



11/03/14

## Technical Report for

**D.C. Dozer Service**

**Gebauer 7-23**

**Accutest Job Number: D63402**

**Sampling Date: 10/11/14**

### Report to:

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

**ATTN: Todd Troutman**

**Total number of pages in report: 65**



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.

A handwritten signature in black ink, appearing to read 'Scott Heideman'.

**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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## Sample Summary

D.C. Dozer Service

Job No: D63402

Gebauer 7-23

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
D63402-1	10/11/14	17:00 TT	10/14/14	SO	Soil	BOTTOM #1
D63402-2	10/11/14	17:05 TT	10/14/14	SO	Soil	BOTTOM #2
D63402-3	10/11/14	17:15 TT	10/14/14	SO	Soil	WEST WALL #1
D63402-4	10/11/14	17:25 TT	10/14/14	SO	Soil	EAST WALL #1
D63402-5	10/11/14	17:30 TT	10/14/14	SO	Soil	NORTH WALL #1
D63402-6	10/11/14	17:40 TT	10/14/14	SO	Soil	SOUTH WALL #1
D63402-7	10/11/14	17:50 TT	10/14/14	SO	Soil	BOTTOM BAG #1
D63402-7A	10/11/14	17:50 TT	10/14/14	SO	Soil	BOTTOM BAG #1
D63402-8	10/11/14	18:00 TT	10/14/14	SO	Soil	WEST WALL BAG #1
D63402-8A	10/11/14	18:00 TT	10/14/14	SO	Soil	WEST WALL BAG #1
D63402-9	10/11/14	18:05 TT	10/14/14	SO	Soil	EAST WALL BAG #1
D63402-9A	10/11/14	18:05 TT	10/14/14	SO	Soil	EAST WALL BAG #1
D63402-10	10/11/14	18:10 TT	10/14/14	SO	Soil	NORTH WALL BAG #1

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



Sample Summary  
(continued)

D.C. Dozer Service  
Gebauer 7-23

Job No: D63402

Sample Number	Collected		Time By	Received	Matrix		Client Sample ID
	Date				Code	Type	
D63402-10A	10/11/14	18:10	TT	10/14/14	SO	Soil	NORTH WALL BAG #1
D63402-11	10/11/14	18:15	TT	10/14/14	SO	Soil	SOUTH WALL BAG #1
D63402-11A	10/11/14	18:15	TT	10/14/14	SO	Soil	SOUTH WALL BAG #1

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

## Summary of Hits

Job Number: D63402  
Account: D.C. Dozer Service  
Project: Gebauer 7-23  
Collected: 10/11/14

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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D63402-1 BOTTOM #1

No hits reported in this sample.

D63402-2 BOTTOM #2

No hits reported in this sample.

D63402-3 WEST WALL #1

TPH-DRO (C10-C28)	8.06 J	8.1	6.1	mg/kg	SW846-8015B
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D63402-4 EAST WALL #1

TPH-DRO (C10-C28)	15.0	7.2	5.4	mg/kg	SW846-8015B
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D63402-5 NORTH WALL #1

No hits reported in this sample.

D63402-6 SOUTH WALL #1

No hits reported in this sample.

D63402-7 BOTTOM BAG #1

Specific Conductivity	448	1.0	umhos/cm	SM 2510B-2011 MOD
pH	9.67		su	SW846 9045D

D63402-7A BOTTOM BAG #1

Calcium	71.1	2.0	mg/l	SW846 6010C
Magnesium	7.55	1.0	mg/l	SW846 6010C
Sodium	90.3	2.0	mg/l	SW846 6010C
Sodium Adsorption Ratio <sup>a</sup>	2.72		ratio	USDA HANDBOOK 60

D63402-8 WEST WALL BAG #1

Specific Conductivity	424	1.0	umhos/cm	SM 2510B-2011 MOD
pH	9.81		su	SW846 9045D

D63402-8A WEST WALL BAG #1

Calcium	62.9	2.0	mg/l	SW846 6010C
Magnesium	5.90	1.0	mg/l	SW846 6010C

## Summary of Hits

Job Number: D63402  
 Account: D.C. Dozer Service  
 Project: Gebauer 7-23  
 Collected: 10/11/14

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Sodium		101	2.0		mg/l	SW846 6010C
Sodium Adsorption Ratio <sup>a</sup>		3.26			ratio	USDA HANDBOOK 60
D63402-9	EAST WALL BAG #1					
Specific Conductivity		607	1.0		umhos/cm	SM 2510B-2011 MOD
pH		9.81			su	SW846 9045D
D63402-9A	EAST WALL BAG #1					
Calcium		41.9	2.0		mg/l	SW846 6010C
Magnesium		4.61	1.0		mg/l	SW846 6010C
Sodium		135	2.0		mg/l	SW846 6010C
Sodium Adsorption Ratio <sup>a</sup>		5.28			ratio	USDA HANDBOOK 60
D63402-10	NORTH WALL BAG #1					
Specific Conductivity		567	1.0		umhos/cm	SM 2510B-2011 MOD
pH		9.77			su	SW846 9045D
D63402-10A	NORTH WALL BAG #1					
Calcium		650	2.0		mg/l	SW846 6010C
Magnesium		42.5	1.0		mg/l	SW846 6010C
Sodium		135	2.0		mg/l	SW846 6010C
Sodium Adsorption Ratio <sup>a</sup>		1.38			ratio	USDA HANDBOOK 60
D63402-11	SOUTH WALL BAG #1					
Specific Conductivity		520	1.0		umhos/cm	SM 2510B-2011 MOD
pH		9.79			su	SW846 9045D
D63402-11A	SOUTH WALL BAG #1					
Calcium		430	2.0		mg/l	SW846 6010C
Magnesium		30.4	1.0		mg/l	SW846 6010C
Sodium		127	2.0		mg/l	SW846 6010C
Sodium Adsorption Ratio <sup>a</sup>		1.59			ratio	USDA HANDBOOK 60

(a) Calculated as:  $(\text{Na meq/L}) / \sqrt{[(\text{Ca meq/L}) + (\text{Mg meq/L})/2]}$

## Sample Results

## Report of Analysis

## Report of Analysis

Client Sample ID:	BOTTOM #1	Date Sampled:	10/11/14
Lab Sample ID:	D63402-1	Date Received:	10/14/14
Matrix:	SO - Soil	Percent Solids:	92.9
Method:	SW846-8015B SW846 3546		
Project:	Gebauer 7-23		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI18253.D	1	10/20/14	JS	10/18/14	OP10834	GFI1010
Run #2							

Run #	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)	ND	7.2	5.4	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	113%		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

Client Sample ID:	BOTTOM #2	Date Sampled:	10/11/14
Lab Sample ID:	D63402-2	Date Received:	10/14/14
Matrix:	SO - Soil	Percent Solids:	91.7
Method:	SW846 8260B		
Project:	Gebauer 7-23		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V34006.D	1	10/16/14	DC	n/a	n/a	V5V2002
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.03 g	5.0 ml	100 ul
Run #2			

## Purgeable Aromatics + GRO

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	59	22	ug/kg	
108-88-3	Toluene	ND	120	59	ug/kg	
100-41-4	Ethylbenzene	ND	120	22	ug/kg	
1330-20-7	Xylene (total)	ND	120	59	ug/kg	
	TPH-GRO (C6-C10)	ND	12000	5900	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	96%		64-130%
460-00-4	4-Bromofluorobenzene	91%		62-131%
17060-07-0	1,2-Dichloroethane-D4	112%		70-130%

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

Client Sample ID:	WEST WALL #1	Date Sampled:	10/11/14
Lab Sample ID:	D63402-3	Date Received:	10/14/14
Matrix:	SO - Soil	Percent Solids:	81.9
Method:	SW846 8260B		
Project:	Gebauer 7-23		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V34007.D	1	10/16/14	DC	n/a	n/a	V5V2002
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.03 g	5.0 ml	100 ul
Run #2			

## Purgeable Aromatics + GRO

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	72	27	ug/kg	
108-88-3	Toluene	ND	140	72	ug/kg	
100-41-4	Ethylbenzene	ND	140	27	ug/kg	
1330-20-7	Xylene (total)	ND	140	72	ug/kg	
	TPH-GRO (C6-C10)	ND	14000	7200	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	95%		64-130%
460-00-4	4-Bromofluorobenzene	89%		62-131%
17060-07-0	1,2-Dichloroethane-D4	109%		70-130%

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

Client Sample ID:	WEST WALL #1	
Lab Sample ID:	D63402-3	Date Sampled: 10/11/14
Matrix:	SO - Soil	Date Received: 10/14/14
Method:	SW846-8015B SW846 3546	Percent Solids: 81.9
Project:	Gebauer 7-23	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI18280.D	1	10/21/14	JS	10/18/14	OP10834	GFI1011
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	8.06	8.1	6.1	mg/kg	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	99%		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

Client Sample ID:	EAST WALL #1	Date Sampled:	10/11/14
Lab Sample ID:	D63402-4	Date Received:	10/14/14
Matrix:	SO - Soil	Percent Solids:	92.8
Method:	SW846 8260B		
Project:	Gebauer 7-23		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V34008.D	1	10/16/14	DC	n/a	n/a	V5V2002
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.07 g	5.0 ml	100 ul
Run #2			

## Purgeable Aromatics + GRO

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	57	22	ug/kg	
108-88-3	Toluene	ND	110	57	ug/kg	
100-41-4	Ethylbenzene	ND	110	22	ug/kg	
1330-20-7	Xylene (total)	ND	110	57	ug/kg	
	TPH-GRO (C6-C10)	ND	11000	5700	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	95%		64-130%
460-00-4	4-Bromofluorobenzene	90%		62-131%
17060-07-0	1,2-Dichloroethane-D4	107%		70-130%

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

Client Sample ID:	EAST WALL #1	Date Sampled:	10/11/14
Lab Sample ID:	D63402-4	Date Received:	10/14/14
Matrix:	SO - Soil	Percent Solids:	92.8
Method:	SW846-8015B SW846 3546		
Project:	Gebauer 7-23		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI18278.D	1	10/21/14	JS	10/18/14	OP10834	GFI1011
Run #2							

Run #	Initial Weight	Final Volume
Run #1	30.0 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	15.0	7.2	5.4	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	114%		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

Client Sample ID:	NORTH WALL #1	Date Sampled:	10/11/14
Lab Sample ID:	D63402-5	Date Received:	10/14/14
Matrix:	SO - Soil	Percent Solids:	92.7
Method:	SW846 8260B		
Project:	Gebauer 7-23		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V34020.D	1	10/16/14	DC	n/a	n/a	V5V2003
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.04 g	5.0 ml	100 ul
Run #2			

## Purgeable Aromatics + GRO

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	57	22	ug/kg	
108-88-3	Toluene	ND	110	57	ug/kg	
100-41-4	Ethylbenzene	ND	110	22	ug/kg	
1330-20-7	Xylene (total)	ND	110	57	ug/kg	
	TPH-GRO (C6-C10)	ND	11000	5700	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	96%		64-130%
460-00-4	4-Bromofluorobenzene	88%		62-131%
17060-07-0	1,2-Dichloroethane-D4	107%		70-130%

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

Client Sample ID:	NORTH WALL #1	Date Sampled:	10/11/14
Lab Sample ID:	D63402-5	Date Received:	10/14/14
Matrix:	SO - Soil	Percent Solids:	92.7
Method:	SW846-8015B SW846 3546		
Project:	Gebauer 7-23		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI18282.D	1	10/21/14	JS	10/18/14	OP10834	GFI1011
Run #2							

Run #	Initial Weight	Final Volume
Run #1	30.0 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	7.2	5.4	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	93%		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

Client Sample ID:	SOUTH WALL #1	Date Sampled:	10/11/14
Lab Sample ID:	D63402-6	Date Received:	10/14/14
Matrix:	SO - Soil	Percent Solids:	84.8
Method:	SW846 8260B		
Project:	Gebauer 7-23		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V34023.D	1	10/16/14	DC	n/a	n/a	V5V2003
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.08 g	5.0 ml	100 ul
Run #2			

## Purgeable Aromatics + GRO

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	67	25	ug/kg	
108-88-3	Toluene	ND	130	67	ug/kg	
100-41-4	Ethylbenzene	ND	130	25	ug/kg	
1330-20-7	Xylene (total)	ND	130	67	ug/kg	
	TPH-GRO (C6-C10)	ND	13000	6700	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	96%		64-130%
460-00-4	4-Bromofluorobenzene	90%		62-131%
17060-07-0	1,2-Dichloroethane-D4	105%		70-130%

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

Client Sample ID:	SOUTH WALL #1	Date Sampled:	10/11/14
Lab Sample ID:	D63402-6	Date Received:	10/14/14
Matrix:	SO - Soil	Percent Solids:	84.8
Method:	SW846-8015B SW846 3546		
Project:	Gebauer 7-23		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI18288.D	1	10/21/14	JS	10/18/14	OP10834	GFI1011
Run #2							

Run #	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)	ND	7.8	5.9	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	97%		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

Client Sample ID: BOTTOM BAG #1  
Lab Sample ID: D63402-7  
Matrix: SO - Soil  
Project: Gebauer 7-23

Date Sampled: 10/11/14  
Date Received: 10/14/14  
Percent Solids: n/a

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
prep: DEPT.OF AG, BOOK N9							
Specific Conductivity	448	1.0	umhos/cm	1	10/17/14	JD	SM 2510B-2011 MOD
pH	9.67		su	1	10/16/14 14:10	JB	SW846 9045D

---

RL = Reporting Limit

## Report of Analysis

Client Sample ID: BOTTOM BAG #1  
Lab Sample ID: D63402-7A  
Matrix: SO - Soil  
Project: Gebauer 7-23

Date Sampled: 10/11/14  
Date Received: 10/14/14  
Percent Solids: n/a

## SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	71.1	2.0	mg/l	1	10/16/14	10/16/14 KV	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>
Magnesium	7.55	1.0	mg/l	1	10/16/14	10/16/14 KV	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>
Sodium	90.3	2.0	mg/l	1	10/16/14	10/16/14 KV	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>

(1) Instrument QC Batch: MA5384

(2) Prep QC Batch: MP14319

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RL = Reporting Limit

## Report of Analysis

Client Sample ID: BOTTOM BAG #1  
Lab Sample ID: D63402-7A  
Matrix: SO - Soil  
Project: Gebauer 7-23

Date Sampled: 10/11/14  
Date Received: 10/14/14  
Percent Solids: n/a

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio <sup>a</sup>	2.72		ratio	1	10/16/14 20:17	KV	USDA HANDBOOK 60

(a) Calculated as:  $(\text{Na meq/L}) / \sqrt{[(\text{Ca meq/L}) + (\text{Mg meq/L})/2]}$

RL = Reporting Limit

## Report of Analysis

Client Sample ID: WEST WALL BAG #1

Lab Sample ID: D63402-8

Matrix: SO - Soil

Project: Gebauer 7-23

Date Sampled: 10/11/14

Date Received: 10/14/14

Percent Solids: n/a

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
prep: DEPT.OF AG, BOOK N9							
Specific Conductivity	424	1.0	umhos/cm	1	10/17/14	JD	SM 2510B-2011 MOD
pH	9.81		su	1	10/16/14 14:10	JB	SW846 9045D

RL = Reporting Limit

## Report of Analysis

Client Sample ID: WEST WALL BAG #1  
Lab Sample ID: D63402-8A  
Matrix: SO - Soil  
Project: Gebauer 7-23

Date Sampled: 10/11/14  
Date Received: 10/14/14  
Percent Solids: n/a

## SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	62.9	2.0	mg/l	1	10/16/14	10/16/14 KV	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>
Magnesium	5.90	1.0	mg/l	1	10/16/14	10/16/14 KV	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>
Sodium	101	2.0	mg/l	1	10/16/14	10/16/14 KV	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>

(1) Instrument QC Batch: MA5384

(2) Prep QC Batch: MP14319

RL = Reporting Limit

## Report of Analysis

Client Sample ID:	WEST WALL BAG #1	Date Sampled:	10/11/14
Lab Sample ID:	D63402-8A	Date Received:	10/14/14
Matrix:	SO - Soil	Percent Solids:	n/a
Project:	Gebauer 7-23		

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio <sup>a</sup>	3.26		ratio	1	10/16/14 20:25	KV	USDA HANDBOOK 60

(a) Calculated as:  $(\text{Na meq/L}) / \sqrt{[(\text{Ca meq/L}) + (\text{Mg meq/L})/2]}$

---

RL = Reporting Limit

## Report of Analysis

Client Sample ID: EAST WALL BAG #1  
Lab Sample ID: D63402-9  
Matrix: SO - Soil  
Project: Gebauer 7-23

Date Sampled: 10/11/14  
Date Received: 10/14/14  
Percent Solids: n/a

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
prep: DEPT.OF AG, BOOK N9							
Specific Conductivity	607	1.0	umhos/cm	1	10/17/14	JD	SM 2510B-2011 MOD
pH	9.81		su	1	10/16/14 14:10	JB	SW846 9045D

---

RL = Reporting Limit



## Report of Analysis

Client Sample ID: EAST WALL BAG #1  
Lab Sample ID: D63402-9A  
Matrix: SO - Soil  
Project: Gebauer 7-23

Date Sampled: 10/11/14  
Date Received: 10/14/14  
Percent Solids: n/a

## SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	41.9	2.0	mg/l	1	10/16/14	10/16/14 KV	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>
Magnesium	4.61	1.0	mg/l	1	10/16/14	10/16/14 KV	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>
Sodium	135	2.0	mg/l	1	10/16/14	10/16/14 KV	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>

(1) Instrument QC Batch: MA5384

(2) Prep QC Batch: MP14319

RL = Reporting Limit

## Report of Analysis

Client Sample ID:	EAST WALL BAG #1	Date Sampled:	10/11/14
Lab Sample ID:	D63402-9A	Date Received:	10/14/14
Matrix:	SO - Soil	Percent Solids:	n/a
Project:	Gebauer 7-23		

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio <sup>a</sup>	5.28		ratio	1	10/16/14 20:32	KV	USDA HANDBOOK 60

(a) Calculated as:  $(\text{Na meq/L}) / \sqrt{[(\text{Ca meq/L}) + (\text{Mg meq/L})/2]}$

---

RL = Reporting Limit

## Report of Analysis

Client Sample ID: NORTH WALL BAG #1

Lab Sample ID: D63402-10

Matrix: SO - Soil

Project: Gebauer 7-23

Date Sampled: 10/11/14

Date Received: 10/14/14

Percent Solids: n/a

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
prep: DEPT.OF AG, BOOK N9							
Specific Conductivity	567	1.0	umhos/cm	1	10/17/14	JD	SM 2510B-2011 MOD
pH	9.77		su	1	10/16/14 14:10	JB	SW846 9045D

RL = Reporting Limit

## Report of Analysis

Client Sample ID: NORTH WALL BAG #1

Lab Sample ID: D63402-10A

Matrix: SO - Soil

Project: Gebauer 7-23

Date Sampled: 10/11/14

Date Received: 10/14/14

Percent Solids: n/a

## SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	650	2.0	mg/l	1	10/16/14	10/16/14 KV	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>
Magnesium	42.5	1.0	mg/l	1	10/16/14	10/16/14 KV	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>
Sodium	135	2.0	mg/l	1	10/16/14	10/16/14 KV	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>

(1) Instrument QC Batch: MA5384

(2) Prep QC Batch: MP14319

RL = Reporting Limit

## Report of Analysis

Client Sample ID:	NORTH WALL BAG #1	Date Sampled:	10/11/14
Lab Sample ID:	D63402-10A	Date Received:	10/14/14
Matrix:	SO - Soil	Percent Solids:	n/a
Project:	Gebauer 7-23		

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio <sup>a</sup>	1.38		ratio	1	10/16/14 20:39	KV	USDA HANDBOOK 60

(a) Calculated as:  $(\text{Na meq/L}) / \sqrt{[(\text{Ca meq/L}) + (\text{Mg meq/L})/2]}$

---

RL = Reporting Limit

## Report of Analysis

Client Sample ID: SOUTH WALL BAG #1

Lab Sample ID: D63402-11

Matrix: SO - Soil

Project: Gebauer 7-23

Date Sampled: 10/11/14

Date Received: 10/14/14

Percent Solids: n/a

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
prep: DEPT.OF AG, BOOK N9							
Specific Conductivity	520	1.0	umhos/cm	1	10/17/14	JD	SM 2510B-2011 MOD
pH	9.79		su	1	10/16/14 14:10	JB	SW846 9045D

RL = Reporting Limit

## Report of Analysis

Client Sample ID: SOUTH WALL BAG #1

Lab Sample ID: D63402-11A

Matrix: SO - Soil

Project: Gebauer 7-23

Date Sampled: 10/11/14

Date Received: 10/14/14

Percent Solids: n/a

## SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	430	2.0	mg/l	1	10/16/14	10/16/14 KV	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>
Magnesium	30.4	1.0	mg/l	1	10/16/14	10/16/14 KV	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>
Sodium	127	2.0	mg/l	1	10/16/14	10/16/14 KV	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>

(1) Instrument QC Batch: MA5384

(2) Prep QC Batch: MP14319

RL = Reporting Limit

## Report of Analysis

Client Sample ID:	SOUTH WALL BAG #1	Date Sampled:	10/11/14
Lab Sample ID:	D63402-11A	Date Received:	10/14/14
Matrix:	SO - Soil	Percent Solids:	n/a
Project:	Gebauer 7-23		

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio <sup>a</sup>	1.59		ratio	1	10/16/14 20:46	KV	USDA HANDBOOK 60

(a) Calculated as:  $(\text{Na meq/L}) / \sqrt{[(\text{Ca meq/L}) + (\text{Mg meq/L})/2]}$

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RL = Reporting Limit



## Misc. Forms

### Custody Documents and Other Forms

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**Includes the following where applicable:**

- Chain of Custody

[illegible]

## 4.4.1

## D63402: Chain of Custody

Page 1 of 2

## Accutest Laboratories Sample Receipt Summary

**Accutest Job Number:** D63402      **Client:** DCD      **Project:** \_\_\_\_\_  
**Date / Time Received:** 10/14/2014 10:15:00 AM      **Delivery Method:** \_\_\_\_\_      **Airbill #'s:** HD  
**Cooler Temps (Initial/Adjusted):** 0

**Cooler Security**
**Y or N**

- |  |   |
|--|---|
| 1. Custody Seals Present: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | 3. COC Present: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N        |
| 2. Custody Seals Intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N  | 4. Smpl Dates/Time OK: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N |

**Cooler Temperature**
**Y or N**

- |   |           |
|---|-----------|
| 1. Temp criteria achieved: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N |           |
| 2. Cooler temp verification: _____ ; _____  |           |
| 3. Cooler media: _____  | Ice (Bag) |
| 4. No. Coolers: _____   | 1         |

**Quality Control Preservation**
**Y or N N/A**

- |  |  |
|--|--|
| 1. Trip Blank present / cooler: <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A           |  |
| 2. Trip Blank listed on COC: <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A              |  |
| 3. Samples preserved properly: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A |  |
| 4. VOCs headspace free: <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A                   |  |

Comments

**Sample Integrity - Documentation**
**Y or N**

- |   |  |
|---|--|
| 1. Sample labels present on bottles: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N   |  |
| 2. Container labeling complete: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N        |  |
| 3. Sample container label / COC agree: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N |  |

**Sample Integrity - Condition**
**Y or N**

- |   |        |
|---|--------|
| 1. Sample recvd within HT: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N       |        |
| 2. All containers accounted for: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N |        |
| 3. Condition of sample: _____   | Intact |

**Sample Integrity - Instructions**
**Y or N N/A**

- |  |  |
|--|--|
| 1. Analysis requested is clear: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N                                 |  |
| 2. Bottles received for unspecified tests: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N                      |  |
| 3. Sufficient volume recvd for analysis: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N                        |  |
| 4. Compositing instructions clear: <input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> N/A |  |
| 5. Filtering instructions clear: <input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> N/A   |  |

## GC/MS Volatiles

5

### QC Data Summaries

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**Includes the following where applicable:**

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

## Method Blank Summary

Page 1 of 1

Job Number: D63402  
Account: DCDSCOS D.C. Dozer Service  
Project: Gebauer 7-23

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V2002-MB	5V33992.D	1	10/16/14	DC	n/a	n/a	V5V2002

The QC reported here applies to the following samples:

Method: SW846 8260B

D63402-2, D63402-3, D63402-4

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	100	50	ug/kg	
	TPH-GRO (C6-C10)	ND	10000	5000	ug/kg	

CAS No.	Surrogate Recoveries	Limits
2037-26-5	Toluene-D8	96% 64-130%
460-00-4	4-Bromofluorobenzene	92% 62-131%
17060-07-0	1,2-Dichloroethane-D4	104% 70-130%

## Method Blank Summary

Page 1 of 1

Job Number: D63402  
Account: DCDSCOS D.C. Dozer Service  
Project: Gebauer 7-23

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V2003-MB	5V34017.D	1	10/16/14	DC	n/a	n/a	V5V2003

The QC reported here applies to the following samples:

Method: SW846 8260B

D63402-5, D63402-6

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	100	50	ug/kg	
	TPH-GRO (C6-C10)	ND	10000	5000	ug/kg	

CAS No.	Surrogate Recoveries	Limits
2037-26-5	Toluene-D8	95% 64-130%
460-00-4	4-Bromofluorobenzene	92% 62-131%
17060-07-0	1,2-Dichloroethane-D4	106% 70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/kg	

## Blank Spike Summary

Page 1 of 1

Job Number: D63402  
Account: DCDSCOS D.C. Dozer Service  
Project: Gebauer 7-23

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V2002-BS	5V33993.D	1	10/16/14	DC	n/a	n/a	V5V2002

The QC reported here applies to the following samples:

Method: SW846 8260B

D63402-2, D63402-3, D63402-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	2500	2300	92	70-130
100-41-4	Ethylbenzene	2500	2520	101	70-130
108-88-3	Toluene	2500	2230	89	70-130
1330-20-7	Xylene (total)	7500	7470	100	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	97%	64-130%
460-00-4	4-Bromofluorobenzene	110%	62-131%
17060-07-0	1,2-Dichloroethane-D4	97%	70-130%

\* = Outside of Control Limits.

## Blank Spike Summary

Page 1 of 1

Job Number: D63402  
Account: DCDSCOS D.C. Dozer Service  
Project: Gebauer 7-23

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V2002-BS	5V33994.D	1	10/16/14	DC	n/a	n/a	V5V2002

The QC reported here applies to the following samples:

Method: SW846 8260B

D63402-2, D63402-3, D63402-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
	TPH-GRO (C6-C10)	110000	84900	77	58-130

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	94%	64-130%
460-00-4	4-Bromofluorobenzene	103%	62-131%
17060-07-0	1,2-Dichloroethane-D4	87%	70-130%

\* = Outside of Control Limits.



## Blank Spike Summary

Page 1 of 1

Job Number: D63402  
Account: DCDSCOS D.C. Dozer Service  
Project: Gebauer 7-23

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V2003-BS	5V34018.D	1	10/16/14	DC	n/a	n/a	V5V2003

The QC reported here applies to the following samples:

Method: SW846 8260B

D63402-5, D63402-6

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	2500	2360	94	70-130
100-41-4	Ethylbenzene	2500	2620	105	70-130
108-88-3	Toluene	2500	2330	93	70-130
1330-20-7	Xylene (total)	7500	7800	104	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	98%	64-130%
460-00-4	4-Bromofluorobenzene	110%	62-131%
17060-07-0	1,2-Dichloroethane-D4	96%	70-130%

\* = Outside of Control Limits.

## Blank Spike Summary

Page 1 of 1

Job Number: D63402  
Account: DCDSCOS D.C. Dozer Service  
Project: Gebauer 7-23

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V2003-BS	5V34019.D	1	10/16/14	DC	n/a	n/a	V5V2003

The QC reported here applies to the following samples:

Method: SW846 8260B

D63402-5, D63402-6

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
	TPH-GRO (C6-C10)	110000	78600	71	58-130

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	93%	64-130%
460-00-4	4-Bromofluorobenzene	104%	62-131%
17060-07-0	1,2-Dichloroethane-D4	87%	70-130%

\* = Outside of Control Limits.

# Matrix Spike Summary

Page 1 of 1

Job Number: D63402  
Account: DCDSCOS D.C. Dozer Service  
Project: Gebauer 7-23

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D63429-1MS	5V33996.D	1	10/16/14	DC	n/a	n/a	V5V2002
D63429-1	5V33995.D	1	10/16/14	DC	n/a	n/a	V5V2002

The QC reported here applies to the following samples:

Method: SW846 8260B

D63402-2, D63402-3, D63402-4

CAS No.	Compound	D63429-1 ug/kg	Spike Q	MS ug/kg	MS %	Limits
71-43-2	Benzene	ND	3130	3010	96	64-139
100-41-4	Ethylbenzene	ND	3130	3190	102	68-136
108-88-3	Toluene	ND	3130	2890	92	60-130
1330-20-7	Xylene (total)	ND	9390	9630	103	58-142

CAS No.	Surrogate Recoveries	MS	D63429-1	Limits
2037-26-5	Toluene-D8	97%	95%	64-130%
460-00-4	4-Bromofluorobenzene	110%	91%	62-131%
17060-07-0	1,2-Dichloroethane-D4	95%	106%	70-130%

\* = Outside of Control Limits.

## Matrix Spike Summary

Page 1 of 1

Job Number: D63402  
Account: DCDSCOS D.C. Dozer Service  
Project: Gebauer 7-23

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D63429-1MS	5V33997.D	1	10/16/14	DC	n/a	n/a	V5V2002
D63429-1	5V33995.D	1	10/16/14	DC	n/a	n/a	V5V2002

The QC reported here applies to the following samples:

Method: SW846 8260B

D63402-2, D63402-3, D63402-4

CAS No.	Compound	D63429-1 ug/kg	Spike Q	MS ug/kg	MS %	Limits
	TPH-GRO (C6-C10)	ND		138000	108000	78 14-174

CAS No.	Surrogate Recoveries	MS	D63429-1	Limits
2037-26-5	Toluene-D8	95%	95%	64-130%
460-00-4	4-Bromofluorobenzene	103%	91%	62-131%
17060-07-0	1,2-Dichloroethane-D4	93%	106%	70-130%

\* = Outside of Control Limits.

# Matrix Spike Summary

Page 1 of 1

Job Number: D63402  
Account: DCDSCOS D.C. Dozer Service  
Project: Gebauer 7-23

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D63402-5MS	5V34021.D	1	10/16/14	DC	n/a	n/a	V5V2003
D63402-5	5V34020.D	1	10/16/14	DC	n/a	n/a	V5V2003

The QC reported here applies to the following samples:

Method: SW846 8260B

D63402-5, D63402-6

CAS No.	Compound	D63402-5 ug/kg	Spike Q	MS ug/kg	MS %	Limits
71-43-2	Benzene	ND	2870	2770	97	64-139
100-41-4	Ethylbenzene	ND	2870	3020	105	68-136
108-88-3	Toluene	ND	2870	2660	93	60-130
1330-20-7	Xylene (total)	ND	8610	8940	104	58-142

CAS No.	Surrogate Recoveries	MS	D63402-5	Limits
2037-26-5	Toluene-D8	99%	96%	64-130%
460-00-4	4-Bromofluorobenzene	109%	88%	62-131%
17060-07-0	1,2-Dichloroethane-D4	93%	107%	70-130%

\* = Outside of Control Limits.

# Matrix Spike Summary

Page 1 of 1

Job Number: D63402  
Account: DCDSCOS D.C. Dozer Service  
Project: Gebauer 7-23

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D63402-5MS	5V34022.D	1	10/16/14	DC	n/a	n/a	V5V2003
D63402-5	5V34020.D	1	10/16/14	DC	n/a	n/a	V5V2003

The QC reported here applies to the following samples:

Method: SW846 8260B

D63402-5, D63402-6

CAS No.	Compound	D63402-5 ug/kg	Spike Q	MS ug/kg	MS %	Limits
	TPH-GRO (C6-C10)	ND		126000	103000	82 14-174

CAS No.	Surrogate Recoveries	MS	D63402-5	Limits
2037-26-5	Toluene-D8	94%	96%	64-130%
460-00-4	4-Bromofluorobenzene	103%	88%	62-131%
17060-07-0	1,2-Dichloroethane-D4	93%	107%	70-130%

\* = Outside of Control Limits.

## Duplicate Summary

Page 1 of 1

Job Number: D63402  
Account: DCDSCOS D.C. Dozer Service  
Project: Gebauer 7-23

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D63429-2DUP	5V33999.D	1	10/16/14	DC	n/a	n/a	V5V2002
D63429-2	5V33998.D	1	10/16/14	DC	n/a	n/a	V5V2002

The QC reported here applies to the following samples:

Method: SW846 8260B

D63402-2, D63402-3, D63402-4

CAS No.	Compound	D63429-2 ug/kg	DUP Q	ug/kg	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)	ND		ND		nc	30

CAS No.	Surrogate Recoveries	DUP	D63429-2	Limits
2037-26-5	Toluene-D8	94%	94%	64-130%
460-00-4	4-Bromofluorobenzene	91%	92%	62-131%
17060-07-0	1,2-Dichloroethane-D4	115%	111%	70-130%

\* = Outside of Control Limits.

## Duplicate Summary

Page 1 of 1

Job Number: D63402  
Account: DCDSCOS D.C. Dozer Service  
Project: Gebauer 7-23

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D63402-6DUP	5V34024.D	1	10/16/14	DC	n/a	n/a	V5V2003
D63402-6	5V34023.D	1	10/16/14	DC	n/a	n/a	V5V2003

The QC reported here applies to the following samples:

Method: SW846 8260B

D63402-5, D63402-6

CAS No.	Compound	D63402-6 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)	ND	ND		nc	30

CAS No.	Surrogate Recoveries	DUP	D63402-6	Limits
2037-26-5	Toluene-D8	94%	96%	64-130%
460-00-4	4-Bromofluorobenzene	89%	90%	62-131%
17060-07-0	1,2-Dichloroethane-D4	110%	105%	70-130%

\* = Outside of Control Limits.



## 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

Page 1 of 1

Job Number: D63402  
Account: DCDSCOS D.C. Dozer Service  
Project: Gebauer 7-23

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10834-MB	FI18213.D	1	10/19/14	JS	10/18/14	OP10834	GFI1010

The QC reported here applies to the following samples:

Method: SW846-8015B

D63402-1, D63402-3, D63402-4, D63402-5, D63402-6

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	118% 20-130%

## Blank Spike Summary

Page 1 of 1

Job Number: D63402  
Account: DCDSCOS D.C. Dozer Service  
Project: Gebauer 7-23

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10834-BS	FI18215.D	1	10/20/14	JS	10/18/14	OP10834	GFI1010

The QC reported here applies to the following samples:

Method: SW846-8015B

D63402-1, D63402-3, D63402-4, D63402-5, D63402-6

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	167	134	80	42-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	112%	20-130%

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D63402  
Account: DCDSCOS D.C. Dozer Service  
Project: Gebauer 7-23

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10834-MS	FI18249.D	1	10/20/14	JS	10/18/14	OP10834	GFI1010
OP10834-MSD	FI18251.D	1	10/20/14	JS	10/18/14	OP10834	GFI1010
D63402-1	FI18253.D	1	10/20/14	JS	10/18/14	OP10834	GFI1010

The QC reported here applies to the following samples:

Method: SW846-8015B

D63402-1, D63402-3, D63402-4, D63402-5, D63402-6

CAS No.	Compound	D63402-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	Spike mg/kg	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	ND		179	134	75	179	134	75	0	20-150/30

CAS No.	Surrogate Recoveries	MS	MSD	D63402-1	Limits
84-15-1	o-Terphenyl	109%	107%	113%	20-130%

\* = Outside of Control Limits.

## Metals Analysis

### QC Data Summaries

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**Includes the following where applicable:**

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: D63402  
Account: DCDCSCOS - D.C. Dozer Service  
Project: Gebauer 7-23

QC Batch ID: MP14319  
Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60  
Units: ug/l

Prep Date: 10/16/14

Metal	RL	IDL	MDL	MB raw	final
Aluminum	500	55	210		
Antimony	150	11	95		
Arsenic	130	19	28		
Barium	50	1	7		
Beryllium	50	4.5	6		
Boron	250	4	33		
Cadmium	50	1	1.8		
Calcium	2000	12	210	-42	<2000
Chromium	50	1.5	2		
Cobalt	25	2.5	2.9		
Copper	50	4	9.5		
Iron	350	7.5	48		
Lead	250	11	110		
Lithium	25	2	14		
Magnesium	1000	34	95	23.5	<1000
Manganese	25	2.5	2.3		
Molybdenum	50	2	4.2		
Nickel	150	2.5	4.4		
Phosphorus	500	75	100		
Potassium	5000	500	1400		
Selenium	250	36	55		
Silicon	250	24	26		
Silver	150	1.5	3		
Sodium	2000	37	850	22.0	<2000
Strontium	25	.05	.6		
Thallium	50	9	20		
Tin	250	60	80		
Titanium	50	.5	11		
Uranium	250	15	28		
Vanadium	50	2	2		
Zinc	150	2	16		

Associated samples MP14319: D63402-7A, D63402-8A, D63402-9A, D63402-10A, D63402-11A

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: D63402  
Account: DCDESCOS - D.C. Dozer Service  
Project: Gebauer 7-23

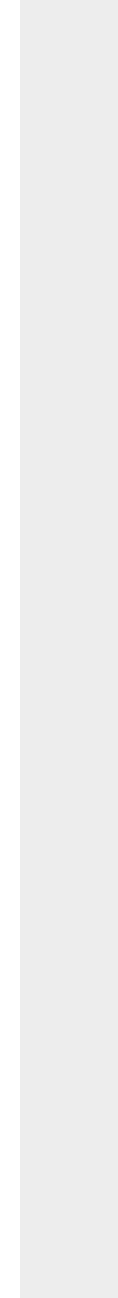
QC Batch ID: MP14319  
Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60  
Units: ug/l

Prep Date: 10/16/14

Metal	RL	IDL	MDL	MB raw	final
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(anr) Analyte not requested



MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D63402  
 Account: DCDCSCOS - D.C. Dozer Service  
 Project: Gebauer 7-23

QC Batch ID: MP14319  
 Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60  
 Units: ug/l

Prep Date: 10/16/14

Metal	D63345-7A Original MS		Spikelot ICPAL2	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic					
Barium					
Beryllium					
Boron					
Cadmium					
Calcium	634000	779000	125000	116.0	75-125
Chromium					
Cobalt					
Copper					
Iron					
Lead					
Lithium					
Magnesium	1100000	1190000	125000	72.0 (a)	75-125
Manganese					
Molybdenum					
Nickel					
Phosphorus					
Potassium					
Selenium					
Silicon					
Silver					
Sodium	994000	1080000	125000	68.8 (a)	75-125
Strontium					
Thallium					
Tin					
Titanium					
Uranium					
Vanadium					
Zinc					

Associated samples MP14319: D63402-7A, D63402-8A, D63402-9A, D63402-10A, D63402-11A

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits



MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D63402  
 Account: DCDS COS - D.C. Dozer Service  
 Project: Gebauer 7-23

QC Batch ID: MP14319  
 Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60  
 Units: ug/l

Prep Date: 10/16/14

Metal	D63345-7A Original MS	Spikelot ICPALL2	% Rec	QC Limits
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(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D63402  
Account: DCDCSCOS - D.C. Dozer Service  
Project: Gebauer 7-23

QC Batch ID: MP14319  
Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60  
Units: ug/l

Prep Date: 10/16/14

Metal	D63345-7A Original	MSD	Spikelot ICPAL2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic						
Barium						
Beryllium						
Boron						
Cadmium						
Calcium	634000	709000	125000	60.0 (a)	9.4	20
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Lithium						
Magnesium	1100000	1130000	125000	24.0 (a)	5.2	20
Manganese						
Molybdenum						
Nickel						
Phosphorus						
Potassium						
Selenium						
Silicon						
Silver						
Sodium	994000	1040000	125000	36.8 (a)	3.8	20
Strontium						
Thallium						
Tin						
Titanium						
Uranium						
Vanadium						
Zinc						

Associated samples MP14319: D63402-7A, D63402-8A, D63402-9A, D63402-10A, D63402-11A

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D63402  
 Account: DCDESCOS - D.C. Dozer Service  
 Project: Gebauer 7-23

QC Batch ID: MP14319  
 Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60  
 Units: ug/l

Prep Date: 10/16/14

Metal	D63345-7A Original MSD	Spikelot ICPALL2 % Rec	MSD RPD	QC Limit
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(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

## SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D63402  
Account: DCDCSCOS - D.C. Dozer Service  
Project: Gebauer 7-23

QC Batch ID: MP14319  
Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60  
Units: ug/l

Prep Date: 10/16/14

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium				
Calcium	131000	125000	104.8	80-120
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Lithium				
Magnesium	126000	125000	100.8	80-120
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silicon				
Silver				
Sodium	126000	125000	100.8	80-120
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP14319: D63402-7A, D63402-8A, D63402-9A, D63402-10A, D63402-11A

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits

## SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D63402

Account: DCDSCOS - D.C. Dozer Service

Project: Gebauer 7-23

QC Batch ID: MP14319

Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60

Units: ug/l

Prep Date:

10/16/14

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits
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(anr) Analyte not requested

# SERIAL DILUTION RESULTS SUMMARY

Login Number: D63402  
Account: DCDCSCOS - D.C. Dozer Service  
Project: Gebauer 7-23

QC Batch ID: MP14319  
Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60  
Units: ug/l

Prep Date: 10/16/14

Metal	D63345-7A Original SDL 1:5		%DIF	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium				
Calcium	127000	127000	0.2	0-10
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Lithium				
Magnesium	219000	221000	0.7	0-10
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silicon				
Silver				
Sodium	199000	199000	0.2	0-10
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP14319: D63402-7A, D63402-8A, D63402-9A, D63402-10A, D63402-11A

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits

SERIAL DILUTION RESULTS SUMMARY

Login Number: D63402  
 Account: DCDESCOS - D.C. Dozer Service  
 Project: Gebauer 7-23

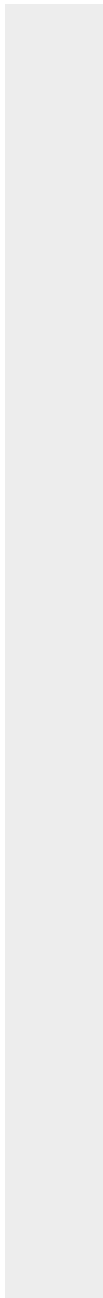
QC Batch ID: MP14319  
 Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60  
 Units: ug/l

Prep Date: 10/16/14

Metal	D63345-7A	QC
	Original SDL 1:5 %DIF	Limits

(anr) Analyte not requested



7.1.4

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## General Chemistry

### QC Data Summaries

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**Includes the following where applicable:**

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



METHOD BLANK AND SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: D63402  
Account: DCDCSCOS - D.C. Dozer Service  
Project: Gebauer 7-23

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Specific Conductivity	GP13801/GN26993			umhos/cm	9988	9780	97.9	90-110%
pH	GN26980			su	8.00	8.03	100.4	99.1-100.9%

Associated Samples:  
Batch GN26980: D63402-7, D63402-8, D63402-9, D63402-10, D63402-11  
Batch GP13801: D63402-7, D63402-8, D63402-9, D63402-10, D63402-11  
(\*) Outside of QC limits

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