1930056 - R8 SEMS

Ackerman, Joyce

From: Sandusky, Eric <Eric.Sandusky@WestonSolutions.com>
Sent: Tuesday, May 8, 2018 8:17 AM
To: Myers, Craig
Cc: Ackerman, Joyce
Subject: FW: Phase 2A Stockpile Data
Attachments: J77183-1 UDS Level 2 Report Final Report.pdf

Attached is the data for the phase 2a stock piles (8 small piles on the east end of the southern excavation). Below is a table of the hits.

	Stockpile 1	Stockpile 2	Stockpile 3	Stockpile 4	Stockpile 5	Stockpile 6	Stockpile 7	Stockpile 8	Stockpile 9
Totals (mg/kg)									
MEK	380	200	930	820	1300	2400	390	1100	1100
Cyclohexanone	1700	800	1900	6200	7100	13000	1800	5600	5100
MIBK	93	40	220	180	320	590	93	280	270
Toluene	66	31	790	61	250	440	71	210	210
1,2,3-Trichlorobenzene	ND	ND	23	ND	ND	ND	ND	ND	ND
TCE	ND	ND	160	ND	ND	ND	ND	ND	ND
TCLP (mg/L)									
MEK	0.64	0.12	0.75	0.38	0.38	4.5	0.6	1.2	5.9
TCE	0.54	ND	ND	0.45	0.44	0.072	ND	ND	ND

Eric Sandusky
Project Geoscientist
Weston Solutions, Inc.
303-729-6132 - Office
678-516-7299 - Cell

From: Patrick Medland [mailto:PMedland@Geosyntec.com]
Sent: Thursday, May 3, 2018 12:19 PM
To: Sandusky, Eric <Eric.Sandusky@WestonSolutions.com>

Cc: Ackerman, Joyce <Ackerman.Joyce@epa.gov>
Subject: Phase 2A Stockpile Data

Eric,

Attached is the Phase 2A stockpile data. Please note the sample ID that includes "SP109" is a duplicate sample. The other 8 samples are from discreet stockpiles labeled 101-108. Please let me know EPA's position on the future location of these soils (on or off site).

Thanks,
Patrick

Patrick Medland
Scientist

Geosyntec Consultants
5670 Greenwood Plaza Blvd Ste 540
Greenwood Village, CO 80111

Office: 303-790-1340
Direct: 720-509-8907

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

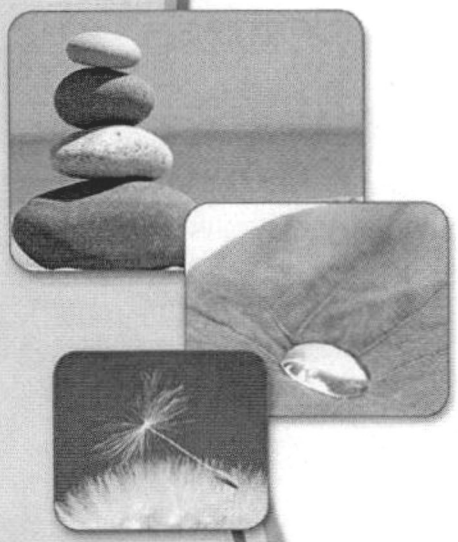
TestAmerica Job ID: 180-77183-1
Client Project/Site: Stratus Redtail Ranch, LLC

For:
Geosyntec Consultants, Inc.
5670 Greenwood Plaza Blvd
Suite 540
Greenwood Village, Colorado 80111

Attn: Thomas J Krasovec

Authorized for release by:
5/3/2018 1:17:50 PM

David Dunlap, Senior Project Manager
(412)963-2432
david.dunlap@testamericainc.com



LINKS

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Visit us at:
www.testamericainc.com

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

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

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Job ID: 180-77183-1

Laboratory: TestAmerica Pittsburgh

Narrative

Job Narrative
180-77183-1

Receipt
The samples were received on 4/27/2018 8:50 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.7° C.

GC/MS VOA
Method(s) 8260C: The following samples (totals analysis) were diluted to bring the concentration of target analytes within the calibration range: NLF-SS-PHASE2A-SP101-042518 (180-77183-1), NLF-SS-PHASE2A-SP102-042518 (180-77183-2), NLF-SS-PHASE2A-SP103-042518 (180-77183-3) and NLF-SS-PHASE2A-SP104-042518 (180-77183-4), NLF-SS-PHASE2A-SP105-042518 (180-77183-5), NLF-SS-PHASE2A-SP106-042518 (180-77183-6), NLF-SS-PHASE2A-SP107-042518 (180-77183-7), NLF-SS-PHASE2A-SP108-042518 (180-77183-8), and NLF-SS-PHASE2A-SP109-042518 (180-77183-9). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The recovery of surrogates 4-bromofluorobenzene and toluene-d8 were above the control limits in sample (TCLP analysis) NLF-SS-PHASE2A-SP106-042518 (180-77183-6). The matrix spikes also had the recoveries of 4-bromofluorobenzene above the control limits. Evidence of matrix interference is present; therefore, the results were reported.

Method(s) 8260C: The recovery of surrogate toluene-d8 was above the control limits in sample (TCLP analysis) NLF-SS-PHASE2A-SP109-042518 (180-77183-9). Evidence of matrix interference is present; therefore, the results were reported.

Method(s) 8260C: The matrix spike/matrix spike duplicate (MS/MSD) of sample (TCLP analysis) NLF-SS-PHASE2A-SP101-042518 (180-77183-1) had several recoveries outside of the control limits.

Method(s) 8260C: The matrix spike/matrix spike duplicate (MS/MSD) of sample (TCLP analysis) NLF-SS-PHASE2A-SP106-042518 (180-77183-6) had the RPD between the spikes above the control limits for benzene. The recoveries were within the control limits.

Method(s) 8260C: The continuing calibration verification (CCV) analyzed in batch 180-243682 was above criteria for the following analytes: bromomethane and trichlorofluoromethane As these analytes were biased high in the CCV and were not detected in the associated sample, the results were reported.

Method(s) 8260C: The continuing calibration verifications (CCVs) analyzed in batch 180-243568 were below criteria for the following analytes: cyclohexanone, 1,2,3-trichlorobenzene, 1,2,4-trichlorobenzene, 1,2-dibromo-3-chloropropane, 1,2-dichlorobenzene, 1,4-dioxane, dichlorodifluoromethane, and vinyl chloride. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated.

Method(s) 8260C: The continuing calibration verification (CCV) analyzed in batch 180-243682 was above criteria for the following analytes: 4-methyl-2-pentanone, bromomethane, chloroethane, dichlorodifluoromethane, and trichlorofluoromethane. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method(s) 8260C: The continuing calibration verifications (CCVs) analyzed in batch 180-243682 were below criteria for the following analytes: cyclohexanone, 1,2,3-trichlorobenzene, 1,2,4-trichlorobenzene, 1,2-dibromo-3-chloropropane, and 1,4-dioxane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated.

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

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

Definitions/Glossary

Client: Geosyntec Consultants, Inc.
Project/Site: Stratus Redtail Ranch, LLC

TestAmerica Job ID: 180-77183-1

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R.	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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)

Accreditation/Certification Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Stratus Redtail Ranch, LLC

TestAmerica Job ID: 180-77183-1

Laboratory: TestAmerica Pittsburgh

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

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	A2LA		PA00164	07-31-18
Arkansas DEQ	State Program	6	88-0690	06-27-18
California	State Program	9	2891	04-30-19
Connecticut	State Program	1	PH-0688	09-30-18
Florida	NELAP	4	E871008	06-30-18
Illinois	NELAP	5	200005	06-30-18
Kansas	NELAP	7	E-10350	01-31-19
Louisiana	NELAP	6	04041	06-30-18
Nevada	State Program	9	PA00164	07-31-18
New Hampshire	NELAP	1	2030	04-04-19
New Jersey	NELAP	2	PA005	06-30-18
New York	NELAP	2	11182	03-31-19
North Carolina (WW/SW)	State Program	4	434	12-31-18
Oregon	NELAP Secondary AB	10	PA-2151	01-28-19
Pennsylvania	NELAP	3	02-00416	04-30-19
South Carolina	State Program	4	89014	04-30-18 *
Texas	NELAP	6	T104704528-15-2	03-31-19
US Fish & Wildlife	Federal		LE94312A-1	07-31-18
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-18
Virginia	NELAP	3	460189	09-14-18
West Virginia DEP	State Program	3	142	01-31-19
Wisconsin	State Program	5	998027800	08-31-18

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* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Sample Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Stratus Redtail Ranch, LLC

TestAmerica Job ID: 180-77183-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-77183-1	NLF-SS-PHASE2A-SP101-042518	Solid	04/25/18 10:36	04/27/18 08:50
180-77183-2	NLF-SS-PHASE2A-SP102-042518	Solid	04/25/18 10:41	04/27/18 08:50
180-77183-3	NLF-SS-PHASE2A-SP103-042518	Solid	04/25/18 10:46	04/27/18 08:50
180-77183-4	NLF-SS-PHASE2A-SP104-042518	Solid	04/25/18 10:54	04/27/18 08:50
180-77183-5	NLF-SS-PHASE2A-SP105-042518	Solid	04/25/18 10:57	04/27/18 08:50
180-77183-6	NLF-SS-PHASE2A-SP106-042518	Solid	04/25/18 11:03	04/27/18 08:50
180-77183-7	NLF-SS-PHASE2A-SP107-042518	Solid	04/25/18 11:11	04/27/18 08:50
180-77183-8	NLF-SS-PHASE2A-SP108-042518	Solid	04/25/18 11:19	04/27/18 08:50
180-77183-9	NLF-SS-PHASE2A-SP109-042518	Solid	04/25/18 11:25	04/27/18 08:50

Method Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Stratus Redtail Ranch, LLC

TestAmerica Job ID: 180-77183-1

Method	Method Description	Protocol	Laboratory
EPA 8260C	Volatile Organic Compounds by GC/MS	SW846	TAL PIT
2540G	SM 2540G	SM22	TAL PIT
5030C	Purge and Trap	SW846	TAL PIT
EPA 1311	TCLP Extraction	SW846	TAL PIT

Protocol References:

SM22 = Standard Methods For The Examination Of Water And Wastewater, 22nd Edition

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

Laboratory References:

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: Stratus Redtail Ranch, LLC

TestAmerica Job ID: 180-77183-1

Client Sample ID: NLF-SS-PHASE2A-SP101-042518 — Lab Sample ID: 180-77183-1

Date Collected: 04/25/18 10:36
Date Received: 04/27/18 08:50
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	EPA 1311			25.48 g	500 mL	243432	04/28/18 15:30	CMR	TAL PIT
TCLP	Analysis	EPA 8260C		1	0.125 mL	5 mL	243467	04/30/18 10:57	KLG	TAL PIT
	Instrument ID: CHHP9									
Total/NA	Analysis	2540G		1			243506	04/30/18 10:56	TAM	TAL PIT
	Instrument ID: NOEQUIP									

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Client Sample ID: NLF-SS-PHASE2A-SP101-042518 — Lab Sample ID: 180-77183-1

Date Collected: 04/25/18 10:36
Date Received: 04/27/18 08:50
Matrix: Solid
Percent Solids: 75.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.0020 g	5 mL	243427	04/28/18 13:56	PJJ	TAL PIT
Total/NA	Analysis	EPA 8260C		100	0.1 mL	5 mL	243682	05/02/18 17:54	PJJ	TAL PIT
	Instrument ID: CHHP4									

Client Sample ID: NLF-SS-PHASE2A-SP102-042518 — Lab Sample ID: 180-77183-2

Date Collected: 04/25/18 10:41
Date Received: 04/27/18 08:50
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	EPA 1311			25.07 g	500 mL	243432	04/28/18 15:30	CMR	TAL PIT
TCLP	Analysis	EPA 8260C		1	0.125 mL	5 mL	243467	04/30/18 13:54	KLG	TAL PIT
	Instrument ID: CHHP9									
Total/NA	Analysis	2540G		1			243506	04/30/18 10:56	TAM	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: NLF-SS-PHASE2A-SP102-042518 — Lab Sample ID: 180-77183-2

Date Collected: 04/25/18 10:41
Date Received: 04/27/18 08:50
Matrix: Solid
Percent Solids: 88.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.0009 g	5 mL	243427	04/28/18 13:56	PJJ	TAL PIT
Total/NA	Analysis	EPA 8260C		50	0.1 mL	5 mL	243682	05/02/18 18:22	PJJ	TAL PIT
	Instrument ID: CHHP4									

Client Sample ID: NLF-SS-PHASE2A-SP103-042518 — Lab Sample ID: 180-77183-3

Date Collected: 04/25/18 10:46
Date Received: 04/27/18 08:50
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	EPA 1311			25.21 g	500 mL	243432	04/28/18 15:30	CMR	TAL PIT
TCLP	Analysis	EPA 8260C		1	0.125 mL	5 mL	243467	04/30/18 14:16	KLG	TAL PIT
	Instrument ID: CHHP9									

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: Stratus Redtail Ranch, LLC

TestAmerica Job ID: 180-77183-1

Client Sample ID: NLF-SS-PHASE2A-SP103-042518 — Lab Sample ID: 180-77183-3

Date Collected: 04/25/18 10:46 — **Matrix: Solid**
Date Received: 04/27/18 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1			243506	04/30/18 10:56	TAM	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: NLF-SS-PHASE2A-SP103-042518 — Lab Sample ID: 180-77183-3

Date Collected: 04/25/18 10:46 — **Matrix: Solid**
Date Received: 04/27/18 08:50 — **Percent Solids: 84.8**

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Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.0000 g	5 mL	243427	04/28/18 13:56	PJJ	TAL PIT
Total/NA	Analysis	EPA 8260C		150	0.1 mL	5 mL	243568	05/01/18 18:51	PJJ	TAL PIT
	Instrument ID: CHHP4									

Client Sample ID: NLF-SS-PHASE2A-SP104-042518 — Lab Sample ID: 180-77183-4

Date Collected: 04/25/18 10:54 — **Matrix: Solid**
Date Received: 04/27/18 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	EPA 1311			25.15 g	500 mL	243432	04/28/18 15:30	CMR	TAL PIT
TCLP	Analysis	EPA 8260C		1	0.125 mL	5 mL	243467	04/30/18 14:38	KLG	TAL PIT
	Instrument ID: CHHP9									
Total/NA	Analysis	2540G		1			243506	04/30/18 10:56	TAM	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: NLF-SS-PHASE2A-SP104-042518 — Lab Sample ID: 180-77183-4

Date Collected: 04/25/18 10:54 — **Matrix: Solid**
Date Received: 04/27/18 08:50 — **Percent Solids: 86.1**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.0000 g	5 mL	243427	04/28/18 13:56	PJJ	TAL PIT
Total/NA	Analysis	EPA 8260C		500	0.1 mL	5 mL	243568	05/01/18 19:19	PJJ	TAL PIT
	Instrument ID: CHHP4									

Client Sample ID: NLF-SS-PHASE2A-SP105-042518 — Lab Sample ID: 180-77183-5

Date Collected: 04/25/18 10:57 — **Matrix: Solid**
Date Received: 04/27/18 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	EPA 1311			25.48 g	500 mL	243432	04/28/18 15:30	CMR	TAL PIT
TCLP	Analysis	EPA 8260C		1	0.125 mL	5 mL	243467	04/30/18 14:59	KLG	TAL PIT
	Instrument ID: CHHP9									
Total/NA	Analysis	2540G		1			243506	04/30/18 10:56	TAM	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: Stratus Redtail Ranch, LLC

TestAmerica Job ID: 180-77183-1

Client Sample ID: NLF-SS-PHASE2A-SP105-042518 — Lab Sample ID: 180-77183-5

Date Collected: 04/25/18 10:57 — **Matrix: Solid**
Date Received: 04/27/18 08:50 — **Percent Solids: 80.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.0300 g	5 mL	243427	04/28/18 13:56	PJJ	TAL PIT
Total/NA	Analysis	EPA 8260C		300	0.1 mL	5 mL	243682	05/02/18 16:02	PJJ	TAL PIT
	Instrument ID: CHHP4									

Client Sample ID: NLF-SS-PHASE2A-SP106-042518 — Lab Sample ID: 180-77183-6

Date Collected: 04/25/18 11:03 — **Matrix: Solid**
Date Received: 04/27/18 08:50

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Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	EPA 1311			25.06 g	500 mL	243432	04/28/18 15:30	CMR	TAL PIT
TCLP	Analysis	EPA 8260C		1	0.125 mL	5 mL	243562	05/01/18 09:28	KLG	TAL PIT
	Instrument ID: CHHP9									
Total/NA	Analysis	2540G		1			243506	04/30/18 10:56	TAM	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: NLF-SS-PHASE2A-SP106-042518 — Lab Sample ID: 180-77183-6

Date Collected: 04/25/18 11:03 — **Matrix: Solid**
Date Received: 04/27/18 08:50 — **Percent Solids: 84.7**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.0005 g	5 mL	243427	04/28/18 13:56	PJJ	TAL PIT
Total/NA	Analysis	EPA 8260C		750	0.1 mL	5 mL	243682	05/02/18 16:30	PJJ	TAL PIT
	Instrument ID: CHHP4									

Client Sample ID: NLF-SS-PHASE2A-SP107-042518 — Lab Sample ID: 180-77183-7

Date Collected: 04/25/18 11:11 — **Matrix: Solid**
Date Received: 04/27/18 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	EPA 1311			25.01 g	500 mL	243432	04/28/18 15:30	CMR	TAL PIT
TCLP	Analysis	EPA 8260C		1	0.125 mL	5 mL	243467	04/30/18 15:43	KLG	TAL PIT
	Instrument ID: CHHP9									
Total/NA	Analysis	2540G		1			243506	04/30/18 10:56	TAM	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: NLF-SS-PHASE2A-SP107-042518 — Lab Sample ID: 180-77183-7

Date Collected: 04/25/18 11:11 — **Matrix: Solid**
Date Received: 04/27/18 08:50 — **Percent Solids: 81.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.0160 g	5 mL	243427	04/28/18 13:56	PJJ	TAL PIT
Total/NA	Analysis	EPA 8260C		100	0.1 mL	5 mL	243682	05/02/18 16:58	PJJ	TAL PIT
	Instrument ID: CHHP4									

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: Stratus Redtail Ranch, LLC

TestAmerica Job ID: 180-77183-1

Client Sample ID: NLF-SS-PHASE2A-SP108-042518 — Lab Sample ID: 180-77183-8

Date Collected: 04/25/18 11:19
Date Received: 04/27/18 08:50
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	EPA 1311			25.32 g	500 mL	243432	04/28/18 15:30	CMR	TAL PIT
TCLP	Analysis	EPA 8260C		1	0.125 mL	5 mL	243467	04/30/18 16:05	KLG	TAL PIT
	Instrument ID: CHHP9									
Total/NA	Analysis	2540G		1			243506	04/30/18 10:56	TAM	TAL PIT
	Instrument ID: NOEQUIP									

8

Client Sample ID: NLF-SS-PHASE2A-SP108-042518 — Lab Sample ID: 180-77183-8

Date Collected: 04/25/18 11:19
Date Received: 04/27/18 08:50
Matrix: Solid
Percent Solids: 73.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.0000 g	5 mL	243427	04/28/18 13:56	PJJ	TAL PIT
Total/NA	Analysis	EPA 8260C		250	0.1 mL	5 mL	243682	05/02/18 17:26	PJJ	TAL PIT
	Instrument ID: CHHP4									

Client Sample ID: NLF-SS-PHASE2A-SP109-042518 — Lab Sample ID: 180-77183-9

Date Collected: 04/25/18 11:25
Date Received: 04/27/18 08:50
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	EPA 1311			25.41 g	500 mL	243432	04/28/18 15:30	CMR	TAL PIT
TCLP	Analysis	EPA 8260C		1	0.125 mL	5 mL	243562	05/01/18 09:49	KLG	TAL PIT
	Instrument ID: CHHP9									
Total/NA	Analysis	2540G		1			243506	04/30/18 10:56	TAM	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: NLF-SS-PHASE2A-SP109-042518 — Lab Sample ID: 180-77183-9

Date Collected: 04/25/18 11:25
Date Received: 04/27/18 08:50
Matrix: Solid
Percent Solids: 71.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.0001 g	5 mL	243427	04/28/18 13:56	PJJ	TAL PIT
Total/NA	Analysis	EPA 8260C		250	0.1 mL	5 mL	243682	05/02/18 15:33	PJJ	TAL PIT
	Instrument ID: CHHP4									

Laboratory References:

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: Stratus Redtail Ranch, LLC

TestAmerica Job ID: 180-77183-1

Analyst References:

Lab: TAL PIT

Batch Type: Leach

CMR = Carl Reagle

Batch Type: Prep

PJJ = Patrick Journet

Batch Type: Analysis

KLG = Kathy Gordon

PJJ = Patrick Journet

TAM = Tessa Mastalski

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Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Stratus Redtail Ranch, LLC

TestAmerica Job ID: 180-77183-1

Client Sample ID: NLF-SS-PHASE2A-SP101-042518
Date Collected: 04/25/18 10:36
Date Received: 04/27/18 08:50

Lab Sample ID: 180-77183-1
Matrix: Solid
Percent Solids: 75.1

Method: EPA 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		130	21	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
Benzene	ND		33	13	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
Bromoform	ND		33	17	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
Bromomethane	ND		33	30	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
2-Butanone (MEK)	**380**		33	19	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
Carbon disulfide	ND		33	20	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
Carbon tetrachloride	ND		33	22	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
Chlorobenzene	ND		33	10	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
Chlorobromomethane	ND		33	13	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
Chlorodibromomethane	ND		33	16	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
Chloroethane	ND		33	17	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
Chloroform	ND		33	14	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
Chloromethane	ND		33	26	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
cis-1,2-Dichloroethene	ND		33	10	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
cis-1,3-Dichloropropene	ND		33	11	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
Cyclohexane	ND		33	8.1	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
Cyclohexanone	**1700**		670	390	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
1,2-Dibromo-3-Chloropropane	ND		33	20	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
1,2-Dibromoethane	ND		33	18	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
1,2-Dichlorobenzene	ND		33	27	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
1,3-Dichlorobenzene	ND		33	11	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
1,4-Dichlorobenzene	ND		33	6.8	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
Dichlorobromomethane	ND		33	16	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
Dichlorodifluoromethane	ND		33	19	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
1,1-Dichloroethane	ND		33	12	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
1,2-Dichloroethane	ND		33	9.7	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
1,1-Dichloroethene	ND		33	19	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
1,2-Dichloropropane	ND		33	16	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
1,4-Dioxane	ND		6700	240	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
Ethylbenzene	ND		33	14	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
2-Hexanone	ND		33	28	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
Isopropylbenzene	ND		33	15	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
Methyl acetate	ND		170	39	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
Methylcyclohexane	ND		33	14	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
Methylene Chloride	ND		33	16	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
4-Methyl-2-pentanone (MIBK)	**93**		33	12	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
Methyl tert-butyl ether	ND		33	25	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
m-Xylene & p-Xylene	ND		33	12	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
o-Xylene	ND		33	16	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
Styrene	ND		33	8.9	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
1,1,2,2-Tetrachloroethane	ND		33	20	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
Tetrachloroethene	ND		33	13	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
Tetrahydrofuran	ND		67	50	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
Toluene	**66**		33	11	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
trans-1,2-Dichloroethene	ND		33	17	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
trans-1,3-Dichloropropene	ND		33	11	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
1,2,3-Trichlorobenzene	ND		33	14	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
1,2,4-Trichlorobenzene	ND		33	11	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
1,1,1-Trichloroethane	ND		33	17	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100

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Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Stratus Redtail Ranch, LLC

TestAmerica Job ID: 180-77183-1

Client Sample ID: NLF-SS-PHASE2A-SP101-042518

Lab Sample ID: 180-77183-1

Date Collected: 04/25/18 10:36
Date Received: 04/27/18 08:50

Matrix: Solid
Percent Solids: 75.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	ND		33	16	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
Trichloroethene	ND		33	10	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
Trichlorofluoromethane	ND		33	9.7	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		33	13	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100
Vinyl chloride	ND		33	24	mg/Kg	☼	04/28/18 13:56	05/02/18 17:54	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*62 - 124*	*04/28/18 13:56*	*05/02/18 17:54*	*100*
Dibromofluoromethane (Surr)	*100*		*61 - 120*	*04/28/18 13:56*	*05/02/18 17:54*	*100*
1,2-Dichloroethane-d4 (Surr)	*114*		*63 - 133*	*04/28/18 13:56*	*05/02/18 17:54*	*100*
Toluene-d8 (Surr)	*88*		*68 - 130*	*04/28/18 13:56*	*05/02/18 17:54*	*100*

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Method: EPA 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.20	0.079	mg/L			04/30/18 10:57	1
2-Butanone (MEK)	**0.64**		0.20	0.12	mg/L			04/30/18 10:57	1
Carbon tetrachloride	ND		0.20	0.13	mg/L			04/30/18 10:57	1
Chlorobenzene	ND	F1	0.20	0.063	mg/L			04/30/18 10:57	1
Chloroform	ND		0.20	0.085	mg/L			04/30/18 10:57	1
1,2-Dichloroethane	ND		0.20	0.058	mg/L			04/30/18 10:57	1
1,1-Dichloroethene	ND		0.20	0.11	mg/L			04/30/18 10:57	1
Tetrachloroethene	ND	F1	0.20	0.080	mg/L			04/30/18 10:57	1
Trichloroethene	**0.54**	F1	0.20	0.060	mg/L			04/30/18 10:57	1
Vinyl chloride	ND	F1	0.20	0.15	mg/L			04/30/18 10:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*65 - 116*		*04/30/18 10:57*	*1*
Dibromofluoromethane (Surr)	*99*		*72 - 120*		*04/30/18 10:57*	*1*
1,2-Dichloroethane-d4 (Surr)	*113*		*64 - 137*		*04/30/18 10:57*	*1*
Toluene-d8 (Surr)	*107*		*82 - 132*		*04/30/18 10:57*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	24.9		0.1	0.1	%			04/30/18 10:56	1
Percent Solids	75.1		0.1	0.1	%			04/30/18 10:56	1

Client Sample ID: NLF-SS-PHASE2A-SP102-042518

Lab Sample ID: 180-77183-2

Date Collected: 04/25/18 10:41
Date Received: 04/27/18 08:50

Matrix: Solid
Percent Solids: 88.9

Method: EPA 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		56	8.9	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
Benzene	ND		14	5.5	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
Bromoform	ND		14	7.3	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
Bromomethane	ND		14	13	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
2-Butanone (MEK)	**200**		14	8.1	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
Carbon disulfide	ND		14	8.5	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
Carbon tetrachloride	ND		14	9.3	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
Chlorobenzene	ND		14	4.4	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
Chlorobromomethane	ND		14	5.4	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Stratus Redtail Ranch, LLC

TestAmerica Job ID: 180-77183-1

Client Sample ID: NLF-SS-PHASE2A-SP102-042518
Date Collected: 04/25/18 10:41
Date Received: 04/27/18 08:50

Lab Sample ID: 180-77183-2
Matrix: Solid
Percent Solids: 88.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodibromomethane	ND		14	6.8	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
Chloroethane	ND		14	7.3	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
Chloroform	ND		14	5.9	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
Chloromethane	ND		14	11	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
cis-1,2-Dichloroethene	ND		14	4.4	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
cis-1,3-Dichloropropene	ND		14	4.5	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
Cyclohexane	ND		14	3.4	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
Cyclohexanone	**800**		280	160	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
1,2-Dibromo-3-Chloropropane	ND		14	8.6	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
1,2-Dibromoethane	ND		14	7.7	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
1,2-Dichlorobenzene	ND		14	11	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
1,3-Dichlorobenzene	ND		14	4.5	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
1,4-Dichlorobenzene	ND		14	2.9	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
Dichlorobromomethane	ND		14	6.6	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
Dichlorodifluoromethane	ND		14	8.2	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
1,1-Dichloroethane	ND		14	5.1	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
1,2-Dichloroethane	ND		14	4.1	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
1,1-Dichloroethene	ND		14	8.0	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
1,2-Dichloropropane	ND		14	6.9	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
1,4-Dioxane	ND		2800	100	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
Ethylbenzene	ND		14	6.0	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
2-Hexanone	ND		14	12	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
Isopropylbenzene	ND		14	6.5	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
Methyl acetate	ND		70	17	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
Methylcyclohexane	ND		14	5.9	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
Methylene Chloride	ND		14	6.6	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
4-Methyl-2-pentanone (MIBK)	**40**		14	5.2	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
Methyl tert-butyl ether	ND		14	10	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
m-Xylene & p-Xylene	ND		14	5.3	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
o-Xylene	ND		14	6.9	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
Styrene	ND		14	3.7	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
1,1,2,2-Tetrachloroethane	ND		14	8.4	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
Tetrachloroethene	ND		14	5.6	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
Tetrahydrofuran	ND		28	21	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
Toluene	**31**		14	4.7	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
trans-1,2-Dichloroethene	ND		14	7.1	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
trans-1,3-Dichloropropene	ND		14	4.9	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
1,2,3-Trichlorobenzene	ND		14	5.8	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
1,2,4-Trichlorobenzene	ND		14	4.5	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
1,1,1-Trichloroethane	ND		14	7.1	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
1,1,2-Trichloroethane	ND		14	6.8	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
Trichloroethene	ND		14	4.2	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
Trichlorofluoromethane	ND		14	4.1	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		14	5.4	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50
Vinyl chloride	ND		14	10	mg/Kg	☼	04/28/18 13:56	05/02/18 18:22	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*62 - 124*	*04/28/18 13:56*	*05/02/18 18:22*	*50*
Dibromofluoromethane (Surr)	*104*		*61 - 120*	*04/28/18 13:56*	*05/02/18 18:22*	*50*
1,2-Dichloroethane-d4 (Surr)	*121*		*63 - 133*	*04/28/18 13:56*	*05/02/18 18:22*	*50*

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Client Sample ID: NLF-SS-PHASE2A-SP102-042518

Lab Sample ID: 180-77183-2

Date Collected: 04/25/18 10:41
Date Received: 04/27/18 08:50

Matrix: Solid
Percent Solids: 88.9

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*91*		*68 - 130*	*04/28/18 13:56*	*05/02/18 18:22*	*50*

Method: EPA 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.20	0.079	mg/L			04/30/18 13:54	1
2-Butanone (MEK)	**0.12**	**J**	0.20	0.12	mg/L			04/30/18 13:54	1
Carbon tetrachloride	ND		0.20	0.13	mg/L			04/30/18 13:54	1
Chlorobenzene	ND		0.20	0.063	mg/L			04/30/18 13:54	1
Chloroform	ND		0.20	0.085	mg/L			04/30/18 13:54	1
1,2-Dichloroethane	ND		0.20	0.058	mg/L			04/30/18 13:54	1
1,1-Dichloroethene	ND		0.20	0.11	mg/L			04/30/18 13:54	1
Tetrachloroethene	ND		0.20	0.080	mg/L			04/30/18 13:54	1
Trichloroethene	ND		0.20	0.060	mg/L			04/30/18 13:54	1
Vinyl chloride	ND		0.20	0.15	mg/L			04/30/18 13:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*65 - 116*		*04/30/18 13:54*	*1*
Dibromofluoromethane (Surr)	*98*		*72 - 120*		*04/30/18 13:54*	*1*
1,2-Dichloroethane-d4 (Surr)	*114*		*64 - 137*		*04/30/18 13:54*	*1*
Toluene-d8 (Surr)	*115*		*82 - 132*		*04/30/18 13:54*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.1		0.1	0.1	%			04/30/18 10:56	1
Percent Solids	88.9		0.1	0.1	%			04/30/18 10:56	1

Client Sample ID: NLF-SS-PHASE2A-SP103-042518

Lab Sample ID: 180-77183-3

Date Collected: 04/25/18 10:46
Date Received: 04/27/18 08:50

Matrix: Solid
Percent Solids: 84.8

Method: EPA 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		180	28	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
Benzene	ND		44	17	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
Bromoform	ND		44	23	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
Bromomethane	ND		44	40	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
2-Butanone (MEK)	**930**		44	26	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
Carbon disulfide	ND		44	27	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
Carbon tetrachloride	ND		44	29	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
Chlorobenzene	ND		44	14	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
Chlorobromomethane	ND		44	17	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
Chlorodibromomethane	ND		44	21	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
Chloroethane	ND		44	23	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
Chloroform	ND		44	19	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
Chloromethane	ND		44	34	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
cis-1,2-Dichloroethene	ND		44	14	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
cis-1,3-Dichloropropene	ND		44	14	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
Cyclohexane	ND		44	11	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
Cyclohexanone	**1900**		880	510	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
1,2-Dibromo-3-Chloropropane	ND		44	27	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Stratus Redtail Ranch, LLC

TestAmerica Job ID: 180-77183-1

Client Sample ID: NLF-SS-PHASE2A-SP103-042518
Date Collected: 04/25/18 10:46
Date Received: 04/27/18 08:50

Lab Sample ID: 180-77183-3
Matrix: Solid
Percent Solids: 84.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		44	24	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
1,2-Dichlorobenzene	ND		44	36	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
1,3-Dichlorobenzene	ND		44	14	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
1,4-Dichlorobenzene	ND		44	9.0	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
Dichlorobromomethane	ND		44	21	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
Dichlorodifluoromethane	ND		44	26	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
1,1-Dichloroethane	ND		44	16	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
1,2-Dichloroethane	ND		44	13	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
1,1-Dichloroethene	ND		44	25	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
1,2-Dichloropropane	ND		44	22	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
1,4-Dioxane	ND		8800	320	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
Ethylbenzene	ND		44	19	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
2-Hexanone	ND		44	37	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
Isopropylbenzene	ND		44	20	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
Methyl acetate	ND		220	52	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
Methylcyclohexane	ND		44	19	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
Methylene Chloride	ND		44	21	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
4-Methyl-2-pentanone (MIBK)	**220**		44	16	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
Methyl tert-butyl ether	ND		44	33	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
m-Xylene & p-Xylene	ND		44	17	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
o-Xylene	ND		44	22	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
Styrene	ND		44	12	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
1,1,2,2-Tetrachloroethane	ND		44	26	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
Tetrachloroethene	ND		44	18	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
Tetrahydrofuran	ND		88	66	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
Toluene	**790**		44	15	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
trans-1,2-Dichloroethene	ND		44	22	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
trans-1,3-Dichloropropene	ND		44	15	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
1,2,3-Trichlorobenzene	**23**	J	44	18	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
1,2,4-Trichlorobenzene	ND		44	14	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
1,1,1-Trichloroethane	ND		44	22	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
1,1,2-Trichloroethane	ND		44	21	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
Trichloroethene	**160**		44	13	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
Trichlorofluoromethane	ND		44	13	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		44	17	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150
Vinyl chloride	ND		44	32	mg/Kg	☼	04/28/18 13:56	05/01/18 18:51	150

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*62 - 124*	*04/28/18 13:56*	*05/01/18 18:51*	*150*
Dibromofluoromethane (Surr)	*92*		*61 - 120*	*04/28/18 13:56*	*05/01/18 18:51*	*150*
1,2-Dichloroethane-d4 (Surr)	*96*		*63 - 133*	*04/28/18 13:56*	*05/01/18 18:51*	*150*
Toluene-d8 (Surr)	*84*		*68 - 130*	*04/28/18 13:56*	*05/01/18 18:51*	*150*

Method: EPA 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.20	0.079	mg/L			04/30/18 14:16	1
2-Butanone (MEK)	**0.75**		0.20	0.12	mg/L			04/30/18 14:16	1
Carbon tetrachloride	ND		0.20	0.13	mg/L			04/30/18 14:16	1
Chlorobenzene	ND		0.20	0.063	mg/L			04/30/18 14:16	1
Chloroform	ND		0.20	0.085	mg/L			04/30/18 14:16	1

Client Sample ID: NLF-SS-PHASE2A-SP103-042518

Lab Sample ID: 180-77183-3

Date Collected: 04/25/18 10:46
Date Received: 04/27/18 08:50

Matrix: Solid
Percent Solids: 84.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		0.20	0.058	mg/L			04/30/18 14:16	1
1,1-Dichloroethene	ND		0.20	0.11	mg/L			04/30/18 14:16	1
Tetrachloroethene	ND		0.20	0.080	mg/L			04/30/18 14:16	1
Trichloroethene	ND		0.20	0.060	mg/L			04/30/18 14:16	1
Vinyl chloride	ND		0.20	0.15	mg/L			04/30/18 14:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*65 - 116*		*04/30/18 14:16*	*1*
Dibromofluoromethane (Surr)	*96*		*72 - 120*		*04/30/18 14:16*	*1*
1,2-Dichloroethane-d4 (Surr)	*109*		*64 - 137*		*04/30/18 14:16*	*1*
Toluene-d8 (Surr)	*103*		*82 - 132*		*04/30/18 14:16*	*1*

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General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.2		0.1	0.1	%			04/30/18 10:56	1
Percent Solids	84.8		0.1	0.1	%			04/30/18 10:56	1

Client Sample ID: NLF-SS-PHASE2A-SP104-042518

Lab Sample ID: 180-77183-4

Date Collected: 04/25/18 10:54
Date Received: 04/27/18 08:50

Matrix: Solid
Percent Solids: 86.1

Method: EPA 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		580	91	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
Benzene	ND		150	57	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
Bromoform	ND		150	76	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
Bromomethane	ND		150	130	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
2-Butanone (MEK)	**820**		150	84	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
Carbon disulfide	ND		150	87	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
Carbon tetrachloride	ND		150	96	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
Chlorobenzene	ND		150	46	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
Chlorobromomethane	ND		150	56	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
Chlorodibromomethane	ND		150	70	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
Chloroethane	ND		150	75	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
Chloroform	ND		150	61	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
Chloromethane	ND		150	110	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
cis-1,2-Dichloroethene	ND		150	46	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
cis-1,3-Dichloropropene	ND		150	46	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
Cyclohexane	ND		150	35	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
Cyclohexanone	**6200**		2900	1700	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
1,2-Dibromo-3-Chloropropane	ND		150	89	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
1,2-Dibromoethane	ND		150	79	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
1,2-Dichlorobenzene	ND		150	120	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
1,3-Dichlorobenzene	ND		150	46	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
1,4-Dichlorobenzene	ND		150	30	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
Dichlorobromomethane	ND		150	68	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
Dichlorodifluoromethane	ND		150	85	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
1,1-Dichloroethane	ND		150	53	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
1,2-Dichloroethane	ND		150	42	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
1,1-Dichloroethene	ND		150	83	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500

Client Sample ID: NLF-SS-PHASE2A-SP104-042518

Lab Sample ID: 180-77183-4

Date Collected: 04/25/18 10:54
Date Received: 04/27/18 08:50

Matrix: Solid
Percent Solids: 86.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		150	71	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
1,4-Dioxane	ND		29000	1100	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
Ethylbenzene	ND		150	62	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
2-Hexanone	ND		150	120	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
Isopropylbenzene	ND		150	67	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
Methyl acetate	ND		730	170	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
Methylcyclohexane	ND		150	61	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
Methylene Chloride	ND		150	68	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
4-Methyl-2-pentanone (MIBK)	**180**		150	54	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
Methyl tert-butyl ether	ND		150	110	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
m-Xylene & p-Xylene	ND		150	54	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
o-Xylene	ND		150	71	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
Styrene	ND		150	39	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
1,1,2,2-Tetrachloroethane	ND		150	87	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
Tetrachloroethene	ND		150	58	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
Tetrahydrofuran	ND		290	220	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
Toluene	**61**	J	150	49	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
trans-1,2-Dichloroethene	ND		150	74	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
trans-1,3-Dichloropropene	ND		150	50	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
1,2,3-Trichlorobenzene	ND		150	60	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
1,2,4-Trichlorobenzene	ND		150	47	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
1,1,1-Trichloroethane	ND		150	73	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
1,1,2-Trichloroethane	ND		150	70	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
Trichloroethene	ND		150	44	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
Trichlorofluoromethane	ND		150	42	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		150	55	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500
Vinyl chloride	ND		150	110	mg/Kg	☼	04/28/18 13:56	05/01/18 19:19	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*62 - 124*	*04/28/18 13:56*	*05/01/18 19:19*	*500*
Dibromofluoromethane (Surr)	*98*		*61 - 120*	*04/28/18 13:56*	*05/01/18 19:19*	*500*
1,2-Dichloroethane-d4 (Surr)	*107*		*63 - 133*	*04/28/18 13:56*	*05/01/18 19:19*	*500*
Toluene-d8 (Surr)	*87*		*68 - 130*	*04/28/18 13:56*	*05/01/18 19:19*	*500*

Method: EPA 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.20	0.079	mg/L			04/30/18 14:38	1
2-Butanone (MEK)	**0.38**		0.20	0.12	mg/L			04/30/18 14:38	1
Carbon tetrachloride	ND		0.20	0.13	mg/L			04/30/18 14:38	1
Chlorobenzene	ND		0.20	0.063	mg/L			04/30/18 14:38	1
Chloroform	ND		0.20	0.085	mg/L			04/30/18 14:38	1
1,2-Dichloroethane	ND		0.20	0.058	mg/L			04/30/18 14:38	1
1,1-Dichloroethene	ND		0.20	0.11	mg/L			04/30/18 14:38	1
Tetrachloroethene	ND		0.20	0.080	mg/L			04/30/18 14:38	1
Trichloroethene	**0.45**		0.20	0.060	mg/L			04/30/18 14:38	1
Vinyl chloride	ND		0.20	0.15	mg/L			04/30/18 14:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*65 - 116*		*04/30/18 14:38*	*1*
Dibromofluoromethane (Surr)	*105*		*72 - 120*		*04/30/18 14:38*	*1*

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Stratus Redtail Ranch, LLC

TestAmerica Job ID: 180-77183-1

Client Sample ID: NLF-SS-PHASE2A-SP104-042518

Lab Sample ID: 180-77183-4

Date Collected: 04/25/18 10:54
Date Received: 04/27/18 08:50

Matrix: Solid
Percent Solids: 86.1

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*122*		*64 - 137*		*04/30/18 14:38*	*1*
Toluene-d8 (Surr)	*131*		*82 - 132*		*04/30/18 14:38*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13.9		0.1	0.1	%			04/30/18 10:56	1
Percent Solids	86.1		0.1	0.1	%			04/30/18 10:56	1

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Client Sample ID: NLF-SS-PHASE2A-SP105-042518

Lab Sample ID: 180-77183-5

Date Collected: 04/25/18 10:57
Date Received: 04/27/18 08:50

Matrix: Solid
Percent Solids: 80.9

Method: EPA 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		370	58	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
Benzene	ND		92	36	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
Bromoform	ND		92	48	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
Bromomethane	ND		92	83	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
2-Butanone (MEK)	1300		92	53	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
Carbon disulfide	ND		92	56	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
Carbon tetrachloride	ND		92	61	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
Chlorobenzene	ND		92	29	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
Chlorobromomethane	ND		92	35	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
Chlorodibromomethane	ND		92	44	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
Chloroethane	ND		92	48	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
Chloroform	ND		92	39	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
Chloromethane	ND		92	71	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
cis-1,2-Dichloroethene	ND		92	29	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
cis-1,3-Dichloropropene	ND		92	29	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
Cyclohexane	ND		92	23	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
Cyclohexanone	7100		1800	1100	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
1,2-Dibromo-3-Chloropropane	ND		92	57	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
1,2-Dibromoethane	ND		92	50	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
1,2-Dichlorobenzene	ND		92	74	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
1,3-Dichlorobenzene	ND		92	29	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
1,4-Dichlorobenzene	ND		92	19	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
Dichlorobromomethane	ND		92	43	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
Dichlorodifluoromethane	ND		92	54	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
1,1-Dichloroethane	ND		92	33	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
1,2-Dichloroethane	ND		92	27	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
1,1-Dichloroethene	ND		92	53	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
1,2-Dichloropropane	ND		92	45	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
1,4-Dioxane	ND		18000	670	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
Ethylbenzene	ND		92	40	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
2-Hexanone	ND		92	77	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
Isopropylbenzene	ND		92	43	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
Methyl acetate	ND		460	110	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
Methylcyclohexane	ND		92	39	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
Methylene Chloride	ND		92	44	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300

Client Sample ID: NLF-SS-PHASE2A-SP105-042518

Lab Sample ID: 180-77183-5

Date Collected: 04/25/18 10:57
Date Received: 04/27/18 08:50

Matrix: Solid
Percent Solids: 80.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	**320**		92	34	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
Methyl tert-butyl ether	ND		92	68	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
m-Xylene & p-Xylene	ND		92	35	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
o-Xylene	ND		92	45	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
Styrene	ND		92	25	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
1,1,2,2-Tetrachloroethane	ND		92	55	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
Tetrachloroethene	ND		92	37	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
Tetrahydrofuran	ND		180	140	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
Toluene	**250**		92	31	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
trans-1,2-Dichloroethene	ND		92	47	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
trans-1,3-Dichloropropene	ND		92	32	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
1,2,3-Trichlorobenzene	ND		92	38	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
1,2,4-Trichlorobenzene	ND		92	30	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
1,1,1-Trichloroethane	ND		92	46	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
1,1,2-Trichloroethane	ND		92	44	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
Trichloroethene	ND		92	28	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
Trichlorofluoromethane	ND		92	27	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		92	35	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300
Vinyl chloride	ND		92	68	mg/Kg	☼	04/28/18 13:56	05/02/18 16:02	300

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*62 - 124*	*04/28/18 13:56*	*05/02/18 16:02*	*300*
Dibromofluoromethane (Surr)	*96*		*61 - 120*	*04/28/18 13:56*	*05/02/18 16:02*	*300*
1,2-Dichloroethane-d4 (Surr)	*106*		*63 - 133*	*04/28/18 13:56*	*05/02/18 16:02*	*300*
Toluene-d8 (Surr)	*96*		*68 - 130*	*04/28/18 13:56*	*05/02/18 16:02*	*300*

Method: EPA 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.20	0.079	mg/L			04/30/18 14:59	1
2-Butanone (MEK)	**0.38**		0.20	0.12	mg/L			04/30/18 14:59	1
Carbon tetrachloride	ND		0.20	0.13	mg/L			04/30/18 14:59	1
Chlorobenzene	ND		0.20	0.063	mg/L			04/30/18 14:59	1
Chloroform	ND		0.20	0.085	mg/L			04/30/18 14:59	1
1,2-Dichloroethane	ND		0.20	0.058	mg/L			04/30/18 14:59	1
1,1-Dichloroethene	ND		0.20	0.11	mg/L			04/30/18 14:59	1
Tetrachloroethene	ND		0.20	0.080	mg/L			04/30/18 14:59	1
Trichloroethene	**0.44**		0.20	0.060	mg/L			04/30/18 14:59	1
Vinyl chloride	ND		0.20	0.15	mg/L			04/30/18 14:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*65 - 116*		*04/30/18 14:59*	*1*
Dibromofluoromethane (Surr)	*99*		*72 - 120*		*04/30/18 14:59*	*1*
1,2-Dichloroethane-d4 (Surr)	*112*		*64 - 137*		*04/30/18 14:59*	*1*
Toluene-d8 (Surr)	*104*		*82 - 132*		*04/30/18 14:59*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19.1		0.1	0.1	%			04/30/18 10:56	1
Percent Solids	80.9		0.1	0.1	%			04/30/18 10:56	1

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Stratus Redtail Ranch, LLC

TestAmerica Job ID: 180-77183-1

Client Sample ID: NLF-SS-PHASE2A-SP106-042518
Date Collected: 04/25/18 11:03
Date Received: 04/27/18 08:50

Lab Sample ID: 180-77183-6
Matrix: Solid
Percent Solids: 84.7

Method: EPA 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		890	140	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
Benzene	ND		220	87	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
Bromoform	ND		220	120	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
Bromomethane	ND		220	200	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
2-Butanone (MEK)	**2400**		220	130	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
Carbon disulfide	ND		220	130	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
Carbon tetrachloride	ND		220	150	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
Chlorobenzene	ND		220	70	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
Chlorobromomethane	ND		220	85	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
Chlorodibromomethane	ND		220	110	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
Chloroethane	ND		220	110	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
Chloroform	ND		220	93	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
Chloromethane	ND		220	170	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
cis-1,2-Dichloroethene	ND		220	70	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
cis-1,3-Dichloropropene	ND		220	71	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
Cyclohexane	ND		220	54	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
Cyclohexanone	**13000**		4400	2600	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
1,2-Dibromo-3-Chloropropane	ND		220	140	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
1,2-Dibromoethane	ND		220	120	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
1,2-Dichlorobenzene	ND		220	180	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
1,3-Dichlorobenzene	ND		220	71	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
1,4-Dichlorobenzene	ND		220	45	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
Dichlorobromomethane	ND		220	100	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
Dichlorodifluoromethane	ND		220	130	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
1,1-Dichloroethane	ND		220	80	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
1,2-Dichloroethane	ND		220	64	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
1,1-Dichloroethene	ND		220	130	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
1,2-Dichloropropane	ND		220	110	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
1,4-Dioxane	ND		44000	1600	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
Ethylbenzene	ND		220	95	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
2-Hexanone	ND		220	190	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
Isopropylbenzene	ND		220	100	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
Methyl acetate	ND		1100	260	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
Methylcyclohexane	ND		220	93	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
Methylene Chloride	ND		220	100	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
4-Methyl-2-pentanone (MIBK)	**590**		220	82	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
Methyl tert-butyl ether	ND		220	160	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
m-Xylene & p-Xylene	ND		220	83	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
o-Xylene	ND		220	110	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
Styrene	ND		220	59	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
1,1,2,2-Tetrachloroethane	ND		220	130	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
Tetrachloroethene	ND		220	89	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
Tetrahydrofuran	ND		440	330	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
Toluene	**440**		220	75	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
trans-1,2-Dichloroethene	ND		220	110	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
trans-1,3-Dichloropropene	ND		220	76	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
1,2,3-Trichlorobenzene	ND		220	92	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
1,2,4-Trichlorobenzene	ND		220	71	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
1,1,1-Trichloroethane	ND		220	110	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750

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Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Stratus Redtail Ranch, LLC

TestAmerica Job ID: 180-77183-1

Client Sample ID: NLF-SS-PHASE2A-SP106-042518

Lab Sample ID: 180-77183-6

Date Collected: 04/25/18 11:03
Date Received: 04/27/18 08:50

Matrix: Solid
Percent Solids: 84.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	ND		220	110	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
Trichloroethene	ND		220	66	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
Trichlorofluoromethane	ND		220	64	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		220	85	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750
Vinyl chloride	ND		220	160	mg/Kg	☼	04/28/18 13:56	05/02/18 16:30	750

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*62 - 124*	*04/28/18 13:56*	*05/02/18 16:30*	*750*
Dibromofluoromethane (Surr)	*95*		*61 - 120*	*04/28/18 13:56*	*05/02/18 16:30*	*750*
1,2-Dichloroethane-d4 (Surr)	*110*		*63 - 133*	*04/28/18 13:56*	*05/02/18 16:30*	*750*
Toluene-d8 (Surr)	*89*		*68 - 130*	*04/28/18 13:56*	*05/02/18 16:30*	*750*

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Method: EPA 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	F2	0.20	0.079	mg/L			05/01/18 09:28	1
2-Butanone (MEK)	4.5		0.20	0.12	mg/L			05/01/18 09:28	1
Carbon tetrachloride	ND		0.20	0.13	mg/L			05/01/18 09:28	1
Chlorobenzene	ND		0.20	0.063	mg/L			05/01/18 09:28	1
Chloroform	ND		0.20	0.085	mg/L			05/01/18 09:28	1
1,2-Dichloroethane	ND		0.20	0.058	mg/L			05/01/18 09:28	1
1,1-Dichloroethene	ND		0.20	0.11	mg/L			05/01/18 09:28	1
Tetrachloroethene	ND		0.20	0.080	mg/L			05/01/18 09:28	1
Trichloroethene	0.072	J	0.20	0.060	mg/L			05/01/18 09:28	1
Vinyl chloride	ND		0.20	0.15	mg/L			05/01/18 09:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*137*	*X*	*65 - 116*		*05/01/18 09:28*	*1*
Dibromofluoromethane (Surr)	*96*		*72 - 120*		*05/01/18 09:28*	*1*
1,2-Dichloroethane-d4 (Surr)	*110*		*64 - 137*		*05/01/18 09:28*	*1*
Toluene-d8 (Surr)	*134*	*X*	*82 - 132*		*05/01/18 09:28*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.3		0.1	0.1	%			04/30/18 10:56	1
Percent Solids	84.7		0.1	0.1	%			04/30/18 10:56	1

Client Sample ID: NLF-SS-PHASE2A-SP107-042518

Lab Sample ID: 180-77183-7

Date Collected: 04/25/18 11:11
Date Received: 04/27/18 08:50

Matrix: Solid
Percent Solids: 81.6

Method: EPA 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		120	19	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
Benzene	ND		31	12	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
Bromoform	ND		31	16	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
Bromomethane	ND		31	27	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
2-Butanone (MEK)	390		31	18	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
Carbon disulfide	ND		31	18	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
Carbon tetrachloride	ND		31	20	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
Chlorobenzene	ND		31	9.6	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
Chlorobromomethane	ND		31	12	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Stratus Redtail Ranch, LLC

TestAmerica Job ID: 180-77183-1

Client Sample ID: NLF-SS-PHASE2A-SP107-042518
Date Collected: 04/25/18 11:11
Date Received: 04/27/18 08:50

Lab Sample ID: 180-77183-7
Matrix: Solid
Percent Solids: 81.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodibromomethane	ND		31	15	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
Chloroethane	ND		31	16	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
Chloroform	ND		31	13	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
Chloromethane	ND		31	24	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
cis-1,2-Dichloroethene	ND		31	9.6	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
cis-1,3-Dichloropropene	ND		31	9.8	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
Cyclohexane	ND		31	7.5	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
Cyclohexanone	**1800**		610	360	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
1,2-Dibromo-3-Chloropropane	ND		31	19	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
1,2-Dibromoethane	ND		31	17	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
1,2-Dichlorobenzene	ND		31	25	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
1,3-Dichlorobenzene	ND		31	9.7	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
1,4-Dichlorobenzene	ND		31	6.2	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
Dichlorobromomethane	ND		31	14	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
Dichlorodifluoromethane	ND		31	18	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
1,1-Dichloroethane	ND		31	11	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
1,2-Dichloroethane	ND		31	8.9	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
1,1-Dichloroethene	ND		31	17	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
1,2-Dichloropropane	ND		31	15	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
1,4-Dioxane	ND		6100	220	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
Ethylbenzene	ND		31	13	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
2-Hexanone	ND		31	26	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
Isopropylbenzene	ND		31	14	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
Methyl acetate	ND		150	36	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
Methylcyclohexane	ND		31	13	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
Methylene Chloride	ND		31	14	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
4-Methyl-2-pentanone (MIBK)	**93**		31	11	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
Methyl tert-butyl ether	ND		31	23	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
m-Xylene & p-Xylene	ND		31	11	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
o-Xylene	ND		31	15	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
Styrene	ND		31	8.1	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
1,1,2,2-Tetrachloroethane	ND		31	18	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
Tetrachloroethene	ND		31	12	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
Tetrahydrofuran	ND		61	46	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
Toluene	**71**		31	10	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
trans-1,2-Dichloroethene	ND		31	15	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
trans-1,3-Dichloropropene	ND		31	11	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
1,2,3-Trichlorobenzene	ND		31	13	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
1,2,4-Trichlorobenzene	ND		31	9.8	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
1,1,1-Trichloroethane	ND		31	15	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
1,1,2-Trichloroethane	ND		31	15	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
Trichloroethene	ND		31	9.2	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
Trichlorofluoromethane	ND		31	8.9	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		31	12	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100
Vinyl chloride	ND		31	22	mg/Kg	☼	04/28/18 13:56	05/02/18 16:58	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*62 - 124*	*04/28/18 13:56*	*05/02/18 16:58*	*100*
Dibromofluoromethane (Surr)	*102*		*61 - 120*	*04/28/18 13:56*	*05/02/18 16:58*	*100*
1,2-Dichloroethane-d4 (Surr)	*117*		*63 - 133*	*04/28/18 13:56*	*05/02/18 16:58*	*100*

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Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Stratus Redtail Ranch, LLC

TestAmerica Job ID: 180-77183-1

Client Sample ID: NLF-SS-PHASE2A-SP107-042518

Lab Sample ID: 180-77183-7

Date Collected: 04/25/18 11:11
Date Received: 04/27/18 08:50

Matrix: Solid
Percent Solids: 81.6

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*90*		*68 - 130*	*04/28/18 13:56*	*05/02/18 16:58*	*100*

Method: EPA 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.20	0.079	mg/L			04/30/18 15:43	1
2-Butanone (MEK)	**0.60**		0.20	0.12	mg/L			04/30/18 15:43	1
Carbon tetrachloride	ND		0.20	0.13	mg/L			04/30/18 15:43	1
Chlorobenzene	ND		0.20	0.063	mg/L			04/30/18 15:43	1
Chloroform	ND		0.20	0.085	mg/L			04/30/18 15:43	1
1,2-Dichloroethane	ND		0.20	0.058	mg/L			04/30/18 15:43	1
1,1-Dichloroethene	ND		0.20	0.11	mg/L			04/30/18 15:43	1
Tetrachloroethene	ND		0.20	0.080	mg/L			04/30/18 15:43	1
Trichloroethene	ND		0.20	0.060	mg/L			04/30/18 15:43	1
Vinyl chloride	ND		0.20	0.15	mg/L			04/30/18 15:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*84*		*65 - 116*		*04/30/18 15:43*	*1*
Dibromofluoromethane (Surr)	*102*		*72 - 120*		*04/30/18 15:43*	*1*
1,2-Dichloroethane-d4 (Surr)	*117*		*64 - 137*		*04/30/18 15:43*	*1*
Toluene-d8 (Surr)	*108*		*82 - 132*		*04/30/18 15:43*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18.4		0.1	0.1	%			04/30/18 10:56	1
Percent Solids	81.6		0.1	0.1	%			04/30/18 10:56	1

Client Sample ID: NLF-SS-PHASE2A-SP108-042518

Lab Sample ID: 180-77183-8

Date Collected: 04/25/18 11:19
Date Received: 04/27/18 08:50

Matrix: Solid
Percent Solids: 73.9

Method: EPA 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		340	53	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
Benzene	ND		85	33	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
Bromoform	ND		85	44	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
Bromomethane	ND		85	76	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
2-Butanone (MEK)	**1100**		85	49	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
Carbon disulfide	ND		85	51	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
Carbon tetrachloride	ND		85	56	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
Chlorobenzene	ND		85	27	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
Chlorobromomethane	ND		85	32	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
Chlorodibromomethane	ND		85	41	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
Chloroethane	ND		85	44	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
Chloroform	ND		85	36	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
Chloromethane	ND		85	65	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
cis-1,2-Dichloroethene	ND		85	27	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
cis-1,3-Dichloropropene	ND		85	27	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
Cyclohexane	ND		85	21	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
Cyclohexanone	**5600**		1700	980	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
1,2-Dibromo-3-Chloropropane	ND		85	52	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Stratus Redtail Ranch, LLC

TestAmerica Job ID: 180-77183-1

Client Sample ID: NLF-SS-PHASE2A-SP108-042518
Date Collected: 04/25/18 11:19
Date Received: 04/27/18 08:50

Lab Sample ID: 180-77183-8
Matrix: Solid
Percent Solids: 73.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		85	46	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
1,2-Dichlorobenzene	ND		85	68	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
1,3-Dichlorobenzene	ND		85	27	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
1,4-Dichlorobenzene	ND		85	17	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
Dichlorobromomethane	ND		85	40	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
Dichlorodifluoromethane	ND		85	49	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
1,1-Dichloroethane	ND		85	31	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
1,2-Dichloroethane	ND		85	25	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
1,1-Dichloroethene	ND		85	48	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
1,2-Dichloropropane	ND		85	41	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
1,4-Dioxane	ND		17000	620	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
Ethylbenzene	ND		85	36	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
2-Hexanone	ND		85	71	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
Isopropylbenzene	ND		85	39	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
Methyl acetate	ND		420	100	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
Methylcyclohexane	ND		85	36	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
Methylene Chloride	ND		85	40	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
4-Methyl-2-pentanone (MIBK)	**280**		85	31	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
Methyl tert-butyl ether	ND		85	62	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
m-Xylene & p-Xylene	ND		85	32	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
o-Xylene	ND		85	41	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
Styrene	ND		85	23	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
1,1,2,2-Tetrachloroethane	ND		85	50	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
Tetrachloroethene	ND		85	34	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
Tetrahydrofuran	ND		170	130	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
Toluene	**210**		85	28	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
trans-1,2-Dichloroethene	ND		85	43	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
trans-1,3-Dichloropropene	ND		85	29	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
1,2,3-Trichlorobenzene	ND		85	35	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
1,2,4-Trichlorobenzene	ND		85	27	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
1,1,1-Trichloroethane	ND		85	42	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
1,1,2-Trichloroethane	ND		85	41	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
Trichloroethene	ND		85	25	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
Trichlorofluoromethane	ND		85	25	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		85	32	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250
Vinyl chloride	ND		85	62	mg/Kg	☼	04/28/18 13:56	05/02/18 17:26	250

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*62 - 124*	*04/28/18 13:56*	*05/02/18 17:26*	*250*
Dibromofluoromethane (Surr)	*97*		*61 - 120*	*04/28/18 13:56*	*05/02/18 17:26*	*250*
1,2-Dichloroethane-d4 (Surr)	*113*		*63 - 133*	*04/28/18 13:56*	*05/02/18 17:26*	*250*
Toluene-d8 (Surr)	*90*		*68 - 130*	*04/28/18 13:56*	*05/02/18 17:26*	*250*

Method: EPA 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.20	0.079	mg/L			04/30/18 16:05	1
2-Butanone (MEK)	**1.2**		0.20	0.12	mg/L			04/30/18 16:05	1
Carbon tetrachloride	ND		0.20	0.13	mg/L			04/30/18 16:05	1
Chlorobenzene	ND		0.20	0.063	mg/L			04/30/18 16:05	1
Chloroform	ND		0.20	0.085	mg/L			04/30/18 16:05	1

Client Sample ID: NLF-SS-PHASE2A-SP108-042518

Lab Sample ID: 180-77183-8

Date Collected: 04/25/18 11:19
Date Received: 04/27/18 08:50

Matrix: Solid
Percent Solids: 73.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		0.20	0.058	mg/L			04/30/18 16:05	1
1,1-Dichloroethene	ND		0.20	0.11	mg/L			04/30/18 16:05	1
Tetrachloroethene	ND		0.20	0.080	mg/L			04/30/18 16:05	1
Trichloroethene	ND		0.20	0.050	mg/L			04/30/18 16:05	1
Vinyl chloride	ND		0.20	0.15	mg/L			04/30/18 16:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*65 - 116*		*04/30/18 16:05*	*1*
Dibromofluoromethane (Surr)	*97*		*72 - 120*		*04/30/18 16:05*	*1*
1,2-Dichloroethane-d4 (Surr)	*118*		*64 - 137*		*04/30/18 16:05*	*1*
Toluene-d8 (Surr)	*110*		*82 - 132*		*04/30/18 16:05*	*1*

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General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	26.1		0.1	0.1	%			04/30/18 10:56	1
Percent Solids	73.9		0.1	0.1	%			04/30/18 10:56	1

Client Sample ID: NLF-SS-PHASE2A-SP109-042518

Lab Sample ID: 180-77183-9

Date Collected: 04/25/18 11:25
Date Received: 04/27/18 08:50

Matrix: Solid
Percent Solids: 71.8

Method: EPA 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		350	55	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
Benzene	ND		87	34	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
Bromoform	ND		87	45	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
Bromomethane	ND		87	78	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
2-Butanone (MEK)	**1100**		87	50	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
Carbon disulfide	ND		87	52	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
Carbon tetrachloride	ND		87	58	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
Chlorobenzene	ND		87	27	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
Chlorobromomethane	ND		87	33	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
Chlorodibromomethane	ND		87	42	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
Chloroethane	ND		87	45	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
Chloroform	ND		87	37	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
Chloromethane	ND		87	67	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
cis-1,2-Dichloroethene	ND		87	27	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
cis-1,3-Dichloropropene	ND		87	28	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
Cyclohexane	ND		87	21	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
Cyclohexanone	**5100**		1700	1000	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
1,2-Dibromo-3-Chloropropane	ND		87	53	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
1,2-Dibromoethane	ND		87	48	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
1,2-Dichlorobenzene	ND		87	70	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
1,3-Dichlorobenzene	ND		87	28	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
1,4-Dichlorobenzene	ND		87	18	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
Dichlorobromomethane	ND		87	41	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
Dichlorodifluoromethane	ND		87	51	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
1,1-Dichloroethane	ND		87	32	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
1,2-Dichloroethane	ND		87	25	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
1,1-Dichloroethene	ND		87	50	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Stratus Redtail Ranch, LLC

TestAmerica Job ID: 180-77183-1

Client Sample ID: NLF-SS-PHASE2A-SP109-042518
Date Collected: 04/25/18 11:25
Date Received: 04/27/18 08:50

Lab Sample ID: 180-77183-9
Matrix: Solid
Percent Solids: 71.8

9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		87	43	mg/Kg	☼	04/28/18 13 56	05/02/18 15:33	250
1,4-Dioxane	ND		17000	640	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
Ethylbenzene	ND		87	37	mg/Kg	☼	04/28/18 13 56	05/02/18 15.33	250
2-Hexanone	ND		87	73	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
Isopropylbenzene	ND		87	40	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
Methyl acetate	ND		440	100	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
Methylcyclohexane	ND		87	37	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
Methylene Chloride	ND		87	41	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
4-Methyl-2-pentanone (MIBK)	**270**		87	32	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
Methyl tert-butyl ether	ND		87	64	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
m-Xylene & p-Xylene	ND		87	33	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
o-Xylene	ND		87	43	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
Styrene	ND		87	23	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
1,1,2,2-Tetrachloroethane	ND		87	52	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
Tetrachloroethene	ND		87	35	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
Tetrahydrofuran	ND		170	130	mg/Kg	☼	04/28/18 13:56	05/02/18 15.33	250
Toluene	**210**		87	29	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
trans-1,2-Dichloroethene	ND		87	44	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
trans-1,3-Dichloropropene	ND		87	30	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
1,2,3-Trichlorobenzene	ND		87	36	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
1,2,4-Trichlorobenzene	ND		87	28	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
1,1,1-Trichloroethane	ND		87	44	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
1,1,2-Trichloroethane	ND		87	42	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
Trichloroethene	ND		87	26	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
Trichlorofluoromethane	ND		87	25	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		87	33	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250
Vinyl chloride	ND		87	64	mg/Kg	☼	04/28/18 13:56	05/02/18 15:33	250

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*62 - 124*	*04/28/18 13:56*	*05/02/18 15:33*	*250*
Dibromofluoromethane (Surr)	*98*		*61 - 120*	*04/28/18 13:56*	*05/02/18 15:33*	*250*
1,2-Dichloroethane-d4 (Surr)	*106*		*63 - 133*	*04/28/18 13:56*	*05/02/18 15:33*	*250*
Toluene-d8 (Surr)	*91*		*68 - 130*	*04/28/18 13:56*	*05/02/18 15:33*	*250*

Method: EPA 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.20	0.079	mg/L			05/01/18 09:49	1
2-Butanone (MEK)	**5.9**		0.20	0.12	mg/L			05/01/18 09:49	1
Carbon tetrachloride	ND		0.20	0.13	mg/L			05/01/18 09:49	1
Chlorobenzene	ND		0.20	0.063	mg/L			05/01/18 09:49	1
Chloroform	ND		0.20	0.085	mg/L			05/01/18 09:49	1
1,2-Dichloroethane	ND		0.20	0.058	mg/L			05/01/18 09:49	1
1,1-Dichloroethene	ND		0.20	0.11	mg/L			05/01/18 09:49	1
Tetrachloroethene	ND		0.20	0.080	mg/L			05/01/18 09:49	1
Trichloroethene	ND		0.20	0.060	mg/L			05/01/18 09:49	1
Vinyl chloride	ND		0.20	0.15	mg/L			05/01/18 09:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*65 - 116*		*05/01/18 09:49*	*1*
Dibromofluoromethane (Surr)	*97*		*72 - 120*		*05/01/18 09:49*	*1*

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Stratus Redtail Ranch, LLC

TestAmerica Job ID: 180-77183-1

Client Sample ID: NLF-SS-PHASE2A-SP109-042518
Date Collected: 04/25/18 11:25
Date Received: 04/27/18 08:50

Lab Sample ID: 180-77183-9
Matrix: Solid
Percent Solids: 71.8

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*64 - 137*		*05/01/18 09:49*	*1*
Toluene-d8 (Surr)	*140*	*X*	*82 - 132*		*05/01/18 09:49*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	28.2		0.1	0.1	%			04/30/18 10:56	1
Percent Solids	71.8		0.1	0.1	%			04/30/18 10:56	1

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QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Stratus Redtail Ranch, LLC

TestAmerica Job ID: 180-77183-1

Method: EPA 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 180-243427/1-A
Matrix: Solid
Analysis Batch: 243452

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 243427

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		1.0	0.16	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
Benzene	ND		0.25	0.098	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
Bromoform	ND		0.25	0.13	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
Bromomethane	ND		0.25	0.22	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
2-Butanone (MEK)	ND		0.25	0.14	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
Carbon disulfide	ND		0.25	0.15	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
Carbon tetrachloride	ND		0.25	0.17	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
Chlorobenzene	ND		0.25	0.079	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
Chlorobromomethane	ND		0.25	0.096	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
Chlorodibromomethane	ND		0.25	0.12	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
Chloroethane	ND		0.25	0.13	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
Chloroform	ND		0.25	0.11	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
Chloromethane	ND		0.25	0.19	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
cis-1,2-Dichloroethene	ND		0.25	0.079	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
cis-1,3-Dichloropropene	ND		0.25	0.080	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
Cyclohexane	ND		0.25	0.061	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
Cyclohexanone	ND		5.0	2.9	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
1,2-Dibromo-3-Chloropropane	ND		0.25	0.15	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
1,2-Dibromoethane	ND		0.25	0.14	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
1,2-Dichlorobenzene	ND		0.25	0.20	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
1,3-Dichlorobenzene	ND		0.25	0.080	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
1,4-Dichlorobenzene	ND		0.25	0.051	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
Dichlorobromomethane	ND		0.25	0.12	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
Dichlorodifluoromethane	ND		0.25	0.15	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
1,1-Dichloroethane	ND		0.25	0.091	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
1,2-Dichloroethane	ND		0.25	0.073	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
1,1-Dichloroethene	ND		0.25	0.14	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
1,2-Dichloropropane	ND		0.25	0.12	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
1,4-Dioxane	ND		50	1.8	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
Ethylbenzene	ND		0.25	0.11	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
2-Hexanone	ND		0.25	0.21	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
Isopropylbenzene	ND		0.25	0.12	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
Methyl acetate	ND		1.3	0.29	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
Methylcyclohexane	ND		0.25	0.11	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
Methylene Chloride	ND		0.25	0.12	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
4-Methyl-2-pentanone (MIBK)	ND		0.25	0.093	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
Methyl tert-butyl ether	ND		0.25	0.18	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
m-Xylene & p-Xylene	ND		0.25	0.094	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
o-Xylene	ND		0.25	0.12	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
Styrene	ND		0.25	0.067	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
1,1,2,2-Tetrachloroethane	ND		0.25	0.15	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
Tetrachloroethene	ND		0.25	0.10	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
Tetrahydrofuran	ND		0.50	0.37	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
Toluene	ND		0.25	0.084	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
trans-1,2-Dichloroethene	ND		0.25	0.13	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
trans-1,3-Dichloropropene	ND		0.25	0.086	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
1,2,3-Trichlorobenzene	ND		0.25	0.10	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
1,2,4-Trichlorobenzene	ND		0.25	0.081	mg/Kg		04/28/18 13:56	04/30/18 11:07	1

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Stratus Redtail Ranch, LLC

TestAmerica Job ID: 180-77183-1

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

Lab Sample ID: MB 180-243427/1-A
Matrix: Solid
Analysis Batch: 243452

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 243427

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.25	0.13	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
1,1,2-Trichloroethane	ND		0.25	0.12	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
Trichloroethene	ND		0.25	0.075	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
Trichlorofluoromethane	ND		0.25	0.073	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.25	0.095	mg/Kg		04/28/18 13:56	04/30/18 11:07	1
Vinyl chloride	ND		0.25	0.18	mg/Kg		04/28/18 13:56	04/30/18 11:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*62 - 124*	*04/28/18 13:56*	*04/30/18 11:07*	*1*
Dibromofluoromethane (Surr)	*94*		*61 - 120*	*04/28/18 13:56*	*04/30/18 11:07*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*63 - 133*	*04/28/18 13:56*	*04/30/18 11:07*	*1*
Toluene-d8 (Surr)	*92*		*68 - 130*	*04/28/18 13:56*	*04/30/18 11:07*	*1*

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Lab Sample ID: LCS 180-243427/2-A
Matrix: Solid
Analysis Batch: 243452

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 243427

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0400	0.0397		mg/Kg		99	16 - 150
Benzene	0.0400	0.0360		mg/Kg		90	74 - 117
Bromoform	0.0400	0.0368		mg/Kg		92	47 - 150
Bromomethane	0.0400	0.0348		mg/Kg		87	13 - 150
2-Butanone (MEK)	0.0400	0.0423		mg/Kg		106	29 - 150
Carbon disulfide	0.0400	0.0284		mg/Kg		71	61 - 132
Carbon tetrachloride	0.0400	0.0419		mg/Kg		105	63 - 134
Chlorobenzene	0.0400	0.0396		mg/Kg		99	77 - 117
Chlorobromomethane	0.0400	0.0355		mg/Kg		89	71 - 120
Chlorodibromomethane	0.0400	0.0410		mg/Kg		103	59 - 141
Chloroethane	0.0400	0.0358		mg/Kg		90	28 - 150
Chloroform	0.0400	0.0370		mg/Kg		93	70 - 122
Chloromethane	0.0400	0.0283		mg/Kg		71	36 - 148
cis-1,2-Dichloroethene	0.0400	0.0370		mg/Kg		93	72 - 117
cis-1,3-Dichloropropene	0.0400	0.0426		mg/Kg		107	70 - 132
Cyclohexane	0.0400	0.0406		mg/Kg		101	65 - 126
1,2-Dibromo-3-Chloropropane	0.0400	0.0293		mg/Kg		73	50 - 138
1,2-Dibromoethane	0.0400	0.0357		mg/Kg		89	78 - 118
1,2-Dichlorobenzene	0.0400	0.0372		mg/Kg		93	75 - 115
1,3-Dichlorobenzene	0.0400	0.0388		mg/Kg		97	76 - 116
1,4-Dichlorobenzene	0.0400	0.0386		mg/Kg		96	77 - 117
Dichlorobromomethane	0.0400	0.0417		mg/Kg		104	65 - 139
Dichlorodifluoromethane	0.0400	0.0212		mg/Kg		53	10 - 150
1,1-Dichloroethane	0.0400	0.0361		mg/Kg		90	68 - 122
1,2-Dichloroethane	0.0400	0.0381		mg/Kg		95	65 - 131
1,1-Dichloroethene	0.0400	0.0498		mg/Kg		124	62 - 127
1,2-Dichloropropane	0.0400	0.0376		mg/Kg		94	77 - 119
1,4-Dioxane	0.800	0.766	J	mg/Kg		96	44 - 149
Ethylbenzene	0.0400	0.0391		mg/Kg		98	76 - 116
2-Hexanone	0.0400	0.0436		mg/Kg		109	31 - 150

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

Lab Sample ID: LCS 180-243427/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 243452 — **Prep Batch: 243427**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropylbenzene	0.0400	0.0404		mg/Kg		101	70 - 124
Methyl acetate	0.0800	0.0831		mg/Kg		104	59 - 143
Methylcyclohexane	0.0400	0.0355		mg/Kg		89	75 - 118
Methylene Chloride	0.0400	0.0356		mg/Kg		89	64 - 118
4-Methyl-2-pentanone (MIBK)	0.0400	0.0457		mg/Kg		114	56 - 146
Methyl tert-butyl ether	0.0400	0.0360		mg/Kg		90	63 - 129
m-Xylene & p-Xylene	0.0400	0.0389		mg/Kg		97	77 - 117
o-Xylene	0.0400	0.0396		mg/Kg		99	77 - 117
Styrene	0.0400	0.0394		mg/Kg		99	77 - 117
1,1,2,2-Tetrachloroethane	0.0400	0.0357		mg/Kg		89	66 - 127
Tetrachloroethene	0.0400	0.0380		mg/Kg		95	77 - 118
Tetrahydrofuran	0.0800	0.0793		mg/Kg		99	64 - 129
Toluene	0.0400	0.0382		mg/Kg		96	73 - 122
trans-1,2-Dichloroethene	0.0400	0.0348		mg/Kg		87	72 - 117
trans-1,3-Dichloropropene	0.0400	0.0380		mg/Kg		95	65 - 133
1,2,3-Trichlorobenzene	0.0400	0.0411		mg/Kg		103	50 - 143
1,2,4-Trichlorobenzene	0.0400	0.0376		mg/Kg		94	50 - 144
1,1,1-Trichloroethane	0.0400	0.0406		mg/Kg		101	68 - 131
1,1,2-Trichloroethane	0.0400	0.0361		mg/Kg		90	77 - 117
Trichloroethene	0.0400	0.0379		mg/Kg		95	75 - 121
Trichlorofluoromethane	0.0400	0.0367		mg/Kg		92	18 - 150
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0400	0.0298		mg/Kg		75	57 - 138
Vinyl chloride	0.0400	0.0296		mg/Kg		74	41 - 142

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*62 - 124*
Dibromofluoromethane (Surr)	*87*		*61 - 120*
1,2-Dichloroethane-d4 (Surr)	*90*		*63 - 133*
Toluene-d8 (Surr)	*87*		*68 - 130*

Lab Sample ID: LCS 180-243467/3 — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 243467

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0400	0.0337		mg/L		84	78 - 118
2-Butanone (MEK)	0.0400	0.0326		mg/L		82	30 - 150
Carbon tetrachloride	0.0400	0.0365		mg/L		91	60 - 137
Chlorobenzene	0.0400	0.0434		mg/L		109	78 - 118
Chloroform	0.0400	0.0338		mg/L		84	68 - 124
1,2-Dichloroethane	0.0400	0.0361		mg/L		90	67 - 123
1,1-Dichloroethene	0.0400	0.0390		mg/L		97	59 - 128
Tetrachloroethene	0.0400	0.0447		mg/L		112	78 - 118
Trichloroethene	0.0400	0.0398		mg/L		99	76 - 120
Vinyl chloride	0.0400	0.0387		mg/L		97	53 - 148

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

Lab Sample ID: LCS 180-243467/3
Matrix: Solid
Analysis Batch: 243467

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

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*65 - 116*
Dibromofluoromethane (Surr)	*83*		*72 - 120*
1,2-Dichloroethane-d4 (Surr)	*89*		*64 - 137*
Toluene-d8 (Surr)	*108*		*82 - 132*

Lab Sample ID: LCS 180-243562/3
Matrix: Solid
Analysis Batch: 243562

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

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Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0400	0.0387		mg/L		97	78 - 118
2-Butanone (MEK)	0.0400	0.0340		mg/L		85	30 - 150
Carbon tetrachloride	0.0400	0.0368		mg/L		92	60 - 137
Chlorobenzene	0.0400	0.0395		mg/L		99	78 - 118
Chloroform	0.0400	0.0328		mg/L		82	68 - 124
1,2-Dichloroethane	0.0400	0.0362		mg/L		90	67 - 123
1,1-Dichloroethene	0.0400	0.0421		mg/L		105	59 - 128
Tetrachloroethene	0.0400	0.0396		mg/L		99	78 - 118
Trichloroethene	0.0400	0.0429		mg/L		107	76 - 120
Vinyl chloride	0.0400	0.0392		mg/L		98	53 - 148

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*65 - 116*
Dibromofluoromethane (Surr)	*92*		*72 - 120*
1,2-Dichloroethane-d4 (Surr)	*93*		*64 - 137*
Toluene-d8 (Surr)	*105*		*82 - 132*

Lab Sample ID: LB 180-243432/1-A
Matrix: Solid
Analysis Batch: 243467

Client Sample ID: Method Blank
Prep Type: TCLP

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.050	0.020	mg/L			04/30/18 10:13	1
2-Butanone (MEK)	ND		0.050	0.029	mg/L			04/30/18 10:13	1
Carbon tetrachloride	ND		0.050	0.033	mg/L			04/30/18 10:13	1
Chlorobenzene	ND		0.050	0.016	mg/L			04/30/18 10:13	1
Chloroform	ND		0.050	0.021	mg/L			04/30/18 10:13	1
1,2-Dichloroethane	ND		0.050	0.015	mg/L			04/30/18 10:13	1
1,1-Dichloroethene	ND		0.050	0.029	mg/L			04/30/18 10:13	1
Tetrachloroethene	ND		0.050	0.020	mg/L			04/30/18 10:13	1
Trichloroethene	ND		0.050	0.015	mg/L			04/30/18 10:13	1
Vinyl chloride	ND		0.050	0.037	mg/L			04/30/18 10:13	1

Surrogate	*LB %Recovery*	*LB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*81*		*65 - 116*		*04/30/18 10:13*	*1*
Dibromofluoromethane (Surr)	*91*		*72 - 120*		*04/30/18 10:13*	*1*
1,2-Dichloroethane-d4 (Surr)	*105*		*64 - 137*		*04/30/18 10:13*	*1*

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Stratus Redtail Ranch, LLC

TestAmerica Job ID: 180-77183-1

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

Lab Sample ID: LB 180-243432/1-A
Matrix: Solid
Analysis Batch: 243467

Client Sample ID: Method Blank
Prep Type: TCLP

Surrogate	*%Recovery*	*LB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*82 - 132*		*04/30/18 10:13*	*1*

Lab Sample ID: 180-77183-1 MS
Matrix: Solid
Analysis Batch: 243467

Client Sample ID: NLF-SS-PHASE2A-SP101-042518
Prep Type: TCLP

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		1.60	1.53		mg/L		96	78 - 118
2-Butanone (MEK)	0.64		1.60	1.98		mg/L		84	30 - 150
Carbon tetrachloride	ND		1.60	1.67		mg/L		104	60 - 137
Chlorobenzene	ND	F1	1.60	2.00	F1	mg/L		125	78 - 118
Chloroform	ND		1.60	1.58		mg/L		99	68 - 124
1,2-Dichloroethane	ND		1.60	1.70		mg/L		106	67 - 123
1,1-Dichloroethene	ND		1.60	1.52		mg/L		95	59 - 128
Tetrachloroethene	ND	F1	1.60	2.11	F1	mg/L		132	78 - 118
Trichloroethene	0.54	F1	1.60	2.75	F1	mg/L		139	76 - 120
Vinyl chloride	ND	F1	1.60	0.812	F1	mg/L		51	53 - 148

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*115*		*65 - 116*
Dibromofluoromethane (Surr)	*95*		*72 - 120*
1,2-Dichloroethane-d4 (Surr)	*104*		*64 - 137*
Toluene-d8 (Surr)	*117*		*82 - 132*

Lab Sample ID: 180-77183-1 MSD
Matrix: Solid
Analysis Batch: 243467

Client Sample ID: NLF-SS-PHASE2A-SP101-042518
Prep Type: TCLP

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		1.60	1.63		mg/L		102	78 - 118	6	15
2-Butanone (MEK)	0.64		1.60	1.95		mg/L		82	30 - 150	2	35
Carbon tetrachloride	ND		1.60	1.58		mg/L		99	60 - 137	6	21
Chlorobenzene	ND	F1	1.60	1.87		mg/L		117	78 - 118	7	15
Chloroform	ND		1.60	1.53		mg/L		96	68 - 124	3	15
1,2-Dichloroethane	ND		1.60	1.69		mg/L		105	67 - 123	1	15
1,1-Dichloroethene	ND		1.60	1.48		mg/L		93	59 - 128	3	17
Tetrachloroethene	ND	F1	1.60	1.96	F1	mg/L		123	78 - 118	7	20
Trichloroethene	0.54	F1	1.60	2.62	F1	mg/L		130	76 - 120	5	15
Vinyl chloride	ND	F1	1.60	0.763	F1	mg/L		48	53 - 148	6	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*65 - 116*
Dibromofluoromethane (Surr)	*94*		*72 - 120*
1,2-Dichloroethane-d4 (Surr)	*105*		*64 - 137*
Toluene-d8 (Surr)	*113*		*82 - 132*

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

Lab Sample ID: LB 180-243432/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: TCLP**
Analysis Batch: 243562

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.050	0.020	mg/L			05/01/18 09:06	1
2-Butanone (MEK)	ND		0.050	0.029	mg/L			05/01/18 09:06	1
Carbon tetrachloride	ND		0.050	0.033	mg/L			05/01/18 09:06	1
Chlorobenzene	ND		0.050	0.016	mg/L			05/01/18 09:06	1
Chloroform	ND		0.050	0.021	mg/L			05/01/18 09:06	1
1,2-Dichloroethane	ND		0.050	0.015	mg/L			05/01/18 09:06	1
1,1-Dichloroethene	ND		0.050	0.029	mg/L			05/01/18 09:06	1
Tetrachloroethene	ND		0.050	0.020	mg/L			05/01/18 09:06	1
Trichloroethene	ND		0.050	0.015	mg/L			05/01/18 09:06	1
Vinyl chloride	ND		0.050	0.037	mg/L			05/01/18 09:06	1

Surrogate	*LB %Recovery*	*LB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*65 - 116*		*05/01/18 09:06*	*1*
Dibromofluoromethane (Surr)	*89*		*72 - 120*		*05/01/18 09:06*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*64 - 137*		*05/01/18 09:06*	*1*
Toluene-d8 (Surr)	*98*		*82 - 132*		*05/01/18 09:06*	*1*

Lab Sample ID: 180-77183-6 MS — **Client Sample ID: NLF-SS-PHASE2A-SP106-042518**
Matrix: Solid — **Prep Type: TCLP**
Analysis Batch: 243562

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND	F2	1.60	1.32		mg/L		83	78 - 118
2-Butanone (MEK)	4.5		1.60	6.23		mg/L		110	30 - 150
Carbon tetrachloride	ND		1.60	1.38		mg/L		86	60 - 137
Chlorobenzene	ND		1.60	1.58		mg/L		99	78 - 118
Chloroform	ND		1.60	1.33		mg/L		83	68 - 124
1,2-Dichloroethane	ND		1.60	1.44		mg/L		90	67 - 123
1,1-Dichloroethene	ND		1.60	1.69		mg/L		106	59 - 128
Tetrachloroethene	ND		1.60	1.55		mg/L		97	78 - 118
Trichloroethene	0.072	J	1.60	1.77		mg/L		106	76 - 120
Vinyl chloride	ND		1.60	1.57		mg/L		98	53 - 148

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*122*	*X*	*65 - 116*
Dibromofluoromethane (Surr)	*90*		*72 - 120*
1,2-Dichloroethane-d4 (Surr)	*97*		*64 - 137*
Toluene-d8 (Surr)	*111*		*82 - 132*

Lab Sample ID: 180-77183-6 MSD — **Client Sample ID: NLF-SS-PHASE2A-SP106-042518**
Matrix: Solid — **Prep Type: TCLP**
Analysis Batch: 243562

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND	F2	1.60	1.59	F2	mg/L		99	78 - 118	18	15
2-Butanone (MEK)	4.5		1.60	6.61		mg/L		134	30 - 150	6	35
Carbon tetrachloride	ND		1.60	1.51		mg/L		94	60 - 137	9	21

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

Lab Sample ID: 180-77183-6 MSD — **Client Sample ID: NLF-SS-PHASE2A-SP106-042518**
Matrix: Solid — **Prep Type: TCLP**
Analysis Batch: 243562

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chlorobenzene	ND		1.60	1.70		mg/L		106	78 - 118	7	15
Chloroform	ND		1.60	1.47		mg/L		92	68 - 124	10	15
1,2-Dichloroethane	ND		1.60	1.60		mg/L		100	67 - 123	11	15
1,1-Dichloroethene	ND		1.60	1.85		mg/L		116	59 - 128	9	17
Tetrachloroethene	ND		1.60	1.71		mg/L		107	78 - 118	10	20
Trichloroethene	0.072	J	1.60	1.95		mg/L		117	76 - 120	10	15
Vinyl chloride	ND		1.60	1.80		mg/L		112	53 - 148	13	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*122*	*X*	*65 - 116*
Dibromofluoromethane (Surr)	*92*		*72 - 120*
1,2-Dichloroethane-d4 (Surr)	*99*		*64 - 137*
Toluene-d8 (Surr)	*111*		*82 - 132*

Method: 2540G - SM 2540G

Lab Sample ID: 180-77183-9 DU — **Client Sample ID: NLF-SS-PHASE2A-SP109-042518**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 243506

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	28.2		28.2		%		0.1	20
Percent Solids	71.8		71.8		%		0	20

QC Association Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Stratus Redtail Ranch, LLC

TestAmerica Job ID: 180-77183-1

GC/MS VOA

Prep Batch: 243427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-77183-1	NLF-SS-PHASE2A-SP101-042518	Total/NA	Solid	5030C	
180-77183-2	NLF-SS-PHASE2A-SP102-042518	Total/NA	Solid	5030C	
180-77183-3	NLF-SS-PHASE2A-SP103-042518	Total/NA	Solid	5030C	
180-77183-4	NLF-SS-PHASE2A-SP104-042518	Total/NA	Solid	5030C	
180-77183-5	NLF-SS-PHASE2A-SP105-042518	Total/NA	Solid	5030C	
180-77183-6	NLF-SS-PHASE2A-SP106-042518	Total/NA	Solid	5030C	
180-77183-7	NLF-SS-PHASE2A-SP107-042518	Total/NA	Solid	5030C	
180-77183-8	NLF-SS-PHASE2A-SP108-042518	Total/NA	Solid	5030C	
180-77183-9	NLF-SS-PHASE2A-SP109-042518	Total/NA	Solid	5030C	
MB 180-243427/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 180-243427/2-A	Lab Control Sample	Total/NA	Solid	5030C	

Leach Batch: 243432

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-77183-1	NLF-SS-PHASE2A-SP101-042518	TCLP	Solid	EPA 1311	
180-77183-2	NLF-SS-PHASE2A-SP102-042518	TCLP	Solid	EPA 1311	
180-77183-3	NLF-SS-PHASE2A-SP103-042518	TCLP	Solid	EPA 1311	
180-77183-4	NLF-SS-PHASE2A-SP104-042518	TCLP	Solid	EPA 1311	
180-77183-5	NLF-SS-PHASE2A-SP105-042518	TCLP	Solid	EPA 1311	
180-77183-6	NLF-SS-PHASE2A-SP106-042518	TCLP	Solid	EPA 1311	
180-77183-7	NLF-SS-PHASE2A-SP107-042518	TCLP	Solid	EPA 1311	
180-77183-8	NLF-SS-PHASE2A-SP108-042518	TCLP	Solid	EPA 1311	
180-77183-9	NLF-SS-PHASE2A-SP109-042518	TCLP	Solid	EPA 1311	
LB 180-243432/1-A	Method Blank	TCLP	Solid	EPA 1311	
180-77183-1 MS	NLF-SS-PHASE2A-SP101-042518	TCLP	Solid	EPA 1311	
180-77183-1 MSD	NLF-SS-PHASE2A-SP101-042518	TCLP	Solid	EPA 1311	
180-77183-6 MS	NLF-SS-PHASE2A-SP106-042518	TCLP	Solid	EPA 1311	
180-77183-6 MSD	NLF-SS-PHASE2A-SP106-042518	TCLP	Solid	EPA 1311	

Analysis Batch: 243452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 180-243427/1-A	Method Blank	Total/NA	Solid	EPA 8260C	243427
LCS 180-243427/2-A	Lab Control Sample	Total/NA	Solid	EPA 8260C	243427

Analysis Batch: 243467

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-77183-1	NLF-SS-PHASE2A-SP101-042518	TCLP	Solid	EPA 8260C	243432
180-77183-2	NLF-SS-PHASE2A-SP102-042518	TCLP	Solid	EPA 8260C	243432
180-77183-3	NLF-SS-PHASE2A-SP103-042518	TCLP	Solid	EPA 8260C	243432
180-77183-4	NLF-SS-PHASE2A-SP104-042518	TCLP	Solid	EPA 8260C	243432
180-77183-5	NLF-SS-PHASE2A-SP105-042518	TCLP	Solid	EPA 8260C	243432
180-77183-7	NLF-SS-PHASE2A-SP107-042518	TCLP	Solid	EPA 8260C	243432
180-77183-8	NLF-SS-PHASE2A-SP108-042518	TCLP	Solid	EPA 8260C	243432
LB 180-243432/1-A	Method Blank	TCLP	Solid	EPA 8260C	243432
LCS 180-243467/3	Lab Control Sample	Total/NA	Solid	EPA 8260C	
180-77183-1 MS	NLF-SS-PHASE2A-SP101-042518	TCLP	Solid	EPA 8260C	243432
180-77183-1 MSD	NLF-SS-PHASE2A-SP101-042518	TCLP	Solid	EPA 8260C	243432

Analysis Batch: 243562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-77183-6	NLF-SS-PHASE2A-SP106-042518	TCLP	Solid	EPA 8260C	243432

QC Association Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Stratus Redtail Ranch, LLC

TestAmerica Job ID: 180-77183-1

GC/MS VOA (Continued)

Analysis Batch: 243562 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-77183-9	NLF-SS-PHASE2A-SP109-042518	TCLP	Solid	EPA 8260C	243432
LB 180-243432/1-A	Method Blank	TCLP	Solid	EPA 8260C	243432
LCS 180-243562/3	Lab Control Sample	Total/NA	Solid	EPA 8260C	
180-77183-6 MS	NLF-SS-PHASE2A-SP106-042518	TCLP	Solid	EPA 8260C	243432
180-77183-6 MSD	NLF-SS-PHASE2A-SP106-042518	TCLP	Solid	EPA 8260C	243432

Analysis Batch: 243568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-77183-3	NLF-SS-PHASE2A-SP103-042518	Total/NA	Solid	EPA 8260C	243427
180-77183-4	NLF-SS-PHASE2A-SP104-042518	Total/NA	Solid	EPA 8260C	243427

Analysis Batch: 243682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-77183-1	NLF-SS-PHASE2A-SP101-042518	Total/NA	Solid	EPA 8260C	243427
180-77183-2	NLF-SS-PHASE2A-SP102-042518	Total/NA	Solid	EPA 8260C	243427
180-77183-5	NLF-SS-PHASE2A-SP105-042518	Total/NA	Solid	EPA 8260C	243427
180-77183-6	NLF-SS-PHASE2A-SP106-042518	Total/NA	Solid	EPA 8260C	243427
180-77183-7	NLF-SS-PHASE2A-SP107-042518	Total/NA	Solid	EPA 8260C	243427
180-77183-8	NLF-SS-PHASE2A-SP108-042518	Total/NA	Solid	EPA 8260C	243427
180-77183-9	NLF-SS-PHASE2A-SP109-042518	Total/NA	Solid	EPA 8260C	243427

General Chemistry

Analysis Batch: 243506

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-77183-1	NLF-SS-PHASE2A-SP101-042518	Total/NA	Solid	2540G	
180-77183-2	NLF-SS-PHASE2A-SP102-042518	Total/NA	Solid	2540G	
180-77183-3	NLF-SS-PHASE2A-SP103-042518	Total/NA	Solid	2540G	
180-77183-4	NLF-SS-PHASE2A-SP104-042518	Total/NA	Solid	2540G	
180-77183-5	NLF-SS-PHASE2A-SP105-042518	Total/NA	Solid	2540G	
180-77183-6	NLF-SS-PHASE2A-SP106-042518	Total/NA	Solid	2540G	
180-77183-7	NLF-SS-PHASE2A-SP107-042518	Total/NA	Solid	2540G	
180-77183-8	NLF-SS-PHASE2A-SP108-042518	Total/NA	Solid	2540G	
180-77183-9	NLF-SS-PHASE2A-SP109-042518	Total/NA	Solid	2540G	
180-77183-9 DU	NLF-SS-PHASE2A-SP109-042518	Total/NA	Solid	2540G	

TestAmerica Pittsburgh
301 Alpha Drive

Pittsburgh, PA 15238
Phone: 412.963.7058 Fax: 412.963.2470

Chain of Custody Record

182607

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: DW NPDES RCRA Other:

Client Contact			
Company Name: Geosyntec	Project Manager: Patrick Medlow/T Kramer	Site Contact: P Medlow	Date: 4/25/18
Address: 5670 Greenwood Plaza Blvd. Ste 590	Tel/Fax: 303-790-1340	Lab Contact: D Dunlap	Carrier:
City/State/Zip: Greenwood Village CO 80111	Analysis Turnaround Time: X CALENDAR DAYS / WORKING DAYS		
Phone: 303-790-1340	TAT if different from Below: 2 weeks, 1 week, 2 days, 1 day or ASAP		
Fax:			
Project Name: Stratus Redtail Ranch			
Site: Erie CO			
P.O.#: DE0302			

COC No: 1 of 1 COCs
Sampler:
For Lab Use Only:
Walk-in Client:
Lab Sampling:
Job / SDG No:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	8260 VOCs - Total	8260 VOCs - TCLP	Sample
NLF-SS-PHASE2A-SP101-042518	4/25/18	1036	G	Soil	2	N	N	X	X	
NLF-SS-PHASE2A-SP102-042518		1041								
NLF-SS-PHASE2A-SP103-042518		1046								
NLF-SS-PHASE2A-SP104-042518		1054								
NLF-SS-PHASE2A-SP105-042518		1057								
NLF-SS-PHASE2A-SP106-042518		1103								
NLF-SS-PHASE2A-SP107-042518		1111								
NLF-SS-PHASE2A-SP108-042518		1119								
NLF-SS-PHASE2A-SP109-042518		1125								

180-77183 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ 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 1 Months

Special Instructions/QC Requirements & Comments: See project specific list for VOCs

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Geosyntec	4/25/18 1500	[signature]	TAL	4/25/18 1630
[signature]	TAL	4/25/18 1700	[signature]	TAL	4-27-18 8:50
Relinquished by	Company	Date/Time	Received in Laboratory by	Company	Date/Time

5/3/2018

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Login Sample Receipt Checklist

Client: Geosyntec Consultants, Inc.

Job Number: 180-77183-1

Login Number: 77183
List Number: 1
Creator: Watson, Debbie

List Source: TestAmerica Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	