

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.374.5933 - fax

May 12, 2009

Steve Compton

LT Environmental, Inc.

4600 West 60th Avenue

Arvada, CO 80003

RE: MS - Matrix-Box Elder 27-2

Enclosed are the results of analyses for samples received by Summit Scientific on 05/11/09 14:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Ben Shrewsbury

Vice President / Laboratory Director

LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: MS - Matrix-Box Elder 27-2

Project Number: MS 0901
 Project Manager: Steve Compton

Reported:
 05/12/09 10:22

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
W01@4'	R905070-01	Soil	05/11/09 14:06	05/11/09 14:15
S01@4'	R905070-02	Soil	05/11/09 14:08	05/11/09 14:15
N01@5'	R905070-03	Soil	05/11/09 14:10	05/11/09 14:15
B01@7'	R905070-04	Soil	05/11/09 14:13	05/11/09 14:15
B02@13'	R905070-05	Soil	05/11/09 14:38	05/11/09 14:15
S04@5'	R905070-06	Soil	05/11/09 15:16	05/11/09 14:15
N02@5'	R905070-07	Soil	05/11/09 14:44	05/11/09 14:15
EC-Background	R905070-08	Soil	05/11/09 14:47	05/11/09 14:15



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: MS - Matrix-Box Elder 27-2

Project Number: MS 0901
Project Manager: Steve Compton

Reported:
05/12/09 10:22

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303-277-9310 • 303-277-9531 Fax

Page 1 of 1

Client: LT Environmental, Inc. 29 05070
Address: 4600 West 60th Avenue
City/State/Zip: Arvada, CO 80003
Phone: (303) 433-9788
Project Manager: STEVE COMPTON
E-Mail: SCOMPTON@LTENV.COM
Project Name: MATRIX: BOX ELDER 27-2
Fax: (303) 433-1432
Sampler Name: S. Compton
Project Number: MAT0901

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative						Matrix		Analyze For:				Special Instructions	
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	Total Carbon Chain	BTEX	E.P.	P.H.		
140104	5-11-09	1406	2						X				X	X	X		
140104		1408	2										X	X	X		
140105		1410	2										X	X	X		
140107		1413	2										X	X	X		
140108		1414	1										X	X	X		
140213		1438	1										X	X	X		
140405		1516	1										X	X	X		
140205		1441	1										X	X	X		
EC-BACKGROUND		1447	1										X	X	X		HOOD SC

Relinquished by:	Date/Time: 5-11-09 1415	Received by:	Date/Time: 5-11-09 1415
Relinquished by:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received in Lab by:	Date/Time:

Turn Around Time (Check)	72 Hours <input type="checkbox"/>	Standard <input type="checkbox"/>
Same Day	24 Hours <input checked="" type="checkbox"/>	48 Hours <input type="checkbox"/>
Sample Integrity:	Temperature Upon Receipt: <u>47.8</u>	Intact: (Yes) <input checked="" type="checkbox"/> No <input type="checkbox"/>

Notes: HOOD BACKGROUND SC

LT Environmental, Inc.
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Reported:
05/12/09 10:22

W01@4'
R905070-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/11/09 14:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C6-C10 (TEPH-GRO)	ND	50	mg/kg	1	9051110	05/11/09	05/11/09	8015 Full Carbon Chain	
C10-C28 (TEPH-DRO)	ND	50	"	"	"	"	"	"	
C28-C36 (TEPH-ORO)	ND	50	"	"	"	"	"	"	
C6-C36 Total TEPH	ND	50	"	"	"	"	"	"	

Date Sampled: **05/11/09 14:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		96.0 %	77.7-123		"	"	"	"	
Surrogate: Trifluorotoluene		90.8 %	73.9-120		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/11/09 14:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	9051111	05/11/09	05/11/09	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	

Date Sampled: **05/11/09 14:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		108 %	77.3-121		"	"	"	"	
Surrogate: Toluene-d8		96.5 %	91.4-107		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.0 %	85.3-109		"	"	"	"	

Physical Parameters by APHA/ASTM/EPA Methods

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Project: MS - Matrix-Box Elder 27-2

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W01@4'
R905070-01 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/11/09 14:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.204	0.00100	mhos/cm	1	9051113	05/11/09	05/11/09	SM 2510b/mod	

Date Sampled: **05/11/09 14:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.9		pH Units	"	9051114	05/11/09	05/11/09	EPA 9045B	

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Project: MS - Matrix-Box Elder 27-2

Project Number: MS 0901
Project Manager: Steve Compton

Reported:
05/12/09 10:22

S01@4'
R905070-02 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/11/09 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C6-C10 (TEPH-GRO)	ND	50	mg/kg	1	9051110	05/11/09	05/11/09	8015 Full Carbon Chain	
C10-C28 (TEPH-DRO)	ND	50	"	"	"	"	"	"	
C28-C36 (TEPH-ORO)	ND	50	"	"	"	"	"	"	
C6-C36 Total TEPH	ND	50	"	"	"	"	"	"	

Date Sampled: **05/11/09 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		106 %	77.7-123		"	"	"	"	
Surrogate: Trifluorotoluene		96.8 %	73.9-120		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/11/09 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.050	mg/kg	10	9051111	05/11/09	05/11/09	EPA 8260B	R-01
Toluene	ND	0.050	"	"	"	"	"	"	R-01
Ethylbenzene	ND	0.050	"	"	"	"	"	"	R-01
Xylenes (total)	ND	0.050	"	"	"	"	"	"	R-01

Date Sampled: **05/11/09 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		99.3 %	77.3-121		"	"	"	"	
Surrogate: Toluene-d8		96.0 %	91.4-107		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	85.3-109		"	"	"	"	

Physical Parameters by APHA/ASTM/EPA Methods

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S01@4'
R905070-02 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/11/09 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.218	0.00100	mhos/cm	1	9051113	05/11/09	05/11/09	SM 2510b/mod	

Date Sampled: **05/11/09 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.6		pH Units	"	9051114	05/11/09	05/11/09	EPA 9045B	

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Project: MS - Matrix-Box Elder 27-2

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Reported:
05/12/09 10:22

N01@5'
R905070-03 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/11/09 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C6-C10 (TEPH-GRO)	ND	50	mg/kg	1	9051110	05/11/09	05/11/09	8015 Full Carbon Chain	
C10-C28 (TEPH-DRO)	ND	50	"	"	"	"	"	"	
C28-C36 (TEPH-ORO)	ND	50	"	"	"	"	"	"	
C6-C36 Total TEPH	ND	50	"	"	"	"	"	"	

Date Sampled: **05/11/09 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		104 %	77.7-123		"	"	"	"	
Surrogate: Trifluorotoluene		98.4 %	73.9-120		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/11/09 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	9051111	05/11/09	05/11/09	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	

Date Sampled: **05/11/09 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		103 %	77.3-121		"	"	"	"	
Surrogate: Toluene-d8		95.2 %	91.4-107		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.0 %	85.3-109		"	"	"	"	

Physical Parameters by APHA/ASTM/EPA Methods

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Reported:
 05/12/09 10:22

N01@5'
R905070-03 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/11/09 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.09	0.00100	mhos/cm	1	9051113	05/11/09	05/11/09	SM 2510b/mod	

Date Sampled: **05/11/09 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.4		pH Units	"	9051114	05/11/09	05/11/09	EPA 9045B	

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Project Number: MS 0901
Project Manager: Steve Compton

Reported:
05/12/09 10:22

B01@7'
R905070-04 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/11/09 14:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C6-C10 (TEPH-GRO)	ND	50	mg/kg	1	9051110	05/11/09	05/12/09	8015 Full Carbon Chain	
C10-C28 (TEPH-DRO)	ND	50	"	"	"	"	"	"	
C28-C36 (TEPH-ORO)	ND	50	"	"	"	"	"	"	
C6-C36 Total TEPH	ND	50	"	"	"	"	"	"	

Date Sampled: **05/11/09 14:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		98.4 %	77.7-123		"	"	"	"	
Surrogate: Trifluorotoluene		94.0 %	73.9-120		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/11/09 14:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	9051111	05/11/09	05/11/09	EPA 8260B	
Toluene	0.013	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.014	0.0050	"	"	"	"	"	"	

Date Sampled: **05/11/09 14:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		102 %	77.3-121		"	"	"	"	
Surrogate: Toluene-d8		96.0 %	91.4-107		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.5 %	85.3-109		"	"	"	"	

Physical Parameters by APHA/ASTM/EPA Methods

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 05/12/09 10:22

B01@7'
R905070-04 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/11/09 14:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.491	0.00100	mhos/cm	1	9051113	05/11/09	05/11/09	SM 2510b/mod	

Date Sampled: **05/11/09 14:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.2		pH Units	"	9051114	05/11/09	05/11/09	EPA 9045B	

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Project: MS - Matrix-Box Elder 27-2

Project Number: MS 0901
Project Manager: Steve Compton

Reported:
05/12/09 10:22

B02@13'
R905070-05 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/11/09 14:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C6-C10 (TEPH-GRO)	740	50	mg/kg	1	9051110	05/11/09	05/12/09	8015 Full Carbon Chain	
C10-C28 (TEPH-DRO)	1500	50	"	"	"	"	"	"	
C28-C36 (TEPH-ORO)	56	50	"	"	"	"	"	"	
C6-C36 Total TEPH	2300	50	"	"	"	"	"	"	

Date Sampled: **05/11/09 14:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		100 %	77.7-123		"	"	"	"	
<i>Surrogate: Trifluorotoluene</i>		90.0 %	73.9-120		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/11/09 14:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.16	0.0050	mg/kg	1	9051111	05/11/09	05/11/09	EPA 8260B	
Toluene	21	0.50	"	100	"	"	"	"	
Ethylbenzene	7.9	0.50	"	"	"	"	"	"	
Xylenes (total)	81	0.50	"	"	"	"	"	"	

Date Sampled: **05/11/09 14:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		95.8 %	77.3-121		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		107 %	91.4-107		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		105 %	85.3-109		"	"	"	"	

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Reported:
05/12/09 10:22

S04@5'
R905070-06 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/11/09 15:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C6-C10 (TEPH-GRO)	ND	50	mg/kg	1	9051110	05/11/09	05/12/09	8015 Full Carbon Chain	
C10-C28 (TEPH-DRO)	ND	50	"	"	"	"	"	"	
C28-C36 (TEPH-ORO)	ND	50	"	"	"	"	"	"	
C6-C36 Total TEPH	ND	50	"	"	"	"	"	"	

Date Sampled: **05/11/09 15:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		102 %	77.7-123		"	"	"	"	
Surrogate: Trifluorotoluene		102 %	73.9-120		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/11/09 15:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	9051111	05/11/09	05/11/09	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	

Date Sampled: **05/11/09 15:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		103 %	77.3-121		"	"	"	"	
Surrogate: Toluene-d8		98.5 %	91.4-107		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	85.3-109		"	"	"	"	

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Reported:
05/12/09 10:22

N02@5'
R905070-07 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/11/09 14:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C6-C10 (TEPH-GRO)	ND	50	mg/kg	1	9051110	05/11/09	05/12/09	8015 Full Carbon Chain	
C10-C28 (TEPH-DRO)	ND	50	"	"	"	"	"	"	
C28-C36 (TEPH-ORO)	ND	50	"	"	"	"	"	"	
C6-C36 Total TEPH	ND	50	"	"	"	"	"	"	

Date Sampled: **05/11/09 14:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		100 %	77.7-123		"	"	"	"	
Surrogate: Trifluorotoluene		97.2 %	73.9-120		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/11/09 14:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.039	0.0050	mg/kg	1	9051111	05/11/09	05/11/09	EPA 8260B	
Toluene	0.72	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.23	0.0050	"	"	"	"	"	"	
Xylenes (total)	2.1	0.0050	"	"	"	"	"	"	

Date Sampled: **05/11/09 14:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		106 %	77.3-121		"	"	"	"	
Surrogate: Toluene-d8		105 %	91.4-107		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	85.3-109		"	"	"	"	

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05/12/09 10:22

EC-Background
R905070-08 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/11/09 14:47**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.189	0.00100	mhos/cm	1	9051113	05/11/09	05/11/09	SM 2510b/mod	

Date Sampled: **05/11/09 14:47**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.8		pH Units	"	9051114	05/11/09	05/11/09	EPA 9045B	

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: MS - Matrix-Box Elder 27-2

Project Number: MS 0901
Project Manager: Steve Compton

Reported:
05/12/09 10:22

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch 9051110 - EPA 3550A

LCS (9051110-BS1)

Prepared: 05/11/09 Analyzed: 05/12/09

C6-C10 (TEPH-GRO)	471	50	mg/kg	519	90.8	70-130				
C10-C28 (TEPH-DRO)	ND	50	"			83.3-127				

LCS (9051110-BS2)

Prepared: 05/11/09 Analyzed: 05/12/09

C6-C10 (TEPH-GRO)	ND	50	mg/kg			70-130				
C10-C28 (TEPH-DRO)	410	50	"	500	82.0	83.3-127				

LCS Dup (9051110-BSD1)

Prepared: 05/11/09 Analyzed: 05/12/09

C6-C10 (TEPH-GRO)	493	50	mg/kg	519	95.0	70-130	4.56	20		
C10-C28 (TEPH-DRO)	ND	50	"			83.3-127		15		

LCS Dup (9051110-BSD2)

Prepared: 05/11/09 Analyzed: 05/12/09

C6-C10 (TEPH-GRO)	ND	50	mg/kg			70-130		20		
C10-C28 (TEPH-DRO)	505	50	"	500	101	83.3-127	20.8	15		

Summit Scientific



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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: MS - Matrix-Box Elder 27-2

Project Number: MS 0901
Project Manager: Steve Compton

Reported:
05/12/09 10:22

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 9051111 - EPA 5030 Soil MS

Blank (9051111-BLK1)

Prepared: 05/11/09 Analyzed: 05/12/09

Benzene	ND	0.0050	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Surrogate: 1,2-Dichloroethane-d4	0.0430		"	0.0400		108	77.3-121			
Surrogate: Toluene-d8	0.0382		"	0.0400		95.5	91.4-107			
Surrogate: 4-Bromofluorobenzene	0.0395		"	0.0400		98.8	85.3-109			

LCS (9051111-BS1)

Prepared: 05/11/09 Analyzed: 05/12/09

Benzene	0.0895	0.0050	mg/kg	0.100		89.5	70-114			
Toluene	0.0976	0.0050	"	0.100		97.6	72.7-116			
Surrogate: 1,2-Dichloroethane-d4	0.0433		"	0.0400		108	77.3-121			
Surrogate: Toluene-d8	0.0382		"	0.0400		95.5	91.4-107			
Surrogate: 4-Bromofluorobenzene	0.0395		"	0.0400		98.8	85.3-109			

LCS Dup (9051111-BSD1)

Prepared: 05/11/09 Analyzed: 05/12/09

Benzene	0.0892	0.0050	mg/kg	0.100		89.2	70-114	0.336	8.14	
Toluene	0.0953	0.0050	"	0.100		95.3	72.7-116	2.38	7.88	
Surrogate: 1,2-Dichloroethane-d4	0.0435		"	0.0400		109	77.3-121			
Surrogate: Toluene-d8	0.0379		"	0.0400		94.8	91.4-107			
Surrogate: 4-Bromofluorobenzene	0.0394		"	0.0400		98.5	85.3-109			

Matrix Spike (9051111-MS1)

Source: R905070-01

Prepared: 05/11/09 Analyzed: 05/12/09

Benzene	0.0895	0.0050	mg/kg	0.100	ND	89.5	66.8-117			
Toluene	0.0955	0.0050	"	0.100	ND	95.5	71.5-117			
Surrogate: 1,2-Dichloroethane-d4	0.0422		"	0.0400		106	77.3-121			
Surrogate: Toluene-d8	0.0376		"	0.0400		94.0	91.4-107			
Surrogate: 4-Bromofluorobenzene	0.0398		"	0.0400		99.5	85.3-109			

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: MS - Matrix-Box Elder 27-2

Project Number: MS 0901
Project Manager: Steve Compton

Reported:
05/12/09 10:22

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 9051111 - EPA 5030 Soil MS

Matrix Spike Dup (9051111-MSD1)	Source: R905070-01			Prepared: 05/11/09	Analyzed: 05/12/09					
Benzene	0.0894	0.0050	mg/kg	0.100	ND	89.4	66.8-117	0.112	17.8	
Toluene	0.0950	0.0050	"	0.100	ND	95.0	71.5-117	0.525	14.4	
Surrogate: 1,2-Dichloroethane-d4	0.0416		"	0.0400		104	77.3-121			
Surrogate: Toluene-d8	0.0380		"	0.0400		95.0	91.4-107			
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400		98.0	85.3-109			

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: MS - Matrix-Box Elder 27-2

Project Number: MS 0901
Project Manager: Steve Compton

Reported:
05/12/09 10:22

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 9051113 - General Preparation

Duplicate (9051113-DUP1)	Source: R905070-01			Prepared & Analyzed: 05/11/09							
Specific Conductance (EC)	0.195	0.00100	mhos/cm		0.204				4.51	20	

Batch 9051114 - General Preparation

Duplicate (9051114-DUP1)	Source: R905070-01			Prepared & Analyzed: 05/11/09							
pH	7.7		pH Units		7.9				2.56	20	

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: MS - Matrix-Box Elder 27-2

Project Number: MS 0901
Project Manager: Steve Compton

Reported:
05/12/09 10:22

Notes and Definitions

- R-01 The Reporting Limit for this analyte has been raised to account for matrix interference.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.374.5933 - fax

May 13, 2009

Steve Compton
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: MAT - Box Elder 27-2

Enclosed are the results of analyses for samples received by Summit Scientific on 05/12/09 15:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to be 'BS', with a long, sweeping horizontal line extending to the right.

Ben Shrewsbury
Vice President / Laboratory Director

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: MAT - Box Elder 27-2

Project Number: MAT 0901
Project Manager: Steve Compton

Reported:
05/13/09 08:39

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
E02 @ 6'	R905074-01	Soil	05/12/09 14:00	05/12/09 15:15
B03 @ 21'	R905074-02	Soil	05/12/09 14:18	05/12/09 15:15

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: MAT - Box Elder 27-2

Project Number: MAT 0901
Project Manager: Steve Compton

Reported:
05/13/09 08:39

E02 @ 6'
R905074-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/12/09 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C6-C10 (TEPH-GRO)	ND	50	mg/kg	1	9051204	05/12/09	05/12/09	8015 Full Carbon Chain	
C10-C28 (TEPH-DRO)	ND	50	"	"	"	"	"	"	
C28-C36 (TEPH-ORO)	ND	50	"	"	"	"	"	"	
C6-C36 Total TEPH	ND	50	"	"	"	"	"	"	

Date Sampled: **05/12/09 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		97.6 %	77.7-123	"	"	"	"	"	
Surrogate: Trifluorotoluene		97.6 %	73.9-120	"	"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/12/09 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	9051202	05/12/09	05/12/09	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	

Date Sampled: **05/12/09 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		109 %	77.3-121	"	"	"	"	"	
Surrogate: Toluene-d8		97.2 %	91.4-107	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.0 %	85.3-109	"	"	"	"	"	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: MAT - Box Elder 27-2

Project Number: MAT 0901
Project Manager: Steve Compton

Reported:
05/13/09 08:39

B03 @ 21'
R905074-02 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/12/09 14:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C6-C10 (TEPH-GRO)	ND	50	mg/kg	1	9051204	05/12/09	05/12/09	8015 Full Carbon Chain	
C10-C28 (TEPH-DRO)	ND	50	"	"	"	"	"	"	
C28-C36 (TEPH-ORO)	ND	50	"	"	"	"	"	"	
C6-C36 Total TEPH	ND	50	"	"	"	"	"	"	

Date Sampled: **05/12/09 14:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		95.2 %	77.7-123		"	"	"	"	
Surrogate: Trifluorotoluene		93.6 %	73.9-120		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/12/09 14:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	9051202	05/12/09	05/12/09	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	

Date Sampled: **05/12/09 14:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		107 %	77.3-121		"	"	"	"	
Surrogate: Toluene-d8		96.0 %	91.4-107		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.5 %	85.3-109		"	"	"	"	

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: MAT - Box Elder 27-2

Project Number: MAT 0901
Project Manager: Steve Compton

Reported:
05/13/09 08:39

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Reporting			Spike Level	Source		%REC		RPD		Notes
	Result	Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch 9051204 - EPA 3550A

Blank (9051204-BLK1)

Prepared: 05/12/09 Analyzed: 05/13/09

C6-C10 (TEPH-GRO)	ND	50	mg/kg								
C10-C28 (TEPH-DRO)	ND	50	"								
C28-C36 (TEPH-ORO)	ND	50	"								
C6-C36 Total TEPH	ND	50	"								

LCS (9051204-BS1)

Prepared: 05/12/09 Analyzed: 05/13/09

C6-C10 (TEPH-GRO)	418	50	mg/kg	519	80.5	70-130					
C10-C28 (TEPH-DRO)	ND	50	"			83.3-127					

LCS (9051204-BS2)

Prepared: 05/12/09 Analyzed: 05/13/09

C6-C10 (TEPH-GRO)	ND	50	mg/kg			70-130					
C10-C28 (TEPH-DRO)	357	50	"	500	71.4	83.3-127					

LCS Dup (9051204-BSD1)

Prepared: 05/12/09 Analyzed: 05/13/09

C6-C10 (TEPH-GRO)	458	50	mg/kg	519	88.2	70-130	9.13			20	
C10-C28 (TEPH-DRO)	ND	50	"			83.3-127				15	

LCS Dup (9051204-BSD2)

Prepared: 05/12/09 Analyzed: 05/13/09

C6-C10 (TEPH-GRO)	ND	50	mg/kg			70-130				20	
C10-C28 (TEPH-DRO)	482	50	"	500	96.4	83.3-127	29.8			15	

Matrix Spike (9051204-MS1)

Source: R905074-01

Prepared: 05/12/09 Analyzed: 05/13/09

C6-C10 (TEPH-GRO)	486	50	mg/kg	519	ND	93.6	70-130				
C10-C28 (TEPH-DRO)	ND	50	"		ND	75.8-126					

Matrix Spike (9051204-MS2)

Source: R905074-01

Prepared: 05/12/09 Analyzed: 05/13/09

C6-C10 (TEPH-GRO)	ND	50	mg/kg		ND	70-130					
C10-C28 (TEPH-DRO)	425	50	"	500	ND	85.0	75.8-126				

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: MAT - Box Elder 27-2

Project Number: MAT 0901
Project Manager: Steve Compton

Reported:
05/13/09 08:39

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 9051204 - EPA 3550A

Matrix Spike Dup (9051204-MSD1)		Source: R905074-01			Prepared: 05/12/09		Analyzed: 05/13/09			
C6-C10 (TEPH-GRO)	480	50	mg/kg	519	ND	92.5	70-130	1.24	20	
C10-C28 (TEPH-DRO)	ND	50	"		ND		75.8-126		13.6	
Matrix Spike Dup (9051204-MSD2)		Source: R905074-01			Prepared: 05/12/09		Analyzed: 05/13/09			
C6-C10 (TEPH-GRO)	ND	50	mg/kg		ND		70-130		20	
C10-C28 (TEPH-DRO)	468	50	"	500	ND	93.6	75.8-126	9.63	13.6	

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: MAT - Box Elder 27-2
Project Number: MAT 0901
Project Manager: Steve Compton

Reported:
05/13/09 08:39

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 9051202 - EPA 5030 Soil MS

Blank (9051202-BLK1)

Prepared & Analyzed: 05/12/09

Benzene	ND	0.0050	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0441</i>		<i>"</i>	<i>0.0400</i>		<i>110</i>	<i>77.3-121</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0388</i>		<i>"</i>	<i>0.0400</i>		<i>97.0</i>	<i>91.4-107</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0392</i>		<i>"</i>	<i>0.0400</i>		<i>98.0</i>	<i>85.3-109</i>			

LCS (9051202-BS1)

Prepared & Analyzed: 05/12/09

Benzene	0.0904	0.0050	mg/kg	0.100		90.4	70-114			
Toluene	0.0969	0.0050	"	0.100		96.9	72.7-116			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0432</i>		<i>"</i>	<i>0.0400</i>		<i>108</i>	<i>77.3-121</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0380</i>		<i>"</i>	<i>0.0400</i>		<i>95.0</i>	<i>91.4-107</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0393</i>		<i>"</i>	<i>0.0400</i>		<i>98.2</i>	<i>85.3-109</i>			

LCS Dup (9051202-BSD1)

Prepared & Analyzed: 05/12/09

Benzene	0.0927	0.0050	mg/kg	0.100		92.7	70-114	2.51	8.14	
Toluene	0.0984	0.0050	"	0.100		98.4	72.7-116	1.54	7.88	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0439</i>		<i>"</i>	<i>0.0400</i>		<i>110</i>	<i>77.3-121</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0382</i>		<i>"</i>	<i>0.0400</i>		<i>95.5</i>	<i>91.4-107</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0388</i>		<i>"</i>	<i>0.0400</i>		<i>97.0</i>	<i>85.3-109</i>			

Matrix Spike (9051202-MS1)

Source: R905074-01

Prepared & Analyzed: 05/12/09

Benzene	0.102	0.0050	mg/kg	0.100	ND	102	66.8-117			
Toluene	0.103	0.0050	"	0.100	ND	103	71.5-117			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0533</i>		<i>"</i>	<i>0.0400</i>		<i>133</i>	<i>77.3-121</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0386</i>		<i>"</i>	<i>0.0400</i>		<i>96.5</i>	<i>91.4-107</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0386</i>		<i>"</i>	<i>0.0400</i>		<i>96.5</i>	<i>85.3-109</i>			

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: MAT - Box Elder 27-2

Project Number: MAT 0901
Project Manager: Steve Compton

Reported:
05/13/09 08:39

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 9051202 - EPA 5030 Soil MS

Matrix Spike Dup (9051202-MSD1)	Source: R905074-01			Prepared & Analyzed: 05/12/09						
Benzene	0.0905	0.0050	mg/kg	0.100	ND	90.5	66.8-117	11.9	17.8	
Toluene	0.0995	0.0050	"	0.100	ND	99.5	71.5-117	3.46	14.4	
Surrogate: 1,2-Dichloroethane-d4	0.0429		"	0.0400		107	77.3-121			
Surrogate: Toluene-d8	0.0386		"	0.0400		96.5	91.4-107			
Surrogate: 4-Bromofluorobenzene	0.0388		"	0.0400		97.0	85.3-109			

Summit Scientific



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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: MAT - Box Elder 27-2

Project Number: MAT 0901
Project Manager: Steve Compton

Reported:
05/13/09 08:39

Notes and Definitions

- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

