



01/17/14

Technical Report for

D.C. Dozer Service

Foundation Energy - Sooner 13-16

Accutest Job Number: D54183

Sampling Date: 01/13/14

Report to:

D.C. Dozer Service
1403 Fillmore Street
Sterling, CO 80751
troutman0231@msn.com

ATTN: Todd Troutman

Total number of pages in report: 20



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Scott Heideman
Laboratory Director

Client Service contact: Janel Mulholland 303-425-6021

Certifications: CO (CO00049), ID, NE (CO00049), ND (R-027), NJ (CO 0007), OK (D9942), UT (NELAP CO00049), TX (T104704511)

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Test results relate only to samples analyzed.

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Sample Summary

D.C. Dozer Service

Job No: D54183

Foundation Energy - Sooner 13-16

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
D54183-1	01/13/14	07:00 TT	01/13/14	SO	Soil	CONTAMINATED SOIL #1
D54183-2	01/13/14	07:15 TT	01/13/14	SO	Soil	CONTAMINATED SOIL #2

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Summary of Hits



Job Number: D54183
Account: D.C. Dozer Service
Project: Foundation Energy - Sooner 13-16
Collected: 01/13/14

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
D54183-1	CONTAMINATED SOIL #1					
TPH-DRO (C10-C28)		5140	79	60	mg/kg	SW846-8015B
D54183-2	CONTAMINATED SOIL #2					
Benzene		3420	74	28	ug/kg	SW846 8260B
Toluene		60100	1500	740	ug/kg	SW846 8260B
Ethylbenzene		26400	1500	280	ug/kg	SW846 8260B
Xylene (total)		179000	3000	1500	ug/kg	SW846 8260B
TPH-GRO (C6-C10)		2290000	150000	74000	ug/kg	SW846 8260B



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Sample Results

Report of Analysis

Report of Analysis

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Client Sample ID: CONTAMINATED SOIL #1
Lab Sample ID: D54183-1
Matrix: SO - Soil
Method: SW846-8015B SW846 3546
Project: Foundation Energy - Sooner 13-16

Date Sampled: 01/13/14
Date Received: 01/13/14
Percent Solids: 83.7

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH017360.D	10	01/14/14	JS	01/14/14	OP9236	GFH857
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	5140	79	60	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	59%		20-130%		

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound



Report of Analysis

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Client Sample ID: CONTAMINATED SOIL #2
 Lab Sample ID: D54183-2
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: Foundation Energy - Sooner 13-16

Date Sampled: 01/13/14
 Date Received: 01/13/14
 Percent Solids: 80.7

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V30363.D	1	01/14/14	JL	n/a	n/a	V5V1825
Run #2	5V30356.D	1	01/14/14	JL	n/a	n/a	V5V1825

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.01 g	5.0 ml	10.0 ul
Run #2	5.01 g	5.0 ml	100 ul

Purgeable Aromatics+ GRO

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	3420 ^a	74	28	ug/kg	
108-88-3	Toluene	60100	1500	740	ug/kg	
100-41-4	Ethylbenzene	26400	1500	280	ug/kg	
1330-20-7	Xylene (total)	179000	3000	1500	ug/kg	
	TPH-GRO (C6-C10)	2290000	150000	74000	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	104%	105%	64-130%
460-00-4	4-Bromofluorobenzene	106%	127%	62-131%
17060-07-0	1,2-Dichloroethane-D4	103%	103%	70-130%

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound



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Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



Accutest Laboratories Mainframe Status
4056 Youngfield Street, Whetstone, Co. 80033
TEL 303-425-8821 877-757-4321
FAX 303-425-8821

PEO-EN Tracking # _____
Accutest Quote # _____
Bottle Order Contra # _____
Accutest Job # **D54183**

Client / Reporting Information		Project Information		Requested Analysis (See TEST CODE sheet)		Matrix Codes	
Company Name: D.C. Draper Service Street Address: 1403 Fillmore Street City: Sterling CO 80751 State: CO Project Contact: Todd Troutman Phone #: (970) 580-0062 Fax #: Project Manager: Bill Scofield		Project Name: Foundation Energy - Scanner 13-10 Street: SW SW Sec 16 8N 58W City: Weld County Company Name: Street Address: City: _____ State: _____ Zip: _____ Attention: _____ POB: _____		Requested Analysis: DRO, GRO/BTEX		Matrix Codes: DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OL - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank	
Field ID / Point of Collection: Contaminated Soil #1 Contaminated Soil #2		Collection: Date: 1/13/14 Time: 7:00AM TT Date: 1/13/14 Time: 7:15AM TT		Number of preserved bottles: HET, MCH, TMS, NONE, DI Water, MCH, ENCORE, Burette		LAB USE ONLY 01 02 1/14/14	
Turnaround Time (Business days): <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day R/SH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY		Approved By (Accutest PSM) / Date: _____		Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> Commercial "B" - Narrative <input type="checkbox"/> FULLTI (Level 3-4) Commercial "A" = Results Only Commercial "B" = Results + QC Summary		Comments / Special Instructions:	
Emergency 3 Rush T/A data available VIA Lablink		Sample Custody must be documented below such time samples change possession, including courier delivery.		Received By: 2 Date Time: 1/13/14 11:40AM Received By: 3 Date Time: _____ Received By: 4 Date Time: _____ Received By: 5 Date Time: _____		Preserved where applicable: <input checked="" type="checkbox"/> On Ice <input type="checkbox"/> Cooler Temp: 8.4	

D54183: Chain of Custody

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GC/MS Volatiles



QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: D54183
Account: DCDCSCOS D.C. Dozer Service
Project: Foundation Energy - Sooner 13-16

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V1825-MB	5V30351.D	1	01/14/14	JL	n/a	n/a	V5V1825

The QC reported here applies to the following samples:

Method: SW846 8260B

D54183-2

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	50	19	ug/kg	
100-41-4	Ethylbenzene	ND	100	19	ug/kg	
108-88-3	Toluene	ND	100	50	ug/kg	
1330-20-7	Xylene (total)	ND	200	100	ug/kg	
	TPH-GRO (C6-C10)	ND	10000	5000	ug/kg	

CAS No.	Surrogate Recoveries	Limits
2037-26-5	Toluene-D8	94% 64-130%
460-00-4	4-Bromofluorobenzene	92% 62-131%
17060-07-0	1,2-Dichloroethane-D4	105% 70-130%

Blank Spike Summary

Job Number: D54183

Account: DCDCSCOS D.C. Dozer Service

Project: Foundation Energy - Sooner 13-16

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V1825-BS	5V30352.D	1	01/14/14	JL	n/a	n/a	V5V1825

The QC reported here applies to the following samples:

Method: SW846 8260B

D54183-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	2490	2790	112	70-130
100-41-4	Ethylbenzene	2490	2940	118	70-130
108-88-3	Toluene	2490	2700	108	70-130
1330-20-7	Xylene (total)	7480	8930	119	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	99%	64-130%
460-00-4	4-Bromofluorobenzene	107%	62-131%
17060-07-0	1,2-Dichloroethane-D4	101%	70-130%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: D54183
 Account: DCDSCOS D.C. Dozer Service
 Project: Foundation Energy - Sooner 13-16

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V1825-BS	5V30353.D	1	01/14/14	JL	n/a	n/a	V5V1825

The QC reported here applies to the following samples:

Method: SW846 8260B

D54183-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
	TPII-GRO (C6-C10)	110000	105000	96	58-130

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	96%	64-130%
460-00-4	4-Bromofluorobenzene	98%	62-131%
17060-07-0	1,2-Dichloroethane-D4	100%	70-130%

* = Outside of Control Limits.

Matrix Spike Summary

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Job Number: D54183

Account: DCDCSCOS D.C. Dozer Service

Project: Foundation Energy - Sooner 13-16

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D54183-2MS	5V30354.D	1	01/14/14	JL	n/a	n/a	V5V1825
D54183-2	5V30356.D	1	01/14/14	JL	n/a	n/a	V5V1825
D54183-2	5V30363.D	1	01/14/14	JL	n/a	n/a	V5V1825

The QC reported here applies to the following samples:

Method: SW846 8260B

D54183-2

CAS No.	Compound	D54183-2 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Limits
71-43-2	Benzene	3420		3690	7470	110	64-139
100-41-4	Ethylbenzene	26400 ^a		3690	29700	89	68-136
108-88-3	Toluene	60100 ^a		3690	48300	-320* ^b	60-130
1330-20-7	Xylene (total)	179000 ^a		11100	158000	-190* ^b	58-142

CAS No.	Surrogate Recoveries	MS	D54183-2	D54183-2	Limits
2037-26-5	Toluene-D8	106%	105%	104%	64-130%
460-00-4	4-Bromofluorobenzene	127%	127%	106%	62-131%
17060-07-0	1,2-Dichloroethane-D4	102%	103%	103%	70-130%

(a) Result is from Run #2.

(b) Outside control limits due to high level in sample relative to spike amount.

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: D54183
 Account: DCDCSCOS D.C. Dozer Service
 Project: Foundation Energy - Sooner 13-16

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D54183-2MS	5V30355.D	1	01/14/14	JL	n/a	n/a	V5V1825
D54183-2	5V30356.D	1	01/14/14	JL	n/a	n/a	V5V1825
D54183-2	5V30363.D	1	01/14/14	JL	n/a	n/a	V5V1825

5.3.2

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The QC reported here applies to the following samples:

Method: SW846 8260B

D54183-2

CAS No.	Compound	D54183-2 ug/kg	Spike Q	MS ug/kg	MS %	Limits
	TPH-GRO (C6-C10)	2290000 ^a	162000	2540000	154	14-174

CAS No.	Surrogate Recoveries	MS	D54183-2	D54183-2	Limits
2037-26-5	Toluene-D8	105%	105%	104%	64-130%
460-00-4	4-Bromofluorobenzene	125%	127%	106%	62-131%
17060-07-0	1,2-Dichloroethane-D4	100%	103%	103%	70-130%

(a) Result is from Run #2.

* = Outside of Control Limits.

Duplicate Summary

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Job Number: D54183

Account: DCDSCOS D.C. Dozer Service

Project: Foundation Energy - Sooner 13-16

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D54180-6DUP	5V30358.D	1	01/14/14	JL	n/a	n/a	V5V1825
D54180-6	5V30357.D	1	01/14/14	JL	n/a	n/a	V5V1825

The QC reported here applies to the following samples:

Method: SW846 8260B

D54183-2

CAS No.	Compound	D54180-6 ug/kg	DUP Q	Q	RPD	Limits
71-43-2	Benzene	ND	ND		nc	30
100-41-4	Ethylbenzene	ND	ND		nc	30
108-88-3	Toluene	ND	ND		nc	30
1330-20-7	Xylene (total)	ND	ND		nc	30
	TPH-GRO (C6-C10)	9080	J	ND	200* a	30

CAS No.	Surrogate Recoveries	DUP	D54180-6	Limits
2037-26-5	Toluene-D8	93%	93%	64-130%
460-00-4	4-Bromofluorobenzene	109%	106%	62-131%
17060-07-0	1,2-Dichloroethane-D4	99%	99%	70-130%

(a) High RPD due to possible sample nonhomogeneity.

* = Outside of Control Limits.

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GC Semi-volatiles



QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

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Job Number: D54183
Account: DCDCSCOS D.C. Dozer Service
Project: Foundation Energy - Sooner 13-16

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9236-MB	FH017350.D	1	01/14/14	JS	01/14/14	OP9236	GFH857

The QC reported here applies to the following samples:

Method: SW846-8015B

D54183-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	6.7	5.0	mg/kg	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	60% 20-130%

Blank Spike Summary

Job Number: D54183
 Account: DCDCSCOS D.C. Dozer Service
 Project: Foundation Energy - Sooner 13-16

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9236-BS	FH017352.D	1	01/14/14	JS	01/14/14	OP9236	GFH857

The QC reported here applies to the following samples:

Method: SW846-8015B

D54183-1

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	667	368	55	42-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	64%	20-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

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Job Number: D54183
 Account: DCDSCOS D.C. Dozer Service
 Project: Foundation Energy - Sooner 13-16

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9236-MS	FH017354.D 1		01/14/14	JS	01/14/14	OP9236	GFH857
OP9236-MSD	FH017356.D 1		01/14/14	JS	01/14/14	OP9236	GFH857
D54177-1	FH017358.D 1		01/14/14	JS	01/14/14	OP9236	GFH857

The QC reported here applies to the following samples:

Method: SW846-8015B

D54183-1

CAS No.	Compound	D54177-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	198		781	652	58	570	48	13	20-150/30

CAS No.	Surrogate Recoveries	MS	MSD	D54177-1	Limits
84-15-1	o-Terphenyl	62%	57%	68%	20-130%

* = Outside of Control Limits.