



February 03, 2023

KP Kauffman Co. Inc.

Levi Kirk

1700 Lincoln St #4550

Denver

CO 80203

Project Name - Koch Tank Battery

Project Number - [none]

Attached are your analytical results for Koch Tank Battery received by Origins Laboratory, Inc. January 26, 2023. This project is associated with Origins project number Y301441-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.
303.433.1322
o-squad@oelabinc.com



1725 Elk Place, Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645

KP Kauffman Co. Inc.

1700 Lincoln St #4550

Denver CO 80203

Levi Kirk

Project Number: [none]

Project: Koch Tank Battery

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BACKGROUND-1@4'	Y301441-01	Soil	January 26, 2023 10:30	01/26/2023 15:12
BACKGROUND-1@6'	Y301441-02	Soil	January 26, 2023 10:35	01/26/2023 15:12
BACKGROUND-2@4'	Y301441-03	Soil	January 26, 2023 10:45	01/26/2023 15:12
BACKGROUND-2@6'	Y301441-04	Soil	January 26, 2023 10:50	01/26/2023 15:12
BACKGROUND-3@4'	Y301441-05	Soil	January 26, 2023 11:00	01/26/2023 15:12
BACKGROUND-3@6'	Y301441-06	Soil	January 26, 2023 11:05	01/26/2023 15:12

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

KP Kauffman Co. Inc.

1700 Lincoln St #4550

Denver CO 80203

Levi Kirk

Project Number: [none]

Project: Koch Tank Battery

ORIGINS

LABORATORY, INC

www.originslaboratory.com

4301441

page 1 of 1

Client: K. P. Kauffman
Address: 1675 Broadway Denver, CO 80202
Telephone Number: 3038254822
Email Address: PrimaryContractor@marcomllc.net

Project Manager: Levi Kirk
Project Name: Koch Tank Battery
Project Number:
Samples Collected By: CP & ES

Fax: 303.265.9645

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions
				Unpreserved	HCl	HNO ₃	Groundwater	Soil	Air Summa Canister #	Other		
Background-1 @ 4'	1/26/23	10:30	2	X				X			Table 915 Inorganics	1
Background-1 @ 6'	1/26/23	10:35	2	X				X				2
Background-2 @ 4'	1/26/23	10:45	2	X				X				3
Background-2 @ 6'	1/26/23	10:50	2	X				X				4
Background-3 @ 4'	1/26/23	11:00	2	X				X				5
Background-3 @ 6'	1/26/23	11:05	2	X				X				6
												7
												8
												9
												10

Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Turnaround Time:
ESJ	1/26/23	1512	EHS	1/26/23	1512	Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/> Standard <input checked="" type="checkbox"/>
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	

Date Results Needed

8.4

Origins Laboratory, Inc.

Jen Pellegrini

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Jen Pellegrini, Project Manager

KP Kauffman Co. Inc.

1700 Lincoln St #4550

Denver CO 80203

Levi Kirk

Project Number: [none]

Project: Koch Tank Battery

Origins Laboratory

F-012207-01-R1
Effective Date: 01/09/12

Sample Receipt Checklist

Origins Work Order: 4301441

Client: KP Kauffman

Client Project ID: Koch TB

Checklist Completed by: EHS/HSH

Shipped Via: HD
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 1/26/23

Airbill #: NA

Matrix(s) Received: (Check all that apply): ☒ Soil/Solid ☐ Water ☐ Other: _____

Cooler Number/Temperature: 1 18.4°C 1 °C 1 °C (Describe) °C

Thermometer ID: T004

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?		<input checked="" type="checkbox"/>		SD
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)			<input checked="" type="checkbox"/>	
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)			<input checked="" type="checkbox"/>	
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.			<input checked="" type="checkbox"/>	
Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH <2 for samples preserved with HNO ₃ , HCL, H ₂ SO ₄) / (pH >10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH)			<input checked="" type="checkbox"/>	
Additional Comments (if any):				

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note date/time and person contacted as well as the corrective action to in the additional comments (above) and the case narrative.

Reviewed by: [Signature] (Project Manager)

Date/Time Reviewed: 1-27-23

Origins Laboratory, Inc.

Jefe Pellegrini

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KP Kauffman Co. Inc.

1700 Lincoln St #4550

Denver CO 80203

Levi Kirk

Project Number: [none]

Project: Koch Tank Battery

BACKGROUND-1@4'

1/26/2023 10:30:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y301441-01 (Soil)

Boron (DTPA Sorbitol)

Boron	0.892	0.0998	mg/L	1	B3A2710	KAP	01/27/2023	01/30/2023
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Metals by Saturated Paste by EPA 6010

Calcium	2.22	0.499	meq/L	10	[CALC]	KAP	01/27/2023	01/30/2023
Magnesium	3.57	0.823	"	"	"	KAP	"	"
Sodium	10.9	0.435	"	"	"	KAP	"	"

pH in Soil by 9045D

pH	8.56		pH Units	1	B3A2721	HJD	01/27/2023	01/28/2023
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SAR by 20B Saturated Paste

SAR	6.43		SAR	1	B3A2706	KAP	01/27/2023	01/30/2023
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	1.56	0.00500	mmhos/cm	1	B3A2721	HJD	01/27/2023	01/28/2023
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Table 915 metals by EPA 6020B

Arsenic	6.07	0.0888	mg/kg	10	B3A2702	CNG	01/27/2023	01/27/2023
Barium	130	8.88	"	"	"	CNG	"	"
Cadmium	0.460	0.0888	"	"	"	CNG	"	"
Copper	38.1	8.88	"	"	"	CNG	"	"

Origins Laboratory, Inc.



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KP Kauffman Co. Inc.
1700 Lincoln St #4550
Denver CO 80203

Levi Kirk
Project Number: [none]
Project: Koch Tank Battery

BACKGROUND-1@4'
1/26/2023 10:30:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y301441-01 (Soil)

Table 915 metals by EPA 6020B

Lead	40.2	8.88	mg/kg	10	B3A2702	CNG	01/27/2023	01/27/2023	
Nickel	ND	8.88	"	"	"	CNG	"	"	U
Selenium	0.201	0.0888	"	"	"	CNG	"	"	
Silver	0.551	0.0888	"	"	"	CNG	"	"	
Zinc	89.9	88.8	"	"	"	CNG	"	"	

Total Metals by 7196A

Chromium, Hexavalent	ND	2.5	mg/Kg	5	L661156		01/26/2023	01/30/2023	
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Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

KP Kauffman Co. Inc.

1700 Lincoln St #4550

Denver CO 80203

Levi Kirk

Project Number: [none]

Project: Koch Tank Battery

BACKGROUND-1@6'

1/26/2023 10:35:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y301441-02 (Soil)

Boron (DTPA Sorbitol)

Boron	0.0988	0.100	mg/L	1	B3A2710	KAP	01/27/2023	01/30/2023
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Metals by Saturated Paste by EPA 6010

Calcium	2.70	0.499	meq/L	10	[CALC]	KAP	01/27/2023	01/30/2023
Magnesium	ND	0.823	"	"	"	KAP	"	"
Sodium	0.738	0.435	"	"	"	KAP	"	"

pH in Soil by 9045D

pH	8.47		pH Units	1	B3A2721	HJD	01/27/2023	01/28/2023
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SAR by 20B Saturated Paste

SAR	0.559		SAR	1	B3A2706	KAP	01/27/2023	01/30/2023
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.421	0.00500	mmhos/cm	1	B3A2721	HJD	01/27/2023	01/28/2023
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Table 915 metals by EPA 6020B

Arsenic	3.79	0.0899	mg/kg	10	B3A2702	CNG	01/27/2023	01/27/2023
Barium	100	8.99	"	"	"	CNG	"	"
Cadmium	0.107	0.0899	"	"	"	CNG	"	"
Copper	9.97	8.99	"	"	"	CNG	"	"

Origins Laboratory, Inc.



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KP Kauffman Co. Inc.
1700 Lincoln St #4550
Denver CO 80203

Levi Kirk
Project Number: [none]
Project: Koch Tank Battery

BACKGROUND-1@6'
1/26/2023 10:35:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y301441-02 (Soil)

Table 915 metals by EPA 6020B

Lead	ND	8.99	mg/kg	10	B3A2702	CNG	01/27/2023	01/27/2023	U
Nickel	11.8	8.99	"	"	"	CNG	"	"	
Selenium	0.186	0.0899	"	"	"	CNG	"	"	
Silver	ND	0.0899	"	"	"	CNG	"	"	U
Zinc	ND	89.9	"	"	"	CNG	"	"	U

Total Metals by 7196A

Chromium, Hexavalent	ND	0.5	mg/Kg	1	L661156		01/26/2023	01/30/2023	
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Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

KP Kauffman Co. Inc.

1700 Lincoln St #4550

Denver CO 80203

Levi Kirk

Project Number: [none]

Project: Koch Tank Battery

BACKGROUND-2@4'

1/26/2023 10:45:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y301441-03 (Soil)

Boron (DTPA Sorbitol)

Boron	0.0711	0.0998	mg/L	1	B3A2710	KAP	01/27/2023	01/30/2023
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Metals by Saturated Paste by EPA 6010

Calcium	1.67	0.499	meq/L	10	[CALC]	KAP	01/27/2023	01/30/2023
Magnesium	ND	0.823	"	"	"	KAP	"	"
Sodium	0.765	0.435	"	"	"	KAP	"	"

pH in Soil by 9045D

pH	8.37		pH Units	1	B3A2721	HJD	01/27/2023	01/28/2023
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SAR by 20B Saturated Paste

SAR	0.715		SAR	1	B3A2706	KAP	01/27/2023	01/30/2023
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.318	0.00500	mmhos/cm	1	B3A2721	HJD	01/27/2023	01/28/2023
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Table 915 metals by EPA 6020B

Arsenic	3.50	0.0923	mg/kg	10	B3A2702	CNG	01/27/2023	01/27/2023
Barium	106	9.23	"	"	"	CNG	"	"
Cadmium	0.114	0.0923	"	"	"	CNG	"	"
Copper	10.8	9.23	"	"	"	CNG	"	"

Origins Laboratory, Inc.



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KP Kauffman Co. Inc.
1700 Lincoln St #4550
Denver CO 80203

Levi Kirk
Project Number: [none]
Project: Koch Tank Battery

BACKGROUND-2@4'
1/26/2023 10:45:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y301441-03 (Soil)

Table 915 metals by EPA 6020B

Lead	ND	9.23	mg/kg	10	B3A2702	CNG	01/27/2023	01/27/2023	U
Nickel	13.8	9.23	"	"	"	CNG	"	"	
Selenium	0.164	0.0923	"	"	"	CNG	"	"	
Silver	ND	0.0923	"	"	"	CNG	"	"	U
Zinc	ND	92.3	"	"	"	CNG	"	"	U

Total Metals by 7196A

Chromium, Hexavalent	ND	1	mg/Kg	2	L661156		01/26/2023	01/30/2023	
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Jen Pellegrini, Project Manager

KP Kauffman Co. Inc.

1700 Lincoln St #4550

Denver CO 80203

Levi Kirk

Project Number: [none]

Project: Koch Tank Battery

BACKGROUND-2@6'

1/26/2023 10:50:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y301441-04 (Soil)

Boron (DTPA Sorbitol)

Boron	0.872	0.0998	mg/L	1	B3A2710	KAP	01/27/2023	01/30/2023
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Metals by Saturated Paste by EPA 6010

Calcium	2.45	0.499	meq/L	10	[CALC]	KAP	01/30/2023	01/31/2023
Magnesium	2.12	0.823	"	"	"	KAP	"	"
Sodium	3.26	0.435	"	"	"	KAP	"	"

pH in Soil by 9045D

pH	8.06		pH Units	1	B3A3011	HJD	01/30/2023	01/31/2023
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SAR by 20B Saturated Paste

SAR	2.16		SAR	1	B3A3009	KAP	01/30/2023	01/31/2023
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.743	0.00500	mmhos/cm	1	B3A3011	HJD	01/30/2023	01/31/2023
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Table 915 metals by EPA 6020B

Arsenic	4.21	0.0956	mg/kg	10	B3A2702	CNG	01/27/2023	01/27/2023
Barium	105	9.56	"	"	"	CNG	"	"
Cadmium	0.146	0.0956	"	"	"	CNG	"	"
Copper	12.9	9.56	"	"	"	CNG	"	"

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KP Kauffman Co. Inc.
1700 Lincoln St #4550
Denver CO 80203

Levi Kirk
Project Number: [none]
Project: Koch Tank Battery

BACKGROUND-2@6'

1/26/2023 10:50:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y301441-04 (Soil)

Table 915 metals by EPA 6020B

Lead	12.1	9.56	mg/kg	10	B3A2702	CNG	01/27/2023	01/27/2023	
Nickel	12.5	9.56	"	"	"	CNG	"	"	
Selenium	0.169	0.0956	"	"	"	CNG	"	"	
Silver	ND	0.0956	"	"	"	CNG	"	"	U
Zinc	ND	95.6	"	"	"	CNG	"	"	U

Total Metals by 7196A

Chromium, Hexavalent	ND	0.5	mg/Kg	1	L661156		01/26/2023	01/30/2023	
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Jen Pellegrini, Project Manager

KP Kauffman Co. Inc.

1700 Lincoln St #4550

Denver CO 80203

Levi Kirk

Project Number: [none]

Project: Koch Tank Battery

BACKGROUND-3@4'

1/26/2023 11:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y301441-05 (Soil)

Boron (DTPA Sorbitol)

Boron	0.788	0.0998	mg/L	1	B3A2710	KAP	01/27/2023	01/30/2023
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Metals by Saturated Paste by EPA 6010

Calcium	25.4	0.499	meq/L	10	[CALC]	KAP	01/30/2023	01/31/2023
Magnesium	59.1	0.823	"	"	"	KAP	"	"
Sodium	62.6	0.435	"	"	"	KAP	"	"

pH in Soil by 9045D

pH	8.10		pH Units	1	B3A3011	HJD	01/30/2023	01/31/2023
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SAR by 20B Saturated Paste

SAR	9.63		SAR	1	B3A3009	KAP	01/30/2023	01/31/2023
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	10.8	0.00500	mmhos/cm	1	B3A3011	HJD	01/30/2023	01/31/2023
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Table 915 metals by EPA 6020B

Arsenic	3.50	0.0934	mg/kg	10	B3A2702	CNG	01/27/2023	01/27/2023
Barium	82.1	9.34	"	"	"	CNG	"	"
Cadmium	0.162	0.0934	"	"	"	CNG	"	"
Copper	10.3	9.34	"	"	"	CNG	"	"

Origins Laboratory, Inc.



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KP Kauffman Co. Inc.
1700 Lincoln St #4550
Denver CO 80203

Levi Kirk
Project Number: [none]
Project: Koch Tank Battery

BACKGROUND-3@4'
1/26/2023 11:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y301441-05 (Soil)

Table 915 metals by EPA 6020B

Lead	11.6	9.34	mg/kg	10	B3A2702	CNG	01/27/2023	01/27/2023	
Nickel	11.8	9.34	"	"	"	CNG	"	"	
Selenium	0.269	0.0934	"	"	"	CNG	"	"	
Silver	ND	0.0934	"	"	"	CNG	"	"	U
Zinc	ND	93.4	"	"	"	CNG	"	"	U

Total Metals by 7196A

Chromium, Hexavalent	ND	2.55	mg/Kg	5	L661156		01/26/2023	01/30/2023	
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Jen Pellegrini, Project Manager

KP Kauffman Co. Inc.

1700 Lincoln St #4550

Denver CO 80203

Levi Kirk

Project Number: [none]

Project: Koch Tank Battery

BACKGROUND-3@6'

1/26/2023 11:05:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y301441-06 (Soil)

Boron (DTPA Sorbitol)

Boron	0.857	0.0999	mg/L	1	B3A2710	KAP	01/27/2023	01/30/2023
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Metals by Saturated Paste by EPA 6010

Calcium	2.72	0.499	meq/L	10	[CALC]	KAP	01/30/2023	01/31/2023
Magnesium	7.98	0.823	"	"	"	KAP	"	"
Sodium	13.8	0.435	"	"	"	KAP	"	"

pH in Soil by 9045D

pH	8.15		pH Units	1	B3A3011	HJD	01/30/2023	01/31/2023
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SAR by 20B Saturated Paste

SAR	5.95		SAR	1	B3A3009	KAP	01/30/2023	01/31/2023
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	2.41	0.00500	mmhos/cm	1	B3A3011	HJD	01/30/2023	01/31/2023
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Table 915 metals by EPA 6020B

Arsenic	4.36	0.0883	mg/kg	10	B3A2702	CNG	01/27/2023	01/27/2023
Barium	133	8.83	"	"	"	CNG	"	"
Cadmium	0.124	0.0883	"	"	"	CNG	"	"
Copper	12.5	8.83	"	"	"	CNG	"	"

Origins Laboratory, Inc.



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KP Kauffman Co. Inc.
1700 Lincoln St #4550
Denver CO 80203

Levi Kirk
Project Number: [none]
Project: Koch Tank Battery

BACKGROUND-3@6'
1/26/2023 11:05:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y301441-06 (Soil)

Table 915 metals by EPA 6020B

Lead	9.87	8.83	mg/kg	10	B3A2702	CNG	01/27/2023	01/27/2023	
Nickel	14.8	8.83	"	"	"	CNG	"	"	
Selenium	0.200	0.0883	"	"	"	CNG	"	"	
Silver	ND	0.0883	"	"	"	CNG	"	"	U
Zinc	ND	88.3	"	"	"	CNG	"	"	U

Total Metals by 7196A

Chromium, Hexavalent	ND	0.5	mg/Kg	1	L661156		01/26/2023	01/30/2023	
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Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

KP Kauffman Co. Inc.

1700 Lincoln St #4550

Denver CO 80203

Levi Kirk

Project Number: [none]

Project: Koch Tank Battery

Metals by EPA 6000/7000 Series Methods - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B3A2702 - EPA 3050B

Blank (B3A2702-BLK1)

Prepared: 01/27/2023 Analyzed: 01/27/2023

Arsenic	ND	0.000100	mg/kg							U
Barium	ND	0.0100	"							U
Cadmium	ND	0.000100	"							U
Copper	ND	0.0100	"							U
Lead	ND	0.0100	"							U
Nickel	ND	0.0100	"							U
Selenium	ND	0.000100	"							U
Silver	ND	0.000100	"							U
Zinc	ND	0.100	"							U

LCS (B3A2702-BS1)

Prepared: 01/27/2023 Analyzed: 01/27/2023

Arsenic	0.0496	0.000100	mg/kg	0.0500		99.2	80-120
Barium	4.98	0.0100	"	5.00		99.6	80-120
Cadmium	0.0508	0.000100	"	0.0500		102	80-120
Copper	0.528	0.0100	"	0.500		106	80-120
Lead	0.0512	0.0100	"	0.0500		102	80-120
Nickel	0.0533	0.0100	"	0.0500		107	80-120
Selenium	0.0480	0.000100	"	0.0500		96.0	80-120
Silver	0.0515	0.000100	"	0.0500		103	80-120
Zinc	0.517	0.100	"	0.500		103	80-120

Matrix Spike (B3A2702-MS1)

Source: Y301395-03

Prepared: 01/27/2023 Analyzed: 01/27/2023

Arsenic	6.46	0.0957	mg/kg	4.78	1.71	99.3	75-125
Barium	556	9.57	"	478	61.8	103	75-125
Cadmium	5.09	0.0957	"	4.78	0.121	104	75-125
Copper	54.9	9.57	"	47.8	5.48	103	75-125
Lead	11.5	9.57	"	4.78	6.43	106	75-125

Origins Laboratory, Inc.



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KP Kauffman Co. Inc.
1700 Lincoln St #4550
Denver CO 80203

Levi Kirk
Project Number: [none]
Project: Koch Tank Battery

Metals by EPA 6000/7000 Series Methods - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B3A2702 - EPA 3050B

Matrix Spike (B3A2702-MS1)		Source: Y301395-03			Prepared: 01/27/2023 Analyzed: 01/27/2023					
Nickel	9.80	9.57	mg/kg	4.78	4.87	103	75-125			
Selenium	4.86	0.0957	"	4.78	0.0958	99.7	75-125			
Silver	5.01	0.0957	"	4.78	0.0217	104	75-125			
Zinc	71.4	95.7	"	47.8	22.1	103	75-125			U
Matrix Spike Dup (B3A2702-MSD1)		Source: Y301395-03			Prepared: 01/27/2023 Analyzed: 01/27/2023					
Arsenic	6.19	0.0949	mg/kg	4.74	1.71	94.6	75-125	4.17	20	
Barium	547	9.49	"	474	61.8	102	75-125	1.78	20	
Cadmium	4.94	0.0949	"	4.74	0.121	102	75-125	2.81	20	
Copper	52.9	9.49	"	47.4	5.48	100	75-125	3.69	20	
Lead	11.7	9.49	"	4.74	6.43	112	75-125	1.96	20	
Nickel	9.54	9.49	"	4.74	4.87	98.4	75-125	2.66	20	
Selenium	4.39	0.0949	"	4.74	0.0958	90.6	75-125	10.2	20	
Silver	4.90	0.0949	"	4.74	0.0217	103	75-125	2.17	20	
Zinc	68.7	94.9	"	47.4	22.1	98.3	75-125	3.85	20	U

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

KP Kauffman Co. Inc.
1700 Lincoln St #4550
Denver CO 80203

Levi Kirk
Project Number: [none]
Project: Koch Tank Battery

Classical Chemistry Parameters - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B3A2706 - Saturated Paste Metals

Blank (B3A2706-BLK1)

Prepared: 01/27/2023 Analyzed: 01/30/2023

SAR	0.00		SAR							U
Calcium PPM	ND	10.0	mg/L							U
Magnesium PPM	ND	10.0	"							U
Sodium PPM	0.413	10.0	"							

Duplicate (B3A2706-DUP1)

Source: Y301407-03

Prepared: 01/27/2023 Analyzed: 01/30/2023

SAR	0.00		SAR		0.874			200	200	U
Calcium PPM	44.5	10.0	mg/L		68.7			42.7	50	
Magnesium PPM	14.0	10.0	"		14.9			5.91	50	
Sodium PPM	18.5	10.0	"		30.6			49.2	50	

Batch B3A2710 - DTPA Sorbitol Preparation

Blank (B3A2710-BLK1)

Prepared: 01/27/2023 Analyzed: 01/30/2023

Boron	ND	0.100	mg/L							U
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Duplicate (B3A2710-DUP1)

Source: Y301432-01

Prepared: 01/27/2023 Analyzed: 01/30/2023

Boron	0.227	0.0999	mg/L		0.247			8.51	50	
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Batch B3A3009 - Saturated Paste Metals

Blank (B3A3009-BLK1)

Prepared: 01/30/2023 Analyzed: 01/31/2023

Calcium PPM	ND	10.0	mg/L							U
SAR	0.00		SAR							U
Magnesium PPM	ND	10.0	mg/L							U
Sodium PPM	0.719	10.0	"							

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

KP Kauffman Co. Inc.
1700 Lincoln St #4550
Denver CO 80203

Levi Kirk
Project Number: [none]
Project: Koch Tank Battery

Classical Chemistry Parameters - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B3A3009 - Saturated Paste Metals

Duplicate (B3A3009-DUP1)		Source: Y301232-01			Prepared: 01/30/2023 Analyzed: 01/31/2023					
SAR	0.00		SAR		28.9			200	200	U
Calcium PPM	96.4	100	mg/L		90.7			6.09	50	
Magnesium PPM	235	100	"		256			8.70	50	
Sodium PPM	2280	100	"		2380			4.28	50	

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

KP Kauffman Co. Inc.
1700 Lincoln St #4550
Denver CO 80203

Levi Kirk
Project Number: [none]
Project: Koch Tank Battery

Saturated Paste - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B3A2721 - Saturated Paste pH/EC

Blank (B3A2721-BLK1)

Prepared: 01/27/2023 Analyzed: 01/28/2023

Specific Conductance (EC) 0.00110 0.00500 mmhos/cm

Duplicate (B3A2721-DUP1)

Source: Y301407-04

Prepared: 01/27/2023 Analyzed: 01/28/2023

pH	8.19		pH Units	8.39		2.41	25
Specific Conductance (EC)	0.457	0.00500	mmhos/cm	0.459		0.546	25

Batch B3A3011 - Saturated Paste pH/EC

Blank (B3A3011-BLK1)

Prepared: 01/30/2023 Analyzed: 01/31/2023

Specific Conductance (EC) 0.00370 0.00500 mmhos/cm

Duplicate (B3A3011-DUP1)

Source: Y301232-01

Prepared: 01/30/2023 Analyzed: 01/31/2023

pH	8.03		pH Units	8.10		0.868	25
Specific Conductance (EC)	10.1	0.00500	mmhos/cm	10.7		6.21	25

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

KP Kauffman Co. Inc.
1700 Lincoln St #4550
Denver CO 80203

Levi Kirk
Project Number: [none]
Project: Koch Tank Battery

Total Metals by 7196A - Quality Control Waypoint Analytical, LLC.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch L661156 -										
DUP (L 81072-DUP)		Source: 81072			Prepared: Analyzed: 01/30/2023					
Chromium, Hexavalent	ND	0.52	mg/Kg		<0.520		-	0	20	
MS (L 81072-MS)		Source: 81072			Prepared: Analyzed: 01/30/2023					
Chromium, Hexavalent	32.9	2.53	mg/Kg	40.5	< 0.244	81	75-125			
LCS (LCS)					Prepared: Analyzed: 01/30/2023					
Chromium, Hexavalent	6.44	0.5	mg/Kg	8		81	75-125			
LRB (LRB)					Prepared: Analyzed: 01/30/2023					
Chromium, Hexavalent	ND	0.5	mg/Kg				-			

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

KP Kauffman Co. Inc.

1700 Lincoln St #4550

Denver CO 80203

Levi Kirk

Project Number: [none]

Project: Koch Tank Battery

Notes and Definitions

U Sample is Non-Detect.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager