



ACCUTEST

Pay this amount: \$4059.50

Invoice Number: 6086425

Invoice Date: 05/15/17

To: Diamond Operating Inc.  
6666 Gunpark Drive  
Suite 200  
Boulder, CO 80301

P.O. Number:

Account Code: DIAMOCOB Terms: NET 30  
Project Code: DIAMOCOB16766

Attn: Dave Peterson

Project description: Loudder

QTY	MX	Code	Test	Test Description	T/A	Price	Amount
Job#:		D93041		Proj #:			
Date Rec:		04/17/17		Proj Mgr: Dave Peterson			
10	SO		%SOL	Percent Solids	14	0.00	0.00
10	SO		B8015DRO	DRO	14	90.00	900.00
10	SO		PH	pH	14	20.00	200.00
10	SO		SCON	Specific Conductance	14	25.00	250.00
10	SO		V8015GRO	GRO	14	68.00	680.00
10	SO		V8260BTX	BTEX	14	82.00	820.00
10	SO		XSAR	Sodium Absorpt.Ratio-Digestion/Analysis	14	120.00	1200.00
1	SO		ENVIRO	Environmental / Recycling surcharge	14	9.50	9.50

Job Total: 4059.50

Net 4059.50

Total for Invoice 6086425 4059.50

Total Due For Invoice 4059.50

*PT-PA  
DOT-PA*

*OK SP  
Loudder skin  
pit closure  
soil sample testing*

Remit to: SGS ACCUTEST INC.  
PO BOX 2506 CAROL STREAM, IL 60132-2506  
FED ID# 47-5645341

Phone: (732) 329-0200

Wire payments to:  
Account Name: SGS Accutest Inc.  
Account Number: 38805189  
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e-Hardcopy 2.0  
Automated Report

Technical Report for

Diamond Operating Inc.

Loudder

*Pits #1-2  
#3*

SGS Accutest Job Number: D93041

Sampling Date: 04/15/17

Report to:

Diamond Operating Inc.  
6666 Gunpark Drive Suite 200  
Boulder, CO 80301  
davep@flatironenergy.com

ATTN: Dave Peterson

Total number of pages in report: 100



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: Jen Jorschumb 303-425-6021

Certifications: CO (CO00049), ID (CO00049), NE (NE-OS-06-04), ND (R-027), NJ (CO007), OK (D9942)  
UT (NELAP CO00049), LA (LA150028), TX (T104704511), WY (8TMS-L)

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Test results relate only to samples analyzed.

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## Sample Summary

Diamond Operating Inc.

Job No: D93041

Loudder

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
D93041-1	04/15/17	00:00	SG	04/17/17	SO Soil	BASE PIT 1/2 - SOUTH
D93041-1A	04/15/17	00:00	SG	04/17/17	SO Soil	BASE PIT 1/2 - SOUTH
D93041-2	04/15/17	00:00	SG	04/17/17	SO Soil	BASE PIT 1/2 - NORTH
D93041-2A	04/15/17	00:00	SG	04/17/17	SO Soil	BASE PIT 1/2 - NORTH
D93041-3	04/15/17	00:00	SG	04/17/17	SO Soil	EAST PIT 1/2
D93041-3A	04/15/17	00:00	SG	04/17/17	SO Soil	EAST PIT 1/2
D93041-4	04/15/17	00:00	SG	04/17/17	SO Soil	SOUTH PIT 1/2
D93041-4A	04/15/17	00:00	SG	04/17/17	SO Soil	SOUTH PIT 1/2
D93041-5	04/15/17	00:00	SG	04/17/17	SO Soil	WEST PIT 1/2
D93041-5A	04/15/17	00:00	SG	04/17/17	SO Soil	WEST PIT 1/2
D93041-6	04/15/17	00:00	SG	04/17/17	SO Soil	NORTH PIT 1/2
D93041-6A	04/15/17	00:00	SG	04/17/17	SO Soil	NORTH PIT 1/2
D93041-7	04/15/17	00:00	SG	04/17/17	SO Soil	EAST PIT 3

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



## Sample Summary (continued)

Diamond Operating Inc.

Job No: D93041

Loudder

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
D93041-7A	04/15/17	00:00	SG	04/17/17	SO Soil	EAST PIT 3
D93041-8	04/15/17	00:00	SG	04/17/17	SO Soil	WEST PIT 3
D93041-8A	04/15/17	00:00	SG	04/17/17	SO Soil	WEST PIT 3
D93041-9	04/15/17	00:00	SG	04/17/17	SO Soil	SOUTH PIT 3
D93041-9A	04/15/17	00:00	SG	04/17/17	SO Soil	SOUTH PIT 3
D93041-10	04/15/17	00:00	SG	04/17/17	SO Soil	NORTH PIT 3
D93041-10A	04/15/17	00:00	SG	04/17/17	SO Soil	NORTH PIT 3

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

# Summary of Hits



Job Number: D93041  
 Account: Diamond Operating Inc.  
 Project: Loudder  
 Collected: 04/15/17

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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**D93041-1 BASE PIT 1/2 - SOUTH**

TPH-DRO (C10-C28)	194	10	9.3	mg/kg	SW846-8015B
Specific Conductivity	270	1.0		umhos/cm	SM 2510B-2011 MOD
pH	8.96			su	SW846 9045D

**D93041-1A BASE PIT 1/2 - SOUTH**

Calcium	27.6	2.0		mg/l	SW846 6010C
Magnesium	5.78	1.0		mg/l	SW846 6010C
Sodium	30.9	2.0		mg/l	SW846 6010C
Sodium Adsorption Ratio <sup>a</sup>	1.40			ratio	USDA HANDBOOK 60

**D93041-2 BASE PIT 1/2 - NORTH**

TPH-DRO (C10-C28)	157	10	9.4	mg/kg	SW846-8015B
Specific Conductivity	212	1.0		umhos/cm	SM 2510B-2011 MOD
pH	9.02			su	SW846 9045D

**D93041-2A BASE PIT 1/2 - NORTH**

Calcium	18.0	2.0		mg/l	SW846 6010C
Magnesium	4.04	1.0		mg/l	SW846 6010C
Sodium	27.0	2.0		mg/l	SW846 6010C
Sodium Adsorption Ratio <sup>a</sup>	1.50			ratio	USDA HANDBOOK 60

**D93041-3 EAST PIT 1/2**

TPH-DRO (C10-C28)	1850	53	48	mg/kg	SW846-8015B
Specific Conductivity	250	1.0		umhos/cm	SM 2510B-2011 MOD
pH	9.08			su	SW846 9045D

**D93041-3A EAST PIT 1/2**

Calcium	17.5	2.0		mg/l	SW846 6010C
Magnesium	4.58	1.0		mg/l	SW846 6010C
Sodium	42.1	2.0		mg/l	SW846 6010C
Sodium Adsorption Ratio <sup>a</sup>	2.31			ratio	USDA HANDBOOK 60

**D93041-4 SOUTH PIT 1/2**

Specific Conductivity	290	1.0		umhos/cm	SM 2510B-2011 MOD
pH	9.16			su	SW846 9045D

# Summary of Hits



Job Number: D93041  
 Account: Diamond Operating Inc.  
 Project: Loudder  
 Collected: 04/15/17

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
D93041-4A	SOUTH PIT 1/2					
Calcium		16.2	2.0		mg/l	SW846 6010C
Magnesium		4.55	1.0		mg/l	SW846 6010C
Sodium		56.7	2.0		mg/l	SW846 6010C
Sodium Adsorption Ratio <sup>a</sup>		3.21			ratio	USDA HANDBOOK 60
D93041-5	WEST PIT 1/2					
TPH-DRO (C10-C28)		75.8	11	9.6	mg/kg	SW846-8015B
Specific Conductivity		232	1.0		umhos/cm	SM 2510B-2011 MOD
pH		9.17			su	SW846 9045D
D93041-5A	WEST PIT 1/2					
Calcium		16.6	2.0		mg/l	SW846 6010C
Magnesium		3.79	1.0		mg/l	SW846 6010C
Sodium		36.8	2.0		mg/l	SW846 6010C
Sodium Adsorption Ratio <sup>a</sup>		2.12			ratio	USDA HANDBOOK 60
D93041-6	NORTH PIT 1/2					
Specific Conductivity		290	1.0		umhos/cm	SM 2510B-2011 MOD
pH		9.00			su	SW846 9045D
D93041-6A	NORTH PIT 1/2					
Calcium		25.5	2.0		mg/l	SW846 6010C
Magnesium		5.73	1.0		mg/l	SW846 6010C
Sodium		44.1	2.0		mg/l	SW846 6010C
Sodium Adsorption Ratio <sup>a</sup>		2.05			ratio	USDA HANDBOOK 60
D93041-7	EAST PIT 3					
Specific Conductivity		283	1.0		umhos/cm	SM 2510B-2011 MOD
pH		9.05			su	SW846 9045D
D93041-7A	EAST PIT 3					
Calcium		20.8	2.0		mg/l	SW846 6010C
Magnesium		5.14	1.0		mg/l	SW846 6010C
Sodium		40.3	2.0		mg/l	SW846 6010C
Sodium Adsorption Ratio <sup>a</sup>		2.05			ratio	USDA HANDBOOK 60

# Summary of Hits



Job Number: D93041  
 Account: Diamond Operating Inc.  
 Project: Louder  
 Collected: 04/15/17

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
D93041-8	WEST PIT 3					
TPH-DRO (C10-C28)		10.3 J	11	9.9	mg/kg	SW846-8015B
Specific Conductivity		254	1.0		umhos/cm	SM 2510B-2011 MOD
pH		9.02			su	SW846 9045D
D93041-8A	WEST PIT 3					
Calcium		23.4	2.0		mg/l	SW846 6010C
Magnesium		4.91	1.0		mg/l	SW846 6010C
Sodium		41.8	2.0		mg/l	SW846 6010C
Sodium Adsorption Ratio <sup>a</sup>		2.05			ratio	USDA HANDBOOK 60
D93041-9	SOUTH PIT 3					
TPH-DRO (C10-C28)		31.2	11	9.5	mg/kg	SW846-8015B
Specific Conductivity		310	1.0		umhos/cm	SM 2510B-2011 MOD
pH		8.92			su	SW846 9045D
D93041-9A	SOUTH PIT 3					
Calcium		28.6	2.0		mg/l	SW846 6010C
Magnesium		6.64	1.0		mg/l	SW846 6010C
Sodium		40.4	2.0		mg/l	SW846 6010C
Sodium Adsorption Ratio <sup>a</sup>		1.77			ratio	USDA HANDBOOK 60
D93041-10	NORTH PIT 3					
TPH-DRO (C10-C28)		52.7	11	9.7	mg/kg	SW846-8015B
Specific Conductivity		250	1.0		umhos/cm	SM 2510B-2011 MOD
pH		9.12			su	SW846 9045D
D93041-10A	NORTH PIT 3					
Calcium		21.5	2.0		mg/l	SW846 6010C
Magnesium		4.27	1.0		mg/l	SW846 6010C
Sodium		41.4	2.0		mg/l	SW846 6010C
Sodium Adsorption Ratio <sup>a</sup>		2.13			ratio	USDA HANDBOOK 60

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



**Sample Results**

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**Report of Analysis**

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## Report of Analysis

3.1  
3

<b>Client Sample ID:</b> BASE PIT 1/2 - SOUTH	
<b>Lab Sample ID:</b> D93041-1	<b>Date Sampled:</b> 04/15/17
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 04/17/17
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> 95.9
<b>Project:</b> Loudder	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V41589.D	1	04/18/17	MB	n/a	n/a	V5V2333
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.00 g	5.0 ml
Run #2		

### Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.52	ug/kg	
108-88-3	Toluene	ND	2.1	1.0	ug/kg	
100-41-4	Ethylbenzene	ND	2.1	0.52	ug/kg	
1330-20-7	Xylene (total)	ND	2.3	1.0	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		70-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	99%		65-142%
17060-07-0	1,2-Dichloroethane-D4	104%		70-130%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> BASE PIT 1/2 - SOUTH	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-1	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 95.9
<b>Method:</b> SW846 8015B	
<b>Project:</b> Louder	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA37723.D	1	04/18/17	MR	n/a	n/a	GGA1844
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	11	5.4	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	106%		60-140%

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

3.1  
3

<b>Client Sample ID:</b> BASE PIT 1/2 - SOUTH <b>Lab Sample ID:</b> D93041-1 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846-8015B SW846 3546 <b>Project:</b> Loudder	<b>Date Sampled:</b> 04/15/17 <b>Date Received:</b> 04/17/17 <b>Percent Solids:</b> 95.9
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI53203.D	1	04/21/17	GN	04/19/17	OP14892	GFI2235
Run #2							

Run #	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	194	10	9.3	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	86%		41-134%		

---

ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> BASE PIT 1/2 - SOUTH	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-1	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 95.9
<b>Project:</b> Loudder	

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
<b>%solids</b>							
Solids, Percent	95.9		%	1	04/19/17	SWT	SM2540G-2011 M
<b>prep: DEPT.OF AG, BOOK N9</b>							
Specific Conductivity	270	1.0	umhos/cm	1	04/27/17	TJ	SM 2510B-2011 MOD
pH	8.96		su	1	04/18/17 12:30	TB	SW846 9045D

---

 RL = Reporting Limit

## Report of Analysis

32  
3

<b>Client Sample ID:</b> BASE PIT 1/2 - SOUTH	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-1A	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 95.9
<b>Project:</b> Loudder	

**SAR Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	27.6	2.0	mg/l	1	04/27/17	04/28/17 SB	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>
Magnesium	5.78	1.0	mg/l	1	04/27/17	04/28/17 SB	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>
Sodium	30.9	2.0	mg/l	1	04/27/17	04/28/17 SB	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>

(1) Instrument QC Batch: MA8447  
 (2) Prep QC Batch: MP21544

---

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> BASE PIT 1/2 - SOUTH	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-1A	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 95.9
<b>Project:</b> Loudder	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio <sup>a</sup>	1.40		ratio	1	04/28/17 17:33	SB	USDA HANDBOOK 60

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



## Report of Analysis

<b>Client Sample ID:</b> BASE PIT 1/2 - NORTH	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-2	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 95.2
<b>Method:</b> SW846 8015B	
<b>Project:</b> Loudder	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA37724.D	1	04/18/17	MR	n/a	n/a	GGA1844
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	11	5.5	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	105%		60-140%		

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



<b>Client Sample ID:</b> BASE PIT 1/2 - NORTH	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-2	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 95.2
<b>Method:</b> SW846-8015B SW846 3546	
<b>Project:</b> Loudder	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI53205.D	1	04/21/17	GN	04/19/17	OP14892	GFI2235
Run #2							

Run #	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	157	10	9.4	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	90%		41-134%		

---

ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> BASE PIT 1/2 - NORTH	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-2	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 95.2
<b>Project:</b> Loudder	

**General Chemistry**

Analyte	Result	RL	Units	DF	Analyzed	By	Method
<b>%solids</b>							
Solids, Percent	95.2		%	1	04/19/17	SWT	SM2540G-2011 M
<b>prep: DEPT.OF AG, BOOK N9</b>							
Specific Conductivity	212	1.0	umhos/cm	1	04/27/17	TJ	SM 2510B-2011 MOD
pH	9.02		su	1	04/18/17 12:30	TB	SW846 9045D

---

RL = Reporting Limit

## Report of Analysis

3.4  
3

<b>Client Sample ID:</b> BASE PIT 1/2 - NORTH	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-2A	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 95.2
<b>Project:</b> Loudder	

**SAR Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	18.0	2.0	mg/l	1	04/27/17	04/28/17 SB	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>
Magnesium	4.04	1.0	mg/l	1	04/27/17	04/28/17 SB	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>
Sodium	27.0	2.0	mg/l	1	04/27/17	04/28/17 SB	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>

(1) Instrument QC Batch: MA8447  
 (2) Prep QC Batch: MP21544

---

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	BASE PIT 1/2 - NORTH	<b>Date Sampled:</b>	04/15/17
<b>Lab Sample ID:</b>	D93041-2A	<b>Date Received:</b>	04/17/17
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	95.2
<b>Project:</b>	Loudder		

**General Chemistry**

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio <sup>a</sup>	1.50		ratio	1	04/28/17 17:40	SB	USDA HANDBOOK 60

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

---

RL = Reporting Limit



## Report of Analysis

3.5  
3

<b>Client Sample ID:</b> EAST PIT 1/2	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-3	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.6
<b>Method:</b> SW846 8260B	
<b>Project:</b> Loudder	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V41591.D	1	04/18/17	MB	n/a	n/a	V5V2333
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.00 g	5.0 ml
Run #2		

**Purgeable Aromatics**

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.1	0.53	ug/kg	
108-88-3	Toluene	ND	2.1	1.1	ug/kg	
100-41-4	Ethylbenzene	ND	2.1	0.53	ug/kg	
1330-20-7	Xylene (total)	ND	2.4	1.1	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		70-130%
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorobenzene	99%		65-142%
17060-07-0	1,2-Dichloroethane-D4	102%		70-130%

---

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> EAST PIT 1/2 <b>Lab Sample ID:</b> D93041-3 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8015B <b>Project:</b> Loudder	<b>Date Sampled:</b> 04/15/17 <b>Date Received:</b> 04/17/17 <b>Percent Solids:</b> 93.6
--	--

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA37725.D	1	04/18/17	MR	n/a	n/a	GGA1844
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	11	5.7	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	110%		60-140%

---

ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

11:11 AM 04/18/17  
 11:11 AM 04/18/17  
 11:11 AM 04/18/17

### Report of Analysis

3.5  
3

<b>Client Sample ID:</b> EAST PIT 1/2	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-3	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.6
<b>Method:</b> SW846-8015B SW846 3546	
<b>Project:</b> Loudder	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI53491.D	5	04/28/17	GN	04/19/17	OP14892	GFI2247
Run #2							

Run #	Initial Weight	Final Volume
Run #1	20.0 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	1850	53	48	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	79%		41-134%		

*Scott,  
Remove additional  
soil & re-sample*

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> EAST PIT 1/2	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-3	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.6
<b>Project:</b> Loudder	

**General Chemistry**

Analyte	Result	RL	Units	DF	Analyzed	By	Method
<b>%solids</b>							
Solids, Percent	93.6		%	1	04/19/17	SWT	SM2540G-2011 M
<b>prep: DEPT.OF AG, BOOK N9</b>							
Specific Conductivity	250	1.0	umhos/cm	1	04/27/17	TJ	SM 2510B-2011 MOD
pH	9.08		su	1	04/18/17 12:30	TB	SW846 9045D

---

RL = Reporting Limit



## Report of Analysis

3.6  
3

<b>Client Sample ID:</b> EAST PIT 1/2	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-3A	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.6
<b>Project:</b> Loudder	

**SAR Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	17.5	2.0	mg/l	1	04/27/17	04/28/17 SB	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>
Magnesium	4.58	1.0	mg/l	1	04/27/17	04/28/17 SB	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>
Sodium	42.1	2.0	mg/l	1	04/27/17	04/28/17 SB	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>

(1) Instrument QC Batch: MA8447

(2) Prep QC Batch: MP21544

---

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> EAST PIT 1/2		<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-3A		<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 93.6
<b>Project:</b> Loudder		

**General Chemistry**

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio <sup>a</sup>	2.31		ratio	1	04/28/17 17:47	SB	USDA HANDBOOK 60

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

## Report of Analysis

<b>Client Sample ID:</b> SOUTH PIT 1/2 <b>Lab Sample ID:</b> D93041-4 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8260B <b>Project:</b> Loudder	<b>Date Sampled:</b> 04/15/17 <b>Date Received:</b> 04/17/17 <b>Percent Solids:</b> 91.6
---	--

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V41592.D	1	04/18/17	MB	n/a	n/a	V5V2333
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.02 g	5.0 ml
Run #2		

**Purgeable Aromatics**

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.1	0.54	ug/kg	
108-88-3	Toluene	ND	2.2	1.1	ug/kg	
100-41-4	Ethylbenzene	ND	2.2	0.54	ug/kg	
1330-20-7	Xylene (total)	ND	2.4	1.1	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		70-130%
2037-26-5	Toluene-D8	97%		70-130%
460-00-4	4-Bromofluorobenzene	100%		65-142%
17060-07-0	1,2-Dichloroethane-D4	105%		70-130%

---

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> SOUTH PIT 1/2	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-4	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.6
<b>Method:</b> SW846 8015B	
<b>Project:</b> Loudder	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA37726.D	1	04/18/17	MR	n/a	n/a	GGA1844
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	12	5.9	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	110%		60-140%

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

<b>Client Sample ID:</b> SOUTH PIT 1/2	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-4	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.6
<b>Project:</b> Loudder	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
<b>%solids</b>							
Solids, Percent	91.6		%	1	04/19/17	SWT	SM2540G-2011 M
<b>prep: DEPT.OF AG, BOOK N9</b>							
Specific Conductivity	290	1.0	umhos/cm	1	04/27/17	TJ	SM 2510B-2011 MOD
pH	9.16		su	1	04/18/17 12:30	TB	SW846 9045D

RL = Reporting Limit

## Report of Analysis



<b>Client Sample ID:</b> SOUTH PIT 1/2	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-4A	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.6
<b>Project:</b> Loudder	

### SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	16.2	2.0	mg/l	1	04/27/17	04/28/17 SB	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>
Magnesium	4.55	1.0	mg/l	1	04/27/17	04/28/17 SB	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>
Sodium	56.7	2.0	mg/l	1	04/27/17	04/28/17 SB	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>

(1) Instrument QC Batch: MA8447

(2) Prep QC Batch: MP21544

RL = Reporting Limit

# Report of Analysis

Client Sample ID:	SOUTH PIT 1/2	Date Sampled:	04/15/17
Lab Sample ID:	D93041-4A	Date Received:	04/17/17
Matrix:	SO - Soil	Percent Solids:	91.6
Project:	Loudder		

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio <sup>a</sup>	3.21		ratio	1	04/28/17 17:05	SB	USDA HANDBOOK 60

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

## Report of Analysis

Client Sample ID:	WEST PIT 1/2	Date Sampled:	04/15/17
Lab Sample ID:	D93041-5	Date Received:	04/17/17
Matrix:	SO - Soil	Percent Solids:	93.0
Method:	SW846 8260B		
Project:	Loudder		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V41593.D	1	04/18/17	MB	n/a	n/a	V5V2333
Run #2							

Run #	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.09 g	1.0 ml	5.0 ul
Run #2			

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	290	140	ug/kg	
108-88-3	Toluene	ND	570	290	ug/kg	
100-41-4	Ethylbenzene	ND	570	140	ug/kg	
1330-20-7	Xylene (total)	ND	630	290	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		70-130%
2037-26-5	Toluene-D8	97%		70-130%
460-00-4	4-Bromofluorobenzene	101%		65-142%
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

<b>Client Sample ID:</b> WEST PIT 1/2	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-5	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.0
<b>Method:</b> SW846 8015B	
<b>Project:</b> Loudder	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA37727.D	1	04/18/17	MR	n/a	n/a	GGA1844
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	11	5.7	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	113%		60-140%

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

3.9  
3

<b>Client Sample ID:</b> WEST PIT 1/2	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-5	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.0
<b>Method:</b> SW846-8015B SW846 3546	
<b>Project:</b> Loudder	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI53618.D	1	05/01/17	GN	04/19/17	OP14892	GFI2250
Run #2							

Run #	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	75.8	11	9.6	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	66%		41-134%		

---

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> WEST PIT 1/2 <b>Lab Sample ID:</b> D93041-5 <b>Matrix:</b> SO - Soil <b>Project:</b> Loudder	<b>Date Sampled:</b> 04/15/17 <b>Date Received:</b> 04/17/17 <b>Percent Solids:</b> 93.0
--	--

**General Chemistry**

Analyte	Result	RL	Units	DF	Analyzed	By	Method
%solids							
Solids, Percent	93		%	1	04/19/17	SWT	SM2540G-2011 M
prep: DEPT.OF AG, BOOK N9							
Specific Conductivity	232	1.0	umhos/cm	1	04/27/17	TJ	SM 2510B-2011 MOD
pH	9.17		su	1	04/18/17 12:30	TB	SW846 9045D

---

RL = Reporting Limit



## Report of Analysis

3.10  
3

<b>Client Sample ID:</b> WEST PIT 1/2	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-5A	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.0
<b>Project:</b> Loudder	

### SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	16.6	2.0	mg/l	1	04/27/17	05/01/17 SB	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>
Magnesium	3.79	1.0	mg/l	1	04/27/17	05/01/17 SB	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>
Sodium	36.8	2.0	mg/l	1	04/27/17	05/01/17 SB	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>

(1) Instrument QC Batch: MA8450

(2) Prep QC Batch: MP21544

---

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> WEST PIT 1/2	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-5A	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.0
<b>Project:</b> Loudder	

**General Chemistry**

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio <sup>a</sup>	2.12		ratio	1	05/01/17 11:01	SB	USDA HANDBOOK 60

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

---

RL = Reporting Limit

## Report of Analysis

3.11  
3

<b>Client Sample ID:</b> NORTH PIT 1/2	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-6	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.7
<b>Method:</b> SW846 8260B	
<b>Project:</b> Loudder	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V41594.D	1	04/18/17	MB	n/a	n/a	V5V2333
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.04 g	5.0 ml
Run #2		

**Purgeable Aromatics**

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.1	0.53	ug/kg	
108-88-3	Toluene	ND	2.1	1.1	ug/kg	
100-41-4	Ethylbenzene	ND	2.1	0.53	ug/kg	
1330-20-7	Xylene (total)	ND	2.3	1.1	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		70-130%
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorobenzene	99%		65-142%
17060-07-0	1,2-Dichloroethane-D4	105%		70-130%

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> NORTH PIT 1/2	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-6	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.7
<b>Method:</b> SW846 8015B	
<b>Project:</b> Loudder	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA37730.D	1	04/18/17	MR	n/a	n/a	GGA1844
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	11	5.6	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	107%		60-140%		

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

<b>Client Sample ID:</b> NORTH PIT 1/2	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-6	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.7
<b>Method:</b> SW846-8015B SW846 3546	
<b>Project:</b> Loudder	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI53194.D	1	04/21/17	GN	04/19/17	OP14892	GFI2234
Run #2							

Run #	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	11	9.6	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	71%		41-134%		

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

<b>Client Sample ID:</b> NORTH PIT 1/2	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-6	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.7
<b>Project:</b> Loudder	

**General Chemistry**

Analyte	Result	RL	Units	DF	Analyzed	By	Method
<b>%solids</b>							
Solids, Percent	93.7		%	1	04/19/17	SWT	SM2540G-2011 M
<b>prep: DEPT.OF AG, BOOK N9</b>							
Specific Conductivity	290	1.0	umhos/cm	1	04/27/17	TJ	SM 2510B-2011 MOD
pH	9.00		su	1	04/18/17 12:30	TB	SW846 9045D

---

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> NORTH PIT 1/2	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-6A	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.7
<b>Project:</b> Loudder	

### SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	25.5	2.0	mg/l	1	04/27/17	04/28/17 SB	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>
Magnesium	5.73	1.0	mg/l	1	04/27/17	04/28/17 SB	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>
Sodium	44.1	2.0	mg/l	1	04/27/17	04/28/17 SB	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>

(1) Instrument QC Batch: MA8447

(2) Prep QC Batch: MP21544

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> NORTH PIT 1/2	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-6A	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO · Soil	<b>Per cent Solids:</b> 93.7
<b>Project:</b> Loudder	

**General Chemistry**

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio <sup>a</sup>	2.05		ratio	1	04/28/17 18:02	SB	USDA HANDBOOK 60

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

---

RL = Reporting Limit

4/28/17 18:02  
 2017/04/28 18:02  
 2017/04/28 18:02

## Report of Analysis

3.13  
3

<b>Client Sample ID:</b> EAST PIT 3 <b>Lab Sample ID:</b> D93041-7 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8260B <b>Project:</b> Loudder	<b>Date Sampled:</b> 04/15/17 <b>Date Received:</b> 04/17/17 <b>Percent Solids:</b> 93.5
--	--

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V41595.D	1	04/18/17	MB	n/a	n/a	V5V2333
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.02 g	5.0 ml
Run #2		

### Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.1	0.53	ug/kg	
108-88-3	Toluene	ND	2.1	1.1	ug/kg	
100-41-4	Ethylbenzene	ND	2.1	0.53	ug/kg	
1330-20-7	Xylene (total)	ND	2.3	1.1	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%		70-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	100%		65-142%
17060-07-0	1,2-Dichloroethane-D4	105%		70-130%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> EAST PIT 3	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-7	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.5
<b>Method:</b> SW846 8015B	
<b>Project:</b> Loudder	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA37731.D	1	04/18/17	MR	n/a	n/a	GGA1844
Run #2							

Run #	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.1 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	11	5.6	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	107%		60-140%

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

3.13  
3

<b>Client Sample ID:</b> EAST PIT 3	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-7	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.5
<b>Method:</b> SW846-8015B SW846 3546	
<b>Project:</b> Loudder	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI53197.D	1	04/21/17	GN	04/19/17	OP14892	GFI2235
Run #2							

	Initial Weight	Final Volume
Run #1	20.0 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	11	9.6	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	75%		41-134%		

---

ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** EAST PIT 3  
**Lab Sample ID:** D93041-7  
**Matrix:** SO - Soil  
**Project:** Loudder

**Date Sampled:** 04/15/17  
**Date Received:** 04/17/17  
**Percent Solids:** 93.5

**General Chemistry**

Analyte	Result	RL	Units	DF	Analyzed	By	Method
<b>%solids</b>							
Solids, Percent	93.5		%	1	04/19/17	SWT	SM2540G-2011 M
<b>prep: DEPT.OF AG, BOOK N9</b>							
Specific Conductivity	283	1.0	umhos/cm	1	04/27/17	TJ	SM 2510B-2011 MOD
pH	9.05		su	1	04/18/17 12:30	TB	SW846 9045D

---

RL = Reporting Limit



## Report of Analysis

<b>Client Sample ID:</b> EAST PIT 3	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-7A	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.5
<b>Project:</b> Loudder	

**SAR Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	20.8	2.0	mg/l	1	04/27/17	04/28/17 SB	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>
Magnesium	5.14	1.0	mg/l	1	04/27/17	04/28/17 SB	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>
Sodium	40.3	2.0	mg/l	1	04/27/17	04/28/17 SB	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>

(1) Instrument QC Batch: MA8447  
 (2) Prep QC Batch: MP21544

---

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> EAST PIT 3	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-7A	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.5
<b>Project:</b> Loudder	

**General Chemistry**

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio <sup>a</sup>	2.05		ratio	1	04/28/17 18:10	SB	USDA HANDBOOK 60

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



## Report of Analysis

Client Sample ID:	WEST PIT 3	Date Sampled:	04/15/17
Lab Sample ID:	D93041-8	Date Received:	04/17/17
Matrix:	SO - Soil	Percent Solids:	90.7
Method:	SW846 8260B		
Project:	Loudder		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V41596.D	1	04/18/17	MB	n/a	n/a	V5V2333
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.07 g	5.0 ml
Run #2		

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.1	0.54	ug/kg	
108-88-3	Toluene	ND	2.2	1.1	ug/kg	
100-41-4	Ethylbenzene	ND	2.2	0.54	ug/kg	
1330-20-7	Xylene (total)	ND	2.4	1.1	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	112%		70-130%
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorobenzene	99%		65-142%
17060-07-0	1,2-Dichloroethane-D4	111%		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

<b>Client Sample ID:</b> WEST PIT 3	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-8	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.7
<b>Method:</b> SW846 8015B	
<b>Project:</b> Louder	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA37732.D	1	04/18/17	MR	n/a	n/a	GGA1844
Run #2							

Run #	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.1 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	12	6.0	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	108%		60-140%

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

<b>Client Sample ID:</b> WEST PIT 3	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-8	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.7
<b>Method:</b> SW846-8015B SW846 3546	
<b>Project:</b> Loudder	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI53196.D	1	04/21/17	GN	04/19/17	OP14892	GFI2234
Run #2							

Run #	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	10.3	11	9.9	mg/kg	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	81%		41-134%		

---

ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: WEST PIT 3

Lab Sample ID: D93041-8

Matrix: SO - Soil

Project: Loudder

Date Sampled: 04/15/17

Date Received: 04/17/17

Percent Solids: 90.7

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
%solids							
Solids, Percent	90.7		%	1	04/19/17	SWT	SM2540G-2011 M
prep: DEPT.OF AG, BOOK N9							
Specific Conductivity	254	1.0	umhos/cm	1	04/27/17	TJ	SM 2510B-2011 MOD
pH	9.02		su	1	04/18/17 12:30	TB	SW846 9045D

## Report of Analysis

<b>Client Sample ID:</b> WEST PIT 3	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-8A	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.7
<b>Project:</b> Loudder	

**SAR Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	23.4	2.0	mg/l	1	04/27/17	04/28/17 SB	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>
Magnesium	4.91	1.0	mg/l	1	04/27/17	04/28/17 SB	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>
Sodium	41.8	2.0	mg/l	1	04/27/17	04/28/17 SB	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>

(1) Instrument QC Batch: MA8447

(2) Prep QC Batch: MP21544

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RL = Reporting Limit

## Report of Analysis

Client Sample ID:	WEST PIT 3	Date Sampled:	04/15/17
Lab Sample ID:	D93041-8A	Date Received:	04/17/17
Matrix:	SO - Soil	Percent Solids:	90.7
Project:	Loudder		

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio <sup>a</sup>	2.05		ratio	1	04/28/17 18:17	SB	USDA HANDBOOK 60

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

---

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> SOUTH PIT 3	
<b>Lab Sample ID:</b> D93041-9	<b>Date Sampled:</b> 04/15/17
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 04/17/17
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> 94.9
<b>Project:</b> Loudder	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V41597.D	1	04/18/17	MB	n/a	n/a	V5V2333
Run #2							

	Initial Weight	Final Volume
Run #1	5.08 g	5.0 ml
Run #2		

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.52	ug/kg	
108-88-3	Toluene	ND	2.1	1.0	ug/kg	
100-41-4	Ethylbenzene	ND	2.1	0.52	ug/kg	
1330-20-7	Xylene (total)	ND	2.3	1.0	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		70-130%
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorobenzene	97%		65-142%
17060-07-0	1,2-Dichloroethane-D4	111%		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

<b>Client Sample ID:</b> SOUTH PIT 3	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-9	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 94.9
<b>Method:</b> SW846 8015B	
<b>Project:</b> Loudder	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA37733.D	1	04/18/17	MR	n/a	n/a	GGA1844
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	11	5.5	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	108%		60-140%

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

3.17  
3

<b>Client Sample ID:</b> SOUTH PIT 3	
<b>Lab Sample ID:</b> D93041-9	<b>Date Sampled:</b> 04/15/17
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 04/17/17
<b>Method:</b> SW846-8015B SW846 3546	<b>Percent Solids:</b> 94.9
<b>Project:</b> Loudder	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI53198.D	1	04/21/17	GN	04/19/17	OP14892	GFI2234
Run #2							

Run #	Initial Weight	Final Volume
Run #1	20.0 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	31.2	11	9.5	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	87%		41-134%		

---

ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> SOUTH PIT 3 <b>Lab Sample ID:</b> D93041-9 <b>Matrix:</b> SO - Soil <b>Project:</b> Loudder	<b>Date Sampled:</b> 04/15/17 <b>Date Received:</b> 04/17/17 <b>Percent Solids:</b> 94.9
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**General Chemistry**

Analyte	Result	RL	Units	DF	Analyzed	By	Method
<b>%solids</b>							
Solids, Percent	94.9		%	1	04/19/17	SWT	SM2540G-2011 M
<b>prep: DEPT.OF AG, BOOK N9</b>							
Specific Conductivity	310	1.0	umhos/cm	1	04/27/17	TJ	SM 2510B-2011 MOD
pH	8.92		su	1	04/18/17 12:30	TB	SW846 9045D

---

RL = Reporting Limit



## Report of Analysis

<b>Client Sample ID:</b> SOUTH PIT 3	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-9A	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 94.9
<b>Project:</b> Loudder	

### SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	28.6	2.0	mg/l	1	04/27/17	04/28/17 SB	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>
Magnesium	6.64	1.0	mg/l	1	04/27/17	04/28/17 SB	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>
Sodium	40.4	2.0	mg/l	1	04/27/17	04/28/17 SB	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>

(1) Instrument QC Batch: MA8447

(2) Prep QC Batch: MP21544

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RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> SOUTH PIT 3		<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-9A		<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 94.9
<b>Project:</b> Loudder		

**General Chemistry**

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio <sup>a</sup>	1.77		ratio	1	04/28/17 18:24	SB	USDA HANDBOOK 60

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

## Report of Analysis

Client Sample ID:	NORTH PIT 3	Date Sampled:	04/15/17
Lab Sample ID:	D93041-10	Date Received:	04/17/17
Matrix:	SO - Soil	Percent Solids:	92.8
Method:	SW846 8260B		
Project:	Loudder		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V41598.D	1	04/18/17	MB	n/a	n/a	V5V2333
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.01 g	5.0 ml
Run #2		

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.1	0.54	ug/kg	
108-88-3	Toluene	ND	2.2	1.1	ug/kg	
100-41-4	Ethylbenzene	ND	2.2	0.54	ug/kg	
1330-20-7	Xylene (total)	ND	2.4	1.1	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	113%		70-130%
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorobenzene	99%		65-142%
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

<b>Client Sample ID:</b> NORTH PIT 3	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-10	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.8
<b>Method:</b> SW846 8015B	
<b>Project:</b> Loudder	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA37734.D	1	04/18/17	MR	n/a	n/a	GGA1844
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	11	5.7	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	110%		60-140%		

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

<b>Client Sample ID:</b> NORTH PIT 3	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-10	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.8
<b>Method:</b> SW846-8015B SW846 3546	
<b>Project:</b> Loudder	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI53200.D	1	04/21/17	GN	04/19/17	OP14892	GFI2234
Run #2							

Run #	Initial Weight	Final Volume
Run #1	20.0 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	52.7	11	9.7	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	89%		41-134%		

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 PIT 3	Date Sampled:	04/15/17
Lab Sample ID:	D93041-10	Date Received:	04/17/17
Matrix:	SO - Soil	Percent Solids:	92.8
Project:	Louder		

**General Chemistry**

Analyte	Result	RL	Units	DF	Analyzed	By	Method
<b>%solids</b>							
Solids, Percent	92.8		%	1	04/19/17	SWT	SM2540G-2011 M
<b>prep: DEPT.OF AG, BOOK N9</b>							
Specific Conductivity	250	1.0	umhos/cm	1	04/27/17	TJ	SM 2510B-2011 MOD
pH	9.12		su	1	04/18/17 12:30	TB	SW846 9045D

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RL = Reporting Limit



## Report of Analysis

<b>Client Sample ID:</b> NORTH PIT 3	<b>Date Sampled:</b> 04/15/17
<b>Lab Sample ID:</b> D93041-10A	<b>Date Received:</b> 04/17/17
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.8
<b>Project:</b> Loudder	

### SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	21.5	2.0	mg/l	1	04/27/17	04/28/17 SB	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>
Magnesium	4.27	1.0	mg/l	1	04/27/17	04/28/17 SB	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>
Sodium	41.4	2.0	mg/l	1	04/27/17	04/28/17 SB	SW846 6010C <sup>1</sup>	SW846 3010A/M <sup>2</sup>

(1) Instrument QC Batch: MA8447

(2) Prep QC Batch: MP21544

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RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> NORTH PIT 3 <b>Lab Sample ID:</b> D93041-10A <b>Matrix:</b> SO - Soil <b>Project:</b> Loudder	<b>Date Sampled:</b> 04/15/17 <b>Date Received:</b> 04/17/17 <b>Percent Solids:</b> 92.8
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**General Chemistry**

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio <sup>a</sup>	2.13		ratio	1	04/28/17 18:32	SB	USDA HANDBOOK 60

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

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RL = Reporting Limit

Misc. Forms

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Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody

