

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton

4101 Shuffel Street NW

North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-70109-2

Client Project/Site: 58505, Janesville WI, SSOW 108021

For:

GHD Services Inc.

45 Farmington Valley Drive

Plainville, Connecticut 06062

Attn: Ms. Kathy Shaw



Authorized for release by:

10/5/2016 7:32:31 AM

Denise Heckler, Project Manager II

(330)966-9477

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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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Definitions/Glossary

Client: GHD Services Inc.
Project/Site: 58505, Janesville WI, SSOW 108021

TestAmerica Job ID: 240-70109-2

Qualifiers

General Chemistry

Qualifier	Qualifier Description
b	Result Detected in the Unseeded Control blank (USB).
s	Seeded Control Blank (SCB) Recovery High

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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
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)

Case Narrative

Client: GHD Services Inc.
Project/Site: 58505, Janesville WI, SSOW 108021

TestAmerica Job ID: 240-70109-2

Job ID: 240-70109-2

Laboratory: TestAmerica Canton

Narrative

**Job Narrative
240-70109-2**

Comments

No additional comments.

Receipt

The samples were received on 9/29/2016 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.6° C.

General Chemistry

Method(s) SM 5210B: The USB dilution water D.O. depletion was greater than 0.2 mg/L. The associated sample results in batch 240-249084 are qualified and reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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Method Summary

Client: GHD Services Inc.
Project/Site: 58505, Janesville WI, SSOW 108021

TestAmerica Job ID: 240-70109-2

Method	Method Description	Protocol	Laboratory
5210B-2001	BOD, 5-Day	SM	TAL CAN

Protocol References:

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

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

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Sample Summary

Client: GHD Services Inc.
Project/Site: 58505, Janesville WI, SSOW 108021

TestAmerica Job ID: 240-70109-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-70109-1	WSS-092816-JN-005	Water	09/28/16 13:00	09/29/16 09:30

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Detection Summary

Client: GHD Services Inc.
Project/Site: 58505, Janesville WI, SSOW 108021

TestAmerica Job ID: 240-70109-2

Client Sample ID: WSS-092816-JN-005

Lab Sample ID: 240-70109-1

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Biochemical Oxygen Demand	9.1	b	2.0	2.0	mg/L	1		5210B-2001	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

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Client Sample Results

Client: GHD Services Inc.
Project/Site: 58505, Janesville WI, SSOW 108021

TestAmerica Job ID: 240-70109-2

Client Sample ID: WSS-092816-JN-005

Lab Sample ID: 240-70109-1

Date Collected: 09/28/16 13:00

Matrix: Water

Date Received: 09/29/16 09:30

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	9.1	b	2.0	2.0	mg/L			09/29/16 14:15	1

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QC Sample Results

Client: GHD Services Inc.
 Project/Site: 58505, Janesville WI, SSOW 108021

TestAmerica Job ID: 240-70109-2

Method: 5210B-2001 - BOD, 5-Day

Lab Sample ID: SCB 240-249084/2
 Matrix: Water
 Analysis Batch: 249084

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

Analyte	SCB Result	SCB Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	<2.0	s	2.0	2.0	mg/L	-		09/29/16 13:29	1

Lab Sample ID: USB 240-249084/1
 Matrix: Water
 Analysis Batch: 249084

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

Analyte	USB Result	USB Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	<2.0		2.0	2.0	mg/L	-		09/29/16 13:25	1

Lab Sample ID: LCS 240-249084/3
 Matrix: Water
 Analysis Batch: 249084

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biochemical Oxygen Demand	198	203.5		mg/L	-	103	85 - 115

QC Association Summary

Client: GHD Services Inc.
Project/Site: 58505, Janesville WI, SSOW 108021

TestAmerica Job ID: 240-70109-2

General Chemistry

Analysis Batch: 249084

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-70109-1	WSS-092816-JN-005	Total/NA	Water	5210B-2001	
SCB 240-249084/2	Method Blank	Total/NA	Water	5210B-2001	
USB 240-249084/1	Method Blank	Total/NA	Water	5210B-2001	
LCS 240-249084/3	Lab Control Sample	Total/NA	Water	5210B-2001	

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Lab Chronicle

Client: GHD Services Inc.
Project/Site: 58505, Janesville WI, SSOW 108021

TestAmerica Job ID: 240-70109-2

Client Sample ID: WSS-092816-JN-005

Lab Sample ID: 240-70109-1

Date Collected: 09/28/16 13:00

Matrix: Water

Date Received: 09/29/16 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	5210B-2001		1	249084	09/29/16 14:15	LCN	TAL CAN

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

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Certification Summary

Client: GHD Services Inc.
Project/Site: 58505, Janesville WI, SSOW 108021

TestAmerica Job ID: 240-70109-2

Laboratory: TestAmerica Canton

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999518190	08-31-17

The following analytes are included in this report, but are not certified under this certification:

Analysis Method	Prep Method	Matrix	Analyte
5210B-2001		Water	Biochemical Oxygen Demand

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TestAmerica Canton Sample Receipt Form/Narrative Login # : 70109

Canton Facility

Client ATD Site Name 924114 Cooler unpacked by: B. Mac

Cooler Received on 9/24/14 Opened on 9/24/14

FedEx: 1st Grd. Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box _____ Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

See Multiple Cooler Form

1. Cooler temperature upon receipt
 IR GUN# IR-8 (CF +0.4 °C) Observed Cooler Temp. 3.2 °C Corrected Cooler Temp. 3.4 °C
 IR GUN #36 (CF +1.3 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity _____ Yes No
 -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
 -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No

3. Shippers' packing slip attached to the cooler(s)? Yes No

4. Did custody papers accompany the sample(s)? Yes No

5. Were the custody papers relinquished & signed in the appropriate place? Yes No

6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No

7. Did all bottles arrive in good condition (Unbroken)? Yes No

8. Could all bottle labels be reconciled with the COC? Yes No

9. Were correct bottle(s) used for the test(s) indicated? Yes No

10. Sufficient quantity received to perform indicated analyses? Yes No

11. Are these work share samples? Yes No

If yes, Questions 11-15 have been checked at the originating laboratory.

11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC574756

12. Were VOAs on the COC? Yes No

13. Were air bubbles >6 mm in any VOA vials? Yes No NA

14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # 2018012B Yes No

15. Was a LL Hg or Me Hg trip blank present? Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by: _____

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container pH</u>	<u>Preservative Added (mls)</u>	<u>Lot #</u>
WSS-092816-JN-005	240-70109-G-1	Plastic 500ml - with Nitric Acid	<2	_____	_____
WSS-092816-JN-005	240-70109-I-1	Amber Glass 1 liter - Sulfuric Acid	_____	_____	_____
WSS-092816-JN-005	240-70109-J-1	Amber Glass 1 liter - Sulfuric Acid	_____	_____	_____

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