

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

March 05, 2019

Susana Lara-Mesa

K.P. Kauffman

1675 Broadway

Denver, CO 80202

RE: Damiana #1

Enclosed are the results of analyses for samples received by Summit Scientific on 02/27/19 11:52. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Paul Shrewsbury', with a stylized, cursive script.

Paul Shrewsbury For Ben Shrewsbury

Laboratory Manager



K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Damiana #1

Project Number: [none]
Project Manager: Susana Lara-Mesa

Reported:
03/05/19 08:12

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
A-1	1902274-01	Soil	02/26/19 09:00	02/27/19 11:52
B-1	1902274-02	Soil	02/26/19 09:00	02/27/19 11:52
C-1	1902274-03	Soil	02/26/19 09:00	02/27/19 11:52

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Page 1 of

Project Manager:	Susana Lara-Mesa
E-Mail:	slaramesa@kpk.com
Project Name:	Damiana #1
Project Number:	

www.s2scientific.com

Sample Receipt Checklist

S2 Work Order 1902274

Client: KP Kauffman Client Project ID: Damiana #1

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other P.U. Airbill #: _____

Matrix (check all that apply): Air ☒ Soil/Solid Water Other: _____
(Describe)

Temp (°C)	<u>9.2</u>
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Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any): 				
⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.				

KP
Custodian Printed Name or Initials

[Signature]
Signature of Custodian

2.27.19
Date/Time



K.P. Kauffman
1675 Broadway
Denver CO, 80202

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Project Number: [none]
Project Manager: Susana Lara-Mesa

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A-1
1902274-01 (Soil)

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Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/26/19 09:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	1902345	02/28/19	03/03/19	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **02/26/19 09:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		85.2 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		95.0 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.6 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/26/19 09:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	310	50		mg/kg	1	1902347	02/28/19	03/01/19	EPA 8015M	

Date Sampled: **02/26/19 09:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		112 %		30-150		"	"	"	"	

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Project: Damiana #1

Project Number: [none]
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Reported:
03/05/19 08:12

B-1
1902274-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/26/19 09:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	1902345	02/28/19	03/03/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **02/26/19 09:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		83.2 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.7 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/26/19 09:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	230	50	mg/kg	1	1902347	02/28/19	03/01/19	EPA 8015M	

Date Sampled: **02/26/19 09:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		105 %	30-150		"	"	"	"	

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Project Manager: Susana Lara-Mesa

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C-1
1902274-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/26/19 09:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	1902345	02/28/19	03/03/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **02/26/19 09:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		85.1 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.4 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/26/19 09:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	1902347	02/28/19	03/01/19	EPA 8015M	

Date Sampled: **02/26/19 09:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		106 %	30-150		"	"	"	"	

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Volatile Organic Compounds by EPA Method 8260B - Quality Control

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

Batch 1902345 - EPA 5030 Soil MS

Blank (1902345-BLK1)

Prepared: 02/28/19 Analyzed: 03/03/19

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0331		"	0.0400		82.6	23-173			
Surrogate: Toluene-d8	0.0401		"	0.0400		100	20-170			
Surrogate: 4-Bromofluorobenzene	0.0385		"	0.0400		96.2	21-167			

LCS (1902345-BS1)

Prepared: 02/28/19 Analyzed: 03/03/19

Benzene	0.104	0.0020	mg/kg	0.100		104	70-130			
Toluene	0.111	0.0050	"	0.100		111	70-130			
Ethylbenzene	0.109	0.0050	"	0.100		109	70-130			
m,p-Xylene	0.223	0.010	"	0.200		111	70-130			
o-Xylene	0.113	0.0050	"	0.100		113	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0319		"	0.0400		79.7	23-173			
Surrogate: Toluene-d8	0.0398		"	0.0400		99.6	20-170			
Surrogate: 4-Bromofluorobenzene	0.0391		"	0.0400		97.6	21-167			

Matrix Spike (1902345-MS1)

Source: 1902265-01

Prepared: 02/28/19 Analyzed: 03/03/19

Benzene	0.0981	0.0020	mg/kg	0.100	ND	98.1	70-130			
Toluene	0.101	0.0050	"	0.100	0.00172	99.6	70-130			
Ethylbenzene	0.0955	0.0050	"	0.100	ND	95.5	70-130			
m,p-Xylene	0.187	0.010	"	0.200	0.00297	92.0	70-130			
o-Xylene	0.0961	0.0050	"	0.100	ND	96.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0326		"	0.0400		81.4	23-173			
Surrogate: Toluene-d8	0.0394		"	0.0400		98.6	20-170			
Surrogate: 4-Bromofluorobenzene	0.0388		"	0.0400		97.1	21-167			

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

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

Batch 1902345 - EPA 5030 Soil MS

Matrix Spike Dup (1902345-MSD1)		Source: 1902265-01			Prepared: 02/28/19 Analyzed: 03/03/19					
Benzene	0.0859	0.0020	mg/kg	0.100	ND	85.9	70-130	13.3	30	
Toluene	0.0892	0.0050	"	0.100	0.00172	87.5	70-130	12.7	30	
Ethylbenzene	0.0848	0.0050	"	0.100	ND	84.8	70-130	11.9	30	
m,p-Xylene	0.166	0.010	"	0.200	0.00297	81.5	70-130	11.9	30	
o-Xylene	0.0872	0.0050	"	0.100	ND	87.2	70-130	9.65	30	
Surrogate: 1,2-Dichloroethane-d4	0.0328		"	0.0400		81.9	23-173			
Surrogate: Toluene-d8	0.0398		"	0.0400		99.4	20-170			
Surrogate: 4-Bromofluorobenzene	0.0394		"	0.0400		98.6	21-167			

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Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 1902347 - EPA 3550A

Blank (1902347-BLK1)

Prepared: 02/28/19 Analyzed: 03/01/19

C10-C28 (DRO) ND 50 mg/kg

LCS (1902347-BS1)

Prepared: 02/28/19 Analyzed: 03/01/19

C10-C28 (DRO) 411 50 mg/kg 500 82.2 70-130

Matrix Spike (1902347-MS1)

Source: 1902265-01

Prepared: 02/28/19 Analyzed: 03/01/19

C10-C28 (DRO) 407 50 mg/kg 500 24.6 76.4 70-130

Matrix Spike Dup (1902347-MSD1)

Source: 1902265-01

Prepared: 02/28/19 Analyzed: 03/01/19

C10-C28 (DRO) 398 50 mg/kg 500 24.6 74.7 70-130 2.14 20

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Project Number: [none]
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03/05/19 08:12

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