

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: 240-68805-1

Client Project/Site: 58505, Janesville WI, SSOW 108020

For:

GHD Services Inc.

45 Farmington Valley Drive

Plainville, Connecticut 06062

Attn: Ms. Kathy Shaw



Authorized for release by:

9/1/2016 4:03:43 PM

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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 108020

TestAmerica Job ID: 240-68805-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
X	Surrogate is outside control limits
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F2	MS/MSD RPD exceeds control limits

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

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 108020

TestAmerica Job ID: 240-68805-1

Job ID: 240-68805-1

Laboratory: TestAmerica Canton

Narrative

Job Narrative 240-68805-1

Comments

No additional comments.

Receipt

The sample was received on 8/27/2016 9:30 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.4° C.

GC/MS VOA

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

GC/MS Semi VOA

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

GC VOA

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

GC Semi VOA

Method(s) 8082: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: ST-082616-JN-002 (240-68805-1). 2672825, 2103098, 2283705.

Method(s) 8082: The following sample was diluted due to color: ST-082616-JN-002 (240-68805-1). Elevated reporting limits (RL) are provided.

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

Metals

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

General Chemistry

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

Organic Prep

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

VOA Prep

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

Method Summary

Client: GHD Services Inc.
Project/Site: 58505, Janesville WI, SSOW 108020

TestAmerica Job ID: 240-68805-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
8015B	Gasoline Range Organics - (GC)	SW846	TAL CAN
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL CAN
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CAN
6010B	Metals (ICP)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
1010	Ignitability, Pensky-Martens Closed-Cup Method	SW846	TAL CAN
9012A	Cyanide, Total and/or Amenable	SW846	TAL CAN
9034	Sulfide, Acid soluble and Insoluble (Titrimetric)	SW846	TAL CAN
9095A	Paint Filter	SW846	TAL CAN
Moisture	Percent Moisture	EPA	TAL CAN

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

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

Sample Summary

Client: GHD Services Inc.
Project/Site: 58505, Janesville WI, SSOW 108020

TestAmerica Job ID: 240-68805-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-68805-1	ST-082616-JN-002	Solid	08/26/16 11:30	08/27/16 09:30

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Detection Summary

Client: GHD Services Inc.
Project/Site: 58505, Janesville WI, SSOW 108020

TestAmerica Job ID: 240-68805-1

Client Sample ID: ST-082616-JN-002

Lab Sample ID: 240-68805-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
C10-C20	1200		1200	mg/Kg	20	☼	8015B	Total/NA
C20-C34	3700		1200	mg/Kg	20	☼	8015B	Total/NA
Aroclor-1254	320		300	ug/Kg	5	☼	8082	Total/NA
Barium	0.62		0.50	mg/L	1		6010B	TCLP
Lead	0.059		0.050	mg/L	1		6010B	TCLP
Flashpoint	>200		1.00	Degrees F	1		1010	Total/NA
Cyanide, Total	7.6		0.62	mg/Kg	1	☼	9012A	Total/NA
Free Liquid	CNF		0.10	NONE	1		9095A	Total/NA

This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: GHD Services Inc.
Project/Site: 58505, Janesville WI, SSOW 108020

TestAmerica Job ID: 240-68805-1

Client Sample ID: ST-082616-JN-002

Lab Sample ID: 240-68805-1

Date Collected: 08/26/16 11:30

Matrix: Solid

Date Received: 08/27/16 09:30

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	0.025	U	0.025	mg/L			08/30/16 23:38	1
1,2-Dichloroethane	0.025	U	0.025	mg/L			08/30/16 23:38	1
2-Butanone (MEK)	0.25	U	0.25	mg/L			08/30/16 23:38	1
Benzene	0.025	U	0.025	mg/L			08/30/16 23:38	1
Carbon tetrachloride	0.025	U	0.025	mg/L			08/30/16 23:38	1
Chlorobenzene	0.025	U	0.025	mg/L			08/30/16 23:38	1
Chloroform	0.025	U	0.025	mg/L			08/30/16 23:38	1
Tetrachloroethene	0.025	U	0.025	mg/L			08/30/16 23:38	1
Trichloroethene	0.025	U	0.025	mg/L			08/30/16 23:38	1
Vinyl chloride	0.025	U	0.025	mg/L			08/30/16 23:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	77		73 - 120		08/30/16 23:38	1
4-Bromofluorobenzene (Surr)	72		69 - 120		08/30/16 23:38	1
Toluene-d8 (Surr)	83		76 - 120		08/30/16 23:38	1
Dibromofluoromethane (Surr)	80		80 - 120		08/30/16 23:38	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.0040	U	0.0040	mg/L		08/30/16 10:27	08/31/16 18:14	1
2,4,5-Trichlorophenol	0.0040	U	0.0040	mg/L		08/30/16 10:27	08/31/16 18:14	1
2,4,6-Trichlorophenol	0.0040	U	0.0040	mg/L		08/30/16 10:27	08/31/16 18:14	1
2,4-Dinitrotoluene	0.0040	U	0.0040	mg/L		08/30/16 10:27	08/31/16 18:14	1
Hexachlorobenzene	0.00080	U	0.00080	mg/L		08/30/16 10:27	08/31/16 18:14	1
Hexachlorobutadiene	0.0040	U	0.0040	mg/L		08/30/16 10:27	08/31/16 18:14	1
Hexachloroethane	0.0040	U	0.0040	mg/L		08/30/16 10:27	08/31/16 18:14	1
3 & 4 Methylphenol	0.0040	U	0.0040	mg/L		08/30/16 10:27	08/31/16 18:14	1
2-Methylphenol	0.0040	U	0.0040	mg/L		08/30/16 10:27	08/31/16 18:14	1
Nitrobenzene	0.0040	U	0.0040	mg/L		08/30/16 10:27	08/31/16 18:14	1
Pentachlorophenol	0.016	U	0.016	mg/L		08/30/16 10:27	08/31/16 18:14	1
Pyridine	0.0040	U	0.0040	mg/L		08/30/16 10:27	08/31/16 18:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	87		42 - 120	08/30/16 10:27	08/31/16 18:14	1
2-Fluorophenol (Surr)	78		10 - 120	08/30/16 10:27	08/31/16 18:14	1
2,4,6-Tribromophenol (Surr)	93		35 - 125	08/30/16 10:27	08/31/16 18:14	1
Nitrobenzene-d5 (Surr)	92		36 - 120	08/30/16 10:27	08/31/16 18:14	1
Phenol-d5 (Surr)	60		10 - 120	08/30/16 10:27	08/31/16 18:14	1
Terphenyl-d14 (Surr)	100		17 - 120	08/30/16 10:27	08/31/16 18:14	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.050	U	0.050	mg/L		08/30/16 14:00	08/31/16 14:17	1
Barium	0.62		0.50	mg/L		08/30/16 14:00	08/31/16 14:17	1
Cadmium	0.050	U	0.050	mg/L		08/30/16 14:00	08/31/16 14:17	1
Chromium	0.050	U	0.050	mg/L		08/30/16 14:00	08/31/16 14:17	1
Lead	0.059		0.050	mg/L		08/30/16 14:00	08/31/16 14:17	1
Selenium	0.050	U	0.050	mg/L		08/30/16 14:00	08/31/16 14:17	1
Silver	0.050	U	0.050	mg/L		08/30/16 14:00	08/31/16 14:17	1

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Client Sample Results

Client: GHD Services Inc.
 Project/Site: 58505, Janesville WI, SSOW 108020

TestAmerica Job ID: 240-68805-1

Client Sample ID: ST-082616-JN-002

Lab Sample ID: 240-68805-1

Date Collected: 08/26/16 11:30

Matrix: Solid

Date Received: 08/27/16 09:30

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0020	U	0.0020	mg/L		08/30/16 14:00	08/31/16 13:05	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint	>200		1.00	Degrees F			08/29/16 10:36	1
Free Liquid	CNF		0.10	NONE			08/30/16 08:21	1
Percent Solids	81.8		0.1	%			08/29/16 11:38	1
Percent Moisture	18.2		0.1	%			08/29/16 11:38	1

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Client Sample Results

Client: GHD Services Inc.
Project/Site: 58505, Janesville WI, SSOW 108020

TestAmerica Job ID: 240-68805-1

Client Sample ID: ST-082616-JN-002

Lab Sample ID: 240-68805-1

Date Collected: 08/26/16 11:30

Matrix: Solid

Date Received: 08/27/16 09:30

Percent Solids: 81.8

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	120	U	120	ug/Kg	☼	09/01/16 07:16	09/01/16 11:29	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	52		43 - 120			09/01/16 07:16	09/01/16 11:29	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C20	1200		1200	mg/Kg	☼	08/29/16 11:55	08/30/16 20:34	20
C20-C34	3700		1200	mg/Kg	☼	08/29/16 11:55	08/30/16 20:34	20
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	76		40 - 160			08/29/16 11:55	08/30/16 20:34	20

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	300	U	300	ug/Kg	☼	08/29/16 10:10	08/31/16 16:38	5
Aroclor-1221	300	U	300	ug/Kg	☼	08/29/16 10:10	08/31/16 16:38	5
Aroclor-1232	300	U	300	ug/Kg	☼	08/29/16 10:10	08/31/16 16:38	5
Aroclor-1242	300	U	300	ug/Kg	☼	08/29/16 10:10	08/31/16 16:38	5
Aroclor-1248	300	U	300	ug/Kg	☼	08/29/16 10:10	08/31/16 16:38	5
Aroclor-1254	320		300	ug/Kg	☼	08/29/16 10:10	08/31/16 16:38	5
Aroclor-1260	300	U	300	ug/Kg	☼	08/29/16 10:10	08/31/16 16:38	5
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	152	X	14 - 128			08/29/16 10:10	08/31/16 16:38	5
DCB Decachlorobiphenyl	391	X	10 - 132			08/29/16 10:10	08/31/16 16:38	5

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	7.6		0.62	mg/Kg	☼	08/30/16 13:48	08/30/16 15:54	1
Sulfide	37	U	37	mg/Kg	☼	08/29/16 12:58	08/29/16 14:00	1

Surrogate Summary

Client: GHD Services Inc.
Project/Site: 58505, Janesville WI, SSOW 108020

TestAmerica Job ID: 240-68805-1

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

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	12DCE (73-120)	BFB (69-120)	TOL (76-120)	DBFM (80-120)
LCS 240-244861/8	Lab Control Sample	85	84	95	94

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane (Surr)

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

Matrix: Solid

Prep Type: TCLP

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	12DCE (73-120)	BFB (69-120)	TOL (76-120)	DBFM (80-120)
240-68805-1	ST-082616-JN-002	77	72	83	80
LB 240-244757/1-A MB	Method Blank	85	87	94	94

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	FBP (42-120)	2FP (10-120)	TBP (35-125)	NBZ (36-120)	PHL (10-120)	TPH (17-120)
LCS 240-244834/10-A	Lab Control Sample	85	72	93	85	59	97
MB 240-244834/9-A	Method Blank	94	79	100	96	58	104

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

2FP = 2-Fluorophenol (Surr)

TBP = 2,4,6-Tribromophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

PHL = Phenol-d5 (Surr)

TPH = Terphenyl-d14 (Surr)

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

Matrix: Solid

Prep Type: TCLP

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	FBP (42-120)	2FP (10-120)	TBP (35-125)	NBZ (36-120)	PHL (10-120)	TPH (17-120)
240-68805-1	ST-082616-JN-002	87	78	93	92	60	100

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

2FP = 2-Fluorophenol (Surr)

TestAmerica Canton

Surrogate Summary

Client: GHD Services Inc.
Project/Site: 58505, Janesville WI, SSOW 108020
TBP = 2,4,6-Tribromophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPH = Terphenyl-d14 (Surr)

TestAmerica Job ID: 240-68805-1

Method: 8015B - Gasoline Range Organics - (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TFT2 (43-120)
240-68805-1	ST-082616-JN-002	52
LCS 240-245142/2-A	Lab Control Sample	81
MB 240-245142/1-A	Method Blank	69

Surrogate Legend

TFT = Trifluorotoluene (Surr)

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTPH1 (40-160)
240-68805-1	ST-082616-JN-002	76
240-68805-1 MS	ST-082616-JN-002	63
240-68805-1 MSD	ST-082616-JN-002	68
LCS 240-244684/5-A	Lab Control Sample	74
MB 240-244684/4-A	Method Blank	73

Surrogate Legend

OTPH = o-Terphenyl (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2 (14-128)	DCB2 (10-132)
240-68805-1	ST-082616-JN-002	152 X	391 X
LCS 240-244654/22-A	Lab Control Sample	61	68
MB 240-244654/21-A	Method Blank	57	67

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

QC Sample Results

Client: GHD Services Inc.
Project/Site: 58505, Janesville WI, SSOW 108020

TestAmerica Job ID: 240-68805-1

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

Lab Sample ID: LCS 240-244861/8

Matrix: Solid

Analysis Batch: 244861

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	1.00	1.02		mg/L		102	76 - 143
1,2-Dichloroethane	1.00	1.02		mg/L		102	74 - 128
2-Butanone (MEK)	2.00	2.22		mg/L		111	57 - 122
Benzene	1.00	1.19		mg/L		119	80 - 122
Carbon tetrachloride	1.00	0.914		mg/L		91	60 - 154
Chlorobenzene	1.00	1.18		mg/L		118	80 - 120
Chloroform	1.00	1.15		mg/L		115	80 - 126
Tetrachloroethene	1.00	1.18		mg/L		118	80 - 122
Trichloroethene	1.00	1.23		mg/L		123	80 - 126
Vinyl chloride	1.00	1.16		mg/L		116	65 - 126

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	85		73 - 120
4-Bromofluorobenzene (Surr)	84		69 - 120
Toluene-d8 (Surr)	95		76 - 120
Dibromofluoromethane (Surr)	94		80 - 120

Lab Sample ID: LB 240-244757/1-A MB

Matrix: Solid

Analysis Batch: 244861

Client Sample ID: Method Blank

Prep Type: TCLP

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	0.025	U	0.025	mg/L			08/30/16 17:43	1
1,2-Dichloroethane	0.025	U	0.025	mg/L			08/30/16 17:43	1
2-Butanone (MEK)	0.25	U	0.25	mg/L			08/30/16 17:43	1
Benzene	0.025	U	0.025	mg/L			08/30/16 17:43	1
Carbon tetrachloride	0.025	U	0.025	mg/L			08/30/16 17:43	1
Chlorobenzene	0.025	U	0.025	mg/L			08/30/16 17:43	1
Chloroform	0.025	U	0.025	mg/L			08/30/16 17:43	1
Tetrachloroethene	0.025	U	0.025	mg/L			08/30/16 17:43	1
Trichloroethene	0.025	U	0.025	mg/L			08/30/16 17:43	1
Vinyl chloride	0.025	U	0.025	mg/L			08/30/16 17:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		73 - 120		08/30/16 17:43	1
4-Bromofluorobenzene (Surr)	87		69 - 120		08/30/16 17:43	1
Toluene-d8 (Surr)	94		76 - 120		08/30/16 17:43	1
Dibromofluoromethane (Surr)	94		80 - 120		08/30/16 17:43	1

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

Lab Sample ID: MB 240-244834/9-A

Matrix: Solid

Analysis Batch: 245072

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 244834

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.0040	U	0.0040	mg/L		08/30/16 10:27	08/31/16 14:19	1

TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.
 Project/Site: 58505, Janesville WI, SSOW 108020

TestAmerica Job ID: 240-68805-1

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

Lab Sample ID: MB 240-244834/9-A
Matrix: Solid
Analysis Batch: 245072

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 244834

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	0.0040	U	0.0040	mg/L		08/30/16 10:27	08/31/16 14:19	1
2,4,6-Trichlorophenol	0.0040	U	0.0040	mg/L		08/30/16 10:27	08/31/16 14:19	1
2,4-Dinitrotoluene	0.0040	U	0.0040	mg/L		08/30/16 10:27	08/31/16 14:19	1
Hexachlorobenzene	0.00080	U	0.00080	mg/L		08/30/16 10:27	08/31/16 14:19	1
Hexachlorobutadiene	0.0040	U	0.0040	mg/L		08/30/16 10:27	08/31/16 14:19	1
Hexachloroethane	0.0040	U	0.0040	mg/L		08/30/16 10:27	08/31/16 14:19	1
3 & 4 Methylphenol	0.0040	U	0.0040	mg/L		08/30/16 10:27	08/31/16 14:19	1
2-Methylphenol	0.0040	U	0.0040	mg/L		08/30/16 10:27	08/31/16 14:19	1
Nitrobenzene	0.0040	U	0.0040	mg/L		08/30/16 10:27	08/31/16 14:19	1
Pentachlorophenol	0.016	U	0.016	mg/L		08/30/16 10:27	08/31/16 14:19	1
Pyridine	0.0040	U	0.0040	mg/L		08/30/16 10:27	08/31/16 14:19	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	94		42 - 120	08/30/16 10:27	08/31/16 14:19	1
2-Fluorophenol (Surr)	79		10 - 120	08/30/16 10:27	08/31/16 14:19	1
2,4,6-Tribromophenol (Surr)	100		35 - 125	08/30/16 10:27	08/31/16 14:19	1
Nitrobenzene-d5 (Surr)	96		36 - 120	08/30/16 10:27	08/31/16 14:19	1
Phenol-d5 (Surr)	58		10 - 120	08/30/16 10:27	08/31/16 14:19	1
Terphenyl-d14 (Surr)	104		17 - 120	08/30/16 10:27	08/31/16 14:19	1

Lab Sample ID: LCS 240-244834/10-A
Matrix: Solid
Analysis Batch: 245072

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 244834

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,4-Dichlorobenzene	0.0800	0.0638		mg/L		80	48 - 120
2,4,5-Trichlorophenol	0.0800	0.0712		mg/L		89	57 - 120
2,4,6-Trichlorophenol	0.0800	0.0665		mg/L		83	60 - 120
2,4-Dinitrotoluene	0.0800	0.0753		mg/L		94	65 - 120
Hexachlorobenzene	0.0800	0.0667		mg/L		83	47 - 127
Hexachlorobutadiene	0.0800	0.0628		mg/L		78	50 - 120
Hexachloroethane	0.0800	0.0641		mg/L		80	50 - 120
3 & 4 Methylphenol	0.0800	0.0617		mg/L		77	46 - 120
2-Methylphenol	0.0800	0.0623		mg/L		78	52 - 120
Nitrobenzene	0.0800	0.0655		mg/L		82	58 - 120
Pentachlorophenol	0.160	0.125		mg/L		78	35 - 121
Pyridine	0.0800	0.0575		mg/L		72	10 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	85		42 - 120
2-Fluorophenol (Surr)	72		10 - 120
2,4,6-Tribromophenol (Surr)	93		35 - 125
Nitrobenzene-d5 (Surr)	85		36 - 120
Phenol-d5 (Surr)	59		10 - 120
Terphenyl-d14 (Surr)	97		17 - 120

TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.
 Project/Site: 58505, Janesville WI, SSOW 108020

TestAmerica Job ID: 240-68805-1

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 240-245142/1-A
Matrix: Solid
Analysis Batch: 245124

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 245142

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	100	U	100	ug/Kg		09/01/16 07:16	09/01/16 09:28	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	69		43 - 120			09/01/16 07:16	09/01/16 09:28	1

Lab Sample ID: LCS 240-245142/2-A
Matrix: Solid
Analysis Batch: 245124

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 245142

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics [C6 - C10]	800	900		ug/Kg		113	76 - 120	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
Trifluorotoluene (Surr)	81		43 - 120					

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 240-244684/4-A
Matrix: Solid
Analysis Batch: 244907

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 244684

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C20	50	U	50	mg/Kg		08/29/16 11:55	08/30/16 19:32	1
C20-C34	50	U	50	mg/Kg		08/29/16 11:55	08/30/16 19:32	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	73		40 - 160			08/29/16 11:55	08/30/16 19:32	1

Lab Sample ID: LCS 240-244684/5-A
Matrix: Solid
Analysis Batch: 244907

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 244684

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	
Diesel Range Organics [C10 - C28]	250	194		mg/Kg		78	52 - 120	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
o-Terphenyl (Surr)	74		40 - 160					

Lab Sample ID: 240-68805-1 MS
Matrix: Solid
Analysis Batch: 244907

Client Sample ID: ST-082616-JN-002
Prep Type: Total/NA
Prep Batch: 244684

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Diesel Range Organics [C10 - C28]	3600	F2	302	2190	4	mg/Kg	☼	-460	10 - 124

TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 58505, Janesville WI, SSOW 108020

TestAmerica Job ID: 240-68805-1

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 240-68805-1 MS
Matrix: Solid
Analysis Batch: 244907

Client Sample ID: ST-082616-JN-002
Prep Type: Total/NA
Prep Batch: 244684

Surrogate	MS %Recovery	MS Qualifier	Limits
<i>o</i> -Terphenyl (Surr)	63		40 - 160

Lab Sample ID: 240-68805-1 MSD
Matrix: Solid
Analysis Batch: 244907

Client Sample ID: ST-082616-JN-002
Prep Type: Total/NA
Prep Batch: 244684

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10 - C28]	3600	F2	300	3960	4 F2	mg/Kg	☼	127	10 - 124	57	40

Surrogate	MSD %Recovery	MSD Qualifier	Limits
<i>o</i> -Terphenyl (Surr)	68		40 - 160

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

Lab Sample ID: MB 240-244654/21-A
Matrix: Solid
Analysis Batch: 244945

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 244654

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	50	U	50	ug/Kg		08/29/16 10:10	08/31/16 16:56	1
Aroclor-1221	50	U	50	ug/Kg		08/29/16 10:10	08/31/16 16:56	1
Aroclor-1232	50	U	50	ug/Kg		08/29/16 10:10	08/31/16 16:56	1
Aroclor-1242	50	U	50	ug/Kg		08/29/16 10:10	08/31/16 16:56	1
Aroclor-1248	50	U	50	ug/Kg		08/29/16 10:10	08/31/16 16:56	1
Aroclor-1254	50	U	50	ug/Kg		08/29/16 10:10	08/31/16 16:56	1
Aroclor-1260	50	U	50	ug/Kg		08/29/16 10:10	08/31/16 16:56	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro- <i>m</i> -xylene	57		14 - 128	08/29/16 10:10	08/31/16 16:56	1
DCB Decachlorobiphenyl	67		10 - 132	08/29/16 10:10	08/31/16 16:56	1

Lab Sample ID: LCS 240-244654/22-A
Matrix: Solid
Analysis Batch: 244945

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 244654

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	1000	576		ug/Kg		58	47 - 120
Aroclor-1260	1000	659		ug/Kg		66	46 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro- <i>m</i> -xylene	61		14 - 128
DCB Decachlorobiphenyl	68		10 - 132

TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.
 Project/Site: 58505, Janesville WI, SSOW 108020

TestAmerica Job ID: 240-68805-1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 240-244887/2-A
Matrix: Solid
Analysis Batch: 245084

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 244887

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.050	U	0.050	mg/L		08/30/16 14:00	08/31/16 10:59	1
Barium	0.50	U	0.50	mg/L		08/30/16 14:00	08/31/16 10:59	1
Cadmium	0.050	U	0.050	mg/L		08/30/16 14:00	08/31/16 10:59	1
Chromium	0.050	U	0.050	mg/L		08/30/16 14:00	08/31/16 10:59	1
Lead	0.050	U	0.050	mg/L		08/30/16 14:00	08/31/16 10:59	1
Selenium	0.050	U	0.050	mg/L		08/30/16 14:00	08/31/16 10:59	1
Silver	0.050	U	0.050	mg/L		08/30/16 14:00	08/31/16 10:59	1

Lab Sample ID: LCS 240-244887/3-A
Matrix: Solid
Analysis Batch: 245084

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 244887

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	2.00	2.22		mg/L		111	50 - 150
Barium	2.00	1.99		mg/L		100	50 - 150
Cadmium	0.0500	0.0545		mg/L		109	50 - 150
Chromium	0.200	0.196		mg/L		98	50 - 150
Lead	0.500	0.474		mg/L		95	50 - 150
Selenium	2.00	2.25		mg/L		112	50 - 150
Silver	0.0500	0.0530		mg/L		106	50 - 150

Lab Sample ID: LB 240-244753/1-B
Matrix: Solid
Analysis Batch: 245084

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 244887

Analyte	LB Result	LB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.050	U	0.050	mg/L		08/30/16 14:00	08/31/16 10:47	1
Barium	0.50	U	0.50	mg/L		08/30/16 14:00	08/31/16 10:47	1
Cadmium	0.050	U	0.050	mg/L		08/30/16 14:00	08/31/16 10:47	1
Chromium	0.050	U	0.050	mg/L		08/30/16 14:00	08/31/16 10:47	1
Lead	0.050	U	0.050	mg/L		08/30/16 14:00	08/31/16 10:47	1
Selenium	0.050	U	0.050	mg/L		08/30/16 14:00	08/31/16 10:47	1
Silver	0.050	U	0.050	mg/L		08/30/16 14:00	08/31/16 10:47	1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-244888/2-A
Matrix: Solid
Analysis Batch: 245076

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 244888

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0020	U	0.0020	mg/L		08/30/16 14:00	08/31/16 12:49	1

Lab Sample ID: LCS 240-244888/3-A
Matrix: Solid
Analysis Batch: 245076

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 244888

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00500	0.00510		mg/L		102	80 - 120

TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 58505, Janesville WI, SSOW 108020

TestAmerica Job ID: 240-68805-1

Lab Sample ID: LB 240-244753/1-C
Matrix: Solid
Analysis Batch: 245076

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 244888

Analyte	LB Result	LB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0020	U	0.0020	mg/L		08/30/16 14:00	08/31/16 12:47	1

Method: 1010 - Ignitability, Pensky-Martens Closed-Cup Method

Lab Sample ID: LCS 240-244619/1
Matrix: Solid
Analysis Batch: 244619

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Flashpoint	81.0	81.00		Degrees F		100	97 - 103

Lab Sample ID: 240-68805-1 DU
Matrix: Solid
Analysis Batch: 244619

Client Sample ID: ST-082616-JN-002
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Flashpoint	>200		>200		Degrees F		NC	20

Method: 9012A - Cyanide, Total and/or Amenable

Lab Sample ID: MB 240-244897/1-A
Matrix: Solid
Analysis Batch: 244919

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 244897

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.51	U	0.51	mg/Kg		08/30/16 13:48	08/30/16 15:54	1

Lab Sample ID: LCS 240-244897/2-A
Matrix: Solid
Analysis Batch: 244919

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 244897

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	3.92	3.34		mg/Kg		85	68 - 123

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

Lab Sample ID: MB 240-244630/15-A
Matrix: Solid
Analysis Batch: 244676

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 244630

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	30	U	30	mg/Kg		08/29/16 08:35	08/29/16 11:33	1

Lab Sample ID: LCS 240-244630/16-A
Matrix: Solid
Analysis Batch: 244676

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 244630

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	77.3	64.0		mg/Kg		83	70 - 130

TestAmerica Canton

QC Association Summary

Client: GHD Services Inc.
Project/Site: 58505, Janesville WI, SSOW 108020

TestAmerica Job ID: 240-68805-1

GC/MS VOA

Leach Batch: 244757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-68805-1	ST-082616-JN-002	TCLP	Solid	1311	
LB 240-244757/1-A MB	Method Blank	TCLP	Solid	1311	

Analysis Batch: 244861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-68805-1	ST-082616-JN-002	TCLP	Solid	8260B	244757
LB 240-244757/1-A MB	Method Blank	TCLP	Solid	8260B	244757
LCS 240-244861/8	Lab Control Sample	Total/NA	Solid	8260B	

GC/MS Semi VOA

Leach Batch: 244753

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-68805-1	ST-082616-JN-002	TCLP	Solid	1311	

Prep Batch: 244834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-68805-1	ST-082616-JN-002	TCLP	Solid	3510C	244753
MB 240-244834/9-A	Method Blank	Total/NA	Solid	3510C	
LCS 240-244834/10-A	Lab Control Sample	Total/NA	Solid	3510C	

Analysis Batch: 245072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-68805-1	ST-082616-JN-002	TCLP	Solid	8270C	244834
MB 240-244834/9-A	Method Blank	Total/NA	Solid	8270C	244834
LCS 240-244834/10-A	Lab Control Sample	Total/NA	Solid	8270C	244834

GC VOA

Analysis Batch: 245124

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-68805-1	ST-082616-JN-002	Total/NA	Solid	8015B	245142
MB 240-245142/1-A	Method Blank	Total/NA	Solid	8015B	245142
LCS 240-245142/2-A	Lab Control Sample	Total/NA	Solid	8015B	245142

Prep Batch: 245142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-68805-1	ST-082616-JN-002	Total/NA	Solid	5030A	
MB 240-245142/1-A	Method Blank	Total/NA	Solid	5030A	
LCS 240-245142/2-A	Lab Control Sample	Total/NA	Solid	5030A	

GC Semi VOA

Prep Batch: 244654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-68805-1	ST-082616-JN-002	Total/NA	Solid	3540C	
MB 240-244654/21-A	Method Blank	Total/NA	Solid	3540C	
LCS 240-244654/22-A	Lab Control Sample	Total/NA	Solid	3540C	

TestAmerica Canton

QC Association Summary

Client: GHD Services Inc.
 Project/Site: 58505, Janesville WI, SSOW 108020

TestAmerica Job ID: 240-68805-1

GC Semi VOA (Continued)

Prep Batch: 244684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-68805-1	ST-082616-JN-002	Total/NA	Solid	3546	
MB 240-244684/4-A	Method Blank	Total/NA	Solid	3546	
LCS 240-244684/5-A	Lab Control Sample	Total/NA	Solid	3546	
240-68805-1 MS	ST-082616-JN-002	Total/NA	Solid	3546	
240-68805-1 MSD	ST-082616-JN-002	Total/NA	Solid	3546	

Analysis Batch: 244907

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-68805-1	ST-082616-JN-002	Total/NA	Solid	8015B	244684
MB 240-244684/4-A	Method Blank	Total/NA	Solid	8015B	244684
LCS 240-244684/5-A	Lab Control Sample	Total/NA	Solid	8015B	244684
240-68805-1 MS	ST-082616-JN-002	Total/NA	Solid	8015B	244684
240-68805-1 MSD	ST-082616-JN-002	Total/NA	Solid	8015B	244684

Analysis Batch: 244945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-68805-1	ST-082616-JN-002	Total/NA	Solid	8082	244654
MB 240-244654/21-A	Method Blank	Total/NA	Solid	8082	244654
LCS 240-244654/22-A	Lab Control Sample	Total/NA	Solid	8082	244654

Metals

Leach Batch: 244753

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-68805-1	ST-082616-JN-002	TCLP	Solid	1311	
LB 240-244753/1-B	Method Blank	TCLP	Solid	1311	
LB 240-244753/1-C	Method Blank	TCLP	Solid	1311	

Prep Batch: 244887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-68805-1	ST-082616-JN-002	TCLP	Solid	3010A	244753
LB 240-244753/1-B	Method Blank	TCLP	Solid	3010A	244753
MB 240-244887/2-A	Method Blank	Total/NA	Solid	3010A	
LCS 240-244887/3-A	Lab Control Sample	Total/NA	Solid	3010A	

Prep Batch: 244888

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-68805-1	ST-082616-JN-002	TCLP	Solid	7470A	244753
LB 240-244753/1-C	Method Blank	TCLP	Solid	7470A	244753
MB 240-244888/2-A	Method Blank	Total/NA	Solid	7470A	
LCS 240-244888/3-A	Lab Control Sample	Total/NA	Solid	7470A	

Analysis Batch: 245076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-68805-1	ST-082616-JN-002	TCLP	Solid	7470A	244888
LB 240-244753/1-C	Method Blank	TCLP	Solid	7470A	244888
MB 240-244888/2-A	Method Blank	Total/NA	Solid	7470A	244888
LCS 240-244888/3-A	Lab Control Sample	Total/NA	Solid	7470A	244888

TestAmerica Canton

QC Association Summary

Client: GHD Services Inc.
Project/Site: 58505, Janesville WI, SSOW 108020

TestAmerica Job ID: 240-68805-1

Metals (Continued)

Analysis Batch: 245084

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-68805-1	ST-082616-JN-002	TCLP	Solid	6010B	244887
LB 240-244753/1-B	Method Blank	TCLP	Solid	6010B	244887
MB 240-244887/2-A	Method Blank	Total/NA	Solid	6010B	244887
LCS 240-244887/3-A	Lab Control Sample	Total/NA	Solid	6010B	244887

General Chemistry

Analysis Batch: 244619

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-68805-1	ST-082616-JN-002	Total/NA	Solid	1010	
LCS 240-244619/1	Lab Control Sample	Total/NA	Solid	1010	
240-68805-1 DU	ST-082616-JN-002	Total/NA	Solid	1010	

Prep Batch: 244630

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-68805-1	ST-082616-JN-002	Total/NA	Solid	9030B	
MB 240-244630/15-A	Method Blank	Total/NA	Solid	9030B	
LCS 240-244630/16-A	Lab Control Sample	Total/NA	Solid	9030B	

Analysis Batch: 244674

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-68805-1	ST-082616-JN-002	Total/NA	Solid	Moisture	

Analysis Batch: 244676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-68805-1	ST-082616-JN-002	Total/NA	Solid	9034	244630
MB 240-244630/15-A	Method Blank	Total/NA	Solid	9034	244630
LCS 240-244630/16-A	Lab Control Sample	Total/NA	Solid	9034	244630

Analysis Batch: 244869

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-68805-1	ST-082616-JN-002	Total/NA	Solid	9095A	

Prep Batch: 244897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-68805-1	ST-082616-JN-002	Total/NA	Solid	9012A	
MB 240-244897/1-A	Method Blank	Total/NA	Solid	9012A	
LCS 240-244897/2-A	Lab Control Sample	Total/NA	Solid	9012A	

Analysis Batch: 244919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-68805-1	ST-082616-JN-002	Total/NA	Solid	9012A	244897
MB 240-244897/1-A	Method Blank	Total/NA	Solid	9012A	244897
LCS 240-244897/2-A	Lab Control Sample	Total/NA	Solid	9012A	244897

TestAmerica Canton

Lab Chronicle

Client: GHD Services Inc.
 Project/Site: 58505, Janesville WI, SSOW 108020

TestAmerica Job ID: 240-68805-1

Client Sample ID: ST-082616-JN-002

Lab Sample ID: 240-68805-1

Date Collected: 08/26/16 11:30

Matrix: Solid

Date Received: 08/27/16 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			244757	08/29/16 18:40	DRJ	TAL CAN
TCLP	Analysis	8260B		1	244861	08/30/16 23:38	HMB	TAL CAN
TCLP	Leach	1311			244753	08/29/16 16:15	DRJ	TAL CAN
TCLP	Prep	3510C			244834	08/30/16 10:27	JDR	TAL CAN
TCLP	Analysis	8270C		1	245072	08/31/16 18:14	MRU	TAL CAN
TCLP	Leach	1311			244753	08/29/16 16:15	DRJ	TAL CAN
TCLP	Prep	3010A			244887	08/30/16 14:00	AJC	TAL CAN
TCLP	Analysis	6010B		1	245084	08/31/16 14:17	RKT	TAL CAN
TCLP	Leach	1311			244753	08/29/16 16:15	DRJ	TAL CAN
TCLP	Prep	7470A			244888	08/30/16 14:00	AJC	TAL CAN
TCLP	Analysis	7470A		1	245076	08/31/16 13:05	WKD	TAL CAN
Total/NA	Analysis	1010		1	244619	08/29/16 10:36	TPH	TAL CAN
Total/NA	Analysis	9095A		1	244869	08/30/16 08:21	JAS	TAL CAN
Total/NA	Analysis	Moisture		1	244674	08/29/16 11:38	JAS	TAL CAN

Client Sample ID: ST-082616-JN-002

Lab Sample ID: 240-68805-1

Date Collected: 08/26/16 11:30

Matrix: Solid

Date Received: 08/27/16 09:30

Percent Solids: 81.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			245142	09/01/16 07:16	RTR	TAL CAN
Total/NA	Analysis	8015B		1	245124	09/01/16 11:29	RTR	TAL CAN
Total/NA	Prep	3546			244684	08/29/16 11:55	YDN	TAL CAN
Total/NA	Analysis	8015B		20	244907	08/30/16 20:34	DEB	TAL CAN
Total/NA	Prep	3540C			244654	08/29/16 10:10	SDE	TAL CAN
Total/NA	Analysis	8082		5	244945	08/31/16 16:38	SEM	TAL CAN
Total/NA	Prep	9012A			244897	08/30/16 13:48	JWW	TAL CAN
Total/NA	Analysis	9012A		1	244919	08/30/16 15:54	JWW	TAL CAN
Total/NA	Prep	9030B			244630	08/29/16 12:58	LCN	TAL CAN
Total/NA	Analysis	9034		1	244676	08/29/16 14:00	LCN	TAL CAN

Laboratory References:

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

Certification Summary

Client: GHD Services Inc.
Project/Site: 58505, Janesville WI, SSOW 108020

TestAmerica Job ID: 240-68805-1

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 certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
7470A	7470A	Solid	Mercury
8015B	3546	Solid	C10-C20
8015B	3546	Solid	C20-C34
8015B	5030A	Solid	Gasoline Range Organics [C6 - C10]
9095A		Solid	Free Liquid
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica Canton Sample Receipt Form/Narrative Login # : 48805

Canton Facility _____

Client GHD Site Name _____ Cooler unpacked by: (Signature)

Cooler Received on 08/27/16 Opened on 08/27/16

FedEx: 1st Grd 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

1. Cooler temperature upon receipt See Multiple Cooler Form
 IR GUN# IR-8 (CF +1.3 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
 IR GUN #36 (CF +1.0°C) Observed Cooler Temp. 3.4 °C Corrected Cooler Temp. 4.4 °C

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 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 pH Strip Lot# HCS74756

12. Were VOAs on the COC? Yes No

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

14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ 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): _____