TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica St. Louis
13715 Rider Trail North
Earth City, MO 63045
Tel: (314)298-8566

TestAmerica Job ID: 160-20287-1
TestAmerica Sample Delivery Group: SL2389
Client Project/Site: S17-012 / W17-012 / X17-003
Revision: 1

For:
CH2M Hill Plateau Remediation Company
PO BOX 1600, MS H8-41
Richland, Washington 99352

Attn: Mr. Scot Fitzgerald

Authorized for release by:
1/17/2017 9:43:44 AM

Jayna Awalt, Project Manager II
(314)298-8566
jayna.awalt@testamericainc.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 160-20287-1

Laboratory: TestAmerica St. Louis

Narrative

CASE NARRATIVE
REV. 1 - PCB analysis was added to sample B37MY4 per PND17-0082.

CH2MHill Plateau Remediation Company
P.O. Box 1600
Richland, Washington 99352
December 31, 2016
Attention: Scot Fitzgerald

SDG	: SL2389
Number of Samples	: 2 samples
Sample Matrix	: Water
Data Deliverable	: Summary
Date SDG Closed	: December 6, 2016

II. Introduction

On December 6, 2 samples were received by TestAmerica - St. Louis for chemical analysis. The samples were received within temperature criteria. See the COC and receipt checklists for documentation of any variations on receipt conditions and temperature. Upon receipt, samples were given laboratory Ids to correspond with specific client Ids. Please refer to the Sample Summary sheets attached to this case narrative. This report is incomplete without the narrative.

The following SAFs are associated with this SDG: X17-003, S17-012 and W17-012

III. Analytical Results/ Methodology

The analytical results for this report are presented by analytical test. Each set of data includes sample identification information, analytical results and the appropriate detection limits. All results are based upon samples as they were received, i.e. wet weight, unless otherwise noted on the data sheets. See the attached Methods Summary Form for the methods used in this SDG.

MS/MSD/Dup analysis was done per the client requirements. Analytical batches that did not contain matrix QC were analyzed with an LCS/LCS duplicate.

Note: For Metals analyses, per standard practice, all 6020 water and soil samples are initially prepared at 2x dilution. This standard dilution does not affect reporting limits as MDL studies are also prepared in the same manner. These dilutions do not necessitate flagging unless otherwise noted in the case narrative.

For solid matrices, all Metals analyses (including Hg) use a Standard Reference Material for the Laboratory Control Sample (LCS). Certificate for this source material may be obtained from TASL.

For Anion analysis, samples have been started at a 2x dilution per CHPRC direction. The samples are flagged accordingly with a “D” flag if sample concentration is above the MDL/RL. Non-conformance will be included in the below section only if dilution is greater than 2x.

For WTPH methods, the lab utilizes method 8015B. Per CHPRC direction, the method name in the electronic data has been modified to read WTPH in the place of 8015B.

Per CHPRC direction (June 2014), Boron will be reported for Metals using method 6010. Boron will no longer be reported by method 6020.

Per CHPRC direction, due to the short hold times for Nitrate, Nitrite and Phosphate by IC (48 hours) as well as pH analysis (24 hours), a SIR request is not needed when samples are run outside 1x hold but within 2x hold. A narrative comment will be included below if a sample is run outside the lab-specified hold time for waters.

For extractable and volatile organic analyses, several analytes are considered poor performers and will not meet CHPRC QC limits. Per

Job ID: 160-20287-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

CHPRC direction, the lab's statistical limits have been reported. Excursions outside these statistical limits will include a non-conformance in the sections below.

IV. Definitions

QCBLK-	Quality Control Blank, Method Blank
QCLCS-	Quality Control Laboratory Control Sample, Blank Spike
DUP-	Laboratory Duplicate
MS-	Matrix Spike
MSD-	Matrix Spike Duplicate

The term "Detection Limit" used in the analytical data report refers to either the lab's standard reporting limits or contractually required reporting limits, whichever is applicable.

The following data qualifiers may be applicable to the results in this report, as appropriate.

- **B** - For inorganic analyses, the sample result is greater than the MDL but less than the RL.
- **B** - For organic analyses, Method Blank contamination. The Method Blank contains the target analyte at a concentration above the MDL.
- **J** - For organic analyses, the sample is estimated and less than the RL.
- **C** - For inorganic analyses, Method Blank contamination. The Method Blank contains the target analyte at a concentration above the MDL/RL but not greater than 5% the MB.
- **D** - For all analyses, the sample result was obtained from the analysis of a dilution. For Metals analyses, per standard practice, all samples are initially prepared at a 2x dilution. This standard dilution does not affect reporting limits as MDL studies are also prepared in the same manner and will not be narrated below. Only dilutions above 2x will be narrated and considered a true dilution for these solid samples.
- **N** - For inorganics and GC analyses, the spike/spike duplicate recoveries are outside QC limits.
- **T** - For GCMS analyses, the spike/spike duplicate recoveries are outside QC limits.
- **o** - For all analyses, the LCS (LCSD) recoveries are outside QC limits.
- **P -** For organic analyses (PCB/Pests only), the aroclor target analyte has greater than 25% difference for detected concentrations between the two GC columns.
- **X-** Organics and Anions IC - Sample concentration over calibration and/or surrogate recovery outside QC limits.
- **X-** Inorganics - The analyte present in the original sample is > 4x the spike concentration.
- **Z-** Sample was prepped or analyzed beyond the specified sample holding time.
- **y -** RPD is outside established limits.

Volatiles

Batch: 282787

The following compounds did not meet the minimum relative response factor limits in the continuing calibration verification (CCV) associated with batch 160-282787: 2-Butanone, 4-Methyl-2-pentanone, 2-Hexanone, and Acetone. A low level CCV was analyzed at the base reporting limit of 1ug/L and the affected analytes were detected. Affected target analytes recovering above the reporting limit in the associated samples will be qualified and reported. (CCVIS 160-282787/3)

The continuing calibration verification (CCV) associated with batch 160-282787 recovered outside acceptance criteria, low biased, for Iodomethane. 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. (CCVIS 160-282787/3)

The matrix spike (MS) recovery for analytical batch 160-282787 was outside control limits for Acetone. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits. (160-20287-B-13 MS) This analyte has been qualified accordingly with a "T" flag in the associated samples.

The matrix spike / matrix spike duplicate (MS/MSD) precision for analytical batch 160-282787 was outside control limits for Acetone. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits. (160-20287-B-13 MS) and (160-20287-C-13 MSD) This analyte has

Job ID: 160-20287-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

been flagged "y".

Semivolatiles

Batch: 285881

Bis(2-ethylhexyl)phthalate was detected in method blank MB 160-283062/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged “J”. If the associated sample reported a result above the MDL and/or RL, the result has been flagged “B”.

The LCS spike recoveries for Hexachlorobutadiene and Hexachlorocyclopentadiene are outside the lower QC limits. The samples are outside the 2X holding time window and thus will not be reprepped and reanalyzed. Results are provided with this narrative. These analytes have been qualified accordingly with an "o" flag in the associated samples. B37MY4 (160-20287-14), (LCS 160-283062/2-A), (MB 160-283062/1-A), (160-20287-J-14-A MS) and (160-20287-L-14-A MSD)

The CCV recovery for Famphur and Kepone are outside the acceptable QC limits. These compounds are poor responding compounds and thus the data results for these analytes will be reported as estimated. No further action is required.(CCV 160-285881/5) and (CCV 160-285881/6)

The initial calibration curve analyzed in batch 160-285310 was outside acceptance criteria for Famphur. Famphur is a poor responding compound and thus the data results for this compound will be reported as estimated. No further action is required.

Pesticides

Batch: 283747

The LCS spike recoveries for 4,4'-DDD, alpha-BHC, alpha-Chlordane, delta-BHC, Dieldrin, Endrin Aldehyde, Endrin Ketone, gamma-BHC, trans-Chlordane, and Heptachlor epoxide are outside the lower QC limits. The samples were reprepped and reanalyzed out of hold time, but within the 2X holding time window. The LCS spike recoveries were within the acceptable QC limits in the reanalysis. The sample results were ND in the original and reanalysis data; therefore yielding comparable results. The original data, performed within hold time, will be reported. No further action is required. B37MY4 (160-20287-14), (LCS 160-283080/2-A), (MB 160-283080/1-A), (160-20287-E-14-A MS) and (160-20287-G-14-A MSD) These analytes have been qualified accordingly with an "o" flag in the associated samples.

PCB

Batch: 287526

MS/MSD was not prepared on client sample per analyst error. Another sample was used for QC batching purposes. B37MY4 (160-20287-14)

Herbicides

Batch: 284453

The laboratory control sample (LCS) for recovered outside control limits for the following analytes: 2,4'-D. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported. This analyte has been qualified with an "o" flag in the associated samples.

The ending CCV recovery for MCPP is outside the lower QC limits on the primary column, but is within the acceptable QC limits on the secondary column. This analyte was ND on the secondary column; thus confirmation is not needed on the primary column. This analyte will be reported from the secondary column. No further action is needed.B37MY4 (160-20287-14), (CCV 160-284453/11), (LCS 160-283030/2-A), (MB 160-283030/1-A), (160-20287-M-14-A MS) and (160-20287-P-14-A MSD)

ICP Metals

Job ID: 160-20287-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

Batch: 284177

The Matrix Spike (MS)/Matrix Spike Duplicate (MSD) was above the upper linear range for Boron. However, percent recoveries were within acceptable limits, and results will be reported. (160-20287-A-6-I MS) and (160-20287-A-6-J MSD) This analyte has been flagged "X" in the MS/MSD.

The following samples were diluted to bring the concentration of target analytes within the calibration range: B37N31 (160-20287-8), B37N29 (160-20287-9), B37N40 (160-20287-11) and B37N42 (160-20287-12). Elevated reporting limits (RLs) are provided. These analytes have been qualified accordingly with a "D" flag in the associated samples.

ICPMS Metals

Batch: 285191

Due to linear range check (LRC) failures, the linear range for beryllium has been lowered to the concentration of the highest calibration standard (200ppb). The LCS and MS/MSD were above the linear range, but were within acceptable limits. (LCS 160-283950/2-A), (160-20287-A-6-F MS) and (160-20287-A-6-G MSD)

The following samples were diluted due to the nature of the sample matrix. The samples were high in salts, which cause internal standard and QC failures when the samples are run at a lesser dilution: B37N31 (160-20287-8), B37N29 (160-20287-9), B37N40 (160-20287-11) and B37N42 (160-20287-12). Elevated reporting limits (RLs) are provided. These analytes have been qualified accordingly with a "D" flag in the associated samples.

Cyanide

Batch: 285118

Cyanide, Total was detected in method blank MB 160-285135/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged “B”. If the associated sample reported a result above the MDL and/or RL and is not greater than 5% the method blank, the result has been flagged “C”.

Reanalysis of the following samples in CN preparation batch 160-285135 and analytical batch 160-285118 was performed outside of the analytical holding time due to failing instrument QC, which resulted in non-reportable data from the original run: B37LP3 (160-20287-6), B37N29 (160-20287-9), B37N23 (160-20287-10), B37N40 (160-20287-11) and B37PM0 (160-20287-13). Reanalysis was performed within two times the holding time per SIR17-256. Samples have been flagged “Z”.

There were no observations or non-conformances associated with the following methods:

Alkalinity
Mercury
Sulfide

We certify that this data package is in compliance with the SOW, both technically and for completeness, including a full description of, explanation of, and corrective actions for, any and all deviations, from either the analyses requested or the case narrative requested. Release of the data contained in this hard copy data package has been authorized by the Laboratory Analytical Manager or designee and the laboratory’s client services representative as verified by their signature on this report.

Reviewed and approved:

Jayna Awalt
St. Louis Project Manager

Job ID: 160-20287-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

Problem and Discrepancy Report

TASL

PND17-0082

SDG SL2389

01/04/17

The data package has the following issues:

In SDG SL2389, on COC W17-012-101 (B37MY4), we requested 8082_PCB_GC: COMMON but no results were returned.

Resolution: *Provide correction.*

Lab Response: PCB analysis was missed at login. Will add analysis and report in REV 1.

Please correct the issue and resubmit the hard copy and electronic data packages.

Provide a resolution to each issue noted on the report

SAMPLE ISSUE RESOLUTION		
	SIR NUM	SIR17-256
	REV NUM	0
	DATE INITIATED	12/21/2016

SAMPLE EVENT INFORMATION

SAF NUM(S)	S17-012, W17-012
OPERABLE UNIT(S)	NONE
PROJECT(S)	RCRA17, SURV17
SAMPLE EVENT TITLE(S)	RCRA17, SURV17
LABORATORY	TestAmerica St. Louis

SAMPLING INFORMATION

NUMBER OF SAMPLES	5
SAMPLE NUMBERS	B37LP3, B37N23, B37N29, B37N40, B37PM0
SAMPLE MATRIX	WATER
COLLECTION DATE	12/4/2016 - 12/5/2016
SDG NUM	SL2389

ISSUE BACKGROUND

CLASS	Laboratory Issue
TYPE	Quality Control Failure
DESCRIPTION	Samples were originally run within hold for Cyanide analysis. CCBs were low and required re-analysis. Sample results were not comparable with the original analysis (which also had a low LCS and failing RPD). Samples are now out of hold.

DISPOSITION

DESCRIPTION	TASL PROPOSES TO RE-PREP FOR CONFIRMATION OF ORIGINAL ANALYSIS OUTSIDE 1X HOLD BUT WITHIN 2X HOLD AND NARRATE. OR REPORT THE ORIGINAL ANALYSIS PERFORMED WITHIN HOLD WITH FAILING CCB WHERE PERFORMED RE-RUN COULD NOT CONFIRM RESULTS.
JUSTIFICATION	Final Disposition: Accept first proposed resolution - rerun and report outside hold time SUBMITTED BY: Jayna Awalt DATE: 12/20/2016 ACCEPTED BY: Scot Fitzgerald DATE: 12/21/2016

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 160-20287-1
SDG Number: SL2389

Login Number: 20287
List Number: 1
Creator: Clarke, Jill C

List Source: TestAmerica St. Louis

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.9, 1.3
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 containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	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.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

CH2MHill Plateau Remediation Company SL2389	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S17-012-555 Page 1 of 1

Collector	Larry Rosane /CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S17-012	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, DECEMBER 2016	Logbook No.	HNF-N-506 92/9	Ice Chest No.	GWS-565
Shipped To (Lab)	TestAmerica St. Louis	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	7778 6811 9937
Protocol	SURV	Priority:	15 Days PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B37M59	N	W	12/4/16	0645	1x500-mL G/P	6020_METALS_ICPMS: Uranium (1)	6 Months	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Larry Rosane /CHPRC	Larry Rosane		DEC 04 2016 1610	SSU #1			DEC 04 2016 1610
SSU #1			DEC 05 2016 0740	Troy Bacon CHPRC	Troy L. Bacon		DEC 05 2016 0740
Troy Bacon CHPRC	Troy L. Bacon		DEC 05 2016 1400	FEDEX			
FEDEX				JILL CLARKE	Jill Clarke		12-6-16 1045

Matrix *

S = Soil	DS = Drum Solids		
SE = Sediment	DL = Drum Liquids		
SO = Solid	T = Tissue		
SL = Sludge	WI = Wipe		
W = Water	L = Liquid		
O = Oil	V = Vegetation		
A = Air	X = Other		

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PRINTED ON 10/13/2016 FSR ID = FSR38064 A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company 512389

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S17-012-556

Page 1 of 1

Collector	Larry Rosane /CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S17-012	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, DECEMBER 2016	Logbook No.	HNF-N-506 92 / 9 & 10	Ice Chest No.	GWS-565
Shipped To (Lab)	TestAmerica St. Louis	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	7778 6811 9437
Protocol	SURV	Priority:	15 Days PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS Hold Time

N/A

Total Activity Exemption: Yes ☑ No ☐

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B37M60	N	W	12/4/16	1518	1x500-mL G/P	6020_METALS_ICPMS: Uranium (1)	6 Months	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Larry Rosane /CHPRC	Larry Rosane		DEC 04 2016 1610	SSU#1			DEC 04 2016 1610
SSU#1			DEC 05 2016 0740	Troy Bacon CHPRC	Troy L. Bacon		DEC 05 2016 0740
Troy Bacon CHPRC	Troy L. Bacon		DEC 05 2016 1400	FEDEX			
FEDEX				JILL CLARKE	Jill Clarke		12-6-16 1045

Matrix *

S	= Soil	DS	= Drum Solids
SE	= Sediment	DL	= Drum Liquids
SO	= Solid	T	= Tissue
SL	= Sludge	WI	= Wipe
W	= Water	L	= Liquid
O	= Oil	V	= Vegetation
A	= Air	X	= Other

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

PRINTED ON 10/13/2016 FSR ID = FSR31983 A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company 812389

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S17-012-553

Collector	Larry Rosane /CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S17-012	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, DECEMBER 2016	Logbook No.	HNF-N-506 9219	Ice Chest No.	GWS-565
Shipped To (Lab)	TestAmerica St. Louis	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	7778 6811 9937
Protocol	SURV	Priority:	15 Days PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS Hold Time

N/A

Total Activity Exemption: Yes ☑ No ☐

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B37M42	N	W	12/4/16	1307	1x500-mL G/P	6020_METALS_ICPMS: Uranium (1)	6 Months	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Larry Rosane /CHPRC	Larry Rosane		DEC 04 2016 1610	SSU #1			DEC 04 2016 1610
SSU #1			DEC 05 2016 1400	Troy Bacon CHPRC	Troy L. Bacon		DEC 05 2016 1400
Troy Bacon CHPRC	Troy L. Bacon		DEC 05 2016 1400	FEDEX			
FEDEX				JILL CLARKE	Jill Clarke 12.6.16 1045		

Matrix *

S	Soil	DS	Drum Solids
SE	Sediment	DL	Drum Liquids
SO	Solid	T	Tissue
SL	Sludge	WI	Wipe
W	Water	L	Liquid
O	Oil	V	Vegetation
A	Air	X	Other

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) | Disposed By | Date/Time

PRINTED ON 10/13/2016 FSR ID = FSR38272 A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company 822389	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S17-012-561 Page 1 of 1

Collector	Frank Hal /CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S17-012	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, DECEMBER 2016	Logbook No.	HNF-N-506 91133	Ice Chest No.	GWS-565
Shipped To (Lab)	TestAmerica St. Louis	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	7778 6811 9937
Protocol	SURV	Priority:	15 Days PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B37MB7	N	W	12-4-16	1242	1x500-mL G/P	6020_METALS_ICPMS: Uranium (1)	6 Months	HNO3 to pH <2

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
Frank Ha /CHPRC	[signature]	DEC 04 2016 1605	SSU-1		DEC 04 2016 1605
SSU-1		DEC 05 2016 0740	Troy Bacon CHPRC	Troy L. Bacon	DEC 05 2016 0740
Troy Bacon CHPRC	Troy L. Bacon	DEC 05 2016 1400	FEDEX		
FEDEX			JILL CLARKE	Jill Clarke	12-6-16 1045

Matrix *

S	= Soil	DS	= Drum Solids
SE	= Sediment	DL	= Drum Liquids
SO	= Solid	T	= Tissue
SL	= Sludge	WI	= Wipe
W	= Water	L	= Liquid
O	= Oil	V	= Vegetation
A	= Air	X	= Other

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

PRINTED ON 10/13/2016 FSR ID = FSR38291 A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company 82389

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S17-012-545

Collector	Dave Floyd CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S17-012	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, DECEMBER 2016	Logbook No.	HNF-N-506 90136	Ice Chest No.	GW5-565
Shipped To (Lab)	TestAmerica St. Louis	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	7778 6811 9937
Protocol	SURV	Priority:	15 Days PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B37LP7	Y	W	DEC 04 2016	1339	1x500-mL G/P	7470_MERCURY_CV: COMMON (AQUEOUS); 6020_METALS_ICPMS: GW 01; 6010_METALS_ICP: GW 04	28 Days	HNO3 to pH <2
B37LP3	N	W	↓	↓	1x500-mL G/P	7470_MERCURY_CV: COMMON (AQUEOUS); 6020_METALS_ICPMS: GW 01; 6010_METALS_ICP: GW 04	28 Days	HNO3 to pH <2
B37LP3	N	W	↓	↓	1x250-mL G/P	9012_CYANIDE: COMMON	14 Days	NaOH to pH >=12/Cool <=6C

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Dave Floyd CHPRC			DEC 04 2016 1400	SSU-1			DEC 04 2016 1400
SSU-1			DEC 05 2016 0740	Troy Bacon CHPRC		Troy L. Bacon	DEC 05 2016 0740
Troy Bacon CHPRC		Troy L. Bacon	DEC 05 2016 1400	FEDEX			
FEDEX				JILL CLARKE		Jill Clarke	12-6-16 1045

Matrix *

S	Soil	DS	Drum Solids
SE	Sediment	DL	Drum Liquids
SO	Solid	T	Tissue
SL	Sludge	WI	Wipe
W	Water	L	Liquid
O	Oil	V	Vegetation
A	Air	X	Other

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

PRINTED ON 11/17/2016 FSR ID = FSR39290 A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company 522389

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S17-012-560

Collector	Frank Hall /CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S17-012	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, DECEMBER 2016	Logbook No.	HNF-N-506 911 33	Ice Chest No.	GWS-565
Shipped To (Lab)	TestAmerica St. Louis	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	7778 6811 9937
Protocol	SURV	Priority:	15 Days PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B37M95	N	W	12-4-16	1438	1x500-mL G/P	6020_METALS_ICPMS: Uranium (1)	6 Months	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	Frank Hall /CHPRC	[signature]	DEC 04 2016 1005	SSU-1			DEC 04 2016 1605
SSU-1			DEC 05 2016 0740	Troy Bacon CHPRC		Troy L. Bacon	DEC 05 2016 0740
Troy Bacon CHPRC		Troy L. Bacon	DEC 05 2016 1400	FEDEX			
FEDEX				JILL CLARK		Jill Clark 12-6-16	1045

Matrix *

S	Soil	DS	Drum Solids
SE	Sediment	DL	Drum Liquids
SO	Solid	T	Tissue
SL	Sludge	WI	Wipe
W	Water	L	Liquid
O	Oil	V	Vegetation
A	Air	X	Other

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

PRINTED ON 10/13/2016 FSR ID = FSR38093 A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company

922389

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W17-012-104

Collector	Juan Aguilar /CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	W17-012	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	RCRA, DECEMBER 2016	Logbook No.	HNF-N-506 91 / 34	Ice Chest No.	GWS-565
Shipped To (Lab)	TestAmerica St. Louis	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	7778 6811 9937
Protocol	RCRA	Priority:	15 Days PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B37N31	Y	W	DEC 05 2016	1013	1x500-mL G/P	6020_METALS_ICPMS: GW 01; 6010_METALS_ICP: GW 04	6 Months	HNO3 to pH <2
B37N29	N	W	↑	1013	1x250-mL G/P	310.1_ALKALINITY: COMMON	14 Days	Cool <=6C
B37N29	N	W	↑	1013	1x500-mL G/P	6020_METALS_ICPMS: GW 01; 6010_METALS_ICP: GW 04	6 Months	HNO3 to pH <2
B37N29	N	W	DEC 05 2016	1013	1x250-mL G/P	9012_CYANIDE: COMMON	14 Days	NaOH to pH >=12/Cool <=6C

Relinquished By (Print / Sign)	Date/Time	Received By (Print / Sign)	Date/Time
Juan Aguilar /CHPRC	DEC 05 2016 1115	Lesly Wall /CHPRC	DEC 05 2016 1115
Lesly Wall /CHPRC	DEC 05 2016 1400	FEDEX	
FEDEX		JILL CLARKE	12-6-16 1045

Matrix *

S	Soil	DS	Drum Solids
SE	Sediment	DL	Drum Liquids
SO	Solid	T	Tissue
SL	Sludge	WI	Wipe
W	Water	L	Liquid
O	Oil	V	Vegetation
A	Air	X	Other

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

PRINTED ON 11/16/2016 FSR ID = FSR3631 A-6004-842 (REV 2)

$1 ~~88~~ LBS. 38 12-3-16

CH2MHill Plateau Remediation Company 842389

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W17-012-103

Page 1 of 1

Collector	Dave Floyd CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	W17-012	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	RCRA, DECEMBER 2016	Logbook No.	HNF-N-506 90/30	Ice Chest No.	GWS-565
Shipped To (Lab)	TestAmerica St. Louis	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	7778 6811 9937
Protocol	RCRA	Priority:	15 Days PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B37N23	N	W	DEC 04 2016	1135	1x250-mL G/P	310.1_ALKALINITY: COMMON	14 Days	Cool <=6C
B37N23	N	W	↓	1185	1x250-mL G/P	9012_CYANIDE: COMMON	14 Days	NaOH to pH >=12/Cool <=6C

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Dave Floyd CHPRC			DEC 04 2016 1400	SSU-1			DEC 04 2016 1400
SSU-1			DEC 05 2016 0740	Troy Bacon CHPRC	Troy L. Bacon		DEC 05 2016 0740
Troy Bacon CHPRC	Troy L. Bacon		DEC 05 2016 1400	FEDEX			
FEDEX				JILL CLARKE	Jill Clarke		12-6-16 1045

Matrix *

S	Soil	DS	Drum Solids
SE	Sediment	DL	Drum Liquids
SO	Solid	T	Tissue
SL	Sludge	WI	Wipe
W	Water	L	Liquid
O	Oil	V	Vegetation
A	Air	X	Other

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

PRINTED ON 11/16/2016 FSR ID = FSR34599 A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company 92389

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W17-012-106

Collector	Juan Aguilar /CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	W17-012	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	RCRA, DECEMBER 2016	Logbook No.	HNF-N-506 91 / 34	Ice Chest No.	GWS-505
Shipped To (Lab)	TestAmerica St. Louis	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	7778 6811 9937
Protocol	RCRA	Priority:	15 Days PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B37N40	N	W	DEC 05 2016	1143	1x250-mL G/P	310.1_ALKALINITY: COMMON	14 Days	Cool <=6C
B37N40	N	W			1x500-mL G/P	6020_METALS_ICPMS: GW 01; 6010_METALS_ICP: GW 04	6 Months	HNO3 to pH <2
B37N40	N	W			1x250-mL G/P	9012_CYANIDE: COMMON	14 Days	NaOH to pH >=12/Cool <=6C
B37N42	Y	W	DEC 05 2016	1143	1x500-mL G/P	6020_METALS_ICPMS: GW 01; 6010_METALS_ICP: GW 04	6 Months	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Juan Aguilar /CHPRC			DEC 05 2016 1300	Troy Bacon CHPRC		Troy L. Bacon	DEC 05 2016 1300
Troy Bacon CHPRC		Troy L. Bacon	DEC 05 2016 1400	FEDEX			
FEDEX				JILL CLARKE		Jill Clarke	12-6-16 1045

Matrix *

S	Soil	DS	Drum Solids
SE	Sediment	DL	Drum Liquids
SO	Solid	T	Tissue
SL	Sludge	WI	Wipe
W	Water	L	Liquid
O	Oil	V	Vegetation
A	Air	X	Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PRINTED ON 11/16/2016 FSR ID = FSR31487 A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company

82389

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W17-012-129

Collector	Dave Floyd CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	W17-012	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	RCRA, DECEMBER 2016	Logbook No.	HNF-N-506 90160	Ice Chest No.	GWS-592
Shipped To (Lab)	TestAmerica St. Louis	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	777863821420
Protocol	RCRA	Priority:	15 Days PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B37PM0	N	W	DEC 04 2016	0911	1x250-mL G/P	310.1_ALKALINITY: COMMON	14 Days	Cool <=6C
B37PM0	N	W	↓	↓	4x40-mL aGs*	8260_VOA_GCMS_IX: COMMON REV 1	14 Days	HCl or H2SO4 to pH <2/Cool <=6C
B37PM0	N	W			1x250-mL G/P	9012_CYANIDE: COMMON	14 Days	NaOH to pH >=12/Cool <=6C
B37PM0	N	W			1x1-L G/P	9034_SULFIDE: COMMON	7 Days	ZnAc+NaOH to pH > 9/Cool <=6C

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Dave Floyd CHPRC			DEC 04 2016 1055	SSU-1			DEC 04 2016 1055
SSU-1			DEC 05 2016 0740	Troy Bacon CHPRC		Troy L. Bacon	DEC 05 2016 0740
Troy Bacon CHPRC		Troy L. Bacon	DEC 05 2016 1400	FEDEX			
FEDEX				JILL CLARKE		Jill Clarke	12-6-16 1045

Matrix *

S = Soil	DS = Drum Solids		
SE = Sediment	DL = Drum Liquids		
SO = Solid	T = Tissue		
SL = Sludge	WI = Wipe		
W = Water	L = Liquid		
O = Oil	V = Vegetation		
A = Air	X = Other		

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

PRINTED ON 10/19/2016 FSR ID = FSR37918 A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company 912389

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W17-012-101

Collector	Dave Floyd CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	W17-012	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	RCRA, DECEMBER 2016	Logbook No.	HNF-N-506 90 / 60	Ice Chest No.	GWS-592
Shipped To (Lab)	TestAmerica St. Louis	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	77786382 1420
Protocol	RCRA	Priority:	15 Days PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS Hold Time

N/A

Total Activity Exemption: Yes ☑ No ☐

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B37MY4	N	W	DEC 04 2016	0911	4x1-L aG	8081_PEST_GC: COMMON; 8081_PEST_GC: CH 01	7/40 Days	Cool <=6C
B37MY4	N	W			4x1-L aG	8082_PCB_GC: COMMON	None	Cool <=6C
B37MY4	N	W			4x1-L aG	8151_HERBICIDE_GC: COMMON	7/40 Days	Cool <=6C
B37MY4	N	W			4x1-L aG	8270_SVOA_GCMS_IX: COMMON REV 1	7/40 Days	Cool <=6C

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Dave Floyd CHPRC			DEC 04 2016 1055	SSU-1			DEC 04 2016 1055
SSU-1			DEC 05 2016 0740	Troy Bacon CHPRC		Troy L. Bacon	DEC 05 2016 0740
Troy Bacon CHPRC		Troy L. Bacon	DEC 05 2016 1400	FEDEX			DEC 05 2016
FEDEX				JILL CLARK		Jill Clark	12.6.16 1045

Matrix *

S	Soil	DS	Drum Solids
SE	Sediment	DL	Drum Liquids
SO	Solid	T	Tissue
SL	Sludge	WI	Wipe
W	Water	L	Liquid
O	Oil	V	Vegetation
A	Air	X	Other

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

PRINTED ON 10/19/2016 FSR ID = FSR37918 A-6004-842 (REV 2)

88 LBS-

CH2MHill Plateau Remediation Company 92389	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # X17-003-129 Page 1 of 1

Collector	Dave Floyd CHPRC	Contact/Requester	WATERS-HUSTED, K	Telephone No.	376-4650
SAF No.	X17-003	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	Groundwater Background Study, October	Logbook No.	HNF-N-506 90160	Ice Chest No.	GWS-592
Shipped To (Lab)	TestAmerica St. Louis	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	777863821420
Protocol	SURV	Priority:	30 Days PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS
*Contains Radioactive Material at concentrations that are not be regulated for transportation per 49 CFR/IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1.

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch with A, I, S, and W SAFs.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B37VM3	N	W	12-4-16	0911	5x40-mL aGs*	8260_VOA_GCMS: COMMON	14 Days	HCl or H2SO4 to pH <2/Cool <=6C

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Dave Floyd CHPRC			DEC 04 2016 1055	SSU-1			DEC 04 2016 1055
SSU-1			DEC 05 2016 0740	Troy Bacon CHPRC	Troy L. Bacon		DEC 05 2016 0740
Troy Bacon CHPRC	Troy L. Bacon		DEC 05 2016 1400	FEDEX			
FEDEX				JILL CLARK	Jill Clarke		12-6-16 1045

Matrix *

S	Soil	DS	Drum Solids
SE	Sediment	DL	Drum Liquids
SO	Solid	T	Tissue
SL	Sludge	WI	Wipe
W	Water	L	Liquid
O	Oil	V	Vegetation
A	Air	X	Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PRINTED ON 11/8/2016 FSR ID = FSR34905 A-6004-842 (REV 2)

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IMPORTANT!
FedEx is closely monitoring the winter storm in the Northwest U.S. Learn More

Delivered

Tracking No.or Nickname	Shipper city, state	Origin Terminal	Ship date	Status	Recipient city, state	Delivery date
777868119937	RICHLAND, WA	PASCO, WA	12/05/2016		EARTH CITY, MO	12/06/2016 10:41 am
777863821420	RICHLAND, WA	PASCO, WA	12/05/2016		EARTH CITY, MO	12/06/2016 10:41 am

Launch FedEx Tracking

777868119937

Ship date:
Mon 12/05/2016

RICHLAND, WA US

Delivered
Signed for by: J.CLARKE

Actual delivery:
Tue 12/06/2016 10:41 am

EARTH CITY, MO US

Travel History

Date/Time	Activity	Location
12/06/2016 - Tuesday		
10:41 am	Delivered	EARTH CITY, MO
9:08 am	On FedEx vehicle for delivery	EARTH CITY, MO
9:03 am	At local FedEx facility	EARTH CITY, MO
7:24 am	At destination sort facility	[illegible]
6:39 am	Departed FedEx location	[illegible]
6:32 am	In transit	[illegible]
6:32 am	In transit	[illegible]
6:18 am	In transit	[illegible]
6:18 am	In transit	[illegible]
12:53 am	Arrived at FedEx location	MEMPHIS, TN
12/05/2016 - Monday		
4:47 pm	Left FedEx origin facility	PASCO, WA
3:58 pm	Shipment information sent to FedEx	
3:19 pm	Picked up	PASCO, WA

Shipment Facts

Tracking number	777868119937	**Service**	FedEx Standard Overnight
Weight	71 lbs / 32.21 kgs	**Delivered To**	Shipping/Receiving
Total pieces	1	**Total shipment weight**	71 lbs / 32.21 kgs
Terms	Recipient	**Shipper reference**	GWS-565
Packaging	Your Packaging	**Special handling section**	Deliver Weekday
Standard transit	12/06/2016 by 3:00 pm		

Ask FedEx

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IMPORTANT!
FedEx is closely monitoring the winter storm in the Northwest U.S. Learn More

Delivered

Tracking No.or Nickname	Shipper city, state	Origin Terminal	Ship date	Status	Recipient city, state	Delivery date
777868119937	RICHLAND, WA	PASCO, WA	12/05/2016		EARTH CITY, MO	12/06/2016 10:41 am
777863821420	RICHLAND, WA	PASCO, WA	12/05/2016		EARTH CITY, MO	12/06/2016 10:41 am

Launch FedEx Tracking

777863821420

Ship date:
Mon 12/05/2016

RICHLAND, WA US

Delivered
Signed for by: J.CLARKE

Actual delivery:
Tue 12/06/2016 10:41 am

EARTH CITY, MO US

Travel History

Date/Time	Activity	Location
- 12/06/2016 - Tuesday		
10:41 am	Delivered	EARTH CITY, MO
9:06 am	On FedEx vehicle for delivery	EARTH CITY, MO
9:00 am	At local FedEx facility	EARTH CITY, MO
7:24 am	At destination sort facility	BRIDGETON, MO
6:38 am	Departed FedEx location	MEMPHIS, TN
6:32 am	In transit	MEMPHIS, TN
6:16 am	In transit	MEMPHIS, TN
12:53 am	Arrived at FedEx location	MEMPHIS, TN
- 12/05/2016 - Monday		
4:47 pm	Left FedEx origin facility	PASCO, WA
3:19 pm	Picked up	PASCO, WA
12:37 pm	Shipment information sent to FedEx	

Shipment Facts

Tracking number	777863821420	**Service**	FedEx Standard Overnight
Weight	88 lbs / 39.92 kgs	**Delivered To**	Shipping/Receiving
Total pieces	1	**Total shipment weight**	88 lbs / 39.92 kgs
Terms	Recipient	**Shipper reference**	GWS-592
Packaging	Your Packaging	**Special handling section**	Deliver Weekday, Additional Handling Surcharge
Standard transit	12/06/2016 by 3:00 pm		

Ask FedEx

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyzed for but not detected.
T	MS, MSD: Recovery exceeds upper or lower control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
y	Duplicate analysis not within control limits.

GC/MS VOA TICs

Qualifier	Qualifier Description
T	MS, MSD: Recovery exceeds upper or lower control limits.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Analyzed for but not detected.
B	Analyte was found in the associated method blank as well as in the sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
o	LCS, LCSD: Recovery exceeds upper or lower control limits.

GC Semi VOA

Qualifier	Qualifier Description
o	LCS, LCSD: Recovery exceeds upper or lower control limits.
U	Analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
D	The reported value is from a dilution.
U	Analyzed for but not detected.
B	Estimated result. Result is less than the RL, but greater than MDL
C	The analyte was detected in both the sample and the associated QC blank, and the sample concentration was </= 5X the blank concentration.
X	See case narrative notes for explanation of the 'X' flag

General Chemistry

Qualifier	Qualifier Description
C	The analyte was detected in both the sample and the associated QC blank, and the sample concentration was </= 5X the blank concentration.
U	Analyzed for but not detected.
Z	Sample was prepped or analyzed beyond the specified holding time
B	Estimated result. Result is less than the RL, but greater than MDL

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
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: S17-012 / W17-012 / X17-003

TestAmerica Job ID: 160-20287-1
SDG: SL2389

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds (GC/MS)	SW846	TAL SL
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL SL
8081B	Organochlorine Pesticides (GC)	SW846	TAL SL
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL SL
8151A	Herbicides (GC)	SW846	TAL SL
6010C	Metals (ICP)	SW846	TAL SL
6020A	Metals (ICP/MS)	SW846	TAL SL
7470A	Mercury (CVAA)	SW846	TAL SL
310.1	Alkalinity	MCAWW	TAL SL
9012B	Cyanide, Total andor Amenable	SW846	TAL SL
9034	Sulfide, Acid soluble and Insoluble (Titrimetric)	SW846	TAL SL

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: S17-012 / W17-012 / X17-003

TestAmerica Job ID: 160-20287-1
SDG: SL2389

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
160-20287-1	B37M59	Water	12/04/16 06:45	12/06/16 10:45
160-20287-2	B37M60	Water	12/04/16 15:18	12/06/16 10:45
160-20287-3	B37M42	Water	12/04/16 13:07	12/06/16 10:45
160-20287-4	B37MB7	Water	12/04/16 12:42	12/06/16 10:45
160-20287-5	B37LP7	Water	12/04/16 13:39	12/06/16 10:45
160-20287-6	B37LP3	Water	12/04/16 13:39	12/06/16 10:45
160-20287-7	B37M95	Water	12/04/16 14:38	12/06/16 10:45
160-20287-8	B37N31	Water	12/05/16 10:13	12/06/16 10:45
160-20287-9	B37N29	Water	12/05/16 10:13	12/06/16 10:45
160-20287-10	B37N23	Water	12/04/16 11:35	12/06/16 10:45
160-20287-11	B37N40	Water	12/05/16 11:43	12/06/16 10:45
160-20287-12	B37N42	Water	12/05/16 11:43	12/06/16 10:45
160-20287-13	B37PM0	Water	12/04/16 09:11	12/06/16 10:45
160-20287-14	B37MY4	Water	12/04/16 09:11	12/06/16 10:45
160-20287-15	B37VM3	Water	12/04/16 09:11	12/06/16 10:45

Client: CH2M Hill Plateau Remediation Company
Project/Site: S17-012 / W17-012 / X17-003

TestAmerica Job ID: 160-20287-1
SDG: SL2389

Method: 8260C - Volatile Organic Compounds (GC/MS)

Client Sample ID: B37PM0
Date Collected: 12/04/16 09:11
Date Received: 12/06/16 10:45

Lab Sample ID: 160-20287-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.12	U	1.0	0.12	ug/L			12/07/16 11:08	1
1,1,1-Trichloroethane	0.17	U	1.0	0.17	ug/L			12/07/16 11:08	1
1,1,2,2-Tetrachloroethane	0.10	U	1.0	0.10	ug/L			12/07/16 11:08	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			12/07/16 11:08	1
1,1-Dichloroethane	0.070	U	1.0	0.070	ug/L			12/07/16 11:08	1
1,1-Dichloroethene	0.10	U	1.0	0.10	ug/L			12/07/16 11:08	1
1,2,3-Trichloropropane	0.18	U	1.0	0.18	ug/L			12/07/16 11:08	1
1,2-Dibromo-3-Chloropropane	0.41	U	1.0	0.41	ug/L			12/07/16 11:08	1
1,2-Dibromoethane (EDB)	0.13	U	1.0	0.13	ug/L			12/07/16 11:08	1
1,2-Dichloroethane	0.22	U	1.0	0.22	ug/L			12/07/16 11:08	1
1,2-Dichloropropane	0.10	U	1.0	0.10	ug/L			12/07/16 11:08	1
1,4-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			12/07/16 11:08	1
2-Butanone (MEK)	0.47	U	5.0	0.47	ug/L			12/07/16 11:08	1
2-Hexanone	0.25	U	5.0	0.25	ug/L			12/07/16 11:08	1
4-Methyl-2-pentanone (MIBK)	0.22	U	5.0	0.22	ug/L			12/07/16 11:08	1
Acetone	0.55	U T	2.0	0.55	ug/L			12/07/16 11:08	1
Acetonitrile	3.7	U	10	3.7	ug/L			12/07/16 11:08	1
Acrolein	2.8	U	10	2.8	ug/L			12/07/16 11:08	1
Acrylonitrile	0.73	U	10	0.73	ug/L			12/07/16 11:08	1
Allyl chloride	0.10	U	2.0	0.10	ug/L			12/07/16 11:08	1
Benzene	0.10	U	1.0	0.10	ug/L			12/07/16 11:08	1
Bromodichloromethane	0.14	U	1.0	0.14	ug/L			12/07/16 11:08	1
Bromoform	0.17	U	1.0	0.17	ug/L			12/07/16 11:08	1
Bromomethane	0.25	U	2.0	0.25	ug/L			12/07/16 11:08	1
Carbon disulfide	0.10	U	1.0	0.10	ug/L			12/07/16 11:08	1
Carbon tetrachloride	0.18	U	1.0	0.18	ug/L			12/07/16 11:08	1
Chlorobenzene	0.11	U	1.0	0.11	ug/L			12/07/16 11:08	1
Chloroethane	0.16	U	2.0	0.16	ug/L			12/07/16 11:08	1
Chloroform	**0.39**	**J**	1.0	0.10	ug/L			12/07/16 11:08	1
Chloromethane	0.10	U	2.0	0.10	ug/L			12/07/16 11:08	1
Chloroprene	0.16	U	1.0	0.16	ug/L			12/07/16 11:08	1
cis-1,2-Dichloroethylene	0.10	U	1.0	0.10	ug/L			12/07/16 11:08	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			12/07/16 11:08	1
Dibromochloromethane	0.14	U	1.0	0.14	ug/L			12/07/16 11:08	1
Dibromomethane	0.21	U	1.0	0.21	ug/L			12/07/16 11:08	1
Dichlorodifluoromethane	0.14	U	2.0	0.14	ug/L			12/07/16 11:08	1
Ethyl Cyanide	1.4	U	10	1.4	ug/L			12/07/16 11:08	1
Ethyl methacrylate	0.17	U	1.0	0.17	ug/L			12/07/16 11:08	1
Ethylbenzene	0.12	U	1.0	0.12	ug/L			12/07/16 11:08	1
Iodomethane	0.10	U	2.0	0.10	ug/L			12/07/16 11:08	1
Isobutyl alcohol	8.3	U	80	8.3	ug/L			12/07/16 11:08	1
Methacrylonitrile	1.2	U	10	1.2	ug/L			12/07/16 11:08	1
Methyl methacrylate	0.27	U	2.0	0.27	ug/L			12/07/16 11:08	1
Methylene Chloride	0.27	U	1.0	0.27	ug/L			12/07/16 11:08	1
Styrene	0.13	U	1.0	0.13	ug/L			12/07/16 11:08	1
Tetrachloroethene	0.18	U	1.0	0.18	ug/L			12/07/16 11:08	1
Toluene	0.14	U	1.0	0.14	ug/L			12/07/16 11:08	1
trans-1,2-Dichloroethylene	0.10	U	1.0	0.10	ug/L			12/07/16 11:08	1
trans-1,3-Dichloropropene	0.10	U	1.0	0.10	ug/L			12/07/16 11:08	1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B37PM0 **Lab Sample ID: 160-20287-13**
Date Collected: 12/04/16 09:11 **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,4-Dichloro-2-butene	0.29	U	2.0	0.29	ug/L			12/07/16 11:08	1
Trichloroethene	0.25	U	1.0	0.25	ug/L			12/07/16 11:08	1
Trichloromonofluoromethane	0.11	U	1.0	0.11	ug/L			12/07/16 11:08	1
Vinyl acetate	0.18	U	2.0	0.18	ug/L			12/07/16 11:08	1
Vinyl chloride	0.19	U	2.0	0.19	ug/L			12/07/16 11:08	1
Xylenes, Total	0.27	U	3.0	0.27	ug/L			12/07/16 11:08	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Isopropyl alcohol	*25*	*T*	*ug/L*		*6.07*	*67-63-0*		*12/07/16 11:08*	*1*
Tentatively Identified Compound	*None*		*ug/L*					*12/07/16 11:08*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*75 - 129*		*12/07/16 11:08*	*1*
4-Bromofluorobenzene (Surr)	*90*		*81 - 130*		*12/07/16 11:08*	*1*
Dibromofluoromethane (Surr)	*110*		*81 - 124*		*12/07/16 11:08*	*1*
Toluene-d8 (Surr)	*103*		*87 - 128*		*12/07/16 11:08*	*1*

Client Sample ID: B37VM3 **Lab Sample ID: 160-20287-15**
Date Collected: 12/04/16 09:11 **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.17	U	1.0	0.17	ug/L			12/07/16 13:13	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			12/07/16 13:13	1
1,1-Dichloroethane	0.070	U	1.0	0.070	ug/L			12/07/16 13:13	1
1,1-Dichloroethene	0.10	U	1.0	0.10	ug/L			12/07/16 13:13	1
1,2-Dichloroethane	0.22	U	1.0	0.22	ug/L			12/07/16 13:13	1
2-Butanone (MEK)	0.47	U	5.0	0.47	ug/L			12/07/16 13:13	1
4-Methyl-2-pentanone (MIBK)	0.22	U	5.0	0.22	ug/L			12/07/16 13:13	1
Acetone	**5.2**	**T**	2.0	0.55	ug/L			12/07/16 13:13	1
Benzene	0.10	U	1.0	0.10	ug/L			12/07/16 13:13	1
Carbon disulfide	0.10	U	1.0	0.10	ug/L			12/07/16 13:13	1
Carbon tetrachloride	0.18	U	1.0	0.18	ug/L			12/07/16 13:13	1
Chlorobenzene	0.11	U	1.0	0.11	ug/L			12/07/16 13:13	1
Chloroform	0.10	U	1.0	0.10	ug/L			12/07/16 13:13	1
Ethylbenzene	0.12	U	1.0	0.12	ug/L			12/07/16 13:13	1
Methylene Chloride	**16**		1.0	0.27	ug/L			12/07/16 13:13	1
Tetrachloroethene	0.18	U	1.0	0.18	ug/L			12/07/16 13:13	1
Toluene	0.14	U	1.0	0.14	ug/L			12/07/16 13:13	1
Trichloroethene	0.25	U	1.0	0.25	ug/L			12/07/16 13:13	1
Vinyl chloride	0.19	U	2.0	0.19	ug/L			12/07/16 13:13	1
Xylenes, Total	0.27	U	3.0	0.27	ug/L			12/07/16 13:13	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*12/07/16 13:13*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*75 - 129*		*12/07/16 13:13*	*1*
4-Bromofluorobenzene (Surr)	*93*		*81 - 130*		*12/07/16 13:13*	*1*
Dibromofluoromethane (Surr)	*112*		*81 - 124*		*12/07/16 13:13*	*1*
Toluene-d8 (Surr)	*106*		*87 - 128*		*12/07/16 13:13*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: B37MY4
Date Collected: 12/04/16 09:11
Date Received: 12/06/16 10:45
Lab Sample ID: 160-20287-14
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
1,2,4-Trichlorobenzene	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
1,2-Dichlorobenzene	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
1,3-Dichlorobenzene	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
1,4-Dichlorobenzene	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
1,4-Dioxane	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
1,4-Naphthoquinone	0.97	U	49	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
1-Naphthylamine	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
2,3,4,6-Tetrachlorophenol	0.97	U	49	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
2,4,5-Trichlorophenol	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
2,4,6-Trichlorophenol	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
2,4-Dichlorophenol	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
2,4-Dimethylphenol	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
2,4-Dinitrophenol	1.9	U	49	1.9	ug/L		12/08/16 11:09	12/30/16 15:44	1
2,4-Dinitrotoluene	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
2,6-Dichlorophenol	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
2,6-Dinitrotoluene	2.1	U	9.7	2.1	ug/L		12/08/16 11:09	12/30/16 15:44	1
2-Acetylaminofluorene	0.97	U	97	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
2-Chloronaphthalene	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
2-Chlorophenol	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
2-Methylnaphthalene	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
2-Methylphenol	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
2-Naphthylamine	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
2-Nitroaniline	1.1	U	9.7	1.1	ug/L		12/08/16 11:09	12/30/16 15:44	1
2-Nitrophenol	1.5	U	9.7	1.5	ug/L		12/08/16 11:09	12/30/16 15:44	1
2-Picoline	1.9	U	19	1.9	ug/L		12/08/16 11:09	12/30/16 15:44	1
3 & 4 Methylphenol	1.9	U	19	1.9	ug/L		12/08/16 11:09	12/30/16 15:44	1
3,3'-Dichlorobenzidine	1.3	U	49	1.3	ug/L		12/08/16 11:09	12/30/16 15:44	1
3,3'-Dimethylbenzidine	2.5	U	49	2.5	ug/L		12/08/16 11:09	12/30/16 15:44	1
3-Methylcholanthrene	0.97	U	19	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
3-Nitroaniline	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
4,6-Dinitro-2-methylphenol	1.2	U	9.7	1.2	ug/L		12/08/16 11:09	12/30/16 15:44	1
4-Aminobiphenyl	1.0	U	49	1.0	ug/L		12/08/16 11:09	12/30/16 15:44	1
4-Bromophenyl phenyl ether	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
4-Chloro-3-methylphenol	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
4-Chloroaniline	1.9	U	9.7	1.9	ug/L		12/08/16 11:09	12/30/16 15:44	1
4-Chlorophenyl phenyl ether	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
4-Nitroaniline	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
4-Nitrophenol	1.9	U	9.7	1.9	ug/L		12/08/16 11:09	12/30/16 15:44	1
4-Nitroquinoline-1-oxide	4.9	U	97	4.9	ug/L		12/08/16 11:09	12/30/16 15:44	1
5-Nitro-o-toluidine	0.97	U	19	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
7,12-Dimethylbenz(a)anthracene	0.97	U	19	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Acenaphthene	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Acenaphthylene	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Acetophenone	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
alpha,alpha-Dimethyl phenethylamine	21	U	49	21	ug/L		12/08/16 11:09	12/30/16 15:44	1
Aniline	1.2	U	9.7	1.2	ug/L		12/08/16 11:09	12/30/16 15:44	1
Anthracene	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Aramite, Total	4.9	U	19	4.9	ug/L		12/08/16 11:09	12/30/16 15:44	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B37MY4
Date Collected: 12/04/16 09:11
Date Received: 12/06/16 10:45
Lab Sample ID: 160-20287-14
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Benzo[a]pyrene	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Benzo[b]fluoranthene	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Benzo[g,h,i]perylene	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Benzo[k]fluoranthene	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Benzyl alcohol	2.9	U	9.7	2.9	ug/L		12/08/16 11:09	12/30/16 15:44	1
bis(2 chloro-1-methylethyl) ether	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Bis(2-chloroethoxy)methane	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Bis(2-chloroethyl)ether	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Bis(2-ethylhexyl) phthalate	**3.2**	**J B**	9.7	1.8	ug/L		12/08/16 11:09	12/30/16 15:44	1
Butyl benzyl phthalate	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Carbazole	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Chlorobenzilate	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Chrysene	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Diallate	1.9	U	19	1.9	ug/L		12/08/16 11:09	12/30/16 15:44	1
Dibenz(a,h)anthracene	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Dibenzofuran	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Diethyl phthalate	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Dimethoate	0.97	U	19	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Dimethyl phthalate	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Di-n-butyl phthalate	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Dinitrobenzene, m-	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Di-n-octyl phthalate	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Dinoseb	1.9	U	19	1.9	ug/L		12/08/16 11:09	12/30/16 15:44	1
Diphenylamine + N-Nitrosodiphenylamine	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Disulfoton	0.97	U	49	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Ethyl methanesulfonate	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Famphur	1.6	U	97	1.6	ug/L		12/08/16 11:09	12/30/16 15:44	1
Fluoranthene	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Fluorene	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Hexachlorobenzene	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Hexachlorobutadiene	0.97	U o	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Hexachlorocyclopentadiene	0.97	U o	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Hexachloroethane	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Hexachlorophene	9.7	U	240	9.7	ug/L		12/08/16 11:09	12/30/16 15:44	1
Hexachloropropene	0.97	U	97	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Indeno[1,2,3-cd]pyrene	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Isodrin	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Isophorone	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Isosafrole	4.9	U	19	4.9	ug/L		12/08/16 11:09	12/30/16 15:44	1
Kepone	19	U	97	19	ug/L		12/08/16 11:09	12/30/16 15:44	1
Methapyrilene	1.2	U	49	1.2	ug/L		12/08/16 11:09	12/30/16 15:44	1
Methyl methanesulfonate	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Methyl parathion	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Naphthalene	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Nitrobenzene	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
N-Nitrosodiethylamine	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
N-Nitrosodimethylamine	1.9	U	9.7	1.9	ug/L		12/08/16 11:09	12/30/16 15:44	1
N-Nitrosodi-n-butylamine	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B37MY4 **Lab Sample ID: 160-20287-14**
Date Collected: 12/04/16 09:11 **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	1.5	U	9.7	1.5	ug/L		12/08/16 11:09	12/30/16 15:44	1
N-Nitrosomethylethylamine	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
N-Nitrosomorpholine	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
N-Nitrosopiperidine	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
N-Nitrosopyrrolidine	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
o,o',o''-Triethylphosphorothioate	1.1	U	49	1.1	ug/L		12/08/16 11:09	12/30/16 15:44	1
O,O-Diethyl O-2-pyrazinyl phosphorothioate	0.97	U	49	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
o-Toluidine	0.97	U	19	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Parathion	0.97	U	49	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
p-Dimethylamino azobenzene	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Pentachlorobenzene	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Pentachloroethane	0.97	U	49	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Pentachloronitrobenzene	0.97	U	49	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Pentachlorophenol	1.2	U	49	1.2	ug/L		12/08/16 11:09	12/30/16 15:44	1
Phenacetin	0.97	U	19	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Phenanthrene	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Phenol	1.9	U	9.7	1.9	ug/L		12/08/16 11:09	12/30/16 15:44	1
Phorate	1.9	U	49	1.9	ug/L		12/08/16 11:09	12/30/16 15:44	1
p-Phenylene diamine	0.97	U	97	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Pronamide	0.97	U	19	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Pyrene	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Pyridine	1.9	U	19	1.9	ug/L		12/08/16 11:09	12/30/16 15:44	1
Safrole	0.97	U	19	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
sym-Trinitrobenzene	0.97	U	49	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Tetraethyl dithiopyrophosphate (sulfotep)	0.97	U	49	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1
Tributyl phosphate	0.97	U	9.7	0.97	ug/L		12/08/16 11:09	12/30/16 15:44	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*				*12/08/16 11:09*	*12/30/16 15:44*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*86*		*37 - 120*	*12/08/16 11:09*	*12/30/16 15:44*	*1*
2-Fluorobiphenyl (Surr)	*77*		*43 - 108*	*12/08/16 11:09*	*12/30/16 15:44*	*1*
2-Fluorophenol (Surr)	*42*		*15 - 59*	*12/08/16 11:09*	*12/30/16 15:44*	*1*
Nitrobenzene-d5 (Surr)	*81*		*50 - 101*	*12/08/16 11:09*	*12/30/16 15:44*	*1*
Phenol-d5 (Surr)	*27*		*10 - 50*	*12/08/16 11:09*	*12/30/16 15:44*	*1*
Terphenyl-d14 (Surr)	*85*		*21 - 97*	*12/08/16 11:09*	*12/30/16 15:44*	*1*

Method: 8081B - Organochlorine Pesticides (GC)

Client Sample ID: B37MY4 **Lab Sample ID: 160-20287-14**
Date Collected: 12/04/16 09:11 **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0097	U o	0.048	0.0097	ug/L		12/08/16 13:40	12/13/16 20:12	1
4,4'-DDE	0.014	U	0.048	0.014	ug/L		12/08/16 13:40	12/13/16 20:12	1
4,4'-DDT	0.022	U	0.048	0.022	ug/L		12/08/16 13:40	12/13/16 20:12	1
Aldrin	0.0097	U	0.048	0.0097	ug/L		12/08/16 13:40	12/13/16 20:12	1
alpha-BHC	0.0097	U o	0.048	0.0097	ug/L		12/08/16 13:40	12/13/16 20:12	1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: B37MY4 **Lab Sample ID: 160-20287-14**
Date Collected: 12/04/16 09:11 **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
alpha-Chlordane	0.015	U o	0.048	0.015	ug/L		12/08/16 13:40	12/13/16 20:12	1
beta-BHC	0.013	U	0.048	0.013	ug/L		12/08/16 13:40	12/13/16 20:12	1
delta-BHC	0.0097	U o	0.048	0.0097	ug/L		12/08/16 13:40	12/13/16 20:12	1
Dieldrin	0.0097	U o	0.048	0.0097	ug/L		12/08/16 13:40	12/13/16 20:12	1
Endosulfan I	0.018	U	0.048	0.018	ug/L		12/08/16 13:40	12/13/16 20:12	1
Endosulfan II	0.0097	U	0.048	0.0097	ug/L		12/08/16 13:40	12/13/16 20:12	1
Endosulfan sulfate	0.0097	U	0.048	0.0097	ug/L		12/08/16 13:40	12/13/16 20:12	1
Endrin	0.017	U	0.048	0.017	ug/L		12/08/16 13:40	12/13/16 20:12	1
Endrin aldehyde	0.0097	U o	0.048	0.0097	ug/L		12/08/16 13:40	12/13/16 20:12	1
Endrin ketone	0.0097	U o	0.048	0.0097	ug/L		12/08/16 13:40	12/13/16 20:12	1
gamma-BHC (Lindane)	0.0097	U o	0.048	0.0097	ug/L		12/08/16 13:40	12/13/16 20:12	1
Heptachlor	0.0097	U	0.048	0.0097	ug/L		12/08/16 13:40	12/13/16 20:12	1
Heptachlor epoxide	0.016	U o	0.048	0.016	ug/L		12/08/16 13:40	12/13/16 20:12	1
Methoxychlor	0.013	U	0.48	0.013	ug/L		12/08/16 13:40	12/13/16 20:12	1
Technical Chlordane	0.097	U	0.48	0.097	ug/L		12/08/16 13:40	12/13/16 20:12	1
Toxaphene	0.26	U	1.9	0.26	ug/L		12/08/16 13:40	12/13/16 20:12	1
trans-Chlordane	0.0097	U o	0.048	0.0097	ug/L		12/08/16 13:40	12/13/16 20:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*93*		*26 - 127*	*12/08/16 13:40*	*12/13/16 20:12*	*1*
Tetrachloro-m-xylene	*77*		*53 - 116*	*12/08/16 13:40*	*12/13/16 20:12*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: B37MY4 **Lab Sample ID: 160-20287-14**
Date Collected: 12/04/16 09:11 **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.34	U	0.97	0.34	ug/L		01/06/17 09:47	01/12/17 16:32	1
Aroclor 1221	0.34	U	0.97	0.34	ug/L		01/06/17 09:47	01/12/17 16:32	1
Aroclor 1232	0.34	U	0.97	0.34	ug/L		01/06/17 09:47	01/12/17 16:32	1
Aroclor 1242	0.34	U	0.97	0.34	ug/L		01/06/17 09:47	01/12/17 16:32	1
Aroclor 1248	0.34	U	0.97	0.34	ug/L		01/06/17 09:47	01/12/17 16:32	1
Aroclor 1254	0.21	U	0.97	0.21	ug/L		01/06/17 09:47	01/12/17 16:32	1
Aroclor 1260	0.21	U	0.97	0.21	ug/L		01/06/17 09:47	01/12/17 16:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*54*		*32 - 141*	*01/06/17 09:47*	*01/12/17 16:32*	*1*

Method: 8151A - Herbicides (GC)

Client Sample ID: B37MY4 **Lab Sample ID: 160-20287-14**
Date Collected: 12/04/16 09:11 **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.26	U	0.96	0.26	ug/L		12/08/16 09:05	12/19/16 12:44	1
2,4-D	4.0	U o	7.7	4.0	ug/L		12/08/16 09:05	12/19/16 12:44	1
2,4-DB	3.6	U	7.7	3.6	ug/L		12/08/16 09:05	12/19/16 12:44	1
Dalapon	9.3	U	12	9.3	ug/L		12/08/16 09:05	12/19/16 12:44	1
Dicamba	0.32	U	1.9	0.32	ug/L		12/08/16 09:05	12/19/16 12:44	1

Method: 8151A - Herbicides (GC) (Continued)

Client Sample ID: B37MY4 — **Lab Sample ID: 160-20287-14**
Date Collected: 12/04/16 09:11 — **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorprop	1.3	U	4.8	1.3	ug/L		12/08/16 09:05	12/19/16 12:44	1
Dinoseb	0.70	U	1.9	0.70	ug/L		12/08/16 09:05	12/19/16 12:44	1
MCPA	180	U	380	180	ug/L		12/08/16 09:05	12/19/16 12:44	1
MCPP	160	U	380	160	ug/L		12/08/16 09:05	12/19/16 12:44	1
Silvex (2,4,5-TP)	0.18	U	0.96	0.18	ug/L		12/08/16 09:05	12/19/16 12:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*121*		*60 - 128*	*12/08/16 09:05*	*12/19/16 12:44*	*1*

Method: 6010C - Metals (ICP)

Client Sample ID: B37LP3 — **Lab Sample ID: 160-20287-6**
Date Collected: 12/04/16 13:39 — **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**29000**		1000	300	ug/L		12/14/16 15:47	12/15/16 17:39	1
Iron	30.0	U	100	30.0	ug/L		12/14/16 15:47	12/15/16 17:39	1
Magnesium	**9050**		1000	300	ug/L		12/14/16 15:47	12/15/16 17:39	1
Potassium	**7260**		5000	1500	ug/L		12/14/16 15:47	12/15/16 17:39	1
Sodium	**11100**		1000	300	ug/L		12/14/16 15:47	12/15/16 17:39	1
Vanadium	15.0	U	50.0	15.0	ug/L		12/14/16 15:47	12/15/16 17:39	1
Boron	25.0	U	100	25.0	ug/L		12/14/16 15:47	12/15/16 17:39	1

Client Sample ID: B37N29 — **Lab Sample ID: 160-20287-9**
Date Collected: 12/05/16 10:13 — **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**117000**	**D**	2000	600	ug/L		12/14/16 15:47	12/15/16 18:01	2
Iron	**668**	**D**	200	60.0	ug/L		12/14/16 15:47	12/15/16 18:01	2
Magnesium	**34000**	**D**	2000	600	ug/L		12/14/16 15:47	12/15/16 18:01	2
Potassium	**9400**	**B D**	10000	3000	ug/L		12/14/16 15:47	12/15/16 18:01	2
Sodium	**22000**	**D**	2000	600	ug/L		12/14/16 15:47	12/15/16 18:01	2
Vanadium	**37.0**	**B D**	100	30.0	ug/L		12/14/16 15:47	12/15/16 18:01	2
Boron	50.0	U D	200	50.0	ug/L		12/14/16 15:47	12/15/16 18:01	2

Client Sample ID: B37N40 — **Lab Sample ID: 160-20287-11**
Date Collected: 12/05/16 11:43 — **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**107000**	**D**	2000	600	ug/L		12/14/16 15:47	12/15/16 18:05	2
Iron	**131**	**B D**	200	60.0	ug/L		12/14/16 15:47	12/15/16 18:05	2
Magnesium	**30300**	**D**	2000	600	ug/L		12/14/16 15:47	12/15/16 18:05	2
Potassium	**9930**	**B D**	10000	3000	ug/L		12/14/16 15:47	12/15/16 18:05	2
Sodium	**22600**	**D**	2000	600	ug/L		12/14/16 15:47	12/15/16 18:05	2
Vanadium	30.0	U D	100	30.0	ug/L		12/14/16 15:47	12/15/16 18:05	2
Boron	50.0	U D	200	50.0	ug/L		12/14/16 15:47	12/15/16 18:05	2

Method: 6010C - Metals (ICP) - Dissolved

Client Sample ID: B37LP7 — **Lab Sample ID: 160-20287-5**
Date Collected: 12/04/16 13:39 — **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	25.0	U	100	25.0	ug/L		12/14/16 15:47	12/15/16 17:35	1
Calcium	**29000**		1000	300	ug/L		12/14/16 15:47	12/15/16 17:35	1
Iron	30.0	U	100	30.0	ug/L		12/14/16 15:47	12/15/16 17:35	1
Magnesium	**9070**		1000	300	ug/L		12/14/16 15:47	12/15/16 17:35	1
Potassium	**7330**		5000	1500	ug/L		12/14/16 15:47	12/15/16 17:35	1
Sodium	**11100**		1000	300	ug/L		12/14/16 15:47	12/15/16 17:35	1
Vanadium	**15.3**	**B**	50.0	15.0	ug/L		12/14/16 15:47	12/15/16 17:35	1

Client Sample ID: B37N31 — **Lab Sample ID: 160-20287-8**
Date Collected: 12/05/16 10:13 — **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	50.0	U D	200	50.0	ug/L		12/14/16 15:47	12/15/16 17:56	2
Calcium	**112000**	**D**	2000	600	ug/L		12/14/16 15:47	12/15/16 17:56	2
Iron	60.0	U D	200	60.0	ug/L		12/14/16 15:47	12/15/16 17:56	2
Magnesium	**33400**	**D**	2000	600	ug/L		12/14/16 15:47	12/15/16 17:56	2
Potassium	**9420**	**B D**	10000	3000	ug/L		12/14/16 15:47	12/15/16 17:56	2
Sodium	**21600**	**D**	2000	600	ug/L		12/14/16 15:47	12/15/16 17:56	2
Vanadium	30.0	U D	100	30.0	ug/L		12/14/16 15:47	12/15/16 17:56	2

Client Sample ID: B37N42 — **Lab Sample ID: 160-20287-12**
Date Collected: 12/05/16 11:43 — **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	50.0	U D	200	50.0	ug/L		12/14/16 15:47	12/15/16 18:23	2
Calcium	**103000**	**D**	2000	600	ug/L		12/14/16 15:47	12/15/16 18:23	2
Iron	60.0	U D	200	60.0	ug/L		12/14/16 15:47	12/15/16 18:23	2
Magnesium	**29300**	**D**	2000	600	ug/L		12/14/16 15:47	12/15/16 18:23	2
Potassium	**9610**	**B D**	10000	3000	ug/L		12/14/16 15:47	12/15/16 18:23	2
Sodium	**21900**	**D**	2000	600	ug/L		12/14/16 15:47	12/15/16 18:23	2
Vanadium	30.0	U D	100	30.0	ug/L		12/14/16 15:47	12/15/16 18:23	2

Method: 6020A - Metals (ICP/MS)

Client Sample ID: B37M59 — **Lab Sample ID: 160-20287-1**
Date Collected: 12/04/16 06:45 — **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	0.40	U D	1.0	0.40	ug/L		12/14/16 15:44	12/22/16 18:05	2

Client Sample ID: B37M60 — **Lab Sample ID: 160-20287-2**
Date Collected: 12/04/16 15:18 — **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	**26.8**	**D**	1.0	0.40	ug/L		12/14/16 15:44	12/22/16 18:11	2

Client Sample ID: B37M42 — **Lab Sample ID: 160-20287-3**
Date Collected: 12/04/16 13:07 — **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	**34.9**	**D**	1.0	0.40	ug/L		12/14/16 15:44	12/22/16 18:18	2

Client Sample ID: B37MB7 **Lab Sample ID: 160-20287-4**
Date Collected: 12/04/16 12:42 **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	**95.8**	**D**	1.0	0.40	ug/L		12/14/16 15:44	12/22/16 18:25	2

Client Sample ID: B37LP3 **Lab Sample ID: 160-20287-6**
Date Collected: 12/04/16 13:39 **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	20.0	U D	50.0	20.0	ug/L		12/14/16 15:44	12/22/16 18:38	2
Antimony	2.0	U D	5.0	2.0	ug/L		12/14/16 15:44	12/22/16 18:38	2
Arsenic	4.0	U D	10.0	4.0	ug/L		12/14/16 15:44	12/22/16 18:38	2
Barium	**79.8**	**D**	2.0	0.90	ug/L		12/14/16 15:44	12/22/16 18:38	2
Beryllium	0.20	U D	0.50	0.20	ug/L		12/14/16 15:44	12/22/16 18:38	2
Cadmium	0.20	U D	0.50	0.20	ug/L		12/14/16 15:44	12/22/16 18:38	2
Chromium	4.0	U D	10.0	4.0	ug/L		12/14/16 15:44	12/22/16 18:38	2
Cobalt	0.90	U D	2.0	0.90	ug/L		12/14/16 15:44	12/22/16 18:38	2
Copper	**0.88**	**B D C**	1.0	0.40	ug/L		12/14/16 15:44	12/16/16 06:53	2
Lead	1.0	U D	3.0	1.0	ug/L		12/14/16 15:44	12/22/16 18:38	2
Manganese	**6.8**	**D**	2.0	0.90	ug/L		12/14/16 15:44	12/22/16 18:38	2
Molybdenum	**4.7**	**B D**	5.0	2.0	ug/L		12/14/16 15:44	12/22/16 18:38	2
Nickel	**3.6**	**B D**	5.0	2.0	ug/L		12/14/16 15:44	12/22/16 18:38	2
Selenium	2.0	U D	5.0	2.0	ug/L		12/14/16 15:44	12/22/16 18:38	2
Silver	0.90	U D	2.0	0.90	ug/L		12/14/16 15:44	12/22/16 18:38	2
Strontium	**230**	**D**	5.0	0.50	ug/L		12/14/16 15:44	12/22/16 18:38	2
Thallium	0.90	U D	2.0	0.90	ug/L		12/14/16 15:44	12/22/16 18:38	2
Thorium	0.90	U D	2.0	0.90	ug/L		12/14/16 15:44	12/22/16 18:38	2
Tin	1.2	U D	2.0	1.2	ug/L		12/14/16 15:44	12/22/16 18:38	2
Uranium	**2.7**	**D**	1.0	0.40	ug/L		12/14/16 15:44	12/22/16 18:38	2
Zinc	7.5	U D	20.0	7.5	ug/L		12/14/16 15:44	12/22/16 18:38	2

Client Sample ID: B37M95 **Lab Sample ID: 160-20287-7**
Date Collected: 12/04/16 14:38 **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	**22.6**	**D**	1.0	0.40	ug/L		12/14/16 15:44	12/22/16 19:25	2

Client Sample ID: B37N29 **Lab Sample ID: 160-20287-9**
Date Collected: 12/05/16 10:13 **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**581**	**D**	125	50.0	ug/L		12/14/16 15:44	12/22/16 19:39	5
Antimony	5.0	U D	12.5	5.0	ug/L		12/14/16 15:44	12/22/16 19:39	5
Arsenic	10.0	U D	25.0	10.0	ug/L		12/14/16 15:44	12/22/16 19:39	5
Barium	**75.3**	**D**	5.0	2.3	ug/L		12/14/16 15:44	12/22/16 19:39	5
Beryllium	0.50	U D	1.3	0.50	ug/L		12/14/16 15:44	12/22/16 19:39	5
Cadmium	0.50	U D	1.3	0.50	ug/L		12/14/16 15:44	12/22/16 19:39	5
Chromium	**60.6**	**D**	25.0	10.0	ug/L		12/14/16 15:44	12/22/16 19:39	5
Cobalt	2.3	U D	5.0	2.3	ug/L		12/14/16 15:44	12/22/16 19:39	5
Copper	**5.2**	**D**	1.0	0.40	ug/L		12/14/16 15:44	12/16/16 07:34	2
Lead	2.5	U D	7.5	2.5	ug/L		12/14/16 15:44	12/22/16 19:39	5
Manganese	**51.6**	**D**	5.0	2.3	ug/L		12/14/16 15:44	12/22/16 19:39	5
Molybdenum	5.0	U D	12.5	5.0	ug/L		12/14/16 15:44	12/22/16 19:39	5
Nickel	**64.5**	**D**	12.5	5.0	ug/L		12/14/16 15:44	12/22/16 19:39	5
Selenium	**21.4**	**D**	12.5	5.0	ug/L		12/14/16 15:44	12/22/16 19:39	5

Method: 6020A - Metals (ICP/MS) (Continued)

Client Sample ID: B37N29 — **Lab Sample ID: 160-20287-9**
Date Collected: 12/05/16 10:13 — **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	2.3	U D	5.0	2.3	ug/L		12/14/16 15:44	12/22/16 19:39	5
Strontium	**749**	**D**	12.5	1.3	ug/L		12/14/16 15:44	12/22/16 19:39	5
Thallium	2.3	U D	5.0	2.3	ug/L		12/14/16 15:44	12/22/16 19:39	5
Thorium	2.3	U D	5.0	2.3	ug/L		12/14/16 15:44	12/22/16 19:39	5
Tin	3.0	U D	5.0	3.0	ug/L		12/14/16 15:44	12/22/16 19:39	5
Uranium	**8.3**	**D**	2.5	1.0	ug/L		12/14/16 15:44	12/22/16 19:39	5
Zinc	18.8	U D	50.0	18.8	ug/L		12/14/16 15:44	12/22/16 19:39	5

Client Sample ID: B37N40 — **Lab Sample ID: 160-20287-11**
Date Collected: 12/05/16 11:43 — **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**53.1**	**B D**	125	50.0	ug/L		12/14/16 15:44	12/22/16 19:46	5
Antimony	5.0	U D	12.5	5.0	ug/L		12/14/16 15:44	12/22/16 19:46	5
Arsenic	10.0	U D	25.0	10.0	ug/L		12/14/16 15:44	12/22/16 19:46	5
Barium	**88.4**	**D**	5.0	2.3	ug/L		12/14/16 15:44	12/22/16 19:46	5
Beryllium	0.50	U D	1.3	0.50	ug/L		12/14/16 15:44	12/22/16 19:46	5
Cadmium	0.50	U D	1.3	0.50	ug/L		12/14/16 15:44	12/22/16 19:46	5
Chromium	**24.3**	**B D**	25.0	10.0	ug/L		12/14/16 15:44	12/22/16 19:46	5
Cobalt	2.3	U D	5.0	2.3	ug/L		12/14/16 15:44	12/22/16 19:46	5
Copper	**1.8**	**D C**	1.0	0.40	ug/L		12/14/16 15:44	12/16/16 07:40	2
Lead	2.5	U D	7.5	2.5	ug/L		12/14/16 15:44	12/22/16 19:46	5
Manganese	**9.9**	**D**	5.0	2.3	ug/L		12/14/16 15:44	12/22/16 19:46	5
Molybdenum	5.0	U D	12.5	5.0	ug/L		12/14/16 15:44	12/22/16 19:46	5
Nickel	**11.7**	**B D**	12.5	5.0	ug/L		12/14/16 15:44	12/22/16 19:46	5
Selenium	**23.5**	**D**	12.5	5.0	ug/L		12/14/16 15:44	12/22/16 19:46	5
Silver	2.3	U D	5.0	2.3	ug/L		12/14/16 15:44	12/22/16 19:46	5
Strontium	**754**	**D**	12.5	1.3	ug/L		12/14/16 15:44	12/22/16 19:46	5
Thallium	2.3	U D	5.0	2.3	ug/L		12/14/16 15:44	12/22/16 19:46	5
Thorium	2.3	U D	5.0	2.3	ug/L		12/14/16 15:44	12/22/16 19:46	5
Tin	3.0	U D	5.0	3.0	ug/L		12/14/16 15:44	12/22/16 19:46	5
Uranium	**9.4**	**D**	2.5	1.0	ug/L		12/14/16 15:44	12/22/16 19:46	5
Zinc	18.8	U D	50.0	18.8	ug/L		12/14/16 15:44	12/22/16 19:46	5

Method: 6020A - Metals (ICP/MS) - Dissolved

Client Sample ID: B37LP7 — **Lab Sample ID: 160-20287-5**
Date Collected: 12/04/16 13:39 — **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	20.0	U D	50.0	20.0	ug/L		12/14/16 15:44	12/22/16 18:32	2
Antimony	2.0	U D	5.0	2.0	ug/L		12/14/16 15:44	12/22/16 18:32	2
Arsenic	4.0	U D	10.0	4.0	ug/L		12/14/16 15:44	12/22/16 18:32	2
Barium	**98.8**	**D**	2.0	0.90	ug/L		12/14/16 15:44	12/22/16 18:32	2
Beryllium	0.20	U D	0.50	0.20	ug/L		12/14/16 15:44	12/22/16 18:32	2
Cadmium	0.20	U D	0.50	0.20	ug/L		12/14/16 15:44	12/22/16 18:32	2
Chromium	4.0	U D	10.0	4.0	ug/L		12/14/16 15:44	12/22/16 18:32	2
Cobalt	0.90	U D	2.0	0.90	ug/L		12/14/16 15:44	12/22/16 18:32	2
Copper	**1.1**	**D C**	1.0	0.40	ug/L		12/14/16 15:44	12/16/16 06:26	2
Lead	1.0	U D	3.0	1.0	ug/L		12/14/16 15:44	12/22/16 18:32	2

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Client Sample ID: B37LP7 — **Lab Sample ID: 160-20287-5**
Date Collected: 12/04/16 13:39 — **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**9.7**	**D**	2.0	0.90	ug/L		12/14/16 15:44	12/22/16 18:32	2
Molybdenum	**5.8**	**D**	5.0	2.0	ug/L		12/14/16 15:44	12/22/16 18:32	2
Nickel	**4.4**	**B D**	5.0	2.0	ug/L		12/14/16 15:44	12/22/16 18:32	2
Selenium	2.0	U D	5.0	2.0	ug/L		12/14/16 15:44	12/22/16 18:32	2
Silver	0.90	U D	2.0	0.90	ug/L		12/14/16 15:44	12/22/16 18:32	2
Strontium	**283**	**D**	5.0	0.50	ug/L		12/14/16 15:44	12/22/16 18:32	2
Thallium	0.90	U D	2.0	0.90	ug/L		12/14/16 15:44	12/22/16 18:32	2
Thorium	0.90	U D	2.0	0.90	ug/L		12/14/16 15:44	12/22/16 18:32	2
Tin	1.2	U D	2.0	1.2	ug/L		12/14/16 15:44	12/22/16 18:32	2
Uranium	**3.3**	**D**	1.0	0.40	ug/L		12/14/16 15:44	12/22/16 18:32	2
Zinc	7.5	U D	20.0	7.5	ug/L		12/14/16 15:44	12/22/16 18:32	2

Client Sample ID: B37N31 — **Lab Sample ID: 160-20287-8**
Date Collected: 12/05/16 10:13 — **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	50.0	U D	125	50.0	ug/L		12/14/16 15:44	12/22/16 19:32	5
Antimony	5.0	U D	12.5	5.0	ug/L		12/14/16 15:44	12/22/16 19:32	5
Arsenic	10.0	U D	25.0	10.0	ug/L		12/14/16 15:44	12/22/16 19:32	5
Barium	**72.0**	**D**	5.0	2.3	ug/L		12/14/16 15:44	12/22/16 19:32	5
Beryllium	0.50	U D	1.3	0.50	ug/L		12/14/16 15:44	12/22/16 19:32	5
Cadmium	0.50	U D	1.3	0.50	ug/L		12/14/16 15:44	12/22/16 19:32	5
Chromium	10.0	U D	25.0	10.0	ug/L		12/14/16 15:44	12/22/16 19:32	5
Cobalt	2.3	U D	5.0	2.3	ug/L		12/14/16 15:44	12/22/16 19:32	5
Copper	**0.52**	**B D C**	1.0	0.40	ug/L		12/14/16 15:44	12/16/16 07:27	2
Lead	2.5	U D	7.5	2.5	ug/L		12/14/16 15:44	12/22/16 19:32	5
Manganese	**44.3**	**D**	5.0	2.3	ug/L		12/14/16 15:44	12/22/16 19:32	5
Molybdenum	5.0	U D	12.5	5.0	ug/L		12/14/16 15:44	12/22/16 19:32	5
Nickel	**43.0**	**D**	12.5	5.0	ug/L		12/14/16 15:44	12/22/16 19:32	5
Selenium	**25.1**	**D**	12.5	5.0	ug/L		12/14/16 15:44	12/22/16 19:32	5
Silver	2.3	U D	5.0	2.3	ug/L		12/14/16 15:44	12/22/16 19:32	5
Strontium	**765**	**D**	12.5	1.3	ug/L		12/14/16 15:44	12/22/16 19:32	5
Thallium	2.3	U D	5.0	2.3	ug/L		12/14/16 15:44	12/22/16 19:32	5
Thorium	2.3	U D	5.0	2.3	ug/L		12/14/16 15:44	12/22/16 19:32	5
Tin	3.0	U D	5.0	3.0	ug/L		12/14/16 15:44	12/22/16 19:32	5
Uranium	**8.5**	**D**	2.5	1.0	ug/L		12/14/16 15:44	12/22/16 19:32	5
Zinc	18.8	U D	50.0	18.8	ug/L		12/14/16 15:44	12/22/16 19:32	5

Client Sample ID: B37N42 — **Lab Sample ID: 160-20287-12**
Date Collected: 12/05/16 11:43 — **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	50.0	U D	125	50.0	ug/L		12/14/16 15:44	12/22/16 19:52	5
Antimony	5.0	U D	12.5	5.0	ug/L		12/14/16 15:44	12/22/16 19:52	5
Arsenic	10.0	U D	25.0	10.0	ug/L		12/14/16 15:44	12/22/16 19:52	5
Barium	**91.2**	**D**	5.0	2.3	ug/L		12/14/16 15:44	12/22/16 19:52	5
Beryllium	0.50	U D	1.3	0.50	ug/L		12/14/16 15:44	12/22/16 19:52	5
Cadmium	0.50	U D	1.3	0.50	ug/L		12/14/16 15:44	12/22/16 19:52	5
Chromium	10.0	U D	25.0	10.0	ug/L		12/14/16 15:44	12/22/16 19:52	5
Cobalt	2.3	U D	5.0	2.3	ug/L		12/14/16 15:44	12/22/16 19:52	5

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Client Sample ID: B37N42 — **Lab Sample ID: 160-20287-12**
Date Collected: 12/05/16 11:43 — **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	**0.86**	**B D C**	1.0	0.40	ug/L		12/14/16 15:44	12/16/16 07:47	2
Lead	2.5	U D	7.5	2.5	ug/L		12/14/16 15:44	12/22/16 19:52	5
Manganese	**6.7**	**D**	5.0	2.3	ug/L		12/14/16 15:44	12/22/16 19:52	5
Molybdenum	5.0	U D	12.5	5.0	ug/L		12/14/16 15:44	12/22/16 19:52	5
Nickel	**5.9**	**B D**	12.5	5.0	ug/L		12/14/16 15:44	12/22/16 19:52	5
Selenium	**20.2**	**D**	12.5	5.0	ug/L		12/14/16 15:44	12/22/16 19:52	5
Silver	2.3	U D	5.0	2.3	ug/L		12/14/16 15:44	12/22/16 19:52	5
Strontium	**772**	**D**	12.5	1.3	ug/L		12/14/16 15:44	12/22/16 19:52	5
Thallium	2.3	U D	5.0	2.3	ug/L		12/14/16 15:44	12/22/16 19:52	5
Thorium	2.3	U D	5.0	2.3	ug/L		12/14/16 15:44	12/22/16 19:52	5
Tin	3.0	U D	5.0	3.0	ug/L		12/14/16 15:44	12/22/16 19:52	5
Uranium	**9.9**	**D**	2.5	1.0	ug/L		12/14/16 15:44	12/22/16 19:52	5
Zinc	18.8	U D	50.0	18.8	ug/L		12/14/16 15:44	12/22/16 19:52	5

Method: 7470A - Mercury (CVAA)

Client Sample ID: B37LP3 — **Lab Sample ID: 160-20287-6**
Date Collected: 12/04/16 13:39 — **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.060	U	0.20	0.060	ug/L		12/14/16 09:39	12/15/16 10:39	1

Method: 7470A - Mercury (CVAA) - Dissolved

Client Sample ID: B37LP7 — **Lab Sample ID: 160-20287-5**
Date Collected: 12/04/16 13:39 — **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.060	U	0.20	0.060	ug/L		12/14/16 09:39	12/15/16 10:36	1

General Chemistry

Client Sample ID: B37LP3 — **Lab Sample ID: 160-20287-6**
Date Collected: 12/04/16 13:39 — **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**4.7**	**B Z C**	5.0	3.1	ug/L		12/22/16 13:30	12/22/16 16:23	1

Client Sample ID: B37N29 — **Lab Sample ID: 160-20287-9**
Date Collected: 12/05/16 10:13 — **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	**82.0**		5.0	0.54	mg/L			12/15/16 00:12	1
Cyanide, Total	**16.0**	**Z C**	5.0	3.1	ug/L		12/22/16 13:30	12/22/16 18:14	1

Client Sample ID: B37N23 — **Lab Sample ID: 160-20287-10**
Date Collected: 12/04/16 11:35 — **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	**110**		5.0	0.54	mg/L			12/15/16 00:18	1
Cyanide, Total	3.1	U Z	5.0	3.1	ug/L		12/22/16 13:30	12/22/16 18:17	1

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: S17-012 / W17-012 / X17-003

TestAmerica Job ID: 160-20287-1
SDG: SL2389

Client Sample ID: B37N40 **Lab Sample ID: 160-20287-11**
Date Collected: 12/05/16 11:43 **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	**90.0**		5.0	0.54	mg/L			12/15/16 00:25	1
Cyanide, Total	3.1	U Z	5.0	3.1	ug/L		12/22/16 13:30	12/22/16 18:21	1

Client Sample ID: B37PM0 **Lab Sample ID: 160-20287-13**
Date Collected: 12/04/16 09:11 **Matrix: Water**
Date Received: 12/06/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	**138**		5.0	0.54	mg/L			12/15/16 00:32	1
Cyanide, Total	3.1	U Z	5.0	3.1	ug/L		12/22/16 13:51	12/22/16 18:24	1
Sulfide	2.2	U	10.9	2.2	mg/L		12/09/16 08:15	12/09/16 12:34	1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 160-282787/7
Matrix: Water
Analysis Batch: 282787

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.12	U	1.0	0.12	ug/L			12/07/16 10:43	1
1,1,1-Trichloroethane	0.17	U	1.0	0.17	ug/L			12/07/16 10:43	1
1,1,2,2-Tetrachloroethane	0.10	U	1.0	0.10	ug/L			12/07/16 10:43	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			12/07/16 10:43	1
1,1-Dichloroethane	0.070	U	1.0	0.070	ug/L			12/07/16 10:43	1
1,1-Dichloroethene	0.10	U	1.0	0.10	ug/L			12/07/16 10:43	1
1,2,3-Trichloropropane	0.18	U	1.0	0.18	ug/L			12/07/16 10:43	1
1,2-Dibromo-3-Chloropropane	0.41	U	1.0	0.41	ug/L			12/07/16 10:43	1
1,2-Dibromoethane (EDB)	0.13	U	1.0	0.13	ug/L			12/07/16 10:43	1
1,2-Dichloroethane	0.22	U	1.0	0.22	ug/L			12/07/16 10:43	1
1,2-Dichloropropane	0.10	U	1.0	0.10	ug/L			12/07/16 10:43	1
1,4-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			12/07/16 10:43	1
2-Butanone (MEK)	0.47	U	5.0	0.47	ug/L			12/07/16 10:43	1
2-Hexanone	0.25	U	5.0	0.25	ug/L			12/07/16 10:43	1
4-Methyl-2-pentanone (MIBK)	0.22	U	5.0	0.22	ug/L			12/07/16 10:43	1
Acetone	0.55	U	2.0	0.55	ug/L			12/07/16 10:43	1
Acetonitrile	3.7	U	10	3.7	ug/L			12/07/16 10:43	1
Acrolein	2.8	U	10	2.8	ug/L			12/07/16 10:43	1
Acrylonitrile	0.73	U	10	0.73	ug/L			12/07/16 10:43	1
Allyl chloride	0.10	U	2.0	0.10	ug/L			12/07/16 10:43	1
Benzene	0.10	U	1.0	0.10	ug/L			12/07/16 10:43	1
Bromodichloromethane	0.14	U	1.0	0.14	ug/L			12/07/16 10:43	1
Bromoform	0.17	U	1.0	0.17	ug/L			12/07/16 10:43	1
Bromomethane	0.25	U	2.0	0.25	ug/L			12/07/16 10:43	1
Carbon disulfide	0.10	U	1.0	0.10	ug/L			12/07/16 10:43	1
Carbon tetrachloride	0.18	U	1.0	0.18	ug/L			12/07/16 10:43	1
Chlorobenzene	0.11	U	1.0	0.11	ug/L			12/07/16 10:43	1
Chloroethane	0.16	U	2.0	0.16	ug/L			12/07/16 10:43	1
Chloroform	0.10	U	1.0	0.10	ug/L			12/07/16 10:43	1
Chloromethane	0.10	U	2.0	0.10	ug/L			12/07/16 10:43	1
Chloroprene	0.16	U	1.0	0.16	ug/L			12/07/16 10:43	1
cis-1,2-Dichloroethylene	0.10	U	1.0	0.10	ug/L			12/07/16 10:43	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			12/07/16 10:43	1
Dibromochloromethane	0.14	U	1.0	0.14	ug/L			12/07/16 10:43	1
Dibromomethane	0.21	U	1.0	0.21	ug/L			12/07/16 10:43	1
Dichlorodifluoromethane	0.14	U	2.0	0.14	ug/L			12/07/16 10:43	1
Ethyl Cyanide	1.4	U	10	1.4	ug/L			12/07/16 10:43	1
Ethyl methacrylate	0.17	U	1.0	0.17	ug/L			12/07/16 10:43	1
Ethylbenzene	0.12	U	1.0	0.12	ug/L			12/07/16 10:43	1
Iodomethane	0.10	U	2.0	0.10	ug/L			12/07/16 10:43	1
Isobutyl alcohol	8.3	U	80	8.3	ug/L			12/07/16 10:43	1
Methacrylonitrile	1.2	U	10	1.2	ug/L			12/07/16 10:43	1
Methyl methacrylate	0.27	U	2.0	0.27	ug/L			12/07/16 10:43	1
Methylene Chloride	0.27	U	1.0	0.27	ug/L			12/07/16 10:43	1
Styrene	0.13	U	1.0	0.13	ug/L			12/07/16 10:43	1
Tetrachloroethene	0.18	U	1.0	0.18	ug/L			12/07/16 10:43	1
Toluene	0.14	U	1.0	0.14	ug/L			12/07/16 10:43	1
trans-1,2-Dichloroethylene	0.10	U	1.0	0.10	ug/L			12/07/16 10:43	1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 160-282787/7
Matrix: Water
Analysis Batch: 282787

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	0.10	U	1.0	0.10	ug/L			12/07/16 10:43	1
trans-1,4-Dichloro-2-butene	0.29	U	2.0	0.29	ug/L			12/07/16 10:43	1
Trichloroethene	0.25	U	1.0	0.25	ug/L			12/07/16 10:43	1
Trichloromonofluoromethane	0.11	U	1.0	0.11	ug/L			12/07/16 10:43	1
Vinyl acetate	0.18	U	2.0	0.18	ug/L			12/07/16 10:43	1
Vinyl chloride	0.19	U	2.0	0.19	ug/L			12/07/16 10:43	1
Xylenes, Total	0.27	U	3.0	0.27	ug/L			12/07/16 10:43	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*12/07/16 10:43*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*75 - 129*		*12/07/16 10:43*	*1*
4-Bromofluorobenzene (Surr)	*91*		*81 - 130*		*12/07/16 10:43*	*1*
Dibromofluoromethane (Surr)	*112*		*81 - 124*		*12/07/16 10:43*	*1*
Toluene-d8 (Surr)	*105*		*87 - 128*		*12/07/16 10:43*	*1*

Lab Sample ID: LCS 160-282787/4
Matrix: Water
Analysis Batch: 282787

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	10.0	10.0		ug/L		100	80 - 120
1,1,1-Trichloroethane	10.0	9.82		ug/L		98	85 - 116
1,1,2,2-Tetrachloroethane	10.0	9.35		ug/L		94	80 - 120
1,1,2-Trichloroethane	10.0	9.71		ug/L		97	80 - 120
1,1-Dichloroethane	10.0	10.3		ug/L		103	80 - 120
1,1-Dichloroethene	10.0	9.82		ug/L		98	80 - 120
1,2,3-Trichloropropane	10.0	9.45		ug/L		95	77 - 117
1,2-Dibromo-3-Chloropropane	10.0	9.18		ug/L		92	73 - 123
1,2-Dibromoethane (EDB)	10.0	9.64		ug/L		96	80 - 120
1,2-Dichloroethane	10.0	9.95		ug/L		100	80 - 115
1,2-Dichloropropane	10.0	10.2		ug/L		102	80 - 120
1,4-Dichlorobenzene	10.0	10.1		ug/L		101	80 - 120
2-Butanone (MEK)	10.0	10.5		ug/L		105	67 - 127
2-Hexanone	10.0	9.34		ug/L		93	70 - 123
4-Methyl-2-pentanone (MIBK)	10.0	8.34		ug/L		83	75 - 126
Acetone	10.0	10.2		ug/L		102	69 - 129
Acetonitrile	100	106		ug/L		106	67 - 122
Acrolein	50.0	44.6		ug/L		89	58 - 140
Acrylonitrile	100	102		ug/L		102	80 - 122
Allyl chloride	10.0	9.55		ug/L		96	25 - 140
Benzene	10.0	10.0		ug/L		100	80 - 120
Bromodichloromethane	10.0	9.95		ug/L		100	80 - 120
Bromoform	10.0	9.30		ug/L		93	80 - 120
Bromomethane	10.0	9.98		ug/L		100	70 - 124
Carbon disulfide	10.0	9.80		ug/L		98	80 - 121

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 160-282787/4
Matrix: Water
Analysis Batch: 282787

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbon tetrachloride	10.0	9.79		ug/L		98	83 - 125
Chlorobenzene	10.0	10.1		ug/L		101	80 - 120
Chloroethane	10.0	11.0		ug/L		110	73 - 119
Chloroform	10.0	10.1		ug/L		101	80 - 120
Chloromethane	10.0	9.88		ug/L		99	72 - 124
Chloroprene	10.0	9.75		ug/L		97	79 - 132
cis-1,2-Dichloroethylene	10.0	10.0		ug/L		100	80 - 120
cis-1,3-Dichloropropene	10.0	9.94		ug/L		99	80 - 120
Dibromochloromethane	10.0	9.69		ug/L		97	80 - 120
Dibromomethane	10.0	10.1		ug/L		101	80 - 120
Dichlorodifluoromethane	10.0	9.14		ug/L		91	24 - 140
Ethyl Cyanide	100	106		ug/L		106	77 - 121
Ethyl methacrylate	10.0	8.78		ug/L		88	69 - 123
Ethylbenzene	10.0	9.97		ug/L		100	80 - 120
Iodomethane	10.0	9.56		ug/L		96	69 - 129
Isobutyl alcohol	250	233		ug/L		93	64 - 124
Methacrylonitrile	100	104		ug/L		104	79 - 126
Methyl methacrylate	20.0	18.7		ug/L		94	70 - 123
Methylene Chloride	10.0	10.1		ug/L		101	80 - 120
Styrene	10.0	9.89		ug/L		99	81 - 133
Tetrachloroethene	10.0	10.2		ug/L		102	83 - 123
Toluene	10.0	9.70		ug/L		97	80 - 120
trans-1,2-Dichloroethylene	10.0	10.0		ug/L		100	80 - 120
trans-1,3-Dichloropropene	10.0	9.67		ug/L		97	82 - 124
trans-1,4-Dichloro-2-butene	10.0	9.38		ug/L		94	64 - 137
Trichloroethene	10.0	10.3		ug/L		103	80 - 120
Trichloromonofluoromethane	10.0	9.69		ug/L		97	71 - 132
Vinyl acetate	10.0	9.37		ug/L		94	63 - 140
Vinyl chloride	10.0	10.2		ug/L		102	77 - 122
Xylenes, Total	20.0	19.7		ug/L		98	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*75 - 129*
4-Bromofluorobenzene (Surr)	*93*		*81 - 130*
Dibromofluoromethane (Surr)	*115*		*81 - 124*
Toluene-d8 (Surr)	*103*		*87 - 128*

Lab Sample ID: LCSD 160-282787/5
Matrix: Water
Analysis Batch: 282787

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	10.0	9.79		ug/L		98	80 - 120	2	20
1,1,1-Trichloroethane	10.0	9.56		ug/L		96	85 - 116	3	20
1,1,2,2-Tetrachloroethane	10.0	9.20		ug/L		92	80 - 120	2	20
1,1,2-Trichloroethane	10.0	9.54		ug/L		95	80 - 120	2	20
1,1-Dichloroethane	10.0	9.98		ug/L		100	80 - 120	3	20
1,1-Dichloroethene	10.0	9.53		ug/L		95	80 - 120	3	20

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 160-282787/5
Matrix: Water
Analysis Batch: 282787

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,3-Trichloropropane	10.0	9.30		ug/L		93	77 - 117	2	20
1,2-Dibromo-3-Chloropropane	10.0	9.13		ug/L		91	73 - 123	1	20
1,2-Dibromoethane (EDB)	10.0	9.45		ug/L		94	80 - 120	2	20
1,2-Dichloroethane	10.0	9.80		ug/L		98	80 - 115	2	20
1,2-Dichloropropane	10.0	9.87		ug/L		99	80 - 120	3	20
1,4-Dichlorobenzene	10.0	9.79		ug/L		98	80 - 120	3	20
2-Butanone (MEK)	10.0	10.2		ug/L		102	67 - 127	3	20
2-Hexanone	10.0	9.42		ug/L		94	70 - 123	1	20
4-Methyl-2-pentanone (MIBK)	10.0	8.35		ug/L		84	75 - 126	0	20
Acetone	10.0	10.4		ug/L		104	69 - 129	2	20
Acetonitrile	100	104		ug/L		104	67 - 122	2	20
Acrolein	50.0	44.3		ug/L		89	58 - 140	1	20
Acrylonitrile	100	99.2		ug/L		99	80 - 122	3	20
Allyl chloride	10.0	9.30		ug/L		93	25 - 140	3	20
Benzene	10.0	9.69		ug/L		97	80 - 120	3	20
Bromodichloromethane	10.0	9.67		ug/L		97	80 - 120	3	20
Bromoform	10.0	9.28		ug/L		93	80 - 120	0	20
Bromomethane	10.0	9.56		ug/L		96	70 - 124	4	20
Carbon disulfide	10.0	9.51		ug/L		95	80 - 121	3	20
Carbon tetrachloride	10.0	9.49		ug/L		95	83 - 125	3	20
Chlorobenzene	10.0	9.97		ug/L		100	80 - 120	1	20
Chloroethane	10.0	10.6		ug/L		106	73 - 119	4	20
Chloroform	10.0	9.81		ug/L		98	80 - 120	3	20
Chloromethane	10.0	9.65		ug/L		97	72 - 124	2	20
Chloroprene	10.0	9.56		ug/L		96	79 - 132	2	20
cis-1,2-Dichloroethylene	10.0	9.72		ug/L		97	80 - 120	3	20
cis-1,3-Dichloropropene	10.0	9.65		ug/L		96	80 - 120	3	20
Dibromochloromethane	10.0	9.47		ug/L		95	80 - 120	2	20
Dibromomethane	10.0	9.77		ug/L		98	80 - 120	3	20
Dichlorodifluoromethane	10.0	8.90		ug/L		89	24 - 140	3	20
Ethyl Cyanide	100	103		ug/L		103	77 - 121	3	20
Ethyl methacrylate	10.0	8.83		ug/L		88	69 - 123	1	20
Ethylbenzene	10.0	9.85		ug/L		99	80 - 120	1	20
Iodomethane	10.0	9.38		ug/L		94	69 - 129	2	20
Isobutyl alcohol	250	227		ug/L		91	64 - 124	2	20
Methacrylonitrile	100	101		ug/L		101	79 - 126	4	20
Methyl methacrylate	20.0	18.7		ug/L		93	70 - 123	0	20
Methylene Chloride	10.0	9.89		ug/L		99	80 - 120	2	20
Styrene	10.0	9.70		ug/L		97	81 - 133	2	20
Tetrachloroethene	10.0	10.0		ug/L		100	83 - 123	1	20
Toluene	10.0	9.67		ug/L		97	80 - 120	0	20
trans-1,2-Dichloroethylene	10.0	9.75		ug/L		97	80 - 120	3	20
trans-1,3-Dichloropropene	10.0	9.54		ug/L		95	82 - 124	1	20
trans-1,4-Dichloro-2-butene	10.0	8.84		ug/L		88	64 - 137	6	20
Trichloroethene	10.0	10.0		ug/L		100	80 - 120	2	20
Trichloromonofluoromethane	10.0	9.40		ug/L		94	71 - 132	3	20
Vinyl acetate	10.0	8.98		ug/L		90	63 - 140	4	20
Vinyl chloride	10.0	9.95		ug/L		100	77 - 122	2	20

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 160-282787/5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 282787

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, Total			20.0	19.2		ug/L		96	80 - 120	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*75 - 129*
4-Bromofluorobenzene (Surr)	*92*		*81 - 130*
Dibromofluoromethane (Surr)	*113*		*81 - 124*
Toluene-d8 (Surr)	*103*		*87 - 128*

Lab Sample ID: 160-20287-13 MS — **Client Sample ID: B37PM0**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 282787

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	0.12	U	10.0	10.2		ug/L		102	80 - 120
1,1,1-Trichloroethane	0.17	U	10.0	9.59		ug/L		96	82 - 124
1,1,2,2-Tetrachloroethane	0.10	U	10.0	9.99		ug/L		100	75 - 121
1,1,2-Trichloroethane	0.13	U	10.0	10.3		ug/L		103	80 - 120
1,1-Dichloroethane	0.070	U	10.0	10.1		ug/L		101	80 - 122
1,1-Dichloroethene	0.10	U	10.0	9.51		ug/L		95	80 - 120
1,2,3-Trichloropropane	0.18	U	10.0	10.1		ug/L		101	71 - 119
1,2-Dibromo-3-Chloropropane	0.41	U	10.0	9.75		ug/L		97	64 - 130
1,2-Dibromoethane (EDB)	0.13	U	10.0	9.96		ug/L		100	82 - 122
1,2-Dichloroethane	0.22	U	10.0	10.6		ug/L		106	80 - 120
1,2-Dichloropropane	0.10	U	10.0	10.6		ug/L		106	80 - 120
1,4-Dichlorobenzene	0.10	U	10.0	10.2		ug/L		102	80 - 120
2-Butanone (MEK)	0.47	U	10.0	11.2		ug/L		112	53 - 145
2-Hexanone	0.25	U	10.0	9.70		ug/L		97	59 - 132
4-Methyl-2-pentanone (MIBK)	0.22	U	10.0	8.96		ug/L		90	70 - 131
Acetone	0.55	U T	10.0	17.7	T	ug/L		177	50 - 137
Acetonitrile	3.7	U	100	117		ug/L		117	67 - 138
Acrolein	2.8	U	50.0	49.3		ug/L		99	52 - 150
Acrylonitrile	0.73	U	100	112		ug/L		112	73 - 137
Allyl chloride	0.10	U	10.0	9.62		ug/L		96	49 - 150
Benzene	0.10	U	10.0	10.2		ug/L		102	80 - 120
Bromodichloromethane	0.14	U	10.0	10.3		ug/L		103	80 - 120
Bromoform	0.17	U	10.0	9.61		ug/L		96	81 - 121
Bromomethane	0.25	U	10.0	11.0		ug/L		110	55 - 137
Carbon disulfide	0.10	U	10.0	9.54		ug/L		95	80 - 121
Carbon tetrachloride	0.18	U	10.0	9.53		ug/L		95	77 - 131
Chlorobenzene	0.11	U	10.0	10.1		ug/L		101	80 - 120
Chloroethane	0.16	U	10.0	10.8		ug/L		108	71 - 126
Chloroform	0.39	J	10.0	10.8		ug/L		104	80 - 120
Chloromethane	0.10	U	10.0	9.71		ug/L		97	62 - 132
Chloroprene	0.16	U	10.0	9.43		ug/L		94	74 - 137
cis-1,2-Dichloroethylene	0.10	U	10.0	10.2		ug/L		102	80 - 120
cis-1,3-Dichloropropene	0.16	U	10.0	10.1		ug/L		101	83 - 127
Dibromochloromethane	0.14	U	10.0	10.0		ug/L		100	84 - 123
Dibromomethane	0.21	U	10.0	10.7		ug/L		107	78 - 122

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 160-20287-13 MS — **Client Sample ID: B37PM0**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 282787

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	0.14	U	10.0	8.76		ug/L		88	67 - 135
Ethyl Cyanide	1.4	U	100	117		ug/L		117	67 - 141
Ethyl methacrylate	0.17	U	10.0	9.11		ug/L		91	69 - 123
Ethylbenzene	0.12	U	10.0	9.75		ug/L		98	84 - 125
Iodomethane	0.10	U	10.0	7.33		ug/L		73	53 - 141
Isobutyl alcohol	8.3	U	250	249		ug/L		100	59 - 138
Methacrylonitrile	1.2	U	100	113		ug/L		113	70 - 142
Methyl methacrylate	0.27	U	20.0	20.3		ug/L		101	66 - 131
Methylene Chloride	0.27	U	10.0	10.5		ug/L		105	80 - 120
Styrene	0.13	U	10.0	9.84		ug/L		98	77 - 139
Tetrachloroethene	0.18	U	10.0	9.98		ug/L		100	80 - 126
Toluene	0.14	U	10.0	9.64		ug/L		96	85 - 123
trans-1,2-Dichloroethylene	0.10	U	10.0	9.90		ug/L		99	80 - 120
trans-1,3-Dichloropropene	0.10	U	10.0	9.91		ug/L		99	83 - 125
trans-1,4-Dichloro-2-butene	0.29	U	10.0	9.83		ug/L		98	56 - 139
Trichloroethene	0.25	U	10.0	10.3		ug/L		103	81 - 125
Trichloromonofluoromethane	0.11	U	10.0	9.54		ug/L		95	69 - 133
Vinyl acetate	0.18	U	10.0	10.3		ug/L		103	58 - 150
Vinyl chloride	0.19	U	10.0	10.0		ug/L		100	70 - 129
Xylenes, Total	0.27	U	20.0	19.3		ug/L		96	80 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*112*		*75 - 129*
4-Bromofluorobenzene (Surr)	*92*		*81 - 130*
Dibromofluoromethane (Surr)	*116*		*81 - 124*
Toluene-d8 (Surr)	*102*		*87 - 128*

Lab Sample ID: 160-20287-13 MSD — **Client Sample ID: B37PM0**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 282787

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	0.12	U	10.0	9.94		ug/L		99	80 - 120	2	20
1,1,1-Trichloroethane	0.17	U	10.0	9.70		ug/L		97	82 - 124	1	20
1,1,2,2-Tetrachloroethane	0.10	U	10.0	9.40		ug/L		94	75 - 121	6	20
1,1,2-Trichloroethane	0.13	U	10.0	9.75		ug/L		98	80 - 120	5	20
1,1-Dichloroethane	0.070	U	10.0	10.2		ug/L		102	80 - 122	1	20
1,1-Dichloroethene	0.10	U	10.0	9.69		ug/L		97	80 - 120	2	20
1,2,3-Trichloropropane	0.18	U	10.0	9.43		ug/L		94	71 - 119	7	20
1,2-Dibromo-3-Chloropropane	0.41	U	10.0	8.88		ug/L		89	64 - 130	9	20
1,2-Dibromoethane (EDB)	0.13	U	10.0	9.54		ug/L		95	82 - 122	4	20
1,2-Dichloroethane	0.22	U	10.0	9.96		ug/L		100	80 - 120	7	20
1,2-Dichloropropane	0.10	U	10.0	10.0		ug/L		100	80 - 120	5	20
1,4-Dichlorobenzene	0.10	U	10.0	10.1		ug/L		101	80 - 120	0	20
2-Butanone (MEK)	0.47	U	10.0	10.0		ug/L		100	53 - 145	11	20
2-Hexanone	0.25	U	10.0	9.06		ug/L		91	59 - 132	7	20
4-Methyl-2-pentanone (MIBK)	0.22	U	10.0	8.36		ug/L		84	70 - 131	7	20
Acetone	0.55	U T	10.0	13.1	y	ug/L		131	50 - 137	30	20

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 160-20287-13 MSD
Matrix: Water
Analysis Batch: 282787

Client Sample ID: B37PM0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetonitrile	3.7	U	100	104		ug/L		104	67 - 138	12	20
Acrolein	2.8	U	50.0	45.3		ug/L		91	52 - 150	8	20
Acrylonitrile	0.73	U	100	100		ug/L		100	73 - 137	11	20
Allyl chloride	0.10	U	10.0	9.61		ug/L		96	49 - 150	0	20
Benzene	0.10	U	10.0	9.98		ug/L		100	80 - 120	2	20
Bromodichloromethane	0.14	U	10.0	9.81		ug/L		98	80 - 120	5	20
Bromoform	0.17	U	10.0	9.19		ug/L		92	81 - 121	5	20
Bromomethane	0.25	U	10.0	10.1		ug/L		101	55 - 137	9	20
Carbon disulfide	0.10	U	10.0	9.68		ug/L		97	80 - 121	1	20
Carbon tetrachloride	0.18	U	10.0	9.65		ug/L		97	77 - 131	1	20
Chlorobenzene	0.11	U	10.0	10.1		ug/L		101	80 - 120	0	20
Chloroethane	0.16	U	10.0	10.9		ug/L		109	71 - 126	0	20
Chloroform	0.39	J	10.0	10.4		ug/L		100	80 - 120	3	20
Chloromethane	0.10	U	10.0	9.74		ug/L		97	62 - 132	0	20
Chloroprene	0.16	U	10.0	9.67		ug/L		97	74 - 137	3	20
cis-1,2-Dichloroethylene	0.10	U	10.0	10.0		ug/L		100	80 - 120	2	20
cis-1,3-Dichloropropene	0.16	U	10.0	9.61		ug/L		96	83 - 127	4	20
Dibromochloromethane	0.14	U	10.0	9.67		ug/L		97	84 - 123	4	20
Dibromomethane	0.21	U	10.0	9.85		ug/L		98	78 - 122	9	20
Dichlorodifluoromethane	0.14	U	10.0	8.99		ug/L		90	67 - 135	3	20
Ethyl Cyanide	1.4	U	100	103		ug/L		103	67 - 141	12	20
Ethyl methacrylate	0.17	U	10.0	8.64		ug/L		86	69 - 123	5	20
Ethylbenzene	0.12	U	10.0	10.0		ug/L		100	84 - 125	3	20
Iodomethane	0.10	U	10.0	8.51		ug/L		85	53 - 141	15	20
Isobutyl alcohol	8.3	U	250	217		ug/L		87	59 - 138	14	20
Methacrylonitrile	1.2	U	100	101		ug/L		101	70 - 142	11	20
Methyl methacrylate	0.27	U	20.0	18.4		ug/L		92	66 - 131	9	20
Methylene Chloride	0.27	U	10.0	10.0		ug/L		100	80 - 120	5	20
Styrene	0.13	U	10.0	9.89		ug/L		99	77 - 139	0	20
Tetrachloroethene	0.18	U	10.0	10.3		ug/L		103	80 - 126	3	20
Toluene	0.14	U	10.0	9.77		ug/L		98	85 - 123	1	20
trans-1,2-Dichloroethylene	0.10	U	10.0	9.95		ug/L		99	80 - 120	0	20
trans-1,3-Dichloropropene	0.10	U	10.0	9.55		ug/L		96	83 - 125	4	20
trans-1,4-Dichloro-2-butene	0.29	U	10.0	9.39		ug/L		94	56 - 139	5	20
Trichloroethene	0.25	U	10.0	10.1		ug/L		101	81 - 125	2	20
Trichloromonofluoromethane	0.11	U	10.0	9.67		ug/L		97	69 - 133	1	20
Vinyl acetate	0.18	U	10.0	9.45		ug/L		95	58 - 150	9	20
Vinyl chloride	0.19	U	10.0	10.1		ug/L		101	70 - 129	1	20
Xylenes, Total	0.27	U	20.0	19.7		ug/L		98	80 - 120	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*75 - 129*
4-Bromofluorobenzene (Surr)	*93*		*81 - 130*
Dibromofluoromethane (Surr)	*110*		*81 - 124*
Toluene-d8 (Surr)	*104*		*87 - 128*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 160-283062/1-A
Matrix: Water
Analysis Batch: 285881

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 283062

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
1,2,4-Trichlorobenzene	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
1,2-Dichlorobenzene	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
1,3-Dichlorobenzene	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
1,4-Dichlorobenzene	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
1,4-Dioxane	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
1,4-Naphthoquinone	1.0	U	50	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
1-Naphthylamine	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
2,3,4,6-Tetrachlorophenol	1.0	U	50	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
2,4,5-Trichlorophenol	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
2,4,6-Trichlorophenol	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
2,4-Dichlorophenol	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
2,4-Dimethylphenol	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
2,4-Dinitrophenol	2.0	U	50	2.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
2,4-Dinitrotoluene	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
2,6-Dichlorophenol	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
2,6-Dinitrotoluene	2.2	U	10	2.2	ug/L		12/08/16 11:09	12/30/16 14:34	1
2-Acetylaminofluorene	1.0	U	100	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
2-Chloronaphthalene	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
2-Chlorophenol	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
2-Methylnaphthalene	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
2-Methylphenol	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
2-Naphthylamine	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
2-Nitroaniline	1.1	U	10	1.1	ug/L		12/08/16 11:09	12/30/16 14:34	1
2-Nitrophenol	1.5	U	10	1.5	ug/L		12/08/16 11:09	12/30/16 14:34	1
2-Picoline	2.0	U	20	2.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
3 & 4 Methylphenol	2.0	U	20	2.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
3,3'-Dichlorobenzidine	1.3	U	50	1.3	ug/L		12/08/16 11:09	12/30/16 14:34	1
3,3'-Dimethylbenzidine	2.6	U	50	2.6	ug/L		12/08/16 11:09	12/30/16 14:34	1
3-Methylcholanthrene	1.0	U	20	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
3-Nitroaniline	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
4,6-Dinitro-2-methylphenol	1.3	U	10	1.3	ug/L		12/08/16 11:09	12/30/16 14:34	1
4-Aminobiphenyl	1.1	U	50	1.1	ug/L		12/08/16 11:09	12/30/16 14:34	1
4-Bromophenyl phenyl ether	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
4-Chloro-3-methylphenol	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
4-Chloroaniline	2.0	U	10	2.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
4-Nitroaniline	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
4-Nitrophenol	2.0	U	10	2.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
4-Nitroquinoline-1-oxide	5.0	U	100	5.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
5-Nitro-o-toluidine	1.0	U	20	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
7,12-Dimethylbenz(a)anthracene	1.0	U	20	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Acenaphthene	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Acenaphthylene	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Acetophenone	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
alpha,alpha-Dimethyl phenethylamine	22	U	50	22	ug/L		12/08/16 11:09	12/30/16 14:34	1
Aniline	1.3	U	10	1.3	ug/L		12/08/16 11:09	12/30/16 14:34	1
Anthracene	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 160-283062/1-A **Client Sample ID: Method Blank**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 285881 **Prep Batch: 283062**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aramite, Total	5.0	U	20	5.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Benzo[a]anthracene	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Benzo[a]pyrene	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Benzo[b]fluoranthene	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Benzo[g,h,i]perylene	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Benzo[k]fluoranthene	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Benzyl alcohol	3.0	U	10	3.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
bis(2 chloro-1-methylethyl) ether	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Bis(2-chloroethoxy)methane	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Bis(2-chloroethyl)ether	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Bis(2-ethylhexyl) phthalate	3.28	J	10	1.9	ug/L		12/08/16 11:09	12/30/16 14:34	1
Butyl benzyl phthalate	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Carbazole	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Chlorobenzilate	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Chrysene	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Diallate	2.0	U	20	2.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Dibenz(a,h)anthracene	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Dibenzofuran	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Dimethoate	1.0	U	20	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Di-n-butyl phthalate	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Dinitrobenzene, m-	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Di-n-octyl phthalate	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Dinoseb	2.0	U	20	2.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Diphenylamine + N-Nitrosodiphenylamine	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Disulfoton	1.0	U	50	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Ethyl methanesulfonate	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Famphur	1.7	U	100	1.7	ug/L		12/08/16 11:09	12/30/16 14:34	1
Fluoranthene	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Fluorene	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Hexachlorobenzene	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Hexachlorobutadiene	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Hexachlorocyclopentadiene	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Hexachloroethane	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Hexachlorophene	10	U	250	10	ug/L		12/08/16 11:09	12/30/16 14:34	1
Hexachloropropene	1.0	U	100	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Indeno[1,2,3-cd]pyrene	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Isodrin	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Isophorone	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Isosafrole	5.0	U	20	5.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Kepone	20	U	100	20	ug/L		12/08/16 11:09	12/30/16 14:34	1
Methapyrilene	1.3	U	50	1.3	ug/L		12/08/16 11:09	12/30/16 14:34	1
Methyl methanesulfonate	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Methyl parathion	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Naphthalene	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Nitrobenzene	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 160-283062/1-A
Matrix: Water
Analysis Batch: 285881

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 283062

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodiethylamine	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
N-Nitrosodimethylamine	2.0	U	10	2.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
N-Nitrosodi-n-butylamine	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
N-Nitrosodi-n-propylamine	1.5	U	10	1.5	ug/L		12/08/16 11:09	12/30/16 14:34	1
N-Nitrosomethylethylamine	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
N-Nitrosomorpholine	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
N-Nitrosopiperidine	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
N-Nitrosopyrrolidine	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
o,o',o''-Triethylphosphorothioate	1.1	U	50	1.1	ug/L		12/08/16 11:09	12/30/16 14:34	1
O,O-Diethyl O-2-pyrazinyl phosphorothioate	1.0	U	50	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
o-Toluidine	1.0	U	20	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Parathion	1.0	U	50	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
p-Dimethylamino azobenzene	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Pentachlorobenzene	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Pentachloroethane	1.0	U	50	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Pentachloronitrobenzene	1.0	U	50	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Pentachlorophenol	1.3	U	50	1.3	ug/L		12/08/16 11:09	12/30/16 14:34	1
Phenacetin	1.0	U	20	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Phenanthrene	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Phenol	2.0	U	10	2.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Phorate	2.0	U	50	2.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
p-Phenylene diamine	1.0	U	100	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Pronamide	1.0	U	20	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Pyrene	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Pyridine	2.0	U	20	2.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Safrole	1.0	U	20	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
sym-Trinitrobenzene	1.0	U	50	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Tetraethyl dithiopyrophosphate (sulfotep)	1.0	U	50	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1
Tributyl phosphate	1.0	U	10	1.0	ug/L		12/08/16 11:09	12/30/16 14:34	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*				*12/08/16 11:09*	*12/30/16 14:34*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*85*		*37 - 120*	*12/08/16 11:09*	*12/30/16 14:34*	*1*
2-Fluorobiphenyl (Surr)	*68*		*43 - 108*	*12/08/16 11:09*	*12/30/16 14:34*	*1*
2-Fluorophenol (Surr)	*41*		*15 - 59*	*12/08/16 11:09*	*12/30/16 14:34*	*1*
Nitrobenzene-d5 (Surr)	*74*		*50 - 101*	*12/08/16 11:09*	*12/30/16 14:34*	*1*
Phenol-d5 (Surr)	*26*		*10 - 50*	*12/08/16 11:09*	*12/30/16 14:34*	*1*
Terphenyl-d14 (Surr)	*85*		*21 - 97*	*12/08/16 11:09*	*12/30/16 14:34*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 160-283062/2-A
Matrix: Water
Analysis Batch: 285881

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 283062

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	100	70.7		ug/L		71	56 - 100
1,2-Dichlorobenzene	100	67.2		ug/L		67	50 - 99
1,3-Dichlorobenzene	100	63.0		ug/L		63	55 - 99
1,4-Dichlorobenzene	100	63.7		ug/L		64	47 - 99
2,4,5-Trichlorophenol	100	87.3		ug/L		87	56 - 113
2,4,6-Trichlorophenol	100	91.4		ug/L		91	47 - 116
2,4-Dichlorophenol	100	86.9		ug/L		87	55 - 104
2,4-Dimethylphenol	100	83.5		ug/L		84	53 - 99
2,4-Dinitrophenol	100	84.6		ug/L		85	53 - 119
2,4-Dinitrotoluene	100	92.9		ug/L		93	57 - 117
2,6-Dinitrotoluene	100	87.4		ug/L		87	59 - 117
2-Chloronaphthalene	100	74.4		ug/L		74	58 - 109
2-Chlorophenol	100	74.7		ug/L		75	47 - 97
2-Methylnaphthalene	100	81.1		ug/L		81	54 - 101
2-Methylphenol	100	65.7		ug/L		66	40 - 96
2-Nitroaniline	100	85.3		ug/L		85	57 - 120
2-Nitrophenol	100	89.1		ug/L		89	58 - 111
3 & 4 Methylphenol	100	68.5		ug/L		68	40 - 87
3,3'-Dichlorobenzidine	100	81.1		ug/L		81	50 - 105
3-Nitroaniline	100	87.2		ug/L		87	47 - 113
4,6-Dinitro-2-methylphenol	100	85.2		ug/L		85	56 - 118
4-Bromophenyl phenyl ether	100	84.3		ug/L		84	62 - 98
4-Chloro-3-methylphenol	100	89.5		ug/L		89	51 - 102
4-Chloroaniline	100	72.6		ug/L		73	43 - 97
4-Chlorophenyl phenyl ether	100	83.8		ug/L		84	59 - 110
4-Nitroaniline	100	96.5		ug/L		96	51 - 119
4-Nitrophenol	100	40.0		ug/L		40	20 - 47
Acenaphthene	100	81.0		ug/L		81	58 - 108
Acenaphthylene	100	84.9		ug/L		85	59 - 110
Anthracene	100	82.9		ug/L		83	59 - 106
Benzo[a]anthracene	100	93.3		ug/L		93	56 - 105
Benzo[a]pyrene	100	87.3		ug/L		87	54 - 109
Benzo[b]fluoranthene	100	95.6		ug/L		96	58 - 109
Benzo[g,h,i]perylene	100	89.9		ug/L		90	50 - 119
Benzo[k]fluoranthene	100	90.6		ug/L		91	54 - 109
bis(2 chloro-1-methylethyl) ether	100	64.7		ug/L		65	49 - 97
Bis(2-chloroethoxy)methane	100	77.6		ug/L		78	59 - 110
Bis(2-chloroethyl)ether	100	70.7		ug/L		71	58 - 109
Bis(2-ethylhexyl) phthalate	100	93.9		ug/L		94	58 - 111
Butyl benzyl phthalate	100	88.9		ug/L		89	56 - 111
Carbazole	100	87.6		ug/L		88	56 - 101
Chrysene	100	83.2		ug/L		83	55 - 107
Dibenz(a,h)anthracene	100	99.9		ug/L		100	52 - 118
Dibenzofuran	100	78.5		ug/L		79	57 - 106
Diethyl phthalate	100	92.0		ug/L		92	58 - 113
Dimethyl phthalate	100	90.7		ug/L		91	60 - 114
Di-n-butyl phthalate	100	93.7		ug/L		94	60 - 105
Di-n-octyl phthalate	100	99.3		ug/L		99	59 - 113

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 160-283062/2-A
Matrix: Water
Analysis Batch: 285881

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 283062

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diphenylamine + N-Nitrosodiphenylamine	100	93.2		ug/L		93	65 - 119
Fluoranthene	100	98.1		ug/L		98	56 - 113
Fluorene	100	86.1		ug/L		86	61 - 113
Hexachlorobenzene	100	88.5		ug/L		89	57 - 113
Hexachlorobutadiene	100	49.6	o	ug/L		50	52 - 102
Hexachlorocyclopentadiene	100	38.2	o	ug/L		38	40 - 120
Hexachloroethane	100	54.1		ug/L		54	52 - 102
Indeno[1,2,3-cd]pyrene	100	95.7		ug/L		96	49 - 120
Isophorone	100	68.7		ug/L		69	56 - 101
Naphthalene	100	76.9		ug/L		77	54 - 98
Nitrobenzene	100	83.7		ug/L		84	59 - 110
N-Nitrosodi-n-propylamine	100	78.0		ug/L		78	59 - 115
Pentachlorophenol	100	89.9		ug/L		90	49 - 115
Phenanthrene	100	83.5		ug/L		83	59 - 110
Phenol	100	29.9		ug/L		30	20 - 69
Pyrene	100	81.8		ug/L		82	55 - 105

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*106*		*37 - 120*
2-Fluorobiphenyl (Surr)	*78*		*43 - 108*
2-Fluorophenol (Surr)	*47*		*15 - 59*
Nitrobenzene-d5 (Surr)	*89*		*50 - 101*
Phenol-d5 (Surr)	*29*		*10 - 50*
Terphenyl-d14 (Surr)	*92*		*21 - 97*

Lab Sample ID: 160-20287-14 MS
Matrix: Water
Analysis Batch: 285881

Client Sample ID: B37MY4
Prep Type: Total/NA
Prep Batch: 283062

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	0.97	U	98.2	68.1		ug/L		69	61 - 95
1,2-Dichlorobenzene	0.97	U	98.2	64.5		ug/L		66	62 - 97
1,3-Dichlorobenzene	0.97	U	98.2	63.2		ug/L		64	60 - 94
1,4-Dichlorobenzene	0.97	U	98.2	63.9		ug/L		65	60 - 94
2,4,5-Trichlorophenol	0.97	U	98.2	79.0		ug/L		80	61 - 108
2,4,6-Trichlorophenol	0.97	U	98.2	82.1		ug/L		84	61 - 108
2,4-Dichlorophenol	0.97	U	98.2	78.1		ug/L		80	60 - 99
2,4-Dimethylphenol	0.97	U	98.2	74.4		ug/L		76	54 - 97
2,4-Dinitrophenol	1.9	U	98.2	69.0		ug/L		70	20 - 131
2,4-Dinitrotoluene	0.97	U	98.2	81.8		ug/L		83	62 - 112
2,6-Dinitrotoluene	2.1	U	98.2	77.2		ug/L		79	64 - 112
2-Chloronaphthalene	0.97	U	98.2	70.5		ug/L		72	63 - 104
2-Chlorophenol	0.97	U	98.2	70.9		ug/L		72	52 - 92
2-Methylnaphthalene	0.97	U	98.2	74.9		ug/L		76	64 - 99
2-Methylphenol	0.97	U	98.2	61.4		ug/L		63	39 - 83
2-Nitroaniline	1.1	U	98.2	77.8		ug/L		79	62 - 115
2-Nitrophenol	1.5	U	98.2	79.8		ug/L		81	64 - 106

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 160-20287-14 MS **Client Sample ID: B37MY4**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 285881 **Prep Batch: 283062**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
3 & 4 Methylphenol	1.9	U	98.2	62.2		ug/L		63	39 - 82
3,3'-Dichlorobenzidine	1.3	U	98.2	78.2		ug/L		80	43 - 117
3-Nitroaniline	0.97	U	98.2	79.3		ug/L		81	52 - 108
4,6-Dinitro-2-methylphenol	1.2	U	98.2	75.6		ug/L		77	61 - 113
4-Bromophenyl phenyl ether	0.97	U	98.2	80.4		ug/L		82	64 - 108
4-Chloro-3-methylphenol	0.97	U	98.2	79.7		ug/L		81	51 - 105
4-Chloroaniline	1.9	U	98.2	63.9		ug/L		65	48 - 92
4-Chlorophenyl phenyl ether	0.97	U	98.2	79.4		ug/L		81	64 - 105
4-Nitroaniline	0.97	U	98.2	85.2		ug/L		87	56 - 114
4-Nitrophenol	1.9	U	98.2	35.3		ug/L		36	15 - 42
Acenaphthene	0.97	U	98.2	74.5		ug/L		76	63 - 103
Acenaphthylene	0.97	U	98.2	79.6		ug/L		81	64 - 105
Anthracene	0.97	U	98.2	76.4		ug/L		78	64 - 101
Benzo[a]anthracene	0.97	U	98.2	84.3		ug/L		86	55 - 116
Benzo[a]pyrene	0.97	U	98.2	83.1		ug/L		85	55 - 109
Benzo[b]fluoranthene	0.97	U	98.2	81.7		ug/L		83	56 - 119
Benzo[g,h,i]perylene	0.97	U	98.2	83.1		ug/L		85	40 - 127
Benzo[k]fluoranthene	0.97	U	98.2	82.1		ug/L		84	54 - 110
bis(2 chloro-1-methylethyl) ether	0.97	U	98.2	62.4		ug/L		64	54 - 102
Bis(2-chloroethoxy)methane	0.97	U	98.2	70.0		ug/L		71	64 - 105
Bis(2-chloroethyl)ether	0.97	U	98.2	66.5		ug/L		68	63 - 104
Bis(2-ethylhexyl) phthalate	3.2	J B	98.2	84.3		ug/L		83	53 - 125
Butyl benzyl phthalate	0.97	U	98.2	81.9		ug/L		83	56 - 128
Carbazole	0.97	U	98.2	77.4		ug/L		79	62 - 106
Chrysene	0.97	U	98.2	74.9		ug/L		76	56 - 115
Dibenz(a,h)anthracene	0.97	U	98.2	87.5		ug/L		89	44 - 128
Dibenzofuran	0.97	U	98.2	72.6		ug/L		74	62 - 101
Diethyl phthalate	0.97	U	98.2	83.2		ug/L		85	63 - 108
Dimethyl phthalate	0.97	U	98.2	81.9		ug/L		83	65 - 109
Di-n-butyl phthalate	0.97	U	98.2	84.3		ug/L		86	62 - 109
Di-n-octyl phthalate	0.97	U	98.2	90.7		ug/L		92	54 - 128
Diphenylamine + N-Nitrosodiphenylamine	0.97	U	98.2	88.5		ug/L		90	70 - 119
Fluoranthene	0.97	U	98.2	86.2		ug/L		88	61 - 108
Fluorene	0.97	U	98.2	77.9		ug/L		79	66 - 108
Hexachlorobenzene	0.97	U	98.2	83.8		ug/L		85	62 - 108
Hexachlorobutadiene	0.97	U o	98.2	68.5		ug/L		70	57 - 97
Hexachlorocyclopentadiene	0.97	U o	98.2	72.6		ug/L		74	16 - 115
Hexachloroethane	0.97	U	98.2	62.0		ug/L		63	57 - 97
Indeno[1,2,3-cd]pyrene	0.97	U	98.2	88.9		ug/L		91	42 - 131
Isophorone	0.97	U	98.2	60.7		ug/L		62	48 - 106
Naphthalene	0.97	U	98.2	69.4		ug/L		71	63 - 98
Nitrobenzene	0.97	U	98.2	74.9		ug/L		76	64 - 105
N-Nitrosodi-n-propylamine	1.5	U	98.2	73.1		ug/L		74	64 - 110
Pentachlorophenol	1.2	U	98.2	80.2		ug/L		82	54 - 110
Phenanthrene	0.97	U	98.2	76.9		ug/L		78	64 - 105
Phenol	1.9	U	98.2	27.5		ug/L		28	15 - 70
Pyrene	0.97	U	98.2	73.8		ug/L		75	57 - 118

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 160-20287-14 MS
Matrix: Water
Analysis Batch: 285881

Client Sample ID: B37MY4
Prep Type: Total/NA
Prep Batch: 283062

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*98*		*37 - 120*
2-Fluorobiphenyl (Surr)	*76*		*43 - 108*
2-Fluorophenol (Surr)	*44*		*15 - 59*
Nitrobenzene-d5 (Surr)	*81*		*50 - 101*
Phenol-d5 (Surr)	*27*		*10 - 50*
Terphenyl-d14 (Surr)	*86*		*21 - 97*

Lab Sample ID: 160-20287-14 MSD
Matrix: Water
Analysis Batch: 285881

Client Sample ID: B37MY4
Prep Type: Total/NA
Prep Batch: 283062

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	0.97	U	94.9	73.9		ug/L		78	61 - 95	8	20
1,2-Dichlorobenzene	0.97	U	94.9	64.6		ug/L		68	62 - 97	0	20
1,3-Dichlorobenzene	0.97	U	94.9	60.9		ug/L		64	60 - 94	4	20
1,4-Dichlorobenzene	0.97	U	94.9	62.2		ug/L		66	60 - 94	3	20
2,4,5-Trichlorophenol	0.97	U	94.9	83.9		ug/L		88	61 - 108	6	20
2,4,6-Trichlorophenol	0.97	U	94.9	88.6		ug/L		93	61 - 108	8	20
2,4-Dichlorophenol	0.97	U	94.9	83.5		ug/L		88	60 - 99	7	20
2,4-Dimethylphenol	0.97	U	94.9	77.6		ug/L		82	54 - 97	4	20
2,4-Dinitrophenol	1.9	U	94.9	72.7		ug/L		77	20 - 131	5	20
2,4-Dinitrotoluene	0.97	U	94.9	86.4		ug/L		91	62 - 112	6	20
2,6-Dinitrotoluene	2.1	U	94.9	83.3		ug/L		88	64 - 112	8	20
2-Chloronaphthalene	0.97	U	94.9	77.3		ug/L		81	63 - 104	9	20
2-Chlorophenol	0.97	U	94.9	73.6		ug/L		78	52 - 92	4	20
2-Methylnaphthalene	0.97	U	94.9	83.3		ug/L		88	64 - 99	11	20
2-Methylphenol	0.97	U	94.9	63.3		ug/L		67	39 - 83	3	20
2-Nitroaniline	1.1	U	94.9	81.2		ug/L		85	62 - 115	4	20
2-Nitrophenol	1.5	U	94.9	84.5		ug/L		89	64 - 106	6	20
3 & 4 Methylphenol	1.9	U	94.9	64.8		ug/L		68	39 - 82	4	20
3,3'-Dichlorobenzidine	1.3	U	94.9	84.4		ug/L		89	43 - 117	8	20
3-Nitroaniline	0.97	U	94.9	79.9		ug/L		84	52 - 108	1	20
4,6-Dinitro-2-methylphenol	1.2	U	94.9	80.5		ug/L		85	61 - 113	6	20
4-Bromophenyl phenyl ether	0.97	U	94.9	87.2		ug/L		92	64 - 108	8	20
4-Chloro-3-methylphenol	0.97	U	94.9	83.9		ug/L		88	51 - 105	5	20
4-Chloroaniline	1.9	U	94.9	66.4		ug/L		70	48 - 92	4	20
4-Chlorophenyl phenyl ether	0.97	U	94.9	86.7		ug/L		91	64 - 105	9	20
4-Nitroaniline	0.97	U	94.9	86.4		ug/L		91	56 - 114	1	20
4-Nitrophenol	1.9	U	94.9	35.1		ug/L		37	15 - 42	0	20
Acenaphthene	0.97	U	94.9	80.0		ug/L		84	63 - 103	7	20
Acenaphthylene	0.97	U	94.9	86.3		ug/L		91	64 - 105	8	20
Anthracene	0.97	U	94.9	81.1		ug/L		85	64 - 101	6	20
Benzo[a]anthracene	0.97	U	94.9	89.2		ug/L		94	55 - 116	6	20
Benzo[a]pyrene	0.97	U	94.9	87.5		ug/L		92	55 - 109	5	20
Benzo[b]fluoranthene	0.97	U	94.9	86.1		ug/L		91	56 - 119	5	20
Benzo[g,h,i]perylene	0.97	U	94.9	89.6		ug/L		94	40 - 127	8	20
Benzo[k]fluoranthene	0.97	U	94.9	84.9		ug/L		89	54 - 110	3	20
bis(2 chloro-1-methylethyl) ether	0.97	U	94.9	65.3		ug/L		69	54 - 102	5	20

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 160-20287-14 MSD — **Client Sample ID: B37MY4**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 285881 — **Prep Batch: 283062**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bis(2-chloroethoxy)methane	0.97	U	94.9	75.3		ug/L		79	64 - 105	7	20
Bis(2-chloroethyl)ether	0.97	U	94.9	70.6		ug/L		74	63 - 104	6	20
Bis(2-ethylhexyl) phthalate	3.2	J B	94.9	93.4		ug/L		95	53 - 125	10	20
Butyl benzyl phthalate	0.97	U	94.9	90.7		ug/L		96	56 - 128	10	20
Carbazole	0.97	U	94.9	79.9		ug/L		84	62 - 106	3	20
Chrysene	0.97	U	94.9	79.2		ug/L		83	56 - 115	6	20
Dibenz(a,h)anthracene	0.97	U	94.9	95.0		ug/L		100	44 - 128	8	20
Dibenzofuran	0.97	U	94.9	78.3		ug/L		82	62 - 101	8	20
Diethyl phthalate	0.97	U	94.9	88.3		ug/L		93	63 - 108	6	20
Dimethyl phthalate	0.97	U	94.9	86.3		ug/L		91	65 - 109	5	20
Di-n-butyl phthalate	0.97	U	94.9	93.0		ug/L		98	62 - 109	10	20
Di-n-octyl phthalate	0.97	U	94.9	102		ug/L		108	54 - 128	12	20
Diphenylamine + N-Nitrosodiphenylamine	0.97	U	94.9	95.4		ug/L		100	70 - 119	7	20
Fluoranthene	0.97	U	94.9	88.0		ug/L		93	61 - 108	2	20
Fluorene	0.97	U	94.9	84.1		ug/L		89	66 - 108	8	20
Hexachlorobenzene	0.97	U	94.9	88.1		ug/L		93	62 - 108	5	20
Hexachlorobutadiene	0.97	U o	94.9	75.6		ug/L		80	57 - 97	10	20
Hexachlorocyclopentadiene	0.97	U o	94.9	78.1		ug/L		82	16 - 115	7	20
Hexachloroethane	0.97	U	94.9	62.5		ug/L		66	57 - 97	1	20
Indeno[1,2,3-cd]pyrene	0.97	U	94.9	94.8		ug/L		100	42 - 131	6	20
Isophorone	0.97	U	94.9	65.3		ug/L		69	48 - 106	7	20
Naphthalene	0.97	U	94.9	74.2		ug/L		78	63 - 98	7	20
Nitrobenzene	0.97	U	94.9	78.7		ug/L		83	64 - 105	5	20
N-Nitrosodi-n-propylamine	1.5	U	94.9	79.9		ug/L		84	64 - 110	9	20
Pentachlorophenol	1.2	U	94.9	85.5		ug/L		90	54 - 110	6	20
Phenanthrene	0.97	U	94.9	80.1		ug/L		84	64 - 105	4	20
Phenol	1.9	U	94.9	27.5		ug/L		29	15 - 70	0	20
Pyrene	0.97	U	94.9	79.7		ug/L		84	57 - 118	8	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*105*		*37 - 120*
2-Fluorobiphenyl (Surr)	*84*		*43 - 108*
2-Fluorophenol (Surr)	*47*		*15 - 59*
Nitrobenzene-d5 (Surr)	*90*		*50 - 101*
Phenol-d5 (Surr)	*29*		*10 - 50*
Terphenyl-d14 (Surr)	*94*		*21 - 97*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 160-283080/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 283747 — **Prep Batch: 283080**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.010	U	0.050	0.010	ug/L		12/08/16 13:40	12/13/16 19:32	1
4,4'-DDE	0.014	U	0.050	0.014	ug/L		12/08/16 13:40	12/13/16 19:32	1
4,4'-DDT	0.023	U	0.050	0.023	ug/L		12/08/16 13:40	12/13/16 19:32	1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 160-283080/1-A
Matrix: Water
Analysis Batch: 283747

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 283080

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	0.010	U	0.050	0.010	ug/L		12/08/16 13:40	12/13/16 19:32	1
alpha-BHC	0.010	U	0.050	0.010	ug/L		12/08/16 13:40	12/13/16 19:32	1
alpha-Chlordane	0.015	U	0.050	0.015	ug/L		12/08/16 13:40	12/13/16 19:32	1
beta-BHC	0.013	U	0.050	0.013	ug/L		12/08/16 13:40	12/13/16 19:32	1
delta-BHC	0.010	U	0.050	0.010	ug/L		12/08/16 13:40	12/13/16 19:32	1
Dieldrin	0.010	U	0.050	0.010	ug/L		12/08/16 13:40	12/13/16 19:32	1
Endosulfan I	0.019	U	0.050	0.019	ug/L		12/08/16 13:40	12/13/16 19:32	1
Endosulfan II	0.010	U	0.050	0.010	ug/L		12/08/16 13:40	12/13/16 19:32	1
Endosulfan sulfate	0.010	U	0.050	0.010	ug/L		12/08/16 13:40	12/13/16 19:32	1
Endrin	0.018	U	0.050	0.018	ug/L		12/08/16 13:40	12/13/16 19:32	1
Endrin aldehyde	0.010	U	0.050	0.010	ug/L		12/08/16 13:40	12/13/16 19:32	1
Endrin ketone	0.010	U	0.050	0.010	ug/L		12/08/16 13:40	12/13/16 19:32	1
gamma-BHC (Lindane)	0.010	U	0.050	0.010	ug/L		12/08/16 13:40	12/13/16 19:32	1
Heptachlor	0.010	U	0.050	0.010	ug/L		12/08/16 13:40	12/13/16 19:32	1
Heptachlor epoxide	0.017	U	0.050	0.017	ug/L		12/08/16 13:40	12/13/16 19:32	1
Methoxychlor	0.013	U	0.50	0.013	ug/L		12/08/16 13:40	12/13/16 19:32	1
Technical Chlordane	0.10	U	0.50	0.10	ug/L		12/08/16 13:40	12/13/16 19:32	1
Toxaphene	0.27	U	2.0	0.27	ug/L		12/08/16 13:40	12/13/16 19:32	1
trans-Chlordane	0.010	U	0.050	0.010	ug/L		12/08/16 13:40	12/13/16 19:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*76*		*26 - 127*	*12/08/16 13:40*	*12/13/16 19:32*	*1*
Tetrachloro-m-xylene	*67*		*53 - 116*	*12/08/16 13:40*	*12/13/16 19:32*	*1*

Lab Sample ID: LCS 160-283080/2-A
Matrix: Water
Analysis Batch: 283747

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 283080

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	0.500	0.382	o	ug/L		76	79 - 115
4,4'-DDE	0.501	0.375		ug/L		75	73 - 107
4,4'-DDT	0.500	0.394		ug/L		79	79 - 111
Aldrin	0.500	0.337		ug/L		67	63 - 94
alpha-BHC	0.500	0.374	o	ug/L		75	79 - 111
alpha-Chlordane	0.500	0.360	o	ug/L		72	75 - 105
beta-BHC	0.500	0.371		ug/L		74	73 - 104
delta-BHC	0.500	0.392	o	ug/L		78	80 - 117
Dieldrin	0.501	0.372	o	ug/L		74	75 - 107
Endosulfan I	0.500	0.296		ug/L		59	38 - 105
Endosulfan II	0.500	0.313		ug/L		63	50 - 105
Endosulfan sulfate	0.500	0.385		ug/L		77	76 - 111
Endrin	0.501	0.374		ug/L		75	73 - 118
Endrin aldehyde	0.500	0.378	o	ug/L		76	77 - 112
Endrin ketone	0.501	0.385	o	ug/L		77	78 - 112
gamma-BHC (Lindane)	0.501	0.373	o	ug/L		75	79 - 106
Heptachlor	0.500	0.324		ug/L		65	53 - 115
Heptachlor epoxide	0.500	0.366	o	ug/L		73	76 - 108
Methoxychlor	0.500	0.396	J	ug/L		79	77 - 114

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 160-283080/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 283747 — **Prep Batch: 283080**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-Chlordane	0.500	0.357	o	ug/L		71	72 - 104

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*82*		*26 - 127*
Tetrachloro-m-xylene	*68*		*53 - 116*

Lab Sample ID: 160-20287-14 MS — **Client Sample ID: B37MY4**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 283747 — **Prep Batch: 283080**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	0.0097	U o	0.487	0.426		ug/L		87	80 - 111
4,4'-DDE	0.014	U	0.487	0.419		ug/L		86	70 - 106
4,4'-DDT	0.022	U	0.486	0.426		ug/L		88	76 - 108
Aldrin	0.0097	U	0.486	0.391		ug/L		80	57 - 101
alpha-BHC	0.0097	U o	0.486	0.429		ug/L		88	76 - 109
alpha-Chlordane	0.015	U o	0.487	0.404		ug/L		83	70 - 110
beta-BHC	0.013	U	0.486	0.409		ug/L		84	74 - 102
delta-BHC	0.0097	U o	0.486	0.436		ug/L		90	64 - 134
Dieldrin	0.0097	U o	0.487	0.414		ug/L		85	69 - 117
Endosulfan I	0.018	U	0.486	0.332		ug/L		68	36 - 102
Endosulfan II	0.0097	U	0.486	0.342		ug/L		70	48 - 102
Endosulfan sulfate	0.0097	U	0.486	0.404		ug/L		83	81 - 107
Endrin	0.017	U	0.487	0.416		ug/L		85	77 - 118
Endrin aldehyde	0.0097	U o	0.487	0.404		ug/L		83	81 - 109
Endrin ketone	0.0097	U o	0.487	0.407		ug/L		84	81 - 109
gamma-BHC (Lindane)	0.0097	U o	0.487	0.428		ug/L		88	69 - 112
Heptachlor	0.0097	U	0.486	0.386		ug/L		79	23 - 150
Heptachlor epoxide	0.016	U o	0.486	0.413		ug/L		85	76 - 115
Methoxychlor	0.013	U	0.486	0.420	J	ug/L		86	76 - 115
trans-Chlordane	0.0097	U o	0.486	0.400		ug/L		82	70 - 108

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*87*		*26 - 127*
Tetrachloro-m-xylene	*73*		*53 - 116*

Lab Sample ID: 160-20287-14 MSD — **Client Sample ID: B37MY4**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 283747 — **Prep Batch: 283080**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	0.0097	U o	0.483	0.442		ug/L		91	80 - 111	4	20
4,4'-DDE	0.014	U	0.484	0.434		ug/L		90	70 - 106	4	20
4,4'-DDT	0.022	U	0.483	0.445		ug/L		92	76 - 108	4	20
Aldrin	0.0097	U	0.483	0.393		ug/L		81	57 - 101	1	20
alpha-BHC	0.0097	U o	0.483	0.462		ug/L		96	76 - 109	7	20
alpha-Chlordane	0.015	U o	0.483	0.421		ug/L		87	70 - 110	4	20
beta-BHC	0.013	U	0.483	0.433		ug/L		90	74 - 102	6	20

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 160-20287-14 MSD — **Client Sample ID: B37MY4**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 283747 — **Prep Batch: 283080**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
delta-BHC	0.0097	U o	0.483	0.489		ug/L		101	64 - 134	12	20
Dieldrin	0.0097	U o	0.484	0.438		ug/L		91	69 - 117	6	20
Endosulfan I	0.018	U	0.483	0.351		ug/L		73	36 - 102	6	20
Endosulfan II	0.0097	U	0.483	0.365		ug/L		76	48 - 102	6	20
Endosulfan sulfate	0.0097	U	0.483	0.427		ug/L		88	81 - 107	5	20
Endrin	0.017	U	0.484	0.437		ug/L		90	77 - 118	5	20
Endrin aldehyde	0.0097	U o	0.484	0.429		ug/L		89	81 - 109	6	20
Endrin ketone	0.0097	U o	0.484	0.433		ug/L		89	81 - 109	6	20
gamma-BHC (Lindane)	0.0097	U o	0.484	0.459		ug/L		95	69 - 112	7	20
Heptachlor	0.0097	U	0.483	0.360		ug/L		75	23 - 150	7	20
Heptachlor epoxide	0.016	U o	0.483	0.436		ug/L		90	76 - 115	5	20
Methoxychlor	0.013	U	0.483	0.437	J	ug/L		90	76 - 115	4	20
trans-Chlordane	0.0097	U o	0.483	0.419		ug/L		87	70 - 108	5	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*87*		*26 - 127*
Tetrachloro-m-xylene	*76*		*53 - 116*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 160-286788/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 287526 — **Prep Batch: 286788**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.35	U	1.0	0.35	ug/L		01/06/17 09:42	01/12/17 11:23	1
Aroclor 1221	0.35	U	1.0	0.35	ug/L		01/06/17 09:42	01/12/17 11:23	1
Aroclor 1232	0.35	U	1.0	0.35	ug/L		01/06/17 09:42	01/12/17 11:23	1
Aroclor 1242	0.35	U	1.0	0.35	ug/L		01/06/17 09:42	01/12/17 11:23	1
Aroclor 1248	0.35	U	1.0	0.35	ug/L		01/06/17 09:42	01/12/17 11:23	1
Aroclor 1254	0.22	U	1.0	0.22	ug/L		01/06/17 09:42	01/12/17 11:23	1
Aroclor 1260	0.22	U	1.0	0.22	ug/L		01/06/17 09:42	01/12/17 11:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*61*		*32 - 141*	*01/06/17 09:42*	*01/12/17 11:23*	*1*

Lab Sample ID: LCS 160-286788/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 287526 — **Prep Batch: 286788**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	5.00	3.20		ug/L		64	43 - 138
Aroclor 1260	5.00	3.46		ug/L		69	43 - 137

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*61*		*32 - 141*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 160-20582-F-1-A MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 287526 — **Prep Batch: 286788**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	0.33	U	4.70	3.36		ug/L		72	47 - 133
Aroclor 1260	0.21	U	4.70	2.87		ug/L		61	39 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*59*		*32 - 141*

Lab Sample ID: 160-20582-G-1-A MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 287526 — **Prep Batch: 286788**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	0.33	U	4.75	3.61		ug/L		76	47 - 133	7	20
Aroclor 1260	0.21	U	4.75	3.16		ug/L		66	39 - 130	10	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*63*		*32 - 141*

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 160-283030/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 284453 — **Prep Batch: 283030**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.27	U	1.0	0.27	ug/L		12/08/16 09:05	12/19/16 11:38	1
2,4-D	4.2	U	8.0	4.2	ug/L		12/08/16 09:05	12/19/16 11:38	1
2,4-DB	3.8	U	8.0	3.8	ug/L		12/08/16 09:05	12/19/16 11:38	1
Dalapon	9.8	U	12	9.8	ug/L		12/08/16 09:05	12/19/16 11:38	1
Dicamba	0.33	U	2.0	0.33	ug/L		12/08/16 09:05	12/19/16 11:38	1
Dichlorprop	1.4	U	5.0	1.4	ug/L		12/08/16 09:05	12/19/16 11:38	1
Dinoseb	0.73	U	2.0	0.73	ug/L		12/08/16 09:05	12/19/16 11:38	1
MCPA	190	U	400	190	ug/L		12/08/16 09:05	12/19/16 11:38	1
MCPP	170	U	400	170	ug/L		12/08/16 09:05	12/19/16 11:38	1
Silvex (2,4,5-TP)	0.19	U	1.0	0.19	ug/L		12/08/16 09:05	12/19/16 11:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*111*		*60 - 128*	*12/08/16 09:05*	*12/19/16 11:38*	*1*

Lab Sample ID: LCS 160-283030/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 284453 — **Prep Batch: 283030**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-T	5.00	6.84		ug/L		137	40 - 140
2,4-D	20.0	28.8	o	ug/L		144	40 - 140
2,4-DB	20.0	28.0		ug/L		140	40 - 140
Dalapon	20.0	20.9		ug/L		105	23 - 105

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCS 160-283030/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 284453 — **Prep Batch: 283030**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dicamba	10.0	11.5		ug/L		115	25 - 140
Dichlorprop	20.0	23.9		ug/L		119	40 - 140
Dinoseb	20.0	18.3		ug/L		92	11 - 140
MCPA	2000	2700		ug/L		135	40 - 140
MCPP	2000	2530		ug/L		127	40 - 140
Silvex (2,4,5-TP)	5.00	5.89		ug/L		118	37 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*128*		*60 - 128*

Lab Sample ID: 160-20287-14 MS — **Client Sample ID: B37MY4**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 284453 — **Prep Batch: 283030**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-T	0.26	U	4.96	5.89		ug/L		119	50 - 150
2,4-D	4.0	U o	19.8	25.3		ug/L		128	50 - 150
2,4-DB	3.6	U	19.8	24.5		ug/L		123	50 - 150
Dalapon	9.3	U	19.8	18.5		ug/L		93	50 - 129
Dicamba	0.32	U	9.92	10.0		ug/L		101	50 - 150
Dichlorprop	1.3	U	19.8	20.3		ug/L		103	50 - 150
Dinoseb	0.70	U	19.8	15.2		ug/L		76	50 - 150
MCPA	180	U	1980	2230		ug/L		112	50 - 150
MCPP	160	U	1980	2190		ug/L		110	50 - 150
Silvex (2,4,5-TP)	0.18	U	4.96	5.14		ug/L		104	50 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*115*		*60 - 128*

Lab Sample ID: 160-20287-14 MSD — **Client Sample ID: B37MY4**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 284453 — **Prep Batch: 283030**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,5-T	0.26	U	4.90	5.95		ug/L		121	50 - 150	1	20
2,4-D	4.0	U o	19.6	24.8		ug/L		126	50 - 150	2	20
2,4-DB	3.6	U	19.6	25.5		ug/L		130	50 - 150	4	20
Dalapon	9.3	U	19.6	18.1		ug/L		92	50 - 129	2	20
Dicamba	0.32	U	9.79	9.92		ug/L		101	50 - 150	1	20
Dichlorprop	1.3	U	19.6	20.5		ug/L		105	50 - 150	1	20
Dinoseb	0.70	U	19.6	14.3		ug/L		73	50 - 150	5	20
MCPA	180	U	1960	2250		ug/L		115	50 - 150	1	20
MCPP	160	U	1960	2130		ug/L		109	50 - 150	3	20
Silvex (2,4,5-TP)	0.18	U	4.90	5.19		ug/L		106	50 - 150	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*110*		*60 - 128*

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: S17-012 / W17-012 / X17-003

TestAmerica Job ID: 160-20287-1
SDG: SL2389

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 160-283951/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 284177 — **Prep Batch: 283951**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	300	U	1000	300	ug/L		12/14/16 15:47	12/15/16 17:26	1
Iron	30.0	U	100	30.0	ug/L		12/14/16 15:47	12/15/16 17:26	1
Magnesium	300	U	1000	300	ug/L		12/14/16 15:47	12/15/16 17:26	1
Potassium	1500	U	5000	1500	ug/L		12/14/16 15:47	12/15/16 17:26	1
Sodium	300	U	1000	300	ug/L		12/14/16 15:47	12/15/16 17:26	1
Boron	25.0	U	100	25.0	ug/L		12/14/16 15:47	12/15/16 17:26	1
Vanadium	15.0	U	50.0	15.0	ug/L		12/14/16 15:47	12/15/16 17:26	1

Lab Sample ID: LCS 160-283951/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 284177 — **Prep Batch: 283951**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	10000	9314		ug/L		93	80 - 120
Iron	10000	10000		ug/L		100	80 - 120
Magnesium	10000	9491		ug/L		95	80 - 120
Potassium	10000	9606		ug/L		96	80 - 120
Sodium	10000	9785		ug/L		98	80 - 120
Boron	2000	1977		ug/L		99	80 - 120
Vanadium	1000	1000		ug/L		100	80 - 120

Lab Sample ID: 160-20287-6 MS — **Client Sample ID: B37LP3**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 284177 — **Prep Batch: 283951**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	29000		10000	39900		ug/L		109	75 - 125
Iron	30.0	U	10000	10470		ug/L		105	75 - 125
Magnesium	9050		10000	19050		ug/L		100	75 - 125
Potassium	7260		10000	17480		ug/L		102	75 - 125
Sodium	11100		10000	21580		ug/L		105	75 - 125
Boron	25.0	U	2000	2090	X	ug/L		105	75 - 125
Vanadium	15.0	U	1000	1065		ug/L		107	75 - 125

Lab Sample ID: 160-20287-6 MSD — **Client Sample ID: B37LP3**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 284177 — **Prep Batch: 283951**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	29000		10000	38640		ug/L		96	75 - 125	3	20
Iron	30.0	U	10000	10130		ug/L		101	75 - 125	3	20
Magnesium	9050		10000	18580		ug/L		95	75 - 125	2	20
Potassium	7260		10000	17030		ug/L		98	75 - 125	3	20
Sodium	11100		10000	21080		ug/L		100	75 - 125	2	20
Boron	25.0	U	2000	2034	X	ug/L		102	75 - 125	3	20
Vanadium	15.0	U	1000	1030		ug/L		103	75 - 125	3	20

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: S17-012 / W17-012 / X17-003

TestAmerica Job ID: 160-20287-1
SDG: SL2389

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 160-283950/1-A
Matrix: Water
Analysis Batch: 284281

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 283950

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	0.672	B D	1.0	0.40	ug/L		12/14/16 15:44	12/16/16 05:46	2

Lab Sample ID: MB 160-283950/1-A
Matrix: Water
Analysis Batch: 285191

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 283950

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	20.0	U D	50.0	20.0	ug/L		12/14/16 15:44	12/22/16 17:51	2
Antimony	2.0	U D	5.0	2.0	ug/L		12/14/16 15:44	12/22/16 17:51	2
Arsenic	4.0	U D	10.0	4.0	ug/L		12/14/16 15:44	12/22/16 17:51	2
Barium	0.90	U D	2.0	0.90	ug/L		12/14/16 15:44	12/22/16 17:51	2
Beryllium	0.20	U D	0.50	0.20	ug/L		12/14/16 15:44	12/22/16 17:51	2
Cadmium	0.20	U D	0.50	0.20	ug/L		12/14/16 15:44	12/22/16 17:51	2
Chromium	4.0	U D	10.0	4.0	ug/L		12/14/16 15:44	12/22/16 17:51	2
Cobalt	0.90	U D	2.0	0.90	ug/L		12/14/16 15:44	12/22/16 17:51	2
Lead	1.0	U D	3.0	1.0	ug/L		12/14/16 15:44	12/22/16 17:51	2
Manganese	0.90	U D	2.0	0.90	ug/L		12/14/16 15:44	12/22/16 17:51	2
Molybdenum	2.0	U D	5.0	2.0	ug/L		12/14/16 15:44	12/22/16 17:51	2
Nickel	2.0	U D	5.0	2.0	ug/L		12/14/16 15:44	12/22/16 17:51	2
Selenium	2.0	U D	5.0	2.0	ug/L		12/14/16 15:44	12/22/16 17:51	2
Silver	0.90	U D	2.0	0.90	ug/L		12/14/16 15:44	12/22/16 17:51	2
Strontium	0.50	U D	5.0	0.50	ug/L		12/14/16 15:44	12/22/16 17:51	2
Thallium	0.90	U D	2.0	0.90	ug/L		12/14/16 15:44	12/22/16 17:51	2
Thorium	0.90	U D	2.0	0.90	ug/L		12/14/16 15:44	12/22/16 17:51	2
Tin	1.2	U D	2.0	1.2	ug/L		12/14/16 15:44	12/22/16 17:51	2
Uranium	0.40	U D	1.0	0.40	ug/L		12/14/16 15:44	12/22/16 17:51	2
Zinc	7.5	U D	20.0	7.5	ug/L		12/14/16 15:44	12/22/16 17:51	2

Lab Sample ID: LCS 160-283950/2-A
Matrix: Water
Analysis Batch: 284281

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 283950

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	1000	1015	D	ug/L		102	80 - 120

Lab Sample ID: LCS 160-283950/2-A
Matrix: Water
Analysis Batch: 285191

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 283950

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	10000	9766	D	ug/L		98	80 - 120
Antimony	500	492.5	D	ug/L		99	80 - 120
Arsenic	1000	1002	D	ug/L		100	80 - 120
Barium	1000	1027	D	ug/L		103	80 - 120
Beryllium	1000	1082	D X	ug/L		108	80 - 120
Cadmium	1000	1011	D	ug/L		101	80 - 120
Chromium	1000	995.1	D	ug/L		100	80 - 120
Cobalt	1000	1008	D	ug/L		101	80 - 120
Lead	1000	998.4	D	ug/L		100	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 160-283950/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 285191 — **Prep Batch: 283950**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese	1000	1023	D	ug/L		102	80 - 120
Molybdenum	500	502.6	D	ug/L		101	80 - 120
Nickel	1000	1030	D	ug/L		103	80 - 120
Selenium	500	483.6	D	ug/L		97	80 - 120
Silver	200	203.2	D	ug/L		102	80 - 120
Strontium	1000	966.3	D	ug/L		97	80 - 120
Thallium	200	197.1	D	ug/L		99	80 - 120
Thorium	1000	994.6	D	ug/L		99	80 - 120
Tin	1000	982.5	D	ug/L		98	80 - 120
Uranium	1000	1017	D	ug/L		102	80 - 120
Zinc	1000	990.1	D	ug/L		99	80 - 120

Lab Sample ID: 160-20287-6 MS — **Client Sample ID: B37LP3**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 284281 — **Prep Batch: 283950**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	0.88	B D C	1000	1023	D	ug/L		102	75 - 125

Lab Sample ID: 160-20287-6 MS — **Client Sample ID: B37LP3**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 285191 — **Prep Batch: 283950**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	20.0	U D	10000	10050	D	ug/L		101	75 - 125
Antimony	2.0	U D	500	505.8	D	ug/L		101	75 - 125
Arsenic	4.0	U D	1000	1030	D	ug/L		103	75 - 125
Barium	79.8	D	1000	1104	D	ug/L		102	75 - 125
Beryllium	0.20	U D	1000	1116	D X	ug/L		112	75 - 125
Cadmium	0.20	U D	1000	1035	D	ug/L		104	75 - 125
Chromium	4.0	U D	1000	1025	D	ug/L		102	75 - 125
Cobalt	0.90	U D	1000	1018	D	ug/L		102	75 - 125
Lead	1.0	U D	1000	1030	D	ug/L		103	75 - 125
Manganese	6.8	D	1000	1049	D	ug/L		104	75 - 125
Molybdenum	4.7	B D	500	504.5	D	ug/L		100	75 - 125
Nickel	3.6	B D	1000	1039	D	ug/L		104	75 - 125
Selenium	2.0	U D	500	496.0	D	ug/L		99	75 - 125
Silver	0.90	U D	200	205.3	D	ug/L		103	75 - 125
Strontium	230	D	1000	1205	D	ug/L		98	75 - 125
Thallium	0.90	U D	200	203.2	D	ug/L		102	75 - 125
Thorium	0.90	U D	1000	1038	D	ug/L		104	75 - 125
Tin	1.2	U D	1000	1007	D	ug/L		101	75 - 125
Uranium	2.7	D	1000	1063	D	ug/L		106	75 - 125
Zinc	7.5	U D	1000	1019	D	ug/L		102	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 160-20287-6 MSD — **Client Sample ID: B37LP3**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 284281 — **Prep Batch: 283950**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper	0.88	B D C	1000	1032	D	ug/L		103	75 - 125	1	20

Lab Sample ID: 160-20287-6 MSD — **Client Sample ID: B37LP3**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 285191 — **Prep Batch: 283950**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	20.0	U D	10000	9956	D	ug/L		100	75 - 125	1	20
Antimony	2.0	U D	500	511.6	D	ug/L		102	75 - 125	1	20
Arsenic	4.0	U D	1000	1023	D	ug/L		102	75 - 125	1	20
Barium	79.8	D	1000	1117	D	ug/L		104	75 - 125	1	20
Beryllium	0.20	U D	1000	1142	D X	ug/L		114	75 - 125	2	20
Cadmium	0.20	U D	1000	1042	D	ug/L		104	75 - 125	1	20
Chromium	4.0	U D	1000	1012	D	ug/L		101	75 - 125	1	20
Cobalt	0.90	U D	1000	1003	D	ug/L		100	75 - 125	2	20
Lead	1.0	U D	1000	1034	D	ug/L		103	75 - 125	0	20
Manganese	6.8	D	1000	1038	D	ug/L		103	75 - 125	1	20
Molybdenum	4.7	B D	500	518.0	D	ug/L		103	75 - 125	3	20
Nickel	3.6	B D	1000	1025	D	ug/L		102	75 - 125	1	20
Selenium	2.0	U D	500	497.5	D	ug/L		99	75 - 125	0	20
Silver	0.90	U D	200	207.9	D	ug/L		104	75 - 125	1	20
Strontium	230	D	1000	1221	D	ug/L		99	75 - 125	1	20
Thallium	0.90	U D	200	204.6	D	ug/L		102	75 - 125	1	20
Thorium	0.90	U D	1000	1026	D	ug/L		102	75 - 125	1	20
Tin	1.2	U D	1000	1016	D	ug/L		102	75 - 125	1	20
Uranium	2.7	D	1000	1045	D	ug/L		104	75 - 125	2	20
Zinc	7.5	U D	1000	1011	D	ug/L		101	75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 160-283891/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 284100 — **Prep Batch: 283891**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.060	U	0.20	0.060	ug/L		12/14/16 09:39	12/15/16 10:32	1

Lab Sample ID: LCS 160-283891/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 284100 — **Prep Batch: 283891**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	5.00	4.67		ug/L		93	80 - 120

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 160-20356-C-1-D MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 284100 — **Prep Batch: 283891**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	0.060	U	5.00	4.59		ug/L		92	80 - 120		

Lab Sample ID: 160-20356-C-1-E MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 284100 — **Prep Batch: 283891**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.060	U	5.00	4.59		ug/L		92	80 - 120	0	20

Method: 310.1 - Alkalinity

Lab Sample ID: MB 160-283960/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 283960

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	0.54	U	5.0	0.54	mg/L			12/14/16 22:57	1

Lab Sample ID: HLCS 160-283960/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 283960

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	400	366.0		mg/L		91	90 - 110

Lab Sample ID: LCS 160-283960/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 283960

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	200	184.0		mg/L		92	90 - 110

Lab Sample ID: 160-20260-B-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 283960

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	136		100	230.0		mg/L		94	80 - 120

Lab Sample ID: 160-20260-B-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 283960

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity	136		136.0		mg/L		0	20

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 160-285135/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 285118 — **Prep Batch: 285135**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	3.85	B	5.0	3.1	ug/L		12/22/16 13:30	12/22/16 15:53	1

Lab Sample ID: HLCS 160-285135/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 285118 — **Prep Batch: 285135**

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	400	395.9		ug/L		99	85 - 115

Lab Sample ID: LCS 160-285135/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 285118 — **Prep Batch: 285135**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	200	191.3		ug/L		96	85 - 115

Lab Sample ID: 160-20261-A-1-F MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 285118 — **Prep Batch: 285135**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	13.5	C	200	206.5		ug/L		97	66 - 120

Lab Sample ID: 160-20261-A-1-E DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 285118 — **Prep Batch: 285135**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cyanide, Total	13.5	C	13.63	C	ug/L		1	20

Method: 9034 - Sulfide, Acid soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 160-283116/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 283284 — **Prep Batch: 283116**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	2.0	U	10.0	2.0	mg/L		12/09/16 08:15	12/09/16 12:34	1

Lab Sample ID: LCS 160-283116/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 283284 — **Prep Batch: 283116**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	54.6	40.73		mg/L		75	70 - 130

Method: 9034 - Sulfide, Acid soluble and Insoluble (Titrimetric) (Continued)

Lab Sample ID: 160-20298-R-4-C MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 283284 — **Prep Batch: 283116**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide	5.8	B	54.6	50.91		mg/L		83	70 - 130		

Lab Sample ID: 160-20298-R-4-B DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 283284 — **Prep Batch: 283116**

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfide	5.8	B		5.82	B	mg/L				0	20

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: S17-012 / W17-012 / X17-003

TestAmerica Job ID: 160-20287-1
SDG: SL2389

GC/MS VOA

Analysis Batch: 282787

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-20287-13	B37PM0	Total/NA	Water	8260C	
160-20287-15	B37VM3	Total/NA	Water	8260C	
MB 160-282787/7	Method Blank	Total/NA	Water	8260C	
LCS 160-282787/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 160-282787/5	Lab Control Sample Dup	Total/NA	Water	8260C	
160-20287-13 MS	B37PM0	Total/NA	Water	8260C	
160-20287-13 MSD	B37PM0	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 283062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-20287-14	B37MY4	Total/NA	Water	3510C	
MB 160-283062/1-A	Method Blank	Total/NA	Water	3510C	
LCS 160-283062/2-A	Lab Control Sample	Total/NA	Water	3510C	
160-20287-14 MS	B37MY4	Total/NA	Water	3510C	
160-20287-14 MSD	B37MY4	Total/NA	Water	3510C	

Analysis Batch: 285881

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-20287-14	B37MY4	Total/NA	Water	8270D	283062
MB 160-283062/1-A	Method Blank	Total/NA	Water	8270D	283062
LCS 160-283062/2-A	Lab Control Sample	Total/NA	Water	8270D	283062
160-20287-14 MS	B37MY4	Total/NA	Water	8270D	283062
160-20287-14 MSD	B37MY4	Total/NA	Water	8270D	283062

GC Semi VOA

Prep Batch: 283030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-20287-14	B37MY4	Total/NA	Water	8151A	
MB 160-283030/1-A	Method Blank	Total/NA	Water	8151A	
LCS 160-283030/2-A	Lab Control Sample	Total/NA	Water	8151A	
160-20287-14 MS	B37MY4	Total/NA	Water	8151A	
160-20287-14 MSD	B37MY4	Total/NA	Water	8151A	

Prep Batch: 283080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-20287-14	B37MY4	Total/NA	Water	3510C	
MB 160-283080/1-A	Method Blank	Total/NA	Water	3510C	
LCS 160-283080/2-A	Lab Control Sample	Total/NA	Water	3510C	
160-20287-14 MS	B37MY4	Total/NA	Water	3510C	
160-20287-14 MSD	B37MY4	Total/NA	Water	3510C	

Analysis Batch: 283747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-20287-14	B37MY4	Total/NA	Water	8081B	283080
MB 160-283080/1-A	Method Blank	Total/NA	Water	8081B	283080
LCS 160-283080/2-A	Lab Control Sample	Total/NA	Water	8081B	283080
160-20287-14 MS	B37MY4	Total/NA	Water	8081B	283080

GC Semi VOA (Continued)

Analysis Batch: 283747 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-20287-14 MSD	B37MY4	Total/NA	Water	8081B	283080

Analysis Batch: 284453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-20287-14	B37MY4	Total/NA	Water	8151A	283030
MB 160-283030/1-A	Method Blank	Total/NA	Water	8151A	283030
LCS 160-283030/2-A	Lab Control Sample	Total/NA	Water	8151A	283030
160-20287-14 MS	B37MY4	Total/NA	Water	8151A	283030
160-20287-14 MSD	B37MY4	Total/NA	Water	8151A	283030

Prep Batch: 286788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-20287-14	B37MY4	Total/NA	Water	3510C	
MB 160-286788/1-A	Method Blank	Total/NA	Water	3510C	
LCS 160-286788/2-A	Lab Control Sample	Total/NA	Water	3510C	
160-20582-F-1-A MS	Matrix Spike	Total/NA	Water	3510C	
160-20582-G-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 287526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-20287-14	B37MY4	Total/NA	Water	8082A	286788
MB 160-286788/1-A	Method Blank	Total/NA	Water	8082A	286788
LCS 160-286788/2-A	Lab Control Sample	Total/NA	Water	8082A	286788
160-20582-F-1-A MS	Matrix Spike	Total/NA	Water	8082A	286788
160-20582-G-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	8082A	286788

Metals

Prep Batch: 283891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-20287-5	B37LP7	Dissolved	Water	7470A	
160-20287-6	B37LP3	Total/NA	Water	7470A	
MB 160-283891/1-A	Method Blank	Total/NA	Water	7470A	
LCS 160-283891/2-A	Lab Control Sample	Total/NA	Water	7470A	
160-20356-C-1-D MS	Matrix Spike	Total/NA	Water	7470A	
160-20356-C-1-E MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Prep Batch: 283950

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-20287-1	B37M59	Total/NA	Water	3010A	
160-20287-2	B37M60	Total/NA	Water	3010A	
160-20287-3	B37M42	Total/NA	Water	3010A	
160-20287-4	B37MB7	Total/NA	Water	3010A	
160-20287-5	B37LP7	Dissolved	Water	3010A	
160-20287-6	B37LP3	Total/NA	Water	3010A	
160-20287-7	B37M95	Total/NA	Water	3010A	
160-20287-8	B37N31	Dissolved	Water	3010A	
160-20287-9	B37N29	Total/NA	Water	3010A	
160-20287-11	B37N40	Total/NA	Water	3010A	
160-20287-12	B37N42	Dissolved	Water	3010A	

Metals (Continued)

Prep Batch: 283950 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 160-283950/1-A	Method Blank	Total/NA	Water	3010A	
LCS 160-283950/2-A	Lab Control Sample	Total/NA	Water	3010A	
160-20287-6 MS	B37LP3	Total/NA	Water	3010A	
160-20287-6 MSD	B37LP3	Total/NA	Water	3010A	

Prep Batch: 283951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-20287-5	B37LP7	Dissolved	Water	3010A	
160-20287-6	B37LP3	Total/NA	Water	3010A	
160-20287-8	B37N31	Dissolved	Water	3010A	
160-20287-9	B37N29	Total/NA	Water	3010A	
160-20287-11	B37N40	Total/NA	Water	3010A	
160-20287-12	B37N42	Dissolved	Water	3010A	
MB 160-283951/1-A	Method Blank	Total/NA	Water	3010A	
LCS 160-283951/2-A	Lab Control Sample	Total/NA	Water	3010A	
160-20287-6 MS	B37LP3	Total/NA	Water	3010A	
160-20287-6 MSD	B37LP3	Total/NA	Water	3010A	

Analysis Batch: 284100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-20287-5	B37LP7	Dissolved	Water	7470A	283891
160-20287-6	B37LP3	Total/NA	Water	7470A	283891
MB 160-283891/1-A	Method Blank	Total/NA	Water	7470A	283891
LCS 160-283891/2-A	Lab Control Sample	Total/NA	Water	7470A	283891
160-20356-C-1-D MS	Matrix Spike	Total/NA	Water	7470A	283891
160-20356-C-1-E MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	283891

Analysis Batch: 284177

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-20287-5	B37LP7	Dissolved	Water	6010C	283951
160-20287-6	B37LP3	Total/NA	Water	6010C	283951
160-20287-8	B37N31	Dissolved	Water	6010C	283951
160-20287-9	B37N29	Total/NA	Water	6010C	283951
160-20287-11	B37N40	Total/NA	Water	6010C	283951
160-20287-12	B37N42	Dissolved	Water	6010C	283951
MB 160-283951/1-A	Method Blank	Total/NA	Water	6010C	283951
LCS 160-283951/2-A	Lab Control Sample	Total/NA	Water	6010C	283951
160-20287-6 MS	B37LP3	Total/NA	Water	6010C	283951
160-20287-6 MSD	B37LP3	Total/NA	Water	6010C	283951

Analysis Batch: 284281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-20287-5	B37LP7	Dissolved	Water	6020A	283950
160-20287-6	B37LP3	Total/NA	Water	6020A	283950
160-20287-8	B37N31	Dissolved	Water	6020A	283950
160-20287-9	B37N29	Total/NA	Water	6020A	283950
160-20287-11	B37N40	Total/NA	Water	6020A	283950
160-20287-12	B37N42	Dissolved	Water	6020A	283950
MB 160-283950/1-A	Method Blank	Total/NA	Water	6020A	283950
LCS 160-283950/2-A	Lab Control Sample	Total/NA	Water	6020A	283950
160-20287-6 MS	B37LP3	Total/NA	Water	6020A	283950

Metals (Continued)

Analysis Batch: 284281 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-20287-6 MSD	B37LP3	Total/NA	Water	6020A	283950

Analysis Batch: 285191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-20287-1	B37M59	Total/NA	Water	6020A	283950
160-20287-2	B37M60	Total/NA	Water	6020A	283950
160-20287-3	B37M42	Total/NA	Water	6020A	283950
160-20287-4	B37MB7	Total/NA	Water	6020A	283950
160-20287-5	B37LP7	Dissolved	Water	6020A	283950
160-20287-6	B37LP3	Total/NA	Water	6020A	283950
160-20287-7	B37M95	Total/NA	Water	6020A	283950
160-20287-8	B37N31	Dissolved	Water	6020A	283950
160-20287-9	B37N29	Total/NA	Water	6020A	283950
160-20287-11	B37N40	Total/NA	Water	6020A	283950
160-20287-12	B37N42	Dissolved	Water	6020A	283950
MB 160-283950/1-A	Method Blank	Total/NA	Water	6020A	283950
LCS 160-283950/2-A	Lab Control Sample	Total/NA	Water	6020A	283950
160-20287-6 MS	B37LP3	Total/NA	Water	6020A	283950
160-20287-6 MSD	B37LP3	Total/NA	Water	6020A	283950

General Chemistry

Prep Batch: 283116

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-20287-13	B37PM0	Total/NA	Water	9030B	
MB 160-283116/1-A	Method Blank	Total/NA	Water	9030B	
LCS 160-283116/2-A	Lab Control Sample	Total/NA	Water	9030B	
160-20298-R-4-C MS	Matrix Spike	Total/NA	Water	9030B	
160-20298-R-4-B DU	Duplicate	Total/NA	Water	9030B	

Analysis Batch: 283284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-20287-13	B37PM0	Total/NA	Water	9034	283116
MB 160-283116/1-A	Method Blank	Total/NA	Water	9034	283116
LCS 160-283116/2-A	Lab Control Sample	Total/NA	Water	9034	283116
160-20298-R-4-C MS	Matrix Spike	Total/NA	Water	9034	283116
160-20298-R-4-B DU	Duplicate	Total/NA	Water	9034	283116

Analysis Batch: 283960

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-20287-9	B37N29	Total/NA	Water	310.1	
160-20287-10	B37N23	Total/NA	Water	310.1	
160-20287-11	B37N40	Total/NA	Water	310.1	
160-20287-13	B37PM0	Total/NA	Water	310.1	
MB 160-283960/1	Method Blank	Total/NA	Water	310.1	
HLCS 160-283960/3	Lab Control Sample	Total/NA	Water	310.1	
LCS 160-283960/2	Lab Control Sample	Total/NA	Water	310.1	
160-20260-B-1 MS	Matrix Spike	Total/NA	Water	310.1	
160-20260-B-1 DU	Duplicate	Total/NA	Water	310.1	

General Chemistry (Continued)

Analysis Batch: 285118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-20287-6	B37LP3	Total/NA	Water	9012B	285135
160-20287-9	B37N29	Total/NA	Water	9012B	285135
160-20287-10	B37N23	Total/NA	Water	9012B	285135
160-20287-11	B37N40	Total/NA	Water	9012B	285135
160-20287-13	B37PM0	Total/NA	Water	9012B	285135
MB 160-285135/1-A	Method Blank	Total/NA	Water	9012B	285135
HLCS 160-285135/3-A	Lab Control Sample	Total/NA	Water	9012B	285135
LCS 160-285135/2-A	Lab Control Sample	Total/NA	Water	9012B	285135
160-20261-A-1-F MS	Matrix Spike	Total/NA	Water	9012B	285135
160-20261-A-1-E DU	Duplicate	Total/NA	Water	9012B	285135

Prep Batch: 285135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-20287-6	B37LP3	Total/NA	Water	9010C	
160-20287-9	B37N29	Total/NA	Water	9010C	
160-20287-10	B37N23	Total/NA	Water	9010C	
160-20287-11	B37N40	Total/NA	Water	9010C	
160-20287-13	B37PM0	Total/NA	Water	9010C	
MB 160-285135/1-A	Method Blank	Total/NA	Water	9010C	
HLCS 160-285135/3-A	Lab Control Sample	Total/NA	Water	9010C	
LCS 160-285135/2-A	Lab Control Sample	Total/NA	Water	9010C	
160-20261-A-1-F MS	Matrix Spike	Total/NA	Water	9010C	
160-20261-A-1-E DU	Duplicate	Total/NA	Water	9010C	

Surrogate Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: S17-012 / W17-012 / X17-003

TestAmerica Job ID: 160-20287-1
SDG: SL2389

Method: 8260C - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-129)	(81-130)	(81-124)	(87-128)
160-20287-13	B37PM0	103	90	110	103
160-20287-13 MS	B37PM0	112	92	116	102
160-20287-13 MSD	B37PM0	105	93	110	104
160-20287-15	B37VM3	102	93	112	106
LCS 160-282787/4	Lab Control Sample	106	93	115	103
LCSD 160-282787/5	Lab Control Sample Dup	105	92	113	103
MB 160-282787/7	Method Blank	105	91	112	105

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPH
Lab Sample ID	Client Sample ID	(37-120)	(43-108)	(15-59)	(50-101)	(10-50)	(21-97)
160-20287-14	B37MY4	86	77	42	81	27	85
160-20287-14 MS	B37MY4	98	76	44	81	27	86
160-20287-14 MSD	B37MY4	105	84	47	90	29	94
LCS 160-283062/2-A	Lab Control Sample	106	78	47	89	29	92
MB 160-283062/1-A	Method Blank	85	68	41	74	26	85

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPH = Terphenyl-d14 (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCB2	TCX2
Lab Sample ID	Client Sample ID	(26-127)	(53-116)
160-20287-14	B37MY4	93	77
160-20287-14 MS	B37MY4	87	73
160-20287-14 MSD	B37MY4	87	76
LCS 160-283080/2-A	Lab Control Sample	82	68
MB 160-283080/1-A	Method Blank	76	67

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene

Surrogate Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: S17-012 / W17-012 / X17-003

TestAmerica Job ID: 160-20287-1
SDG: SL2389

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	DCB1 (32-141)
160-20287-14	B37MY4	54
160-20582-F-1-A MS	Matrix Spike	59
160-20582-G-1-A MSD	Matrix Spike Duplicate	63
LCS 160-286788/2-A	Lab Control Sample	61
MB 160-286788/1-A	Method Blank	61

Percent Surrogate Recovery (Acceptance Limits)

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

Method: 8151A - Herbicides (GC)

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	DCPA1 (60-128)
160-20287-14	B37MY4	121
160-20287-14 MS	B37MY4	115
160-20287-14 MSD	B37MY4	110
LCS 160-283030/2-A	Lab Control Sample	128
MB 160-283030/1-A	Method Blank	111

Percent Surrogate Recovery (Acceptance Limits)

Surrogate Legend

DCPA = 2,4-Dichlorophenylacetic acid