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: 240-20720-1
Client Project/Site: Canton Drop Forge

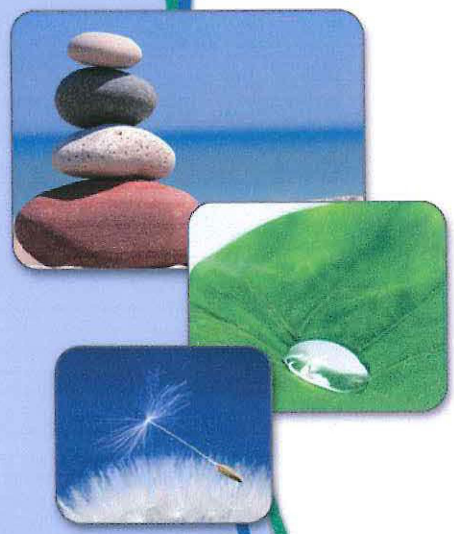
For:
TRC Environmental Corp-Payne Firm
1382 West Ninth Street
Cleveland, Ohio 44113

Attn: Kathleen Teuscher

Patrick O'Meara

Authorized for release by:
2/20/2013 7:50:36 AM

Patrick O'Meara
Project Manager II
patrick.omeara@testamericainc.com



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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: TRC Environmental Corp-Payne Firm
Project/Site: Canton Drop Forge

TestAmerica Job ID: 240-20720-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
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: TRC Environmental Corp-Payne Firm

Project: Canton Drop Forge

Report Number: 240-20720-1

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

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

TestAmerica utilizes USEPA approved methods, where applicable, in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated and were analyzed in accordance with Ohio Voluntary Action Program protocols, where applicable.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT
The samples were received on 02/06/2013 at 12:10 PM; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 0.9 C.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)
Samples TRENCH-01/0.0-1.0 (240-20720-1), TRENCH-01/2.0-3.0 (240-20720-2), TRENCH-02/0.0-1.0 (240-20720-3), TRENCH-02/1.0-2.0 (240-20720-4), TRENCH-03/0.0-1.0 (240-20720-5) and TRENCH-03/1.0-2.0 (240-20720-6) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 02/11/2013 and analyzed on 02/13/2013.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

2,4,6-Tribromophenol (Surr), 2-Fluorobiphenyl (Surr), 2-Fluorophenol (Surr), Nitrobenzene-d5 (Surr), Phenol-d5 (Surr) and Terphenyl-d14 (Surr) failed the surrogate recovery criteria low for TRENCH-01/0.0-1.0 (240-20720-1). 2,4,6-Tribromophenol (Surr), 2-Fluorophenol (Surr),

Job ID: 240-20720-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

Phenol-d5 (Surr) and Terphenyl-d14 (Surr) failed the surrogate recovery criteria high for TRENCH-02/0.0-1.0 (240-20720-3). 2,4,6-Tribromophenol (Surr), 2-Fluorophenol (Surr) and Phenol-d5 (Surr) failed the surrogate recovery criteria high for TRENCH-03/0.0-1.0 (240-20720-5). 2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria high for TRENCH-03/1.0-2.0 (240-20720-6).

The following sample(s) was diluted due to the nature of the sample matrix: TRENCH-01/0.0-1.0 (240-20720-1), TRENCH-02/0.0-1.0 (240-20720-3), TRENCH-02/1.0-2.0 (240-20720-4), TRENCH-03/0.0-1.0 (240-20720-5), and TRENCH-03/1.0-2.0 (240-20720-6). Elevated reporting limits (RLs) are provided.

No other difficulties were encountered during the SVOCs analyses. All other quality control parameters were within the acceptance limits.

DIESEL RANGE ORGANICS (DRO)

Samples TRENCH-01/0.0-1.0 (240-20720-1), TRENCH-01/2.0-3.0 (240-20720-2), TRENCH-02/0.0-1.0 (240-20720-3), TRENCH-02/1.0-2.0 (240-20720-4), TRENCH-03/0.0-1.0 (240-20720-5) and TRENCH-03/1.0-2.0 (240-20720-6) were analyzed for diesel range organics (DRO) in accordance with EPA SW-846 Method 8015B - DRO. The samples were prepared on 02/08/2013 and analyzed on 02/12/2013 and 02/13/2013.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

Samples TRENCH-01/0.0-1.0 (240-20720-1)[100X], TRENCH-01/2.0-3.0 (240-20720-2)[50X], TRENCH-02/0.0-1.0 (240-20720-3)[100X], TRENCH-02/1.0-2.0 (240-20720-4)[10X], TRENCH-03/0.0-1.0 (240-20720-5)[100X] and TRENCH-03/1.0-2.0 (240-20720-6)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the DRO analyses. All other quality control parameters were within the acceptance limits.

PERCENT SOLIDS

Samples TRENCH-01/0.0-1.0 (240-20720-1), TRENCH-01/2.0-3.0 (240-20720-2), TRENCH-02/0.0-1.0 (240-20720-3), TRENCH-02/1.0-2.0 (240-20720-4), TRENCH-03/0.0-1.0 (240-20720-5) and TRENCH-03/1.0-2.0 (240-20720-6) were analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 02/06/2013.

No difficulties were encountered during the % solids analyses. All quality control parameters were within the acceptance limits.

Method Summary

Client: TRC Environmental Corp-Payne Firm
Project/Site: Canton Drop Forge

TestAmerica Job ID: 240-20720-1

Method	Method Description	Protocol	Laboratory
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL NC
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL NC
Moisture	Percent Moisture	EPA	TAL NC

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

Sample Summary

Client: TRC Environmental Corp-Payne Firm
Project/Site: Canton Drop Forge

TestAmerica Job ID: 240-20720-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-20720-1	TRENCH-01/0.0-1.0	Solid	02/06/13 09:20	02/06/13 12:10
240-20720-2	TRENCH-01/2.0-3.0	Solid	02/06/13 09:25	02/06/13 12:10
240-20720-3	TRENCH-02/0.0-1.0	Solid	02/06/13 09:50	02/06/13 12:10
240-20720-4	TRENCH-02/1.0-2.0	Solid	02/06/13 09:55	02/06/13 12:10
240-20720-5	TRENCH-03/0.0-1.0	Solid	02/06/13 10:25	02/06/13 12:10
240-20720-6	TRENCH-03/1.0-2.0	Solid	02/06/13 10:30	02/06/13 12:10

Detection Summary

Client: TRC Environmental Corp-Payne Firm
Project/Site: Canton Drop Forge

TestAmerica Job ID: 240-20720-1

Client Sample ID: TRENCH-01/0.0-1.0 — Lab Sample ID: 240-20720-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics (C10-C20)	7500		3100	1700	mg/Kg	100	☼	8015B	Total/NA
Oil Range Organics (C20-C34)	53000		3100	1700	mg/Kg	100	☼	8015B	Total/NA

Client Sample ID: TRENCH-01/2.0-3.0 — Lab Sample ID: 240-20720-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	22		7.9	3.9	ug/Kg	1	☼	8270C	Total/NA
Benzo[a]pyrene	40		7.9	3.9	ug/Kg	1	☼	8270C	Total/NA
Benzo[b]fluoranthene	31		7.9	3.9	ug/Kg	1	☼	8270C	Total/NA
Chrysene	34		7.9	1.3	ug/Kg	1	☼	8270C	Total/NA
Fluoranthene	33		7.9	3.9	ug/Kg	1	☼	8270C	Total/NA
Phenanthrene	21		7.9	3.9	ug/Kg	1	☼	8270C	Total/NA
Pyrene	46		7.9	3.9	ug/Kg	1	☼	8270C	Total/NA
Naphthalene	8.9		7.9	3.9	ug/Kg	1	☼	8270C	Total/NA
Oil Range Organics (C20-C34)	3000		990	550	mg/Kg	50	☼	8015B	Total/NA

Client Sample ID: TRENCH-02/0.0-1.0 — Lab Sample ID: 240-20720-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	970		420	210	ug/Kg	50	☼	8270C	Total/NA
Benzo[g,h,i]perylene	650		420	210	ug/Kg	50	☼	8270C	Total/NA
Fluoranthene	480		420	210	ug/Kg	50	☼	8270C	Total/NA
Phenanthrene	830		420	210	ug/Kg	50	☼	8270C	Total/NA
Pyrene	560		420	210	ug/Kg	50	☼	8270C	Total/NA
Naphthalene	400	J	420	210	ug/Kg	50	☼	8270C	Total/NA
Oil Range Organics (C20-C34)	8000		2100	1200	mg/Kg	100	☼	8015B	Total/NA

Client Sample ID: TRENCH-02/1.0-2.0 — Lab Sample ID: 240-20720-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	150		39	19	ug/Kg	5	☼	8270C	Total/NA
Benzo[a]pyrene	230		39	19	ug/Kg	5	☼	8270C	Total/NA
Benzo[b]fluoranthene	260		39	19	ug/Kg	5	☼	8270C	Total/NA
Benzo[g,h,i]perylene	80		39	19	ug/Kg	5	☼	8270C	Total/NA
Benzo[k]fluoranthene	85		39	19	ug/Kg	5	☼	8270C	Total/NA
Anthracene	38	J	39	19	ug/Kg	5	☼	8270C	Total/NA
Chrysene	250		39	6.5	ug/Kg	5	☼	8270C	Total/NA
Fluoranthene	280		39	19	ug/Kg	5	☼	8270C	Total/NA
Indeno[1,2,3-cd]pyrene	160		39	19	ug/Kg	5	☼	8270C	Total/NA
Phenanthrene	310		39	19	ug/Kg	5	☼	8270C	Total/NA
Pyrene	290		39	19	ug/Kg	5	☼	8270C	Total/NA
Acenaphthylene	20	J	39	19	ug/Kg	5	☼	8270C	Total/NA
Naphthalene	160		39	19	ug/Kg	5	☼	8270C	Total/NA
Oil Range Organics (C20-C34)	540		200	110	mg/Kg	10	☼	8015B	Total/NA

Client Sample ID: TRENCH-03/0.0-1.0 — Lab Sample ID: 240-20720-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	2100		720	350	ug/Kg	50	☼	8270C	Total/NA
Benzo[g,h,i]perylene	990		720	350	ug/Kg	50	☼	8270C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TRENCH-03/0.0-1.0 (Continued) — Lab Sample ID: 240-20720-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	460	J	720	350	ug/Kg	50	☼	8270C	Total/NA
Phenanthrene	1200		720	350	ug/Kg	50	☼	8270C	Total/NA
Pyrene	1000		720	350	ug/Kg	50	☼	8270C	Total/NA
Naphthalene	660	J	720	350	ug/Kg	50	☼	8270C	Total/NA
Oil Range Organics (C20-C34)	15000		3100	1700	mg/Kg	100	☼	8015B	Total/NA

Client Sample ID: TRENCH-03/1.0-2.0 — Lab Sample ID: 240-20720-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	540		180	90	ug/Kg	20	☼	8270C	Total/NA
Benzo[a]pyrene	850		180	90	ug/Kg	20	☼	8270C	Total/NA
Benzo[b]fluoranthene	840		180	90	ug/Kg	20	☼	8270C	Total/NA
Benzo[g,h,i]perylene	250		180	90	ug/Kg	20	☼	8270C	Total/NA
Benzo[k]fluoranthene	210		180	90	ug/Kg	20	☼	8270C	Total/NA
Anthracene	260		180	90	ug/Kg	20	☼	8270C	Total/NA
Chrysene	890		180	30	ug/Kg	20	☼	8270C	Total/NA
Fluoranthene	1000		180	90	ug/Kg	20	☼	8270C	Total/NA
Indeno[1,2,3-cd]pyrene	630		180	90	ug/Kg	20	☼	8270C	Total/NA
Phenanthrene	2100		180	90	ug/Kg	20	☼	8270C	Total/NA
Pyrene	1100		180	90	ug/Kg	20	☼	8270C	Total/NA
Naphthalene	560		180	90	ug/Kg	20	☼	8270C	Total/NA
Diesel Range Organics (C10-C20)	170	J	230	130	mg/Kg	10	☼	8015B	Total/NA
Oil Range Organics (C20-C34)	3800		230	130	mg/Kg	10	☼	8015B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: TRC Environmental Corp-Payne Firm
Project/Site: Canton Drop Forge

TestAmerica Job ID: 240-20720-1

Client Sample ID: TRENCH-01/0.0-1.0

Lab Sample ID: 240-20720-1

Date Collected: 02/06/13 09:20
Date Received: 02/06/13 12:10

Matrix: Solid
Percent Solids: 84.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		3600	1800	ug/Kg	☼	02/11/13 11:49	02/13/13 18:26	100
Benzo[a]pyrene	ND		3600	1800	ug/Kg	☼	02/11/13 11:49	02/13/13 18:26	100
Benzo[b]fluoranthene	ND		3600	1800	ug/Kg	☼	02/11/13 11:49	02/13/13 18:26	100
Benzo[g,h,i]perylene	ND		3600	1800	ug/Kg	☼	02/11/13 11:49	02/13/13 18:26	100
Benzo[k]fluoranthene	ND		3600	1800	ug/Kg	☼	02/11/13 11:49	02/13/13 18:26	100
Anthracene	ND		3600	1800	ug/Kg	☼	02/11/13 11:49	02/13/13 18:26	100
Chrysene	ND		3600	590	ug/Kg	☼	02/11/13 11:49	02/13/13 18:26	100
Dibenz(a,h)anthracene	ND		3600	1800	ug/Kg	☼	02/11/13 11:49	02/13/13 18:26	100
Fluoranthene	ND		3600	1800	ug/Kg	☼	02/11/13 11:49	02/13/13 18:26	100
Fluorene	ND		3600	1800	ug/Kg	☼	02/11/13 11:49	02/13/13 18:26	100
Indeno[1,2,3-cd]pyrene	ND		3600	1800	ug/Kg	☼	02/11/13 11:49	02/13/13 18:26	100
Phenanthrene	ND		3600	1800	ug/Kg	☼	02/11/13 11:49	02/13/13 18:26	100
Pyrene	ND		3600	1800	ug/Kg	☼	02/11/13 11:49	02/13/13 18:26	100
Acenaphthene	ND		3600	1800	ug/Kg	☼	02/11/13 11:49	02/13/13 18:26	100
Acenaphthylene	ND		3600	1800	ug/Kg	☼	02/11/13 11:49	02/13/13 18:26	100
Naphthalene	ND		3600	1800	ug/Kg	☼	02/11/13 11:49	02/13/13 18:26	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*0*	*X*	*24 - 110*	*02/11/13 11:49*	*02/13/13 18:26*	*100*
2-Fluorophenol (Surr)	*0*	*X*	*24 - 110*	*02/11/13 11:49*	*02/13/13 18:26*	*100*
2,4,6-Tribromophenol (Surr)	*0*	*X*	*10 - 110*	*02/11/13 11:49*	*02/13/13 18:26*	*100*
Nitrobenzene-d5 (Surr)	*0*	*X*	*20 - 110*	*02/11/13 11:49*	*02/13/13 18:26*	*100*
Phenol-d5 (Surr)	*0*	*X*	*26 - 110*	*02/11/13 11:49*	*02/13/13 18:26*	*100*
Terphenyl-d14 (Surr)	*0*	*X*	*36 - 110*	*02/11/13 11:49*	*02/13/13 18:26*	*100*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C20)	**7500**		3100	1700	mg/Kg	☼	02/08/13 11:11	02/12/13 22:44	100
Oil Range Organics (C20-C34)	**53000**		3100	1700	mg/Kg	☼	02/08/13 11:11	02/12/13 22:44	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Nonane	*52*		*10 - 110*	*02/08/13 11:11*	*02/12/13 22:44*	*100*

Client Sample Results

Client: TRC Environmental Corp-Payne Firm
Project/Site: Canton Drop Forge

TestAmerica Job ID: 240-20720-1

Client Sample ID: TRENCH-01/2.0-3.0
Date Collected: 02/06/13 09:25
Date Received: 02/06/13 12:10

Lab Sample ID: 240-20720-2
Matrix: Solid
Percent Solids: 83.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	**22**		7.9	3.9	ug/Kg	☼	02/11/13 11:49	02/13/13 18:04	1
Benzo[a]pyrene	**40**		7.9	3.9	ug/Kg	☼	02/11/13 11:49	02/13/13 18:04	1
Benzo[b]fluoranthene	**31**		7.9	3.9	ug/Kg	☼	02/11/13 11:49	02/13/13 18:04	1
Benzo[g,h,i]perylene	ND		7.9	3.9	ug/Kg	☼	02/11/13 11:49	02/13/13 18:04	1
Benzo[k]fluoranthene	ND		7.9	3.9	ug/Kg	☼	02/11/13 11:49	02/13/13 18:04	1
Anthracene	ND		7.9	3.9	ug/Kg	☼	02/11/13 11:49	02/13/13 18:04	1
Chrysene	**34**		7.9	1.3	ug/Kg	☼	02/11/13 11:49	02/13/13 18:04	1
Dibenz(a,h)anthracene	ND		7.9	3.9	ug/Kg	☼	02/11/13 11:49	02/13/13 18:04	1
Fluoranthene	**33**		7.9	3.9	ug/Kg	☼	02/11/13 11:49	02/13/13 18:04	1
Fluorene	ND		7.9	3.9	ug/Kg	☼	02/11/13 11:49	02/13/13 18:04	1
Indeno[1,2,3-cd]pyrene	ND		7.9	3.9	ug/Kg	☼	02/11/13 11:49	02/13/13 18:04	1
Phenanthrene	**21**		7.9	3.9	ug/Kg	☼	02/11/13 11:49	02/13/13 18:04	1
Pyrene	**46**		7.9	3.9	ug/Kg	☼	02/11/13 11:49	02/13/13 18:04	1
Acenaphthene	ND		7.9	3.9	ug/Kg	☼	02/11/13 11:49	02/13/13 18:04	1
Acenaphthylene	ND		7.9	3.9	ug/Kg	☼	02/11/13 11:49	02/13/13 18:04	1
Naphthalene	**8.9**		7.9	3.9	ug/Kg	☼	02/11/13 11:49	02/13/13 18:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*61*		*24 - 110*	*02/11/13 11:49*	*02/13/13 18:04*	*1*
2-Fluorophenol (Surr)	*76*		*24 - 110*	*02/11/13 11:49*	*02/13/13 18:04*	*1*
2,4,6-Tribromophenol (Surr)	*66*		*10 - 110*	*02/11/13 11:49*	*02/13/13 18:04*	*1*
Nitrobenzene-d5 (Surr)	*57*		*20 - 110*	*02/11/13 11:49*	*02/13/13 18:04*	*1*
Phenol-d5 (Surr)	*76*		*26 - 110*	*02/11/13 11:49*	*02/13/13 18:04*	*1*
Terphenyl-d14 (Surr)	*75*		*36 - 110*	*02/11/13 11:49*	*02/13/13 18:04*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C20)	ND		990	550	mg/Kg	☼	02/08/13 11:11	02/12/13 23:14	50
Oil Range Organics (C20-C34)	**3000**		990	550	mg/Kg	☼	02/08/13 11:11	02/12/13 23:14	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Nonane	*58*		*10 - 110*	*02/08/13 11:11*	*02/12/13 23:14*	*50*

Client Sample Results

Client: TRC Environmental Corp-Payne Firm
Project/Site: Canton Drop Forge

TestAmerica Job ID: 240-20720-1

Client Sample ID: TRENCH-02/0.0-1.0

Lab Sample ID: 240-20720-3

Date Collected: 02/06/13 09:50
Date Received: 02/06/13 12:10

Matrix: Solid
Percent Solids: 79.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		420	210	ug/Kg	☼	02/11/13 11:49	02/13/13 18:49	50
Benzo[a]pyrene	ND		420	210	ug/Kg	☼	02/11/13 11:49	02/13/13 18:49	50
Benzo[b]fluoranthene	**970**		420	210	ug/Kg	☼	02/11/13 11:49	02/13/13 18:49	50
Benzo[g,h,i]perylene	**650**		420	210	ug/Kg	☼	02/11/13 11:49	02/13/13 18:49	50
Benzo[k]fluoranthene	ND		420	210	ug/Kg	☼	02/11/13 11:49	02/13/13 18:49	50
Anthracene	ND		420	210	ug/Kg	☼	02/11/13 11:49	02/13/13 18:49	50
Chrysene	ND		420	69	ug/Kg	☼	02/11/13 11:49	02/13/13 18:49	50
Dibenz(a,h)anthracene	ND		420	210	ug/Kg	☼	02/11/13 11:49	02/13/13 18:49	50
Fluoranthene	**480**		420	210	ug/Kg	☼	02/11/13 11:49	02/13/13 18:49	50
Fluorene	ND		420	210	ug/Kg	☼	02/11/13 11:49	02/13/13 18:49	50
Indeno[1,2,3-cd]pyrene	ND		420	210	ug/Kg	☼	02/11/13 11:49	02/13/13 18:49	50
Phenanthrene	**830**		420	210	ug/Kg	☼	02/11/13 11:49	02/13/13 18:49	50
Pyrene	**550**		420	210	ug/Kg	☼	02/11/13 11:49	02/13/13 18:49	50
Acenaphthene	ND		420	210	ug/Kg	☼	02/11/13 11:49	02/13/13 18:49	50
Acenaphthylene	ND		420	210	ug/Kg	☼	02/11/13 11:49	02/13/13 18:49	50
Naphthalene	**400**	J	420	210	ug/Kg	☼	02/11/13 11:49	02/13/13 18:49	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*86*		*24 - 110*	*02/11/13 11:49*	*02/13/13 18:49*	*50*
2-Fluorophenol (Surr)	*111*	*X*	*24 - 110*	*02/11/13 11:49*	*02/13/13 18:49*	*50*
2,4,6-Tribromophenol (Surr)	*228*	*X*	*10 - 110*	*02/11/13 11:49*	*02/13/13 18:49*	*50*
Nitrobenzene-d5 (Surr)	*85*		*20 - 110*	*02/11/13 11:49*	*02/13/13 18:49*	*50*
Phenol-d5 (Surr)	*123*	*X*	*26 - 110*	*02/11/13 11:49*	*02/13/13 18:49*	*50*
Terphenyl-d14 (Surr)	*112*	*X*	*36 - 110*	*02/11/13 11:49*	*02/13/13 18:49*	*50*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C20)	ND		2100	1200	mg/Kg	☼	02/08/13 11:11	02/12/13 23:44	100
Oil Range Organics (C20-C34)	**8000**		2100	1200	mg/Kg	☼	02/08/13 11:11	02/12/13 23:44	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Nonane	*55*		*10 - 110*	*02/08/13 11:11*	*02/12/13 23:44*	*100*

Client Sample Results

Client: TRC Environmental Corp-Payne Firm
Project/Site: Canton Drop Forge

TestAmerica Job ID: 240-20720-1

Client Sample ID: TRENCH-02/1.0-2.0

Lab Sample ID: 240-20720-4

Date Collected: 02/06/13 09:55
Date Received: 02/06/13 12:10

Matrix: Solid
Percent Solids: 83.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	150		39	19	ug/Kg	☼	02/11/13 11:49	02/13/13 19:58	5
Benzo[a]pyrene	230		39	19	ug/Kg	☼	02/11/13 11:49	02/13/13 19:58	5
Benzo[b]fluoranthene	260		39	19	ug/Kg	☼	02/11/13 11:49	02/13/13 19:58	5
Benzo[g,h,i]perylene	80		39	19	ug/Kg	☼	02/11/13 11:49	02/13/13 19:58	5
Benzo[k]fluoranthene	85		39	19	ug/Kg	☼	02/11/13 11:49	02/13/13 19:58	5
Anthracene	38	J	39	19	ug/Kg	☼	02/11/13 11:49	02/13/13 19:58	5
Chrysene	250		39	6.5	ug/Kg	☼	02/11/13 11:49	02/13/13 19:58	5
Dibenz(a,h)anthracene	ND		39	19	ug/Kg	☼	02/11/13 11:49	02/13/13 19:58	5
Fluoranthene	280		39	19	ug/Kg	☼	02/11/13 11:49	02/13/13 19:58	5
Fluorene	ND		39	19	ug/Kg	☼	02/11/13 11:49	02/13/13 19:58	5
Indeno[1,2,3-cd]pyrene	160		39	19	ug/Kg	☼	02/11/13 11:49	02/13/13 19:58	5
Phenanthrene	310		39	19	ug/Kg	☼	02/11/13 11:49	02/13/13 19:58	5
Pyrene	290		39	19	ug/Kg	☼	02/11/13 11:49	02/13/13 19:58	5
Acenaphthene	ND		39	19	ug/Kg	☼	02/11/13 11:49	02/13/13 19:58	5
Acenaphthylene	20	J	39	19	ug/Kg	☼	02/11/13 11:49	02/13/13 19:58	5
Naphthalene	160		39	19	ug/Kg	☼	02/11/13 11:49	02/13/13 19:58	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*62*		*24 - 110*	*02/11/13 11:49*	*02/13/13 19:58*	*5*
2-Fluorophenol (Surr)	*67*		*24 - 110*	*02/11/13 11:49*	*02/13/13 19:58*	*5*
2,4,6-Tribromophenol (Surr)	*75*		*10 - 110*	*02/11/13 11:49*	*02/13/13 19:58*	*5*
Nitrobenzene-d5 (Surr)	*59*		*20 - 110*	*02/11/13 11:49*	*02/13/13 19:58*	*5*
Phenol-d5 (Surr)	*75*		*26 - 110*	*02/11/13 11:49*	*02/13/13 19:58*	*5*
Terphenyl-d14 (Surr)	*73*		*36 - 110*	*02/11/13 11:49*	*02/13/13 19:58*	*5*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C20)	ND		200	110	mg/Kg	☼	02/08/13 11:11	02/13/13 19:25	10
Oil Range Organics (C20-C34)	540		200	110	mg/Kg	☼	02/08/13 11:11	02/13/13 19:25	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Nonane	*38*		*10 - 110*	*02/08/13 11:11*	*02/13/13 19:25*	*10*

Client Sample Results

Client: TRC Environmental Corp-Payne Firm
Project/Site: Canton Drop Forge

TestAmerica Job ID: 240-20720-1

Client Sample ID: TRENCH-03/0.0-1.0

Lab Sample ID: 240-20720-5

Date Collected: 02/06/13 10:25
Date Received: 02/06/13 12:10

Matrix: Solid
Percent Solids: 68.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		720	350	ug/Kg	☼	02/11/13 11:49	02/13/13 19:12	50
Benzo[a]pyrene	**2100**		720	350	ug/Kg	☼	02/11/13 11:49	02/13/13 19:12	50
Benzo[b]fluoranthene	ND		720	350	ug/Kg	☼	02/11/13 11:49	02/13/13 19:12	50
Benzo[g,h,i]perylene	**990**		720	350	ug/Kg	☼	02/11/13 11:49	02/13/13 19:12	50
Benzo[k]fluoranthene	ND		720	350	ug/Kg	☼	02/11/13 11:49	02/13/13 19:12	50
Anthracene	ND		720	350	ug/Kg	☼	02/11/13 11:49	02/13/13 19:12	50
Chrysene	ND		720	120	ug/Kg	☼	02/11/13 11:49	02/13/13 19:12	50
Dibenz(a,h)anthracene	ND		720	350	ug/Kg	☼	02/11/13 11:49	02/13/13 19:12	50
Fluoranthene	**460**	J	720	350	ug/Kg	☼	02/11/13 11:49	02/13/13 19:12	50
Fluorene	ND		720	350	ug/Kg	☼	02/11/13 11:49	02/13/13 19:12	50
Indeno[1,2,3-cd]pyrene	ND		720	350	ug/Kg	☼	02/11/13 11:49	02/13/13 19:12	50
Phenanthrene	**1200**		720	350	ug/Kg	☼	02/11/13 11:49	02/13/13 19:12	50
Pyrene	**1000**		720	350	ug/Kg	☼	02/11/13 11:49	02/13/13 19:12	50
Acenaphthene	ND		720	350	ug/Kg	☼	02/11/13 11:49	02/13/13 19:12	50
Acenaphthylene	ND		720	350	ug/Kg	☼	02/11/13 11:49	02/13/13 19:12	50
Naphthalene	**660**	J	720	350	ug/Kg	☼	02/11/13 11:49	02/13/13 19:12	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*86*		*24 - 110*	*02/11/13 11:49*	*02/13/13 19:12*	*50*
2-Fluorophenol (Surr)	*132*	*X*	*24 - 110*	*02/11/13 11:49*	*02/13/13 19:12*	*50*
2,4,6-Tribromophenol (Surr)	*299*	*X*	*10 - 110*	*02/11/13 11:49*	*02/13/13 19:12*	*50*
Nitrobenzene-d5 (Surr)	*105*		*20 - 110*	*02/11/13 11:49*	*02/13/13 19:12*	*50*
Phenol-d5 (Surr)	*157*	*X*	*26 - 110*	*02/11/13 11:49*	*02/13/13 19:12*	*50*
Terphenyl-d14 (Surr)	*104*		*36 - 110*	*02/11/13 11:49*	*02/13/13 19:12*	*50*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C20)	ND		3100	1700	mg/Kg	☼	02/08/13 11:11	02/13/13 01:13	100
Oil Range Organics (C20-C34)	**15000**		3100	1700	mg/Kg	☼	02/08/13 11:11	02/13/13 01:13	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Nonane	*49*		*10 - 110*	*02/08/13 11:11*	*02/13/13 01:13*	*100*

Client Sample Results

Client: TRC Environmental Corp-Payne Firm
Project/Site: Canton Drop Forge

TestAmerica Job ID: 240-20720-1

Client Sample ID: TRENCH-03/1.0-2.0 | **Lab Sample ID: 240-20720-6**

Date Collected: 02/06/13 10:30 | Matrix: Solid

Date Received: 02/06/13 12:10 | Percent Solids: 72.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	540		180	90	ug/Kg	☼	02/11/13 11:49	02/13/13 19:35	20
Benzo[a]pyrene	850		180	90	ug/Kg	☼	02/11/13 11:49	02/13/13 19:35	20
Benzo[b]fluoranthene	840		180	90	ug/Kg	☼	02/11/13 11:49	02/13/13 19:35	20
Benzo[g,h,i]perylene	250		180	90	ug/Kg	☼	02/11/13 11:49	02/13/13 19:35	20
Benzo[k]fluoranthene	210		180	90	ug/Kg	☼	02/11/13 11:49	02/13/13 19:35	20
Anthracene	260		180	90	ug/Kg	☼	02/11/13 11:49	02/13/13 19:35	20
Chrysene	890		180	30	ug/Kg	☼	02/11/13 11:49	02/13/13 19:35	20
Dibenz(a,h)anthracene	ND		180	90	ug/Kg	☼	02/11/13 11:49	02/13/13 19:35	20
Fluoranthene	1000		180	90	ug/Kg	☼	02/11/13 11:49	02/13/13 19:35	20
Fluorene	ND		180	90	ug/Kg	☼	02/11/13 11:49	02/13/13 19:35	20
Indeno[1,2,3-cd]pyrene	630		180	90	ug/Kg	☼	02/11/13 11:49	02/13/13 19:35	20
Phenanthrene	2100		180	90	ug/Kg	☼	02/11/13 11:49	02/13/13 19:35	20
Pyrene	1100		180	90	ug/Kg	☼	02/11/13 11:49	02/13/13 19:35	20
Acenaphthene	ND		180	90	ug/Kg	☼	02/11/13 11:49	02/13/13 19:35	20
Acenaphthylene	ND		180	90	ug/Kg	☼	02/11/13 11:49	02/13/13 19:35	20
Naphthalene	560		180	90	ug/Kg	☼	02/11/13 11:49	02/13/13 19:35	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*57*		*24 - 110*	*02/11/13 11:49*	*02/13/13 19:35*	*20*
2-Fluorophenol (Surr)	*67*		*24 - 110*	*02/11/13 11:49*	*02/13/13 19:35*	*20*
2,4,6-Tribromophenol (Surr)	*115*	*X*	*10 - 110*	*02/11/13 11:49*	*02/13/13 19:35*	*20*
Nitrobenzene-d5 (Surr)	*60*		*20 - 110*	*02/11/13 11:49*	*02/13/13 19:35*	*20*
Phenol-d5 (Surr)	*67*		*26 - 110*	*02/11/13 11:49*	*02/13/13 19:35*	*20*
Terphenyl-d14 (Surr)	*74*		*36 - 110*	*02/11/13 11:49*	*02/13/13 19:35*	*20*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C20)	170	J	230	130	mg/Kg	☼	02/08/13 11:11	02/13/13 19:55	10
Oil Range Organics (C20-C34)	3800		230	130	mg/Kg	☼	02/08/13 11:11	02/13/13 19:55	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Nonane	*51*		*10 - 110*	*02/08/13 11:11*	*02/13/13 19:55*	*10*

Surrogate Summary

Client: TRC Environmental Corp-Payne Firm
Project/Site: Canton Drop Forge

TestAmerica Job ID: 240-20720-1

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

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	TBP	NBZ	PHL	TPH
Lab Sample ID	Client Sample ID	(24-110)	(24-110)	(10-110)	(20-110)	(26-110)	(36-110)
240-20720-1	TRENCH-01/0.0-1.0	0 X	0 X	0 X	0 X	0 X	0 X
240-20720-2	TRENCH-01/2.0-3.0	61	76	66	57	76	75
240-20720-3	TRENCH-02/0.0-1.0	86	111 X	228 X	85	123 X	112 X
240-20720-4	TRENCH-02/1.0-2.0	62	67	75	59	75	73
240-20720-5	TRENCH-03/0.0-1.0	86	132 X	299 X	105	157 X	104
240-20720-6	TRENCH-03/1.0-2.0	57	67	115 X	60	67	74
LCS 240-74906/23-A	Lab Control Sample	48	62	59	50	63	69
MB 240-74906/22-A	Method Blank	70	85	68	71	88	97

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

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		C91
Lab Sample ID	Client Sample ID	(10-110)
240-20720-1	TRENCH-01/0.0-1.0	52
240-20720-2	TRENCH-01/2.0-3.0	58
240-20720-3	TRENCH-02/0.0-1.0	55
240-20720-4	TRENCH-02/1.0-2.0	38
240-20720-5	TRENCH-03/0.0-1.0	49
240-20720-6	TRENCH-03/1.0-2.0	51
LCS 240-74749/22-A	Lab Control Sample	53
MB 240-74749/23-A	Method Blank	42

Surrogate Legend

C9 = n-Nonane

QC Sample Results

Client: TRC Environmental Corp-Payne Firm
Project/Site: Canton Drop Forge

TestAmerica Job ID: 240-20720-1

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

Lab Sample ID: MB 240-74906/22-A
Matrix: Solid
Analysis Batch: 75155

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 74906

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		6.7	3.3	ug/Kg		02/11/13 11:49	02/13/13 10:26	1
Benzo[a]pyrene	ND		6.7	3.3	ug/Kg		02/11/13 11:49	02/13/13 10:26	1
Benzo[b]fluoranthene	ND		6.7	3.3	ug/Kg		02/11/13 11:49	02/13/13 10:26	1
Benzo[g,h,i]perylene	ND		6.7	3.3	ug/Kg		02/11/13 11:49	02/13/13 10:26	1
Benzo[k]fluoranthene	ND		6.7	3.3	ug/Kg		02/11/13 11:49	02/13/13 10:26	1
Anthracene	ND		6.7	3.3	ug/Kg		02/11/13 11:49	02/13/13 10:26	1
Chrysene	ND		6.7	1.1	ug/Kg		02/11/13 11:49	02/13/13 10:26	1
Dibenz(a,h)anthracene	ND		6.7	3.3	ug/Kg		02/11/13 11:49	02/13/13 10:26	1
Fluoranthene	ND		6.7	3.3	ug/Kg		02/11/13 11:49	02/13/13 10:26	1
Fluorene	ND		6.7	3.3	ug/Kg		02/11/13 11:49	02/13/13 10:26	1
Indeno[1,2,3-cd]pyrene	ND		6.7	3.3	ug/Kg		02/11/13 11:49	02/13/13 10:26	1
Phenanthrene	ND		6.7	3.3	ug/Kg		02/11/13 11:49	02/13/13 10:26	1
Pyrene	ND		6.7	3.3	ug/Kg		02/11/13 11:49	02/13/13 10:26	1
Acenaphthene	ND		6.7	3.3	ug/Kg		02/11/13 11:49	02/13/13 10:26	1
Acenaphthylene	ND		6.7	3.3	ug/Kg		02/11/13 11:49	02/13/13 10:26	1
Naphthalene	ND		6.7	3.3	ug/Kg		02/11/13 11:49	02/13/13 10:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*70*		*24 - 110*	*02/11/13 11:49*	*02/13/13 10:26*	*1*
2-Fluorophenol (Surr)	*85*		*24 - 110*	*02/11/13 11:49*	*02/13/13 10:26*	*1*
2,4,6-Tribromophenol (Surr)	*68*		*10 - 110*	*02/11/13 11:49*	*02/13/13 10:26*	*1*
Nitrobenzene-d5 (Surr)	*71*		*20 - 110*	*02/11/13 11:49*	*02/13/13 10:26*	*1*
Phenol-d5 (Surr)	*88*		*26 - 110*	*02/11/13 11:49*	*02/13/13 10:26*	*1*
Terphenyl-d14 (Surr)	*97*		*36 - 110*	*02/11/13 11:49*	*02/13/13 10:26*	*1*

Lab Sample ID: LCS 240-74906/23-A
Matrix: Solid
Analysis Batch: 75449

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 74906

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]anthracene	667	519		ug/Kg		78	50 - 110
Benzo[a]pyrene	667	484		ug/Kg		73	44 - 110
Benzo[b]fluoranthene	667	538		ug/Kg		81	43 - 110
Benzo[g,h,i]perylene	667	559		ug/Kg		84	51 - 110
Benzo[k]fluoranthene	667	577		ug/Kg		87	38 - 105
Anthracene	667	494		ug/Kg		74	48 - 110
Chrysene	667	523		ug/Kg		78	50 - 110
Dibenz(a,h)anthracene	667	541		ug/Kg		81	51 - 110
Fluoranthene	667	524		ug/Kg		79	51 - 110
Fluorene	667	448		ug/Kg		67	46 - 110
Indeno[1,2,3-cd]pyrene	667	518		ug/Kg		78	50 - 110
Phenanthrene	667	476		ug/Kg		71	49 - 110
Pyrene	667	532		ug/Kg		80	49 - 110
Acenaphthene	667	404		ug/Kg		61	38 - 110
Acenaphthylene	667	432		ug/Kg		65	40 - 110
Naphthalene	667	412		ug/Kg		62	36 - 110

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

Lab Sample ID: LCS 240-74906/23-A
Matrix: Solid
Analysis Batch: 75449

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 74906

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	48		24 - 110
2-Fluorophenol (Surr)	62		24 - 110
2,4,6-Tribromophenol (Surr)	59		10 - 110
Nitrobenzene-d5 (Surr)	50		20 - 110
Phenol-d5 (Surr)	63		26 - 110
Terphenyl-d14 (Surr)	69		36 - 110

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

Lab Sample ID: MB 240-74749/23-A
Matrix: Solid
Analysis Batch: 75184

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 74749

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C20)	ND		17	9.3	mg/Kg		02/08/13 11:11	02/13/13 13:24	1
Oil Range Organics (C20-C34)	ND		17	9.3	mg/Kg		02/08/13 11:11	02/13/13 13:24	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Nonane	42		10 - 110	02/08/13 11:11	02/13/13 13:24	1

Lab Sample ID: LCS 240-74749/22-A
Matrix: Solid
Analysis Batch: 75184

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 74749

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel	83.3	63.0		mg/Kg		76	47 - 138

Surrogate	LCS %Recovery	LCS Qualifier	Limits
n-Nonane	53		10 - 110

QC Association Summary

Client: TRC Environmental Corp-Payne Firm
Project/Site: Canton Drop Forge

TestAmerica Job ID: 240-20720-1

GC/MS Semi VOA

Prep Batch: 74906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-20720-1	TRENCH-01/0.0-1.0	Total/NA	Solid	3540C	
240-20720-2	TRENCH-01/2.0-3.0	Total/NA	Solid	3540C	
240-20720-3	TRENCH-02/0.0-1.0	Total/NA	Solid	3540C	
240-20720-4	TRENCH-02/1.0-2.0	Total/NA	Solid	3540C	
240-20720-5	TRENCH-03/0.0-1.0	Total/NA	Solid	3540C	
240-20720-6	TRENCH-03/1.0-2.0	Total/NA	Solid	3540C	
LCS 240-74906/23-A	Lab Control Sample	Total/NA	Solid	3540C	
MB 240-74906/22-A	Method Blank	Total/NA	Solid	3540C	

Analysis Batch: 75155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-20720-1	TRENCH-01/0.0-1.0	Total/NA	Solid	8270C	74906
240-20720-2	TRENCH-01/2.0-3.0	Total/NA	Solid	8270C	74906
240-20720-3	TRENCH-02/0.0-1.0	Total/NA	Solid	8270C	74906
240-20720-4	TRENCH-02/1.0-2.0	Total/NA	Solid	8270C	74906
240-20720-5	TRENCH-03/0.0-1.0	Total/NA	Solid	8270C	74906
240-20720-6	TRENCH-03/1.0-2.0	Total/NA	Solid	8270C	74906
MB 240-74906/22-A	Method Blank	Total/NA	Solid	8270C	74906

Analysis Batch: 75449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-74906/23-A	Lab Control Sample	Total/NA	Solid	8270C	74906

GC Semi VOA

Prep Batch: 74749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-20720-1	TRENCH-01/0.0-1.0	Total/NA	Solid	3540C	
240-20720-2	TRENCH-01/2.0-3.0	Total/NA	Solid	3540C	
240-20720-3	TRENCH-02/0.0-1.0	Total/NA	Solid	3540C	
240-20720-4	TRENCH-02/1.0-2.0	Total/NA	Solid	3540C	
240-20720-5	TRENCH-03/0.0-1.0	Total/NA	Solid	3540C	
240-20720-6	TRENCH-03/1.0-2.0	Total/NA	Solid	3540C	
LCS 240-74749/22-A	Lab Control Sample	Total/NA	Solid	3540C	
MB 240-74749/23-A	Method Blank	Total/NA	Solid	3540C	

Analysis Batch: 74943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-20720-1	TRENCH-01/0.0-1.0	Total/NA	Solid	8015B	74749
240-20720-2	TRENCH-01/2.0-3.0	Total/NA	Solid	8015B	74749
240-20720-3	TRENCH-02/0.0-1.0	Total/NA	Solid	8015B	74749
240-20720-5	TRENCH-03/0.0-1.0	Total/NA	Solid	8015B	74749

Analysis Batch: 75184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-20720-4	TRENCH-02/1.0-2.0	Total/NA	Solid	8015B	74749
240-20720-6	TRENCH-03/1.0-2.0	Total/NA	Solid	8015B	74749
LCS 240-74749/22-A	Lab Control Sample	Total/NA	Solid	8015B	74749
MB 240-74749/23-A	Method Blank	Total/NA	Solid	8015B	74749

QC Association Summary

Client: TRC Environmental Corp-Payne Firm
Project/Site: Canton Drop Forge

TestAmerica Job ID: 240-20720-1

General Chemistry

Analysis Batch: 74526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-20720-1	TRENCH-01/0.0-1.0	Total/NA	Solid	Moisture	
240-20720-2	TRENCH-01/2.0-3.0	Total/NA	Solid	Moisture	
240-20720-3	TRENCH-02/0.0-1.0	Total/NA	Solid	Moisture	
240-20720-4	TRENCH-02/1.0-2.0	Total/NA	Solid	Moisture	
240-20720-5	TRENCH-03/0.0-1.0	Total/NA	Solid	Moisture	
240-20720-6	TRENCH-03/1.0-2.0	Total/NA	Solid	Moisture	

Lab Chronicle

Client: TRC Environmental Corp-Payne Firm
Project/Site: Canton Drop Forge

TestAmerica Job ID: 240-20720-1

Client Sample ID: TRENCH-01/0.0-1.0

Lab Sample ID: 240-20720-1

Date Collected: 02/06/13 09:20
Date Received: 02/06/13 12:10

Matrix: Solid
Percent Solids: 84.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			74906	02/11/13 11:49	BM	TAL NC
Total/NA	Analysis	8270C		100	75155	02/13/13 18:26	JG	TAL NC
Total/NA	Prep	3540C			74749	02/08/13 11:11	CC	TAL NC
Total/NA	Analysis	8015B		100	74943	02/12/13 22:44	DB	TAL NC
Total/NA	Analysis	Moisture		1	74526	02/06/13 17:46	AM	TAL NC

Client Sample ID: TRENCH-01/2.0-3.0

Lab Sample ID: 240-20720-2

Date Collected: 02/06/13 09:25
Date Received: 02/06/13 12:10

Matrix: Solid
Percent Solids: 83.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			74906	02/11/13 11:49	BM	TAL NC
Total/NA	Analysis	8270C		1	75155	02/13/13 18:04	JG	TAL NC
Total/NA	Prep	3540C			74749	02/08/13 11:11	CC	TAL NC
Total/NA	Analysis	8015B		50	74943	02/12/13 23:14	DB	TAL NC
Total/NA	Analysis	Moisture		1	74526	02/06/13 17:46	AM	TAL NC

Client Sample ID: TRENCH-02/0.0-1.0

Lab Sample ID: 240-20720-3

Date Collected: 02/06/13 09:50
Date Received: 02/06/13 12:10

Matrix: Solid
Percent Solids: 79.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			74906	02/11/13 11:49	BM	TAL NC
Total/NA	Analysis	8270C		50	75155	02/13/13 18:49	JG	TAL NC
Total/NA	Prep	3540C			74749	02/08/13 11:11	CC	TAL NC
Total/NA	Analysis	8015B		100	74943	02/12/13 23:44	DB	TAL NC
Total/NA	Analysis	Moisture		1	74526	02/06/13 17:46	AM	TAL NC

Client Sample ID: TRENCH-02/1.0-2.0

Lab Sample ID: 240-20720-4

Date Collected: 02/06/13 09:55
Date Received: 02/06/13 12:10

Matrix: Solid
Percent Solids: 83.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			74906	02/11/13 11:49	BM	TAL NC
Total/NA	Analysis	8270C		5	75155	02/13/13 19:58	JG	TAL NC
Total/NA	Prep	3540C			74749	02/08/13 11:11	CC	TAL NC
Total/NA	Analysis	8015B		10	75184	02/13/13 19:25	DB	TAL NC
Total/NA	Analysis	Moisture		1	74526	02/06/13 17:46	AM	TAL NC

Lab Chronicle

Client: TRC Environmental Corp-Payne Firm
Project/Site: Canton Drop Forge

TestAmerica Job ID: 240-20720-1

Client Sample ID: TRENCH-03/0.0-1.0

Lab Sample ID: 240-20720-5

Date Collected: 02/06/13 10:25
Date Received: 02/06/13 12:10

Matrix: Solid
Percent Solids: 68.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			74906	02/11/13 11:49	BM	TAL NC
Total/NA	Analysis	8270C		50	75155	02/13/13 19:12	JG	TAL NC
Total/NA	Prep	3540C			74749	02/08/13 11:11	CC	TAL NC
Total/NA	Analysis	8015B		100	74943	02/13/13 01:13	DB	TAL NC
Total/NA	Analysis	Moisture		1	74526	02/06/13 17:46	AM	TAL NC

Client Sample ID: TRENCH-03/1.0-2.0

Lab Sample ID: 240-20720-6

Date Collected: 02/06/13 10:30
Date Received: 02/06/13 12:10

Matrix: Solid
Percent Solids: 72.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			74906	02/11/13 11:49	BM	TAL NC
Total/NA	Analysis	8270C		20	75155	02/13/13 19:35	JG	TAL NC
Total/NA	Prep	3540C			74749	02/08/13 11:11	CC	TAL NC
Total/NA	Analysis	8015B		10	75184	02/13/13 19:55	DB	TAL NC
Total/NA	Analysis	Moisture		1	74526	02/06/13 17:46	AM	TAL NC

Laboratory References:

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

Certification Summary

Client: TRC Environmental Corp-Payne Firm
Project/Site: Canton Drop Forge

TestAmerica Job ID: 240-20720-1

Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-13
Connecticut	State Program	1	PH-0590	12-31-13
Florida	NELAP	4	E87225	06-30-13
Georgia	State Program	4	N/A	06-30-13
Illinois	NELAP	5	200004	07-31-13
Kansas	NELAP	7	E-10336	01-31-14
Kentucky	State Program	4	58	06-30-13
L-A-B	DoD ELAP		L2315	07-28-13
Nevada	State Program	9	OH-000482008A	07-31-13
New Jersey	NELAP	2	OH001	06-30-13
New York	NELAP	2	10975	04-01-13
Ohio VAP	State Program	5	CL0024	01-19-14
Pennsylvania	NELAP	3	68-00340	08-31-13
Texas	NELAP	6		08-03-13
USDA	Federal		P330-11-00328	08-26-14
Virginia	NELAP	3	460175	09-14-13
Wisconsin	State Program	5	999518190	08-31-13

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Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: N. Canton
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☒ Other Ohio VAP

TestAmerica Laboratories, Inc.

Client Contact

Company Name: TRC Environmental Corp.	Client Project Manager: Kathie Teschen	Site Contact: Michael Bitto	Lab Contact: Patrick O'Meara	COC No: 55386
Address: 1382 W. 9th St, Suite 200	Telephone: 216.344.3072	Telephone:	Telephone:	2 of 2 COCs
City/State/Zip: Cleveland, OH 44113	Email: kteschen@trcsolutions.com	Analysis Turnaround Time: CALENDAR DAYS / WORK DAYS		For lab use only
Phone: 216.344.3072		TAT if different from below: STANDARD		Walk-in client: ☐
Project Name: CDF	Method of Shipment/Carrier: Drop Off	☐ 3 weeks ☐ 2 weeks ☒ 1 week NO ☐ 2 days ☐ 1 day		Lab pickup: ☐
Project Number: 19616163.00	Shipping/Tracking No:			Lab sampling: ☐
PO#				Job/SDG No:

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite (Y/N)	PAH	TPH-GRO								Sample Specific Notes / Special Instructions:
Trench-01/0.0-1.0	2/6/13	0920			X								1		N	G	X	X								
Trench-01/2.0-3.0	2/6/13	0925				X							1		N	G	X	X								
Trench-02/0.0-1.0	2/6/13	0950			X								1		N	G	X	X								
Trench-02/1.0-2.0	2/6/13	0955				X							1		N	G	X	X								
Trench-03/0.0-1.0	2/6/13	1025			X								1		N	G	X	X								
Trench-03/1.0-2.0	2/6/13	1030				X							1		N	G	X	X								

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

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

Special Instructions/QC Requirements & Comments:

Ohio VAP

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	TRC	2/6/13 1210	[signature]	TRC	2/6/13 1210
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

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TAL 0018- 1 (04/10)

TestAmerica Canton Sample Receipt Form/Narrative Login # : 20720

Client TRC ENV Site Name Trench By: [signature] (Signature)

Cooler Received on 2-6-13 Opened on 2-6-13

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

TestAmerica Cooler # BB2 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
   - IR GUN# 1 (CF -2 °C) Observed Sample Temp. 2.9 °C Corrected Sample Temp. 0.9 °C
   - IR GUN# 4G (CF 0 °C) Observed Sample Temp. ____ °C Corrected Sample Temp. ____ °C ☐ Multiple on Back
   - IR GUN# 5G (CF 0 °C) Observed Sample Temp. ____ °C Corrected Sample Temp. ____ °C
   - IR GUN# 8 (CF 0 °C) Observed Sample Temp. ____ °C Corrected Sample Temp. ____ °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)? 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. Did all bottles arrive in good condition (Unbroken)? Yes No
7. Could all bottle labels be reconciled with the COC? Yes No
8. Were correct bottle(s) used for the test(s) indicated? Yes No
9. Sufficient quantity received to perform indicated analyses? Yes No
10. Were sample(s) at the correct pH upon receipt? Yes No NA
11. Were VOAs on the COC? Yes No
12. Were air bubbles >6 mm in any VOA vials? Yes No NA
13. Was a trip blank present in the cooler(s)? Yes No

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

Concerning

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

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)

SOP: NC-SC-0005, Sample Receiving

C:\Users\livengoodc\AppData\Local\Microsoft\Windows\Temporary Internet Files\OLKD16\COOLER_TestAmerica_Rev 88_110712 rls.doc

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). Nitric Acid Lot# 031512-HNO3; Sulfuric Acid Lot# 051012-H2SO4; Sodium Hydroxide Lot# 121809 -NaOH; Hydrochloric Acid Lot# 041911-HCl; Sodium Hydroxide and Zinc Acetate Lot# 100108-(CH3COO)2ZN/NaOH. What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials

Cooler #	Observed Sample Temp. °C	Corrected Sample Temp. °C	IR #	Coolant