



**Weston Solutions, Inc.**  
1435 Garrison Street, Suite 100  
Lakewood, Colorado 80215  
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www.westonsolutions.com

October 4, 2013

Mr. Craig Myers  
On-Scene Coordinator  
United States Environmental Protection Agency, Region 8  
Mail Code: 8EPR-ER  
1595 Wynkoop Street  
Denver, CO 80202

Re: Cowboy Timber  
Manderson, Big Horn County, Wyoming  
TDD: 0001/1305-07  
DCN: W0007.1A.00066  
WO#: 20408.012.001.0007.00

Dear Mr. Myers:

The United States Environmental Protection Agency (U.S. EPA) tasked the Weston Solutions, Inc., (WESTON®) Superfund Technical Assessment and Response Team (START) under Technical Direction Document (TDD) 0001/1305-07 to support U.S. EPA at the Cowboy Timber Site (Site) in Manderson, Big Horn County, Wyoming. A removal assessment task was initiated to assist in vertical delineation of site specific contaminants. **Attachment A** provides the figures for this letter report. **Attachment B** provides the soil analytical results tables. **Attachment C** provides photographic documentation of Site conditions. **Attachment D** provides a copy of the laboratory's analytical results.

## **SITE DESCRIPTION**

The Site address is 91 Highway 31, Manderson, Big Horn County, Wyoming. The site is located at latitude 44.284291 and longitude -107.960274 (**Figure 1**). The property is approximately 36 acres in size. Approximately 3 acres were formerly used for lumber treatment and petroleum refining operations (**Figure 2**). The property is currently owned by Mr. Bruce Quade, owner of Cowboy Timber and Treating Inc.

## **BACKGROUND**

Prior to the 1960s, a refinery operated on the property. During the 1960s, the Site began operation as a lumber mill and wood treatment facility under the ownership of Mr. R. Cullison (EPA 1982). From establishment of operations until the early 2000s, the facility used a pentachlorophenol (PCP)/diesel lumber treatment process. Average quantities of PCP stored on site are not known, but in February 1982 the owner reported that the site used approximately 10,000 pounds of PCP per year (EPA 1982). Wyoming Department of Environmental Quality (WDEQ) records indicate that an underground storage tank (UST) and approximately 7,700

\\FSDEN03\data\Project Files\20408 EPA Region 8 START IV\TDDs\0001-1305-07 Cowboy Timber\Deliverables\Trip Report\Cowboy Timber Trip Report Draft.doc

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Mr. Craig Myers  
U.S. EPA

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Cowboy Timber  
October 04, 2013

pounds of PCP/ diesel contaminated soil were removed from the property in June 1992 (WDEQ 2012). Additionally at an unknown date in 1992, structures on the property were upgraded including the construction of a 120 foot long building housing a 100 foot long concrete and carbon steel drip pad (WDEQ 2012). In the early 2000s the site ceased PCP wood treatment operations and currently operates intermittently using a copper naphthenate treatment process.

In 2012 the WDEQ conducted a soil and groundwater investigation at the site that included the installation of five soil borings and groundwater monitoring wells. The investigation concluded that PCP was present in groundwater.

The WDEQ requested assistance from the EPA after conducting a compliance inspection of the Cowboy Timber site in 2011. During the site inspection, the inspector observed totes, drums, and containers throughout the site, many of which were unlabeled and could not be identified by personnel on site (WDEQ 2012). The inspector also noted multiple instances of stained soil and hydrocarbon odor.

In 2013, an EPA START contractor conducted two investigations focused on the portion of the Site where PCP/diesel treatment took place. These investigations established the presence of PCP in surface soil, subsurface soil, and groundwater.

The investigation also documented the presence of polyaromatic hydrocarbons (PAH) and the volatile organic compound (VOC) tetrachloroethylene in one subsurface soil sample

Additionally, benzene, toluene, ethylbenzene, and xylenes (BTEX) was detected in one groundwater sample and staining indicative of hydrocarbons was observed in Test Pits.

The investigation resulted in an estimated area of PCP contamination of approximately 8,000 square feet, but was not able to define the vertical extent of contamination.

## **SAMPLING ACTIVITIES**

The August 21 and 22, 2013 sampling activities were designed to determine the vertical extent of PCP contamination and if possible to determine if the VOC contamination is co-located.

On August 21, 2013 Roy Weindorf (WESTON START), Craig Myers (EPA OSC), Jen Patureau (Environmental Restoration, LLC), and Drilling Engineers (drilling subcontractor) mobilized to the Site. Various utility locators arrived prior to 0900 and all indicated that the work area was free from underground utilities.

At the request of the OSC, in order to conduct a bench scale treatability study 10 gallons of background soil, 15 gallons of weathered sawdust, and 15 gallons of fresh sawdust were collected in 5 gallon plastic buckets. All buckets were sealed with plastic lids and relinquished to Jen Patureau.

A safety meeting was held at 1345 regarding the hazards of drilling operations prior to the initiation of drilling activities at 1415. Borings CTSB-01 and CTSB-02 were completed utilizing hollow stem auger drilling techniques to total depths of 39 feet below ground surface (ft bgs) for



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both borings. All borings were continuously cored with stainless steel split spoon core barrels. Most of the cuttings were returned to the boreholes with the excess cuttings being placed in 55 gallon steel drums pending treatment or off site disposal. All drilling equipment was decontaminated as outlined in the Sample Analysis Plan (SAP) prior to each use. At the direction of the OSC decontamination fluids were allowed to collect within the onsite catch basin.

Soil samples were collected from CTSB-01 at depths of 19, 28, and 29 ft bgs and from CTSB-02 at depths of 10, 16, 20, and 28 ft bgs, respectively. All samples were placed in laboratory grade glass jars, labeled, placed on ice and maintained at approximately 4 degrees Celsius, and transported under proper chain of custody procedures to the ESAT laboratory for analysis of PCP and VOCs. In addition, 20 gallons of soil was collected in 5 gallon plastic buckets (10 gallons from CTSB-01 and 10 gallons from CTSB-02) from various depths. The buckets were sealed with plastic lids and relinquished to Jen Patureau for us in a bench scale treatability study.

On August 22, 2013 WESTON START, EPA OSC, Environmental Restoration, LLC, and Drilling Engineers returned to the Site to resume drilling and soil sampling activities.

A safety meeting was held at 0730 regarding the hazards of drilling operations prior to the initiation of drilling activities at 0800. Borings CTSB-03, CTSB-04, and CTSB-05 were completed utilizing hollow stem auger drilling techniques to total depths of 49 ft bgs for each boring. All borings were continuously cored with stainless steel split spoon core barrels. Most of the cuttings were returned to the boreholes with the excess cuttings being placed in 55 gallon steel drums pending treatment or off-site disposal. All drilling equipment was decontaminated as outlined in the SAP prior to each use. At the direction of the OSC decontamination fluids were allowed to collect within the onsite catch basin.

Soil samples were collected from CTSB-03 at depths of 8, 17, 24, and 28 ft bgs; CTSB-04 at depths of 19, 29, 38, and 49 ft bgs; and, from CTSB-05 at depths of 22, 29, 33, and 44 ft bgs, respectively. Samples CTSB04\_29 and CTSB05\_29 were submitted to the laboratory along with blind duplicate samples CTSB98\_29 and CTSB99\_29, respectively. Additional sample volume was collected for sample CTSB05\_22 for use in matrix spike/matrix spike duplicate analysis. All samples were placed in laboratory grade glass jars, labeled, placed on ice and maintained at approximately 4 degrees Celsius, and transported under proper chain of custody procedures to the ESAT laboratory for analysis of PCP and VOCs. In addition, 30 gallons of soil was collected in 5 gallon plastic buckets (10 gallons from CTSB-03, 10 gallons from CTSB-04, and 10 gallons from CTSB-05) from various depths. The buckets were sealed with plastic lids and relinquished to Jen Patureau for us in a bench scale treatability study.

After site cleanup and final equipment decontamination, three 55 gallon drums containing soil cuttings were staged within the concrete culvert/catch basin pending final disposition. At 1650 all parties demobilized from the site.



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U.S. EPA

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October 04, 2013

## **ANALYTICAL RESULTS**

In the soil samples a total of ten compounds were detected at four boring locations. PCP was the most common contaminant detected at levels exceeding the EPA Regional Screening Level (RSL) in all samples collected from CTSB-02 and CTSB-03 and at depths of 29 and 38 ft bgs in CTSB-04 and 33 ft bgs in CTSB-05. No analytes were detected above the method detection limit for any samples collected from CTSB-01.

Various VOCs were detected in samples collected at depths of 16, 20, and 28 ft bgs from CTSB-02; 8, 17, and 24 ft bgs from CTSB-03; and, 29 and 38 ft bgs from CTSB-04. Detected VOCs include 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, Ethylbenzene, Isopropylbenzene, n-Propylbenzene, Naphthalene, o-Xylene, p-Isopropyltoluene, and sec-Butylbenzene. No VOCs were detected at concentrations which exceed the RSL and no VOCs were detected above the method detection limit for any samples collected from CTSB-01 or CTSB-05.

Sincerely,  
WESTON SOLUTIONS, INC.

Roy Weindorf  
Geologist

Attachment:

A– Figures

B - Tables

C– Photo Log

D– Boring Logs

E– Laboratory Analytical Data

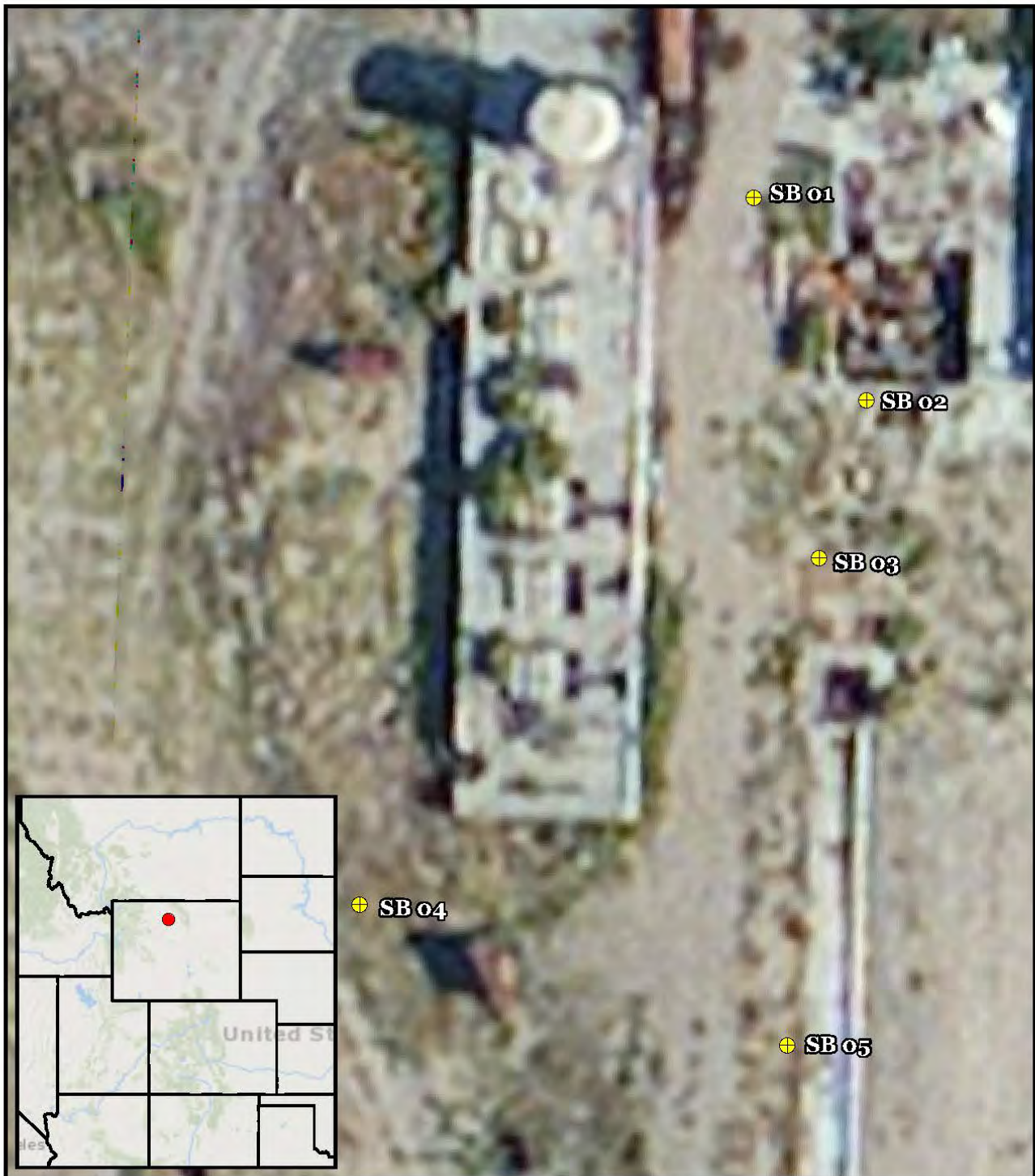
cc: Ben Maradkel, Project Manager  
START DCN File

## **Attachment A**









## Legend

⊕ Proposed Boring

Source: ESRI Imagery

0 12.5 25 50 Feet



Prepared for:  
U.S. EPA Region 8



Contract No.:  
EP-S8-13-01

TDD:  
1305-07

DCN:  
W0007.1A.00003



Prepared By:  
Weston Solutions, Inc.  
START IV

Suite 100  
1435 Garrison Street  
Lakewood, CO 80215

**FIGURE 2**  
**SAMPLE LOCATION MAP**  
**COWBOY TIMBER**  
**BIGHORN COUNTY, WYOMING**

Date: 9/30/2013

## **Attachment B**



**Table 1**  
**Sample Location Information**  
**Cowboy Timber**  
**Manderson, Big Horn County, Wyoming**

<b>Sample Location</b>	<b>Latitude</b>	<b>Longitude</b>
SB01	44.284753	-107.960289
SB02	44.284648	-107.960208
SB03	44.284567	-107.960242
SB04	44.284389	-107.960571
SB05	44.284316	-107.960265



## **Attachment C**

**Photograph No. 1****Date:**

August 21, 2013

**Direction of Photo:**

North

**Photographer:**

Roy Weindorf

**Description:**

View of soil boring 01 location.

**Photograph No. 2****Date:**

August 21, 2013

**Direction of Photo:**

North

**Photographer:**

Roy Weindorf

**Description:**

View of soil boring 02 location.





**Photograph No. 3****Date:**

August 21, 2013

**Direction of Photo:**

South

**Photographer:**

Roy Weindorf

**Description:**

View of soil boring 03 location.

**Photograph No. 4****Date:**

August 21, 2013

**Direction of Photo:**

North

**Photographer:**

Roy Weindorf

**Description:**

View of soil boring 04 location.



**Photograph No. 5****Date:**

August 21, 2013

**Direction of Photo:**

North

**Photographer:**

Roy Weindorf

**Description:**

View of soil boring 05 location.

**Photograph No. 6****Date:**

August 21, 2013

**Direction of Photo:**

North

**Photographer:**

Jen Patureau

**Description:**

View of drilling rig setup at soil boring 01.





**Photograph No. 7****Date:**

August 21, 2013

**Direction of Photo:**

North

**Photographer:**

Roy Weindorf

**Description:**

View of drilling rig setup at soil boring 02 with soil core in foreground.

**Photograph No. 8****Date:**

August 22, 2013

**Direction of Photo:**

North

**Photographer:**

Roy Weindorf

**Description:**

View of drilling rig setup at soil boring 03.



**Photograph No. 9****Date:**

August 22, 2013

**Direction of Photo:**

Down

**Photographer:**

Roy Weindorf

**Description:**

View of soil core (~7 feet below ground surface) at soil boring 03 showing staining on right.

**Photograph No. 10****Date:**

August 21, 2013

**Direction of Photo:**

West

**Photographer:**

Jen Patureau

**Description:**

View of background soil sample location.





**Photograph No. 11****Date:**

August 21, 2013

**Direction of Photo:**

West

**Photographer:**

Jen Patureau

**Description:**

View of weathered sawdust sample location.

**Photograph No. 12****Date:**

August 21, 2013

**Direction of Photo:**

South

**Photographer:**

Jen Patureau

**Description:**

View of fresh sawdust sample location.



## **Attachment D**



1435 Garrison Street, Suite 100  
Lakewood, Colorado 80215

U.S. EPA Region 8 START

TDD 0001/1305-07

Cowboy Timber

Manderson, Big Horn County, Wyoming

Boring ID: CTSB-01

Start Date: August 21, 2013

End Date: August 21, 2013

Latitude: 44.284753

Longitude: -107.960289

Elevation: 4003

Geologist:	Roy Weindorf	Groundwater Depth:	None Encountered	Groundwater Elevation:	None Encountered
Drilling Contractor:	Drilling Engineers, Inc.	Total Depth:	39 feet bgs	Total Depth Elevation:	3964
Drilling Method:	Hollow Stem Auger	Borehole Diameter:	8.25 inches	Borehole Completion:	Backfilled

Depth (feet)	Organic Vapor Levels	Sample ID (Blow Counts)	Sample Type	Graphic Log	USCS	Lithologic Description <u>Soil Group Name:</u> modifier, color, moisture, density/consistency, grain size, other descriptors <u>Rock Description:</u> modifier, color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions.	Additional Comments	Additional Tests	Elevation (feet)
5					CL	0-8.5 Silty Clay - low plasticity, brown, dry, soft	No recovery from 0-4 feet due to a rock stuck in cutting shoe.		3998
10					SP	8.5-13 Sand - poorly sorted, white to tan, dry, loose, fine grained grades to coarse with depth, minor gravel			3993
15					GP	13-16 Gravel - poorly sorted, various colors, dry, loose, with sand and cobbles, sub rounded			3988
20		CTSB01_19				16-18 Cobbles - poorly sorted, various colors, dry, loose, with sand and gravel, rounded			3983
25						18-32 Shale - light green grades to gray with depth, soft, foliated, medium to high plasticity, dry			3978
30		CTSB01_28 CTSB01_29				Black staining and a sweet odor observed at 27.5-29 ft.			3973
35						32-39 Sandstone - well sorted, yellow to brown, hard, massive, moderately cemented, fine grained, moist			3968
40						Total Depth = 39 feet below ground surface			3963
45									3958
50									3953

Notes: Organic vapor readings were not collected; elevations are feet above mean sea level, bgs = below ground surface

Sheet: 1 of 1

Geologist:	Roy Weindorf	Groundwater Depth:	None Encountered	Groundwater Elevation:	None Encountered
Drilling Contractor:	Drilling Engineers, Inc.	Total Depth:	39 feet bgs	Total Depth Elevation:	3964
Drilling Method:	Hollow Stem Auger	Borehole Diameter:	8.25 inches	Borehole Completion:	Backfilled

Depth (feet)	Organic Vapor Levels	Sample ID (Blow Counts)	Sample Type	Graphic Log	USCS	Lithologic Description <u>Soil Group Name:</u> modifier, color, moisture, density/consistency, grain size, other descriptors <u>Rock Description:</u> modifier, color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions.	Additional Comments	Additional Tests	Elevation (feet)
0-5					CL	0-6.5 Silty Clay - low plasticity, dark brown, dry, medium firm to soft			3998
6-9					SP	6.5-9 Sand - poorly sorted, tan to brown, dry, loose, medium grained grades to coarse with depth, minor gravel			
9-14		CTSB02_10	X		GP	9-14 Gravel - poorly sorted, various colors, dry, loose, with sand and cobbles, sub rounded			3993
14-17		CTSB02_16	X		SP	14-17 Sand - poorly sorted, various colors, dry, loose, sub rounded			3988
17-38		CTSB02_20	X			17-38 Shale - Green grades to gray with depth, soft, foliated, medium to high plasticity, dry			3983
38-39		CTSB01_28	X			Sweet odor observed becomes hard at 28 feet			3973
39						38-39 Sandstone - well sorted, yellow to brown, hard, massive, moderately cemented, fine grained, moist			3968
39						Total Depth = 39 feet below ground surface			3963
45									3958
50									3953





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Lakewood, Colorado 80215

U.S. EPA Region 8 START

TDD 0001/1305-07

Cowboy Timber

Manderson, Big Horn County, Wyoming

Boring ID: CTSB-03

Start Date: August 22, 2013

End Date: August 22, 2013

Latitude: 44.284567

Longitude: -107.960242

Elevation: 4003

Geologist:	Roy Weindorf	Groundwater Depth:	None Encountered	Groundwater Elevation:	None Encountered
Drilling Contractor:	Drilling Engineers, Inc.	Total Depth:	49 feet bgs	Total Depth Elevation:	3954
Drilling Method:	Hollow Stem Auger	Borehole Diameter:	8.25 inches	Borehole Completion:	Backfilled

Depth (feet)	Organic Vapor Levels	Sample ID (Blow Counts)	Sample Type	Graphic Log	USCS	Lithologic Description	Additional Comments	Additional Tests	Elevation (feet)
						<u>Soil Group Name:</u> modifier, color, moisture, density/consistency, grain size, other descriptors <u>Rock Description:</u> modifier, color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions.			
5					CL	0-8 Silty Clay - medium plasticity, brown, dry, medium firm, increased sand and silt with depth, noticeable hydrocarbon odor observed			3998
10		CTSB03_08			SP	8-14 Sand - poorly sorted, white to tan, dry, loose, fine grained grades to coarse with depth, minor fines			3993
15					GP	14-17.5 Gravel - poorly sorted, various colors, saturated, loose, with sand and cobbles, sub rounded			3988
20		CTSB03_17				17.5-42 Shale - Green grades to gray with depth, soft, foliated, medium to high plasticity, dry, grades to silt stone with depth			3983
25		CTSB03_24				Black staining observed at 23- 24 feet			3978
						Sweet odor observed at 27 feet becomes hard			
30		CTSB03_28							3973
35						42-49 Sandstone - moderately sorted, light brown to tan, hard, massive, poorly cemented, fine to medium grained, wet	Water was observed in core samples at 42 feet, however no water was detected in completed boring.		3968
40									3963
45									3958
50						Total Depth = 49 feet below ground surface			3953

Notes: Organic vapor readings were not collected; elevations are feet above mean sea level, bgs = below ground surface

Sheet: 1 of 1



1435 Garrison Street, Suite 100  
Lakewood, Colorado 80215

U.S. EPA Region 8 START

TDD 0001/1305-07

Cowboy Timber

Manderson, Big Horn County, Wyoming

Boring ID:

CTSB-04

Start Date:

August 22, 2013

End Date:

August 22, 2013

Latitude:

44.284389

Longitude:

-107.960571

Elevation:

4003

Geologist:	Roy Weindorf	Groundwater Depth:	None Encountered	Groundwater Elevation:	None Encountered
Drilling Contractor:	Drilling Engineers, Inc.	Total Depth:	49 feet bgs	Total Depth Elevation:	3954
Drilling Method:	Hollow Stem Auger	Borehole Diameter:	8.25 inches	Borehole Completion:	Backfilled

Depth (feet)	Organic Vapor Levels	Sample ID (Blow Counts)	Sample Type	Graphic Log	USCS	Lithologic Description	Additional Comments	Additional Tests	Elevation (feet)
						<u>Soil Group Name:</u> modifier, color, moisture, density/consistency, grain size, other descriptors <u>Rock Description:</u> modifier, color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions.			
5					SP	0-12 Sand - poorly sorted, tan, dry, loose, medium grained grades to coarse with depth, minor gravel			3998
10									3993
15					GP	12-14 Gravel - poorly sorted, various colors, saturated, loose, with sand and cobbles, sub rounded			3988
20		CTSB04_19	X			14-42 Shale - Green grades to gray with depth, soft, foliated, medium to high plasticity, dry			3983
25									3978
30		CTSB04_29 CTSB98_29	X			Sweet odor observed at 29 feet			3973
35									3968
40		CTSB04_38	X			Black staining and strong odor observed at 37-38 feet			3963
45						42-47 Sandstone - moderately sorted, yellow, hard, massive, poorly cemented, fine grained, dry, sweet odor observed throughout			3958
50		CTSB04_49	X			47-49 Shale - as above			3953
						Total Depth = 49 feet below ground surface			

Notes: Organic vapor readings were not collected; elevations are feet above mean sea level, bgs = below ground surface

Sheet: 1 of 1



1435 Garrison Street, Suite 100  
Lakewood, Colorado 80215

U.S. EPA Region 8 START

TDD 0001/1305-07

Cowboy Timber

Manderson, Big Horn County, Wyoming

Boring ID:

CTSB-05

Start Date:

August 22, 2013

End Date:

August 22, 2013

Latitude:

44.284316

Longitude:

-107.960265

Elevation:

4003

Geologist:	Roy Weindorf	Groundwater Depth:	None Encountered	Groundwater Elevation:	None Encountered
Drilling Contractor:	Drilling Engineers, Inc.	Total Depth:	49 feet bgs	Total Depth Elevation:	3954
Drilling Method:	Hollow Stem Auger	Borehole Diameter:	8.25 inches	Borehole Completion:	Backfilled

Depth (feet)	Organic Vapor Levels	Sample ID (Blow Counts)	Sample Type	Graphic Log	USCS	Lithologic Description	Additional Comments	Additional Tests	Elevation (feet)
						<b>Soil Group Name:</b> modifier, color, moisture, density/consistency, grain size, other descriptors <b>Rock Description:</b> modifier, color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions.			
5					CL	0-9 Clay - low plasticity, light brown, dry, soft, some sand and gravel			3998
10					SP	9-13 Sand - poorly sorted, tan, dry, loose, medium grained grades to coarse with depth, minor gravel			3993
15					GP	13-15 Gravel - poorly sorted, various colors, wet, loose, with sand, sub rounded			3988
20						15-31.5 Shale - Green grades to gray with depth, soft, foliated, medium to high plasticity, dry			3983
25		CTSB04_22 MS/MSD				Slow penetration rate / very hard zone at 22 feet, apparent caliche layer <1/2 inch thick			3978
30		CTSB05_29 CTSB99_29				Sweet odor and black stain observed at 28-29 feet, associated with a 1/4 inch thick sand stringer			3973
35		CTSB05_33				31.5-38 Sandstone - moderately sorted, tan, hard, massive, poorly cemented, fine grained, very moist, sweet odor observed throughout			3968
40						38-49 Shale - as above, slight sweet odor observed throughout			3963
45		CTSB05_44							3958
50						Total Depth = 49 feet below ground surface			3953

Notes: Organic vapor readings were not collected; elevations are feet above mean sea level, bgs = below ground surface

Sheet: 1 of 1

## **Attachment E**



U.S. Environmental Protection Agency  
Region 8  
Technical and Management Services

Laboratory Services Program

Certificate of Analysis

Ref: 8TMS-L

MEMORANDUM

Date: 09/16/13

Subject: Analytical Results--- **Cowboy Timber\_Soils\_AUG 2013\_D375 / DG-375**

From: Don Goodrich; EPA Region 8 Analytical Chemistry WAM

To: Craig Myers  
Superfund  
1595 Wynkoop Street

Received Sample Set(s), [Work Order : Date Received]:  
[ C130811 : 08/23/2013 ]

Attached are the analytical results for the samples received from the Cowboy Timber\_Soils\_AUG 2013\_D375 sampling event, according to TDF DG-375. All analyses were performed within their method specified holding times unless otherwise noted in the following narrative.

These samples were prepared, analyzed, and verified by the Environmental Services Assistance Team Laboratory (ESAT) according to the requirements of the Technical Direction Form (TDF).

Note: The laboratory herewith transmits this deliverable to the program/project partner for determination of "final data usability" which may include data validation and data quality assessment per and in accordance with EPA QA/G-8, *Guidance on Environmental Data Verification and Data Validation*, November 2002, EPA/240/R-02/004. Laboratory data qualifiers are applied based on the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, June 2008, referred to as "NFG".

Laboratory policy is to dispose of any remaining sample 60 days after data analysis packages are delivered to EPA. If you would like the laboratory to retain the samples for a period longer than 60 days, please contact Don Goodrich within the 60 day period at (303) 312-6687.



**TDF #: DG-375**

**Case Narrative**

**C130811**

Quality Assessment: Unless indicated by exception, the QA/QC associated with this sample set produced data within the TDF-specified criteria.

Holding Times: All samples were analyzed within their method-specified technical holding time(s).

Sample Receipt: All samples were received within the temperature control limits of 4C +/- 2C.

1. Preparation (PB) / Method blanks (MB). No detections > PQL

Exceptions: None.

2. Initial and Continuing calibration verification analyses (ICVs and CCVs). All CCCs and SPCCs are within limits.

Exceptions: None.

3. Laboratory Control Sample/ Blank Spike (LCS/BS). Recoveries are within 70-130% range.

Exceptions: Some compounds were high in BS, however, no hits were detected in the samples for these compounds. Data was reported without additional qualifiers.

4. Instrument tune (BFB/DFTPP). Tune passes, and all samples were analyzed within 12 hours.

Exceptions: None.

5. Laboratory Duplicate (DUP). "Source" identifies field sample duplicated in the laboratory. RPD limits are within limits.

Exceptions: None.

6. Laboratory Matrix Spike (MS) and Matrix Spike Duplicate (MSD). "Source" defines original field sample fortified prior to analysis. Percent recovery (%R) limits do not apply when sample concentration(s) exceed the corresponding analyte spike level by a factor of 4 or greater.

Exceptions: Some compounds were low in MS/MSD, however, no hits were detected in the samples for these compounds. Data was reported without additional qualifiers.

7. Internal standards. Area counts must be within 50% to 200% of responses established in associated opening CCV.

Exceptions: None.

8. Any calibration using more than two-points produced a correlation coefficient equal to or greater than 0.995 or have an average response factor of less than or equal to 15% for all non-CCC compounds or less than or equal to 30% for all CCC compounds.

Exceptions: None.

TDF #: DG-375

**Acronyms and Definitions:**

ESAT	Environmental Services Assistance Team
J	Data Estimated qualifier (also applied to all data less than PQL, greater than or equal to MDL)
MDL	Method Detection Limit
PQL	Practical Quantitation Limit, also known as reporting limit.
RPD	Relative Percent Difference (difference divided by the mean)
%D	Percent difference, serial dilution criteria unit, difference divided by the original result.
%R	Percent recovery, analyzed (less sample contribution) divided by true value
<	Analyte NOT DETECTED at or above the Method Detection Limit (MDL)
mg/L	Milligrams per liter (Parts per million). Solids equivalent = mg/Kg.
ug/L	Micrograms per liter (Parts per billion). Solids equivalent = ug/Kg.
NR	No Recovery (matrix spike) - Often seen for calcium/magnesium when their concentration exceeds the spike level by > 4x.
NFG	USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, June 2008.
RE	Sample Re-analysis. Usually seen on raw data and sequences for required sample dilutions due to over-range analytes.
U	Analyte not detected at or above MDL qualifier
D	Diluted value qualifier

**Method(s) Summary :**

As defined in the Technical Direction Form (TDF), some or all of the methods listed below were used for the determination of the reported target analytes.

From EPA's *Methods for the Determination of Metals in Environmental Samples*, Supplement I, May 1994, dissolved, total, and/or total recoverable metals were determined by:

- Method 200.7 / 6010B using a PE Optima ICP-OE (ICP).
- Method 200.8 / 6020 using a Perkin -Elmer Elan 6000 ICP-MS.
- Method 200.2 for total recoverable metals (only) digestion.
- Method 245.1 using a Perkin -Elmer FIMS CV AA (aqueous mercury only).

From *Standard Methods for the Examination of Water and Wastewater*, 18<sup>th</sup> Edition, 1992, Method 2340B was used for the calculated hardness determination. Hardness is reported as mg (milligram) equivalent CaCO<sub>3</sub> per liter (L) determined as follows:

$$\text{Calculated hardness} = 2.497 * (\text{Calcium, mg/L}) + 4.118 * (\text{Magnesium, mg/L}).$$

From EPA's *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW -846*,

- Method 3015A was used for microwave assisted total metals digestion.
- Method 7473 was used for mercury in solids.
- Method 8260B/5030B was used for volatile organic compounds.

From EPA's *Determination of Inorganic Anions by Ion Chromatography*, Revision 2.1, 1993, Method 300.0 was used to determine the anions.

From EPA's *Methods for Chemical Analysis of Water and Wastes*, March 1983:

- Method 310.1 was followed for the alkalinity determination.
- Method 160.1 was followed for gravimetric total dissolved solids (TDS) determination.
- Method 160.2 was used for gravimetric total suspended solids (TSS) determination.
- Method 415.3 was used for total organic carbon (TOC) determination using either an Apollo 9000 or Phoenix 8000 Non-Dispersive IR (NDIR) system. Also known as dissolved organic carbon (DOC) when performed on the dissolved sample fraction.

The quality control procedures listed in the TDF request were utilized by ESAT to verify accuracy of the results and to evaluate any matrix interferences.

Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

Certificate of Analysis

TDF #: DG-375

## Volatile Organic Compounds by GCMS method EPA 8260B

Station ID: CTSB01-19

Date / Time Sampled: 08/21/13 15:05

Workorder C130811

EPA Tag No.: 8-A

Matrix: Soil

Lab Number: C130811-01 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution		By	Batch
						Factor	Analyzed		
EPA 8260B	Dichlorodifluoromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Chloromethane Vinyl	< 1.00	U	mg/kg as rcvd	0.284	1000	08/28/2013	SW	1308098
EPA 8260B	chloride Bromomethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Chloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Trichlorofluoromethane	< 1.00	U	mg/kg as rcvd	0.285	1000	08/28/2013	SW	1308098
EPA 8260B	1,1-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Methylene Chloride	< 1.00	U	mg/kg as rcvd	0.483	1000	08/28/2013	SW	1308098
EPA 8260B	trans-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.378	1000	08/28/2013	SW	1308098
EPA 8260B	Methyl-tert-butyl ether	< 1.00	U	mg/kg as rcvd	0.257	1000	08/28/2013	SW	1308098
EPA 8260B	1,1-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	2,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.349	1000	08/28/2013	SW	1308098
EPA 8260B	cis-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Chloroform	< 1.00	U	mg/kg as rcvd	0.388	1000	08/28/2013	SW	1308098
EPA 8260B	Bromochloromethane	< 1.00	U	mg/kg as rcvd	0.325	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,1-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.372	1000	08/28/2013	SW	1308098
EPA 8260B	Carbon Tetrachloride	< 1.00	U	mg/kg as rcvd	0.306	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Benzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Trichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Dibromomethane	< 1.00	U	mg/kg as rcvd	0.274	1000	08/28/2013	SW	1308098
EPA 8260B	Bromodichloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Toluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,2-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Tetrachloroethylene	< 1.00	U	mg/kg as rcvd	0.289	1000	08/28/2013	SW	1308098
EPA 8260B	1,3-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Dibromochloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B		< 1.00	U	mg/kg as rcvd	0.424	1000	08/28/2013	SW	1308098

**Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375**
**Certificate of Analysis**
**TDF #: DG-375**

EPA 8260B	1,2-Dibromoethane	< 1.00	U	mg/kg as rcvd	0.304	1000	08/28/2013	SW	1308098
EPA 8260B	Chlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Ethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,1,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.358	1000	08/28/2013	SW	1308098
EPA 8260B	m,p-Xylene	< 2.00	U	mg/kg as rcvd	0.511	1000	08/28/2013	SW	1308098
EPA 8260B	o-Xylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Styrene	< 1.00	U	mg/kg as rcvd	0.301	1000	08/28/2013	SW	1308098
EPA 8260B	Bromoform	< 1.00	U	mg/kg as rcvd	0.441	1000	08/28/2013	SW	1308098
EPA 8260B	Isopropylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Bromobenzene	< 1.00	U	mg/kg as rcvd	0.335	1000	08/28/2013	SW	1308098
EPA 8260B	n-Propylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,2,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,3-Trichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	2-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	4-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,3,5-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	tert-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,4-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	sec-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	p-Isopropyltoluene	< 1.00	U	mg/kg as rcvd	0.285	1000	08/28/2013	SW	1308098
EPA 8260B	1,3-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.300	1000	08/28/2013	SW	1308098
EPA 8260B	1,4-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.276	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	n-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.258	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dibromo-3-chloropropane	< 1.00	U	mg/kg as rcvd	0.823	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,4-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Hexachlorobutadiene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Naphthalene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,3-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.400	1000	08/28/2013	SW	1308098
Surrogate: Dibromofluoromethane		101 %	Limit 75-125			1	08/28/2013	SW	1308098
Surrogate: Toluene-d8		100 %	Limit 75-125			1	08/28/2013	SW	1308098
Surrogate: Bromofluorobenzene		104 %	Limit 75-125			1	08/28/2013	SW	1308098

## Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

## Certificate of Analysis

TDF #: DG-375

Station ID: CTSB01-28

Date / Time Sampled: 08/21/13 15:15

Workorder C130811

EPA Tag No.: 8-A

Matrix: Soil

Lab Number: C130811-03 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution		By	Batch
						Factor	Analyzed		
EPA 8260B	Dichlorodifluoromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Chloromethane Vinyl	< 1.00	U	mg/kg as rcvd	0.284	1000	08/28/2013	SW	1308098
EPA 8260B	chloride Bromomethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Chloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Trichlorofluoromethane	< 1.00	U	mg/kg as rcvd	0.285	1000	08/28/2013	SW	1308098
EPA 8260B	1,1-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Methylene Chloride	< 1.00	U	mg/kg as rcvd	0.483	1000	08/28/2013	SW	1308098
EPA 8260B	trans-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.378	1000	08/28/2013	SW	1308098
EPA 8260B	Methyl-tert-butyl ether	< 1.00	U	mg/kg as rcvd	0.257	1000	08/28/2013	SW	1308098
EPA 8260B	1,1-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	2,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.349	1000	08/28/2013	SW	1308098
EPA 8260B	cis-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Chloroform	< 1.00	U	mg/kg as rcvd	0.388	1000	08/28/2013	SW	1308098
EPA 8260B	Bromochloromethane	< 1.00	U	mg/kg as rcvd	0.325	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,1-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.372	1000	08/28/2013	SW	1308098
EPA 8260B	Carbon Tetrachloride	< 1.00	U	mg/kg as rcvd	0.306	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Benzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Trichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Dibromomethane	< 1.00	U	mg/kg as rcvd	0.274	1000	08/28/2013	SW	1308098
EPA 8260B	Bromodichloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Toluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,2-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Tetrachloroethylene	< 1.00	U	mg/kg as rcvd	0.289	1000	08/28/2013	SW	1308098
EPA 8260B	1,3-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Dibromochloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dibromoethane	< 1.00	U	mg/kg as rcvd	0.424	1000	08/28/2013	SW	1308098
EPA 8260B		< 1.00	U	mg/kg as rcvd	0.304	1000	08/28/2013	SW	1308098



**Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375**
**Certificate of Analysis**
**TDF #: DG-375**

EPA 8260B	Chlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Ethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,1,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.358	1000	08/28/2013	SW	1308098
EPA 8260B	m,p-Xylene	< 2.00	U	mg/kg as rcvd	0.511	1000	08/28/2013	SW	1308098
EPA 8260B	o-Xylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Styrene	< 1.00	U	mg/kg as rcvd	0.301	1000	08/28/2013	SW	1308098
EPA 8260B	Bromoform	< 1.00	U	mg/kg as rcvd	0.441	1000	08/28/2013	SW	1308098
EPA 8260B	Isopropylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Bromobenzene	< 1.00	U	mg/kg as rcvd	0.335	1000	08/28/2013	SW	1308098
EPA 8260B	n-Propylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,2,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,3-Trichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	2-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	4-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,3,5-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	tert-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,4-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	sec-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	p-Isopropyltoluene	< 1.00	U	mg/kg as rcvd	0.285	1000	08/28/2013	SW	1308098
EPA 8260B	1,3-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.300	1000	08/28/2013	SW	1308098
EPA 8260B	1,4-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.276	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	n-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.258	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dibromo-3-chloropropane	< 1.00	U	mg/kg as rcvd	0.823	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,4-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Hexachlorobutadiene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Naphthalene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,3-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.400	1000	08/28/2013	SW	1308098
	<i>Surrogate: Dibromofluoromethane</i>	<i>101 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/28/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Toluene-d8</i>	<i>101 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/28/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Bromofluorobenzene</i>	<i>106 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/28/2013</i>	<i>SW</i>	<i>1308098</i>

## Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

## Certificate of Analysis

TDF #: DG-375

Station ID: CTSB01-29

Date / Time Sampled: 08/21/13 15:25

Workorder C130811

EPA Tag No.: 8-A

Matrix: Soil

Lab Number: C130811-05 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 8260B	Dichlorodifluoromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Chloromethane Vinyl	< 1.00	U	mg/kg as rcvd	0.284	1000	08/28/2013	SW	1308098
EPA 8260B	chloride Bromomethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Chloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Trichlorofluoromethane	< 1.00	U	mg/kg as rcvd	0.285	1000	08/28/2013	SW	1308098
EPA 8260B	1,1-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Methylene Chloride	< 1.00	U	mg/kg as rcvd	0.483	1000	08/28/2013	SW	1308098
EPA 8260B	trans-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.378	1000	08/28/2013	SW	1308098
EPA 8260B	Methyl-tert-butyl ether	< 1.00	U	mg/kg as rcvd	0.257	1000	08/28/2013	SW	1308098
EPA 8260B	1,1-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	2,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.349	1000	08/28/2013	SW	1308098
EPA 8260B	cis-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Chloroform	< 1.00	U	mg/kg as rcvd	0.388	1000	08/28/2013	SW	1308098
EPA 8260B	Bromochloromethane	< 1.00	U	mg/kg as rcvd	0.325	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,1-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.372	1000	08/28/2013	SW	1308098
EPA 8260B	Carbon Tetrachloride	< 1.00	U	mg/kg as rcvd	0.306	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Benzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Trichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Dibromomethane	< 1.00	U	mg/kg as rcvd	0.274	1000	08/28/2013	SW	1308098
EPA 8260B	Bromodichloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Toluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,2-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Tetrachloroethylene	< 1.00	U	mg/kg as rcvd	0.289	1000	08/28/2013	SW	1308098
EPA 8260B	1,3-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Dibromochloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dibromoethane	< 1.00	U	mg/kg as rcvd	0.424	1000	08/28/2013	SW	1308098
EPA 8260B		< 1.00	U	mg/kg as rcvd	0.304	1000	08/28/2013	SW	1308098

**Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375**
**Certificate of Analysis**
**TDF #: DG-375**

EPA 8260B	Chlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Ethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,1,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.358	1000	08/28/2013	SW	1308098
EPA 8260B	m,p-Xylene	< 2.00	U	mg/kg as rcvd	0.511	1000	08/28/2013	SW	1308098
EPA 8260B	o-Xylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Styrene	< 1.00	U	mg/kg as rcvd	0.301	1000	08/28/2013	SW	1308098
EPA 8260B	Bromoform	< 1.00	U	mg/kg as rcvd	0.441	1000	08/28/2013	SW	1308098
EPA 8260B	Isopropylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Bromobenzene	< 1.00	U	mg/kg as rcvd	0.335	1000	08/28/2013	SW	1308098
EPA 8260B	n-Propylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,2,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,3-Trichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	2-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	4-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,3,5-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	tert-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,4-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	sec-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	p-Isopropyltoluene	< 1.00	U	mg/kg as rcvd	0.285	1000	08/28/2013	SW	1308098
EPA 8260B	1,3-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.300	1000	08/28/2013	SW	1308098
EPA 8260B	1,4-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.276	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	n-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.258	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dibromo-3-chloropropane	< 1.00	U	mg/kg as rcvd	0.823	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,4-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Hexachlorobutadiene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Naphthalene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,3-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.400	1000	08/28/2013	SW	1308098
	<i>Surrogate: Dibromofluoromethane</i>	<i>101 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/28/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Toluene-d8</i>	<i>101 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/28/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Bromofluorobenzene</i>	<i>106 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/28/2013</i>	<i>SW</i>	<i>1308098</i>

TDF #: DG-375

Station ID: CTSB02-10

Date / Time Sampled: 08/21/13 16:45

Workorder C130811

EPA Tag No.: 8-A

Matrix: Soil

Lab Number: C130811-07 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution		By	Batch
						Factor	Analyzed		
EPA 8260B	Dichlorodifluoromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Chloromethane Vinyl	< 1.00	U	mg/kg as rcvd	0.284	1000	08/28/2013	SW	1308098
EPA 8260B	chloride Bromomethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Chloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Trichlorofluoromethane	< 1.00	U	mg/kg as rcvd	0.285	1000	08/28/2013	SW	1308098
EPA 8260B	1,1-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Methylene Chloride	< 1.00	U	mg/kg as rcvd	0.483	1000	08/28/2013	SW	1308098
EPA 8260B	trans-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.378	1000	08/28/2013	SW	1308098
EPA 8260B	Methyl-tert-butyl ether	< 1.00	U	mg/kg as rcvd	0.257	1000	08/28/2013	SW	1308098
EPA 8260B	1,1-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	2,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.349	1000	08/28/2013	SW	1308098
EPA 8260B	cis-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Chloroform	< 1.00	U	mg/kg as rcvd	0.388	1000	08/28/2013	SW	1308098
EPA 8260B	Bromochloromethane	< 1.00	U	mg/kg as rcvd	0.325	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,1-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.372	1000	08/28/2013	SW	1308098
EPA 8260B	Carbon Tetrachloride	< 1.00	U	mg/kg as rcvd	0.306	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Benzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Trichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Dibromomethane	< 1.00	U	mg/kg as rcvd	0.274	1000	08/28/2013	SW	1308098
EPA 8260B	Bromodichloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Toluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,2-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Tetrachloroethylene	< 1.00	U	mg/kg as rcvd	0.289	1000	08/28/2013	SW	1308098
EPA 8260B	1,3-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Dibromochloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dibromoethane	< 1.00	U	mg/kg as rcvd	0.424	1000	08/28/2013	SW	1308098
EPA 8260B		< 1.00	U	mg/kg as rcvd	0.304	1000	08/28/2013	SW	1308098

**Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375**

**Certificate of Analysis**

**TDF #: DG-375**

EPA 8260B	Chlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Ethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,1,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.358	1000	08/28/2013	SW	1308098
EPA 8260B	m,p-Xylene	< 2.00	U	mg/kg as rcvd	0.511	1000	08/28/2013	SW	1308098
EPA 8260B	o-Xylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Styrene	< 1.00	U	mg/kg as rcvd	0.301	1000	08/28/2013	SW	1308098
EPA 8260B	Bromoform	< 1.00	U	mg/kg as rcvd	0.441	1000	08/28/2013	SW	1308098
EPA 8260B	Isopropylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Bromobenzene	< 1.00	U	mg/kg as rcvd	0.335	1000	08/28/2013	SW	1308098
EPA 8260B	n-Propylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,2,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,3-Trichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	2-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	4-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,3,5-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	tert-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,4-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	sec-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	p-Isopropyltoluene	< 1.00	U	mg/kg as rcvd	0.285	1000	08/28/2013	SW	1308098
EPA 8260B	1,3-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.300	1000	08/28/2013	SW	1308098
EPA 8260B	1,4-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.276	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	n-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.258	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dibromo-3-chloropropane	< 1.00	U	mg/kg as rcvd	0.823	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,4-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Hexachlorobutadiene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Naphthalene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,3-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.400	1000	08/28/2013	SW	1308098
	<i>Surrogate: Dibromofluoromethane</i>	<i>102 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/28/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Toluene-d8</i>	<i>102 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/28/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Bromofluorobenzene</i>	<i>104 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/28/2013</i>	<i>SW</i>	<i>1308098</i>



## Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

## Certificate of Analysis

TDF #: DG-375

Station ID: CTSB02-16

Date / Time Sampled: 08/21/13 16:50

Workorder C130811

EPA Tag No.: 8-A

Matrix: Soil

Lab Number: C130811-09 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution		By	Batch
						Factor	Analyzed		
EPA 8260B	Dichlorodifluoromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Chloromethane Vinyl	< 1.00	U	mg/kg as rcvd	0.284	1000	08/28/2013	SW	1308098
EPA 8260B	chloride Bromomethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Chloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Trichlorofluoromethane	< 1.00	U	mg/kg as rcvd	0.285	1000	08/28/2013	SW	1308098
EPA 8260B	1,1-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Methylene Chloride	< 1.00	U	mg/kg as rcvd	0.483	1000	08/28/2013	SW	1308098
EPA 8260B	trans-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.378	1000	08/28/2013	SW	1308098
EPA 8260B	Methyl-tert-butyl ether	< 1.00	U	mg/kg as rcvd	0.257	1000	08/28/2013	SW	1308098
EPA 8260B	1,1-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	2,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.349	1000	08/28/2013	SW	1308098
EPA 8260B	cis-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Chloroform	< 1.00	U	mg/kg as rcvd	0.388	1000	08/28/2013	SW	1308098
EPA 8260B	Bromochloromethane	< 1.00	U	mg/kg as rcvd	0.325	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,1-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.372	1000	08/28/2013	SW	1308098
EPA 8260B	Carbon Tetrachloride	< 1.00	U	mg/kg as rcvd	0.306	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Benzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Trichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Dibromomethane	< 1.00	U	mg/kg as rcvd	0.274	1000	08/28/2013	SW	1308098
EPA 8260B	Bromodichloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Toluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,2-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Tetrachloroethylene	< 1.00	U	mg/kg as rcvd	0.289	1000	08/28/2013	SW	1308098
EPA 8260B	1,3-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Dibromochloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dibromoethane	< 1.00	U	mg/kg as rcvd	0.424	1000	08/28/2013	SW	1308098
EPA 8260B		< 1.00	U	mg/kg as rcvd	0.304	1000	08/28/2013	SW	1308098

**Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375**
**Certificate of Analysis**
**TDF #: DG-375**

EPA 8260B	Chlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Ethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,1,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.358	1000	08/28/2013	SW	1308098
EPA 8260B	m,p-Xylene	< 2.00	U	mg/kg as rcvd	0.511	1000	08/28/2013	SW	1308098
EPA 8260B	o-Xylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Styrene	< 1.00	U	mg/kg as rcvd	0.301	1000	08/28/2013	SW	1308098
EPA 8260B	Bromoform	< 1.00	U	mg/kg as rcvd	0.441	1000	08/28/2013	SW	1308098
EPA 8260B	Isopropylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Bromobenzene	< 1.00	U	mg/kg as rcvd	0.335	1000	08/28/2013	SW	1308098
EPA 8260B	n-Propylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,2,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,3-Trichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	2-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	4-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,3,5-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	tert-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,4-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	sec-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	p-Isopropyltoluene	< 1.00	U	mg/kg as rcvd	0.285	1000	08/28/2013	SW	1308098
EPA 8260B	1,3-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.300	1000	08/28/2013	SW	1308098
EPA 8260B	1,4-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.276	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	n-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.258	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dibromo-3-chloropropane	< 1.00	U	mg/kg as rcvd	0.823	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,4-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Hexachlorobutadiene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	<b>Naphthalene</b>	<b>0.270</b>	<b>J, D</b>	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,3-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.400	1000	08/28/2013	SW	1308098
<i>Surrogate: Dibromofluoromethane</i>		<i>102 %</i>	<i>Limit 75-125</i>		<i>1</i>	<i>08/28/2013</i>	<i>SW</i>	<i>1308098</i>	
<i>Surrogate: Toluene-d8</i>		<i>98 %</i>	<i>Limit 75-125</i>		<i>1</i>	<i>08/28/2013</i>	<i>SW</i>	<i>1308098</i>	
<i>Surrogate: Bromofluorobenzene</i>		<i>101 %</i>	<i>Limit 75-125</i>		<i>1</i>	<i>08/28/2013</i>	<i>SW</i>	<i>1308098</i>	

## Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

## Certificate of Analysis

TDF #: DG-375

Station ID: CTSB02-20

Date / Time Sampled: 08/21/13 16:55

Workorder C130811

EPA Tag No.: 8-A

Matrix: Soil

Lab Number: C130811-11 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution		By	Batch
						Factor	Analyzed		
EPA 8260B	Dichlorodifluoromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Chloromethane Vinyl	< 1.00	U	mg/kg as rcvd	0.284	1000	08/28/2013	SW	1308098
EPA 8260B	chloride Bromomethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Chloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Trichlorofluoromethane	< 1.00	U	mg/kg as rcvd	0.285	1000	08/28/2013	SW	1308098
EPA 8260B	1,1-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Methylene Chloride	< 1.00	U	mg/kg as rcvd	0.483	1000	08/28/2013	SW	1308098
EPA 8260B	trans-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.378	1000	08/28/2013	SW	1308098
EPA 8260B	Methyl-tert-butyl ether	< 1.00	U	mg/kg as rcvd	0.257	1000	08/28/2013	SW	1308098
EPA 8260B	1,1-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	2,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.349	1000	08/28/2013	SW	1308098
EPA 8260B	cis-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Chloroform	< 1.00	U	mg/kg as rcvd	0.388	1000	08/28/2013	SW	1308098
EPA 8260B	Bromochloromethane	< 1.00	U	mg/kg as rcvd	0.325	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,1-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.372	1000	08/28/2013	SW	1308098
EPA 8260B	Carbon Tetrachloride	< 1.00	U	mg/kg as rcvd	0.306	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Benzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Trichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Dibromomethane	< 1.00	U	mg/kg as rcvd	0.274	1000	08/28/2013	SW	1308098
EPA 8260B	Bromodichloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Toluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,2-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Tetrachloroethylene	< 1.00	U	mg/kg as rcvd	0.289	1000	08/28/2013	SW	1308098
EPA 8260B	1,3-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Dibromochloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dibromoethane	< 1.00	U	mg/kg as rcvd	0.424	1000	08/28/2013	SW	1308098
EPA 8260B		< 1.00	U	mg/kg as rcvd	0.304	1000	08/28/2013	SW	1308098

**Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375**

**Certificate of Analysis**

**TDF #: DG-375**

EPA 8260B	Chlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Ethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,1,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.358	1000	08/28/2013	SW	1308098
EPA 8260B	m,p-Xylene	< 2.00	U	mg/kg as rcvd	0.511	1000	08/28/2013	SW	1308098
EPA 8260B	o-Xylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Styrene	< 1.00	U	mg/kg as rcvd	0.301	1000	08/28/2013	SW	1308098
EPA 8260B	Bromoform	< 1.00	U	mg/kg as rcvd	0.441	1000	08/28/2013	SW	1308098
EPA 8260B	Isopropylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Bromobenzene	< 1.00	U	mg/kg as rcvd	0.335	1000	08/28/2013	SW	1308098
EPA 8260B	n-Propylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,2,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,3-Trichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	2-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	4-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	<b>1,3,5-Trimethylbenzene</b>	<b>0.450</b>	<b>J, D</b>	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	tert-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,4-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	sec-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	p-Isopropyltoluene	< 1.00	U	mg/kg as rcvd	0.285	1000	08/28/2013	SW	1308098
EPA 8260B	1,3-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.300	1000	08/28/2013	SW	1308098
EPA 8260B	1,4-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.276	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	n-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.258	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dibromo-3-chloropropane	< 1.00	U	mg/kg as rcvd	0.823	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,4-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Hexachlorobutadiene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	<b>Naphthalene</b>	<b>0.950</b>	<b>J,</b>	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,3-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.400	1000	08/28/2013	SW	1308098
	<i>Surrogate: Dibromofluoromethane</i>	<i>95 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/28/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Toluene-d8</i>	<i>97 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/28/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Bromofluorobenzene</i>	<i>107 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/28/2013</i>	<i>SW</i>	<i>1308098</i>



## Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

## Certificate of Analysis

TDF #: DG-375

Station ID: CTSB02-28

Date / Time Sampled: 08/21/13 17:00

Workorder C130811

EPA Tag No.: 8-A

Matrix: Soil

Lab Number: C130811-13 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution		By	Batch
						Factor	Analyzed		
EPA 8260B	Dichlorodifluoromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Chloromethane Vinyl	< 1.00	U	mg/kg as rcvd	0.284	1000	08/28/2013	SW	1308098
EPA 8260B	chloride Bromomethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Chloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Trichlorofluoromethane	< 1.00	U	mg/kg as rcvd	0.285	1000	08/28/2013	SW	1308098
EPA 8260B	1,1-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Methylene Chloride	< 1.00	U	mg/kg as rcvd	0.483	1000	08/28/2013	SW	1308098
EPA 8260B	trans-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.378	1000	08/28/2013	SW	1308098
EPA 8260B	Methyl-tert-butyl ether	< 1.00	U	mg/kg as rcvd	0.257	1000	08/28/2013	SW	1308098
EPA 8260B	1,1-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	2,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.349	1000	08/28/2013	SW	1308098
EPA 8260B	cis-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Chloroform	< 1.00	U	mg/kg as rcvd	0.388	1000	08/28/2013	SW	1308098
EPA 8260B	Bromochloromethane	< 1.00	U	mg/kg as rcvd	0.325	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,1-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.372	1000	08/28/2013	SW	1308098
EPA 8260B	Carbon Tetrachloride	< 1.00	U	mg/kg as rcvd	0.306	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Benzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Trichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Dibromomethane	< 1.00	U	mg/kg as rcvd	0.274	1000	08/28/2013	SW	1308098
EPA 8260B	Bromodichloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Toluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,2-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Tetrachloroethylene	< 1.00	U	mg/kg as rcvd	0.289	1000	08/28/2013	SW	1308098
EPA 8260B	1,3-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Dibromochloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dibromoethane	< 1.00	U	mg/kg as rcvd	0.424	1000	08/28/2013	SW	1308098
EPA 8260B		< 1.00	U	mg/kg as rcvd	0.304	1000	08/28/2013	SW	1308098

**Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375**
**Certificate of Analysis**
**TDF #: DG-375**

EPA 8260B	Chlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Ethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,1,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.358	1000	08/28/2013	SW	1308098
EPA 8260B	m,p-Xylene	< 2.00	U	mg/kg as rcvd	0.511	1000	08/28/2013	SW	1308098
EPA 8260B	o-Xylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Styrene	< 1.00	U	mg/kg as rcvd	0.301	1000	08/28/2013	SW	1308098
EPA 8260B	Bromoform	< 1.00	U	mg/kg as rcvd	0.441	1000	08/28/2013	SW	1308098
EPA 8260B	Isopropylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Bromobenzene	< 1.00	U	mg/kg as rcvd	0.335	1000	08/28/2013	SW	1308098
EPA 8260B	n-Propylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,2,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,3-Trichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	2-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	4-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,3,5-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	tert-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	<b>1,2,4-Trimethylbenzene</b>	<b>0.300</b>	<b>J, D</b>	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	sec-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	p-Isopropyltoluene	< 1.00	U	mg/kg as rcvd	0.285	1000	08/28/2013	SW	1308098
EPA 8260B	1,3-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.300	1000	08/28/2013	SW	1308098
EPA 8260B	1,4-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.276	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	n-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.258	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dibromo-3-chloropropane	< 1.00	U	mg/kg as rcvd	0.823	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,4-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Hexachlorobutadiene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	<b>Naphthalene</b>	<b>1.52</b>	<b>D</b>	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,3-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.400	1000	08/28/2013	SW	1308098
	<i>Surrogate: Dibromofluoromethane</i>	<i>97 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/28/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Toluene-d8</i>	<i>99 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/28/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Bromofluorobenzene</i>	<i>112 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/28/2013</i>	<i>SW</i>	<i>1308098</i>

## Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

## Certificate of Analysis

TDF #: DG-375

Station ID: CTSB03-08

Date / Time Sampled: 08/22/13 08:30

Workorder C130811

EPA Tag No.: 8-A

Matrix: Soil

Lab Number: C130811-15 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution		By	Batch
						Factor	Analyzed		
EPA 8260B	Dichlorodifluoromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Chloromethane Vinyl	< 1.00	U	mg/kg as rcvd	0.284	1000	08/28/2013	SW	1308098
EPA 8260B	chloride Bromomethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Chloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Trichlorofluoromethane	< 1.00	U	mg/kg as rcvd	0.285	1000	08/28/2013	SW	1308098
EPA 8260B	1,1-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Methylene Chloride	< 1.00	U	mg/kg as rcvd	0.483	1000	08/28/2013	SW	1308098
EPA 8260B	trans-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.378	1000	08/28/2013	SW	1308098
EPA 8260B	Methyl-tert-butyl ether	< 1.00	U	mg/kg as rcvd	0.257	1000	08/28/2013	SW	1308098
EPA 8260B	1,1-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	2,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.349	1000	08/28/2013	SW	1308098
EPA 8260B	cis-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Chloroform	< 1.00	U	mg/kg as rcvd	0.388	1000	08/28/2013	SW	1308098
EPA 8260B	Bromochloromethane	< 1.00	U	mg/kg as rcvd	0.325	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,1-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.372	1000	08/28/2013	SW	1308098
EPA 8260B	Carbon Tetrachloride	< 1.00	U	mg/kg as rcvd	0.306	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Benzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Trichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Dibromomethane	< 1.00	U	mg/kg as rcvd	0.274	1000	08/28/2013	SW	1308098
EPA 8260B	Bromodichloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Toluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,2-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Tetrachloroethylene	< 1.00	U	mg/kg as rcvd	0.289	1000	08/28/2013	SW	1308098
EPA 8260B	1,3-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Dibromochloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dibromoethane	< 1.00	U	mg/kg as rcvd	0.424	1000	08/28/2013	SW	1308098
EPA 8260B		< 1.00	U	mg/kg as rcvd	0.304	1000	08/28/2013	SW	1308098

**Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375**
**Certificate of Analysis**
**TDF #: DG-375**

EPA 8260B	Chlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	<b>Ethylbenzene</b>	<b>0.480</b>	<b>J, D</b>	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,1,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.358	1000	08/28/2013	SW	1308098
EPA 8260B	m,p-Xylene	< 2.00	U	mg/kg as rcvd	0.511	1000	08/28/2013	SW	1308098
EPA 8260B	<b>o-Xylene</b>	<b>2.14</b>	<b>D</b>	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Styrene	< 1.00	U	mg/kg as rcvd	0.301	1000	08/28/2013	SW	1308098
EPA 8260B	Bromoform	< 1.00	U	mg/kg as rcvd	0.441	1000	08/28/2013	SW	1308098
EPA 8260B	<b>Isopropylbenzene</b>	<b>0.310</b>	<b>J,</b>	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Bromobenzene	< 1.00	U	mg/kg as rcvd	0.335	1000	08/28/2013	SW	1308098
EPA 8260B	<b>n-Propylbenzene</b>	<b>0.770</b>	<b>J, D</b>	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,2,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,3-Trichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	2-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	4-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	<b>1,3,5-Trimethylbenzene</b>	<b>6.94</b>	<b>D</b>	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	tert-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	<b>1,2,4-Trimethylbenzene</b>	<b>0.450</b>	<b>J,</b>	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	<b>sec-Butylbenzene</b>	<b>0.960</b>	<b>J, D</b>	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	<b>p-Isopropyltoluene</b>	<b>2.08</b>	<b>D</b>	mg/kg as rcvd	0.285	1000	08/28/2013	SW	1308098
EPA 8260B	1,3-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.300	1000	08/28/2013	SW	1308098
EPA 8260B	1,4-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.276	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	n-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.258	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dibromo-3-chloropropane	< 1.00	U	mg/kg as rcvd	0.823	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,4-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Hexachlorobutadiene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	<b>Naphthalene</b>	<b>1.47</b>	<b>D</b>	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,3-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.400	1000	08/28/2013	SW	1308098
	<i>Surrogate: Dibromofluoromethane</i>	<i>96 %</i>		<i>Limit 75-125</i>	<i>1</i>	<i>08/28/2013</i>	<i>SW</i>	<i>1308098</i>	
	<i>Surrogate: Toluene-d8</i>	<i>98 %</i>		<i>Limit 75-125</i>	<i>1</i>	<i>08/28/2013</i>	<i>SW</i>	<i>1308098</i>	
	<i>Surrogate: Bromofluorobenzene</i>	<i>112 %</i>		<i>Limit 75-125</i>	<i>1</i>	<i>08/28/2013</i>	<i>SW</i>	<i>1308098</i>	

## Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

## Certificate of Analysis

TDF #: DG-375

Station ID: CTSB03-17

Date / Time Sampled: 08/22/13 08:40

Workorder C130811

EPA Tag No.: 8-A

Matrix: Soil

Lab Number: C130811-17 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution		By	Batch
						Factor	Analyzed		
EPA 8260B	Dichlorodifluoromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Chloromethane Vinyl	< 1.00	U	mg/kg as rcvd	0.284	1000	08/28/2013	SW	1308098
EPA 8260B	chloride Bromomethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Chloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Trichlorofluoromethane	< 1.00	U	mg/kg as rcvd	0.285	1000	08/28/2013	SW	1308098
EPA 8260B	1,1-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Methylene Chloride	< 1.00	U	mg/kg as rcvd	0.483	1000	08/28/2013	SW	1308098
EPA 8260B	trans-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.378	1000	08/28/2013	SW	1308098
EPA 8260B	Methyl-tert-butyl ether	< 1.00	U	mg/kg as rcvd	0.257	1000	08/28/2013	SW	1308098
EPA 8260B	1,1-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	2,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.349	1000	08/28/2013	SW	1308098
EPA 8260B	cis-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Chloroform	< 1.00	U	mg/kg as rcvd	0.388	1000	08/28/2013	SW	1308098
EPA 8260B	Bromochloromethane	< 1.00	U	mg/kg as rcvd	0.325	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,1-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.372	1000	08/28/2013	SW	1308098
EPA 8260B	Carbon Tetrachloride	< 1.00	U	mg/kg as rcvd	0.306	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Benzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Trichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Dibromomethane	< 1.00	U	mg/kg as rcvd	0.274	1000	08/28/2013	SW	1308098
EPA 8260B	Bromodichloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Toluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,2-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Tetrachloroethylene	< 1.00	U	mg/kg as rcvd	0.289	1000	08/28/2013	SW	1308098
EPA 8260B	1,3-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Dibromochloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dibromoethane	< 1.00	U	mg/kg as rcvd	0.424	1000	08/28/2013	SW	1308098
EPA 8260B		< 1.00	U	mg/kg as rcvd	0.304	1000	08/28/2013	SW	1308098



**Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375**
**Certificate of Analysis**
**TDF #: DG-375**

EPA 8260B	Chlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Ethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,1,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.358	1000	08/28/2013	SW	1308098
EPA 8260B	m,p-Xylene	< 2.00	U	mg/kg as rcvd	0.511	1000	08/28/2013	SW	1308098
EPA 8260B	<b>o-Xylene</b>	<b>0.250</b>	<b>J, D</b>	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Styrene	< 1.00	U	mg/kg as rcvd	0.301	1000	08/28/2013	SW	1308098
EPA 8260B	Bromoform	< 1.00	U	mg/kg as rcvd	0.441	1000	08/28/2013	SW	1308098
EPA 8260B	Isopropylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Bromobenzene	< 1.00	U	mg/kg as rcvd	0.335	1000	08/28/2013	SW	1308098
EPA 8260B	n-Propylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,2,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,3-Trichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	2-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	4-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	<b>1,3,5-Trimethylbenzene</b>	<b>1.84</b>	<b>D</b>	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	tert-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,4-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	sec-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	<b>p-Isopropyltoluene</b>	<b>0.460</b>	<b>J,</b>	mg/kg as rcvd	0.285	1000	08/28/2013	SW	1308098
EPA 8260B	1,3-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.300	1000	08/28/2013	SW	1308098
EPA 8260B	1,4-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.276	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	n-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.258	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dibromo-3-chloropropane	< 1.00	U	mg/kg as rcvd	0.823	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,4-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Hexachlorobutadiene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	<b>Naphthalene</b>	<b>0.250</b>	<b>J, D</b>	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,3-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.400	1000	08/28/2013	SW	1308098
<i>Surrogate: Dibromofluoromethane</i>		<i>96 %</i>	<i>Limit 75-125</i>		<i>1</i>	<i>08/28/2013</i>	<i>SW</i>	<i>1308098</i>	
<i>Surrogate: Toluene-d8</i>		<i>96 %</i>	<i>Limit 75-125</i>		<i>1</i>	<i>08/28/2013</i>	<i>SW</i>	<i>1308098</i>	
<i>Surrogate: Bromofluorobenzene</i>		<i>115 %</i>	<i>Limit 75-125</i>		<i>1</i>	<i>08/28/2013</i>	<i>SW</i>	<i>1308098</i>	

## Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

## Certificate of Analysis

TDF #: DG-375

Station ID: CTSB03-24

Date / Time Sampled: 08/22/13 08:50

Workorder C130811

EPA Tag No.: 8-A

Matrix: Soil

Lab Number: C130811-19 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution		By	Batch
						Factor	Analyzed		
EPA 8260B	Dichlorodifluoromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Chloromethane Vinyl	< 1.00	U	mg/kg as rcvd	0.284	1000	08/28/2013	SW	1308098
EPA 8260B	chloride Bromomethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Chloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Trichlorofluoromethane	< 1.00	U	mg/kg as rcvd	0.285	1000	08/28/2013	SW	1308098
EPA 8260B	1,1-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Methylene Chloride	< 1.00	U	mg/kg as rcvd	0.483	1000	08/28/2013	SW	1308098
EPA 8260B	trans-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.378	1000	08/28/2013	SW	1308098
EPA 8260B	Methyl-tert-butyl ether	< 1.00	U	mg/kg as rcvd	0.257	1000	08/28/2013	SW	1308098
EPA 8260B	1,1-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	2,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.349	1000	08/28/2013	SW	1308098
EPA 8260B	cis-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Chloroform	< 1.00	U	mg/kg as rcvd	0.388	1000	08/28/2013	SW	1308098
EPA 8260B	Bromochloromethane	< 1.00	U	mg/kg as rcvd	0.325	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,1-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.372	1000	08/28/2013	SW	1308098
EPA 8260B	Carbon Tetrachloride	< 1.00	U	mg/kg as rcvd	0.306	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Benzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Trichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Dibromomethane	< 1.00	U	mg/kg as rcvd	0.274	1000	08/28/2013	SW	1308098
EPA 8260B	Bromodichloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Toluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,2-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Tetrachloroethylene	< 1.00	U	mg/kg as rcvd	0.289	1000	08/28/2013	SW	1308098
EPA 8260B	1,3-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Dibromochloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dibromoethane	< 1.00	U	mg/kg as rcvd	0.424	1000	08/28/2013	SW	1308098
EPA 8260B		< 1.00	U	mg/kg as rcvd	0.304	1000	08/28/2013	SW	1308098

**Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375**

**Certificate of Analysis**

**TDF #: DG-375**

EPA 8260B	Chlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Ethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,1,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.358	1000	08/28/2013	SW	1308098
EPA 8260B	m,p-Xylene	< 2.00	U	mg/kg as rcvd	0.511	1000	08/28/2013	SW	1308098
EPA 8260B	o-Xylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Styrene	< 1.00	U	mg/kg as rcvd	0.301	1000	08/28/2013	SW	1308098
EPA 8260B	Bromoform	< 1.00	U	mg/kg as rcvd	0.441	1000	08/28/2013	SW	1308098
EPA 8260B	Isopropylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Bromobenzene	< 1.00	U	mg/kg as rcvd	0.335	1000	08/28/2013	SW	1308098
EPA 8260B	n-Propylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,2,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,3-Trichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	2-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	4-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,3,5-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	tert-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	<b>1,2,4-Trimethylbenzene</b>	<b>0.250</b>	<b>J, D</b>	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	sec-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	p-Isopropyltoluene	< 1.00	U	mg/kg as rcvd	0.285	1000	08/28/2013	SW	1308098
EPA 8260B	1,3-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.300	1000	08/28/2013	SW	1308098
EPA 8260B	1,4-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.276	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	n-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.258	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dibromo-3-chloropropane	< 1.00	U	mg/kg as rcvd	0.823	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,4-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Hexachlorobutadiene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	<b>Naphthalene</b>	<b>1.46</b>	<b>D</b>	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,3-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.400	1000	08/28/2013	SW	1308098
	<i>Surrogate: Dibromofluoromethane</i>	<i>98 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/28/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Toluene-d8</i>	<i>97 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/28/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Bromofluorobenzene</i>	<i>114 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/28/2013</i>	<i>SW</i>	<i>1308098</i>

## Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

## Certificate of Analysis

TDF #: DG-375

Station ID: CTSB03-28

Date / Time Sampled: 08/22/13 09:00

Workorder C130811

EPA Tag No.: 8-A

Matrix: Soil

Lab Number: C130811-21 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution		By	Batch
						Factor	Analyzed		
EPA 8260B	Dichlorodifluoromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Chloromethane Vinyl	< 1.00	U	mg/kg as rcvd	0.284	1000	08/28/2013	SW	1308098
EPA 8260B	chloride Bromomethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Chloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Trichlorofluoromethane	< 1.00	U	mg/kg as rcvd	0.285	1000	08/28/2013	SW	1308098
EPA 8260B	1,1-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Methylene Chloride	< 1.00	U	mg/kg as rcvd	0.483	1000	08/28/2013	SW	1308098
EPA 8260B	trans-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.378	1000	08/28/2013	SW	1308098
EPA 8260B	Methyl-tert-butyl ether	< 1.00	U	mg/kg as rcvd	0.257	1000	08/28/2013	SW	1308098
EPA 8260B	1,1-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	2,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.349	1000	08/28/2013	SW	1308098
EPA 8260B	cis-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Chloroform	< 1.00	U	mg/kg as rcvd	0.388	1000	08/28/2013	SW	1308098
EPA 8260B	Bromochloromethane	< 1.00	U	mg/kg as rcvd	0.325	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,1-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.372	1000	08/28/2013	SW	1308098
EPA 8260B	Carbon Tetrachloride	< 1.00	U	mg/kg as rcvd	0.306	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Benzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Trichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Dibromomethane	< 1.00	U	mg/kg as rcvd	0.274	1000	08/28/2013	SW	1308098
EPA 8260B	Bromodichloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Toluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,2-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Tetrachloroethylene	< 1.00	U	mg/kg as rcvd	0.289	1000	08/28/2013	SW	1308098
EPA 8260B	1,3-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Dibromochloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dibromoethane	< 1.00	U	mg/kg as rcvd	0.424	1000	08/28/2013	SW	1308098
EPA 8260B		< 1.00	U	mg/kg as rcvd	0.304	1000	08/28/2013	SW	1308098

**Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375**
**Certificate of Analysis**
**TDF #: DG-375**

EPA 8260B	Chlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Ethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,1,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.358	1000	08/28/2013	SW	1308098
EPA 8260B	m,p-Xylene	< 2.00	U	mg/kg as rcvd	0.511	1000	08/28/2013	SW	1308098
EPA 8260B	o-Xylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Styrene	< 1.00	U	mg/kg as rcvd	0.301	1000	08/28/2013	SW	1308098
EPA 8260B	Bromoform	< 1.00	U	mg/kg as rcvd	0.441	1000	08/28/2013	SW	1308098
EPA 8260B	Isopropylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Bromobenzene	< 1.00	U	mg/kg as rcvd	0.335	1000	08/28/2013	SW	1308098
EPA 8260B	n-Propylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,1,2,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,3-Trichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	2-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	4-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,3,5-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	tert-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,4-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	sec-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	p-Isopropyltoluene	< 1.00	U	mg/kg as rcvd	0.285	1000	08/28/2013	SW	1308098
EPA 8260B	1,3-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.300	1000	08/28/2013	SW	1308098
EPA 8260B	1,4-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.276	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	n-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.258	1000	08/28/2013	SW	1308098
EPA 8260B	1,2-Dibromo-3-chloropropane	< 1.00	U	mg/kg as rcvd	0.823	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,4-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Hexachlorobutadiene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	Naphthalene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/28/2013	SW	1308098
EPA 8260B	1,2,3-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.400	1000	08/28/2013	SW	1308098
	<i>Surrogate: Dibromofluoromethane</i>	<i>99 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/28/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Toluene-d8</i>	<i>99 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/28/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Bromofluorobenzene</i>	<i>115 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/28/2013</i>	<i>SW</i>	<i>1308098</i>



TDF #: DG-375

Station ID: CTSB04-19

Date / Time Sampled: 08/22/13 13:45

Workorder C130811

EPA Tag No.: 8-A

Matrix: Soil

Lab Number: C130811-23 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 8260B	Dichlorodifluoromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloromethane Vinyl	< 1.00	U	mg/kg as rcvd	0.284	1000	08/29/2013	SW	1308098
EPA 8260B	chloride Bromomethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Trichlorofluoromethane	< 1.00	U	mg/kg as rcvd	0.285	1000	08/29/2013	SW	1308098
EPA 8260B	1,1-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Methylene Chloride	< 1.00	U	mg/kg as rcvd	0.483	1000	08/29/2013	SW	1308098
EPA 8260B	trans-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.378	1000	08/29/2013	SW	1308098
EPA 8260B	Methyl-tert-butyl ether	< 1.00	U	mg/kg as rcvd	0.257	1000	08/29/2013	SW	1308098
EPA 8260B	1,1-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	2,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.349	1000	08/29/2013	SW	1308098
EPA 8260B	cis-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloroform	< 1.00	U	mg/kg as rcvd	0.388	1000	08/29/2013	SW	1308098
EPA 8260B	Bromochloromethane	< 1.00	U	mg/kg as rcvd	0.325	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,1-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.372	1000	08/29/2013	SW	1308098
EPA 8260B	Carbon Tetrachloride	< 1.00	U	mg/kg as rcvd	0.306	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Benzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Trichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Dibromomethane	< 1.00	U	mg/kg as rcvd	0.274	1000	08/29/2013	SW	1308098
EPA 8260B	Bromodichloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Toluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,2-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Tetrachloroethylene	< 1.00	U	mg/kg as rcvd	0.289	1000	08/29/2013	SW	1308098
EPA 8260B	1,3-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Dibromochloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dibromoethane	< 1.00	U	mg/kg as rcvd	0.424	1000	08/29/2013	SW	1308098
EPA 8260B		< 1.00	U	mg/kg as rcvd	0.304	1000	08/29/2013	SW	1308098

**Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375**
**Certificate of Analysis**
**TDF #: DG-375**

EPA 8260B	Chlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Ethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,1,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.358	1000	08/29/2013	SW	1308098
EPA 8260B	m,p-Xylene	< 2.00	U	mg/kg as rcvd	0.511	1000	08/29/2013	SW	1308098
EPA 8260B	o-Xylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Styrene	< 1.00	U	mg/kg as rcvd	0.301	1000	08/29/2013	SW	1308098
EPA 8260B	Bromoform	< 1.00	U	mg/kg as rcvd	0.441	1000	08/29/2013	SW	1308098
EPA 8260B	Isopropylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Bromobenzene	< 1.00	U	mg/kg as rcvd	0.335	1000	08/29/2013	SW	1308098
EPA 8260B	n-Propylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,2,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,3-Trichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	2-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	4-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,3,5-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	tert-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,4-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	sec-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	p-Isopropyltoluene	< 1.00	U	mg/kg as rcvd	0.285	1000	08/29/2013	SW	1308098
EPA 8260B	1,3-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.300	1000	08/29/2013	SW	1308098
EPA 8260B	1,4-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.276	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	n-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.258	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dibromo-3-chloropropane	< 1.00	U	mg/kg as rcvd	0.823	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,4-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Hexachlorobutadiene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Naphthalene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,3-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.400	1000	08/29/2013	SW	1308098
	<i>Surrogate: Dibromofluoromethane</i>	<i>100 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Toluene-d8</i>	<i>97 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Bromofluorobenzene</i>	<i>118 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>

## Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

## Certificate of Analysis

TDF #: DG-375

Station ID: CTSB04-29

Date / Time Sampled: 08/22/13 13:55

Workorder C130811

EPA Tag No.: 8-A

Matrix: Soil

Lab Number: C130811-25 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 8260B	Dichlorodifluoromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloromethane Vinyl	< 1.00	U	mg/kg as rcvd	0.284	1000	08/29/2013	SW	1308098
EPA 8260B	chloride Bromomethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Trichlorofluoromethane	< 1.00	U	mg/kg as rcvd	0.285	1000	08/29/2013	SW	1308098
EPA 8260B	1,1-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Methylene Chloride	< 1.00	U	mg/kg as rcvd	0.483	1000	08/29/2013	SW	1308098
EPA 8260B	trans-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.378	1000	08/29/2013	SW	1308098
EPA 8260B	Methyl-tert-butyl ether	< 1.00	U	mg/kg as rcvd	0.257	1000	08/29/2013	SW	1308098
EPA 8260B	1,1-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	2,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.349	1000	08/29/2013	SW	1308098
EPA 8260B	cis-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloroform	< 1.00	U	mg/kg as rcvd	0.388	1000	08/29/2013	SW	1308098
EPA 8260B	Bromochloromethane	< 1.00	U	mg/kg as rcvd	0.325	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,1-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.372	1000	08/29/2013	SW	1308098
EPA 8260B	Carbon Tetrachloride	< 1.00	U	mg/kg as rcvd	0.306	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Benzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Trichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Dibromomethane	< 1.00	U	mg/kg as rcvd	0.274	1000	08/29/2013	SW	1308098
EPA 8260B	Bromodichloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Toluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,2-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Tetrachloroethylene	< 1.00	U	mg/kg as rcvd	0.289	1000	08/29/2013	SW	1308098
EPA 8260B	1,3-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Dibromochloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dibromoethane	< 1.00	U	mg/kg as rcvd	0.424	1000	08/29/2013	SW	1308098
EPA 8260B		< 1.00	U	mg/kg as rcvd	0.304	1000	08/29/2013	SW	1308098

**Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375**

**Certificate of Analysis**

**TDF #: DG-375**

EPA 8260B	Chlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Ethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,1,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.358	1000	08/29/2013	SW	1308098
EPA 8260B	m,p-Xylene	< 2.00	U	mg/kg as rcvd	0.511	1000	08/29/2013	SW	1308098
EPA 8260B	o-Xylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Styrene	< 1.00	U	mg/kg as rcvd	0.301	1000	08/29/2013	SW	1308098
EPA 8260B	Bromoform	< 1.00	U	mg/kg as rcvd	0.441	1000	08/29/2013	SW	1308098
EPA 8260B	Isopropylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Bromobenzene	< 1.00	U	mg/kg as rcvd	0.335	1000	08/29/2013	SW	1308098
EPA 8260B	n-Propylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,2,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,3-Trichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	2-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	4-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,3,5-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	tert-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,4-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	sec-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	p-Isopropyltoluene	< 1.00	U	mg/kg as rcvd	0.285	1000	08/29/2013	SW	1308098
EPA 8260B	1,3-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.300	1000	08/29/2013	SW	1308098
EPA 8260B	1,4-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.276	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	n-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.258	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dibromo-3-chloropropane	< 1.00	U	mg/kg as rcvd	0.823	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,4-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Hexachlorobutadiene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	<b>Naphthalene</b>	<b>0.430</b>	<b>J, D</b>	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,3-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.400	1000	08/29/2013	SW	1308098
	<i>Surrogate: Dibromofluoromethane</i>	<i>99 %</i>		<i>Limit 75-125</i>	<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>	
	<i>Surrogate: Toluene-d8</i>	<i>99 %</i>		<i>Limit 75-125</i>	<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>	
	<i>Surrogate: Bromofluorobenzene</i>	<i>115 %</i>		<i>Limit 75-125</i>	<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>	

## Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

## Certificate of Analysis

TDF #: DG-375

Station ID: CTSB04-38

Date / Time Sampled: 08/22/13 14:10

Workorder C130811

EPA Tag No.: 8-A

Matrix: Soil

Lab Number: C130811-27 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution		By	Batch
						Factor	Analyzed		
EPA 8260B	Dichlorodifluoromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloromethane Vinyl	< 1.00	U	mg/kg as rcvd	0.284	1000	08/29/2013	SW	1308098
EPA 8260B	chloride Bromomethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Trichlorofluoromethane	< 1.00	U	mg/kg as rcvd	0.285	1000	08/29/2013	SW	1308098
EPA 8260B	1,1-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Methylene Chloride	< 1.00	U	mg/kg as rcvd	0.483	1000	08/29/2013	SW	1308098
EPA 8260B	trans-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.378	1000	08/29/2013	SW	1308098
EPA 8260B	Methyl-tert-butyl ether	< 1.00	U	mg/kg as rcvd	0.257	1000	08/29/2013	SW	1308098
EPA 8260B	1,1-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	2,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.349	1000	08/29/2013	SW	1308098
EPA 8260B	cis-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloroform	< 1.00	U	mg/kg as rcvd	0.388	1000	08/29/2013	SW	1308098
EPA 8260B	Bromochloromethane	< 1.00	U	mg/kg as rcvd	0.325	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,1-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.372	1000	08/29/2013	SW	1308098
EPA 8260B	Carbon Tetrachloride	< 1.00	U	mg/kg as rcvd	0.306	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Benzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Trichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Dibromomethane	< 1.00	U	mg/kg as rcvd	0.274	1000	08/29/2013	SW	1308098
EPA 8260B	Bromodichloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Toluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,2-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Tetrachloroethylene	< 1.00	U	mg/kg as rcvd	0.289	1000	08/29/2013	SW	1308098
EPA 8260B	1,3-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Dibromochloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dibromoethane	< 1.00	U	mg/kg as rcvd	0.424	1000	08/29/2013	SW	1308098
EPA 8260B		< 1.00	U	mg/kg as rcvd	0.304	1000	08/29/2013	SW	1308098

**Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375**
**Certificate of Analysis**
**TDF #: DG-375**

EPA 8260B	Chlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Ethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,1,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.358	1000	08/29/2013	SW	1308098
EPA 8260B	m,p-Xylene	< 2.00	U	mg/kg as rcvd	0.511	1000	08/29/2013	SW	1308098
EPA 8260B	o-Xylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Styrene	< 1.00	U	mg/kg as rcvd	0.301	1000	08/29/2013	SW	1308098
EPA 8260B	Bromoform	< 1.00	U	mg/kg as rcvd	0.441	1000	08/29/2013	SW	1308098
EPA 8260B	Isopropylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Bromobenzene	< 1.00	U	mg/kg as rcvd	0.335	1000	08/29/2013	SW	1308098
EPA 8260B	n-Propylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,2,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,3-Trichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	2-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	4-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,3,5-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	tert-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,4-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	sec-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	p-Isopropyltoluene	< 1.00	U	mg/kg as rcvd	0.285	1000	08/29/2013	SW	1308098
EPA 8260B	1,3-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.300	1000	08/29/2013	SW	1308098
EPA 8260B	1,4-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.276	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	n-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.258	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dibromo-3-chloropropane	< 1.00	U	mg/kg as rcvd	0.823	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,4-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Hexachlorobutadiene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	<b>Naphthalene</b>	<b>1.00</b>	<b>D</b>	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,3-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.400	1000	08/29/2013	SW	1308098
	<i>Surrogate: Dibromofluoromethane</i>	<i>100 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Toluene-d8</i>	<i>100 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Bromofluorobenzene</i>	<i>115 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>



TDF #: DG-375

Station ID: CTSB04-49

Date / Time Sampled: 08/22/13 14:50

Workorder C130811

EPA Tag No.: 8-A

Matrix: Soil

Lab Number: C130811-29 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution		By	Batch
						Factor	Analyzed		
EPA 8260B	Dichlorodifluoromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloromethane Vinyl	< 1.00	U	mg/kg as rcvd	0.284	1000	08/29/2013	SW	1308098
EPA 8260B	chloride Bromomethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Trichlorofluoromethane	< 1.00	U	mg/kg as rcvd	0.285	1000	08/29/2013	SW	1308098
EPA 8260B	1,1-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Methylene Chloride	< 1.00	U	mg/kg as rcvd	0.483	1000	08/29/2013	SW	1308098
EPA 8260B	trans-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.378	1000	08/29/2013	SW	1308098
EPA 8260B	Methyl-tert-butyl ether	< 1.00	U	mg/kg as rcvd	0.257	1000	08/29/2013	SW	1308098
EPA 8260B	1,1-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	2,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.349	1000	08/29/2013	SW	1308098
EPA 8260B	cis-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloroform	< 1.00	U	mg/kg as rcvd	0.388	1000	08/29/2013	SW	1308098
EPA 8260B	Bromochloromethane	< 1.00	U	mg/kg as rcvd	0.325	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,1-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.372	1000	08/29/2013	SW	1308098
EPA 8260B	Carbon Tetrachloride	< 1.00	U	mg/kg as rcvd	0.306	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Benzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Trichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Dibromomethane	< 1.00	U	mg/kg as rcvd	0.274	1000	08/29/2013	SW	1308098
EPA 8260B	Bromodichloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Toluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,2-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Tetrachloroethylene	< 1.00	U	mg/kg as rcvd	0.289	1000	08/29/2013	SW	1308098
EPA 8260B	1,3-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Dibromochloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dibromoethane	< 1.00	U	mg/kg as rcvd	0.424	1000	08/29/2013	SW	1308098
EPA 8260B		< 1.00	U	mg/kg as rcvd	0.304	1000	08/29/2013	SW	1308098

**Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375**
**Certificate of Analysis**
**TDF #: DG-375**

EPA 8260B	Chlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Ethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,1,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.358	1000	08/29/2013	SW	1308098
EPA 8260B	m,p-Xylene	< 2.00	U	mg/kg as rcvd	0.511	1000	08/29/2013	SW	1308098
EPA 8260B	o-Xylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Styrene	< 1.00	U	mg/kg as rcvd	0.301	1000	08/29/2013	SW	1308098
EPA 8260B	Bromoform	< 1.00	U	mg/kg as rcvd	0.441	1000	08/29/2013	SW	1308098
EPA 8260B	Isopropylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Bromobenzene	< 1.00	U	mg/kg as rcvd	0.335	1000	08/29/2013	SW	1308098
EPA 8260B	n-Propylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,2,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,3-Trichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	2-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	4-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,3,5-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	tert-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,4-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	sec-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	p-Isopropyltoluene	< 1.00	U	mg/kg as rcvd	0.285	1000	08/29/2013	SW	1308098
EPA 8260B	1,3-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.300	1000	08/29/2013	SW	1308098
EPA 8260B	1,4-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.276	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	n-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.258	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dibromo-3-chloropropane	< 1.00	U	mg/kg as rcvd	0.823	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,4-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Hexachlorobutadiene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Naphthalene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,3-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.400	1000	08/29/2013	SW	1308098
	<i>Surrogate: Dibromofluoromethane</i>	<i>99 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Toluene-d8</i>	<i>98 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Bromofluorobenzene</i>	<i>115 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>

## Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

## Certificate of Analysis

TDF #: DG-375

Station ID: CTSB05-22

Date / Time Sampled: 08/22/13 11:05

Workorder C130811

EPA Tag No.: 8-A

Matrix: Soil

Lab Number: C130811-31 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 8260B	Dichlorodifluoromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloromethane Vinyl	< 1.00	U	mg/kg as rcvd	0.284	1000	08/29/2013	SW	1308098
EPA 8260B	chloride Bromomethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Trichlorofluoromethane	< 1.00	U	mg/kg as rcvd	0.285	1000	08/29/2013	SW	1308098
EPA 8260B	1,1-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Methylene Chloride	< 1.00	U	mg/kg as rcvd	0.483	1000	08/29/2013	SW	1308098
EPA 8260B	trans-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.378	1000	08/29/2013	SW	1308098
EPA 8260B	Methyl-tert-butyl ether	< 1.00	U	mg/kg as rcvd	0.257	1000	08/29/2013	SW	1308098
EPA 8260B	1,1-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	2,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.349	1000	08/29/2013	SW	1308098
EPA 8260B	cis-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloroform	< 1.00	U	mg/kg as rcvd	0.388	1000	08/29/2013	SW	1308098
EPA 8260B	Bromochloromethane	< 1.00	U	mg/kg as rcvd	0.325	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,1-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.372	1000	08/29/2013	SW	1308098
EPA 8260B	Carbon Tetrachloride	< 1.00	U	mg/kg as rcvd	0.306	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Benzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Trichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Dibromomethane	< 1.00	U	mg/kg as rcvd	0.274	1000	08/29/2013	SW	1308098
EPA 8260B	Bromodichloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Toluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,2-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Tetrachloroethylene	< 1.00	U	mg/kg as rcvd	0.289	1000	08/29/2013	SW	1308098
EPA 8260B	1,3-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Dibromochloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dibromoethane	< 1.00	U	mg/kg as rcvd	0.424	1000	08/29/2013	SW	1308098
EPA 8260B		< 1.00	U	mg/kg as rcvd	0.304	1000	08/29/2013	SW	1308098

**Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375**
**Certificate of Analysis**
**TDF #: DG-375**

EPA 8260B	Chlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Ethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,1,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.358	1000	08/29/2013	SW	1308098
EPA 8260B	m,p-Xylene	< 2.00	U	mg/kg as rcvd	0.511	1000	08/29/2013	SW	1308098
EPA 8260B	o-Xylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Styrene	< 1.00	U	mg/kg as rcvd	0.301	1000	08/29/2013	SW	1308098
EPA 8260B	Bromoform	< 1.00	U	mg/kg as rcvd	0.441	1000	08/29/2013	SW	1308098
EPA 8260B	Isopropylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Bromobenzene	< 1.00	U	mg/kg as rcvd	0.335	1000	08/29/2013	SW	1308098
EPA 8260B	n-Propylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,2,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,3-Trichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	2-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	4-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,3,5-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	tert-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,4-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	sec-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	p-Isopropyltoluene	< 1.00	U	mg/kg as rcvd	0.285	1000	08/29/2013	SW	1308098
EPA 8260B	1,3-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.300	1000	08/29/2013	SW	1308098
EPA 8260B	1,4-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.276	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	n-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.258	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dibromo-3-chloropropane	< 1.00	U	mg/kg as rcvd	0.823	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,4-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Hexachlorobutadiene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Naphthalene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,3-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.400	1000	08/29/2013	SW	1308098
	<i>Surrogate: Dibromofluoromethane</i>	<i>97 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Toluene-d8</i>	<i>98 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Bromofluorobenzene</i>	<i>110 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>

**Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375**

**Certificate of Analysis**

**TDF #: DG-375**

**Station ID:** CTSB05-22

**Date / Time Sampled:** 08/22/13 11:05

**Workorder** C130811

**EPA Tag No.:** 8-A

**Matrix:** Soil

**Lab Number:** C130811-33 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 8260B	Dichlorodifluoromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloromethane Vinyl	< 1.00	U	mg/kg as rcvd	0.284	1000	08/29/2013	SW	1308098
EPA 8260B	chloride Bromomethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Trichlorofluoromethane	< 1.00	U	mg/kg as rcvd	0.285	1000	08/29/2013	SW	1308098
EPA 8260B	1,1-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Methylene Chloride	< 1.00	U	mg/kg as rcvd	0.483	1000	08/29/2013	SW	1308098
EPA 8260B	trans-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.378	1000	08/29/2013	SW	1308098
EPA 8260B	Methyl-tert-butyl ether	< 1.00	U	mg/kg as rcvd	0.257	1000	08/29/2013	SW	1308098
EPA 8260B	1,1-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	2,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.349	1000	08/29/2013	SW	1308098
EPA 8260B	cis-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloroform	< 1.00	U	mg/kg as rcvd	0.388	1000	08/29/2013	SW	1308098
EPA 8260B	Bromochloromethane	< 1.00	U	mg/kg as rcvd	0.325	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,1-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.372	1000	08/29/2013	SW	1308098
EPA 8260B	Carbon Tetrachloride	< 1.00	U	mg/kg as rcvd	0.306	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Benzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Trichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Dibromomethane	< 1.00	U	mg/kg as rcvd	0.274	1000	08/29/2013	SW	1308098
EPA 8260B	Bromodichloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Toluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,2-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Tetrachloroethylene	< 1.00	U	mg/kg as rcvd	0.289	1000	08/29/2013	SW	1308098
EPA 8260B	1,3-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Dibromochloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dibromoethane	< 1.00	U	mg/kg as rcvd	0.424	1000	08/29/2013	SW	1308098
EPA 8260B		< 1.00	U	mg/kg as rcvd	0.304	1000	08/29/2013	SW	1308098

**Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375**
**Certificate of Analysis**
**TDF #: DG-375**

EPA 8260B	Chlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Ethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,1,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.358	1000	08/29/2013	SW	1308098
EPA 8260B	m,p-Xylene	< 2.00	U	mg/kg as rcvd	0.511	1000	08/29/2013	SW	1308098
EPA 8260B	o-Xylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Styrene	< 1.00	U	mg/kg as rcvd	0.301	1000	08/29/2013	SW	1308098
EPA 8260B	Bromoform	< 1.00	U	mg/kg as rcvd	0.441	1000	08/29/2013	SW	1308098
EPA 8260B	Isopropylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Bromobenzene	< 1.00	U	mg/kg as rcvd	0.335	1000	08/29/2013	SW	1308098
EPA 8260B	n-Propylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,2,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,3-Trichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	2-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	4-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,3,5-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	tert-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,4-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	sec-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	p-Isopropyltoluene	< 1.00	U	mg/kg as rcvd	0.285	1000	08/29/2013	SW	1308098
EPA 8260B	1,3-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.300	1000	08/29/2013	SW	1308098
EPA 8260B	1,4-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.276	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	n-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.258	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dibromo-3-chloropropane	< 1.00	U	mg/kg as rcvd	0.823	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,4-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Hexachlorobutadiene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Naphthalene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,3-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.400	1000	08/29/2013	SW	1308098
	<i>Surrogate: Dibromofluoromethane</i>	<i>98 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Toluene-d8</i>	<i>97 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Bromofluorobenzene</i>	<i>112 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>



## Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

## Certificate of Analysis

TDF #: DG-375

Station ID: CTSB05-22

Date / Time Sampled: 08/22/13 11:05

Workorder C130811

EPA Tag No.: 8-A

Matrix: Soil

Lab Number: C130811-35 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 8260B	Dichlorodifluoromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloromethane Vinyl	< 1.00	U	mg/kg as rcvd	0.284	1000	08/29/2013	SW	1308098
EPA 8260B	chloride Bromomethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Trichlorofluoromethane	< 1.00	U	mg/kg as rcvd	0.285	1000	08/29/2013	SW	1308098
EPA 8260B	1,1-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Methylene Chloride	< 1.00	U	mg/kg as rcvd	0.483	1000	08/29/2013	SW	1308098
EPA 8260B	trans-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.378	1000	08/29/2013	SW	1308098
EPA 8260B	Methyl-tert-butyl ether	< 1.00	U	mg/kg as rcvd	0.257	1000	08/29/2013	SW	1308098
EPA 8260B	1,1-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	2,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.349	1000	08/29/2013	SW	1308098
EPA 8260B	cis-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloroform	< 1.00	U	mg/kg as rcvd	0.388	1000	08/29/2013	SW	1308098
EPA 8260B	Bromochloromethane	< 1.00	U	mg/kg as rcvd	0.325	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,1-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.372	1000	08/29/2013	SW	1308098
EPA 8260B	Carbon Tetrachloride	< 1.00	U	mg/kg as rcvd	0.306	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Benzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Trichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Dibromomethane	< 1.00	U	mg/kg as rcvd	0.274	1000	08/29/2013	SW	1308098
EPA 8260B	Bromodichloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Toluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,2-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Tetrachloroethylene	< 1.00	U	mg/kg as rcvd	0.289	1000	08/29/2013	SW	1308098
EPA 8260B	1,3-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Dibromochloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dibromoethane	< 1.00	U	mg/kg as rcvd	0.424	1000	08/29/2013	SW	1308098
EPA 8260B		< 1.00	U	mg/kg as rcvd	0.304	1000	08/29/2013	SW	1308098

**Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375**

**Certificate of Analysis**

**TDF #: DG-375**

EPA 8260B	Chlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Ethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,1,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.358	1000	08/29/2013	SW	1308098
EPA 8260B	m,p-Xylene	< 2.00	U	mg/kg as rcvd	0.511	1000	08/29/2013	SW	1308098
EPA 8260B	o-Xylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Styrene	< 1.00	U	mg/kg as rcvd	0.301	1000	08/29/2013	SW	1308098
EPA 8260B	Bromoform	< 1.00	U	mg/kg as rcvd	0.441	1000	08/29/2013	SW	1308098
EPA 8260B	Isopropylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Bromobenzene	< 1.00	U	mg/kg as rcvd	0.335	1000	08/29/2013	SW	1308098
EPA 8260B	n-Propylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,2,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,3-Trichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	2-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	4-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,3,5-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	tert-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,4-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	sec-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	p-Isopropyltoluene	< 1.00	U	mg/kg as rcvd	0.285	1000	08/29/2013	SW	1308098
EPA 8260B	1,3-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.300	1000	08/29/2013	SW	1308098
EPA 8260B	1,4-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.276	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	n-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.258	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dibromo-3-chloropropane	< 1.00	U	mg/kg as rcvd	0.823	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,4-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Hexachlorobutadiene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Naphthalene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,3-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.400	1000	08/29/2013	SW	1308098
	<i>Surrogate: Dibromofluoromethane</i>	<i>99 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Toluene-d8</i>	<i>97 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Bromofluorobenzene</i>	<i>113 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>

TDF #: DG-375

Station ID: CTSB05-29

Date / Time Sampled: 08/22/13 11:10

Workorder C130811

EPA Tag No.: 8-A

Matrix: Soil

Lab Number: C130811-37 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 8260B	Dichlorodifluoromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloromethane Vinyl	< 1.00	U	mg/kg as rcvd	0.284	1000	08/29/2013	SW	1308098
EPA 8260B	chloride Bromomethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Trichlorofluoromethane	< 1.00	U	mg/kg as rcvd	0.285	1000	08/29/2013	SW	1308098
EPA 8260B	1,1-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Methylene Chloride	< 1.00	U	mg/kg as rcvd	0.483	1000	08/29/2013	SW	1308098
EPA 8260B	trans-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.378	1000	08/29/2013	SW	1308098
EPA 8260B	Methyl-tert-butyl ether	< 1.00	U	mg/kg as rcvd	0.257	1000	08/29/2013	SW	1308098
EPA 8260B	1,1-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	2,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.349	1000	08/29/2013	SW	1308098
EPA 8260B	cis-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloroform	< 1.00	U	mg/kg as rcvd	0.388	1000	08/29/2013	SW	1308098
EPA 8260B	Bromochloromethane	< 1.00	U	mg/kg as rcvd	0.325	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,1-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.372	1000	08/29/2013	SW	1308098
EPA 8260B	Carbon Tetrachloride	< 1.00	U	mg/kg as rcvd	0.306	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Benzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Trichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Dibromomethane	< 1.00	U	mg/kg as rcvd	0.274	1000	08/29/2013	SW	1308098
EPA 8260B	Bromodichloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Toluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,2-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Tetrachloroethylene	< 1.00	U	mg/kg as rcvd	0.289	1000	08/29/2013	SW	1308098
EPA 8260B	1,3-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Dibromochloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dibromoethane	< 1.00	U	mg/kg as rcvd	0.424	1000	08/29/2013	SW	1308098
EPA 8260B		< 1.00	U	mg/kg as rcvd	0.304	1000	08/29/2013	SW	1308098

**Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375**
**Certificate of Analysis**
**TDF #: DG-375**

EPA 8260B	Chlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Ethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,1,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.358	1000	08/29/2013	SW	1308098
EPA 8260B	m,p-Xylene	< 2.00	U	mg/kg as rcvd	0.511	1000	08/29/2013	SW	1308098
EPA 8260B	o-Xylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Styrene	< 1.00	U	mg/kg as rcvd	0.301	1000	08/29/2013	SW	1308098
EPA 8260B	Bromoform	< 1.00	U	mg/kg as rcvd	0.441	1000	08/29/2013	SW	1308098
EPA 8260B	Isopropylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Bromobenzene	< 1.00	U	mg/kg as rcvd	0.335	1000	08/29/2013	SW	1308098
EPA 8260B	n-Propylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,2,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,3-Trichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	2-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	4-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,3,5-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	tert-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,4-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	sec-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	p-Isopropyltoluene	< 1.00	U	mg/kg as rcvd	0.285	1000	08/29/2013	SW	1308098
EPA 8260B	1,3-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.300	1000	08/29/2013	SW	1308098
EPA 8260B	1,4-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.276	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	n-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.258	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dibromo-3-chloropropane	< 1.00	U	mg/kg as rcvd	0.823	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,4-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Hexachlorobutadiene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Naphthalene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,3-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.400	1000	08/29/2013	SW	1308098
	<i>Surrogate: Dibromofluoromethane</i>	<i>95 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Toluene-d8</i>	<i>97 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Bromofluorobenzene</i>	<i>116 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>

## Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

## Certificate of Analysis

TDF #: DG-375

Station ID: CTSB05-33

Date / Time Sampled: 08/22/13 11:25

Workorder C130811

EPA Tag No.: 8-A

Matrix: Soil

Lab Number: C130811-39 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution		By	Batch
						Factor	Analyzed		
EPA 8260B	Dichlorodifluoromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloromethane Vinyl	< 1.00	U	mg/kg as rcvd	0.284	1000	08/29/2013	SW	1308098
EPA 8260B	chloride Bromomethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Trichlorofluoromethane	< 1.00	U	mg/kg as rcvd	0.285	1000	08/29/2013	SW	1308098
EPA 8260B	1,1-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Methylene Chloride	< 1.00	U	mg/kg as rcvd	0.483	1000	08/29/2013	SW	1308098
EPA 8260B	trans-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.378	1000	08/29/2013	SW	1308098
EPA 8260B	Methyl-tert-butyl ether	< 1.00	U	mg/kg as rcvd	0.257	1000	08/29/2013	SW	1308098
EPA 8260B	1,1-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	2,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.349	1000	08/29/2013	SW	1308098
EPA 8260B	cis-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloroform	< 1.00	U	mg/kg as rcvd	0.388	1000	08/29/2013	SW	1308098
EPA 8260B	Bromochloromethane	< 1.00	U	mg/kg as rcvd	0.325	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,1-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.372	1000	08/29/2013	SW	1308098
EPA 8260B	Carbon Tetrachloride	< 1.00	U	mg/kg as rcvd	0.306	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Benzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Trichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Dibromomethane	< 1.00	U	mg/kg as rcvd	0.274	1000	08/29/2013	SW	1308098
EPA 8260B	Bromodichloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Toluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,2-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Tetrachloroethylene	< 1.00	U	mg/kg as rcvd	0.289	1000	08/29/2013	SW	1308098
EPA 8260B	1,3-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Dibromochloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dibromoethane	< 1.00	U	mg/kg as rcvd	0.424	1000	08/29/2013	SW	1308098
EPA 8260B		< 1.00	U	mg/kg as rcvd	0.304	1000	08/29/2013	SW	1308098

**Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375**
**Certificate of Analysis**
**TDF #: DG-375**

EPA 8260B	Chlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Ethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,1,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.358	1000	08/29/2013	SW	1308098
EPA 8260B	m,p-Xylene	< 2.00	U	mg/kg as rcvd	0.511	1000	08/29/2013	SW	1308098
EPA 8260B	o-Xylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Styrene	< 1.00	U	mg/kg as rcvd	0.301	1000	08/29/2013	SW	1308098
EPA 8260B	Bromoform	< 1.00	U	mg/kg as rcvd	0.441	1000	08/29/2013	SW	1308098
EPA 8260B	Isopropylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Bromobenzene	< 1.00	U	mg/kg as rcvd	0.335	1000	08/29/2013	SW	1308098
EPA 8260B	n-Propylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,2,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,3-Trichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	2-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	4-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,3,5-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	tert-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,4-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	sec-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	p-Isopropyltoluene	< 1.00	U	mg/kg as rcvd	0.285	1000	08/29/2013	SW	1308098
EPA 8260B	1,3-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.300	1000	08/29/2013	SW	1308098
EPA 8260B	1,4-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.276	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	n-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.258	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dibromo-3-chloropropane	< 1.00	U	mg/kg as rcvd	0.823	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,4-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Hexachlorobutadiene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Naphthalene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,3-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.400	1000	08/29/2013	SW	1308098
	<i>Surrogate: Dibromofluoromethane</i>	<i>97 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Toluene-d8</i>	<i>101 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Bromofluorobenzene</i>	<i>114 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>



## Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

## Certificate of Analysis

TDF #: DG-375

Station ID: CTSB05-44

Date / Time Sampled: 08/22/13 12:00

Workorder C130811

EPA Tag No.: 8-A

Matrix: Soil

Lab Number: C130811-41 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 8260B	Dichlorodifluoromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloromethane Vinyl	< 1.00	U	mg/kg as rcvd	0.284	1000	08/29/2013	SW	1308098
EPA 8260B	chloride Bromomethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Trichlorofluoromethane	< 1.00	U	mg/kg as rcvd	0.285	1000	08/29/2013	SW	1308098
EPA 8260B	1,1-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Methylene Chloride	< 1.00	U	mg/kg as rcvd	0.483	1000	08/29/2013	SW	1308098
EPA 8260B	trans-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.378	1000	08/29/2013	SW	1308098
EPA 8260B	Methyl-tert-butyl ether	< 1.00	U	mg/kg as rcvd	0.257	1000	08/29/2013	SW	1308098
EPA 8260B	1,1-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	2,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.349	1000	08/29/2013	SW	1308098
EPA 8260B	cis-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloroform	< 1.00	U	mg/kg as rcvd	0.388	1000	08/29/2013	SW	1308098
EPA 8260B	Bromochloromethane	< 1.00	U	mg/kg as rcvd	0.325	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,1-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.372	1000	08/29/2013	SW	1308098
EPA 8260B	Carbon Tetrachloride	< 1.00	U	mg/kg as rcvd	0.306	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Benzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Trichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Dibromomethane	< 1.00	U	mg/kg as rcvd	0.274	1000	08/29/2013	SW	1308098
EPA 8260B	Bromodichloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Toluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,2-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Tetrachloroethylene	< 1.00	U	mg/kg as rcvd	0.289	1000	08/29/2013	SW	1308098
EPA 8260B	1,3-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Dibromochloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dibromoethane	< 1.00	U	mg/kg as rcvd	0.424	1000	08/29/2013	SW	1308098
EPA 8260B		< 1.00	U	mg/kg as rcvd	0.304	1000	08/29/2013	SW	1308098

**Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375**
**Certificate of Analysis**
**TDF #: DG-375**

EPA 8260B	Chlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Ethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,1,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.358	1000	08/29/2013	SW	1308098
EPA 8260B	m,p-Xylene	< 2.00	U	mg/kg as rcvd	0.511	1000	08/29/2013	SW	1308098
EPA 8260B	o-Xylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Styrene	< 1.00	U	mg/kg as rcvd	0.301	1000	08/29/2013	SW	1308098
EPA 8260B	Bromoform	< 1.00	U	mg/kg as rcvd	0.441	1000	08/29/2013	SW	1308098
EPA 8260B	Isopropylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Bromobenzene	< 1.00	U	mg/kg as rcvd	0.335	1000	08/29/2013	SW	1308098
EPA 8260B	n-Propylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,2,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,3-Trichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	2-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	4-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,3,5-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	tert-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,4-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	sec-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	p-Isopropyltoluene	< 1.00	U	mg/kg as rcvd	0.285	1000	08/29/2013	SW	1308098
EPA 8260B	1,3-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.300	1000	08/29/2013	SW	1308098
EPA 8260B	1,4-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.276	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	n-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.258	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dibromo-3-chloropropane	< 1.00	U	mg/kg as rcvd	0.823	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,4-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Hexachlorobutadiene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Naphthalene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,3-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.400	1000	08/29/2013	SW	1308098
	<i>Surrogate: Dibromofluoromethane</i>	<i>97 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Toluene-d8</i>	<i>101 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Bromofluorobenzene</i>	<i>107 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>

## Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

## Certificate of Analysis

TDF #: DG-375

Station ID: CTSB98-29

Date / Time Sampled: 08/22/13 12:00

Workorder C130811

EPA Tag No.: 8-A

Matrix: Soil

Lab Number: C130811-43 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 8260B	Dichlorodifluoromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloromethane Vinyl	< 1.00	U	mg/kg as rcvd	0.284	1000	08/29/2013	SW	1308098
EPA 8260B	chloride Bromomethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Trichlorofluoromethane	< 1.00	U	mg/kg as rcvd	0.285	1000	08/29/2013	SW	1308098
EPA 8260B	1,1-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Methylene Chloride	< 1.00	U	mg/kg as rcvd	0.483	1000	08/29/2013	SW	1308098
EPA 8260B	trans-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.378	1000	08/29/2013	SW	1308098
EPA 8260B	Methyl-tert-butyl ether	< 1.00	U	mg/kg as rcvd	0.257	1000	08/29/2013	SW	1308098
EPA 8260B	1,1-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	2,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.349	1000	08/29/2013	SW	1308098
EPA 8260B	cis-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloroform	< 1.00	U	mg/kg as rcvd	0.388	1000	08/29/2013	SW	1308098
EPA 8260B	Bromochloromethane	< 1.00	U	mg/kg as rcvd	0.325	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,1-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.372	1000	08/29/2013	SW	1308098
EPA 8260B	Carbon Tetrachloride	< 1.00	U	mg/kg as rcvd	0.306	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Benzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Trichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Dibromomethane	< 1.00	U	mg/kg as rcvd	0.274	1000	08/29/2013	SW	1308098
EPA 8260B	Bromodichloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Toluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,2-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Tetrachloroethylene	< 1.00	U	mg/kg as rcvd	0.289	1000	08/29/2013	SW	1308098
EPA 8260B	1,3-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Dibromochloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dibromoethane	< 1.00	U	mg/kg as rcvd	0.424	1000	08/29/2013	SW	1308098
EPA 8260B		< 1.00	U	mg/kg as rcvd	0.304	1000	08/29/2013	SW	1308098

**Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375**

**Certificate of Analysis**

**TDF #: DG-375**

EPA 8260B	Chlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Ethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,1,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.358	1000	08/29/2013	SW	1308098
EPA 8260B	m,p-Xylene	< 2.00	U	mg/kg as rcvd	0.511	1000	08/29/2013	SW	1308098
EPA 8260B	o-Xylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Styrene	< 1.00	U	mg/kg as rcvd	0.301	1000	08/29/2013	SW	1308098
EPA 8260B	Bromoform	< 1.00	U	mg/kg as rcvd	0.441	1000	08/29/2013	SW	1308098
EPA 8260B	Isopropylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Bromobenzene	< 1.00	U	mg/kg as rcvd	0.335	1000	08/29/2013	SW	1308098
EPA 8260B	n-Propylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,2,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,3-Trichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	2-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	4-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,3,5-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	tert-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,4-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	sec-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	p-Isopropyltoluene	< 1.00	U	mg/kg as rcvd	0.285	1000	08/29/2013	SW	1308098
EPA 8260B	1,3-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.300	1000	08/29/2013	SW	1308098
EPA 8260B	1,4-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.276	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	n-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.258	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dibromo-3-chloropropane	< 1.00	U	mg/kg as rcvd	0.823	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,4-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Hexachlorobutadiene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Naphthalene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,3-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.400	1000	08/29/2013	SW	1308098
	<i>Surrogate: Dibromofluoromethane</i>	<i>98 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Toluene-d8</i>	<i>100 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Bromofluorobenzene</i>	<i>112 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>

## Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

## Certificate of Analysis

TDF #: DG-375

Station ID: CTSB99-29

Date / Time Sampled: 08/22/13 12:00

Workorder C130811

EPA Tag No.: 8-A

Matrix: Soil

Lab Number: C130811-45 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution		By	Batch
						Factor	Analyzed		
EPA 8260B	Dichlorodifluoromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloromethane Vinyl	< 1.00	U	mg/kg as rcvd	0.284	1000	08/29/2013	SW	1308098
EPA 8260B	chloride Bromomethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Trichlorofluoromethane	< 1.00	U	mg/kg as rcvd	0.285	1000	08/29/2013	SW	1308098
EPA 8260B	1,1-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Methylene Chloride	< 1.00	U	mg/kg as rcvd	0.483	1000	08/29/2013	SW	1308098
EPA 8260B	trans-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.378	1000	08/29/2013	SW	1308098
EPA 8260B	Methyl-tert-butyl ether	< 1.00	U	mg/kg as rcvd	0.257	1000	08/29/2013	SW	1308098
EPA 8260B	1,1-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	2,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.349	1000	08/29/2013	SW	1308098
EPA 8260B	cis-1,2-Dichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Chloroform	< 1.00	U	mg/kg as rcvd	0.388	1000	08/29/2013	SW	1308098
EPA 8260B	Bromochloromethane	< 1.00	U	mg/kg as rcvd	0.325	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,1-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.372	1000	08/29/2013	SW	1308098
EPA 8260B	Carbon Tetrachloride	< 1.00	U	mg/kg as rcvd	0.306	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Benzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Trichloroethylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Dibromomethane	< 1.00	U	mg/kg as rcvd	0.274	1000	08/29/2013	SW	1308098
EPA 8260B	Bromodichloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Toluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,2-Trichloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Tetrachloroethylene	< 1.00	U	mg/kg as rcvd	0.289	1000	08/29/2013	SW	1308098
EPA 8260B	1,3-Dichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Dibromochloromethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dibromoethane	< 1.00	U	mg/kg as rcvd	0.424	1000	08/29/2013	SW	1308098
EPA 8260B		< 1.00	U	mg/kg as rcvd	0.304	1000	08/29/2013	SW	1308098

**Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375**

**Certificate of Analysis**

**TDF #: DG-375**

EPA 8260B	Chlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Ethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,1,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.358	1000	08/29/2013	SW	1308098
EPA 8260B	m,p-Xylene	< 2.00	U	mg/kg as rcvd	0.511	1000	08/29/2013	SW	1308098
EPA 8260B	o-Xylene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Styrene	< 1.00	U	mg/kg as rcvd	0.301	1000	08/29/2013	SW	1308098
EPA 8260B	Bromoform	< 1.00	U	mg/kg as rcvd	0.441	1000	08/29/2013	SW	1308098
EPA 8260B	Isopropylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Bromobenzene	< 1.00	U	mg/kg as rcvd	0.335	1000	08/29/2013	SW	1308098
EPA 8260B	n-Propylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,1,2,2-Tetrachloroethane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,3-Trichloropropane	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	2-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	4-Chlorotoluene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,3,5-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	tert-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,4-Trimethylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	sec-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	p-Isopropyltoluene	< 1.00	U	mg/kg as rcvd	0.285	1000	08/29/2013	SW	1308098
EPA 8260B	1,3-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.300	1000	08/29/2013	SW	1308098
EPA 8260B	1,4-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.276	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	n-Butylbenzene	< 1.00	U	mg/kg as rcvd	0.258	1000	08/29/2013	SW	1308098
EPA 8260B	1,2-Dibromo-3-chloropropane	< 1.00	U	mg/kg as rcvd	0.823	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,4-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	Hexachlorobutadiene	< 1.00	U	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	<b>Naphthalene</b>	<b>0.260</b>	<b>J, D</b>	mg/kg as rcvd	0.250	1000	08/29/2013	SW	1308098
EPA 8260B	1,2,3-Trichlorobenzene	< 1.00	U	mg/kg as rcvd	0.400	1000	08/29/2013	SW	1308098
	<i>Surrogate: Dibromofluoromethane</i>	<i>98 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Toluene-d8</i>	<i>100 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>
	<i>Surrogate: Bromofluorobenzene</i>	<i>112 %</i>		<i>Limit 75-125</i>		<i>1</i>	<i>08/29/2013</i>	<i>SW</i>	<i>1308098</i>



Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

Certificate of Analysis

TDF #: DG-375

## Pentachlorophenol by GCMS method 8270D

Station ID: CTSB01-19 Date / Time Sampled: 08/21/13 15:05  
EPA Tag No.: 8-B Matrix: Soil

Workorder C130811  
Lab Number: C130811-02 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 8270D	Pentachlorophenol	< 2.00	U	mg/kg	1.00	1	09/16/2013	NP	1309003
EPA 8270D	Diesel Range Organics as Diesel	< 50.0		mg/kg	25.0	1	09/16/2013	NP	1309003
	Surrogate: 2,4,6-Tribromophenol	79 %	Limit 50-150			1	09/16/2013	NP	1309003

Station ID: CTSB01-28 Date / Time Sampled: 08/21/13 15:15  
EPA Tag No.: 8-B Matrix: Soil

Workorder C130811  
Lab Number: C130811-04 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 8270D	Pentachlorophenol	< 2.00	U	mg/kg	1.00	1	09/16/2013	NP	1309003
EPA 8270D	Diesel Range Organics as Diesel	29.8		mg/kg	25.0	1	09/16/2013	NP	1309003
	Surrogate: 2,4,6-Tribromophenol	76 %	Limit 50-150			1	09/16/2013	NP	1309003

Station ID: CTSB01-29 Date / Time Sampled: 08/21/13 15:25  
EPA Tag No.: 8-B Matrix: Soil

Workorder C130811  
Lab Number: C130811-06 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 8270D	Pentachlorophenol	< 2.00	U	mg/kg	1.00	1	09/16/2013	NP	1309003
EPA 8270D	Diesel Range Organics as Diesel	< 50.0		mg/kg	25.0	1	09/16/2013	NP	1309003
	Surrogate: 2,4,6-Tribromophenol	79 %	Limit 50-150			1	09/16/2013	NP	1309003

Station ID: CTSB02-10 Date / Time Sampled: 08/21/13 16:45  
EPA Tag No.: 8-B Matrix: Soil

Workorder C130811  
Lab Number: C130811-08 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 8270D	Pentachlorophenol	247	D	mg/kg	10.0	10	09/16/2013	NP	1309003
EPA 8270D	Diesel Range Organics as Diesel	3580		mg/kg	250	10	09/16/2013	NP	1309003
	Surrogate: 2,4,6-Tribromophenol	138 %	Limit 50-150			10	09/16/2013	NP	1309003

Station ID: CTSB02-16 Date / Time Sampled: 08/21/13 16:50  
EPA Tag No.: 8-B Matrix: Soil

Workorder C130811  
Lab Number: C130811-10 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 8270D	Pentachlorophenol	232	D	mg/kg	10.0	10	09/16/2013	NP	1309003

**Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375**

**Certificate of Analysis**

**TDF #: DG-375**

EPA 8270D	Diesel Range Organics as Diesel	3410	mg/kg	250	10	09/16/2013	NP	1309003
	Surrogate: 2,4,6-Tribromophenol	120 %	Limit 50-150		10	09/16/2013	NP	1309003

**Station ID:** CTSB02-20 **Date / Time Sampled:** 08/21/13 16:55 **Workorder** C130811  
**EPA Tag No.:** 8-B **Matrix:** Soil **Lab Number:** C130811-12 A

Method	Parameter	Results	Qual-ifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 8270D	Pentachlorophenol	69.6		mg/kg	1.00	1	09/16/2013	NP	1309003
EPA 8270D	Diesel Range Organics as Diesel	1880		mg/kg	25.0	1	09/16/2013	NP	1309003
	Surrogate: 2,4,6-Tribromophenol	105 %	Limit 50-150			1	09/16/2013	NP	1309003

**Station ID:** CTSB02-28 **Date / Time Sampled:** 08/21/13 17:00 **Workorder** C130811  
**EPA Tag No.:** 8-B **Matrix:** Soil **Lab Number:** C130811-14 A

Method	Parameter	Results	Qual-ifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 8270D	Pentachlorophenol	7.36		mg/kg	1.00	1	09/16/2013	NP	1309003
EPA 8270D	Diesel Range Organics as Diesel	409		mg/kg	25.0	1	09/16/2013	NP	1309003
	Surrogate: 2,4,6-Tribromophenol	77 %	Limit 50-150			1	09/16/2013	NP	1309003

**Station ID:** CTSB03-08 **Date / Time Sampled:** 08/22/13 08:30 **Workorder** C130811  
**EPA Tag No.:** 8-B **Matrix:** Soil **Lab Number:** C130811-16 A

Method	Parameter	Results	Qual-ifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 8270D	Pentachlorophenol	589	D	mg/kg	10.0	10	09/16/2013	NP	1309003
EPA 8270D	Diesel Range Organics as Diesel	9190		mg/kg	250	10	09/16/2013	NP	1309003
	Surrogate: 2,4,6-Tribromophenol	138 %	Limit 50-150			10	09/16/2013	NP	1309003

**Station ID:** CTSB03-17 **Date / Time Sampled:** 08/22/13 08:40 **Workorder** C130811  
**EPA Tag No.:** 8-B **Matrix:** Soil **Lab Number:** C130811-18 A

Method	Parameter	Results	Qual-ifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 8270D	Pentachlorophenol	208	D	mg/kg	10.0	10	09/16/2013	NP	1309003
EPA 8270D	Diesel Range Organics as Diesel	3670		mg/kg	250	10	09/16/2013	NP	1309003
	Surrogate: 2,4,6-Tribromophenol	155 %	Limit 50-150			10	09/16/2013	NP	1309003

**Station ID:** CTSB03-24 **Date / Time Sampled:** 08/22/13 08:50 **Workorder** C130811  
**EPA Tag No.:** 8-B **Matrix:** Soil **Lab Number:** C130811-20 A

Method	Parameter	Results	Qual-ifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
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**Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375****Certificate of Analysis****TDF #: DG-375**

EPA 8270D	Pentachlorophenol	36.7	mg/kg	1.00	1	09/16/2013	NP	1309003
EPA 8270D	Diesel Range Organics as Diesel	761	mg/kg	25.0	1	09/16/2013	NP	1309003
Surrogate: 2,4,6-Tribromophenol		129 %	Limit 50-150		1	09/16/2013	NP	1309003

<b>Station ID:</b> CTSB03-28	<b>Date / Time Sampled:</b> 08/22/13 09:00	<b>Workorder</b> C130811
<b>EPA Tag No.:</b> 8-B	<b>Matrix:</b> Soil	<b>Lab Number:</b> C130811-22 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 8270D	Pentachlorophenol	20.1		mg/kg	1.00	1	09/16/2013	NP	1309003
EPA 8270D	Diesel Range Organics as Diesel	< 50.0		mg/kg	25.0	1	09/16/2013	NP	1309003
Surrogate: 2,4,6-Tribromophenol		122 %	Limit 50-150			1	09/16/2013	NP	1309003

<b>Station ID:</b> CTSB04-19	<b>Date / Time Sampled:</b> 08/22/13 13:45	<b>Workorder</b> C130811
<b>EPA Tag No.:</b> 8-B	<b>Matrix:</b> Soil	<b>Lab Number:</b> C130811-24 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 8270D	Pentachlorophenol	< 2.00	U	mg/kg	1.00	1	09/16/2013	NP	1309003
EPA 8270D	Diesel Range Organics as Diesel	< 50.0		mg/kg	25.0	1	09/16/2013	NP	1309003
Surrogate: 2,4,6-Tribromophenol		112 %	Limit 50-150			1	09/16/2013	NP	1309003

<b>Station ID:</b> CTSB04-29	<b>Date / Time Sampled:</b> 08/22/13 13:55	<b>Workorder</b> C130811
<b>EPA Tag No.:</b> 8-B	<b>Matrix:</b> Soil	<b>Lab Number:</b> C130811-26 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 8270D	Pentachlorophenol	4.11		mg/kg	1.00	1	09/16/2013	NP	1309003
EPA 8270D	Diesel Range Organics as Diesel	159		mg/kg	25.0	1	09/16/2013	NP	1309003
Surrogate: 2,4,6-Tribromophenol		127 %	Limit 50-150			1	09/16/2013	NP	1309003

<b>Station ID:</b> CTSB04-38	<b>Date / Time Sampled:</b> 08/22/13 14:10	<b>Workorder</b> C130811
<b>EPA Tag No.:</b> 8-B	<b>Matrix:</b> Soil	<b>Lab Number:</b> C130811-28 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 8270D	Pentachlorophenol	7.08		mg/kg	1.00	1	09/16/2013	NP	1309003
EPA 8270D	Diesel Range Organics as Diesel	408		mg/kg	25.0	1	09/16/2013	NP	1309003
Surrogate: 2,4,6-Tribromophenol		117 %	Limit 50-150			1	09/16/2013	NP	1309003

## Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

## Certificate of Analysis

TDF #: DG-375

Station ID: CTSB04-49

Date / Time Sampled: 08/22/13 14:50

Workorder C130811

EPA Tag No.: 8-B

Matrix: Soil

Lab Number: C130811-30 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 8270D	Pentachlorophenol	< 2.00	U	mg/kg	1.00	1	09/16/2013	NP	1309003
EPA 8270D	Diesel Range Organics as Diesel	< 50.0		mg/kg	25.0	1	09/16/2013	NP	1309003
	<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>121 %</i>	<i>Limit 50-150</i>			<i>1</i>	<i>09/16/2013</i>	<i>NP</i>	<i>1309003</i>

Station ID: CTSB05-22

Date / Time Sampled: 08/22/13 11:05

Workorder C130811

EPA Tag No.: 8-B

Matrix: Soil

Lab Number: C130811-32 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 8270D	Pentachlorophenol	< 2.00	U	mg/kg	1.00	1	09/16/2013	NP	1309003
EPA 8270D	Diesel Range Organics as Diesel	< 50.0		mg/kg	25.0	1	09/16/2013	NP	1309003
	<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>112 %</i>	<i>Limit 50-150</i>			<i>1</i>	<i>09/16/2013</i>	<i>NP</i>	<i>1309003</i>

Station ID: CTSB05-22

Date / Time Sampled: 08/22/13 11:05

Workorder C130811

EPA Tag No.: 8-B

Matrix: Soil

Lab Number: C130811-34 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 8270D	Pentachlorophenol	2.08		mg/kg	1.00	1	09/16/2013	NP	1309003
EPA 8270D	Diesel Range Organics as Diesel	104		mg/kg	25.0	1	09/16/2013	NP	1309003
	<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>112 %</i>	<i>Limit 50-150</i>			<i>1</i>	<i>09/16/2013</i>	<i>NP</i>	<i>1309003</i>

Station ID: CTSB05-22

Date / Time Sampled: 08/22/13 11:05

Workorder C130811

EPA Tag No.: 8-B

Matrix: Soil

Lab Number: C130811-36 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 8270D	Pentachlorophenol	< 2.00	U	mg/kg	1.00	1	09/16/2013	NP	1309003
EPA 8270D	Diesel Range Organics as Diesel	< 50.0		mg/kg	25.0	1	09/16/2013	NP	1309003
	<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>112 %</i>	<i>Limit 50-150</i>			<i>1</i>	<i>09/16/2013</i>	<i>NP</i>	<i>1309003</i>

Station ID: CTSB05-29

Date / Time Sampled: 08/22/13 11:10

Workorder C130811

EPA Tag No.: 8-B

Matrix: Soil

Lab Number: C130811-38 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 8270D	Pentachlorophenol	< 2.00	U	mg/kg	1.00	1	09/16/2013	NP	1309003
EPA 8270D	Diesel Range Organics as Diesel	304		mg/kg	25.0	1	09/16/2013	NP	1309003
	<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>128 %</i>	<i>Limit 50-150</i>			<i>1</i>	<i>09/16/2013</i>	<i>NP</i>	<i>1309003</i>

TDF #: DG-375

Station ID: CTSB05-33

Date / Time Sampled: 08/22/13 11:25

Workorder C130811

EPA Tag No.: 8-B

Matrix: Soil

Lab Number: C130811-40 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 8270D	Pentachlorophenol	19.5		mg/kg	1.00	1	09/16/2013	NP	1309003
EPA 8270D	Diesel Range Organics as Diesel	< 50.0		mg/kg	25.0	1	09/16/2013	NP	1309003
	Surrogate: 2,4,6-Tribromophenol	143 %	Limit 50-150			1	09/16/2013	NP	1309003

Station ID: CTSB05-44

Date / Time Sampled: 08/22/13 12:00

Workorder C130811

EPA Tag No.: 8-B

Matrix: Soil

Lab Number: C130811-42 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 8270D	Pentachlorophenol	< 2.00	U	mg/kg	1.00	1	09/16/2013	NP	1309003
EPA 8270D	Diesel Range Organics as Diesel	< 50.0		mg/kg	25.0	1	09/16/2013	NP	1309003
	Surrogate: 2,4,6-Tribromophenol	117 %	Limit 50-150			1	09/16/2013	NP	1309003

Station ID: CTSB98-29

Date / Time Sampled: 08/22/13 12:00

Workorder C130811

EPA Tag No.: 8-B

Matrix: Soil

Lab Number: C130811-44 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 8270D	Pentachlorophenol	< 2.00	U	mg/kg	1.00	1	09/16/2013	NP	1309003
EPA 8270D	Diesel Range Organics as Diesel	< 50.0		mg/kg	25.0	1	09/16/2013	NP	1309003
	Surrogate: 2,4,6-Tribromophenol	120 %	Limit 50-150			1	09/16/2013	NP	1309003

Station ID: CTSB99-29

Date / Time Sampled: 08/22/13 12:00

Workorder C130811

EPA Tag No.: 8-B

Matrix: Soil

Lab Number: C130811-46 A

Method	Parameter	Results	Qual- ifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 8270D	Pentachlorophenol	4.95		mg/kg	1.00	1	09/16/2013	NP	1309003
EPA 8270D	Diesel Range Organics as Diesel	121		mg/kg	25.0	1	09/16/2013	NP	1309003
	Surrogate: 2,4,6-Tribromophenol	115 %	Limit 50-150			1	09/16/2013	NP	1309003

Note: "J" Qualifier indicates an estimated value. "U" Qualifier indicates analyte not detected at or above MDL.  
 "D" Qualifier indicates diluted value.

Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

Certificate of Analysis

TDF #: DG-375

Volatile Organic Compounds by GCMS method EPA 8260B - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
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## Agilent VOA GCMS

Batch 1308098 - EPA 5030B

Soil

Agilent VOA GCMS

## Method Blank (1308098-BLK1)

Prepared &amp; Analyzed: 08/28/13

Dichlorodifluoromethane	< 0.370	1.00	mg/kg as rcvd
Chloromethane	< 0.271	1.00	mg/kg as rcvd
Vinyl chloride	< 0.250	1.00	mg/kg as rcvd
Bromomethane	< 0.406	1.00	mg/kg as rcvd
Chloroethane	< 0.891	1.00	mg/kg as rcvd
Trichlorofluoromethane	< 0.369	1.00	mg/kg as rcvd
1,1-Dichloroethylene	< 0.503	1.00	mg/kg as rcvd
Methylene Chloride	< 0.338	1.00	mg/kg as rcvd
trans-1,2-Dichloroethylene	< 0.284	1.00	mg/kg as rcvd
Methyl-tert-butyl ether	< 0.250	1.00	mg/kg as rcvd
1,1-Dichloroethane	< 0.250	1.00	mg/kg as rcvd
2,2-Dichloropropane	< 0.334	1.00	mg/kg as rcvd
cis-1,2-Dichloroethylene	< 0.375	1.00	mg/kg as rcvd
Chloroform	< 0.250	1.00	mg/kg as rcvd
Bromochloromethane	< 0.254	1.00	mg/kg as rcvd
1,1,1-Trichloroethane	< 0.413	1.00	mg/kg as rcvd
Carbon Tetrachloride	< 0.262	1.00	mg/kg as rcvd
1,2-Dichloroethane	< 0.250	1.00	mg/kg as rcvd
Benzene	< 0.338	1.00	mg/kg as rcvd
Trichloroethylene	< 0.331	1.00	mg/kg as rcvd
1,2-Dichloropropane	< 0.344	1.00	mg/kg as rcvd
Dibromomethane	< 0.259	1.00	mg/kg as rcvd
Bromodichloromethane	< 0.250	1.00	mg/kg as rcvd
Toluene	< 0.215	1.00	mg/kg as rcvd



Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

Certificate of Analysis

TDF #: DG-375

Volatile Organic Compounds by GCMS method EPA 8260B - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1308098 - EPA 5030B			Soil	Agilent VOA GCMS					
Method Blank (1308098-BLK1)						Prepared & Analyzed: 08/28/13			
1,1,2-Trichloroethane	< 0.435	1.00	mg/kg as rcvd						
Tetrachloroethylene	< 0.417	1.00	mg/kg as rcvd						
1,3-Dichloropropane	< 0.250	1.00	mg/kg as rcvd						
Dibromochloromethane	< 0.301	1.00	mg/kg as rcvd						
1,2-Dibromoethane	< 0.378	1.00	mg/kg as rcvd						
Chlorobenzene	< 0.287	1.00	mg/kg as rcvd						
Ethylbenzene	< 0.250	1.00	mg/kg as rcvd						
1,1,1,2-Tetrachloroethane	< 0.250	1.00	mg/kg as rcvd						
m,p-Xylene	< 0.500	2.00	mg/kg as rcvd						
o-Xylene	< 0.250	1.00	mg/kg as rcvd						
Styrene	< 0.250	1.00	mg/kg as rcvd						
Bromoform	< 0.435	1.00	mg/kg as rcvd						
Isopropylbenzene	< 0.250	1.00	mg/kg as rcvd						
Bromobenzene	< 0.256	1.00	mg/kg as rcvd						
n-Propylbenzene	< 0.250	1.00	mg/kg as rcvd						
1,1,2,2-Tetrachloroethane	< 0.374	1.00	mg/kg as rcvd						
1,2,3-Trichloropropane	< 0.486	1.00	mg/kg as rcvd						
2-Chlorotoluene	< 0.250	1.00	mg/kg as rcvd						
4-Chlorotoluene	< 0.250	1.00	mg/kg as rcvd						
1,3,5-Trimethylbenzene	< 0.271	1.00	mg/kg as rcvd						
tert-Butylbenzene	< 0.250	1.00	mg/kg as rcvd						
1,2,4-Trimethylbenzene	< 0.250	1.00	mg/kg as rcvd						
sec-Butylbenzene	< 0.290	1.00	mg/kg as rcvd						
p-Isopropyltoluene	< 0.250	1.00	mg/kg as rcvd						
1,3-Dichlorobenzene	< 0.290	1.00	mg/kg as rcvd						

Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

Certificate of Analysis

TDF #: DG-375

Volatile Organic Compounds by GCMS method EPA 8260B - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1308098 - EPA 5030B			Soil	Agilent VOA GCMS					
Method Blank (1308098-BLK1)						Prepared & Analyzed: 08/28/13			
1,4-Dichlorobenzene	< 0.250	1.00	mg/kg as rcvd						
1,2-Dichlorobenzene	< 0.330	1.00	mg/kg as rcvd						
n-Butylbenzene	< 0.302	1.00	mg/kg as rcvd						
1,2-Dibromo-3-chloropropane	< 0.692	1.00	mg/kg as rcvd						
1,2,4-Trichlorobenzene	< 0.256	1.00	mg/kg as rcvd						
Hexachlorobutadiene	< 0.250	1.00	mg/kg as rcvd						
Naphthalene	< 0.384	1.00	mg/kg as rcvd						
1,2,3-Trichlorobenzene	< 0.324	1.00	mg/kg as rcvd						
Method Blank (1308098-BLK2)						Prepared & Analyzed: 08/28/13			
Dichlorodifluoromethane	< 0.370	1.00	mg/kg as rcvd						
Chloromethane	< 0.271	1.00	mg/kg as rcvd						
Vinyl chloride	< 0.250	1.00	mg/kg as rcvd						
Bromomethane	< 0.406	1.00	mg/kg as rcvd						
Chloroethane	< 0.891	1.00	mg/kg as rcvd						
Trichlorofluoromethane	< 0.369	1.00	mg/kg as rcvd						
1,1-Dichloroethylene	< 0.503	1.00	mg/kg as rcvd						
Methylene Chloride	< 0.338	1.00	mg/kg as rcvd						
trans-1,2-Dichloroethylene	< 0.284	1.00	mg/kg as rcvd						
Methyl-tert-butyl ether	< 0.250	1.00	mg/kg as rcvd						
1,1-Dichloroethane	< 0.250	1.00	mg/kg as rcvd						
2,2-Dichloropropane	< 0.334	1.00	mg/kg as rcvd						
cis-1,2-Dichloroethylene	< 0.375	1.00	mg/kg as rcvd						
Chloroform	< 0.250	1.00	mg/kg as rcvd						
Bromochloromethane	< 0.254	1.00	mg/kg as rcvd						

Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

Certificate of Analysis

TDF #: DG-375

Volatile Organic Compounds by GCMS method EPA 8260B - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1308098 - EPA 5030B			Soil	Agilent VOA GCMS					
Method Blank (1308098-BLK2)						Prepared & Analyzed: 08/28/13			
1,1,1-Trichloroethane	< 0.413	1.00	mg/kg as rcvd						
Carbon Tetrachloride	< 0.262	1.00	mg/kg as rcvd						
1,2-Dichloroethane	< 0.250	1.00	mg/kg as rcvd						
Benzene	< 0.338	1.00	mg/kg as rcvd						
Trichloroethylene	< 0.331	1.00	mg/kg as rcvd						
1,2-Dichloropropane	< 0.344	1.00	mg/kg as rcvd						
Dibromomethane	< 0.259	1.00	mg/kg as rcvd						
Bromodichloromethane	< 0.250	1.00	mg/kg as rcvd						
Toluene	< 0.215	1.00	mg/kg as rcvd						
1,1,2-Trichloroethane	< 0.435	1.00	mg/kg as rcvd						
Tetrachloroethylene	< 0.417	1.00	mg/kg as rcvd						
1,3-Dichloropropane	< 0.250	1.00	mg/kg as rcvd						
Dibromochloromethane	< 0.301	1.00	mg/kg as rcvd						
1,2-Dibromoethane	< 0.378	1.00	mg/kg as rcvd						
Chlorobenzene	< 0.287	1.00	mg/kg as rcvd						
Ethylbenzene	< 0.250	1.00	mg/kg as rcvd						
1,1,1,2-Tetrachloroethane	< 0.250	1.00	mg/kg as rcvd						
m,p-Xylene	< 0.500	2.00	mg/kg as rcvd						
o-Xylene	< 0.250	1.00	mg/kg as rcvd						
Styrene	< 0.250	1.00	mg/kg as rcvd						
Bromoform	< 0.435	1.00	mg/kg as rcvd						
Isopropylbenzene	< 0.250	1.00	mg/kg as rcvd						
Bromobenzene	< 0.256	1.00	mg/kg as rcvd						
n-Propylbenzene	< 0.250	1.00	mg/kg as rcvd						
1,1,2,2-Tetrachloroethane	< 0.374	1.00	mg/kg as rcvd						

Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

Certificate of Analysis

TDF #: DG-375

Volatile Organic Compounds by GCMS method EPA 8260B - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1308098 - EPA 5030B			Soil	Agilent VOA GCMS					
Method Blank (1308098-BLK2)						Prepared & Analyzed: 08/28/13			
1,2,3-Trichloropropane	< 0.486	1.00	mg/kg as rcvd						
2-Chlorotoluene	< 0.250	1.00	mg/kg as rcvd						
4-Chlorotoluene	< 0.250	1.00	mg/kg as rcvd						
1,3,5-Trimethylbenzene	< 0.271	1.00	mg/kg as rcvd						
tert-Butylbenzene	< 0.250	1.00	mg/kg as rcvd						
1,2,4-Trimethylbenzene	< 0.250	1.00	mg/kg as rcvd						
sec-Butylbenzene	< 0.290	1.00	mg/kg as rcvd						
p-Isopropyltoluene	< 0.250	1.00	mg/kg as rcvd						
1,3-Dichlorobenzene	< 0.290	1.00	mg/kg as rcvd						
1,4-Dichlorobenzene	< 0.250	1.00	mg/kg as rcvd						
1,2-Dichlorobenzene	< 0.330	1.00	mg/kg as rcvd						
n-Butylbenzene	< 0.302	1.00	mg/kg as rcvd						
1,2-Dibromo-3-chloropropane	< 0.692	1.00	mg/kg as rcvd						
1,2,4-Trichlorobenzene	< 0.256	1.00	mg/kg as rcvd						
Hexachlorobutadiene	< 0.250	1.00	mg/kg as rcvd						
Naphthalene	< 0.384	1.00	mg/kg as rcvd						
1,2,3-Trichlorobenzene	< 0.324	1.00	mg/kg as rcvd						
Method Blank Spike (1308098-BS1)						Prepared & Analyzed: 08/28/13			
Dichlorodifluoromethane	14.3	1.00	mg/kg as rcvd	20.0		71	70-130		
Chloromethane	16.3	1.00	mg/kg as rcvd	20.0		81	70-130		
Vinyl chloride	16.8	1.00	mg/kg as rcvd	20.0		84	70-130		
Bromomethane	15.5	1.00	mg/kg as rcvd	20.0		78	70-130		
Chloroethane	18.9	1.00	mg/kg as rcvd	20.0		94	70-130		
Trichlorofluoromethane	18.4	1.00	mg/kg as rcvd	20.0		92	70-130		

Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

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TDF #: DG-375

Volatile Organic Compounds by GCMS method EPA 8260B - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1308098 - EPA 5030B			Soil						
Method Blank Spike (1308098-BS1)						Prepared & Analyzed: 08/28/13			
1,1-Dichloroethylene	18.8	1.00	mg/kg as rcvd	20.0		94	70-130		
Methylene Chloride	20.2	1.00	mg/kg as rcvd	20.0		101	70-130		
trans-1,2-Dichloroethylene	19.7	1.00	mg/kg as rcvd	20.0		99	70-130		
Methyl-tert-butyl ether	< 0.250	1.00	mg/kg as rcvd				70-130		
1,1-Dichloroethane	19.7	1.00	mg/kg as rcvd	20.0		98	70-130		
2,2-Dichloropropane	20.0	1.00	mg/kg as rcvd	20.0		100	70-130		
cis-1,2-Dichloroethylene	19.2	1.00	mg/kg as rcvd	20.0		96	70-130		
Chloroform	19.7	1.00	mg/kg as rcvd	20.0		98	70-130		
Bromochloromethane	20.1	1.00	mg/kg as rcvd	20.0		101	70-130		
1,1,1-Trichloroethane	20.2	1.00	mg/kg as rcvd	20.0		101	70-130		
Carbon Tetrachloride	19.7	1.00	mg/kg as rcvd	20.0		99	70-130		
1,2-Dichloroethane	19.3	1.00	mg/kg as rcvd	20.0		96	70-130		
Benzene	19.4	1.00	mg/kg as rcvd	20.0		97	70-130		
Trichloroethylene	19.1	1.00	mg/kg as rcvd	20.0		95	70-130		
1,2-Dichloropropane	18.9	1.00	mg/kg as rcvd	20.0		94	70-130		
Dibromomethane	19.4	1.00	mg/kg as rcvd	20.0		97	70-130		
Bromodichloromethane	19.5	1.00	mg/kg as rcvd	20.0		98	70-130		
Toluene	19.9	1.00	mg/kg as rcvd	20.0		100	70-130		
1,1,2-Trichloroethane	19.2	1.00	mg/kg as rcvd	20.0		96	70-130		
Tetrachloroethylene	19.1	1.00	mg/kg as rcvd	20.0		96	70-130		
1,3-Dichloropropane	19.7	1.00	mg/kg as rcvd	20.0		99	70-130		
Dibromochloromethane	19.8	1.00	mg/kg as rcvd	20.0		99	70-130		
1,2-Dibromoethane	19.5	1.00	mg/kg as rcvd	20.0		97	70-130		
Chlorobenzene	19.8	1.00	mg/kg as rcvd	20.0		99	70-130		
Ethylbenzene	20.2	1.00	mg/kg as rcvd	20.0		101	70-130		

Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

Certificate of Analysis

TDF #: DG-375

Volatile Organic Compounds by GCMS method EPA 8260B - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1308098 - EPA 5030B			Soil	Agilent VOA GCMS					
Method Blank Spike (1308098-BS1)						Prepared & Analyzed: 08/28/13			
1,1,1,2-Tetrachloroethane	19.9	1.00	mg/kg as rcvd	20.0		100	70-130		
m,p-Xylene	41.3	2.00	mg/kg as rcvd	40.0		103	70-130		
o-Xylene	19.7	1.00	mg/kg as rcvd	20.0		98	70-130		
Styrene	19.3	1.00	mg/kg as rcvd	20.0		97	70-130		
Bromoform	19.5	1.00	mg/kg as rcvd	20.0		97	70-130		
Isopropylbenzene	20.5	1.00	mg/kg as rcvd	20.0		103	70-130		
Bromobenzene	19.2	1.00	mg/kg as rcvd	20.0		96	70-130		
n-Propylbenzene	20.5	1.00	mg/kg as rcvd	20.0		102	70-130		
1,1,2,2-Tetrachloroethane	19.1	1.00	mg/kg as rcvd	20.0		95	70-130		
1,2,3-Trichloropropane	19.3	1.00	mg/kg as rcvd	20.0		97	70-130		
2-Chlorotoluene	19.5	1.00	mg/kg as rcvd	20.0		97	70-130		
4-Chlorotoluene	19.7	1.00	mg/kg as rcvd	20.0		99	70-130		
1,3,5-Trimethylbenzene	20.0	1.00	mg/kg as rcvd	20.0		100	70-130		
tert-Butylbenzene	20.1	1.00	mg/kg as rcvd	20.0		101	70-130		
1,2,4-Trimethylbenzene	20.1	1.00	mg/kg as rcvd	20.0		101	70-130		
sec-Butylbenzene	20.7	1.00	mg/kg as rcvd	20.0		104	70-130		
p-Isopropyltoluene	20.8	1.00	mg/kg as rcvd	20.0		104	70-130		
1,3-Dichlorobenzene	19.3	1.00	mg/kg as rcvd	20.0		96	70-130		
1,4-Dichlorobenzene	19.1	1.00	mg/kg as rcvd	20.0		95	70-130		
1,2-Dichlorobenzene	19.3	1.00	mg/kg as rcvd	20.0		96	70-130		
n-Butylbenzene	21.2	1.00	mg/kg as rcvd	20.0		106	70-130		
1,2-Dibromo-3-chloropropane	18.5	1.00	mg/kg as rcvd	20.0		93	70-130		
1,2,4-Trichlorobenzene	18.4	1.00	mg/kg as rcvd	20.0		92	70-130		
Hexachlorobutadiene	19.0	1.00	mg/kg as rcvd	20.0		95	70-130		
Naphthalene	16.8	1.00	mg/kg as rcvd	20.0		84	70-130		

Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

Certificate of Analysis

TDF #: DG-375

Volatile Organic Compounds by GCMS method EPA 8260B - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1308098 - EPA 5030B			Soil	Agilent VOA GCMS					
Method Blank Spike (1308098-BS1)						Prepared & Analyzed: 08/28/13			
1,2,3-Trichlorobenzene	18.3	1.00	mg/kg as rcvd	20.0		91	70-130		
Method Blank Spike (1308098-BS2)						Prepared & Analyzed: 08/29/13			
Dichlorodifluoromethane	13.1	1.00	mg/kg as rcvd	20.0		66	70-130		
Chloromethane	13.9	1.00	mg/kg as rcvd	20.0		69	70-130		
Vinyl chloride	15.5	1.00	mg/kg as rcvd	20.0		77	70-130		
Bromomethane	12.6	1.00	mg/kg as rcvd	20.0		63	70-130		
Chloroethane	16.8	1.00	mg/kg as rcvd	20.0		84	70-130		
Trichlorofluoromethane	17.1	1.00	mg/kg as rcvd	20.0		85	70-130		
1,1-Dichloroethylene	17.6	1.00	mg/kg as rcvd	20.0		88	70-130		
Methylene Chloride	16.7	1.00	mg/kg as rcvd	20.0		83	70-130		
trans-1,2-Dichloroethylene	17.6	1.00	mg/kg as rcvd	20.0		88	70-130		
Methyl-tert-butyl ether	< 0.250	1.00	mg/kg as rcvd				70-130		
1,1-Dichloroethane	17.6	1.00	mg/kg as rcvd	20.0		88	70-130		
2,2-Dichloropropane	16.8	1.00	mg/kg as rcvd	20.0		84	70-130		
cis-1,2-Dichloroethylene	18.6	1.00	mg/kg as rcvd	20.0		93	70-130		
Chloroform	18.7	1.00	mg/kg as rcvd	20.0		94	70-130		
Bromochloromethane	18.5	1.00	mg/kg as rcvd	20.0		93	70-130		
1,1,1-Trichloroethane	19.6	1.00	mg/kg as rcvd	20.0		98	70-130		
Carbon Tetrachloride	18.8	1.00	mg/kg as rcvd	20.0		94	70-130		
1,2-Dichloroethane	18.9	1.00	mg/kg as rcvd	20.0		94	70-130		
Benzene	18.5	1.00	mg/kg as rcvd	20.0		92	70-130		
Trichloroethylene	18.2	1.00	mg/kg as rcvd	20.0		91	70-130		
1,2-Dichloropropane	17.7	1.00	mg/kg as rcvd	20.0		89	70-130		
Dibromomethane	18.0	1.00	mg/kg as rcvd	20.0		90	70-130		



Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

Certificate of Analysis

TDF #: DG-375

Volatile Organic Compounds by GCMS method EPA 8260B - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1308098 - EPA 5030B			Soil	Agilent VOA GCMS					
Method Blank Spike (1308098-BS2)						Prepared & Analyzed: 08/29/13			
Bromodichloromethane	18.2	1.00	mg/kg as rcvd	20.0		91	70-130		
Toluene	18.6	1.00	mg/kg as rcvd	20.0		93	70-130		
1,1,2-Trichloroethane	17.8	1.00	mg/kg as rcvd	20.0		89	70-130		
Tetrachloroethylene	17.6	1.00	mg/kg as rcvd	20.0		88	70-130		
1,3-Dichloropropane	19.5	1.00	mg/kg as rcvd	20.0		98	70-130		
Dibromochloromethane	18.6	1.00	mg/kg as rcvd	20.0		93	70-130		
1,2-Dibromoethane	19.2	1.00	mg/kg as rcvd	20.0		96	70-130		
Chlorobenzene	18.7	1.00	mg/kg as rcvd	20.0		93	70-130		
Ethylbenzene	19.7	1.00	mg/kg as rcvd	20.0		98	70-130		
1,1,1,2-Tetrachloroethane	18.5	1.00	mg/kg as rcvd	20.0		92	70-130		
m,p-Xylene	40.0	2.00	mg/kg as rcvd	40.0		100	70-130		
o-Xylene	18.9	1.00	mg/kg as rcvd	20.0		94	70-130		
Styrene	18.4	1.00	mg/kg as rcvd	20.0		92	70-130		
Bromoform	18.0	1.00	mg/kg as rcvd	20.0		90	70-130		
Isopropylbenzene	21.6	1.00	mg/kg as rcvd	20.0		108	70-130		
Bromobenzene	20.2	1.00	mg/kg as rcvd	20.0		101	70-130		
n-Propylbenzene	20.8	1.00	mg/kg as rcvd	20.0		104	70-130		
1,1,2,2-Tetrachloroethane	18.6	1.00	mg/kg as rcvd	20.0		93	70-130		
1,2,3-Trichloropropane	19.3	1.00	mg/kg as rcvd	20.0		96	70-130		
2-Chlorotoluene	20.8	1.00	mg/kg as rcvd	20.0		104	70-130		
4-Chlorotoluene	20.2	1.00	mg/kg as rcvd	20.0		101	70-130		
1,3,5-Trimethylbenzene	20.9	1.00	mg/kg as rcvd	20.0		104	70-130		
tert-Butylbenzene	21.1	1.00	mg/kg as rcvd	20.0		106	70-130		
1,2,4-Trimethylbenzene	21.4	1.00	mg/kg as rcvd	20.0		107	70-130		
sec-Butylbenzene	20.6	1.00	mg/kg as rcvd	20.0		103	70-130		

Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

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TDF #: DG-375

Volatile Organic Compounds by GCMS method EPA 8260B - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1308098 - EPA 5030B			Soil	Agilent VOA GCMS					
Method Blank Spike (1308098-BS2)					Prepared & Analyzed: 08/29/13				
p-Isopropyltoluene	20.4	1.00	mg/kg as rcvd	20.0		102	70-130		
1,3-Dichlorobenzene	19.1	1.00	mg/kg as rcvd	20.0		95	70-130		
1,4-Dichlorobenzene	18.2	1.00	mg/kg as rcvd	20.0		91	70-130		
1,2-Dichlorobenzene	18.8	1.00	mg/kg as rcvd	20.0		94	70-130		
n-Butylbenzene	21.1	1.00	mg/kg as rcvd	20.0		105	70-130		
1,2-Dibromo-3-chloropropane	18.0	1.00	mg/kg as rcvd	20.0		90	70-130		
1,2,4-Trichlorobenzene	17.9	1.00	mg/kg as rcvd	20.0		90	70-130		
Hexachlorobutadiene	18.2	1.00	mg/kg as rcvd	20.0		91	70-130		
Naphthalene	18.0	1.00	mg/kg as rcvd	20.0		90	70-130		
1,2,3-Trichlorobenzene	16.7	1.00	mg/kg as rcvd	20.0		84	70-130		
Duplicate (1308098-DUP1)			Source: C130811-01		Prepared & Analyzed: 08/28/13				
Dichlorodifluoromethane	< 0.370	1.00	mg/kg as rcvd		< 0.370				20
Chloromethane	< 0.271	1.00	mg/kg as rcvd		< 0.271				20
Vinyl chloride	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
Bromomethane	< 0.406	1.00	mg/kg as rcvd		< 0.406				20
Chloroethane	< 0.891	1.00	mg/kg as rcvd		< 0.891				20
Trichlorofluoromethane	< 0.369	1.00	mg/kg as rcvd		< 0.369				20
1,1-Dichloroethylene	< 0.503	1.00	mg/kg as rcvd		< 0.503				20
Methylene Chloride	< 0.338	1.00	mg/kg as rcvd		< 0.338				20
trans-1,2-Dichloroethylene	< 0.284	1.00	mg/kg as rcvd		< 0.284				20
Methyl-tert-butyl ether	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
1,1-Dichloroethane	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
2,2-Dichloropropane	< 0.334	1.00	mg/kg as rcvd		< 0.334				20
cis-1,2-Dichloroethylene	< 0.375	1.00	mg/kg as rcvd		< 0.375				20

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Volatile Organic Compounds by GCMS method EPA 8260B - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1308098 - EPA 5030B			Soil		Agilent VOA GCMS				
Duplicate (1308098-DUP1)			Source: C130811-01		Prepared & Analyzed: 08/28/13				
Chloroform	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
Bromochloromethane	< 0.254	1.00	mg/kg as rcvd		< 0.254				20
1,1,1-Trichloroethane	< 0.413	1.00	mg/kg as rcvd		< 0.413				20
Carbon Tetrachloride	< 0.262	1.00	mg/kg as rcvd		< 0.262				20
1,2-Dichloroethane	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
Benzene	< 0.338	1.00	mg/kg as rcvd		< 0.338				20
Trichloroethylene	< 0.331	1.00	mg/kg as rcvd		< 0.331				20
1,2-Dichloropropane	< 0.344	1.00	mg/kg as rcvd		< 0.344				20
Dibromomethane	< 0.259	1.00	mg/kg as rcvd		< 0.259				20
Bromodichloromethane	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
Toluene	< 0.215	1.00	mg/kg as rcvd		< 0.215				20
1,1,2-Trichloroethane	< 0.435	1.00	mg/kg as rcvd		< 0.435				20
Tetrachloroethylene	< 0.417	1.00	mg/kg as rcvd		< 0.417				20
1,3-Dichloropropane	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
Dibromochloromethane	< 0.301	1.00	mg/kg as rcvd		< 0.301				20
1,2-Dibromoethane	< 0.378	1.00	mg/kg as rcvd		< 0.378				20
Chlorobenzene	< 0.287	1.00	mg/kg as rcvd		< 0.287				20
Ethylbenzene	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
1,1,1,2-Tetrachloroethane	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
m,p-Xylene	< 0.500	2.00	mg/kg as rcvd		< 0.500				20
o-Xylene	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
Styrene	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
Bromoform	< 0.435	1.00	mg/kg as rcvd		< 0.435				20
Isopropylbenzene	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
Bromobenzene	< 0.256	1.00	mg/kg as rcvd		< 0.256				20

Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

Certificate of Analysis

TDF #: DG-375

Volatile Organic Compounds by GCMS method EPA 8260B - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1308098 - EPA 5030B			Soil				Agilent VOA GCMS		
Duplicate (1308098-DUP1)			Source: C130811-01			Prepared & Analyzed: 08/28/13			
n-Propylbenzene	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
1,1,2,2-Tetrachloroethane	< 0.374	1.00	mg/kg as rcvd		< 0.374				20
1,2,3-Trichloropropane	< 0.486	1.00	mg/kg as rcvd		< 0.486				20
2-Chlorotoluene	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
4-Chlorotoluene	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
1,3,5-Trimethylbenzene	< 0.271	1.00	mg/kg as rcvd		< 0.271				20
tert-Butylbenzene	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
1,2,4-Trimethylbenzene	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
sec-Butylbenzene	< 0.290	1.00	mg/kg as rcvd		< 0.290				20
p-Isopropyltoluene	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
1,3-Dichlorobenzene	< 0.290	1.00	mg/kg as rcvd		< 0.290				20
1,4-Dichlorobenzene	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
1,2-Dichlorobenzene	< 0.330	1.00	mg/kg as rcvd		< 0.330				20
n-Butylbenzene	< 0.302	1.00	mg/kg as rcvd		< 0.302				20
1,2-Dibromo-3-chloropropane	< 0.692	1.00	mg/kg as rcvd		< 0.692				20
1,2,4-Trichlorobenzene	< 0.256	1.00	mg/kg as rcvd		< 0.256				20
Hexachlorobutadiene	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
Naphthalene	< 0.384	1.00	mg/kg as rcvd		< 0.384				20
1,2,3-Trichlorobenzene	< 0.324	1.00	mg/kg as rcvd		< 0.324				20
Duplicate (1308098-DUP2)			Source: C130811-23			Prepared & Analyzed: 08/29/13			
Dichlorodifluoromethane	< 0.370	1.00	mg/kg as rcvd		< 0.370				20
Chloromethane	< 0.271	1.00	mg/kg as rcvd		< 0.271				20
Vinyl chloride	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
Bromomethane	< 0.406	1.00	mg/kg as rcvd		< 0.406				20

Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

Certificate of Analysis

TDF #: DG-375

Volatile Organic Compounds by GCMS method EPA 8260B - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1308098 - EPA 5030B			Soil	Agilent VOA GCMS					
Duplicate (1308098-DUP2)			Source: C130811-23			Prepared & Analyzed: 08/29/13			
Chloroethane	< 0.891	1.00	mg/kg as rcvd		< 0.891				20
Trichlorofluoromethane	< 0.369	1.00	mg/kg as rcvd		< 0.369				20
1,1-Dichloroethylene	< 0.503	1.00	mg/kg as rcvd		< 0.503				20
Methylene Chloride	< 0.338	1.00	mg/kg as rcvd		< 0.338				20
trans-1,2-Dichloroethylene	< 0.284	1.00	mg/kg as rcvd		< 0.284				20
Methyl-tert-butyl ether	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
1,1-Dichloroethane	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
2,2-Dichloropropane	< 0.334	1.00	mg/kg as rcvd		< 0.334				20
cis-1,2-Dichloroethylene	< 0.375	1.00	mg/kg as rcvd		< 0.375				20
Chloroform	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
Bromochloromethane	< 0.254	1.00	mg/kg as rcvd		< 0.254				20
1,1,1-Trichloroethane	< 0.413	1.00	mg/kg as rcvd		< 0.413				20
Carbon Tetrachloride	< 0.262	1.00	mg/kg as rcvd		< 0.262				20
1,2-Dichloroethane	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
Benzene	< 0.338	1.00	mg/kg as rcvd		< 0.338				20
Trichloroethylene	< 0.331	1.00	mg/kg as rcvd		< 0.331				20
1,2-Dichloropropane	< 0.344	1.00	mg/kg as rcvd		< 0.344				20
Dibromomethane	< 0.259	1.00	mg/kg as rcvd		< 0.259				20
Bromodichloromethane	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
Toluene	< 0.215	1.00	mg/kg as rcvd		< 0.215				20
1,1,2-Trichloroethane	< 0.435	1.00	mg/kg as rcvd		< 0.435				20
Tetrachloroethylene	< 0.417	1.00	mg/kg as rcvd		< 0.417				20
1,3-Dichloropropane	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
Dibromochloromethane	< 0.301	1.00	mg/kg as rcvd		< 0.301				20
1,2-Dibromoethane	< 0.378	1.00	mg/kg as rcvd		< 0.378				20

Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

Certificate of Analysis

TDF #: DG-375

Volatile Organic Compounds by GCMS method EPA 8260B - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1308098 - EPA 5030B			Soil			Agilent VOA GCMS			
Duplicate (1308098-DUP2)			Source: C130811-23			Prepared & Analyzed: 08/29/13			
Chlorobenzene	< 0.287	1.00	mg/kg as rcvd		< 0.287				20
Ethylbenzene	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
1,1,1,2-Tetrachloroethane	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
m,p-Xylene	< 0.500	2.00	mg/kg as rcvd		< 0.500				20
o-Xylene	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
Styrene	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
Bromoform	< 0.435	1.00	mg/kg as rcvd		< 0.435				20
Isopropylbenzene	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
Bromobenzene	< 0.256	1.00	mg/kg as rcvd		< 0.256				20
n-Propylbenzene	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
1,1,2,2-Tetrachloroethane	< 0.374	1.00	mg/kg as rcvd		< 0.374				20
1,2,3-Trichloropropane	< 0.486	1.00	mg/kg as rcvd		< 0.486				20
2-Chlorotoluene	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
4-Chlorotoluene	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
1,3,5-Trimethylbenzene	< 0.271	1.00	mg/kg as rcvd		< 0.271				20
tert-Butylbenzene	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
1,2,4-Trimethylbenzene	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
sec-Butylbenzene	< 0.290	1.00	mg/kg as rcvd		< 0.290				20
p-Isopropyltoluene	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
1,3-Dichlorobenzene	< 0.290	1.00	mg/kg as rcvd		< 0.290				20
1,4-Dichlorobenzene	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
1,2-Dichlorobenzene	< 0.330	1.00	mg/kg as rcvd		< 0.330				20
n-Butylbenzene	< 0.302	1.00	mg/kg as rcvd		< 0.302				20
1,2-Dibromo-3-chloropropane	< 0.692	1.00	mg/kg as rcvd		< 0.692				20
1,2,4-Trichlorobenzene	< 0.256	1.00	mg/kg as rcvd		< 0.256				20

Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

Certificate of Analysis

TDF #: DG-375

Volatile Organic Compounds by GCMS method EPA 8260B - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1308098 - EPA 5030B			Soil	Agilent VOA GCMS					
Duplicate (1308098-DUP2)			Source: C130811-23			Prepared & Analyzed: 08/29/13			
Hexachlorobutadiene	< 0.250	1.00	mg/kg as rcvd		< 0.250				20
Naphthalene	< 0.384	1.00	mg/kg as rcvd		< 0.384				20
1,2,3-Trichlorobenzene	< 0.324	1.00	mg/kg as rcvd		< 0.324				20
Matrix Spike (1308098-MS1)			Source: C130811-01			Prepared & Analyzed: 08/28/13			
Dichlorodifluoromethane	10.5	1.00	mg/kg as rcvd	20.0	< 0.370	52	70-130		
Chloromethane	14.2	1.00	mg/kg as rcvd	20.0	< 0.271	71	70-130		
Vinyl chloride	14.6	1.00	mg/kg as rcvd	20.0	< 0.250	73	70-130		
Bromomethane	15.0	1.00	mg/kg as rcvd	20.0	< 0.406	75	70-130		
Chloroethane	17.2	1.00	mg/kg as rcvd	20.0	< 0.891	86	70-130		
Trichlorofluoromethane	15.8	1.00	mg/kg as rcvd	20.0	< 0.369	79	70-130		
1,1-Dichloroethylene	16.8	1.00	mg/kg as rcvd	20.0	< 0.503	84	70-130		
Methylene Chloride	18.4	1.00	mg/kg as rcvd	20.0	< 0.338	92	70-130		
trans-1,2-Dichloroethylene	18.0	1.00	mg/kg as rcvd	20.0	< 0.284	90	70-130		
Methyl-tert-butyl ether	< 0.250	1.00	mg/kg as rcvd		< 0.250		70-130		
1,1-Dichloroethane	18.2	1.00	mg/kg as rcvd	20.0	< 0.250	91	70-130		
2,2-Dichloropropane	18.4	1.00	mg/kg as rcvd	20.0	< 0.334	92	70-130		
cis-1,2-Dichloroethylene	18.2	1.00	mg/kg as rcvd	20.0	< 0.375	91	70-130		
Chloroform	18.6	1.00	mg/kg as rcvd	20.0	< 0.250	93	70-130		
Bromochloromethane	18.3	1.00	mg/kg as rcvd	20.0	< 0.254	92	70-130		
1,1,1-Trichloroethane	17.9	1.00	mg/kg as rcvd	20.0	< 0.413	89	70-130		
Carbon Tetrachloride	18.0	1.00	mg/kg as rcvd	20.0	< 0.262	90	70-130		
1,2-Dichloroethane	17.8	1.00	mg/kg as rcvd	20.0	< 0.250	89	70-130		
Benzene	17.9	1.00	mg/kg as rcvd	20.0	< 0.338	90	70-130		
Trichloroethylene	17.8	1.00	mg/kg as rcvd	20.0	< 0.331	89	70-130		



Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

Certificate of Analysis

TDF #: DG-375

## Volatile Organic Compounds by GCMS method EPA 8260B - Quality Control

## TechLaw, Inc. - ESAT Region 8

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1308098 - EPA 5030B			Soil						
Matrix Spike (1308098-MS1)			Source: C130811-01			Prepared & Analyzed: 08/28/13			
1,2-Dichloropropane	17.7	1.00	mg/kg as rcvd	20.0	< 0.344	88	70-130		
Dibromomethane	18.0	1.00	mg/kg as rcvd	20.0	< 0.259	90	70-130		
Bromodichloromethane	18.4	1.00	mg/kg as rcvd	20.0	< 0.250	92	70-130		
Toluene	18.5	1.00	mg/kg as rcvd	20.0	< 0.215	92	70-130		
1,1,2-Trichloroethane	17.4	1.00	mg/kg as rcvd	20.0	< 0.435	87	70-130		
Tetrachloroethylene	17.5	1.00	mg/kg as rcvd	20.0	< 0.417	88	70-130		
1,3-Dichloropropane	18.0	1.00	mg/kg as rcvd	20.0	< 0.250	90	70-130		
Dibromochloromethane	18.3	1.00	mg/kg as rcvd	20.0	< 0.301	92	70-130		
1,2-Dibromoethane	17.7	1.00	mg/kg as rcvd	20.0	< 0.378	88	70-130		
Chlorobenzene	18.1	1.00	mg/kg as rcvd	20.0	< 0.287	90	70-130		
Ethylbenzene	18.9	1.00	mg/kg as rcvd	20.0	< 0.250	95	70-130		
1,1,1,2-Tetrachloroethane	18.8	1.00	mg/kg as rcvd	20.0	< 0.250	94	70-130		
m,p-Xylene	38.6	2.00	mg/kg as rcvd	40.0	< 0.500	97	70-130		
o-Xylene	18.2	1.00	mg/kg as rcvd	20.0	< 0.250	91	70-130		
Styrene	18.0	1.00	mg/kg as rcvd	20.0	< 0.250	90	70-130		
Bromoform	17.6	1.00	mg/kg as rcvd	20.0	< 0.435	88	70-130		
Isopropylbenzene	18.6	1.00	mg/kg as rcvd	20.0	< 0.250	93	70-130		
Bromobenzene	17.4	1.00	mg/kg as rcvd	20.0	< 0.256	87	70-130		
n-Propylbenzene	18.5	1.00	mg/kg as rcvd	20.0	< 0.250	93	70-130		
1,1,2,2-Tetrachloroethane	16.8	1.00	mg/kg as rcvd	20.0	< 0.374	84	70-130		
1,2,3-Trichloropropane	17.1	1.00	mg/kg as rcvd	20.0	< 0.486	86	70-130		
2-Chlorotoluene	18.0	1.00	mg/kg as rcvd	20.0	< 0.250	90	70-130		
4-Chlorotoluene	18.1	1.00	mg/kg as rcvd	20.0	< 0.250	90	70-130		
1,3,5-Trimethylbenzene	18.6	1.00	mg/kg as rcvd	20.0	< 0.271	93	70-130		
tert-Butylbenzene	18.9	1.00	mg/kg as rcvd	20.0	< 0.250	94	70-130		

Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

Certificate of Analysis

TDF #: DG-375

## Volatile Organic Compounds by GCMS method EPA 8260B - Quality Control

## TechLaw, Inc. - ESAT Region 8

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1308098 - EPA 5030B			Soil	Agilent VOA GCMS					
Matrix Spike (1308098-MS1)			Source: C130811-01			Prepared & Analyzed: 08/28/13			
1,2,4-Trimethylbenzene	19.3	1.00	mg/kg as rcvd	20.0	< 0.250	97	70-130		
sec-Butylbenzene	18.8	1.00	mg/kg as rcvd	20.0	< 0.290	94	70-130		
p-Isopropyltoluene	18.9	1.00	mg/kg as rcvd	20.0	< 0.250	94	70-130		
1,3-Dichlorobenzene	17.9	1.00	mg/kg as rcvd	20.0	< 0.290	89	70-130		
1,4-Dichlorobenzene	17.5	1.00	mg/kg as rcvd	20.0	< 0.250	88	70-130		
1,2-Dichlorobenzene	18.0	1.00	mg/kg as rcvd	20.0	< 0.330	90	70-130		
n-Butylbenzene	19.9	1.00	mg/kg as rcvd	20.0	< 0.302	100	70-130		
1,2-Dibromo-3-chloropropane	15.7	1.00	mg/kg as rcvd	20.0	< 0.692	79	70-130		
1,2,4-Trichlorobenzene	16.0	1.00	mg/kg as rcvd	20.0	< 0.256	80	70-130		
Hexachlorobutadiene	18.0	1.00	mg/kg as rcvd	20.0	< 0.250	90	70-130		
Naphthalene	14.6	1.00	mg/kg as rcvd	20.0	< 0.384	73	70-130		
1,2,3-Trichlorobenzene	16.3	1.00	mg/kg as rcvd	20.0	< 0.324	82	70-130		
Matrix Spike (1308098-MS2)			Source: C130811-23			Prepared & Analyzed: 08/29/13			
Dichlorodifluoromethane	9.48	1.00	mg/kg as rcvd	20.0	< 0.370	47	70-130		
Chloromethane	12.3	1.00	mg/kg as rcvd	20.0	< 0.271	61	70-130		
Vinyl chloride	13.5	1.00	mg/kg as rcvd	20.0	< 0.250	68	70-130		
Bromomethane	11.8	1.00	mg/kg as rcvd	20.0	< 0.406	59	70-130		
Chloroethane	15.2	1.00	mg/kg as rcvd	20.0	< 0.891	76	70-130		
Trichlorofluoromethane	15.1	1.00	mg/kg as rcvd	20.0	< 0.369	75	70-130		
1,1-Dichloroethylene	15.7	1.00	mg/kg as rcvd	20.0	< 0.503	79	70-130		
Methylene Chloride	15.6	1.00	mg/kg as rcvd	20.0	< 0.338	78	70-130		
trans-1,2-Dichloroethylene	16.9	1.00	mg/kg as rcvd	20.0	< 0.284	84	70-130		
Methyl-tert-butyl ether	< 0.250	1.00	mg/kg as rcvd		< 0.250		70-130		
1,1-Dichloroethane	16.6	1.00	mg/kg as rcvd	20.0	< 0.250	83	70-130		

Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

Certificate of Analysis

TDF #: DG-375

Volatile Organic Compounds by GCMS method EPA 8260B - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1308098 - EPA 5030B			Soil	Agilent VOA GCMS					
Matrix Spike (1308098-MS2)			Source: C130811-23			Prepared & Analyzed: 08/29/13			
2,2-Dichloropropane	15.3	1.00	mg/kg as rcvd	20.0	< 0.334	76	70-130		
cis-1,2-Dichloroethylene	17.0	1.00	mg/kg as rcvd	20.0	< 0.375	85	70-130		
Chloroform	17.6	1.00	mg/kg as rcvd	20.0	< 0.250	88	70-130		
Bromochloromethane	17.5	1.00	mg/kg as rcvd	20.0	< 0.254	88	70-130		
1,1,1-Trichloroethane	18.5	1.00	mg/kg as rcvd	20.0	< 0.413	92	70-130		
Carbon Tetrachloride	17.8	1.00	mg/kg as rcvd	20.0	< 0.262	89	70-130		
1,2-Dichloroethane	18.2	1.00	mg/kg as rcvd	20.0	< 0.250	91	70-130		
Benzene	17.5	1.00	mg/kg as rcvd	20.0	< 0.338	87	70-130		
Trichloroethylene	17.5	1.00	mg/kg as rcvd	20.0	< 0.331	87	70-130		
1,2-Dichloropropane	17.0	1.00	mg/kg as rcvd	20.0	< 0.344	85	70-130		
Dibromomethane	17.6	1.00	mg/kg as rcvd	20.0	< 0.259	88	70-130		
Bromodichloromethane	17.5	1.00	mg/kg as rcvd	20.0	< 0.250	87	70-130		
Toluene	18.1	1.00	mg/kg as rcvd	20.0	< 0.215	90	70-130		
1,1,2-Trichloroethane	16.7	1.00	mg/kg as rcvd	20.0	< 0.435	84	70-130		
Tetrachloroethylene	17.3	1.00	mg/kg as rcvd	20.0	< 0.417	86	70-130		
1,3-Dichloropropane	18.6	1.00	mg/kg as rcvd	20.0	< 0.250	93	70-130		
Dibromochloromethane	17.4	1.00	mg/kg as rcvd	20.0	< 0.301	87	70-130		
1,2-Dibromoethane	18.3	1.00	mg/kg as rcvd	20.0	< 0.378	91	70-130		
Chlorobenzene	18.1	1.00	mg/kg as rcvd	20.0	< 0.287	90	70-130		
Ethylbenzene	19.0	1.00	mg/kg as rcvd	20.0	< 0.250	95	70-130		
1,1,1,2-Tetrachloroethane	17.7	1.00	mg/kg as rcvd	20.0	< 0.250	88	70-130		
m,p-Xylene	37.8	2.00	mg/kg as rcvd	40.0	< 0.500	94	70-130		
o-Xylene	18.5	1.00	mg/kg as rcvd	20.0	< 0.250	93	70-130		
Styrene	17.9	1.00	mg/kg as rcvd	20.0	< 0.250	89	70-130		
Bromoform	17.5	1.00	mg/kg as rcvd	20.0	< 0.435	88	70-130		

Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

Certificate of Analysis

TDF #: DG-375

Volatile Organic Compounds by GCMS method EPA 8260B - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1308098 - EPA 5030B			Soil			Agilent VOA GCMS			
Matrix Spike (1308098-MS2)			Source: C130811-23			Prepared & Analyzed: 08/29/13			
Isopropylbenzene	21.1	1.00	mg/kg as rcvd	20.0	< 0.250	105	70-130		
Bromobenzene	19.7	1.00	mg/kg as rcvd	20.0	< 0.256	98	70-130		
n-Propylbenzene	20.1	1.00	mg/kg as rcvd	20.0	< 0.250	100	70-130		
1,1,2,2-Tetrachloroethane	18.2	1.00	mg/kg as rcvd	20.0	< 0.374	91	70-130		
1,2,3-Trichloropropane	18.7	1.00	mg/kg as rcvd	20.0	< 0.486	94	70-130		
2-Chlorotoluene	20.1	1.00	mg/kg as rcvd	20.0	< 0.250	100	70-130		
4-Chlorotoluene	20.2	1.00	mg/kg as rcvd	20.0	< 0.250	101	70-130		
1,3,5-Trimethylbenzene	20.3	1.00	mg/kg as rcvd	20.0	< 0.271	102	70-130		
tert-Butylbenzene	20.5	1.00	mg/kg as rcvd	20.0	< 0.250	103	70-130		
1,2,4-Trimethylbenzene	20.7	1.00	mg/kg as rcvd	20.0	< 0.250	103	70-130		
sec-Butylbenzene	20.2	1.00	mg/kg as rcvd	20.0	< 0.290	101	70-130		
p-Isopropyltoluene	20.0	1.00	mg/kg as rcvd	20.0	< 0.250	100	70-130		
1,3-Dichlorobenzene	18.2	1.00	mg/kg as rcvd	20.0	< 0.290	91	70-130		
1,4-Dichlorobenzene	17.9	1.00	mg/kg as rcvd	20.0	< 0.250	90	70-130		
1,2-Dichlorobenzene	18.6	1.00	mg/kg as rcvd	20.0	< 0.330	93	70-130		
n-Butylbenzene	20.5	1.00	mg/kg as rcvd	20.0	< 0.302	103	70-130		
1,2-Dibromo-3-chloropropane	16.2	1.00	mg/kg as rcvd	20.0	< 0.692	81	70-130		
1,2,4-Trichlorobenzene	17.1	1.00	mg/kg as rcvd	20.0	< 0.256	85	70-130		
Hexachlorobutadiene	17.6	1.00	mg/kg as rcvd	20.0	< 0.250	88	70-130		
Naphthalene	16.1	1.00	mg/kg as rcvd	20.0	< 0.384	81	70-130		
1,2,3-Trichlorobenzene	16.7	1.00	mg/kg as rcvd	20.0	< 0.324	84	70-130		
Matrix Spike Dup (1308098-MSD1)			Source: C130811-01			Prepared & Analyzed: 08/28/13			
Dichlorodifluoromethane	10.6	1.00	mg/kg as rcvd	20.0	< 0.370	53	70-130	1	20
Chloromethane	14.8	1.00	mg/kg as rcvd	20.0	< 0.271	74	70-130	4	20

Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

Certificate of Analysis

TDF #: DG-375

Volatile Organic Compounds by GCMS method EPA 8260B - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1308098 - EPA 5030B			Soil						
Matrix Spike Dup (1308098-MSD1)			Source: C130811-01			Prepared & Analyzed: 08/28/13			
Vinyl chloride	15.5	1.00	mg/kg as rcvd	20.0	< 0.250	78	70-130	6	20
Bromomethane	15.0	1.00	mg/kg as rcvd	20.0	< 0.406	75	70-130	0.2	20
Chloroethane	17.6	1.00	mg/kg as rcvd	20.0	< 0.891	88	70-130	2	20
Trichlorofluoromethane	16.3	1.00	mg/kg as rcvd	20.0	< 0.369	82	70-130	3	20
1,1-Dichloroethylene	17.5	1.00	mg/kg as rcvd	20.0	< 0.503	88	70-130	4	20
Methylene Chloride	18.7	1.00	mg/kg as rcvd	20.0	< 0.338	94	70-130	2	20
trans-1,2-Dichloroethylene	17.7	1.00	mg/kg as rcvd	20.0	< 0.284	88	70-130	2	20
Methyl-tert-butyl ether	< 0.250	1.00	mg/kg as rcvd		< 0.250		70-130		20
1,1-Dichloroethane	18.5	1.00	mg/kg as rcvd	20.0	< 0.250	93	70-130	2	20
2,2-Dichloropropane	18.2	1.00	mg/kg as rcvd	20.0	< 0.334	91	70-130	0.5	20
cis-1,2-Dichloroethylene	18.4	1.00	mg/kg as rcvd	20.0	< 0.375	92	70-130	0.9	20
Chloroform	18.1	1.00	mg/kg as rcvd	20.0	< 0.250	90	70-130	3	20
Bromochloromethane	18.5	1.00	mg/kg as rcvd	20.0	< 0.254	93	70-130	1	20
1,1,1-Trichloroethane	18.5	1.00	mg/kg as rcvd	20.0	< 0.413	93	70-130	4	20
Carbon Tetrachloride	17.9	1.00	mg/kg as rcvd	20.0	< 0.262	89	70-130	0.5	20
1,2-Dichloroethane	17.8	1.00	mg/kg as rcvd	20.0	< 0.250	89	70-130	0.2	20
Benzene	17.7	1.00	mg/kg as rcvd	20.0	< 0.338	88	70-130	1	20
Trichloroethylene	17.6	1.00	mg/kg as rcvd	20.0	< 0.331	88	70-130	1	20
1,2-Dichloropropane	18.0	1.00	mg/kg as rcvd	20.0	< 0.344	90	70-130	2	20
Dibromomethane	17.8	1.00	mg/kg as rcvd	20.0	< 0.259	89	70-130	0.9	20
Bromodichloromethane	17.8	1.00	mg/kg as rcvd	20.0	< 0.250	89	70-130	3	20
Toluene	18.4	1.00	mg/kg as rcvd	20.0	< 0.215	92	70-130	0.6	20
1,1,2-Trichloroethane	17.5	1.00	mg/kg as rcvd	20.0	< 0.435	88	70-130	0.9	20
Tetrachloroethylene	17.4	1.00	mg/kg as rcvd	20.0	< 0.417	87	70-130	0.5	20
1,3-Dichloropropane	17.5	1.00	mg/kg as rcvd	20.0	< 0.250	88	70-130	3	20

Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

Certificate of Analysis

TDF #: DG-375

Volatile Organic Compounds by GCMS method EPA 8260B - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1308098 - EPA 5030B			Soil						
Matrix Spike Dup (1308098-MSD1)			Source: C130811-01			Prepared & Analyzed: 08/28/13			
Dibromochloromethane	18.5	1.00	mg/kg as rcvd	20.0	< 0.301	92	70-130	0.8	20
1,2-Dibromoethane	18.0	1.00	mg/kg as rcvd	20.0	< 0.378	90	70-130	2	20
Chlorobenzene	18.5	1.00	mg/kg as rcvd	20.0	< 0.287	93	70-130	3	20
Ethylbenzene	19.2	1.00	mg/kg as rcvd	20.0	< 0.250	96	70-130	2	20
1,1,1,2-Tetrachloroethane	18.7	1.00	mg/kg as rcvd	20.0	< 0.250	93	70-130	0.6	20
m,p-Xylene	38.7	2.00	mg/kg as rcvd	40.0	< 0.500	97	70-130	0.3	20
o-Xylene	17.9	1.00	mg/kg as rcvd	20.0	< 0.250	90	70-130	1	20
Styrene	17.8	1.00	mg/kg as rcvd	20.0	< 0.250	89	70-130	1	20
Bromoform	18.2	1.00	mg/kg as rcvd	20.0	< 0.435	91	70-130	3	20
Isopropylbenzene	19.2	1.00	mg/kg as rcvd	20.0	< 0.250	96	70-130	3	20
Bromobenzene	17.7	1.00	mg/kg as rcvd	20.0	< 0.256	88	70-130	2	20
n-Propylbenzene	18.9	1.00	mg/kg as rcvd	20.0	< 0.250	95	70-130	2	20
1,1,2,2-Tetrachloroethane	17.6	1.00	mg/kg as rcvd	20.0	< 0.374	88	70-130	4	20
1,2,3-Trichloropropane	17.4	1.00	mg/kg as rcvd	20.0	< 0.486	87	70-130	2	20
2-Chlorotoluene	18.9	1.00	mg/kg as rcvd	20.0	< 0.250	94	70-130	4	20
4-Chlorotoluene	18.7	1.00	mg/kg as rcvd	20.0	< 0.250	93	70-130	3	20
1,3,5-Trimethylbenzene	19.3	1.00	mg/kg as rcvd	20.0	< 0.271	96	70-130	3	20
tert-Butylbenzene	19.6	1.00	mg/kg as rcvd	20.0	< 0.250	98	70-130	4	20
1,2,4-Trimethylbenzene	19.7	1.00	mg/kg as rcvd	20.0	< 0.250	99	70-130	2	20
sec-Butylbenzene	19.1	1.00	mg/kg as rcvd	20.0	< 0.290	96	70-130	2	20
p-Isopropyltoluene	19.6	1.00	mg/kg as rcvd	20.0	< 0.250	98	70-130	4	20
1,3-Dichlorobenzene	18.1	1.00	mg/kg as rcvd	20.0	< 0.290	91	70-130	1	20
1,4-Dichlorobenzene	17.9	1.00	mg/kg as rcvd	20.0	< 0.250	90	70-130	2	20
1,2-Dichlorobenzene	18.6	1.00	mg/kg as rcvd	20.0	< 0.330	93	70-130	3	20
n-Butylbenzene	19.9	1.00	mg/kg as rcvd	20.0	< 0.302	99	70-130	0.1	20

Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

Certificate of Analysis

TDF #: DG-375

## Volatile Organic Compounds by GCMS method EPA 8260B - Quality Control

## TechLaw, Inc. - ESAT Region 8

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1308098 - EPA 5030B			Soil						
Matrix Spike Dup (1308098-MSD1)			Source: C130811-01			Prepared & Analyzed: 08/28/13			
1,2-Dibromo-3-chloropropane	16.6	1.00	mg/kg as rcvd	20.0	< 0.692	83	70-130	5	20
1,2,4-Trichlorobenzene	17.8	1.00	mg/kg as rcvd	20.0	< 0.256	89	70-130	11	20
Hexachlorobutadiene	18.1	1.00	mg/kg as rcvd	20.0	< 0.250	90	70-130	0.3	20
Naphthalene	16.4	1.00	mg/kg as rcvd	20.0	< 0.384	82	70-130	11	20
1,2,3-Trichlorobenzene	17.3	1.00	mg/kg as rcvd	20.0	< 0.324	86	70-130	6	20
Matrix Spike Dup (1308098-MSD2)			Source: C130811-23			Prepared & Analyzed: 08/29/13			
Dichlorodifluoromethane	10.2	1.00	mg/kg as rcvd	20.0	< 0.370	51	70-130	7	20
Chloromethane	13.3	1.00	mg/kg as rcvd	20.0	< 0.271	67	70-130	8	20
Vinyl chloride	14.7	1.00	mg/kg as rcvd	20.0	< 0.250	73	70-130	8	20
Bromomethane	13.1	1.00	mg/kg as rcvd	20.0	< 0.406	65	70-130	10	20
Chloroethane	16.2	1.00	mg/kg as rcvd	20.0	< 0.891	81	70-130	7	20
Trichlorofluoromethane	16.1	1.00	mg/kg as rcvd	20.0	< 0.369	80	70-130	7	20
1,1-Dichloroethylene	17.2	1.00	mg/kg as rcvd	20.0	< 0.503	86	70-130	9	20
Methylene Chloride	17.0	1.00	mg/kg as rcvd	20.0	< 0.338	85	70-130	9	20
trans-1,2-Dichloroethylene	18.0	1.00	mg/kg as rcvd	20.0	< 0.284	90	70-130	6	20
Methyl-tert-butyl ether	< 0.250	1.00	mg/kg as rcvd		< 0.250		70-130		20
1,1-Dichloroethane	17.9	1.00	mg/kg as rcvd	20.0	< 0.250	89	70-130	8	20
2,2-Dichloropropane	16.4	1.00	mg/kg as rcvd	20.0	< 0.334	82	70-130	7	20
cis-1,2-Dichloroethylene	19.0	1.00	mg/kg as rcvd	20.0	< 0.375	95	70-130	11	20
Chloroform	18.9	1.00	mg/kg as rcvd	20.0	< 0.250	95	70-130	8	20
Bromochloromethane	18.7	1.00	mg/kg as rcvd	20.0	< 0.254	93	70-130	6	20
1,1,1-Trichloroethane	19.5	1.00	mg/kg as rcvd	20.0	< 0.413	98	70-130	6	20
Carbon Tetrachloride	19.1	1.00	mg/kg as rcvd	20.0	< 0.262	96	70-130	7	20
1,2-Dichloroethane	19.4	1.00	mg/kg as rcvd	20.0	< 0.250	97	70-130	7	20



Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

Certificate of Analysis

TDF #: DG-375

Volatile Organic Compounds by GCMS method EPA 8260B - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1308098 - EPA 5030B			Soil						
Matrix Spike Dup (1308098-MSD2)			Source: C130811-23			Prepared & Analyzed: 08/29/13			
Benzene	18.8	1.00	mg/kg as rcvd	20.0	< 0.338	94	70-130	8	20
Trichloroethylene	18.7	1.00	mg/kg as rcvd	20.0	< 0.331	94	70-130	7	20
1,2-Dichloropropane	18.0	1.00	mg/kg as rcvd	20.0	< 0.344	90	70-130	6	20
Dibromomethane	18.4	1.00	mg/kg as rcvd	20.0	< 0.259	92	70-130	4	20
Bromodichloromethane	18.4	1.00	mg/kg as rcvd	20.0	< 0.250	92	70-130	5	20
Toluene	19.2	1.00	mg/kg as rcvd	20.0	< 0.215	96	70-130	6	20
1,1,2-Trichloroethane	17.9	1.00	mg/kg as rcvd	20.0	< 0.435	90	70-130	7	20
Tetrachloroethylene	17.8	1.00	mg/kg as rcvd	20.0	< 0.417	89	70-130	3	20
1,3-Dichloropropane	19.5	1.00	mg/kg as rcvd	20.0	< 0.250	98	70-130	5	20
Dibromochloromethane	18.5	1.00	mg/kg as rcvd	20.0	< 0.301	93	70-130	7	20
1,2-Dibromoethane	19.3	1.00	mg/kg as rcvd	20.0	< 0.378	97	70-130	6	20
Chlorobenzene	18.9	1.00	mg/kg as rcvd	20.0	< 0.287	94	70-130	4	20
Ethylbenzene	20.2	1.00	mg/kg as rcvd	20.0	< 0.250	101	70-130	6	20
1,1,1,2-Tetrachloroethane	19.5	1.00	mg/kg as rcvd	20.0	< 0.250	98	70-130	10	20
m,p-Xylene	40.3	2.00	mg/kg as rcvd	40.0	< 0.500	101	70-130	6	20
o-Xylene	19.2	1.00	mg/kg as rcvd	20.0	< 0.250	96	70-130	3	20
Styrene	18.6	1.00	mg/kg as rcvd	20.0	< 0.250	93	70-130	4	20
Bromoform	19.4	1.00	mg/kg as rcvd	20.0	< 0.435	97	70-130	10	20
Isopropylbenzene	22.8	1.00	mg/kg as rcvd	20.0	< 0.250	114	70-130	8	20
Bromobenzene	21.4	1.00	mg/kg as rcvd	20.0	< 0.256	107	70-130	8	20
n-Propylbenzene	21.8	1.00	mg/kg as rcvd	20.0	< 0.250	109	70-130	8	20
1,1,2,2-Tetrachloroethane	19.7	1.00	mg/kg as rcvd	20.0	< 0.374	99	70-130	8	20
1,2,3-Trichloropropane	20.2	1.00	mg/kg as rcvd	20.0	< 0.486	101	70-130	7	20
2-Chlorotoluene	21.5	1.00	mg/kg as rcvd	20.0	< 0.250	107	70-130	7	20
4-Chlorotoluene	21.5	1.00	mg/kg as rcvd	20.0	< 0.250	107	70-130	6	20

Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

Certificate of Analysis

TDF #: DG-375

Volatile Organic Compounds by GCMS method EPA 8260B - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1308098 - EPA 5030B			Soil						
Matrix Spike Dup (1308098-MSD2)			Source: C130811-23			Prepared & Analyzed: 08/29/13			
1,3,5-Trimethylbenzene	22.1	1.00	mg/kg as rcvd	20.0	< 0.271	110	70-130	8	20
tert-Butylbenzene	22.0	1.00	mg/kg as rcvd	20.0	< 0.250	110	70-130	7	20
1,2,4-Trimethylbenzene	22.2	1.00	mg/kg as rcvd	20.0	< 0.250	111	70-130	7	20
sec-Butylbenzene	21.2	1.00	mg/kg as rcvd	20.0	< 0.290	106	70-130	5	20
p-Isopropyltoluene	21.8	1.00	mg/kg as rcvd	20.0	< 0.250	109	70-130	9	20
1,3-Dichlorobenzene	19.4	1.00	mg/kg as rcvd	20.0	< 0.290	97	70-130	7	20
1,4-Dichlorobenzene	19.3	1.00	mg/kg as rcvd	20.0	< 0.250	96	70-130	7	20
1,2-Dichlorobenzene	20.0	1.00	mg/kg as rcvd	20.0	< 0.330	100	70-130	8	20
n-Butylbenzene	22.2	1.00	mg/kg as rcvd	20.0	< 0.302	111	70-130	8	20
1,2-Dibromo-3-chloropropane	16.8	1.00	mg/kg as rcvd	20.0	< 0.692	84	70-130	4	20
1,2,4-Trichlorobenzene	18.0	1.00	mg/kg as rcvd	20.0	< 0.256	90	70-130	5	20
Hexachlorobutadiene	18.5	1.00	mg/kg as rcvd	20.0	< 0.250	92	70-130	5	20
Naphthalene	17.3	1.00	mg/kg as rcvd	20.0	< 0.384	87	70-130	7	20
1,2,3-Trichlorobenzene	16.9	1.00	mg/kg as rcvd	20.0	< 0.324	85	70-130	1	20

NOTE: %R = % Recovery, %R limits do not apply when sample levels exceed 4x the spike level.  
 RPD = Relative Percent Difference, %D = % Difference, DL = Detection Limit for QC sample

Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

Certificate of Analysis

TDF #: DG-375

Pentachlorophenol by GCMS method 8270D - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Agilent SVOA GCMS									
Batch 1309003 - EPA 3550B			Soil	Agilent SVOA GCMS					
Method Blank (1309003-BLK1)						Prepared: 09/03/13 Analyzed: 09/16/13			
Pentachlorophenol	< 1.00	2.00	mg/kg						
Method Blank (1309003-BLK2)						Prepared: 09/03/13 Analyzed: 09/16/13			
Pentachlorophenol	< 1.00	2.00	mg/kg						
Method Blank Spike (1309003-BS1)						Prepared: 09/03/13 Analyzed: 09/16/13			
Pentachlorophenol	18.7	2.00	mg/kg	20.0		94	70-130		
Method Blank Spike (1309003-BS2)						Prepared: 09/03/13 Analyzed: 09/16/13			
Pentachlorophenol	19.9	2.00	mg/kg	20.0		99	70-130		
Duplicate (1309003-DUP1)			Source: C130811-02			Prepared: 09/03/13 Analyzed: 09/16/13			
Pentachlorophenol	< 1.00	2.00	mg/kg		< 1.00				47
Duplicate (1309003-DUP2)			Source: C130811-42			Prepared: 09/03/13 Analyzed: 09/16/13			
Pentachlorophenol	< 1.00	2.00	mg/kg		< 1.00				47

Project Name: Cowboy Timber\_Soils\_AUG 2013\_D375

Certificate of Analysis

TDF #: DG-375

Pentachlorophenol by GCMS method 8270D - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1309003 - EPA 3550B			Soil						
Matrix Spike (1309003-MS1)			Source: C130811-02			Prepared: 09/03/13 Analyzed: 09/16/13			
Pentachlorophenol	17.0	2.00	mg/kg	20.0	< 1.00	85	17-109		
Matrix Spike (1309003-MS2)			Source: C130811-42			Prepared: 09/03/13 Analyzed: 09/16/13			
Pentachlorophenol	19.1	2.00	mg/kg	20.0	< 1.00	96	17-109		
Matrix Spike Dup (1309003-MSD1)			Source: C130811-02			Prepared: 09/03/13 Analyzed: 09/16/13			
Pentachlorophenol	15.4	2.00	mg/kg	20.0	< 1.00	77	17-109	10	47
Matrix Spike Dup (1309003-MSD2)			Source: C130811-42			Prepared: 09/03/13 Analyzed: 09/16/13			
Pentachlorophenol	19.4	2.00	mg/kg	20.0	< 1.00	97	17-109	1	47

NOTE: %R = % Recovery, %R limits do not apply when sample levels exceed 4x the spike level.  
RPD = Relative Percent Difference, %D = % Difference, DL = Detection Limit for QC sample

TDF #: DG-375

## TechLaw, Inc. - ESAT Region 8

## Initial and Continuing Calibration Verification Results

Agilent SVOA GCMS

Method: EPA 8270D

Analysis Name: 8270 PCP

Sequence: 1309057

Work Order: C130811

Units: mg/kg

Non-volatile Analyte	Initial (ICV1, ICV2)			Continuing Calibration Verification Standards (CCVs)								
	True	Found	%R	True	Found	%R	True	Found	%R	True	Found	%R
2,4,6-Tribromophenol	20.0	16.7	83.5		1			2			3	
				20.0	18.1	90.5						
					4			5			6	
					7			8			9	
Diesel Range Organics as Die	500	456	91.2		1			2			3	
				500	452	90.4						
					4			5			6	
					7			8			9	
Pentachlorophenol	20.0	18.8	94.0		1			2			3	
				20.0	21.0	105.0						
					4			5			6	
					7			8			9	

TDF #: DG-375

## TechLaw, Inc. - ESAT Region 8

## Initial and Continuing Calibration Verification Results

Agilent SVOA GCMS

Method: EPA 8270D

Analysis Name: 8270 PCP

Sequence: 1309059

Work Order: C130811

Units: mg/kg

Non-volatile Analyte	Initial (ICV1, ICV2)			Continuing Calibration Verification Standards (CCVs)								
	True	Found	%R	True	Found	%R	True	Found	%R	True	Found	%R
2,4,6-Tribromophenol	20.0	17.0	85.0		1			2			3	
				20.0	18.9	94.5						
					4			5			6	
					7			8			9	
Diesel Range Organics as Die	500	472	94.4		1			2			3	
				500	471	94.2						
					4			5			6	
					7			8			9	
Pentachlorophenol	20.0	18.8	94.0		1			2			3	
				20.0	22.7	113.5						
					4			5			6	
					7			8			9	

TDF #: DG-375

## TechLaw, Inc. - ESAT Region 8

## Initial and Continuing Calibration Verification Results

Agilent VOA GCMS

Method: EPA 8260B

Analysis Name: 8260B 5mL Soils

Sequence: 1309062

Work Order: C130811

Units: mg/kg as revd

VOA Analyte	Initial (ICV1, ICV2)			Continuing Calibration Verification Standards (CCVs)								
	True	Found	%R	True	Found	%R	True	Found	%R	True	Found	%R
1,1,1,2-Tetrachloroethane					1			2			3	
				25.0	26.6	106.4	25.0	23.6	94.4	25.0	24.3	97.2
					4			5			6	
					7			8			9	
1,1,1-Trichloroethane					1			2			3	
				25.0	25.4	101.6	25.0	25.2	100.8	25.0	25.0	100.0
					4			5			6	
					7			8			9	
1,1,2,2-Tetrachloroethane					1			2			3	
				25.0	23.3	93.2	25.0	24.8	99.2	25.0	25.2	100.8
					4			5			6	
					7			8			9	
1,1,2-Trichloroethane					1			2			3	
				25.0	24.3	97.2	25.0	22.8	91.2	25.0	24.3	97.2
					4			5			6	
					7			8			9	
1,1-Dichloroethane					1			2			3	
				25.0	24.8	99.2	25.0	22.5	90.0	25.0	25.3	101.2
					4			5			6	
					7			8			9	
1,1-Dichloroethylene					1			2			3	
				25.0	24.5	98.0	25.0	23.1	92.4	25.0	24.9	99.6
					4			5			6	
					7			8			9	

TDF #: DG-375

## TechLaw, Inc. - ESAT Region 8

## Initial and Continuing Calibration Verification Results

Agilent VOA GCMS

Method: EPA 8260B

Analysis Name: 8260B 5mL Soils

Sequence: 1309062

Work Order: C130811

Units: mg/kg as revd

VOA Analyte	Initial (ICV1, ICV2)			Continuing Calibration Verification Standards (CCVs)								
	True	Found	%R	True	Found	%R	True	Found	%R	True	Found	%R
1,2,3-Trichlorobenzene				1			2			3		
				25.0	25.0	100.0	25.0	24.4	97.6	25.0	24.7	98.8
				4			5			6		
				7			8			9		
1,2,3-Trichloropropane				1			2			3		
				25.0	23.5	94.0	25.0	25.8	103.2	25.0	25.6	102.4
				4			5			6		
				7			8			9		
1,2,4-Trichlorobenzene				1			2			3		
				25.0	24.8	99.2	25.0	25.1	100.4	25.0	25.0	100.0
				4			5			6		
				7			8			9		
1,2,4-Trimethylbenzene				1			2			3		
				25.0	26.2	104.8	25.0	27.5	110.0	25.0	27.0	108.0
				4			5			6		
				7			8			9		
1,2-Dibromo-3-chloropropane				1			2			3		
				25.0	26.0	104.0	25.0	22.9	91.6	25.0	23.1	92.4
				4			5			6		
				7			8			9		
1,2-Dibromoethane				1			2			3		
				25.0	25.4	101.6	25.0	24.2	96.8	25.0	25.6	102.4
				4			5			6		
				7			8			9		



TDF #: DG-375

## TechLaw, Inc. - ESAT Region 8

## Initial and Continuing Calibration Verification Results

Agilent VOA GCMS

Method: EPA 8260B

Analysis Name: 8260B 5mL Soils

Sequence: 1309062

Work Order: C130811

Units: mg/kg as revd

VOA Analyte	Initial (ICV1, ICV2)			Continuing Calibration Verification Standards (CCVs)								
	True	Found	%R	True	Found	%R	True	Found	%R	True	Found	%R
1,2-Dichlorobenzene				1			2			3		
				25.0	24.9	99.6	25.0	24.8	99.2	25.0	25.1	100.4
				4			5			6		
				7			8			9		
1,2-Dichloroethane				1			2			3		
				25.0	25.0	100.0	25.0	24.5	98.0	25.0	25.7	102.8
				4			5			6		
				7			8			9		
1,2-Dichloropropane				1			2			3		
				25.0	24.8	99.2	25.0	23.1	92.4	25.0	24.9	99.6
				4			5			6		
				7			8			9		
1,3,5-Trimethylbenzene				1			2			3		
				25.0	25.3	101.2	25.0	27.1	108.4	25.0	26.9	107.6
				4			5			6		
				7			8			9		
1,3-Dichlorobenzene				1			2			3		
				25.0	24.5	98.0	25.0	24.4	97.6	25.0	24.9	99.6
				4			5			6		
				7			8			9		
1,3-Dichloropropane				1			2			3		
				25.0	25.4	101.6	25.0	24.4	97.6	25.0	25.4	101.6
				4			5			6		
				7			8			9		

TDF #: DG-375

## TechLaw, Inc. - ESAT Region 8

## Initial and Continuing Calibration Verification Results

Agilent VOA GCMS

Method: EPA 8260B

Analysis Name: 8260B 5mL Soils

Sequence: 1309062

Work Order: C130811

Units: mg/kg as revd

VOA Analyte	Initial (ICV1, ICV2)			Continuing Calibration Verification Standards (CCVs)								
	True	Found	%R	True	Found	%R	True	Found	%R	True	Found	%R
1,4-Dichlorobenzene				1			2			3		
				25.0	24.4	97.6	25.0	24.1	96.4	25.0	24.2	96.8
				4			5			6		
				7			8			9		
1,4-Dichlorobenzene-d4				1			2			3		
				62500	25.0	0.0	62500	25.0	0.0	62500	25.0	0.0
				4			5			6		
				7			8			9		
1,4-Difluorobenzene				1			2			3		
				62500	25.0	0.0	62500	25.0	0.0	62500	25.0	0.0
				4			5			6		
				7			8			9		
2,2-Dichloropropane				1			2			3		
				25.0	26.5	106.0	25.0	21.4	85.6	25.0	19.3	77.2
				4			5			6		
				7			8			9		
2-Chlorotoluene				1			2			3		
				25.0	24.3	97.2	25.0	27.0	108.0	25.0	26.2	104.8
				4			5			6		
				7			8			9		
4-Chlorotoluene				1			2			3		
				25.0	24.5	98.0	25.0	27.1	108.4	25.0	26.2	104.8
				4			5			6		
				7			8			9		

TDF #: DG-375

## TechLaw, Inc. - ESAT Region 8

## Initial and Continuing Calibration Verification Results

Agilent VOA GCMS

Method: EPA 8260B

Analysis Name: 8260B 5mL Soils

Sequence: 1309062

Work Order: C130811

Units: mg/kg as revd

VOA Analyte	Initial (ICV1, ICV2)			Continuing Calibration Verification Standards (CCVs)								
	True	Found	%R	True	Found	%R	True	Found	%R	True	Found	%R
Benzene				1			2			3		
				25.0	24.6	98.4	25.0	24.2	96.8	25.0	25.0	100.0
				4			5			6		
				7			8			9		
Bromobenzene				1			2			3		
				25.0	23.7	94.8	25.0	26.9	107.6	25.0	25.9	103.6
				4			5			6		
				7			8			9		
Bromochloromethane				1			2			3		
				25.0	25.5	102.0	25.0	23.6	94.4	25.0	24.0	96.0
				4			5			6		
				7			8			9		
Bromodichloromethane				1			2			3		
				25.0	24.6	98.4	25.0	23.1	92.4	25.0	24.4	97.6
				4			5			6		
				7			8			9		
Bromofluorobenzene				1			2			3		
				25.0	23.7	94.8	25.0	27.9	111.6	25.0	26.3	105.2
				4			5			6		
				7			8			9		
Bromoform				1			2			3		
				25.0	26.2	104.8	25.0	24.8	99.2	25.0	24.6	98.4
				4			5			6		
				7			8			9		

TDF #: DG-375

## TechLaw, Inc. - ESAT Region 8

## Initial and Continuing Calibration Verification Results

Agilent VOA GCMS

Method: EPA 8260B

Analysis Name: 8260B 5mL Soils

Sequence: 1309062

Work Order: C130811

Units: mg/kg as rcvd

VOA Analyte	Initial (ICV1, ICV2)			Continuing Calibration Verification Standards (CCVs)								
	True	Found	%R	True	Found	%R	True	Found	%R	True	Found	%R
Bromomethane				1	2	3						
				25.0	25.3	101.2	25.0	19.6	78.4	25.0	24.4	97.6
				4	5	6						
				7	8	9						
Carbon Tetrachloride				1	2	3						
				25.0	25.8	103.2	25.0	24.3	97.2	25.0	24.6	98.4
				4	5	6						
				7	8	9						
Chlorobenzene				1	2	3						
				25.0	24.8	99.2	25.0	23.8	95.2	25.0	24.1	96.4
				4	5	6						
				7	8	9						
Chlorobenzene-d5				1	2	3						
				62500	25.0	0.0	62500	25.0	0.0	62500	25.0	0.0
				4	5	6						
				7	8	9						
Chloroethane				1	2	3						
				25.0	25.0	100.0	25.0	22.4	89.6	25.0	25.9	103.6
				4	5	6						
				7	8	9						
Chloroform				1	2	3						
				25.0	25.2	100.8	25.0	24.1	96.4	25.0	24.7	98.8
				4	5	6						
				7	8	9						

TDF #: DG-375

## TechLaw, Inc. - ESAT Region 8

## Initial and Continuing Calibration Verification Results

Agilent VOA GCMS

Method: EPA 8260B

Analysis Name: 8260B 5mL Soils

Sequence: 1309062

Work Order: C130811

Units: mg/kg as revd

VOA Analyte	Initial (ICV1, ICV2)			Continuing Calibration Verification Standards (CCVs)								
	True	Found	%R	True	Found	%R	True	Found	%R	True	Found	%R
Chloromethane				1	2	3						
				25.0	24.1	96.4	25.0	21.4	85.6	25.0	24.4	97.6
				4	5	6						
				7	8	9						
cis-1,2-Dichloroethylene				1	2	3						
				25.0	24.9	99.6	25.0	23.4	93.6	25.0	24.8	99.2
				4	5	6						
				7	8	9						
Dibromochloromethane				1	2	3						
				25.0	26.0	104.0	25.0	24.1	96.4	25.0	24.8	99.2
				4	5	6						
				7	8	9						
Dibromofluoromethane				1	2	3						
				25.0	25.5	102.0	25.0	24.6	98.4	25.0	25.0	100.0
				4	5	6						
				7	8	9						
Dibromomethane				1	2	3						
				25.0	25.0	100.0	25.0	23.9	95.6	25.0	25.0	100.0
				4	5	6						
				7	8	9						
Dichlorodifluoromethane				1	2	3						
				25.0	24.7	98.8	25.0	23.1	92.4	25.0	24.7	98.8
				4	5	6						
				7	8	9						

TDF #: DG-375

## TechLaw, Inc. - ESAT Region 8

## Initial and Continuing Calibration Verification Results

Agilent VOA GCMS

Method: EPA 8260B

Analysis Name: 8260B 5mL Soils

Sequence: 1309062

Work Order: C130811

Units: mg/kg as revd

VOA Analyte	Initial (ICV1, ICV2)			Continuing Calibration Verification Standards (CCVs)								
	True	Found	%R	True	Found	%R	True	Found	%R	True	Found	%R
Ethylbenzene				1	2	3						
				25.0	25.8	103.2	25.0	25.2	100.8	25.0	25.5	102.0
				4	5	6						
				7	8	9						
Hexachlorobutadiene				1	2	3						
				25.0	24.8	99.2	25.0	22.7	90.8	25.0	23.2	92.8
				4	5	6						
				7	8	9						
Isopropylbenzene				1	2	3						
				25.0	25.6	102.4	25.0	28.6	114.4	25.0	27.2	108.8
				4	5	6						
				7	8	9						
m,p-Xylene				1	2	3						
				50.0	53.2	106.4	50.0	48.9	97.8	50.0	50.2	100.4
				4	5	6						
				7	8	9						
Methylene Chloride				1	2	3						
				25.0	25.4	101.6	25.0	21.9	87.6	25.0	25.4	101.6
				4	5	6						
				7	8	9						
Methyl-tert-butyl ether				1	2	3						
				25.0	25.2	100.8	25.0	25.3	101.2	25.0	26.6	106.4
				4	5	6						
				7	8	9						

TDF #: DG-375

## TechLaw, Inc. - ESAT Region 8

## Initial and Continuing Calibration Verification Results

Agilent VOA GCMS

Method: EPA 8260B

Analysis Name: 8260B 5mL Soils

Sequence: 1309062

Work Order: C130811

Units: mg/kg as revd

VOA Analyte	Initial (ICV1, ICV2)			Continuing Calibration Verification Standards (CCVs)											
	True	Found	%R	True	Found	%R	True	Found	%R	True	Found	%R			
Naphthalene				1				2				3			
				25.0	24.4	97.6	25.0	25.3	101.2	25.0	25.0	100.0			
				4				5				6			
				7				8				9			
n-Butylbenzene				1				2				3			
				25.0	27.5	110.0	25.0	27.5	110.0	25.0	26.7	106.8			
				4				5				6			
				7				8				9			
n-Propylbenzene				1				2				3			
				25.0	25.2	100.8	25.0	27.3	109.2	25.0	26.6	106.4			
				4				5				6			
				7				8				9			
o-Xylene				1				2				3			
				25.0	25.2	100.8	25.0	23.6	94.4	25.0	24.7	98.8			
				4				5				6			
				7				8				9			
Pentafluorobenzene				1				2				3			
				62500	25.0	0.0	62500	25.0	0.0	62500	25.0	0.0			
				4				5				6			
				7				8				9			
p-Isopropyltoluene				1				2				3			
				25.0	26.3	105.2	25.0	27.3	109.2	25.0	26.0	104.0			
				4				5				6			
				7				8				9			

TDF #: DG-375

## TechLaw, Inc. - ESAT Region 8

## Initial and Continuing Calibration Verification Results

Agilent VOA GCMS

Method: EPA 8260B

Analysis Name: 8260B 5mL Soils

Sequence: 1309062

Work Order: C130811

Units: mg/kg as revd

VOA Analyte	Initial (ICV1, ICV2)			Continuing Calibration Verification Standards (CCVs)								
	True	Found	%R	True	Found	%R	True	Found	%R	True	Found	%R
sec-Butylbenzene				1	2	3						
				25.0	25.7	102.8	25.0	27.0	108.0	25.0	26.5	106.0
				4	5	6						
				7	8	9						
Styrene				1	2	3						
				25.0	25.0	100.0	25.0	23.5	94.0	25.0	23.6	94.4
				4	5	6						
				7	8	9						
tert-Butylbenzene				1	2	3						
				25.0	25.6	102.4	25.0	27.5	110.0	25.0	27.0	108.0
				4	5	6						
				7	8	9						
Tetrachloroethylene				1	2	3						
				25.0	24.7	98.8	25.0	22.5	90.0	25.0	23.3	93.2
				4	5	6						
				7	8	9						
Toluene				1	2	3						
				25.0	24.7	98.8	25.0	24.1	96.4	25.0	25.0	100.0
				4	5	6						
				7	8	9						
Toluene-d8				1	2	3						
				25.0	25.3	101.2	25.0	24.8	99.2	25.0	25.1	100.4
				4	5	6						
				7	8	9						



TDF #: DG-375

## TechLaw, Inc. - ESAT Region 8

## Initial and Continuing Calibration Verification Results

Agilent VOA GCMS

Method: EPA 8260B

Analysis Name: 8260B 5mL Soils

Sequence: 1309062

Work Order: C130811

Units: mg/kg as revd

VOA Analyte	Initial (ICV1, ICV2)			Continuing Calibration Verification Standards (CCVs)								
	True	Found	%R	True	Found	%R	True	Found	%R	True	Found	%R
trans-1,2-Dichloroethylene				1			2			3		
				25.0	25.0	100.0	25.0	23.3	93.2	25.0	25.0	100.0
				4			5			6		
				7			8			9		
Trichloroethylene				1			2			3		
				25.0	24.3	97.2	25.0	23.9	95.6	25.0	24.7	98.8
				4			5			6		
				7			8			9		
Trichlorofluoromethane				1			2			3		
				25.0	24.6	98.4	25.0	22.7	90.8	25.0	25.0	100.0
				4			5			6		
				7			8			9		
Vinyl chloride				1			2			3		
				25.0	24.0	96.0	25.0	22.4	89.6	25.0	25.2	100.8
				4			5			6		
				7			8			9		

TDF #: DG-375

### INTERNAL STANDARD AREA AND RT SUMMARY EPA 8270D

Laboratory: TechLaw, Inc. - ESAT Region 8SDG: DG-375Client: SuperfundProject: Cowboy Timber\_Soils\_AUG 2013\_D375Sequence: 1309057Instrument: Agilent SVOA GCMSMatrix: SoilCalibration: UNASSIGNED

Internal Standard	Response	RT	Reference Response		Area %	Area % Limits	RT Diff		
<b>Blank (1309003-BLK1 )</b>			Lab File ID:			Analyzed: 09/16/13 10:25			
Diesel Range Organics as Diesel						50 - 200			
<b>LCS (1309003-BS1 )</b>			Lab File ID:			Analyzed: 09/16/13 10:25			
Diesel Range Organics as Diesel						50 - 200			
<b>Duplicate (1309003-DUP1 )</b>			Lab File ID:			Analyzed: 09/16/13 10:25			
Diesel Range Organics as Diesel						50 - 200			
<b>Matrix Spike (1309003-MS1 )</b>			Lab File ID:			Analyzed: 09/16/13 10:25			
Diesel Range Organics as Diesel						50 - 200			
<b>Matrix Spike Dup (1309003-MSD1 )</b>			Lab File ID:			Analyzed: 09/16/13 10:25			
Diesel Range Organics as Diesel						50 - 200			
<b>Calibration Check (1309057-CCV1 )</b>			Lab File ID:			Analyzed: 09/16/13 10:25			
Diesel Range Organics as Diesel						50 - 200			
<b>Initial Cal Blank (1309057-ICB1 )</b>			Lab File ID:			Analyzed: 09/16/13 10:25			
Diesel Range Organics as Diesel						50 - 200			
<b>Initial Cal Check (1309057-ICV1 )</b>			Lab File ID:			Analyzed: 09/16/13 10:25			
Diesel Range Organics as Diesel						50 - 200			
<b>CTSB01-19 (C130811-02 )</b>			Lab File ID:			Analyzed: 09/16/13 10:25			
Diesel Range Organics as Diesel						50 - 200			
<b>CTSB01-28 (C130811-04 )</b>			Lab File ID:			Analyzed: 09/16/13 10:25			
Diesel Range Organics as Diesel						50 - 200			
<b>CTSB01-29 (C130811-06 )</b>			Lab File ID:			Analyzed: 09/16/13 10:25			
Diesel Range Organics as Diesel						50 - 200			
<b>CTSB02-20 (C130811-12 )</b>			Lab File ID:			Analyzed: 09/16/13 10:25			
Diesel Range Organics as Diesel						50 - 200			
<b>CTSB02-28 (C130811-14 )</b>			Lab File ID:			Analyzed: 09/16/13 10:25			
Diesel Range Organics as Diesel						50 - 200			
<b>CTSB03-24 (C130811-20 )</b>			Lab File ID:			Analyzed: 09/16/13 10:25			
Diesel Range Organics as Diesel						50 - 200			

TDF #: DG-375

### INTERNAL STANDARD AREA AND RT SUMMARY EPA 8270D

Laboratory: TechLaw, Inc. - ESAT Region 8SDG: DG-375Client: SuperfundProject: Cowboy Timber Soils AUG 2013 D375Sequence: 1309057Instrument: Agilent SVOA GCMSMatrix: SoilCalibration: UNASSIGNED

Internal Standard	Response	RT	Reference Response		Area %	Area % Limits	RT Diff		
<b>CTSB03-28 (C130811-22 )</b>			Lab File ID:			Analyzed: 09/16/13 10:25			
Diesel Range Organics as Diesel						50 - 200			
<b>CTSB04-19 (C130811-24 )</b>			Lab File ID:			Analyzed: 09/16/13 10:25			
Diesel Range Organics as Diesel						50 - 200			
<b>CTSB04-29 (C130811-26 )</b>			Lab File ID:			Analyzed: 09/16/13 10:25			
Diesel Range Organics as Diesel						50 - 200			
<b>CTSB04-38 (C130811-28 )</b>			Lab File ID:			Analyzed: 09/16/13 10:25			
Diesel Range Organics as Diesel						50 - 200			
<b>CTSB04-49 (C130811-30 )</b>			Lab File ID:			Analyzed: 09/16/13 10:25			
Diesel Range Organics as Diesel						50 - 200			
<b>CTSB05-22 (C130811-32 )</b>			Lab File ID:			Analyzed: 09/16/13 10:25			
Diesel Range Organics as Diesel						50 - 200			
<b>CTSB05-22 (C130811-34 )</b>			Lab File ID:			Analyzed: 09/16/13 10:25			
Diesel Range Organics as Diesel						50 - 200			
<b>CTSB05-22 (C130811-36 )</b>			Lab File ID:			Analyzed: 09/16/13 10:25			
Diesel Range Organics as Diesel						50 - 200			
<b>CTSB05-29 (C130811-38 )</b>			Lab File ID:			Analyzed: 09/16/13 10:25			
Diesel Range Organics as Diesel						50 - 200			
<b>CTSB05-33 (C130811-40 )</b>			Lab File ID:			Analyzed: 09/16/13 10:25			
Diesel Range Organics as Diesel						50 - 200			

### INTERNAL STANDARD AREA AND RT SUMMARY EPA 8270D

Laboratory: TechLaw, Inc. - ESAT Region 8SDG: DG-375Client: SuperfundProject: Cowboy Timber Soils AUG 2013 D375Sequence: 1309059Instrument: Agilent SVOA GCMSMatrix: SoilCalibration: UNASSIGNED

Internal Standard	Response	RT	Reference Response		Area %	Area % Limits	RT Diff		
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TDF #: DG-375

# INTERNAL STANDARD AREA AND RT SUMMARY

## EPA 8270D

Laboratory: TechLaw, Inc. - ESAT Region 8

SDG: DG-375

Client: Superfund

Project: Cowboy Timber Soils AUG 2013 D375

Sequence: 1309059

Instrument: Agilent SVOA GCMS

Matrix: Soil

Calibration: UNASSIGNED

Internal Standard	Response	RT	Reference Response		Area %	Area % Limits	RT Diff		
<b>Blank (1309003-BLK2 )</b>			Lab File ID:			Analyzed: 09/16/13 10:50			
Diesel Range Organics as Diesel						50 - 200			
<b>LCS (1309003-BS2 )</b>			Lab File ID:			Analyzed: 09/16/13 10:50			
Diesel Range Organics as Diesel						50 - 200			
<b>Duplicate (1309003-DUP2 )</b>			Lab File ID:			Analyzed: 09/16/13 10:50			
Diesel Range Organics as Diesel						50 - 200			
<b>Matrix Spike (1309003-MS2 )</b>			Lab File ID:			Analyzed: 09/16/13 10:50			
Diesel Range Organics as Diesel						50 - 200			
<b>Matrix Spike Dup (1309003-MSD2 )</b>			Lab File ID:			Analyzed: 09/16/13 10:50			
Diesel Range Organics as Diesel						50 - 200			
<b>Calibration Check (1309059-CCV1 )</b>			Lab File ID:			Analyzed: 09/16/13 10:50			
Diesel Range Organics as Diesel						50 - 200			
<b>Initial Cal Blank (1309059-ICB1 )</b>			Lab File ID:			Analyzed: 09/16/13 10:50			
Diesel Range Organics as Diesel						50 - 200			
<b>Initial Cal Check (1309059-ICV1 )</b>			Lab File ID:			Analyzed: 09/16/13 10:50			
Diesel Range Organics as Diesel						50 - 200			
<b>CTSB02-10 (C130811-08 )</b>			Lab File ID:			Analyzed: 09/16/13 10:50			
Diesel Range Organics as Diesel						50 - 200			
<b>CTSB02-16 (C130811-10 )</b>			Lab File ID:			Analyzed: 09/16/13 10:50			
Diesel Range Organics as Diesel						50 - 200			
<b>CTSB03-08 (C130811-16 )</b>			Lab File ID:			Analyzed: 09/16/13 10:50			
Diesel Range Organics as Diesel						50 - 200			
<b>CTSB03-17 (C130811-18 )</b>			Lab File ID:			Analyzed: 09/16/13 10:50			
Diesel Range Organics as Diesel						50 - 200			
<b>CTSB05-44 (C130811-42 )</b>			Lab File ID:			Analyzed: 09/16/13 10:50			
Diesel Range Organics as Diesel						50 - 200			
<b>CTSB98-29 (C130811-44 )</b>			Lab File ID:			Analyzed: 09/16/13 10:50			
Diesel Range Organics as Diesel						50 - 200			
<b>CTSB99-29 (C130811-46 )</b>			Lab File ID:			Analyzed: 09/16/13 10:50			
Diesel Range Organics as Diesel						50 - 200			

TDF #: DG-375

### INTERNAL STANDARD AREA AND RT SUMMARY EPA 8260B

Laboratory: TechLaw, Inc. - ESAT Region 8

SDG: DG-375

Client: Superfund

Project: Cowboy Timber Soils AUG 2013 D375

Sequence: 1309062

Instrument: Agilent VOA GCMS

Matrix: Soil

Calibration: UNASSIGNED

Internal Standard	Response	RT	Reference Response		Area %	Area % Limits	RT Diff		
<b>Calibration Check (1309062-CCV1 )</b>			Lab File ID: CBTM-003.D			Analyzed: 08/28/13 13:46			
Pentafluorobenzene	248847	5.9				50 - 200			
1,4-Difluorobenzene	441300	7.12				50 - 200			
Chlorobenzene-d5	416513	12.84				50 - 200			
1,4-Dichlorobenzene-d4	233268	18.15				50 - 200			
<b>Blank (1308098-BLK1 )</b>			Lab File ID: CBTM-004.D			Analyzed: 08/28/13 14:19			
Pentafluorobenzene	250920	5.9	248847		101	50 - 200	0.0000		
1,4-Difluorobenzene	440089	7.11	441300		100	50 - 200	-0.0100		
Chlorobenzene-d5	412435	12.84	416513		99	50 - 200	0.0000		
1,4-Dichlorobenzene-d4	187318	18.17	233268		80	50 - 200	0.0200		
<b>LCS (1308098-BS1 )</b>			Lab File ID: CBTM-005.D			Analyzed: 08/28/13 14:52			
Pentafluorobenzene	246145	5.9	248847		99	50 - 200	0.0000		
1,4-Difluorobenzene	436413	7.12	441300		99	50 - 200	0.0000		
Chlorobenzene-d5	411982	12.85	416513		99	50 - 200	0.0100		
1,4-Dichlorobenzene-d4	228513	18.15	233268		98	50 - 200	0.0000		
<b>CTSB01-19 (C130811-01 )</b>			Lab File ID: CBTM-006.D			Analyzed: 08/28/13 15:25			
Pentafluorobenzene	248478	5.9	248847		100	50 - 200	0.0000		
1,4-Difluorobenzene	425945	7.12	441300		97	50 - 200	0.0000		
Chlorobenzene-d5	405443	12.85	416513		97	50 - 200	0.0100		
1,4-Dichlorobenzene-d4	183765	18.16	233268		79	50 - 200	0.0100		
<b>Duplicate (1308098-DUP1 )</b>			Lab File ID: CBTM-007.D			Analyzed: 08/28/13 15:58			
Pentafluorobenzene	250404	5.9	248847		101	50 - 200	0.0000		
1,4-Difluorobenzene	420475	7.12	441300		95	50 - 200	0.0000		
Chlorobenzene-d5	402201	12.85	416513		97	50 - 200	0.0100		
1,4-Dichlorobenzene-d4	182249	18.16	233268		78	50 - 200	0.0100		
<b>Matrix Spike (1308098-MS1 )</b>			Lab File ID: CBTM-008.D			Analyzed: 08/28/13 16:31			
Pentafluorobenzene	240906	5.9	248847		97	50 - 200	0.0000		
1,4-Difluorobenzene	427314	7.11	441300		97	50 - 200	-0.0100		
Chlorobenzene-d5	411184	12.85	416513		99	50 - 200	0.0100		
1,4-Dichlorobenzene-d4	226449	18.16	233268		97	50 - 200	0.0100		

TDF #: DG-375

# INTERNAL STANDARD AREA AND RT SUMMARY

## EPA 8260B

Laboratory: TechLaw, Inc. - ESAT Region 8

SDG: DG-375

Client: Superfund

Project: Cowboy Timber Soils AUG 2013 D375

Sequence: 1309062

Instrument: Agilent VOA GCMS

Matrix: Soil

Calibration: UNASSIGNED

Internal Standard	Response	RT	Reference Response		Area %	Area % Limits	RT Diff		
<b>Matrix Spike Dup (1308098-MSD1 )</b>			Lab File ID: CBTM-009.D			Analyzed: 08/28/13 17:05			
Pentafluorobenzene	245492	5.89	248847		99	50 - 200	-0.0100		
1,4-Difluorobenzene	441345	7.12	441300		100	50 - 200	0.0000		
Chlorobenzene-d5	420303	12.85	416513		101	50 - 200	0.0100		
1,4-Dichlorobenzene-d4	226596	18.16	233268		97	50 - 200	0.0100		
<b>CTSB01-28 (C130811-03 )</b>			Lab File ID: CBTM-010.D			Analyzed: 08/28/13 17:37			
Pentafluorobenzene	247179	5.9	248847		99	50 - 200	0.0000		
1,4-Difluorobenzene	428005	7.12	441300		97	50 - 200	0.0000		
Chlorobenzene-d5	411752	12.85	416513		99	50 - 200	0.0100		
1,4-Dichlorobenzene-d4	187175	18.16	233268		80	50 - 200	0.0100		
<b>CTSB01-29 (C130811-05 )</b>			Lab File ID: CBTM-011.D			Analyzed: 08/28/13 18:10			
Pentafluorobenzene	243501	5.9	248847		98	50 - 200	0.0000		
1,4-Difluorobenzene	422566	7.12	441300		96	50 - 200	0.0000		
Chlorobenzene-d5	405255	12.85	416513		97	50 - 200	0.0100		
1,4-Dichlorobenzene-d4	177439	18.16	233268		76	50 - 200	0.0100		
<b>CTSB02-10 (C130811-07 )</b>			Lab File ID: CBTM-012.D			Analyzed: 08/28/13 18:43			
Pentafluorobenzene	237340	5.89	248847		95	50 - 200	-0.0100		
1,4-Difluorobenzene	416489	7.13	441300		94	50 - 200	0.0100		
Chlorobenzene-d5	396526	12.85	416513		95	50 - 200	0.0100		
1,4-Dichlorobenzene-d4	181550	18.16	233268		78	50 - 200	0.0100		
<b>CTSB02-16 (C130811-09 )</b>			Lab File ID: CBTM-013.D			Analyzed: 08/28/13 19:16			
Pentafluorobenzene	255896	5.9	248847		103	50 - 200	0.0000		
1,4-Difluorobenzene	462724	7.12	441300		105	50 - 200	0.0000		
Chlorobenzene-d5	432006	12.85	416513		104	50 - 200	0.0100		
1,4-Dichlorobenzene-d4	215933	18.16	233268		93	50 - 200	0.0100		
<b>CTSB02-20 (C130811-11 )</b>			Lab File ID: CBTM-014.D			Analyzed: 08/28/13 19:49			
Pentafluorobenzene	313993	5.9	248847		126	50 - 200	0.0000		
1,4-Difluorobenzene	547710	7.12	441300		124	50 - 200	0.0000		
Chlorobenzene-d5	528426	12.85	416513		127	50 - 200	0.0100		
1,4-Dichlorobenzene-d4	243061	18.16	233268		104	50 - 200	0.0100		

TDF #: DG-375

# INTERNAL STANDARD AREA AND RT SUMMARY

## EPA 8260B

Laboratory: TechLaw, Inc. - ESAT Region 8

SDG: DG-375

Client: Superfund

Project: Cowboy Timber Soils AUG 2013 D375

Sequence: 1309062

Instrument: Agilent VOA GCMS

Matrix: Soil

Calibration: UNASSIGNED

Internal Standard	Response	RT	Reference Response		Area %	Area % Limits	RT Diff		
<b>CTSB02-28 (C130811-13 )</b>			Lab File ID: CBTM-015.D			Analyzed: 08/28/13 20:22			
Pentafluorobenzene	348688	5.9	248847		140	50 - 200	0.0000		
1,4-Difluorobenzene	611507	7.12	441300		139	50 - 200	0.0000		
Chlorobenzene-d5	569116	12.85	416513		137	50 - 200	0.0100		
1,4-Dichlorobenzene-d4	263058	18.16	233268		113	50 - 200	0.0100		
<b>CTSB03-08 (C130811-15 )</b>			Lab File ID: CBTM-016.D			Analyzed: 08/28/13 20:55			
Pentafluorobenzene	352590	5.9	248847		142	50 - 200	0.0000		
1,4-Difluorobenzene	617615	7.12	441300		140	50 - 200	0.0000		
Chlorobenzene-d5	582072	12.85	416513		140	50 - 200	0.0100		
1,4-Dichlorobenzene-d4	281125	18.16	233268		121	50 - 200	0.0100		
<b>CTSB03-17 (C130811-17 )</b>			Lab File ID: CBTM-017.D			Analyzed: 08/28/13 21:28			
Pentafluorobenzene	388276	5.9	248847		156	50 - 200	0.0000		
1,4-Difluorobenzene	671590	7.12	441300		152	50 - 200	0.0000		
Chlorobenzene-d5	627702	12.85	416513		151	50 - 200	0.0100		
1,4-Dichlorobenzene-d4	287967	18.16	233268		123	50 - 200	0.0100		
<b>CTSB03-24 (C130811-19 )</b>			Lab File ID: CBTM-018.D			Analyzed: 08/28/13 22:01			
Pentafluorobenzene	384456	5.89	248847		154	50 - 200	-0.0100		
1,4-Difluorobenzene	687664	7.12	441300		156	50 - 200	0.0000		
Chlorobenzene-d5	637011	12.85	416513		153	50 - 200	0.0100		
1,4-Dichlorobenzene-d4	290197	18.16	233268		124	50 - 200	0.0100		
<b>CTSB03-28 (C130811-21 )</b>			Lab File ID: CBTM-019.D			Analyzed: 08/28/13 22:34			
Pentafluorobenzene	383209	5.9	248847		154	50 - 200	0.0000		
1,4-Difluorobenzene	682332	7.12	441300		155	50 - 200	0.0000		
Chlorobenzene-d5	628752	12.85	416513		151	50 - 200	0.0100		
1,4-Dichlorobenzene-d4	284639	18.15	233268		122	50 - 200	0.0000		
<b>Calibration Check (1309062-CCV2 )</b>			Lab File ID: CBTM-021.D			Analyzed: 08/28/13 23:20			
Pentafluorobenzene	394020	5.89	248847		158	50 - 200	-0.0100		
1,4-Difluorobenzene	689327	7.12	441300		156	50 - 200	0.0000		
Chlorobenzene-d5	642631	12.85	416513		154	50 - 200	0.0100		
1,4-Dichlorobenzene-d4	310200	18.16	233268		133	50 - 200	0.0100		

TDF #: DG-375

# INTERNAL STANDARD AREA AND RT SUMMARY

## EPA 8260B

Laboratory: TechLaw, Inc. - ESAT Region 8

SDG: DG-375

Client: Superfund

Project: Cowboy Timber Soils AUG 2013 D375

Sequence: 1309062

Instrument: Agilent VOA GCMS

Matrix: Soil

Calibration: UNASSIGNED

Internal Standard	Response	RT	Reference Response		Area %	Area % Limits	RT Diff		
<b>Blank (1308098-BLK2 )</b>			Lab File ID: CBTM-022.D			Analyzed: 08/28/13 23:53			
Pentafluorobenzene	386909	5.89	394020		98	50 - 200	0.0000		
1,4-Difluorobenzene	683811	7.12	689327		99	50 - 200	0.0000		
Chlorobenzene-d5	619271	12.85	642631		96	50 - 200	0.0000		
1,4-Dichlorobenzene-d4	275711	18.16	310200		89	50 - 200	0.0000		
<b>LCS (1308098-BS2 )</b>			Lab File ID: CBTM-023.D			Analyzed: 08/29/13 00:26			
Pentafluorobenzene	376041	5.9	394020		95	50 - 200	0.0100		
1,4-Difluorobenzene	672875	7.12	689327		98	50 - 200	0.0000		
Chlorobenzene-d5	611117	12.85	642631		95	50 - 200	0.0000		
1,4-Dichlorobenzene-d4	310843	18.16	310200		100	50 - 200	0.0000		
<b>CTSB04-19 (C130811-23 )</b>			Lab File ID: CBTM-024.D			Analyzed: 08/29/13 00:59			
Pentafluorobenzene	373944	5.9	394020		95	50 - 200	0.0100		
1,4-Difluorobenzene	667627	7.13	689327		97	50 - 200	0.0100		
Chlorobenzene-d5	597177	12.85	642631		93	50 - 200	0.0000		
1,4-Dichlorobenzene-d4	265046	18.17	310200		85	50 - 200	0.0100		
<b>Duplicate (1308098-DUP2 )</b>			Lab File ID: CBTM-025.D			Analyzed: 08/29/13 01:32			
Pentafluorobenzene	362464	5.9	394020		92	50 - 200	0.0100		
1,4-Difluorobenzene	648795	7.12	689327		94	50 - 200	0.0000		
Chlorobenzene-d5	591118	12.85	642631		92	50 - 200	0.0000		
1,4-Dichlorobenzene-d4	256826	18.16	310200		83	50 - 200	0.0000		
<b>Matrix Spike (1308098-MS2 )</b>			Lab File ID: CBTM-026.D			Analyzed: 08/29/13 02:05			
Pentafluorobenzene	368188	5.9	394020		93	50 - 200	0.0100		
1,4-Difluorobenzene	639394	7.11	689327		93	50 - 200	-0.0100		
Chlorobenzene-d5	587820	12.85	642631		91	50 - 200	0.0000		
1,4-Dichlorobenzene-d4	296313	18.15	310200		96	50 - 200	-0.0100		
<b>Matrix Spike Dup (1308098-MSD2 )</b>			Lab File ID: CBTM-027.D			Analyzed: 08/29/13 02:38			
Pentafluorobenzene	357960	5.9	394020		91	50 - 200	0.0100		
1,4-Difluorobenzene	619459	7.12	689327		90	50 - 200	0.0000		
Chlorobenzene-d5	572774	12.85	642631		89	50 - 200	0.0000		
1,4-Dichlorobenzene-d4	279189	18.15	310200		90	50 - 200	-0.0100		



TDF #: DG-375

# INTERNAL STANDARD AREA AND RT SUMMARY

## EPA 8260B

Laboratory: TechLaw, Inc. - ESAT Region 8

SDG: DG-375

Client: Superfund

Project: Cowboy Timber Soils AUG 2013 D375

Sequence: 1309062

Instrument: Agilent VOA GCMS

Matrix: Soil

Calibration: UNASSIGNED

Internal Standard	Response	RT	Reference Response		Area %	Area % Limits	RT Diff		
<b>CTSB04-29 (C130811-25 )</b>			Lab File ID: CBTM-028.D			Analyzed: 08/29/13 03:11			
Pentafluorobenzene	358947	5.9	394020		91	50 - 200	0.0100		
1,4-Difluorobenzene	628490	7.12	689327		91	50 - 200	0.0000		
Chlorobenzene-d5	592312	12.85	642631		92	50 - 200	0.0000		
1,4-Dichlorobenzene-d4	264496	18.16	310200		85	50 - 200	0.0000		
<b>CTSB04-38 (C130811-27 )</b>			Lab File ID: CBTM-029.D			Analyzed: 08/29/13 03:44			
Pentafluorobenzene	346569	5.9	394020		88	50 - 200	0.0100		
1,4-Difluorobenzene	609995	7.12	689327		88	50 - 200	0.0000		
Chlorobenzene-d5	568745	12.85	642631		89	50 - 200	0.0000		
1,4-Dichlorobenzene-d4	257054	18.15	310200		83	50 - 200	-0.0100		
<b>CTSB04-49 (C130811-29 )</b>			Lab File ID: CBTM-030.D			Analyzed: 08/29/13 04:17			
Pentafluorobenzene	350731	5.9	394020		89	50 - 200	0.0100		
1,4-Difluorobenzene	627847	7.12	689327		91	50 - 200	0.0000		
Chlorobenzene-d5	555293	12.85	642631		86	50 - 200	0.0000		
1,4-Dichlorobenzene-d4	257619	18.16	310200		83	50 - 200	0.0000		
<b>CTSB05-22 (C130811-31 )</b>			Lab File ID: CBTM-031.D			Analyzed: 08/29/13 04:49			
Pentafluorobenzene	349675	5.9	394020		89	50 - 200	0.0100		
1,4-Difluorobenzene	606014	7.12	689327		88	50 - 200	0.0000		
Chlorobenzene-d5	571018	12.85	642631		89	50 - 200	0.0000		
1,4-Dichlorobenzene-d4	255455	18.16	310200		82	50 - 200	0.0000		
<b>CTSB05-22 (C130811-33 )</b>			Lab File ID: CBTM-032.D			Analyzed: 08/29/13 05:22			
Pentafluorobenzene	337059	5.89	394020		86	50 - 200	0.0000		
1,4-Difluorobenzene	597107	7.12	689327		87	50 - 200	0.0000		
Chlorobenzene-d5	550099	12.85	642631		86	50 - 200	0.0000		
1,4-Dichlorobenzene-d4	246329	18.16	310200		79	50 - 200	0.0000		
<b>CTSB05-22 (C130811-35 )</b>			Lab File ID: CBTM-033.D			Analyzed: 08/29/13 05:55			
Pentafluorobenzene	329281	5.89	394020		84	50 - 200	0.0000		
1,4-Difluorobenzene	590698	7.12	689327		86	50 - 200	0.0000		
Chlorobenzene-d5	545691	12.85	642631		85	50 - 200	0.0000		
1,4-Dichlorobenzene-d4	238398	18.16	310200		77	50 - 200	0.0000		

TDF #: DG-375

### INTERNAL STANDARD AREA AND RT SUMMARY EPA 8260B

Laboratory: TechLaw, Inc. - ESAT Region 8

SDG: DG-375

Client: Superfund

Project: Cowboy Timber Soils AUG 2013 D375

Sequence: 1309062

Instrument: Agilent VOA GCMS

Matrix: Soil

Calibration: UNASSIGNED

Internal Standard	Response	RT	Reference Response		Area %	Area % Limits	RT Diff		
<b>CTSB05-29 (C130811-37 )</b>			Lab File ID: CBTM-034.D			Analyzed: 08/29/13 06:28			
Pentafluorobenzene	317393	5.9	394020		81	50 - 200	0.0100		
1,4-Difluorobenzene	569053	7.12	689327		83	50 - 200	0.0000		
Chlorobenzene-d5	519087	12.85	642631		81	50 - 200	0.0000		
1,4-Dichlorobenzene-d4	226170	18.16	310200		73	50 - 200	0.0000		
<b>CTSB05-33 (C130811-39 )</b>			Lab File ID: CBTM-035.D			Analyzed: 08/29/13 07:01			
Pentafluorobenzene	318801	5.89	394020		81	50 - 200	0.0000		
1,4-Difluorobenzene	550104	7.12	689327		80	50 - 200	0.0000		
Chlorobenzene-d5	510701	12.85	642631		79	50 - 200	0.0000		
1,4-Dichlorobenzene-d4	229451	18.16	310200		74	50 - 200	0.0000		
<b>CTSB05-44 (C130811-41 )</b>			Lab File ID: CBTM-036.D			Analyzed: 08/29/13 07:34			
Pentafluorobenzene	303776	5.89	394020		77	50 - 200	0.0000		
1,4-Difluorobenzene	528690	7.12	689327		77	50 - 200	0.0000		
Chlorobenzene-d5	499925	12.85	642631		78	50 - 200	0.0000		
1,4-Dichlorobenzene-d4	223817	18.17	310200		72	50 - 200	0.0100		
<b>CTSB98-29 (C130811-43 )</b>			Lab File ID: CBTM-037.D			Analyzed: 08/29/13 08:07			
Pentafluorobenzene	297374	5.9	394020		75	50 - 200	0.0100		
1,4-Difluorobenzene	512163	7.12	689327		74	50 - 200	0.0000		
Chlorobenzene-d5	482424	12.85	642631		75	50 - 200	0.0000		
1,4-Dichlorobenzene-d4	216496	18.16	310200		70	50 - 200	0.0000		
<b>CTSB99-29 (C130811-45 )</b>			Lab File ID: CBTM-038.D			Analyzed: 08/29/13 08:39			
Pentafluorobenzene	289062	5.9	394020		73	50 - 200	0.0100		
1,4-Difluorobenzene	500932	7.12	689327		73	50 - 200	0.0000		
Chlorobenzene-d5	474939	12.84	642631		74	50 - 200	-0.0100		
1,4-Dichlorobenzene-d4	210524	18.16	310200		68	50 - 200	0.0000		
<b>Calibration Check (1309062-CCV3 )</b>			Lab File ID: CBTM-039.D			Analyzed: 08/29/13 09:12			
Pentafluorobenzene	279857	5.89	394020		71	50 - 200	0.0000		
1,4-Difluorobenzene	488398	7.11	689327		71	50 - 200	-0.0100		
Chlorobenzene-d5	467167	12.85	642631		73	50 - 200	0.0000		
1,4-Dichlorobenzene-d4	241885	18.16	310200		78	50 - 200	0.0000		

TDF #: DG-375

## TechLaw Inc., ESAT Region 8

## INSTRUMENT ANALYSIS SEQUENCE LOG

Analytical Method: EPA 8270D

Non-volatile

Sequence ID#: 1309057

Instrument ID #: Agilent SVOA GCMS

Soil

LSR #: DG-375

Analysis ID	Sample Name	Analysis Date	Analysis Time
1309057-ICV1	Initial Cal Check	09/16/13	10:25
1309057-ICB1	Initial Cal Blank	09/16/13	10:25
1309003-BS1		09/16/13	10:25
1309003-BLK1	Blank	09/16/13	10:25
C130811-02	CTSB01-19	09/16/13	10:25
1309003-DUP1	Duplicate	09/16/13	10:25
1309003-MS1	Matrix Spike	09/16/13	10:25
1309003-MSD1	Matrix Spike Dup	09/16/13	10:25
C130811-04	CTSB01-28	09/16/13	10:25
C130811-06	CTSB01-29	09/16/13	10:25
C130811-12	CTSB02-20	09/16/13	10:25
C130811-14	CTSB02-28	09/16/13	10:25
C130811-20	CTSB03-24	09/16/13	10:25
C130811-22	CTSB03-28	09/16/13	10:25
C130811-24	CTSB04-19	09/16/13	10:25
C130811-26	CTSB04-29	09/16/13	10:25
C130811-28	CTSB04-38	09/16/13	10:25
C130811-30	CTSB04-49	09/16/13	10:25
C130811-32	CTSB05-22	09/16/13	10:25
C130811-34	CTSB05-22	09/16/13	10:25
C130811-36	CTSB05-22	09/16/13	10:25
C130811-38	CTSB05-29	09/16/13	10:25
C130811-40	CTSB05-33	09/16/13	10:25
1309057-CCV1	Calibration Check	09/16/13	10:25

**Project Name:** Cowboy Timber\_Soils\_AUG 2013\_D375

**Certificate of Analysis**

**TDF #:** DG-375

**TechLaw Inc., ESAT Region 8**

**INSTRUMENT ANALYSIS SEQUENCE LOG**

**Analytical Method:** EPA 8270D

**Non-volatile**

**Sequence ID#:** 1309059

**Instrument ID #:** Agilent SVOA GCMS

**Soil**

**LSR #:** DG-375

Analysis ID	Sample Name	Analysis Date	Analysis Time
1309059-ICV1	Initial Cal Check	09/16/13	10:50
1309059-ICB1	Initial Cal Blank	09/16/13	10:50
C130811-08	CTSB02-10	09/16/13	10:50
C130811-10	CTSB02-16	09/16/13	10:50
C130811-16	CTSB03-08	09/16/13	10:50
C130811-18	CTSB03-17	09/16/13	10:50
1309003-BS2		09/16/13	10:50
1309003-BLK2	Blank	09/16/13	10:50
C130811-42	CTSB05-44	09/16/13	10:50
1309003-DUP2	Duplicate	09/16/13	10:50
C130811-44	CTSB98-29	09/16/13	10:50
C130811-46	CTSB99-29	09/16/13	10:50
1309003-MS2	Matrix Spike	09/16/13	10:50
1309003-MSD2	Matrix Spike Dup	09/16/13	10:50
1309059-CCV1	Calibration Check	09/16/13	10:50

TDF #: DG-375

## TechLaw Inc., ESAT Region 8

## INSTRUMENT ANALYSIS SEQUENCE LOG

Analytical Method: EPA 8260B

VOA

Sequence ID#: 1309062

Instrument ID #: Agilent VOA GCMS

Soil

LSR #: DG-375

Analysis ID	Sample Name	Analysis Date	Analysis Time
1309062-CCV1	Calibration Check	08/28/13	13:46
1308098-BLK1	Blank	08/28/13	14:19
1308098-BS1		08/28/13	14:52
C130811-01	CTSB01-19	08/28/13	15:25
1308098-DUP1	Duplicate	08/28/13	15:58
1308098-MS1	Matrix Spike	08/28/13	16:31
1308098-MSD1	Matrix Spike Dup	08/28/13	17:05
C130811-03	CTSB01-28	08/28/13	17:37
C130811-05	CTSB01-29	08/28/13	18:10
C130811-07	CTSB02-10	08/28/13	18:43
C130811-09	CTSB02-16	08/28/13	19:16
C130811-11	CTSB02-20	08/28/13	19:49
C130811-13	CTSB02-28	08/28/13	20:22
C130811-15	CTSB03-08	08/28/13	20:55
C130811-17	CTSB03-17	08/28/13	21:28
C130811-19	CTSB03-24	08/28/13	22:01
C130811-21	CTSB03-28	08/28/13	22:34
1309062-CCV2	Calibration Check	08/28/13	23:20
1308098-BLK2	Blank	08/28/13	23:53
1308098-BS2		08/29/13	00:26
C130811-23	CTSB04-19	08/29/13	00:59
1308098-DUP2	Duplicate	08/29/13	01:32
1308098-MS2	Matrix Spike	08/29/13	02:05
1308098-MSD2	Matrix Spike Dup	08/29/13	02:38
C130811-25	CTSB04-29	08/29/13	03:11
C130811-27	CTSB04-38	08/29/13	03:44
C130811-29	CTSB04-49	08/29/13	04:17
C130811-31	CTSB05-22	08/29/13	04:49
C130811-33	CTSB05-22	08/29/13	05:22
C130811-35	CTSB05-22	08/29/13	05:55
C130811-37	CTSB05-29	08/29/13	06:28
C130811-39	CTSB05-33	08/29/13	07:01
C130811-41	CTSB05-44	08/29/13	07:34
C130811-43	CTSB98-29	08/29/13	08:07
C130811-45	CTSB99-29	08/29/13	08:39
1309062-CCV3	Calibration Check	08/29/13	09:12