

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

September 05, 2023

Ty Smith

Lesair Environmental

11786 Shaffer Place Suite 210

Littleton, CO 80127

RE: PADCO Gulley FL

Work Order #2308368

Enclosed are the results of analyses for samples received by Summit Scientific on 08/16/23 10:55. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Mikayla Axtell For Paul Shrewsbury
President



Lesair Environmental
11786 Shaffer Place Suite 210
Littleton CO, 80127

Project: PADCO Gulley FL
Project Number: [none]
Project Manager: Ty Smith

Reported:
09/05/23 08:20

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
G1c-5	2308368-01	Soil	08/15/23 15:00	08/16/23 10:55

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

SUMMIT SCIENTIFIC

4653 Table Mountain Drive
Golden, CO 80403
303-277-9310

Lab ID	Page 1 of 1
2308368	

Client: <u>PADCO</u>	Send Data To: Project Manager: <u>Ty Smith</u>	Send Invoice To: Company: <u>PADCO</u>
Address:	E-Mail: <u>ty.smith@lesair.com</u>	Project Name/Location: <u>GULLEY FL</u>
City/State/Zip:		AFE#:
Phone:	Project Name: <u>GULLEY FL</u>	PO/Billing Codes:
Sampler Name: <u>Ty Smith / BRICK MAGANA</u>	Project Number:	Contact: <u>DAN RICHMOND</u>

				Preservative				Matrix				Analysis Requested				Special Instructions
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other				
1	<u>GIC-5</u>	<u>8/15</u>	<u>15:00</u>	<u>1</u>			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		<u>9/5 pH</u>	<input checked="" type="checkbox"/>	<u>9/5 METALS</u>		
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																

Relinquished by: <u>[Signature]</u>	Date/Time: <u>8/16/23</u>	Received by: <u>[Signature]</u>	Date/Time: <u>8/16/23 10:55</u>	TAT Business Days	Field DO	Notes:
				Same Day	Field EC	
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day	Field ORP	
				2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days <input checked="" type="checkbox"/>	Field Temp.	
				Standard	Field Turb.	
Temperature Upon Receipt: <u>3.2</u>	Corrected Temperature	IR gun #: <u>2</u>	HNO3 lot #:			

S₂

Sample Receipt Checklist

S2 Work Order# 2308368Client: PADCO Client Project ID: Galley FLShipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐ Airbill #: _____

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Matrix (Check all that apply) Air ☐ Soil/Solid ☒ Water ☐ Other ☐Temp (°C) 13.2 Thermometer # 2

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? ⁽¹⁾ NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	on fire
If custody seals are present, are they intact? ⁽¹⁾	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	72 hours
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe ²⁺), Hexavalent Chromium (Cr ⁶⁺ , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<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"/>	
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	<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"/>	
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"/>	
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, H ₂ SO ₄ , NaOH, HNO ₃ , etc.	<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.
John Wind
Custodian Printed Name

8/16/23 10:55
Date/Time



Lesair Environmental
11786 Shaffer Place Suite 210
Littleton CO, 80127

Project: PADCO Gulley FL

Project Number: [none]
Project Manager: Ty Smith

Reported:
09/05/23 08:20

G1c-5
2308368-01 (Soil)

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Total Metals by EPA 6020B

Date Sampled: **08/15/23 15:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	1.58	0.200	mg/kg dry	1	BGH0685	08/17/23	08/18/23	EPA 6020B	
Barium	171	0.400	"	"	"	"	"	"	
Copper	ND	0.400	"	"	"	"	"	"	
Lead	8.80	0.200	"	"	"	"	"	"	
Nickel	2.27	0.400	"	"	"	"	"	"	
Silver	0.0822	0.0200	"	"	"	"	"	"	
Zinc	8.10	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/15/23 15:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGH0714	08/17/23	08/17/23	EPA 7196A	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/15/23 15:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	81.3		%	1	BGH0736	08/18/23	08/18/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **08/15/23 15:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	7.92		pH Units	1	BGH0732	08/17/23	08/17/23	EPA 9045D	

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Littleton CO, 80127

Project: PADCO Gulley FL

Project Number: [none]

Project Manager: Ty Smith

Reported:

09/05/23 08:20

G1c-5
2308368-01RE1 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **08/15/23 15:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Cadmium	ND	0.200		mg/kg dry	1	BGH1250	08/17/23	09/01/23	EPA 6020B	

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Project: PADCO Gulley FL
Project Number: [none]
Project Manager: Ty Smith

Reported:
09/05/23 08:20

Total Metals by EPA 6020B - Quality Control

Summit Scientific

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

Batch BGH0685 - EPA 3050B

Blank (BGH0685-BLK1)

Prepared: 08/17/23 Analyzed: 08/18/23

Arsenic	ND	0.200	mg/kg wet
Barium	ND	0.400	"
Cadmium	ND	0.200	"
Copper	ND	0.400	"
Lead	ND	0.200	"
Nickel	ND	0.400	"
Silver	ND	0.0200	"
Zinc	ND	0.400	"
Selenium	ND	0.260	"

LCS (BGH0685-BS1)

Prepared: 08/17/23 Analyzed: 08/18/23

Arsenic	40.5	0.200	mg/kg wet	40.0	101	80-120
Barium	40.5	0.400	"	40.0	101	80-120
Cadmium	2.06	0.200	"	2.00	103	80-120
Copper	38.7	0.400	"	40.0	96.8	80-120
Lead	20.8	0.200	"	20.0	104	80-120
Nickel	40.4	0.400	"	40.0	101	80-120
Silver	2.01	0.0200	"	2.00	101	80-120
Zinc	42.7	0.400	"	40.0	107	80-120

Duplicate (BGH0685-DUP1)

Source: 2308280-01

Prepared: 08/17/23 Analyzed: 08/18/23

Arsenic	0.849	0.200	mg/kg dry	0.786	7.63	20	
Barium	19.8	0.400	"	15.2	26.5	20	QR-04
Cadmium	0.225	0.200	"	0.165	30.7	20	QR-01
Copper	ND	0.400	"	ND		20	
Lead	22.2	0.200	"	7.76	96.2	20	QR-04
Nickel	0.836	0.400	"	0.697	18.1	20	
Silver	0.0224	0.0200	"	0.0121	60.2	20	QR-01
Zinc	14.5	0.400	"	9.77	39.0	20	QR-04
Selenium	ND	0.260	"	ND		200	

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Project: PADCO Gulley FL
Project Number: [none]
Project Manager: Ty Smith

Reported:
09/05/23 08:20

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BGH0685 - EPA 3050B

Matrix Spike (BGH0685-MS1)			Source: 2308280-01		Prepared: 08/17/23 Analyzed: 08/18/23						
Arsenic	22.3	0.200	mg/kg dry	41.6	0.786	51.8	75-125				QM-01
Barium	59.6	0.400	"	41.6	15.2	107	75-125				
Cadmium	2.23	0.200	"	2.08	0.165	99.4	75-125				
Copper	18.8	0.400	"	41.6	ND	45.3	75-125				QM-01
Lead	28.0	0.200	"	20.8	7.76	97.4	75-125				
Nickel	22.4	0.400	"	41.6	0.697	52.2	75-125				QM-01
Silver	1.93	0.0200	"	2.08	0.0121	92.5	75-125				
Zinc	36.0	0.400	"	41.6	9.77	63.1	75-125				QM-01

Matrix Spike Dup (BGH0685-MSD1)			Source: 2308280-01		Prepared: 08/17/23 Analyzed: 08/18/23						
Arsenic	23.0	0.200	mg/kg dry	41.6	0.786	53.6	75-125	3.28	25		QM-01
Barium	59.7	0.400	"	41.6	15.2	107	75-125	0.0913	25		
Cadmium	2.20	0.200	"	2.08	0.165	98.0	75-125	1.24	25		
Copper	19.0	0.400	"	41.6	ND	45.7	75-125	0.905	25		QM-01
Lead	28.2	0.200	"	20.8	7.76	98.5	75-125	0.809	25		
Nickel	22.7	0.400	"	41.6	0.697	52.9	75-125	1.30	25		QM-01
Silver	1.92	0.0200	"	2.08	0.0121	92.0	75-125	0.560	25		
Zinc	35.1	0.400	"	41.6	9.77	61.1	75-125	2.45	25		QM-01

Batch BGH1250 - EPA 3050B

Blank (BGH1250-BLK1)			Prepared: 08/31/23 Analyzed: 09/01/23								
Arsenic	ND	0.200	mg/kg wet								
Barium	ND	0.400	"								
Cadmium	ND	0.200	"								
Copper	ND	0.400	"								
Lead	ND	0.200	"								
Nickel	ND	0.400	"								
Silver	ND	0.0200	"								
Zinc	ND	0.400	"								
Selenium	ND	0.260	"								

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Project: PADCO Gulley FL

Project Number: [none]
Project Manager: Ty Smith

Reported:
09/05/23 08:20

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BGH1250 - EPA 3050B

LCS (BGH1250-BS1)

Prepared: 08/31/23 Analyzed: 09/01/23

Arsenic	45.7	0.200	mg/kg wet	40.0		114	80-120			
Barium	35.5	0.400	"	40.0		88.7	80-120			
Cadmium	1.76	0.200	"	2.00		87.8	80-120			
Copper	46.3	0.400	"	40.0		116	80-120			
Lead	17.9	0.200	"	20.0		89.6	80-120			
Nickel	45.6	0.400	"	40.0		114	80-120			
Silver	1.78	0.0200	"	2.00		89.1	80-120			
Zinc	45.4	0.400	"	40.0		113	80-120			

Duplicate (BGH1250-DUP1)

Source: 2308661-01

Prepared: 08/31/23 Analyzed: 09/01/23

Arsenic	0.693	0.200	mg/kg dry		0.703			1.47	20	
Barium	144	0.400	"		134			7.00	20	
Cadmium	0.111	0.200	"		0.104			6.36	20	
Copper	1.24	0.400	"		1.46			16.4	20	
Lead	5.98	0.200	"		6.75			12.2	20	
Nickel	1.62	0.400	"		1.86			13.8	20	
Silver	0.00929	0.0200	"		0.0122			27.3	20	QR-01
Zinc	12.1	0.400	"		11.5			5.57	20	
Selenium	ND	0.260	"		ND				200	

Matrix Spike (BGH1250-MS1)

Source: 2308661-01

Prepared: 08/31/23 Analyzed: 09/01/23

Arsenic	14.9	0.200	mg/kg dry	48.9	0.703	28.9	75-125			QM-01
Barium	157	0.400	"	48.9	134	46.1	75-125			QM-01
Cadmium	2.09	0.200	"	2.45	0.104	81.3	75-125			
Copper	16.0	0.400	"	48.9	1.46	29.8	75-125			QM-01
Lead	24.2	0.200	"	24.5	6.75	71.5	75-125			QM-01
Nickel	16.8	0.400	"	48.9	1.86	30.5	75-125			QM-01
Silver	2.05	0.0200	"	2.45	0.0122	83.3	75-125			
Zinc	26.7	0.400	"	48.9	11.5	31.1	75-125			QM-01

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Project: PADCO Gulley FL

Project Number: [none]
Project Manager: Ty Smith

Reported:
09/05/23 08:20

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BGH1250 - EPA 3050B

Matrix Spike Dup (BGH1250-MSD1)	Source: 2308661-01			Prepared: 08/31/23 Analyzed: 09/01/23						
Arsenic	15.1	0.200	mg/kg dry	48.9	0.703	29.3	75-125	1.35	25	QM-01
Barium	163	0.400	"	48.9	134	58.4	75-125	3.78	25	QM-01
Cadmium	2.22	0.200	"	2.45	0.104	86.4	75-125	5.81	25	
Copper	16.3	0.400	"	48.9	1.46	30.3	75-125	1.54	25	QM-01
Lead	25.3	0.200	"	24.5	6.75	76.0	75-125	4.41	25	
Nickel	16.9	0.400	"	48.9	1.86	30.8	75-125	0.915	25	QM-01
Silver	2.14	0.0200	"	2.45	0.0122	87.0	75-125	4.32	25	
Zinc	27.0	0.400	"	48.9	11.5	31.8	75-125	1.35	25	QM-01

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Project: PADCO Gulley FL

Project Number: [none]
Project Manager: Ty Smith

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09/05/23 08:20

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BGH0714 - 3060A Mod

Blank (BGH0714-BLK1)

Prepared & Analyzed: 08/17/23

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BGH0714-BS1)

Prepared & Analyzed: 08/17/23

Chromium, Hexavalent 20.7 0.30 mg/kg wet 25.0 82.8 80-120

Duplicate (BGH0714-DUP1)

Source: 2308308-01

Prepared & Analyzed: 08/17/23

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BGH0714-MS1)

Source: 2308308-01

Prepared & Analyzed: 08/17/23

Chromium, Hexavalent 23.7 0.30 mg/kg dry 27.4 ND 86.4 75-125

Matrix Spike Dup (BGH0714-MSD1)

Source: 2308308-01

Prepared & Analyzed: 08/17/23

Chromium, Hexavalent 24.0 0.30 mg/kg dry 27.4 ND 87.4 75-125 1.15 20

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Project: PADCO Gulley FL

Project Number: [none]

Project Manager: Ty Smith

Reported:

09/05/23 08:20

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

Summit Scientific

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

Batch BGH0736 - General Preparation

Duplicate (BGH0736-DUP1)		Source: 2308351-01			Prepared & Analyzed: 08/18/23						
% Solids	83.1		%		82.8			0.357		20	

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Project: PADCO Gulley FL

Project Number: [none]
Project Manager: Ty Smith

Reported:
09/05/23 08:20

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction - Quality Control
Summit Scientific

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

Batch BGH0732 - General Preparation

LCS (BGH0732-BS1)

Prepared & Analyzed: 08/17/23

pH	8.99	pH Units	9.18	97.9	95-105
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Duplicate (BGH0732-DUP1)

Source: 2308366-01

Prepared & Analyzed: 08/17/23

pH	8.47	pH Units	8.46	0.118	20
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Project: PADCO Gulley FL

Project Number: [none]
Project Manager: Ty Smith

Reported:
09/05/23 08:20

Notes and Definitions

QR-04	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QR-01	Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
QM-01	The spike recovery for this QC sample is outside of established control limits due to sample 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