	2.0	ug/L		03/23/12 09:50	03/24/12 19:21	1
Iron	ND		0.040	0.015	mg/L		03/23/12 09:50	03/24/12 19:21	1
Magnesium	ND		0.020	0.012	mg/L		03/23/12 09:50	03/24/12 19:21	1
Nickel	ND		10	2.0	ug/L		03/23/12 09:50	03/24/12 19:21	1
Vanadium	ND		10	3.0	ug/L		03/23/12 09:50	03/24/12 19:21	1
Zinc	ND		20	6.0	ug/L		03/23/12 09:50	03/24/12 19:21	1
Silver	ND		10	6.0	ug/L		03/23/12 09:50	03/24/12 19:21	1
Hardness, as CaCO3	ND		0.33	0.17	mg/L		03/23/12 09:50	03/24/12 19:21	1

Lab Sample ID: LCS 440-14095/2-D
Matrix: Water
Analysis Batch: 15412

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 15170

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	500	500		ug/L		100	85 - 115
Arsenic	500	487		ug/L		97	85 - 115
Boron	0.500	0.515		mg/L		103	85 - 115
Beryllium	500	499		ug/L		100	85 - 115
Calcium	2.50	2.43		mg/L		97	85 - 115
Chromium	500	521		ug/L		104	85 - 115
Iron	0.500	0.484		mg/L		97	85 - 115
Magnesium	2.50	2.49		mg/L		99	85 - 115
Nickel	500	490		ug/L		98	85 - 115
Vanadium	500	501		ug/L		100	85 - 115
Zinc	500	493		ug/L		99	85 - 115
Silver	250	259		ug/L		104	85 - 115

Lab Sample ID: 440-5832-1 MS
Matrix: Water
Analysis Batch: 15412

Client Sample ID: Outfall 009 (Composite)
Prep Type: Dissolved
Prep Batch: 15170

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	250		500	786		ug/L		108	70 - 130
Arsenic	ND		500	501		ug/L		100	70 - 130
Boron	0.027	J,DX	0.500	0.531		mg/L		101	70 - 130
Beryllium	ND		500	510		ug/L		102	70 - 130
Calcium	5.6		2.50	7.81		mg/L		90	70 - 130
Chromium	ND		500	529		ug/L		106	70 - 130
Iron	0.18		0.500	0.673		mg/L		99	70 - 130
Magnesium	1.5		2.50	3.92		mg/L		98	70 - 130
Nickel	ND		500	495		ug/L		99	70 - 130
Vanadium	ND		500	516		ug/L		103	70 - 130
Zinc	ND		500	509		ug/L		102	70 - 130
Silver	ND		250	267		ug/L		107	70 - 130

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 440-5832-1 MSD
Matrix: Water
Analysis Batch: 15412

Client Sample ID: Outfall 009 (Composite)
Prep Type: Dissolved
Prep Batch: 15170

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	250		500	779		ug/L		106	70 - 130	1	20
Arsenic	ND		500	507		ug/L		101	70 - 130	1	20
Boron	0.027	J,DX	0.500	0.537		mg/L		102	70 - 130	1	20
Beryllium	ND		500	516		ug/L		103	70 - 130	1	20
Calcium	5.6		2.50	7.93		mg/L		94	70 - 130	2	20
Chromium	ND		500	533		ug/L		107	70 - 130	1	20
Iron	0.18		0.500	0.672		mg/L		99	70 - 130	0	20
Magnesium	1.5		2.50	3.92		mg/L		98	70 - 130	0	20
Nickel	ND		500	499		ug/L		100	70 - 130	1	20
Vanadium	ND		500	515		ug/L		103	70 - 130	0	20
Zinc	ND		500	510		ug/L		102	70 - 130	0	20
Silver	ND		250	268		ug/L		107	70 - 130	0	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 440-14324/1-A
Matrix: Water
Analysis Batch: 14540

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 14324

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.10	ug/L		03/20/12 11:00	03/20/12 16:10	1
Copper	ND		2.0	0.50	ug/L		03/20/12 11:00	03/20/12 16:10	1
Lead	ND		1.0	0.20	ug/L		03/20/12 11:00	03/20/12 16:10	1
Antimony	ND		2.0	0.30	ug/L		03/20/12 11:00	03/20/12 16:10	1
Selenium	ND		2.0	0.50	ug/L		03/20/12 11:00	03/20/12 16:10	1
Thallium	ND		1.0	0.20	ug/L		03/20/12 11:00	03/20/12 16:10	1

Lab Sample ID: LCS 440-14324/2-A
Matrix: Water
Analysis Batch: 14540

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 14324

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	80.0	80.0		ug/L		100	85 - 115
Copper	80.0	77.3		ug/L		97	85 - 115
Lead	80.0	80.4		ug/L		101	85 - 115
Antimony	80.0	79.9		ug/L		100	85 - 115
Selenium	80.0	81.8		ug/L		102	85 - 115
Thallium	80.0	86.1		ug/L		108	85 - 115

Lab Sample ID: 440-2797-B-1-H MS
Matrix: Water
Analysis Batch: 14540

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 14324

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.18	J,DX	80.0	77.6		ug/L		97	70 - 130
Copper	5.8		80.0	74.5		ug/L		86	70 - 130
Lead	1.9		80.0	75.8		ug/L		92	70 - 130
Antimony	ND		80.0	81.9		ug/L		102	70 - 130
Selenium	1.8		80.0	82.2		ug/L		101	70 - 130
Thallium	ND		80.0	72.1		ug/L		90	70 - 130

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 440-2797-B-1-I MSD
Matrix: Water
Analysis Batch: 14540

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 14324

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	0.18	J,DX	80.0	76.6		ug/L		95	70 - 130	1	20
Copper	5.8		80.0	73.0		ug/L		84	70 - 130	2	20
Lead	1.9		80.0	74.3		ug/L		90	70 - 130	2	20
Antimony	ND		80.0	80.5		ug/L		101	70 - 130	2	20
Selenium	1.8		80.0	81.5		ug/L		100	70 - 130	1	20
Thallium	ND		80.0	74.3		ug/L		93	70 - 130	3	20

Lab Sample ID: MB 440-14095/1-E
Matrix: Water
Analysis Batch: 15439

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 15171

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.10	ug/L		03/23/12 09:53	03/23/12 22:12	1
Copper	ND		2.0	0.50	ug/L		03/23/12 09:53	03/23/12 22:12	1
Lead	ND		1.0	0.20	ug/L		03/23/12 09:53	03/23/12 22:12	1
Antimony	ND		2.0	0.30	ug/L		03/23/12 09:53	03/23/12 22:12	1
Selenium	ND		2.0	0.50	ug/L		03/23/12 09:53	03/23/12 22:12	1
Thallium	ND		1.0	0.20	ug/L		03/23/12 09:53	03/23/12 22:12	1

Lab Sample ID: LCS 440-14095/2-E
Matrix: Water
Analysis Batch: 15439

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 15171

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	80.0	79.2		ug/L		99	85 - 115
Copper	80.0	85.4		ug/L		107	85 - 115
Lead	80.0	79.1		ug/L		99	85 - 115
Antimony	80.0	83.0		ug/L		104	85 - 115
Selenium	80.0	82.3		ug/L		103	85 - 115
Thallium	80.0	80.5		ug/L		101	85 - 115

Lab Sample ID: 440-5828-D-5-E MS
Matrix: Water
Analysis Batch: 15439

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 15171

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.19	J,DX	80.0	79.2		ug/L		99	70 - 130
Copper	7.2		80.0	93.1		ug/L		107	70 - 130
Lead	0.24	J,DX	80.0	81.0		ug/L		101	70 - 130
Antimony	0.33	J,DX	80.0	84.0		ug/L		105	70 - 130
Selenium	ND		80.0	82.6		ug/L		103	70 - 130
Thallium	ND		80.0	81.0		ug/L		101	70 - 130

Lab Sample ID: 440-5828-D-5-F MSD
Matrix: Water
Analysis Batch: 15439

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 15171

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	0.19	J,DX	80.0	77.8		ug/L		97	70 - 130	2	20
Copper	7.2		80.0	94.1		ug/L		109	70 - 130	1	20

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 440-5828-D-5-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 15439 — **Prep Batch: 15171**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	0.24	J,DX	80.0	79.4		ug/L		99	70 - 130	2	20
Antimony	0.33	J,DX	80.0	83.1		ug/L		103	70 - 130	1	20
Selenium	ND		80.0	82.0		ug/L		102	70 - 130	1	20
Thallium	ND		80.0	81.2		ug/L		101	70 - 130	0	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 440-14384/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 14706 — **Prep Batch: 14384**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.10	ug/L		03/20/12 14:05	03/21/12 13:09	1

Lab Sample ID: LCS 440-14384/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 14706 — **Prep Batch: 14384**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	8.00	8.26		ug/L		103	85 - 115

Lab Sample ID: 440-5828-B-16-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 14706 — **Prep Batch: 14384**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		8.00	8.22		ug/L		103	70 - 130

Lab Sample ID: 440-5828-B-16-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 14706 — **Prep Batch: 14384**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		8.00	8.24		ug/L		103	70 - 130	0	20

Lab Sample ID: MB 440-14095/1-B — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 14655 — **Prep Batch: 14376**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.10	ug/L		03/20/12 14:00	03/21/12 12:48	1

Lab Sample ID: LCS 440-14095/2-B — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 14655 — **Prep Batch: 14376**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	8.00	8.10		ug/L		101	85 - 115

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: 440-5828-C-2-C MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 14655 — **Prep Batch: 14376**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		0.800	8.12		ug/L		1015	70 - 130

Lab Sample ID: 440-5828-C-2-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 14655 — **Prep Batch: 14376**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		8.00	8.15		ug/L		102	70 - 130	0	20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 440-16232/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 16301 — **Prep Batch: 16232**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	ND		5.0	1.4	mg/L		03/29/12 06:37	03/29/12 10:37	1

Lab Sample ID: LCS 440-16232/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 16301 — **Prep Batch: 16232**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	20.0	16.2		mg/L		81	78 - 114

Lab Sample ID: LCSD 440-16232/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 16301 — **Prep Batch: 16232**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
HEM	20.0	15.9		mg/L		80	78 - 114	2	11

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 440-15174/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 15174

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	10	mg/L			03/23/12 10:10	1

Lab Sample ID: LCS 440-15174/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 15174

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000	998		mg/L		100	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 440-5899-H-2 DU
Matrix: Water
Analysis Batch: 15174

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	ND		ND		mg/L		NC	10

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 440-14783/1
Matrix: Water
Analysis Batch: 14783

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		10	10	mg/L			03/21/12 20:39	1

Lab Sample ID: LCS 440-14783/2
Matrix: Water
Analysis Batch: 14783

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	1000	997		mg/L		100	85 - 115

Lab Sample ID: 440-5869-A-1 DU
Matrix: Water
Analysis Batch: 14783

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	ND		ND		mg/L		NC	10

Method: SM 4500 CN E - Cyanide, Total (Low Level)

Lab Sample ID: MB 440-15221/1-A
Matrix: Water
Analysis Batch: 15270

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15221

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.0050	0.0030	mg/L		03/23/12 14:10	03/23/12 17:36	1

Lab Sample ID: LCS 440-15221/2-A
Matrix: Water
Analysis Batch: 15270

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15221

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.108		mg/L		108	90 - 110

Lab Sample ID: 440-5832-1 MS
Matrix: Water
Analysis Batch: 15270

Client Sample ID: Outfall 009 (Composite)
Prep Type: Total/NA
Prep Batch: 15221

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	ND		0.100	0.107		mg/L		107	70 - 115

Method: SM 4500 CN E - Cyanide, Total (Low Level) (Continued)

Lab Sample ID: 440-5832-1 MSD — **Client Sample ID: Outfall 009 (Composite)**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 15270 — **Prep Batch: 15221**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	ND		0.100	0.107		mg/L		107	70 - 115	0	15

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 440-14334/10 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 14334

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.10	0.020	mg/L			03/20/12 07:05	1

Lab Sample ID: LCS 440-14334/9 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 14334

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	1.00	1.02		mg/L		102	90 - 110

Lab Sample ID: 440-5197-E-2 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 14334

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.63		1.00	1.61		mg/L		97	80 - 120

Lab Sample ID: 440-5197-E-2 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 14334

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.63		1.00	1.62		mg/L		98	80 - 120	1	20

Method: Gross Alpha and Beta - Gross Alpha/Beta

Lab Sample ID: S203068-04 — **Client Sample ID: Method Blank**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8602 — **Prep Batch: 8602_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tritium	-5.81	U	14		pCi/L		03/27/12 00:00	03/27/12 22:03	1

Lab Sample ID: S203068-04 — **Client Sample ID: Method Blank**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8602 — **Prep Batch: 8602_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium, Total	0	U	0.007		pCi/L		04/02/12 00:00	04/02/12 12:40	1

Method: Gross Alpha and Beta - Gross Alpha/Beta (Continued)

Lab Sample ID: S203068-04 — **Client Sample ID: Method Blank**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8602 — **Prep Batch: 8602_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cesium-137	0.54	U	0.78		pCi/L		03/27/12 00:00	04/02/12 12:58	1
Potassium-40	-4.54	U	19		pCi/L		03/27/12 00:00	04/02/12 12:58	1

Lab Sample ID: S203068-04 — **Client Sample ID: Method Blank**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8602 — **Prep Batch: 8602_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gross Alpha	-0.295	U	0.33		pCi/L		03/29/12 00:00	04/05/12 13:25	1
Gross Beta	0.532	U	0.8		pCi/L		03/29/12 00:00	04/05/12 13:25	1

Lab Sample ID: S203068-04 — **Client Sample ID: Method Blank**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8602 — **Prep Batch: 8602_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Radium-226	0.149	U	0.27		pCi/L		04/05/12 00:00	04/05/12 14:43	1

Lab Sample ID: S203068-04 — **Client Sample ID: Method Blank**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8602 — **Prep Batch: 8602_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Strontium-90	0.159	U	0.19		pCi/L		04/06/12 00:00	04/06/12 07:23	1

Lab Sample ID: S203068-04 — **Client Sample ID: Method Blank**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8602 — **Prep Batch: 8602_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Radium-228	-0.106	U	0.15		pCi/L		04/06/12 00:00	04/06/12 13:23	1

Lab Sample ID: S203068-03 — **Client Sample ID: Lab Control Sample**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8602 — **Prep Batch: 8602_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cesium-137	105	155		pCi/L		80	120 - 0
Cobalt-60	98	128		pCi/L		80	120 - 0

Lab Sample ID: S203068-03 — **Client Sample ID: Lab Control Sample**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8602 — **Prep Batch: 8602_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Tritium	89	327	J	pCi/L		80	120 - 0

Method: Gross Alpha and Beta - Gross Alpha/Beta (Continued)

Lab Sample ID: S203068-03 — **Client Sample ID: Lab Control Sample**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8602 — **Prep Batch: 8602_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Uranium, Total	108	67.7		pCi/L		80	120 - 0

Lab Sample ID: S203068-03 — **Client Sample ID: Lab Control Sample**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8602 — **Prep Batch: 8602_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gross Alpha	116	42.9		pCi/L		70	130 - 0
Gross Beta	99	33.5		pCi/L		70	130 - 0

Lab Sample ID: S203068-03 — **Client Sample ID: Lab Control Sample**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8602 — **Prep Batch: 8602_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Radium-226	100	50.2		pCi/L		80	120 - 0

Lab Sample ID: S203068-03 — **Client Sample ID: Lab Control Sample**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8602 — **Prep Batch: 8602_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Strontium-90	97	8.25		pCi/L		80	120 - 0

Lab Sample ID: S203068-03 — **Client Sample ID: Lab Control Sample**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8602 — **Prep Batch: 8602_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Radium-228	99	5.28		pCi/L		60	140 - 0

Lab Sample ID: S203068-05 — **Client Sample ID: OUTFALL 009 COMPOSITE DU**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8602 — **Prep Batch: 8602_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Tritium	-34.6	U	-74.5	U	pCi/L			

Lab Sample ID: S203068-05 — **Client Sample ID: OUTFALL 009 COMPOSITE DU**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8602 — **Prep Batch: 8602_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Cesium-137	-1.39	U	0.484	U	pCi/L			
Potassium-40	-7.99	U	3.79	U	pCi/L			

Method: Gross Alpha and Beta - Gross Alpha/Beta (Continued)

Lab Sample ID: S203068-05 — **Client Sample ID: OUTFALL 009 COMPOSITE DU**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8602 — **Prep Batch: 8602_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Uranium, Total	0.117	J		0.109	J	pCi/L					

Lab Sample ID: S203068-05 — **Client Sample ID: OUTFALL 009 COMPOSITE DU**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8602 — **Prep Batch: 8602_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Gross Alpha	1.37	J		1.52	J	pCi/L					
Gross Beta	2.46	J		2.99	J	pCi/L					

Lab Sample ID: S203068-05 — **Client Sample ID: OUTFALL 009 COMPOSITE DU**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8602 — **Prep Batch: 8602_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Radium-226	0.214	U		0.267	U	pCi/L					

Lab Sample ID: S203068-05 — **Client Sample ID: OUTFALL 009 COMPOSITE DU**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8602 — **Prep Batch: 8602_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Strontium-90	-0.107	U		-0.137	U	pCi/L					

Lab Sample ID: S203068-05 — **Client Sample ID: OUTFALL 009 COMPOSITE DU**
Matrix: WATER — **Prep Type: Total/NA**
Analysis Batch: 8602 — **Prep Batch: 8602_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Radium-228	-0.055	U		0.022	U	pCi/L					

GC/MS VOA

Analysis Batch: 14240

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5182-A-1 MS	Matrix Spike	Total/NA	Water	624	
440-5182-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	624	
440-5816-3	Outfall 009	Total/NA	Water	624	
440-5816-4	Trip Blanks	Total/NA	Water	624	
LCS 440-14240/5	Lab Control Sample	Total/NA	Water	624	
MB 440-14240/4	Method Blank	Total/NA	Water	624	

Analysis Batch: 15688

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5816-3	Outfall 009	Total/NA	Water	624	
440-5816-4	Trip Blanks	Total/NA	Water	624	
440-5944-B-2 MS	Matrix Spike	Total/NA	Water	624	
440-5944-B-2 MSD	Matrix Spike Duplicate	Total/NA	Water	624	
LCS 440-15688/5	Lab Control Sample	Total/NA	Water	624	
MB 440-15688/4	Method Blank	Total/NA	Water	624	

GC/MS Semi VOA

Prep Batch: 14160

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5832-1	Outfall 009 (Composite)	Total/NA	Water	525.2	
LCS 440-14160/2-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 440-14160/3-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MB 440-14160/1-A	Method Blank	Total/NA	Water	525.2	

Analysis Batch: 14340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5832-1	Outfall 009 (Composite)	Total/NA	Water	525.2	14160
LCS 440-14160/2-A	Lab Control Sample	Total/NA	Water	525.2	14160
LCSD 440-14160/3-A	Lab Control Sample Dup	Total/NA	Water	525.2	14160
MB 440-14160/1-A	Method Blank	Total/NA	Water	525.2	14160

Prep Batch: 14733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5832-1	Outfall 009 (Composite)	Total/NA	Water	625	
LCS 440-14733/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 440-14733/3-A	Lab Control Sample Dup	Total/NA	Water	625	
MB 440-14733/1-A	Method Blank	Total/NA	Water	625	

Analysis Batch: 15425

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5832-1	Outfall 009 (Composite)	Total/NA	Water	625	14733
LCS 440-14733/2-A	Lab Control Sample	Total/NA	Water	625	14733
LCSD 440-14733/3-A	Lab Control Sample Dup	Total/NA	Water	625	14733
MB 440-14733/1-A	Method Blank	Total/NA	Water	625	14733

GC Semi VOA

Prep Batch: 14103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5832-1	Outfall 009 (Composite)	Total/NA	Water	608	
LCS 440-14103/2-A	Lab Control Sample	Total/NA	Water	608	

GC Semi VOA (Continued)

Prep Batch: 14103 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 440-14103/4-A	Lab Control Sample	Total/NA	Water	608	
LCSD 440-14103/3-A	Lab Control Sample Dup	Total/NA	Water	608	
LCSD 440-14103/5-A	Lab Control Sample Dup	Total/NA	Water	608	
MB 440-14103/1-A	Method Blank	Total/NA	Water	608	

Analysis Batch: 14342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5832-1	Outfall 009 (Composite)	Total/NA	Water	608	14103
LCS 440-14103/2-A	Lab Control Sample	Total/NA	Water	608	14103
LCSD 440-14103/3-A	Lab Control Sample Dup	Total/NA	Water	608	14103
MB 440-14103/1-A	Method Blank	Total/NA	Water	608	14103

Analysis Batch: 14346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5832-1	Outfall 009 (Composite)	Total/NA	Water	608	14103
LCS 440-14103/4-A	Lab Control Sample	Total/NA	Water	608	14103
LCSD 440-14103/5-A	Lab Control Sample Dup	Total/NA	Water	608	14103
MB 440-14103/1-A	Method Blank	Total/NA	Water	608	14103

HPLC/IC

Analysis Batch: 13936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5816-3	Outfall 009	Total/NA	Water	218.6	
440-5816-3 MS	Outfall 009	Total/NA	Water	218.6	
440-5816-3 MSD	Outfall 009	Total/NA	Water	218.6	
LCS 440-13936/2	Lab Control Sample	Total/NA	Water	218.6	
MB 440-13936/3	Method Blank	Total/NA	Water	218.6	

Analysis Batch: 14013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5832-1	Outfall 009 (Composite)	Total/NA	Water	314.0	
440-5832-1 MS	Outfall 009 (Composite)	Total/NA	Water	314.0	
440-5832-1 MSD	Outfall 009 (Composite)	Total/NA	Water	314.0	
LCS 440-14013/4	Lab Control Sample	Total/NA	Water	314.0	
MB 440-14013/5	Method Blank	Total/NA	Water	314.0	

Analysis Batch: 14023

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5832-1	Outfall 009 (Composite)	Total/NA	Water	300.0	
440-5832-1 MS	Outfall 009 (Composite)	Total/NA	Water	300.0	
440-5832-1 MSD	Outfall 009 (Composite)	Total/NA	Water	300.0	
LCS 440-14023/2	Lab Control Sample	Total/NA	Water	300.0	
MB 440-14023/3	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 14274

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5832-1	Outfall 009 (Composite)	Total/NA	Water	300.0	
440-5901-G-1 MS	Matrix Spike	Total/NA	Water	300.0	
440-5901-G-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
LCS 440-14274/7	Lab Control Sample	Total/NA	Water	300.0	
MB 440-14274/3	Method Blank	Total/NA	Water	300.0	

Specialty Organics

Analysis Batch: 2086060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5832-1	Outfall 009 (Composite)	Total	Water	1613B	
G2C260000060B	Method Blank	Total	Water	1613B	
G2C260000060C	Lab Control Sample	Total	Water	1613B	

Prep Batch: 2086060_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5832-1	Outfall 009 (Composite)	Total	Water	3542	
G2C260000060B	Method Blank	Total	Water	3542	
G2C260000060C	Lab Control Sample	Total	Water	3542	

Metals

Prep Batch: 14324

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-2797-B-1-H MS	Matrix Spike	Total Recoverable	Water	200.2	
440-2797-B-1-I MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.2	
440-5832-1	Outfall 009 (Composite)	Total Recoverable	Water	200.2	
LCS 440-14324/2-A	Lab Control Sample	Total Recoverable	Water	200.2	
MB 440-14324/1-A	Method Blank	Total Recoverable	Water	200.2	

Prep Batch: 14335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5626-B-2-B MS	Matrix Spike	Total Recoverable	Water	200.2	
440-5626-B-2-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.2	
440-5832-1	Outfall 009 (Composite)	Total Recoverable	Water	200.2	
LCS 440-14335/2-A	Lab Control Sample	Total Recoverable	Water	200.2	
MB 440-14335/1-A	Method Blank	Total Recoverable	Water	200.2	

Prep Batch: 14376

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5828-C-2-C MS	Matrix Spike	Dissolved	Water	245.1	
440-5828-C-2-D MSD	Matrix Spike Duplicate	Dissolved	Water	245.1	
440-5832-1	Outfall 009 (Composite)	Dissolved	Water	245.1	
LCS 440-14095/2-B	Lab Control Sample	Dissolved	Water	245.1	
MB 440-14095/1-B	Method Blank	Dissolved	Water	245.1	

Prep Batch: 14384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5828-B-16-B MS	Matrix Spike	Total/NA	Water	245.1	
440-5828-B-16-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	
440-5832-1	Outfall 009 (Composite)	Total/NA	Water	245.1	
LCS 440-14384/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 440-14384/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 14540

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-2797-B-1-H MS	Matrix Spike	Total Recoverable	Water	200.8	14324
440-2797-B-1-I MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.8	14324
440-5832-1	Outfall 009 (Composite)	Total Recoverable	Water	200.8	14324
LCS 440-14324/2-A	Lab Control Sample	Total Recoverable	Water	200.8	14324
MB 440-14324/1-A	Method Blank	Total Recoverable	Water	200.8	14324

Metals (Continued)

Analysis Batch: 14655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5828-C-2-C MS	Matrix Spike	Dissolved	Water	245.1	14376
440-5828-C-2-D MSD	Matrix Spike Duplicate	Dissolved	Water	245.1	14376
440-5832-1	Outfall 009 (Composite)	Dissolved	Water	245.1	14376
LCS 440-14095/2-B	Lab Control Sample	Dissolved	Water	245.1	14376
MB 440-14095/1-B	Method Blank	Dissolved	Water	245.1	14376

Analysis Batch: 14661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5626-B-2-B MS	Matrix Spike	Total Recoverable	Water	200.7 Rev 4.4	14335
440-5626-B-2-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.7 Rev 4.4	14335
440-5832-1	Outfall 009 (Composite)	Total Recoverable	Water	200.7 Rev 4.4	14335
LCS 440-14335/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	14335
MB 440-14335/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	14335

Analysis Batch: 14706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5828-B-16-B MS	Matrix Spike	Total/NA	Water	245.1	14384
440-5828-B-16-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	14384
440-5832-1	Outfall 009 (Composite)	Total/NA	Water	245.1	14384
LCS 440-14384/2-A	Lab Control Sample	Total/NA	Water	245.1	14384
MB 440-14384/1-A	Method Blank	Total/NA	Water	245.1	14384

Prep Batch: 15170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5832-1	Outfall 009 (Composite)	Dissolved	Water	200.2	
440-5832-1 MS	Outfall 009 (Composite)	Dissolved	Water	200.2	
440-5832-1 MSD	Outfall 009 (Composite)	Dissolved	Water	200.2	
LCS 440-14095/2-D	Lab Control Sample	Dissolved	Water	200.2	
MB 440-14095/1-D	Method Blank	Dissolved	Water	200.2	

Prep Batch: 15171

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5828-D-5-E MS	Matrix Spike	Dissolved	Water	200.2	
440-5828-D-5-F MSD	Matrix Spike Duplicate	Dissolved	Water	200.2	
440-5832-1	Outfall 009 (Composite)	Dissolved	Water	200.2	
LCS 440-14095/2-E	Lab Control Sample	Dissolved	Water	200.2	
MB 440-14095/1-E	Method Blank	Dissolved	Water	200.2	

Analysis Batch: 15412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5832-1	Outfall 009 (Composite)	Dissolved	Water	200.7 Rev 4.4	15170
440-5832-1 MS	Outfall 009 (Composite)	Dissolved	Water	200.7 Rev 4.4	15170
440-5832-1 MSD	Outfall 009 (Composite)	Dissolved	Water	200.7 Rev 4.4	15170
LCS 440-14095/2-D	Lab Control Sample	Dissolved	Water	200.7 Rev 4.4	15170
MB 440-14095/1-D	Method Blank	Dissolved	Water	200.7 Rev 4.4	15170

Analysis Batch: 15439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5828-D-5-E MS	Matrix Spike	Dissolved	Water	200.8	15171
440-5828-D-5-F MSD	Matrix Spike Duplicate	Dissolved	Water	200.8	15171
440-5832-1	Outfall 009 (Composite)	Dissolved	Water	200.8	15171
LCS 440-14095/2-E	Lab Control Sample	Dissolved	Water	200.8	15171

Metals (Continued)

Analysis Batch: 15439 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-14095/1-E	Method Blank	Dissolved	Water	200.8	15171

Analysis Batch: 16403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5626-B-2-B MS	Matrix Spike	Total Recoverable	Water	200.7 Rev 4.4	14335
440-5626-B-2-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.7 Rev 4.4	14335
440-5832-1	Outfall 009 (Composite)	Total Recoverable	Water	200.7 Rev 4.4	14335
LCS 440-14335/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	14335
MB 440-14335/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	14335

General Chemistry

Analysis Batch: 14334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5197-E-2 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
440-5197-E-2 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
440-5832-1	Outfall 009 (Composite)	Total/NA	Water	SM 4500 F C	
LCS 440-14334/9	Lab Control Sample	Total/NA	Water	SM 4500 F C	
MB 440-14334/10	Method Blank	Total/NA	Water	SM 4500 F C	

Analysis Batch: 14783

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5832-1	Outfall 009 (Composite)	Total/NA	Water	SM 2540D	
440-5869-A-1 DU	Duplicate	Total/NA	Water	SM 2540D	
LCS 440-14783/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 440-14783/1	Method Blank	Total/NA	Water	SM 2540D	

Analysis Batch: 15174

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5832-1	Outfall 009 (Composite)	Total/NA	Water	SM 2540C	
440-5899-H-2 DU	Duplicate	Total/NA	Water	SM 2540C	
LCS 440-15174/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 440-15174/1	Method Blank	Total/NA	Water	SM 2540C	

Prep Batch: 15221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5832-1	Outfall 009 (Composite)	Total/NA	Water	Distill/CN	
440-5832-1 MS	Outfall 009 (Composite)	Total/NA	Water	Distill/CN	
440-5832-1 MSD	Outfall 009 (Composite)	Total/NA	Water	Distill/CN	
LCS 440-15221/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
MB 440-15221/1-A	Method Blank	Total/NA	Water	Distill/CN	

Analysis Batch: 15270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5832-1	Outfall 009 (Composite)	Total/NA	Water	SM 4500 CN E	15221
440-5832-1 MS	Outfall 009 (Composite)	Total/NA	Water	SM 4500 CN E	15221
440-5832-1 MSD	Outfall 009 (Composite)	Total/NA	Water	SM 4500 CN E	15221
LCS 440-15221/2-A	Lab Control Sample	Total/NA	Water	SM 4500 CN E	15221
MB 440-15221/1-A	Method Blank	Total/NA	Water	SM 4500 CN E	15221

General Chemistry (Continued)

Prep Batch: 16232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5816-3	Outfall 009	Total/NA	Water	1664A	
LCS 440-16232/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 440-16232/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	
MB 440-16232/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 16301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5816-3	Outfall 009	Total/NA	Water	1664A	16232
LCS 440-16232/2-A	Lab Control Sample	Total/NA	Water	1664A	16232
LCSD 440-16232/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	16232
MB 440-16232/1-A	Method Blank	Total/NA	Water	1664A	16232

Biology

Analysis Batch: 13970

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5816-3	Outfall 009	Total/NA	Water	SM 9221E	

Analysis Batch: 13971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5816-3	Outfall 009	Total/NA	Water	SM 9221F	

Subcontract

Analysis Batch: 8602

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5832-1	Outfall 009 (Composite)	Total/NA	Water	Gamma Spec K-40 CS-137	8602_P
440-5832-1	Outfall 009 (Composite)	Total/NA	Water	Gross Alpha and Beta	8602_P
440-5832-1	Outfall 009 (Composite)	Total/NA	Water	Radium 226	8602_P
440-5832-1	Outfall 009 (Composite)	Total/NA	Water	Radium 228	8602_P
440-5832-1	Outfall 009 (Composite)	Total/NA	Water	Strontium 90	8602_P
440-5832-1	Outfall 009 (Composite)	Total/NA	Water	Tritium	8602_P
440-5832-1	Outfall 009 (Composite)	Total/NA	Water	Uranium, Combined	8602_P
440-5832-3	Trip Blank	Total/NA	Water	Gamma Spec K-40 CS-137	8602_P
440-5832-3	Trip Blank	Total/NA	Water	Gross Alpha and Beta	8602_P
440-5832-3	Trip Blank	Total/NA	Water	Radium 226	8602_P
440-5832-3	Trip Blank	Total/NA	Water	Radium 228	8602_P
440-5832-3	Trip Blank	Total/NA	Water	Strontium 90	8602_P
440-5832-3	Trip Blank	Total/NA	Water	Uranium, Combined	8602_P
S203068-03	Lab Control Sample	Total/NA	WATER	Gross Alpha and Beta	8602_P
S203068-04	Method Blank	Total/NA	WATER	Gross Alpha and Beta	8602_P
S203068-05	OUTFALL 009 COMPOSITE DU	Total/NA	WATER	Gross Alpha and Beta	8602_P

Subcontract (Continued)

Analysis Batch: 149949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5832-1	Outfall 009 (Composite)	Total/NA	Water	Asbestos	149949_P
BLANK	BLANK	Total/NA	WATER	Asbestos	149949_P

Prep Batch: 8602_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5832-1	Outfall 009 (Composite)	Total/NA	Water	General Prep	
440-5832-3	Trip Blank	Total/NA	Water	General Prep	
S203068-03	Lab Control Sample	Total/NA	WATER	General Prep	
S203068-04	Method Blank	Total/NA	WATER	General Prep	
S203068-05	OUTFALL 009 COMPOSITE DU	Total/NA	WATER	General Prep	

Prep Batch: 149949_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-5832-1	Outfall 009 (Composite)	Total/NA	Water	NA	
BLANK	BLANK	Total/NA	WATER	NA	

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
LN	MS and/or MSD below acceptance limits. See Blank Spike (LCS)
AY	Matrix Interference suspected

DIOXIN

Qualifier	Qualifier Description
J	Estimated result. Result is less than the reporting limit.
Q	Estimated maximum possible concentration (EMPC).
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Metals

Qualifier	Qualifier Description
J,DX	Estimated value; value < lowest standard (MQL), but >than MDL
MB	Analyte present in the method blank
EY	Result exceeds normal dynamic range; reported as a min. est.
BB	Sample > 4X spike concentration

Subcontract

Qualifier	Qualifier Description
U	The RESULT is less than the MDA (Minimum Detectable Activity). If the MDA is blank, the ERROR is used as the limit.
J	The RESULT is less than the RDL (Required Detection Limit) and no U qualifier is assigned.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: MWH Americas Inc
Project/Site: Boeing SSFL NPDES

TestAmerica Job ID: 440-5816-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Irvine	Arizona	State Program	9	AZ0671
TestAmerica Irvine	California	LA Cty Sanitation Districts	9	10256
TestAmerica Irvine	California	NELAC	9	1108CA
TestAmerica Irvine	California	State Program	9	2706
TestAmerica Irvine	Guam	State Program	9	Cert. No. 12.002r
TestAmerica Irvine	Hawaii	State Program	9	N/A
TestAmerica Irvine	Nevada	State Program	9	CA015312007A
TestAmerica Irvine	New Mexico	State Program	6	N/A
TestAmerica Irvine	Northern Mariana Islands	State Program	9	MP0002
TestAmerica Irvine	Oregon	NELAC	10	4005
TestAmerica Irvine	USDA	Federal		P330-09-00080
TestAmerica West Sacramento	A2LA	DoD ELAP		2928-01
TestAmerica West Sacramento	Alaska (UST)	State Program	10	UST-055
TestAmerica West Sacramento	Arizona	State Program	9	AZ0708
TestAmerica West Sacramento	Arkansas DEQ	State Program	6	88-0691
TestAmerica West Sacramento	California	NELAC	9	1119CA
TestAmerica West Sacramento	California	NELAC Primary AB	9	MP0007
TestAmerica West Sacramento	Colorado	State Program	8	N/A
TestAmerica West Sacramento	Connecticut	State Program	1	PH-0691
TestAmerica West Sacramento	Florida	NELAC	4	E87570
TestAmerica West Sacramento	Georgia	State Program	4	960
TestAmerica West Sacramento	Guam	State Program	9	N/A
TestAmerica West Sacramento	Hawaii	State Program	9	N/A
TestAmerica West Sacramento	Illinois	NELAC	5	200060
TestAmerica West Sacramento	Kansas	NELAC	7	E-10375
TestAmerica West Sacramento	Louisiana	NELAC	6	30612
TestAmerica West Sacramento	Michigan	State Program	5	9947
TestAmerica West Sacramento	Nevada	State Program	9	CA44
TestAmerica West Sacramento	New Jersey	NELAC	2	CA005
TestAmerica West Sacramento	New Mexico	State Program	6	N/A
TestAmerica West Sacramento	New York	NELAC	2	11666
TestAmerica West Sacramento	Northern Mariana Islands	State Program	9	MP0007
TestAmerica West Sacramento	Oregon	NELAC	10	CA200005
TestAmerica West Sacramento	Pennsylvania	NELAC	3	68-01272
TestAmerica West Sacramento	South Carolina	State Program	4	87014
TestAmerica West Sacramento	Texas	NELAC	6	T104704399-08-TX
TestAmerica West Sacramento	US Fish & Wildlife	Federal		LE148388-0
TestAmerica West Sacramento	USDA	Federal		P330-09-00055
TestAmerica West Sacramento	Utah	NELAC	8	QUAN1
TestAmerica West Sacramento	Virginia	State Program	3	178
TestAmerica West Sacramento	Washington	State Program	10	C581
TestAmerica West Sacramento	West Virginia	State Program	3	9930C
TestAmerica West Sacramento	West Virginia DEP	State Program	3	334
TestAmerica West Sacramento	Wisconsin	State Program	5	998204680
TestAmerica West Sacramento	Wyoming	State Program	8	8TMS-Q

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

LABORATORY REPORT

Aquatic Testing Laboratories
"dedicated to providing quality aquatic toxicity testing"
4350 Transport Street, Unit 107
Ventura, CA 93003
(805) 650-0546 FAX (805) 650-0756
CA DOHS ELAP Cert. No.: 1775

Date: March 22, 2012

Client: Test America – Irvine
17461 Derian Ave., Suite 100
Irvine, CA 92614
Attn: Debby Wilson

Laboratory No.: A-12031801-001
Job No.: 440-5816-1
Sample ID.: Outfall 009 (440-5816-3)

Sample Control: The sample was received by ATL in a chilled state, within the recommended hold time and with the chain of custody record attached.

Date Sampled:	03/17/12
Date Received:	03/18/12
Temp. Received:	3.6°C
Chlorine (TRC):	0.0 mg/l
Date Tested:	03/18/12 to 03/22/12

Sample Analysis: The following analyses were performed on your sample:

Fathead Minnow 96hr Percent Survival Bioassay (EPA Method 2000.0).

Attached are the test data generated from the analysis of your sample. All testing was conducted under the direct supervision of Joseph A. LeMay. Daily test readings were taken by Joseph A. LeMay (initialed: JAL) and Jacob LeMay (initialed: J).

Result Summary:

Sample ID.	Results
Outfall 009 (404-5816-3)	100% Survival (TUa = 0.0)

Quality Control: Reviewed and approved by:

Joseph A. LeMay
Laboratory Director

FATHEAD MINNOW PERCENT SURVIVAL TEST
EPA Method 2000.0

Aquatic Testing Laboratories

Lab No.: A-12031801-001
Client/ID: TestAmerica Outfall 009 (440-5816-3)

Start Date: 03/18/2012

TEST SUMMARY

Species: *Pimephales promelas*.
Age: 8 (1-14) days.
Regulations: NPDES.
Test solution volume: 250 ml.
Feeding: prior to renewal at 48 hrs.
Number of replicates: 4.
Control water: Moderately hard reconstituted water.
Photoperiod: 16/8 hrs light/dark.

Source: In-laboratory Culture.
Test type: Static-Renewal.
Test Protocol: EPA-821-R-02-012.
Endpoints: Percent Survival at 96 hrs.
Test chamber: 600 ml beakers.
Temperature: 20 +/- 1°C.
Number of fish per chamber: 10.
QA/QC No.: RT-120301.

TEST DATA

		°C	DO	pH	# Dead				Analyst & Time of Readings
					A	B	C	D	
INITIAL	Control	19.2	8.1	8.2	0	0	0	0	1300
	100%	20.2	10.2	7.1	0	0	0	0	
24 Hr	Control	19.3	8.2	7.9	0	0	0	0	1330
	100%	19.3	8.4	7.6	0	0	0	0	
48 Hr	Control	20.0	7.8	8.1	0	0	0	0	1300
	100%	19.7	7.9	7.7	0	0	0	0	
Renewal	Control	19.5	8.0	8.2	0	0	0	0	1300
	100%	20.1	9.5	7.2	0	0	0	0	
72 Hr	Control	19.2	7.8	8.0	0	0	0	0	1300
	100%	19.2	7.6	7.8	0	0	0	0	
96 Hr	Control	19.5	7.9	7.9	0	0	0	0	1230
	100%	19.5	8.0	7.5	0	0	0	0	

Comments:
Sample as received: Chlorine: 0.0 mg/l; pH: 7.1 ; Conductivity: 49 umho; Temp: 3.6°C;
DO: 10.2 mg/l; Alkalinity: 9 mg/l; Hardness: 35 mg/l; NH_3-N: 0.3 mg/l.
Sample aerated moderately (approx. 500 ml/min) to raise or lower DO? Yes / (No)
Control: Alkalinity: 24 mg/l; Hardness: 94 mg/l; Conductivity: 208 umho.
Test solution aerated (not to exceed 100 bubbles/min) to maintain DO >4.0 mg/l? Yes / (No)
Sample used for renewal is the original sample kept at 0-6°C with minimal headspace.
Dissolved Oxygen (DO) readings in mg/l O_2.

RESULTS

Percent Survival In: Control: 100 % 100% Sample: 100 %

TestAmerica Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

4/24/2012

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Wilson, Debby	Carrier Tracking No(s):	COC No: 440-2693.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: debby.wilson@testamericainc.com		Page: Page 1 of 1
Company: Aquatic Testing Laboratories		Analysis Requested		Job #: 440-5816-1
Address: 4350 Transport #107, ,	Due Date Requested: 4/2/2012			Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
City: Ventura	TAT Requested (days):			
State, Zip: CA, 93003				
Phone:	PO #:			
Email:	WO #:			
Project Name: Boeing SSFL outfalls	Project #: 44002624			
Site: Boeing SSFL	SSOW#:			Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	SUBCONTRACT/ Acute FH minnow, EPA/821-R02-012	Total Number of containers	Special Instructions/Note:
			Preservation Code:					
Outfall 009 (440-5816-3)	3/17/12	10:00 Pacific		Water		X	1	

Possible Hazard Identification *Unconfirmed*	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)* ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by:	Date/Time: 3-18-12 845	Company TAI	Received by:		Date/Time: 3-18-12 845	Company TAI	
Relinquished by:	Date/Time: 3-18-12 1210	Company TAI	Received by:	ATC	Date/Time: 3-18-12 12:10	Company ATC	
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.6°

Aquatic Testing Laboratories

REFERENCE TOXICANT DATA

FATHEAD MINNOW ACUTE
Reference Toxicant - SDS

Aquatic Testing Laboratories

QA/QC Batch No.: RT-120301

TEST SUMMARY

Species: *Pimephales promelas.*
Age: 12 days old.
Regulations: NPDES.
Test chamber volume: 250 ml.
Feeding: Prior to renewal at 48 hrs.
Temperature: 20 +/- 1°C.
Number of replicates: 2.
Dilution water: MHSF.

Source: In-lab culture.
Test type: Static-Renewal.
Test Protocol: EPA-821-R-02-012.
Endpoints: LC50 at 96 hrs.
Test chamber: 600 ml beakers.
Aeration: None.
Number of organisms per chamber: 10.
Photoperiod: 16/8 hrs light/dark.

TEST DATA

	INITIAL			24 Hr					48 Hr				
Date/Time:	3-1-12 1070			3-2-12 1030					3-3-12 1030				
Analyst:													
	°C	DO	pH	°C	DO	pH	# Dead A	# Dead B	°C	DO	pH	# Dead A	# Dead B
Control	19.7	8.7	8.2	19.7	8.3	7.8	0	0	19.2	8.1	7.9	0	0
1.0 mg/l	19.7	8.9	8.0	19.2	8.3	7.7	0	0	19.2	8.3	7.9	0	0
2.0 mg/l	19.6	8.9	8.0	19.3	8.4	7.7	0	0	19.1	8.1	7.9	0	0
4.0 mg/l	19.6	9.0	8.0	19.4	8.1	7.6	0	0	19.2	8.4	7.9	0	0
8.0 mg/l	19.6	9.1	8.1	19.2	8.3	7.7	10	10	-	-	-	-	-
16.0 mg/l	19.6	9.2	8.1	19.3	8.1	7.5	10	10	-	-	-	-	-

	RENEWAL			72 Hr					96 Hr				
Date/Time:	3-3-12 1100			3-4-12 1100					3-5-12 1045				
Analyst:													
	°C	DO	pH	°C	DO	pH	# Dead A	# Dead B	°C	DO	pH	# Dead A	# Dead B
Control	19.8	8.0	8.1	19.7	7.4	7.9	0	0	19.3	7.5	7.9	0	0
1.0 mg/l	19.3	8.2	8.1	19.6	7.4	7.8	0	0	19.3	7.6	7.9	0	0
2.0 mg/l	19.2	8.4	8.0	19.6	7.6	7.8	0	0	19.3	7.8	7.9	0	0
4.0 mg/l	19.3	8.4	7.9	19.6	7.8	7.8	0	0	19.4	7.7	7.9	0	1
8.0 mg/l	-	-	-	-	-	-	-	-	-	-	-	-	-
16.0 mg/l	-	-	-	-	-	-	-	-	-	-	-	-	-

Comments: Control: Alkalinity: 68 mg/l; Hardness: 92 mg/l; Conductivity: 312 umho.
SDS: Alkalinity: 68 mg/l; Hardness: 93 mg/l; Conductivity: 317 umho.

Concentration-response relationship acceptable? (see attached computer analysis):
(Yes (response curve normal)
No (dose interrupted indicated or non-normal)

Acute Fish Test-96 Hr Survival

Start Date:	3/1/2012 10:30	Test ID:	RT120301f	Sample ID:	REF-Ref Toxicant
End Date:	3/5/2012 10:45	Lab ID:	CAATL-Aquatic Testing Labs	Sample Type:	SDS-Sodium dodecyl sulfate
Sample Date:	3/1/2012 10:30	Protocol:	ACUTE-EPA-821-R-02-012	Test Species:	PP-Pimephales promelas
Comments:					

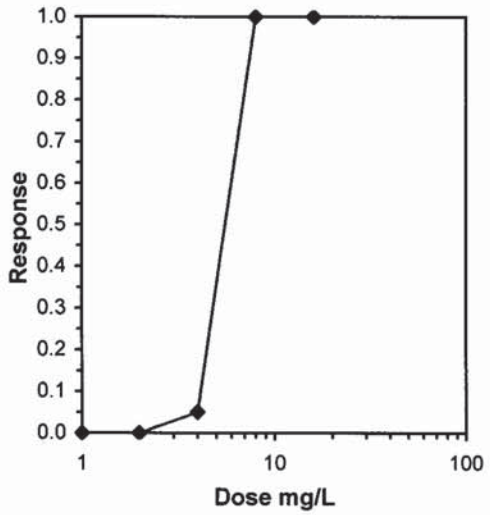
Conc-mg/L	1	2
D-Control	1.0000	1.0000
1	1.0000	1.0000
2	1.0000	1.0000
4	1.0000	0.9000
8	0.0000	0.0000
16	0.0000	0.0000

			Transform: Arcsin Square Root					Number	Total
Conc-mg/L	Mean	N-Mean	Mean	Min	Max	CV%	N	Resp	Number
D-Control	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	0	20
1	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	0	20
2	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	0	20
4	0.9500	0.9500	1.3305	1.2490	1.4120	8.661	2	1	20
8	0.0000	0.0000	0.1588	0.1588	0.1588	0.000	2	20	20
16	0.0000	0.0000	0.1588	0.1588	0.1588	0.000	2	20	20

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Normality of the data set cannot be confirmed				
Equality of variance cannot be confirmed				

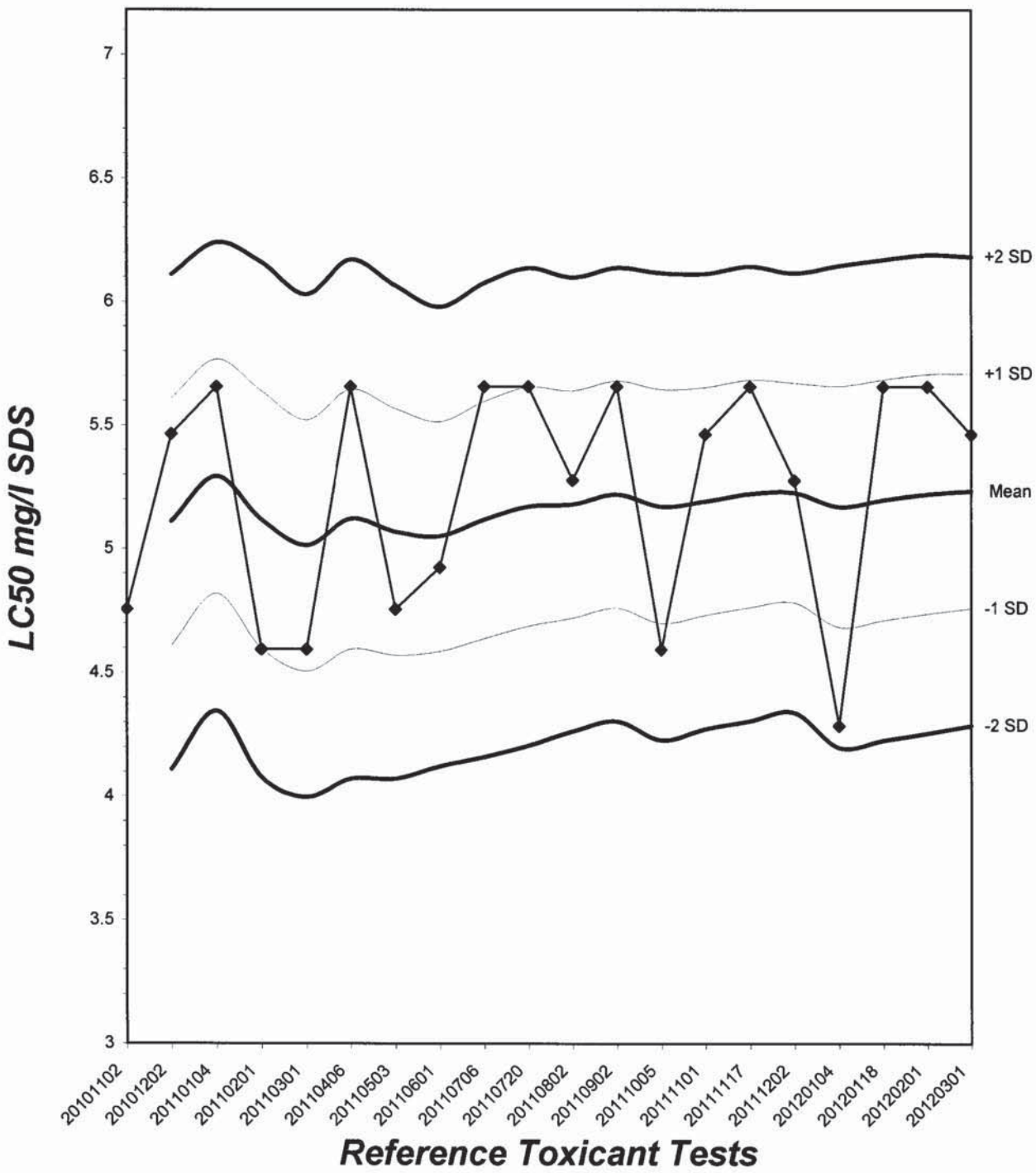
Trimmed Spearman-Karber

Trim Level	EC50	95% CL	
0.0%	5.4642	5.1072	5.8461
5.0%	5.5546	5.3505	5.7664
10.0%	5.5546	5.3505	5.7664
20.0%	5.5546	5.3505	5.7664
Auto-0.0%	5.4642	5.1072	5.8461



Fathead Minnow Acute Laboratory Control Chart

CV% = 9.05



TEST ORGANISM LOG

Aquatic Testing Laboratories

FATHEAD MINNOW - LARVAL
(Pimephales promelas)

QA/QC BATCH NO.: RT120301

SOURCE: In-Lab Culture

DATE HATCHED: 2-18-12

APPROXIMATE QUANTITY: 400

GENERAL APPEARANCE: good

 # MORTALITIES 48 HOURS PRIOR TO TO USE IN TESTING: 0

DATE USED IN LAB: 3/1/12

AVERAGE FISH WEIGHT: 0.006 gm

LOADING LIMITS: 0.65 gm/liter @ 20°C, 0.40 gm/liter @ 25°C

Approximately 1000 fish per 10 liters limit if held overnight for acclimation without filtration @ 20°C for fish with a mean weight of 0.006 gm.

Approximately 650 fish per 10 liters limit if held overnight for acclimation without filtration @ 25°C for fish with a mean weight of 0.006 gm.

200 ml test solution volume = 0.013 gm mean fish weight limit @ 20°C; 0.008 @ 25°C
250 ml test solution volume = 0.016 gm mean fish weight limit @ 20°C; 0.010 @ 25°C

ACCLIMATION WATER QUALITY:

Temp.: 19.7 °C **pH:** 8.2 **Ammonia:** <0.1 mg/l NH_3-N

DO: 8.7 mg/l **Alkalinity:** 68 mg/l **Hardness:** 92 mg/l

READINGS RECORDED BY: [signature] **DATE:** 3-2-12

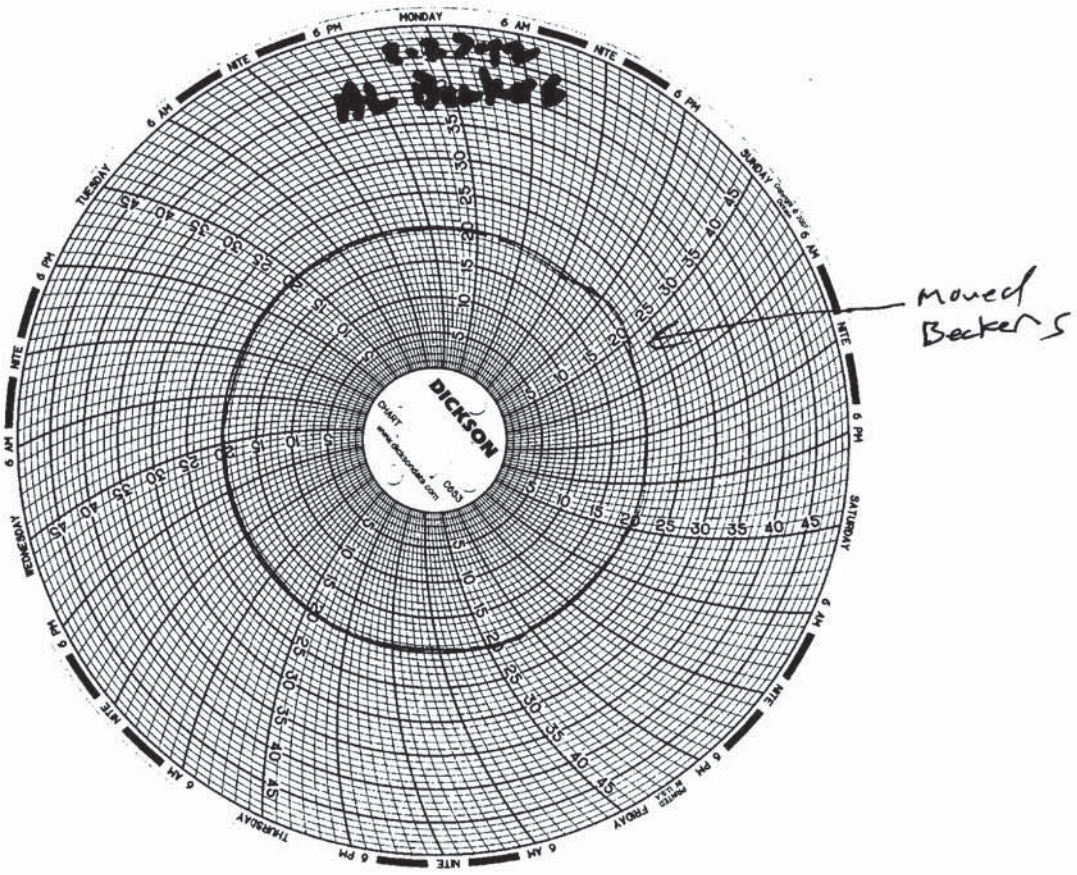
Aquatic Testing Laboratories

Test Temperature Chart

Test No: RT-120301

Date Tested: 03/01/12 to 03/05/06

Acceptable Range: 20+/- 1°C



EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (800) 220-3675/ 786-0262

http://www.emsl.com E-mail: MicrobiologyLab@emsl.com

Client:	TestAmerica Irvine 17461 Derian Avenue Suite 100 Irvine , CA 92614	**EMSL Order ID:**	371204379
		Date Received:	3/20/2012
		Date Analyzed:	3/21/2012
Attn.		**Date Reported:**	3/23/2012
Project:	**Boeing SSFL NPDES/44002624**	**Date Amended:**	

Real-Time PCR Analysis for Human *Bacteroides*

(Based on a published method SAM: 348 - 357, 2010), EMSL Test Code: M199, Revision No. 3, 04/18/2011)

Lab Sample Number	Client Sample ID	Location	Amount Received	Amount Sampled	CEs /100 mL
4379-1	Outfall 009(440-5816-3)		Water 250 ml	Water 250 ml	None Detected

EMSL maintains liability limited to cost of analysis. Interpretation of the data contained in this report is the responsibility of the client. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. The above test report relates only to the items tested. EMSL bears no responsibility for sample collection activities or analytical method limitations.

Note: The PCR primer is HF183 and the qPCR probe and primer was evaluated in 2010 by EPA scientists. The real-time PCR based on HF183 detects human specific total bacteroides predominantly with minor cross-detections on chicken and dog fecal materials. CEs: Cell Equivalents, measured by PCR using genomic DNA standards.

USEPA License No: 0240-02

Quanyi "Charlie" Li, Ph.D.

Director, PCR and DNA Analysis Lab

Page 1 of 1

EBERLINE SERVICES

EBERLINE ANALYTICAL CORPORATION
2030 Wright Avenue
Richmond, California 94804-3849
Phone (510) 235-2633 Fax (510) 235-0438
Toll Free (800) 841-5487
www.eberlineservices.com

April 11, 2012

Ms. Debby Wilson
Test America Irvine
17461 Derian Ave., Ste. 100
Irvine, CA 92614

Reference: Test America-Irvine 44002624
Eberline Analytical Report S203068-8602
Sample Delivery Group 8602

Dear Ms. Wilson:

Enclosed is a Level IV CLP-like data package (on CD) for two water samples received under Test America Project No. 44002624. The samples were received on March 21, 2012.

Please call me, if you have any questions concerning the enclosed report.

Sincerely,

Joseph Verville
Client Services Manager

NJV/mw

Enclosure: Level IV CLP-like Data Package CD

1.0 General Comments

Sample delivery group 8602 consists of the analytical results and supporting documentation for two water samples. Sample ID's and reference dates/times are given in the Sample Summary section of the Summary Data report. The samples were received as stated on the chain-of-custody document. Any discrepancies are noted on the Eberline Analytical Sample Receipt Checklist. No holding times were exceeded.

Tritium and gamma analyses were performed on the samples as received i.e. the samples were not filtered. The analytical volumes for all other analyses were subjected to a full nitric acid/hydrofluoric acid dissolution, and analyses were performed on the dissolution volumes.

2.0 Quality Control

Quality Control Samples consisted of laboratory control samples (LCS), method blanks, and duplicate analyses. Included in the data package are copies of the Eberline Analytical radiometrics data sheets. The radiometrics data sheets for the QC LCS and QC blank samples indicate Eberline Analytical's standard QC aliquot of 1.0 sample; results for those QC types are calculated as pCi/sample. The QC LCS and QC blank sample results reported in the Summary Data Section have been divided by the appropriate method specific aliquot (see the Lab Method Summaries for specific aliquots) in order to make the results comparable to the field sample results. All QC sample results were within required control limits.

3.0 Method Errors

The error for each result is an estimate of the significant random uncertainties incurred in the measurement process. These are propagated to each final result. They include the counting (Poisson) uncertainty, as well as those intrinsic errors due to carrier or tracer standardization, aliquoting, counter efficiencies, weights, or volumes. The following method errors were propagated to the count error to calculate the 2σ error (Total):

Analysis	Method Error
Gross alpha	20.6%
Gross beta	11.0%
Tritium	10.0%
Sr-90	10.4%
Ra-226	16.4%
Ra-228	10.4%
Uranium,Total	
Gamma Spec.	7.0%

4.0 Analysis Notes

4.1 Gross Alpha/Gross Beta Analysis – No problems were encountered during the processing of the samples. All quality control sample results were within required control limits.

4.2 Tritium Analysis – No problems were encountered during the processing of the samples. All quality control sample results were within required control limits.

4.3 Strontium-90 Analysis – No problems were encountered during the processing of the samples. All quality control sample results were within required control limits.

4.4 Radium-226 Analysis – No problems were encountered during the processing of the samples. All quality control sample results were within required control limits.

4.5 Radium-228 Analysis - No problems were encountered during the processing of the samples. All quality control sample results were within required control limits

4.6 Total Uranium Analysis - No problems were encountered during the processing of the samples. All quality control sample results were within required control limits.

4.7 Gamma Spectroscopy – No problems were encountered during the processing of the samples. All quality control sample results were within required control limits.

5.0 Case Narrative Certification Statement

"I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data obtained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature."

4/12/11

Joseph Verville
Client Services Manager

Date

SDG 8602	Client Test America, Inc.
Contact Joseph Verville	Contract 44002624

S U M M A R Y D A T A S E C T I O N

T A B L E O F C O N T E N T S

Prepared by

Reviewed by

Lab id	EAS
Protocol	TA
Version	Ver 1.0
Form	DVD-TOC
Version	3.06
Report date	04/11/12

SDG 8602
Contact Joseph Verville

REPORT GUIDE

Client Test America, Inc.
Contract 44002624

ABOUT THE DATA SUMMARY SECTION

The Data Summary Section of a Data Package has all data, in several useful orders, necessary for first level, routine review of the data package for a Sample Delivery Group (SDG). This section follows the Data Package Narrative, which has an overview of the data package and a discussion of special problems. It is followed by the Raw Data Section, which has full details.

The Data Summary Section has several groups of reports:

SAMPLE SUMMARIES

The Sample and QC Summary Reports show all samples, including QC samples, reported in one SDG. These reports cross-reference client and lab sample identifiers.

PREPARATION BATCH SUMMARY

The Preparation Batch Summary Report shows all preparation batches (lab groupings reflecting how work was organized) relevant to the reported SDG with information necessary to check the completeness and consistency of the SDG.

WORK SUMMARY

The Work Summary Report shows all samples and work done on them relevant to the reported SDG.

METHOD BLANKS

The Method Blank Reports, one for each Method Blank relevant to the SDG, show all results and primary supporting information for the blanks.

LAB CONTROL SAMPLES

The Lab Control Sample Reports, one for each Lab Control Sample relevant to the SDG, show all results, recoveries and primary supporting information for these QC samples.

DUPLICATES

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 04/11/12

SDG 8602
Contact Joseph Verville

GUIDE, cont.

Client Test America, Inc.
Contract 44002624

ABOUT THE DATA SUMMARY SECTION

The Duplicate Reports, one for each Duplicate and Original sample pair relevant to the SDG, show all results, differences and primary supporting information for these QC samples.

MATRIX SPIKES

The Matrix Spike Reports, one for each Spiked and Original sample pair relevant to the SDG, show all results, recoveries and primary supporting information for these QC samples.

DATA SHEETS

The Data Sheet Reports, one for each client sample in the SDG, show all results and primary supporting information for these samples.

METHOD SUMMARIES

The Method Summary Reports, one for each test used in the SDG, show all results, QC and method performance data for one analyte on one or two pages. (A test is a short code for the method used to do certain work to the client's specification.)

REPORT GUIDES

The Report Guides, one for each of the above groups of reports, have documentation on how to read the associated reports.

EBERLINE ANALYTICAL

SDG 8602

LAB SAMPLE SUMMARY

SDG 8602
Contact Joseph Verville

Client Test America, Inc.
Contract 44002624

LAB SAMPLE ID	CLIENT SAMPLE ID	LOCATION	MATRIX	LEVEL	SAS NO	CHAIN OF CUSTODY	COLLECTED
S203068-01	OUTFALL 009 COMPOSITE	BOEING-SSFL	WATER			440-2808.1	03/18/12 08:12
S203068-02	TRIP-BLANK (440-5832-3)	BOEING-SSFL	WATER			440-5832-1	03/19/12 18:03
S203068-03	Lab Control Sample		WATER				
S203068-04	Method Blank		WATER				
S203068-05	Duplicate (S203068-01)	BOEING-SSFL	WATER				03/18/12 08:12

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LS
Version 3.06
Report date 04/11/12

SDG 8602
Contact Joseph Verville

QC SUMMARY

Client Test America, Inc.
Contract 44002624

QC BATCH	CHAIN OF CUSTODY	CLIENT SAMPLE ID	MATRIX	% MOIST	SAMPLE AMOUNT	BASIS AMOUNT	DAYS RECEIVED	SINCE COLL	LAB SAMPLE ID	DEPARTMENT SAMPLE ID
8602	440-2808.1	OUTFALL 009 COMPOSITE	WATER		10.0 L		03/21/12	3	S203068-01	8602-001
	440-5832-1	TRIP-BLANK (440-5832-3)	WATER		10.0 L		03/21/12	2	S203068-02	8602-002
		Method Blank	WATER						S203068-04	8602-004
		Lab Control Sample	WATER						S203068-03	8602-003
		Duplicate (S203068-01)	WATER		10.0 L		03/21/12	3	S203068-05	8602-005

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-QS
Version 3.06
Report date 04/11/12

EBERLINE ANALYTICAL

SDG 8602

PREP BATCH SUMMARY

SDG 8602
Contact Joseph Verville

Client Test America, Inc.
Contract 44002624

TEST	MATRIX	METHOD	PREPARATION BATCH	ERROR 2σ %	PLANCHETS ANALYZED CLIENT	MORE	RE	BLANK	LCS	DUP/ORIG	MS/ORIG	QUALIFIERS
Beta Counting												
AC	WATER	Radium-228 in Water	7271-128	10.4	2			1	1	1/1		
SR	WATER	Strontium-90 in Water	7271-128	10.4	2			1	1	1/1		
Gas Proportional Counting												
80A	WATER	Gross Alpha in Water	7271-128	20.6	2			1	1	1/1		
80B	WATER	Gross Beta in Water	7271-128	11.0	2			1	1	1/1		
Gamma Spectroscopy												
GAM	WATER	Gamma Emitters in Water	7271-128	7.0	2			1	1	1/1		
Kinetic Phosphorimetry												
U_T	WATER	Uranium, Total	7271-128		2			1	1	1/1		
Liquid Scintillation Counting												
H	WATER	Tritium in Water	7271-128	10.0	1			1	1	1/1		
Radon Counting												
RA	WATER	Radium-226 in Water	7271-128	16.4	2			1	1	1/1		

Blank, LCS, Duplicate and Spike planchets are those in the same preparation batch as some Client sample.

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-PBS
Version 3.06
Report date 04/11/12

EBERLINE ANALYTICAL

SDG 8602

SDG 8602
Contact Joseph Verville

LAB WORK SUMMARY

Client Test America, Inc.
Contract 44002624

LAB SAMPLE / COLLECTED / RECEIVED	CLIENT SAMPLE ID / LOCATION / CUSTODY / SAS no	MATRIX	PLANCHET	TEST	SUF-FIX	ANALYZED	REVIEWED	BY	METHOD
S203068-01	OUTFALL 009 COMPOSITE		8602-001	80A/80		04/02/12	04/06/12	MWT	Gross Alpha in Water
03/18/12	BOEING-SSFL	WATER	8602-001	80B/80		04/02/12	04/06/12	MWT	Gross Beta in Water
03/21/12	440-2808.1		8602-001	AC		04/06/12	04/09/12	BW	Radium-228 in Water
			8602-001	GAM		03/27/12	04/03/12	BW	Gamma Emitters in Water
			8602-001	H		03/27/12	03/29/12	BW	Tritium in Water
			8602-001	RA		04/05/12	04/06/12	MWT	Radium-226 in Water
			8602-001	SR		04/06/12	04/10/12	BW	Strontium-90 in Water
			8602-001	U_T		04/02/12	04/02/12	BW	Uranium, Total
S203068-02	TRIP-BLANK (440-5832-3)		8602-002	80A/80		04/02/12	04/06/12	MWT	Gross Alpha in Water
03/19/12	BOEING-SSFL	WATER	8602-002	80B/80		04/02/12	04/06/12	MWT	Gross Beta in Water
03/21/12	440-5832-1		8602-002	AC		04/06/12	04/09/12	BW	Radium-228 in Water
			8602-002	GAM		03/27/12	04/03/12	BW	Gamma Emitters in Water
			8602-002	RA		04/05/12	04/06/12	MWT	Radium-226 in Water
			8602-002	SR		04/06/12	04/10/12	BW	Strontium-90 in Water
			8602-002	U_T		04/02/12	04/02/12	BW	Uranium, Total
S203068-03	Lab Control Sample		8602-003	80A/80		04/02/12	04/06/12	MWT	Gross Alpha in Water
		WATER	8602-003	80B/80		04/02/12	04/06/12	MWT	Gross Beta in Water
			8602-003	AC		04/06/12	04/09/12	BW	Radium-228 in Water
			8602-003	GAM		03/27/12	04/03/12	BW	Gamma Emitters in Water
			8602-003	H		03/27/12	03/29/12	BW	Tritium in Water
			8602-003	RA		04/05/12	04/06/12	MWT	Radium-226 in Water
			8602-003	SR		04/06/12	04/10/12	BW	Strontium-90 in Water
			8602-003	U_T			04/02/12	BW	Uranium, Total
S203068-04	Method Blank		8602-004	80A/80		04/05/12	04/06/12	MWT	Gross Alpha in Water
		WATER	8602-004	80B/80		04/05/12	04/06/12	MWT	Gross Beta in Water
			8602-004	AC		04/06/12	04/09/12	BW	Radium-228 in Water
			8602-004	GAM		04/02/12	04/03/12	BW	Gamma Emitters in Water
			8602-004	H		03/27/12	03/29/12	BW	Tritium in Water
			8602-004	RA		04/05/12	04/06/12	MWT	Radium-226 in Water
			8602-004	SR		04/06/12	04/10/12	BW	Strontium-90 in Water
			8602-004	U_T		04/02/12	04/02/12	BW	Uranium, Total

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LWS
Version 3.06
Report date 04/11/12

SDG 8602
Contact Joseph Verville

WORK SUMMARY, cont.

Client Test America, Inc.
Contract 44002624

LAB SAMPLE / COLLECTED / RECEIVED	CLIENT SAMPLE ID / LOCATION / CUSTODY	SAS no	MATRIX	PLANCHET	TEST	SUF-FIX	ANALYZED	REVIEWED	BY	METHOD
S203068-05	Duplicate (S203068-01)			8602-005	80A/80		04/02/12	04/06/12	MWT	Gross Alpha in Water
03/18/12	BOEING-SSFL		WATER	8602-005	80B/80		04/02/12	04/06/12	MWT	Gross Beta in Water
03/21/12				8602-005	AC		04/06/12	04/09/12	BW	Radium-228 in Water
				8602-005	GAM		03/28/12	04/03/12	BW	Gamma Emitters in Water
				8602-005	H		03/27/12	03/29/12	BW	Tritium in Water
				8602-005	RA		04/05/12	04/06/12	MWT	Radium-226 in Water
				8602-005	SR		04/06/12	04/10/12	BW	Strontium-90 in Water
				8602-005	U_T		04/02/12	04/02/12	BW	Uranium, Total

COUNTS OF TESTS BY SAMPLE TYPE

TEST	SAS no	METHOD	REFERENCE	CLIENT	MORE	RE	BLANK	LCS	DUP SPIKE	TOTAL
80A/80		Gross Alpha in Water	900.0	2			1	1	1	5
80B/80		Gross Beta in Water	900.0	2			1	1	1	5
AC		Radium-228 in Water	904.0	2			1	1	1	5
GAM		Gamma Emitters in Water	901.1	2			1	1	1	5
H		Tritium in Water	906.0	1			1	1	1	4
RA		Radium-226 in Water	903.1	2			1	1	1	5
SR		Strontium-90 in Water	905.0	2			1	1	1	5
U_T		Uranium, Total	D5174	2			1	1	1	5
TOTALS				15			8	8	8	39

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LWS
Version 3.06
Report date 04/11/12

EBERLINE ANALYTICAL

SDG 8602

8602-004 Method Blank

METHOD BLANK

SDG	8602	Client	Test America, Inc.
Contact	Joseph Verville	Contract	44002624
Lab sample id	S203068-04	Client sample id	Method Blank
Dept sample id	8602-004	Material/Matrix	WATER

ANALYTE	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	12587461	-0.295	0.32	0.838	3.00	U	80A
Gross Beta	12587472	0.532	0.80	1.31	4.00	U	80B
Tritium	10028178	-5.81	14	24.5	500	U	H
Radium-226	13982633	0.149	0.27	0.460	1.00	U	RA
Radium-228	15262201	-0.106	0.15	0.393	1.00	U	AC
Strontium-90	10098972	0.159	0.19	0.382	2.00	U	SR
Uranium, Total		0	0.007	0.017	1.00	U	U_T
Potassium-40	13966002	-4.54	19	33.1	25.0	U	GAM
Cesium-137	10045973	0.540	0.78	2.10	20.0	U	GAM

QC-BLANK #81389

Lab id	EAS
Protocol	TA
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	04/11/12

EBERLINE ANALYTICAL

SDG 8602

8602-003 Lab Control Sample

LAB CONTROL SAMPLE

SDG 8602 Client Test America, Inc.

Contact Joseph Verville Contract 44002624

Lab sample id S203068-03 Client sample id Lab Control Sample

Dept sample id 8602-003 Material/Matrix WATER

ANALYTE	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST	ADDED pCi/L	2σ ERR pCi/L	REC %	2σ LMTS (TOTAL)	PROTOCOL LIMITS
Gross Alpha	42.9	2.1	0.589	3.00		80A	37.0	1.5	116	75-125	70-130
Gross Beta	33.5	1.2	0.799	4.00		80B	34.0	1.4	99	88-112	70-130
Tritium	327	23	24.8	500	J	H	367	15	89	88-112	80-120
Radium-226	50.2	2.2	0.794	1.00		RA	50.1	2.0	100	83-117	80-120
Radium-228	5.28	0.28	0.366	1.00		AC	5.33	0.21	99	88-112	60-140
Strontium-90	8.25	0.69	0.354	2.00		SR	8.50	0.34	97	86-114	80-120
Uranium, Total	67.7	7.7	0.172	1.00		U_T	62.5	2.5	108	87-113	80-120
Cobalt-60	128	5.2	4.03	10.0		GAM	131	5.2	98	91-109	80-120
Cesium-137	155	5.1	4.92	20.0		GAM	147	5.9	105	91-109	80-120

QC-LCS #81388

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LCS
Version 3.06
Report date 04/11/12

EBERLINE ANALYTICAL

SDG 8602

8602-005 OUTFALL 009 COMPOSITE

DUPLICATE

SDG 8602 Client Test America, Inc.

Contact Joseph Verville Contract 44002624

DUPLICATE		ORIGINAL	
Lab sample id	S203068-05	Lab sample id	S203068-01
Dept sample id	8602-005	Dept sample id	8602-001
		Received	03/21/12

Client sample id OUTFALL 009 COMPOSITE

Location/Matrix BOEING-SSFL WATER

Collected/Volume 03/18/12 08:12 10.0 L

Chain of custody id 440-2808.1

ANALYTE	DUPLICATE pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST	ORIGINAL pCi/L	2σ ERR (COUNT)	MDA pCi/L	QUALI-FIERS	RPD %	3σ TOT	DER σ
Gross Alpha	1.52	0.39	0.315	3.00	J	80A	1.37	0.36	0.308	J	10	70	0.4
Gross Beta	2.99	0.74	1.08	4.00	J	80B	2.46	0.61	0.885	J	19	58	1.0
Tritium	-74.5	86	151	500	U	H	-34.6	85	146	U	-		0.7
Radium-226	0.267	0.35	0.591	1.00	U	RA	0.214	0.38	0.650	U	-		0.2
Radium-228	0.022	0.16	0.390	1.00	U	AC	-0.055	0.13	0.372	U	-		0.7
Strontium-90	-0.137	0.40	0.966	2.00	U	SR	-0.107	0.37	0.803	U	-		0.1
Uranium, Total	0.109	0.014	0.017	1.00	J	U_T	0.117	0.014	0.017	J	7	26	0.8
Potassium-40	3.79	12	21.8	25.0	U	GAM	-7.99	20	34.7	U	-		1.0
Cesium-137	0.484	0.58	1.87	20.0	U	GAM	-1.39	2.2	3.83	U	-		1.6

QC-DUP#1 81390

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-DUP
Version 3.06
Report date 04/11/12

DUPLICATES
Page 1
SUMMARY DATA SECTION
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EBERLINE ANALYTICAL

SDG 8602

8602-001 OUTFALL 009 COMPOSITE

DATA SHEET

SDG	8602	Client	Test America, Inc.
Contact	Joseph Verville	Contract	44002624
Lab sample id	S203068-01	Client sample id	OUTFALL 009 COMPOSITE
Dept sample id	8602-001	Location/Matrix	BOEING-SSFL WATER
Received	03/21/12	Collected/Volume	03/18/12 08:12 10.0 L
		Chain of custody id	440-2808.1

ANALYTE	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	12587461	1.37	0.36	0.308	3.00	J	80A
Gross Beta	12587472	2.46	0.61	0.885	4.00	J	80B
Tritium	10028178	-34.6	85	146	500	U	H
Radium-226	13982633	0.214	0.38	0.650	1.00	U	RA
Radium-228	15262201	-0.055	0.13	0.372	1.00	U	AC
Strontium-90	10098972	-0.107	0.37	0.803	2.00	U	SR
Uranium, Total		0.117	0.014	0.017	1.00	J	U_T
Potassium-40	13966002	-7.99	20	34.7	25.0	U	GAM
Cesium-137	10045973	-1.39	2.2	3.83	20.0	U	GAM

Lab id	EAS
Protocol	TA
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	04/11/12

DATA SHEETS
Page 1
SUMMARY DATA SECTION
Page 11

EBERLINE ANALYTICAL

SDG 8602

8602-002 TRIP-BLANK (440-5832-3)

DATA SHEET

SDG	8602	Client	Test America, Inc.
Contact	Joseph Verville	Contract	44002624
Lab sample id	S203068-02	Client sample id	TRIP-BLANK (440-5832-3)
Dept sample id	8602-002	Location/Matrix	BOEING-SSFL WATER
Received	03/21/12	Collected/Volume	03/19/12 18:03 10.0 L
		Chain of custody id	440-5832-1

ANALYTE	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	12587461	-0.039	0.13	0.268	3.00	U	80A
Gross Beta	12587472	-0.112	0.55	0.929	4.00	U	80B
Radium-226	13982633	0.040	0.31	0.570	1.00	U	RA
Radium-228	15262201	-0.114	0.18	0.352	1.00	U	AC
Strontium-90	10098972	-0.073	0.40	0.961	2.00	U	SR
Uranium, Total		0	0.007	0.017	1.00	U	U_T
Potassium-40	13966002	-24.7	34	62.9	25.0	U	GAM
Cesium-137	10045973	-0.882	1.3	3.81	20.0	U	GAM

DATA SHEETS
Page 2
SUMMARY DATA SECTION
Page 12

Lab id	EAS
Protocol	TA
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	04/11/12

EBERLINE ANALYTICAL

SDG 8602

LAB METHOD SUMMARY

RADIUM-228 IN WATER

BETA COUNTING

Test AC Matrix WATER
SDG 8602
Contact Joseph Verville

Client Test America, Inc.
Contract 44002624

RESULTS

LAB SAMPLE ID	RAW TEST	SUF- FIX	PLANCHET	CLIENT SAMPLE ID	Radium-228	
Preparation batch 7271-128						
S203068-01			8602-001	OUTFALL 009 COMPOSITE	U	
S203068-02			8602-002	TRIP-BLANK (440-5832-3)	U	
S203068-03			8602-003	Lab Control Sample	ok	
S203068-04			8602-004	Method Blank	U	
S203068-05			8602-005	Duplicate (S203068-01)	-	U
Nominal values and limits from method				RDLs (pCi/L)	1.00	

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF- FIX	CLIENT SAMPLE ID	MDA pCi/L	ALIQ L	PREP FAC	DILU- TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL- YZED	DETECTOR
Preparation batch 7271-128			2σ prep error 10.4 %	Reference Lab Notebook No. 7271 pg.012												
S203068-01			OUTFALL 009 COMPOSITE	0.372	1.80			79		150			19	04/06/12	04/06	GRB-221
S203068-02			TRIP-BLANK (440-5832-3)	0.352	1.80			81		150			18	04/06/12	04/06	GRB-222
S203068-03			Lab Control Sample	0.366	1.80			77		150				04/06/12	04/06	GRB-223
S203068-04			Method Blank	0.393	1.80			81		150				04/06/12	04/06	GRB-224
S203068-05			Duplicate (S203068-01)	0.390	1.80			80		150			19	04/06/12	04/06	GRB-229
Nominal values and limits from method				1.00	1.80			30-105		50			180			

PROCEDURES REFERENCE 904.0
DWP-894 Sequential Separation of Actinium-228 and Radium-226 in Drinking Water (>1 Liter Aliquot), rev 5

AVERAGES ± 2 SD FOR 5 SAMPLES
MDA 0.375 ± 0.034
YIELD 80 ± 3

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/11/12

EBERLINE ANALYTICAL

SDG 8602

LAB METHOD SUMMARY

STRONTIUM-90 IN WATER

BETA COUNTING

Test SR Matrix WATER
SDG 8602
Contact Joseph Verville

Client Test America, Inc.
Contract 44002624

RESULTS

LAB SAMPLE ID	RAW TEST	SUF- FIX	PLANCHET	CLIENT SAMPLE ID	Strontium-90	
Preparation batch 7271-128						
S203068-01			8602-001	OUTFALL 009 COMPOSITE	U	
S203068-02			8602-002	TRIP-BLANK (440-5832-3)	U	
S203068-03			8602-003	Lab Control Sample	ok	
S203068-04			8602-004	Method Blank	U	
S203068-05			8602-005	Duplicate (S203068-01)	-	U
Nominal values and limits from method				RDLs (pCi/L)	2.00	

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF- FIX	CLIENT SAMPLE ID	MDA pCi/L	ALIQ L	PREP FAC	DILU- TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL- YZED	DETECTOR
Preparation batch 7271-128			2σ prep error 10.4 %	Reference Lab Notebook No. 7271 pg.012												
S203068-01			OUTFALL 009 COMPOSITE	0.803	0.500			92	68				19	04/06/12	04/06	GRB-207
S203068-02			TRIP-BLANK (440-5832-3)	0.961	0.500			78	50				18	04/06/12	04/06	GRB-221
S203068-03			Lab Control Sample	0.354	1.00			85	50					04/06/12	04/06	GRB-225
S203068-04			Method Blank	0.382	1.00			97	50					04/06/12	04/06	GRB-223
S203068-05			Duplicate (S203068-01)	0.966	0.500			84	50				19	04/06/12	04/06	GRB-224
Nominal values and limits from method				2.00	1.00			30-105	50				180			

PROCEDURES REFERENCE 905.0
CP-380 Strontium in Water Samples, rev 5

AVERAGES ± 2 SD FOR 5 SAMPLES
MDA 0.693 ± 0.608
YIELD 87 ± 15

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/11/12

EBERLINE ANALYTICAL

SDG 8602

Test 80A Matrix WATER
SDG 8602
Contact Joseph Verville

LAB METHOD SUMMARY

GROSS ALPHA IN WATER
GAS PROPORTIONAL COUNTING

Client Test America, Inc.
Contract 44002624

RESULTS

LAB SAMPLE ID	RAW TEST	SUF- FIX	PLANCHET	CLIENT SAMPLE ID	Gross Alpha	
Preparation batch 7271-128						
S203068-01	80		8602-001	OUTFALL 009 COMPOSITE	1.37	J
S203068-02	80		8602-002	TRIP-BLANK (440-5832-3)	U	
S203068-03	80		8602-003	Lab Control Sample	ok	
S203068-04	80		8602-004	Method Blank	U	
S203068-05	80		8602-005	Duplicate (S203068-01)	ok	J
Nominal values and limits from method				RDLs (pCi/L)	3.00	

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF- FIX	CLIENT SAMPLE ID	MDA pCi/L	ALIQ L	PREP FAC	DILU- TION	RESID mg	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL- YZED	DETECTOR
Preparation batch 7271-128			2σ prep error 20.6 %	Reference Lab Notebook No. 7271 pg.012												
S203068-01	80		OUTFALL 009 COMPOSITE	0.308	0.300			13		400			15	03/29/12	04/02	GRB-101
S203068-02	80		TRIP-BLANK (440-5832-3)	0.268	0.300			0		400			14	03/29/12	04/02	GRB-103
S203068-03	80		Lab Control Sample	0.589	0.300			61		400				03/29/12	04/02	GRB-104
S203068-04	80		Method Blank	0.838	0.300			62		200				03/29/12	04/05	GRB-101
S203068-05	80		Duplicate (S203068-01)	0.315	0.300			14		400			15	03/29/12	04/02	GRB-107
Nominal values and limits from method				3.00	0.300			0-250		100			180			

PROCEDURES REFERENCE 900.0
DWP-121 Gross Alpha and Gross Beta in Drinking Water, rev 10

AVERAGES ± 2 SD FOR 5 SAMPLES
MDA 0.464 ± 0.490
RESIDUE 30 ± 59

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/11/12

EBERLINE ANALYTICAL

SDG 8602

Test 80B Matrix WATER
SDG 8602
Contact Joseph Verville

LAB METHOD SUMMARY

GROSS BETA IN WATER
GAS PROPORTIONAL COUNTING

Client Test America, Inc.
Contract 44002624

RESULTS

LAB SAMPLE ID	RAW TEST	SUF- FIX	PLANCHET	CLIENT SAMPLE ID	Gross Beta	
Preparation batch 7271-128						
S203068-01	80		8602-001	OUTFALL 009 COMPOSITE	2.46	J
S203068-02	80		8602-002	TRIP-BLANK (440-5832-3)	U	
S203068-03	80		8602-003	Lab Control Sample	ok	
S203068-04	80		8602-004	Method Blank	U	
S203068-05	80		8602-005	Duplicate (S203068-01)	ok	J
Nominal values and limits from method				RDLs (pCi/L)	4.00	

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF- FIX	CLIENT SAMPLE ID	MDA pCi/L	ALIQ L	PREP FAC	DILU- TION	RESID mg	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL- YZED	DETECTOR
Preparation batch 7271-128			2σ prep error 11.0 %	Reference Lab Notebook No. 7271 pg.012												
S203068-01	80		OUTFALL 009 COMPOSITE	0.885	0.300			13		400			15	03/29/12	04/02	GRB-101
S203068-02	80		TRIP-BLANK (440-5832-3)	0.929	0.300			0		400			14	03/29/12	04/02	GRB-103
S203068-03	80		Lab Control Sample	0.799	0.300			61		400				03/29/12	04/02	GRB-104
S203068-04	80		Method Blank	1.31	0.300			62		200				03/29/12	04/05	GRB-101
S203068-05	80		Duplicate (S203068-01)	1.08	0.300			14		400			15	03/29/12	04/02	GRB-107
Nominal values and limits from method				4.00	0.300			0-250		100			180			

PROCEDURES REFERENCE 900.0
DWP-121 Gross Alpha and Gross Beta in Drinking Water, rev 10

AVERAGES ± 2 SD FOR 5 SAMPLES
MDA 1.00 ± 0.401
RESIDUE 30 ± 59

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/11/12

EBERLINE ANALYTICAL

SDG 8602

Test GAM Matrix WATER
SDG 8602
Contact Joseph Verville

LAB METHOD SUMMARY

GAMMA EMITTERS IN WATER

GAMMA SPECTROSCOPY

Client Test America, Inc.
Contract 44002624

RESULTS

LAB SAMPLE ID	RAW TEST	SUF- FIX	PLANCHET	CLIENT SAMPLE ID	Cobalt-60	Cesium-137	
Preparation batch 7271-128							
S203068-01			8602-001	OUTFALL 009 COMPOSITE		U	
S203068-02			8602-002	TRIP-BLANK (440-5832-3)		U	
S203068-03			8602-003	Lab Control Sample	ok	ok	
S203068-04			8602-004	Method Blank		U	
S203068-05			8602-005	Duplicate (S203068-01)		-	U
Nominal values and limits from method				RDLs (pCi/L)	10.0	20.0	

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF- FIX	CLIENT SAMPLE ID	MDA pCi/L	ALIQ L	PREP FAC	DILU- TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL- YZED	DETECTOR
Preparation batch 7271-128			2σ prep error 7.0 %	Reference Lab Notebook No. 7271 pg.012												
S203068-01			OUTFALL 009 COMPOSITE		2.00					400			9	03/27/12	03/27	MB,G2,0
S203068-02			TRIP-BLANK (440-5832-3)		2.00					400			8	03/27/12	03/27	MB,G5,0
S203068-03			Lab Control Sample		2.00					400				03/27/12	03/27	MB,G8,0
S203068-04			Method Blank		2.00					400				03/27/12	04/02	MB,G1,0
S203068-05			Duplicate (S203068-01)		2.00					400			10	03/27/12	03/28	MB,G8,0
Nominal values and limits from method				6.00	2.00					400			180			

PROCEDURES REFERENCE 901.1
DWP-100 Preparation of Drinking Water Samples for Gamma Spectroscopy, rev 5

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/11/12

EBERLINE ANALYTICAL

SDG 8602

Test U T Matrix WATER
SDG 8602
Contact Joseph Verville

LAB METHOD SUMMARY

URANIUM, TOTAL

KINETIC PHOSPHORIMETRY

Client Test America, Inc.
Contract 44002624

RESULTS

LAB SAMPLE ID	RAW TEST	SUF- FIX	PLANCHET	CLIENT SAMPLE ID	Uranium, Total	
Preparation batch 7271-128						
S203068-01			8602-001	OUTFALL 009 COMPOSITE	0.117	J
S203068-02			8602-002	TRIP-BLANK (440-5832-3)	U	
S203068-03			8602-003	Lab Control Sample	ok	
S203068-04			8602-004	Method Blank	U	
S203068-05			8602-005	Duplicate (S203068-01)	ok	J
Nominal values and limits from method				RDLs (pCi/L)	1.00	

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF- FIX	CLIENT SAMPLE ID	MDA pCi/L	ALIQ L	PREP FAC	DILU- TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL- YZED	DETECTOR
Preparation batch 7271-128			2σ prep error		Reference Lab Notebook No. 7271 pg.012											
S203068-01			OUTFALL 009 COMPOSITE	0.017	0.0200								15	04/02/12	04/02	KPA-001
S203068-02			TRIP-BLANK (440-5832-3)	0.017	0.0200								14	04/02/12	04/02	KPA-001
S203068-03			Lab Control Sample	0.172	0.0200									04/02/12		KPA-001
S203068-04			Method Blank	0.017	0.0200									04/02/12	04/02	KPA-001
S203068-05			Duplicate (S203068-01)	0.017	0.0200								15	04/02/12	04/02	KPA-001
Nominal values and limits from method				1.00	0.0200								180			

PROCEDURES REFERENCE D5174

AVERAGES ± 2 SD FOR 5 SAMPLES
MDA 0.048 ± 0.139
YIELD ±

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/11/12

EBERLINE ANALYTICAL

SDG 8602

Test H Matrix WATER
SDG 8602
Contact Joseph Verville

LAB METHOD SUMMARY

TRITIUM IN WATER

LIQUID SCINTILLATION COUNTING

Client Test America, Inc.
Contract 44002624

RESULTS

LAB SAMPLE ID	RAW TEST	SUF- FIX	PLANCHET	CLIENT SAMPLE ID	Tritium	
Preparation batch 7271-128						
S203068-01			8602-001	OUTFALL 009 COMPOSITE	U	
S203068-03			8602-003	Lab Control Sample	ok	J
S203068-04			8602-004	Method Blank	U	
S203068-05			8602-005	Duplicate (S203068-01)	-	U
Nominal values and limits from method				RDLs (pCi/L)	500	

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF- FIX	CLIENT SAMPLE ID	MDA pCi/L	ALIQ L	PREP FAC	DILU- TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL- YZED	DETECTOR
Preparation batch 7271-128			2σ prep error 10.0 %	Reference Lab Notebook No. 7271 pg.012												
S203068-01			OUTFALL 009 COMPOSITE	146	0.0100			100		150			9	03/27/12	03/27	LSC-007
S203068-03			Lab Control Sample	24.8	0.605			10		150				03/27/12	03/27	LSC-007
S203068-04			Method Blank	24.5	0.605			10		150				03/27/12	03/27	LSC-007
S203068-05			Duplicate (S203068-01)	151	0.0100			100		150			9	03/27/12	03/27	LSC-007
Nominal values and limits from method				500	0.605					100			180			

PROCEDURES REFERENCE 906.0
DWP-212 Tritium in Drinking Water by Distillation, rev 8

AVERAGES ± 2 SD FOR 4 SAMPLES
MDA 86.6 ± 143
YIELD 55 ± 104

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/11/12

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SDG 8602

LAB METHOD SUMMARY

RADIUM-226 IN WATER

RADON COUNTING

Test RA Matrix WATER
SDG 8602
Contact Joseph Verville

Client Test America, Inc.
Contract 44002624

RESULTS

LAB SAMPLE ID	RAW TEST	SUF- FIX	PLANCHET	CLIENT SAMPLE ID	Radium-226	
Preparation batch 7271-128						
S203068-01			8602-001	OUTFALL 009 COMPOSITE	U	
S203068-02			8602-002	TRIP-BLANK (440-5832-3)	U	
S203068-03			8602-003	Lab Control Sample	ok	
S203068-04			8602-004	Method Blank	U	
S203068-05			8602-005	Duplicate (S203068-01)	-	U
Nominal values and limits from method				RDLs (pCi/L)	1.00	

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF- FIX	CLIENT SAMPLE ID	MDA pCi/L	ALIQ L	PREP FAC	DILU- TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL- YZED	DETECTOR
Preparation batch 7271-128			2σ prep error 16.4 %	Reference Lab Notebook No. 7271 pg.012												
S203068-01			OUTFALL 009 COMPOSITE	0.650	0.100			100		124			18	04/05/12	04/05	RN-011
S203068-02			TRIP-BLANK (440-5832-3)	0.570	0.100			100		124			17	04/05/12	04/05	RN-010
S203068-03			Lab Control Sample	0.794	0.100			100		124				04/05/12	04/05	RN-009
S203068-04			Method Blank	0.460	0.100			100		124				04/05/12	04/05	RN-013
S203068-05			Duplicate (S203068-01)	0.591	0.100			100		124			18	04/05/12	04/05	RN-016
Nominal values and limits from method				1.00	0.100					100			180			

PROCEDURES REFERENCE 903.1
DWP-881A Ra-226 Screening in Drinking Water, rev 6

AVERAGES ± 2 SD FOR 5 SAMPLES
MDA 0.613 ± 0.245
YIELD 100 ± 0

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/11/12

SDG 8602
Contact Joseph Verville

REPORT GUIDE

Client Test America, Inc.
Contract 44002624

SAMPLE SUMMARY

The Sample and QC Summary Reports show all samples, including QC samples, reported in one Sample Delivery Group (SDG).

The Sample Summary Report fully identifies client samples and gives the corresponding lab sample identification. The QC Summary Report shows at the sample level how the lab organized the samples into batches and generated QC samples. The Preparation Batch and Method Summary Reports show this at the analysis level.

The following notes apply to these reports:

* LAB SAMPLE ID is the lab's primary identification for a sample.

* DEPARTMENT SAMPLE ID is an alternate lab id, for example one assigned by a radiochemistry department in a lab.

* CLIENT SAMPLE ID is the client's primary identification for a sample. It includes any sample preparation done by the client that is necessary to identify the sample.

* QC BATCH is a lab assigned code that groups samples to be processed and QCed together. These samples should have similar matrices.

  QC BATCH is not necessarily the same as SDG, which reflects samples received and reported together.

* All Lab Control Samples, Method Blanks, Duplicates and Matrix Spikes are shown that QC any of the samples. Due to possible reanalyses, not all results for all these QC samples may be relevant to the SDG. The Lab Control Sample, Method Blank, Duplicate, Matrix Spike and Method Summary Reports detail these relationships.

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REPORT GUIDE

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PREPARATION BATCH SUMMARY

The Preparation Batch Summary Report shows all preparation batches in one Sample Delivery Group (SDG) with information necessary to check the completeness and consistency of the SDG.

The following notes apply to this report:

* The preparation batches are shown in the same order as the Method Summary Reports are printed.

* Only analyses of planchets relevant to the SDG are included.

* Each preparation batch should have at least one Method Blank and LCS in it to validate client sample results.

* The QUALIFIERS shown are all qualifiers other than U, J, B, L and H that occur on any analysis in the preparation batch. The Method Summary Report has these qualifiers on a per sample basis.

  These qualifiers should be reviewed as follows:

  X Some data has been manually entered or modified. Transcription errors are possible.

  P One or more results are 'preliminary'. The data is not ready for final reporting.

  2 There were two or more results for one analyte on one planchet imported at one time. The results in DVD may not be the same as on the raw data sheets.

  Other lab defined qualifiers may occur. In general, these should be addressed in the SDG narrative.

SDG 8602
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REPORT GUIDE

Client Test America, Inc.
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WORK SUMMARY

The Work Summary Report shows all samples, including QC samples, and all relevant analyses in one Sample Delivery Group (SDG). This report is often useful as supporting documentation for an invoice.

The following notes apply to this report:

* TEST is a code for the method used to measure associated analytes. Results and related information for each analyte are on the Data Sheet Report. In special cases, a test code used in the summary data section is not the same as in associated raw data. In this case, both codes are shown on the Work Summary.

* SUFFIX is the lab's code to distinguish multiple analyses (recounts, reworks, reanalyses) of a fraction of the sample. The suffix indicates which result is being reported. An empty suffix normally identifies the first attempt to analyze the sample.

* The LAB SAMPLE ID, TEST and SUFFIX uniquely identify all supporting data for a result. The Method Summary Report for each TEST has method performance data, such as yield, for each lab sample id and suffix and procedures used in the method.

* PLANCHET is an alternate lab identifier for work done for one test. It, combined with the TEST and SUFFIX, may be the best link to raw data.

* For QC samples, only analyses that directly QC some regular sample are shown. The Lab Control Sample, Method Blank, Duplicate, Matrix Spike and Method Summary Reports detail these relationships.

* The SAS (Special Analytical Services) Number is a client or lab assigned code that reflects special processing for samples, such as rapid turn around. Counts of tests done are lists by SAS number since it is likely to affect prices.

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REPORT GUIDE

Client Test America, Inc.
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DATA SHEET

The Data Sheet Report shows all results and primary supporting information for one client sample or Method Blank. This report corresponds to both the CLP Inorganics and Organics Data Sheet.

The following notes apply to this report:

* TEST is a code for the method used to measure an analyte. If the TEST is empty, no data is available; the analyte was not analyzed for.

* The LAB SAMPLE ID and TEST uniquely identify work within the Summary Data Section of a Data Package. The Work Summary and Method Summary Reports further identify raw data that underlies this work.

  The Method Summary Report for each TEST has method performance data, such as yield, for each Lab Sample ID and a list of procedures used in the method.

* ERRORs can be labeled TOTAL or COUNT. TOTAL implies a preparation (non-counting method) error has been added, as square root of sum of squares, to the counting error denoted by COUNT. The preparation errors, which may vary by preparation batch, are shown on the Method Summary Report.

* A RESULT can be 'N.R.' (Not Reported). This means the lab did this work but chooses not to report it now, possibly because it was reported at another time.

* When reporting a Method Blank, a RESULT can be 'N.A.' (Not Applicable). This means there is no reported client sample work in the same preparation batch as the Blank's result. This is likely to occur when the Method Blank is associated with reanalyses of selected work for a few samples in the SDG.

The following qualifiers are defined by the DVD system:

U The RESULT is less than the MDA (Minimum Detectable Activity). If the MDA is blank, the ERROR is used as the limit.

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 04/11/12

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DATA SHEET

J The RESULT is less than the RDL (Required Detection Limit) and no U qualifier is assigned.

B A Method Blank associated with this sample had a result without a U flag and, after correcting for possibly different aliquots, that result is greater than or equal to the MDA for this sample.

Normally, B is not assigned if U is. When method blank subtraction is shown on this report, B flags are assigned based on the unsubtracted values while U's are assigned based on the subtracted ones. Both flags can be assigned in this case.

For each sample result, all Method Blank results in the same preparation batch are compared. The Method Summary Report documents this and other QC relationships.

L Some Lab Control Sample that QC's this sample had a low recovery. The lab can disable assignment of this qualifier.

H Similar to 'L' except the recovery was high.

P The RESULT is 'preliminary'.

X Some data necessary to compute the RESULT, ERROR or MDA was manually entered or modified.

2 There were two or more results available for this analyte. The reported result may not be the same as in the raw data.

Other qualifiers are lab defined. Definitions should be in the SDG narrative.

The following values are underlined to indicate possible problems:

* An MDA is underlined if it is bigger than its RDL.

* An ERROR is underlined if the 1.645 sigma counting error is bigger than both the MDA and the RESULT, implying that the MDA

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DATA SHEET

may not be a good estimate of the 'real' minimum detectable activity.

* A negative RESULT is underlined if it is less than the negative of its 2 sigma counting ERROR.

* When reporting a Method Blank, a RESULT is underlined if greater than its MDA. If the MDA is blank, the 2 sigma counting error is used in the comparison.

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LAB CONTROL SAMPLE

The Lab Control Sample Report shows all results, recoveries and primary supporting information for one Lab Control Sample.

The following notes apply to this report:

* All fields in common with the Data Sheet Report have similar usage. Refer to its Report Guide for details.

* An amount ADDED is the lab's value for the actual amount spiked into this sample with its ERROR an estimate of the error of this amount.

  An amount added is underlined if its ratio to the corresponding RDL is outside protocol specified limits.

* REC (Recovery) is RESULT divided by ADDED expressed as a percent.

* The first, computed limits for the recovery reflect:

  1. The error of RESULT, including that introduced by rounding the result prior to printing.

     If the limits are labeled (TOTAL), they include preparation error in the result. If labeled (COUNT), they do not.

  2. The error of ADDED.

  3. A lab specified, per analyte bias. The bias changes the center of the computed limits.

* The second limits are protocol defined upper and lower QC limits for the recovery.

* The recovery is underlined if it is outside either of these ranges.

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REPORT GUIDE

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DUPLICATE

The Duplicate Report shows all results, differences and primary supporting information for one Duplicate and associated Original sample.

The following notes apply to this report:

* All fields in common with the Data Sheet Report have similar usage. This applies both to the Duplicate and Original sample data. Refer to the Data Sheet Report Guide for details.

  If the Duplicate has data for a TEST and the lab did not do this test to the Original, the Original's RESULTs are underlined.

* The RPD (Relative Percent Difference) is the absolute value of the difference of the RESULTs divided by their average expressed as a percent.

  If both RESULTs are less than their MDAs, no RPD is computed and a '-' is printed.

  For an analyte, if the lab did work for both samples but has data for only one, the MDA from the sample with data is used as the other's result in the RPD.

* The first, computed limit is the sum, as square root of sum of squares, of the errors of the results divided by the average result as a percent, hence the relative error of the difference rather than the error of the relative difference. The errors include those introduced by rounding the RESULTs prior to printing.

  If this limit is labeled TOT, it includes the preparation error in the RESULTs. If labeled CNT, it does not.

  This value reported for this limit is at most 999.

* The second limit for the RPD is the larger of:

  1. A fixed percentage specified in the protocol.

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GUIDE, cont.

Client Test America, Inc.
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DUPLICATE

2. A protocol factor (typically 2) times the average MDA as a percent of the average result. This limit applies when the results are close to the MDAs.

* The RPD is underlined if it is greater than either limit.

* If specified by the lab, the second limit column is replaced by the Difference Error Ratio (DER), which is the absolute value of the difference of the results divided by the quadratic sum of their one sigma errors, the same errors as used in the first limit.

  Except for differences due to rounding, the DER is the same as the RPD divided by the first RPD limit with the limit scaled to 1 sigma.

* The DER is underlined if it is greater than the sigma factor, typically 2 or 3, shown in the header for the first RPD limit.

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REPORT GUIDE

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Contract 44002624

MATRIX SPIKE

The Matrix Spike Report shows all results, recoveries and primary supporting information for one Matrix Spike and associated Original sample.

The following notes apply to this report:

* All fields in common with the Data Sheet Report have similar usage. This applies both to the Spiked and Original sample data. Refer to the Data Sheet Report Guide for details.

  If the Spike has data for a TEST and the lab did not do this test to the Original, the Original's RESULTs are underlined.

* An amount ADDED is the lab's value for the actual amount spiked into the Spike sample with its ERROR an estimate of the error of this amount.

  An amount is underlined if its ratio to the corresponding RDL is outside protocol specified limits.

* REC (Recovery) is the Spike RESULT minus the Original RESULT divided by ADDED expressed as a percent.

* The first, computed limits for the recovery reflect:

  1. The errors of the two RESULTs, including those introduced by rounding them prior to printing.

     If the limits are labeled (TOTAL), they include preparation error in the result. If labeled (COUNT), they do not.

  2. The error of ADDED.

  3. A lab specified, per analyte bias. The bias changes the center of the computed limits.

* The second limits are protocol defined upper and lower QC limits for the recovery.

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MATRIX SPIKE

These limits are left blank if the Original RESULT is more than a protocol defined factor (typically 4) times ADDED. This is a way of accounting for that when the spike is small compared to the amount in the original sample, the recovery is unreliable.

* The recovery is underlined (out of spec) if it is outside either of these ranges.

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REPORT GUIDE

Client Test America, Inc.
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METHOD SUMMARY

The Method Summary Report has two tables. One shows up to five results measured using one method. The other has performance data for the method. There is one report for each TEST, as used on the Data Sheet Report.

The following notes apply to this report:

* Each table is subdivided into sections, one for each preparation batch. A preparation batch is a group of aliquots prepared at roughly the same time in one work area of the lab using the same method.

  There should be Lab Control Sample and Method Blank results in each preparation batch since this close correspondence makes the QC meaningful. Depending on lab policy, Duplicates need not occur in each batch since they QC sample dependencies such as matrix effects.

* The RAW TEST column shows the test code used in the raw data to identify a particular analysis if it is different than the test code in the header of the report. This occurs in special cases due to method specific details about how the lab labels work.

  The Lab Sample or Planchet ID combined with the (Raw) Test Code and Suffix uniquely identify the raw data for each analysis.

* If a result is less than both its MDA and RDL, it is replaced by just 'U' on this report. If it is greater than or equal to the RDL but less than the MDA, the result is shown with a 'U' flag.

  The J and X flags are as on the data sheet.

* Non-U results for Method Blanks are underlined to indicate possible contamination of other samples in the preparation batch. The Method Blank Report has supporting data.

* Lab Control Sample and Matrix Spike results are shown as: ok, No data, LOW or HIGH, with the last two underlined. 'No data' means no amount ADDED was specified. 'LOW' and 'HIGH'

METHOD SUMMARY

correspond to when the recovery is underlined on the Lab Control Sample or Matrix Spike Report. See these reports for supporting data.

* Duplicate sample results are shown as: ok, No data, or OUT, with the last two underlined. 'No data' means there was no original sample data found for this duplicate. 'OUT' corresponds to when the RPD is underlined on the Duplicate Report. See this report for supporting data.

* If the MDA column is labeled 'MAX MDA', there was more than one result measured by the reported method and the MDA shown is the largest MDA. If not all these results have the same RDL, the MAX MDA reflects only those results with RDL equal to the smallest one.

  MDAs are underlined if greater than the printed RDL.

* Aliquots are underlined if less than the nominal value specified for the method.

* Prepareation factors are underlined if greater than the nominal value specified for the method.

* Dilution factors are underlined if greater than the nominal value specified for the method.

* Residues are underlined if outside the range specified for the method. Residues are not printed if yields are.

* Yields, which may be gravimetric, radiometric or some type of recovery depending on the method, are underlined if outside the range specified for the method.

* Efficiencies are underlined if outside the range specified for the method. Efficiencies are detector and geometry dependent so this test is only approximate.

* Count times are underlined if less than the nominal value

METHOD SUMMARY

specified for the method.

* Resolutions (as FWHM; Full Width at Half Max) are underlined if greater than the method specified limit.

* Tracer drifts are underlined if their absolute values are greater than the method specified limit. Tracer drifts are not printed if percent moistures are.

* Days Held are underlined if greater than the holding time specified in the protocol.

* Analysis dates are underlined if before their planchet's preparation date or, if a limit is specified, too far after it.

For some methods, ratios as percentages and error estimates for them are computed for pairs of results. A ratio column header like '1÷3' means the ratio of the first result column and the third result column.

Ratios are not computed for Lab Control Sample, Method Blank or Matrix Spike results since their matrices are not necessarily similar to client samples'.

The error estimate for a ratio of results from one planchet reflects only counting errors since other errors should be correlated. For a ratio involving different planchets, if QC limits are computed based on total errors, the error for the ratio allows for the preparation errors for the planchets.

The ratio is underlined (out of spec) if the absolute value of its difference from the nominal value is greater than its error estimate. If no nominal value is specified, this test is not done.

For Gross Alpha or Gross Beta results, there may be a column showing the sum of other Alpha or Beta emitters. This sum includes all relevant results in the DVD database, whether reported or not. Results in the sum are weighted by a particles/decay value specified by the lab for each relevant analyte. Results less than their MDA are not included.

SDG 8602
Contact Joseph Verville

GUIDE, cont.

Client Test America, Inc.
Contract 44002624

METHOD SUMMARY

No sums are computed for Lab Control, Method Blank or Matrix Spike samples since their various planchets may not be physically related.

If a ratio of total isotopic to Gross Alpha or Beta is shown, the error for the ratio reflects both the error in the Gross result and the sum, as square root of sum of squares, of the errors in the isotopic results.

For total elemental uranium or thorium results, there may be a column showing the total weight computed from associated isotopic results. Ignoring results less than their MDAs, this is a weighted sum of the isotopic results. The weights depend on the molecular weight and half-life of each isotope so as to convert activities (decays) to weight (atoms).

If a ratio of total computed to measured elemental uranium or thorium is shown, the error for the ratio reflects the errors in all the measurements.

TestAmerica Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

Chain of Custody Record

5203068
8602

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Wilson, Debby	Carrier Tracking No(s):	COC No: 440-2808.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: debby.wilson@testamericainc.com		Page: Page 1 of 1
Company: Eberline Services				Job #: 440-5832-1
Address: 2030 Wright Avenue, ,	Due Date Requested: 4/2/2012			
City: Richmond	TAT Requested (days):			
State, Zip: CA, 94804				
Phone:	PO #:			
Email:	WO #:			
Project Name: Annual Outfalls 009	Project #: 44002624			
Site: Boeing SSFL	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUBCONTRACT/ Gross Alpha	SUBCONTRACT/ Gross Beta	SUBCONTRACT/ Radium Combined	SUBCONTRACT/ Strontium 90	SUBCONTRACT/ Tritium	SUBCONTRACT/ Uranium, Combined	SUBCONTRACT/ Gamma Spec K-40 CS-137						Total Number of containers	Special Instructions/Note:
			Preservation Codes:																	
Outfall 009 (Composite) (440-5832-1)	3/18/12	08:12 Pacific		Water			X	X	X	X	X	X	X							
Trip Blank (440-5832-3)	3/19/12	18:03 Pacific		Water			X	X	X	X	X	X	X							

Possible Hazard Identification Unconfirmed	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)* ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Sub Bandi	3/20/12 17:00	TAI	FedEx	3/20/12 17:00	
2	FEDEX				03/21/12 0930	EBERLINE
3						

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: MELTED ICE

EBERLINE SERVICES

RICHMOND, CA LABORATORY

SAMPLE RECEIPT CHECKLIST

Client: TEST AMERICA City IRVINE State CA

Date/Time received 03/21/12 0930 CoC No. 440-2808.1

Container I.D. No. ICE CHEST Requested TAT (Days) - P.O. Received Yes [ ] No [ ]

INSPECTION

1. Custody seals on shipping container intact? Yes [X] No [ ] N/A [ ]
2. Custody seals on shipping container dated & signed? Yes [X] No [ ] N/A [ ]
3. Custody seals on sample containers intact? Yes [ ] No [ ] N/A [X]
4. Custody seals on sample containers dated & signed? Yes [ ] No [ ] N/A [X]
5. Packing material is: Wet [ ] Dry [ ]
6. Number of samples in shipping container: 2 Sample Matrix W
7. Number of containers per sample: ______ (Or see CoC X)
8. Samples are in correct container Yes [X] No [ ]
9. Paperwork agrees with samples? Yes [X] No [ ]
10. Samples have: Tape [ ] Hazard labels [ ] Rad labels [ ] Appropriate sample labels [X]
11. Samples are: In good condition [X] Leaking [ ] Broken Container [ ] Missing [ ]
12. Samples are: Preserved [X] Not preserved [X] pH <2 / N/A Preservative HNO3
13. Describe any anomalies:

14. Was P.M. notified of any anomalies? Yes [ ] No [ ] Date ______
15. Inspected by ______ Date: ______ Time: ______

Customer Sample No.	Beta/Gamma cpm	Ion Chamber mR/hr	Wipe	Customer Sample No.	Beta/Gamma cpm	Ion Chamber mR/hr	wipe
ALL SAMPLES	<80						

Ion Chamber Ser. No. ______ Calibration date ______

Alpha Meter Ser. No. ______ Calibration date ______

Beta/Gamma Meter Ser. No. 00482 Calibration date 06 DEC 11

Form SCP-02, 07-30-07

"over 55 years of quality nuclear services"

DATE:	April 4, 2012
CUSTOMER:	Test America-Irvine 17461 Derian Avenue, Suite 100 Irvine, CA 92614
ATTENTION:	Debby Wilson
REPORT NO:	149949
REFERENCE:	COC# 440-2712.1 JOB# 440-5832-1
SUBJECT:	ANALYSIS OF WATER SAMPLES FOR ASBESTOS BY TEM
ACCREDITATION:	California Dept. of Health Services ELAP 1119

The date and times of collection, UV-Ozone treatment and filtration are as follows:

SAMPLE NO:	Outfall 009 (Composite) (440-5832-1)
DATE COLLECTED:	March 18, 2012 at 0812
RECEIVED:	March 20, 2012 at 1125
UV-Ozone Treatment:	March 20, 2012 1130 1430
FILTERED:	March 20, 2012 at 1447
DATE ANALYZED:	March 22, 2012

In the drinking water document, EPA 600 R 94 134, 100.2, samples are analyzed for fibers >10 um in length. The regulation calls for an MCL (maximum contaminant level) of 7 MFL (million of fibers per liter) and an analytical sensitivity of 0.2 MFL.

The analytical sensitivity of 0.2 MFL was not reached due to the turbidity of the sample.

The results of the analysis and the detection limit(s) are summarized on the following page(s), accompanied by the chain of custody.

Respectfully submitted,
EMS Laboratories, Inc.

B.M. Kolk
Laboratory Director
BMK/am

Note: The results of the analysis are based upon the sample submitted to the laboratory. No representation is made regarding the sampling area other than that implied by the analytical results for the immediate vicinity of the samples analyzed as calculated from the data presented with those samples. All the analytical quality control data meet the requirement of the procedure unless otherwise indicated. Any deviation or exclusion from the test method is noted in this cover letter. Unless otherwise noted in this cover letter the samples were received properly packaged, clearly identified and intact.

ANALYSIS OF WATER FOR ASBESTOS BY TEM (EPA-600 R 94 134) EPA 100.2

LAB.NO. 149949
CLIENT: Test America, Irvine
DATE: 3/22/2012

Laboratory I.D.	Client I.D.	FILTER MEDIA DATA			No. of G.O.	Analyzed Area, mm^2	Sample Volume (mL)
		Type	Diameter mm	Effective Area mm^2			
149949-1	Outfall 009 (Composite)	PC	47	1017	10	0.094	5
	440-5832-1						
3-20-12-BL	EMS Blank	PC	47	1017	20	0.188	500

* FOR FIBERS > 10µm ONLY

INDIVIDUAL ANALYTICAL RESULTS

Laboratory I.D.	Client I.D.	No of Asbestos Fibers	Detection Limit (MF/L)	Concentration MFL Fibers >10 µm
149949-1	Outfall 009 (Composite)	ND	2.2	< 2.2
	440-5832-1			
3-20-12-BL	EMS Blank	ND	0.01	< 0.01

The analysis was carried out to the approved TEM method. This laboratory is in compliance with the quality specified by the method.

B M Kell
Authorized Signature

NA Not Applicable
ND None Detected
PC Polycarbonate Filter
GO Grid Openings
MFL Million Fibers per Liter

Test America Version 7/19/2010

CHAIN OF CUSTODY FORM

Client Name/Address:	Project:
MWH-Arcadia 618 Michillinda Ave, Suite 200 Arcadia, CA 91007 Test America Contact: Debby Wilson	Boeing-SSFL NPDES **Annual Outfall 009** **GRAB** Stormwater at SW-13
Project Manager: Bronwyn Kelly Sampler: RICK BAMACA	Phone Number: (626) 568-6691 Fax Number: (626) 568-6515

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	ANALYSIS REQUIRED: Oil & Grease (1664-HEM)	VOCs 624, Xylenes + PP	VOCs 624 +A+A+2CVE	Cr (VI) (218.6)	Fecal coliform (SM9221)	E. coli (SM9221)	Acute Toxicity	MST - Bacteroides, Human						
Outfall 009	W	1L Amber	2		HCl	1A, 1B	X													
Outfall 009	W	VOAs	3		HCl	2A, 2B, 2C		X												
Outfall 009	W	VOAs	3		None	3A, 3B, 3C			X											
Trip Blanks	W	VOAs	3		HCl	4A, 4B, 4C		X												
Trip Blanks	W	VOAs	3		None	5A, 5B, 5C			X											
Outfall 009	W	500 mL Poly	1		None	6				X										
Outfall 009	W	125 mL Poly	1		Na2S2O3	7					X									
Outfall 009	W	125 mL Poly	1		Na2S2O3	8						X								
Outfall 009	W	1 Gal Cube	1		None	9							X							
OUTFALL009	W	125 mL POLY	1		NONE	10								X						

Field readings:
(Log in and include in report Temp and pH)

Temp °F = 50.0

pH = 6.7

Time of readings =

Comments

These Samples are the Grab Portion of Outfall 009 for this storm event. Composite samples will follow and are to be added to this work order.

Relinquished By	Date/Time:	Received By	Date/Time:
[signature]	3-17-2012 1235	[signature]	1235 3-17-12
[signature]	3-17-12 1440		
		[signature]	03/17/12 14:40

Turn-around time: (Check)

24 Hour: _____ 72 Hour: _____ 10 Day: _____

48 Hour: _____ 5 Day: _____ Normal: X

Sample Integrity: (Check)

Intact: X On Ice: X 2 4c

Data Requirements: (Check)

No Level IV: _____ All Level IV: _____ NPDES Level IV: X

CHAIN OF CUSTODY FORM

440-5832

Client Name/Address:	Project:
MWH-Arcadia 618 Michillinda Ave, Suite 200 Arcadia, CA 91007 Test America Contact: Debby Wilson	Boeing-SSFL NPDES **Annual Outfall 009** **COMPOSITE** Stormwater at WS-13
Project Manager: Bronwyn Kelly Sampler: Rick Banagan	Phone Number: (626) 568-6691 Fax Number: (626) 568-6515

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	Total Recoverable Metals: Sb, Cd, Cu, Pb, Hg, B, V, Tl, Fe, Al, + PP, Hardness as $CaCO_3$	TCDD (and all congeners)	Cl^-, SO_4, NO_3+NO_2-N, F, Perchlorate	TDS, TSS	Pesticides/PCBs , Chlorpyrifos, Diazinon + PP	Gross Alpha(900.0), Gross Beta(900.0), Tritium (H-3) (906.0), Sr-90 (905.0), Total Combined Radium 226 (903.0 or 903.1) & Radium 228 (904.0), Uranium (908.0), K-40, CS-137 (901.0 or 901.1)	SVOCs (625) + PP	Chronic Toxicity	Total Dissolved Metals: Sb, Cd, Cu, Pb, Hg, B, V, Tl, Fe, Al, + PP, Hardness as CaCO3	Asbestos (100.2)	Cyanide				Comments
Outfall 009	W	1L Poly	1	3-18-2012 08:12	HNO_3	10A	X														
Outfall 009 Dup	W	1L Poly	1		HNO_3	10B	X														
Outfall 009	W	1L Amber	2		None	11A, 11B		X													
Outfall 009	W	500 mL Poly	2		None	12A, 12B			X												
Outfall 009	W	500 mL Poly	2		None	13A, 13B				X											
Outfall 009	W	1L Amber	2		None	14A, 14B					X										
Outfall 009	W	2.5 Gal Cube	1		None	15A						X									Unfiltered and unpreserved analysis
		500 mL Amber	1		None	15B															
Outfall 009	W	1L Amber	2		None	16A, 16B							X								
~~Outfall 009~~	~~W~~	~~1 Gal Poly~~	~~1~~		~~None~~	~~17~~															Only test if first or second rain events of the year
Outfall 009	W	1L Poly	1		None	18									X						Filter w/in 24hrs of receipt at lab
Outfall 009	W	1L Poly	1		None	19										X					
Outfall 009	W	500 mL Poly	1	3-18-2012 08:12	NaOH	20											X				

COC Page 2 of 2 list the Composite Samples for Outfall 009 for this storm event.

These must be added to the same work order for COC Page 1 of 2 for Outfall 009 for the same event.

Relinquished By	Date/Time:	Received By	Date/Time:
	3-18-2012 1110		3-18-12 1110
Relinquished By	Date/Time:	Received By	Date/Time:
	3-18-12 1440		
Relinquished By	Date/Time:	Received By	Date/Time:
			3/18/12 1440

Turn-around time: (Check)
24 Hour: _____ 72 Hour: _____ 10 Day: X
48 Hour: _____ 5 Day: _____ Normal: _____

Sample Integrity: (Check)
Intact: _____ On Ice: _____

Data Requirements: (Check)
No Level IV: _____ All Level IV: _____ NPDES Level IV: X

18 28

Login Sample Receipt Checklist

Client: MWH Americas Inc

Job Number: 440-5816-1

Login Number: 5816
List Number: 1
Creator: Perez, Angel

List Source: TestAmerica Irvine

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	N/A	
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	
Is the Field Sampler's name present on COC?	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	
Sample Preservation Verified.	N/A	
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.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: MWH Americas Inc

Job Number: 440-5816-1

Login Number: 5832

List Number: 1

Creator: Robb, Kathleen

List Source: TestAmerica Irvine

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	N/A	
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	
Is the Field Sampler's name present on COC?	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	
Sample Preservation Verified.	N/A	
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	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX G

Section 5

Outfall 009 – March 25, 2012

MEC^X Data Validation Report

DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: 440-6513-1

Prepared by

MEC^X, LP
12269 East Vassar Drive
Aurora, CO 80014

I. INTRODUCTION

Task Order Title:	Boeing SSFL NPDES
Contract Task Order:	1261.100D.00
Sample Delivery Group:	440-6513-1
Project Manager:	B. Kelly
Matrix:	Water
QC Level:	IV
No. of Samples:	2
No. of Reanalyses/Dilutions:	0
Laboratory:	TestAmerica-Irvine

Table 1. Sample Identification

Client ID	Laboratory ID	Sub-Laboratory ID	Matrix	Collected	Method
Outfall 009 Composite	440-6603-1	G2C280471-001, S203085-01	Water	3/25/2012 5:48:00 PM	1613B, 200.8. 900. 901.1, 903.1, 904, 905, 906, 245.1, ASTM D5174

II. Sample Management

No anomalies were observed regarding sample management. The samples in this SDG were received at the laboratory within the temperature limits of 4°C ±2°C. The temperature upon receipt was not noted by Eberline; however, due to the nonvolatile nature of the analytes, no qualifications were required. According to the case narrative for this SDG, the samples were received intact, on ice, and properly preserved, if applicable. The COCs were appropriately signed and dated by field and/or laboratory personnel. As the sample was couriered to TestAmerica-Irvine, custody seals were not necessary. Custody seals were not present on the cooler upon arrival at Eberline. Custody seals were not present on the cooler upon arrival at TestAmerica-West Sacramento. If necessary, the client ID was added to the sample result summary by the reviewer.

Data Qualifier Reference Table

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins or PCB congeners.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The associated value is an estimated quantity.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.

Qualification Code Reference Table

Qualifier	Organics	Inorganics
H	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect
C	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
B	Presumed contamination as indicated by the preparation (method) blank results.	Presumed contamination as indicated by the preparation (method) or calibration blank results.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
E	Not applicable.	Duplicates showed poor agreement.
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
A	Not applicable.	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
T	Presumed contamination as indicated by the trip blank results.	Not applicable.
+	False positive – reported compound was not present.	Not applicable.
-	False negative – compound was present but not reported.	Not applicable.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.

Qualification Code Reference Table Cont.

D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
DNQ	The reported result is above the method detection limit but is less than the reporting limit.	The reported result is above the method detection limit but is less than the reporting limit.
*II, *III	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.

III. Method Analyses

A. EPA METHOD 1613—Dioxin/Furans

Reviewed By: L. Calvin
Date Reviewed: April 19, 2012

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Dioxins and Furans (DVP-19, Rev. 0), USEPA Method 1613*, and the *National Functional Guidelines Chlorinated Dioxin/Furan Data Review* (8/02).

- Holding Times: Extraction and analytical holding times were met. The water sample was extracted and analyzed within one year of collection.

- Instrument Performance: Instrument performance criteria were met. Following are findings associated with instrument performance.

    - GC Column Performance: A Windows Defining Mix (WDM) containing the first and last eluting congeners of each descriptor and isomer specificity compounds was analyzed prior to the initial calibration sequence and at the beginning of each analytical sequence. The GC column performance in the calibrations was acceptable, with the height of the valley between the closely eluting isomers and 2,3,7,8-TCDD reported as less than 25%.

    - Mass Spectrometer Performance: The mass spectrometer performance was acceptable with the static resolving power greater than 10,000.

- Calibration: Calibration criteria were met.

    - Initial Calibration: Initial calibration criteria were met. The initial calibration was acceptable with %RSDs $\leq$20% for the 15 native compounds (calibration by isotope dilution) and $\leq$35% for the two native and all labeled compounds (calibration by internal standard). The relative retention times and ion abundance ratios were within the Method 1613 QC limits for all standards.

    - Continuing Calibration: Calibration verification (VER) consisted of a mid-level standard (CS3) analyzed at the beginning of each analytical sequence. The VERs were acceptable with the concentrations within the acceptance criteria listed in Table 6 of EPA Method 1613. The ion abundance ratios and relative retention times were within the method QC limits.

- Blanks: The method blank had detects above the EDL for OCDD, 1,2,3,4,6,7,8-HpCDD and total HpCDD, and a reported detect below the EDL for OCDF. OCDD and OCDF were reported as EMPCs in the method blank; however, the reviewer deemed it appropriate to use all method blank results to qualify sample results. The sample result for OCDF below the reporting limit was qualified as nondetected, "U," at the level of

contamination. Remaining method blank detects were insufficient to qualify the sample results.

- Blank Spikes and Laboratory Control Samples: Recoveries were within the acceptance criteria listed in Table 6 of Method 1613.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.

    - Field Duplicates: This SDG had no identified field duplicate samples.

- Internal Standards Performance: The labeled internal standard recoveries for the sample were within the acceptance criteria listed in Table 7 of Method 1613.

- Compound Identification: Compound identification was verified. The laboratory analyzed for polychlorinated dioxins/furans by EPA Method 1613.

- Compound Quantification and Reported Detection Limits: Compound quantitation was verified by recalculating any sample detects and a representative number of blank spike concentrations. The laboratory calculated and reported compound-specific detection limits. Any detects below the laboratory lower calibration level were qualified as estimated, "J." Any detects reported between the estimated detection limit (EDL) and the reporting limit (RL) were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Nondetects are valid to the EDL.

B. EPA METHODS 200.8 and 245.1—Metals and Mercury

Reviewed By: P. Meeks
Date Reviewed: April 18, 2012

The sample listed in Table 1 for these analyses was validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Metals (DVP-5, Rev. 0 and DVP-21, Rev. 0), EPA Methods 200.8* and *245.1*, and the *National Functional Guidelines for Inorganic Data Review* (7/02).

- Holding Times: Analytical holding times, six months for ICP-MS metals and 28 days for mercury, were met.

- Tuning: The mass calibration and resolution checks criteria were met. All tuning solution %RSDs were ≤5%, and all masses of interest were calibrated to ≤ 0.1 amu and ≤0.9 amu at 10% peak height.

- Calibration: Calibration criteria were met. Mercury initial calibration r^2 values were ≥0.995 and all initial and continuing calibration recoveries were within 90-110% for the ICP-MS metals and 85-115% for mercury. CRDL/CRI recoveries were within the control limits of 70-130%.

- Blanks: Method blanks and CCBs had no detects.

- Interference Check Samples: Recoveries were within control limits of 80-120%. Copper and cadmium were detected in the ICSA at concentrations above the reporting limit. The reviewer could not determine if these detections were due to standard contamination.

- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratory-established QC limits.

- Laboratory Duplicates: No laboratory duplicate analyses were performed on the sample in this SDG.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on the total and dissolved 200.8 analytes. Recoveries and RPDs were within laboratory-established QC limits.

- Serial Dilution: No serial dilution analyses were performed.

- Internal Standards Performance: All sample internal standard intensities were within 60-125% of the internal standard intensities measured in the initial calibration.

- Sample Result Verification: Calculations were verified and the sample results reported on the sample result summary were verified against the raw data. No transcription errors or calculation errors were noted. When the sample results were qualified and the reviewer was able to clearly determine bias, detected results were qualified as either “J+” or “J-“; otherwise, bias was not indicated in the qualification. Any detects between the method detection limit and the reporting limit were qualified as estimated, “J,” and coded with “DNQ,” in order to comply with the NPDES permit. Reported nondetects are valid to the MDL.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

- Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.

- Field Duplicates: There were no field duplicate samples identified for this SDG.

C. VARIOUS EPA METHODS — Radionuclides

Reviewed By: P. Meeks
Date Reviewed: April 27, 2012

The samples listed in Table 1 for these analyses were validated based on the guidelines outlined in the *EPA Methods 900.0, 901.1, 903.1, 904.0, 905.0, and 906.0, ASTM Method D-5174,* and the *National Functional Guidelines for Inorganic Data Review* (10/04).

- Holding Times: The tritium sample was analyzed within 180 days of collection. All remaining aliquots were preserved within the five-day holding time.

- Calibration: The laboratory calibration information included the standard certificates and applicable preparation/dilutions logs for NIST-traceability.

  Detector efficiencies were greater than 20%. The tritium aliquot was spiked for efficiency determination; therefore, no calibration was necessary. All chemical yields were at least 40% and were considered acceptable. The gamma spectroscopy analytes were determined at the maximum photopeak energy. The kinetic phosphorescence analyzer (KPA) was calibrated immediately prior to the sample analysis. All KPA calibration check standard recoveries were within 90-110% and were deemed acceptable.

- Blanks: There were no analytes detected in the method blanks or the KPA CCBs.

- Blank Spikes and Laboratory Control Samples: The recoveries were within laboratory-established control limits.

- Laboratory Duplicates: Laboratory duplicate analyses were performed on the sample in this SDG for all analytes. All RPDs were within the laboratory-established control limits.

- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed for the sample in this SDG. Method accuracy was evaluated based on the LCS results.

- Sample Result Verification: An EPA Level IV review was performed for the sample in this data package. The sample results and MDAs reported on the sample result form were verified against the raw data and no calculation or transcription errors were noted. Any detects between the MDA and the reporting limit were qualified as estimated, “J,” and coded with “DNQ,” in order to comply with the NPDES permit. Reported nondetects are valid to the MDA. Total uranium, normally reported in aqueous units, was converted to pCi/L using the conversion factor of 0.67 for naturally occurring uranium.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.

    - Field Duplicates: There were no field duplicate samples identified for this SDG.

Validated Sample Result Forms 440-6513-1

Analysis Method 1613B

Sample Name Outfall 009 Composite **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-6603-1 **Sample Date:** 3/25/2012 5:48:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,3,4,6,7,8-HpCDD	35822-46-9	0.00011	0.000050	0.0000036	ug/L	B		
1,2,3,4,6,7,8-HpCDF	67562-39-4	0.000028	0.000050	0.0000038	ug/L	J	J	DNQ
1,2,3,4,7,8,9-HpCDF	55673-89-7	ND	0.000050	0.0000056	ug/L		U	
1,2,3,4,7,8-HxCDD	39227-28-6	ND	0.000050	0.0000033	ug/L		U	
1,2,3,4,7,8-HxCDF	70648-26-9	ND	0.000050	0.0000046	ug/L		U	
1,2,3,6,7,8-HxCDD	57653-85-7	0.000005	0.000050	0.0000028	ug/L	J	J	DNQ
1,2,3,6,7,8-HxCDF	57117-44-9	ND	0.000050	0.0000042	ug/L		U	
1,2,3,7,8,9-HxCDD	19408-74-3	0.000004	0.000050	0.0000027	ug/L	J	J	DNQ
1,2,3,7,8,9-HxCDF	72918-21-9	ND	0.000050	0.0000061	ug/L		U	
1,2,3,7,8-PeCDD	40321-76-4	ND	0.000050	0.0000067	ug/L		U	
1,2,3,7,8-PeCDF	57117-41-6	ND	0.000050	0.0000070	ug/L		U	
2,3,4,6,7,8-HxCDF	60851-34-5	ND	0.000050	0.0000043	ug/L		U	
2,3,4,7,8-PeCDF	57117-31-4	ND	0.000050	0.0000070	ug/L		U	
2,3,7,8-TCDD	1746-01-6	ND	0.000010	0.0000037	ug/L		U	
2,3,7,8-TCDF	51207-31-9	ND	0.000010	0.0000063	ug/L		U	
OCDD	3268-87-9	0.0012	0.00010	0.000013	ug/L	B		
OCDF	39001-02-0	ND	0.00010	0.0000044	ug/L	J B	U	B
Total HpCDD	37871-00-4	0.00029	0.000050	0.0000036	ug/L	B		
Total HpCDF	38998-75-3	0.000070	0.000050	0.0000046	ug/L	J	J	DNQ
Total HxCDD	34465-46-8	0.000030	0.000050	0.0000029	ug/L	J	J	DNQ
Total HxCDF	55684-94-1	0.000019	0.000050	0.0000047	ug/L	J	J	DNQ
Total PeCDD	36088-22-9	ND	0.000050	0.0000067	ug/L		U	
Total PeCDF	30402-15-4	ND	0.000050	0.0000070	ug/L		U	
Total TCDD	41903-57-5	ND	0.000010	0.0000037	ug/L		U	
Total TCDF	55722-27-5	ND	0.000010	0.0000063	ug/L		U	

Analysis Method 200.8

Sample Name Outfall 009 Composite **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-6603-1 **Sample Date:** 3/25/2012 5:48:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Antimony	7440-36-0	0.51	2.0	0.30	ug/L	J,DX	J	DNQ
Antimony, Dissolved	7440-36-0	0.39	2.0	0.30	ug/L	J,DX	J	DNQ
Cadmium	7440-43-9	0.12	1.0	0.10	ug/L	J,DX	J	DNQ
Cadmium, Dissolved	7440-43-9	ND	1.0	0.10	ug/L		U	
Copper	7440-50-8	5.1	2.0	0.50	ug/L			
Copper, Dissolved	7440-50-8	3.2	2.0	0.50	ug/L			
Lead	7439-92-1	7.2	1.0	0.20	ug/L			
Lead, Dissolved	7439-92-1	0.76	1.0	0.20	ug/L	J,DX	J	DNQ
Thallium	7440-28-0	ND	1.0	0.20	ug/L		U	
Thallium, Dissolved	7440-28-0	ND	1.0	0.20	ug/L		U	

Analysis Method 245.1

Sample Name Outfall 009 Composite **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-6603-1 **Sample Date:** 3/25/2012 5:48:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	7439-97-6	ND	0.20	0.10	ug/L		U	
Mercury, Dissolved	7439-97-6	ND	0.20	0.10	ug/L		U	

Analysis Method Gamma Spec K-40 CS-137

Sample Name Outfall 009 Composite **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-6603-1 **Sample Date:** 3/25/2012 5:48:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Cesium-137	10045973	-0.34	pCi/L	1.7	U	0	U	
Potassium-40	13966002	7.55	pCi/L	16	U	0	U	

Analysis Method Gross Alpha and Beta

Sample Name Outfall 009 Composite **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-6603-1 **Sample Date:** 3/25/2012 5:48:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Gross Alpha	12587461	2.31	pCi/L	0.65	J	0	J	DNQ
Gross Beta	12587472	2.88	pCi/L	0.7	J	0	J	DNQ

Analysis Method Radium 226

Sample Name Outfall 009 Composite **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-6603-1 **Sample Date:** 3/25/2012 5:48:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Radium-226	13982633	0.026	pCi/L	0.27	U	0	U	

Analysis Method Radium 228

Sample Name Outfall 009 Composite **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-6603-1 **Sample Date:** 3/25/2012 5:48:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Radium-228	15262201	0.114	pCi/L	0.15	U	0	U	

Analysis Method Strontium 90

Sample Name Outfall 009 Composite **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-6603-1 **Sample Date:** 3/25/2012 5:48:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Strontium-90	10098972	-0.094	pCi/L	0.43	U	0	U	

Analysis Method Tritium

Sample Name Outfall 009 Composite **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-6603-1 **Sample Date:** 3/25/2012 5:48:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Tritium	10028178	9.52	pCi/L	95	U	0	U	

Analysis Method Uranium, Combined

Sample Name Outfall 009 Composite **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-6603-1 **Sample Date:** 3/25/2012 5:48:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Uranium, Total		0.137	pCi/L	0.016	J	0	J	DNQ