



December 19, 2022

KP Kauffman Co. Inc.

Levi Kirk

1700 Lincoln St #4550

Denver CO 80203

**Project Name - Koch Tank Battery P&A**

**Project Number - [none]**

Attached are your analytical results for Koch Tank Battery P&A received by Origins Laboratory, Inc. December 06, 2022. This project is associated with Origins project number Y212129-01.

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 P&A

**CROSS REFERENCE REPORT**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS-1@2'	Y212129-01	Soil	December 5, 2022 11:25	12/06/2022 15:50
BH-1@6'	Y212129-02	Soil	December 5, 2022 11:40	12/06/2022 15:50
SW-1@4'	Y212129-03	Soil	December 5, 2022 11:50	12/06/2022 15:50
SW-4@4'	Y212129-06	Soil	December 5, 2022 12:20	12/06/2022 15:50
SS-2@5'	Y212129-07	Soil	December 6, 2022 10:40	12/06/2022 15:50
SS-4@5'	Y212129-08	Soil	December 6, 2022 10:50	12/06/2022 15:50
SS-6@5'	Y212129-09	Soil	December 6, 2022 11:00	12/06/2022 15:50
SOURCE SAMPLE	Y212129-10	Soil	December 6, 2022 13:30	12/06/2022 15:50
GW-1	Y212129-11	Water	December 5, 2022 12:35	12/06/2022 15:50

**Chain of Custody Modification Request**

On 12/7/2022, Levi Kirk from Marcom contacted Jordan Bynon via phone regarding Y212129 requesting that SW-2 and SW-3 be cancelled.

Requested modifications to the chain of custody were made by Jordan Bynon on 12/7/2022.

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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KP Kauffman Co. Inc.

1700 Lincoln St #4550

Denver CO 80203

Levi Kirk

Project Number: [none]

Project: Koch Tank Battery P&A

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4212129

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**ORIGINS**  
LABORATORY, INC

Client: K. P. Kauffman  
Address: 1675 Broadway Denver, CO 80202

Project Manager: Levi Kirk  
Project Name: KOCH TANK BATTERY P&A

Project Number: [blank]  
Samples Collected By: L.L. & B.W.

Telephone Number: 303.825.4822  
Email Address: PrimaryContractor@marcomllc.net

Fax: 303.265.9645

Sample ID Description	Date Sampled	Time Sampled	Preservative				Matrix		Analysis	Analysis	Analysis
			Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil			
SS-1 Q2'	12-5-22	1125	X					X		Full Table 915.1	
BA-1 Q6'		1140									
SW-1 Q4'		1150									
SW-2 Q4'		1200									
SW-3 Q4'		1210									
SW-4 Q4'		1220									
SS-2 Q5'	12-6-22	1040	X					X			
SS-3 Q5'		1050									
SS-4 Q5'		1100									
SW-5 Q5'	12-6-22	1330	X								

Relinquished By: [Signature] Date: 12-6-22 Time: 1510

Relinquished By: [Signature] Date: 12-6-22 Time: 1550

Turnaround Time: 24 Hr ☐ 48 Hr ☐ Standard ☒

Date Results Needed: 5

Origins Laboratory, Inc.

*Jen Pellegrini*

Jen Pellegrini, Project Manager

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

Levi Kirk  
Project Number: [none]  
Project: Koch Tank Battery P&A

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42121219

**ORIGINS**  
LABORATORY, INC

Client: K. P. Kauffman  
Address: 1675 Broadway Denver, CO 80202

Project Manager: Levi Kirk  
Project Name: Koch Tank Battery P&A  
Project Number:  
Samples Collected By: LK + BW

Telephone Number: 303.825.4822  
Email Address: PrimaryContractor@marcomllc.net

Fax: 303.265.9645

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	Air Summa		
GW-1	12-5-2022	12:35	4	1	3					X		1
												2
												3
												4
												5
												6
												7
												8
												9
												10

Relinquished By: [Signature] Date: 12-4-22 Time: 13:50  
Relinquished By: [Signature] Date: 12-4-22 Time: 13:50

Received By: [Signature] Date: 12/6/22 Time: 6:50  
Received By: [Signature] Date: [ ] Time: [ ]

Turnaround Time: Same Day ☐ 24 Hr ☐ 48 Hr ☐ 72 Hr ☐ Standard ☒

Date Results Needed: 5

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

Levi Kirk  
Project Number: [none]  
Project: Koch Tank Battery P&A

Origins Laboratory

Sample Receipt Checklist

Origins Work Order: 4212129

Checklist Completed by: JPH

Date/time completed: 12/07/12

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

Cooler Number/Temperature: 115 °C / \_\_\_\_\_ °C / \_\_\_\_\_ °C (Describe)

Thermometer ID: T004

Client: KP Kauffman

Client Project ID: Koch TB P&A

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

Airbill #: N/A

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
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 <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	<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 <sup>(1)</sup> ? (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 <sub>3</sub> , HCL, H <sub>2</sub> SO <sub>4</sub> ) / (pH > 10 for samples preserved with NaAsO <sub>2</sub> +NaOH, ZnAc+NaOH)			<input checked="" type="checkbox"/>	
Additional Comments (if any):				

<sup>(1)</sup>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 JPH (Project Manager)

Date/Time Reviewed 12-8-12

Origins Laboratory, Inc.

*Jen Pellegrini*

Jen Pellegrini, Project Manager

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1700 Lincoln St #4550  
Denver CO 80203

Levi Kirk  
Project Number: [none]  
Project: Koch Tank Battery P&A

SS-1@2'

12/5/2022 11:25:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y212129-01 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.132	0.0998	mg/L	1	B2L0809	12/08/2022	12/09/2022
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	165	25.0	mg/kg	1	B2L0724	12/07/2022	12/08/2022
Residual Range Organics (C28-C40)	372	100	"	"	"	"	"

Surrogate: o-Terphenyl	95.4 %	50-150	"	"	"
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**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2L0811	12/08/2022	12/08/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Naphthalene	ND	0.00380	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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1700 Lincoln St #4550  
Denver CO 80203

Levi Kirk  
Project Number: [none]  
Project: Koch Tank Battery P&A

SS-1@2'

12/5/2022 11:25:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y212129-01 (Soil)**

**GBTEX+TMBs by 8260D**

Surrogate: 1,2-Dichloroethane-d4	107 %	70-130	B2L0811	12/08/2022	12/08/2022
Surrogate: Toluene-d8	97.7 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	98.4 %	70-130	"	"	"

**Metals by Saturated Paste by EPA 6010**

Calcium	2.12	0.499	meq/L	10	[CALC]	12/08/2022	12/09/2022
Magnesium	ND	0.823	"	"	"	"	"
Sodium	0.535	0.435	"	"	"	"	"

**pH in Soil by 9045D**

pH	8.20	pH Units	1	B2L0818	12/08/2022	12/09/2022
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**SAR by 20B Saturated Paste**

SAR	0.461	SAR	1	B2L0814	12/08/2022	12/09/2022
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	0.351	0.00500	mmhos/cm	1	B2L0818	12/08/2022	12/09/2022
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Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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

Levi Kirk  
Project Number: [none]  
Project: Koch Tank Battery P&A

BH-1@6'

12/5/2022 11:40:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y212129-02 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.547	0.0991	mg/L	1	B2L0809	12/08/2022	12/09/2022	
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B2L0724	12/07/2022	12/08/2022	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	91.3 %	50-150			"	"	"	
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**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2L0811	12/08/2022	12/08/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	104 %	70-130			"	"	"	
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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 P&A

BH-1@6'

12/5/2022 11:40:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y212129-02 (Soil)

## GBTEX+TMBs by 8260D

Surrogate: Toluene-d8	98.4 %	70-130	B2L08 11	12/08/2022	12/08/2022
Surrogate: 4-Bromofluorobenzene	102 %	70-130	"	"	"

## Metals by Saturated Paste by EPA 6010

Calcium	ND	0.499	meq/L	10	[CALC]	12/08/2022	12/09/2022
Magnesium	ND	0.823	"	"	"	"	"
Sodium	8.77	0.435	"	"	"	"	"

## PAH by 8270D SIM

1-Methylnaphthalene	ND	0.00549	0.0101	mg/Kg	5	L653131	12/12/2022	12/13/2022
2-Methylnaphthalene	ND	0.00972	0.0101	"	"	"	"	"
Acenaphthene	ND	0.00152	0.00335	"	"	"	"	"
Anthracene	ND	0.00167	0.00335	"	"	"	"	"
Benzo(a)anthracene	ND	0.00247	0.00335	"	"	"	"	"
Benzo(a)pyrene	ND	0.00234	0.00335	"	"	"	"	"
Benzo(b)fluoranthene	ND	0.00293	0.00335	"	"	"	"	"
Benzo(k)fluoranthene	ND	0.00219	0.00335	"	"	"	"	"
Chrysene	ND	0.00312	0.00335	"	"	"	"	"
Dibenz(a,h)anthracene	ND	0.00307	0.00335	"	"	"	"	"
Fluoranthene	ND	0.00197	0.00335	"	"	"	"	"

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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1700 Lincoln St #4550  
Denver CO 80203

Levi Kirk  
Project Number: [none]  
Project: Koch Tank Battery P&A

BH-1@6'

12/5/2022 11:40:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, LLC.  
Y212129-02 (Soil)

## PAH by 8270D SIM

Fluorene	0.00151	0.00143	0.00335	mg/Kg	5	L653131	12/12/2022	12/13/2022	J
Indeno(1,2,3-cd)pyrene	ND	0.00314	0.00335	"	"	"	"	"	
Naphthalene	ND	0.0073	0.0101	"	"	"	"	"	
Pyrene	ND	0.00322	0.00335	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	42.8 %	33-115	"	"	"
Surrogate: 4-Terphenyl-d14	50.3 %	33-122	"	"	"
Surrogate: Nitrobenzene-d5	42.2 %	29-110	"	"	"

## pH in Soil by 9045D

pH	8.82	pH Units	1	B2L0818	12/08/2022	12/09/2022
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## SAR by 20B Saturated Paste

SAR	19.9	SAR	1	B2L0814	12/08/2022	12/09/2022
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## Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.854	0.00500	mmhos/cm	1	B2L0818	12/08/2022	12/09/2022
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## Table 915 metals by EPA 6020B

Arsenic	2.04	0.0938	mg/kg	10	B2L0804	12/08/2022	12/12/2022
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KP Kauffman Co. Inc.  
1700 Lincoln St #4550  
Denver CO 80203

Levi Kirk  
Project Number: [none]  
Project: Koch Tank Battery P&A

BH-1@6'

12/5/2022 11:40:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y212129-02 (Soil)**

**Table 915 metals by EPA 6020B**

Barium	107	9.38	mg/kg	10	B2L0804	12/08/2022	12/12/2022	
Cadmium	0.102	0.0938	"	"	"	"	"	
Copper	ND	9.38	"	"	"	"	"	U
Lead	ND	9.38	"	"	"	"	"	U
Nickel	ND	9.38	"	"	"	"	"	U
Selenium	ND	0.0938	"	"	"	"	"	U
Silver	ND	0.0938	"	"	"	"	"	U
Zinc	ND	93.8	"	"	"	"	"	U

**Total Metals by 7196A**

Chromium, Hexavalent	ND	0.502	1.03	mg/Kg	2	L653471	12/05/2022	12/13/2022
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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 P&A

SW-1@4'

12/5/2022 11:50:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y212129-03 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.122	0.100	mg/L	1	B2L0809	12/08/2022	12/09/2022	
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B2L0724	12/07/2022	12/08/2022	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	91.3 %	50-150			"	"	"	
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**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2L0811	12/08/2022	12/08/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	108 %	70-130			"	"	"	
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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 P&A

SW-1@4'

12/5/2022 11:50:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y212129-03 (Soil)

## GBTEX+TMBs by 8260D

Surrogate: Toluene-d8	98.1 %	70-130	B2L08 11	12/08/2022	12/08/2022
Surrogate: 4-Bromofluorobenzene	97.0 %	70-130	"	"	"

## Metals by Saturated Paste by EPA 6010

Calcium	0.653	0.499	meq/L	10	[CALC]	12/08/2022	12/09/2022
Magnesium	ND	0.823	"	"	"	"	"
Sodium	2.22	0.435	"	"	"	"	"

## PAH by 8270D SIM

1-Methylnaphthalene	ND	0.00549	0.0101	mg/Kg	5	L653131	12/12/2022	12/13/2022
2-Methylnaphthalene	ND	0.00972	0.0101	"	"	"	"	"
Acenaphthene	ND	0.00152	0.00335	"	"	"	"	"
Anthracene	ND	0.00167	0.00335	"	"	"	"	"
Benzo(a)anthracene	ND	0.00247	0.00335	"	"	"	"	"
Benzo(a)pyrene	ND	0.00234	0.00335	"	"	"	"	"
Benzo(b)fluoranthene	ND	0.00293	0.00335	"	"	"	"	"
Benzo(k)fluoranthene	ND	0.00219	0.00335	"	"	"	"	"
Chrysene	ND	0.00312	0.00335	"	"	"	"	"
Dibenz(a,h)anthracene	ND	0.00307	0.00335	"	"	"	"	"
Fluoranthene	ND	0.00197	0.00335	"	"	"	"	"

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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

Levi Kirk  
Project Number: [none]  
Project: Koch Tank Battery P&A

SW-1@4'

12/5/2022 11:50:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, LLC.  
Y212129-03 (Soil)

## PAH by 8270D SIM

Fluorene	ND	0.00143	0.00335	mg/Kg	5	L653131	12/12/2022	12/13/2022
Indeno(1,2,3-cd)pyrene	ND	0.00314	0.00335	"	"	"	"	"
Naphthalene	ND	0.0073	0.0101	"	"	"	"	"
Pyrene	ND	0.00322	0.00335	"	"	"	"	"

Surrogate: 2-Fluorobiphenyl	47.1 %	33-115	"	"	"
Surrogate: 4-Terphenyl-d14	47.1 %	33-122	"	"	"
Surrogate: Nitrobenzene-d5	48 %	29-110	"	"	"

## pH in Soil by 9045D

pH	7.65	pH Units	1	B2L0818	12/08/2022	12/09/2022
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## SAR by 20B Saturated Paste

SAR	3.51	SAR	1	B2L0814	12/08/2022	12/09/2022
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## Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.313	0.00500	mmhos/cm	1	B2L0818	12/08/2022	12/09/2022
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## Table 915 metals by EPA 6020B

Arsenic	27.8	0.0974	mg/kg	10	B2L0804	12/08/2022	12/12/2022
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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 P&A

SW-1@4'

12/5/2022 11:50:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y212129-03 (Soil)**

**Table 915 metals by EPA 6020B**

Barium	176	9.74	mg/kg	10	B2L0804	12/08/2022	12/12/2022	
Cadmium	0.209	0.0974	"	"	"	"	"	
Copper	ND	9.74	"	"	"	"	"	U
Lead	29.5	9.74	"	"	"	"	"	
Nickel	ND	9.74	"	"	"	"	"	U
Selenium	0.143	0.0974	"	"	"	"	"	
Silver	ND	0.0974	"	"	"	"	"	U
Zinc	ND	97.4	"	"	"	"	"	U

**Total Metals by 7196A**

Chromium, Hexavalent	ND	0.246	0.505	mg/Kg	1	L653471	12/05/2022	12/13/2022
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Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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

Levi Kirk  
Project Number: [none]  
Project: Koch Tank Battery P&A

SW-4@4'

12/5/2022 12:20:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y212129-06 (Soil)

## Boron (DTPA Sorbitol)

Boron	0.320	0.0980	mg/L	1	B2L0809	12/08/2022	12/09/2022	
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## DRO/ORO by EPA 8015D

Diesel (C10-C28)	25.2	25.0	mg/kg	1	B2L0724	12/07/2022	12/08/2022	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	130 %	50-150	"	"	"	"	"	
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## GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2L0811	12/08/2022	12/08/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	104 %	70-130	"	"	"	"	"	
Surrogate: Toluene-d8	98.8 %	70-130	"	"	"	"	"	

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 P&A

SW-4@4'

12/5/2022 12:20:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y212129-06 (Soil)

## GBTEX+TMBs by 8260D

Surrogate: 4-Bromofluorobenzene	101 %	70-130	B2L08 11	12/08/2022	12/08/2022
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## Metals by Saturated Paste by EPA 6010

Calcium	ND	0.499	meq/L	10	[CALC]	12/08/2022	12/09/2022
Magnesium	ND	0.823	"	"	"	"	"
Sodium	6.67	0.435	"	"	"	"	"

## PAH by 8270D SIM

1-Methylnaphthalene	ND	0.00109	0.00201	mg/Kg	1	L653131	12/12/2022	12/13/2022
2-Methylnaphthalene	ND	0.00194	0.00201	"	"	"	"	"
Acenaphthene	ND	0.000304	0.00067	"	"	"	"	"
Anthracene	ND	0.000334	0.00067	"	"	"	"	"
Benzo(a)anthracene	0.00525	0.000493	0.00067	"	"	"	"	"
Benzo(a)pyrene	0.00482	0.000468	0.00067	"	"	"	"	"
Benzo(b)fluoranthene	0.00441	0.000585	0.00067	"	"	"	"	"
Benzo(k)fluoranthene	0.00233	0.000437	0.00067	"	"	"	"	"
Chrysene	0.00705	0.000624	0.00067	"	"	"	"	"
Dibenz(a,h)anthracene	0.000727	0.000614	0.00067	"	"	"	"	"
Fluoranthene	0.00774	0.000394	0.00067	"	"	"	"	"
Fluorene	ND	0.000286	0.00067	"	"	"	"	"
Indeno(1,2,3-cd)pyrene	0.00235	0.000627	0.00067	"	"	"	"	"

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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KP Kauffman Co. Inc.

1700 Lincoln St #4550

Denver CO 80203

Levi Kirk

Project Number: [none]

Project: Koch Tank Battery P&A

SW-4@4'

12/5/2022 12:20:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, LLC.

Y212129-06 (Soil)

## PAH by 8270D SIM

Naphthalene	ND	0.00145	0.00201	mg/Kg	1	L653131	12/12/2022	12/13/2022	
Pyrene	0.0076	0.000643	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	53.8 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	55.3 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	52.3 %		29-110			"	"	"	

## pH in Soil by 9045D

pH	8.62			pH Units	1	B2L0818	12/08/2022	12/09/2022	
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## SAR by 20B Saturated Paste

SAR	14.4			SAR	1	B2L0814	12/08/2022	12/09/2022	
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## Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.527		0.00500	mmhos/cm	1	B2L0818	12/08/2022	12/09/2022	
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## Table 915 metals by EPA 6020B

Arsenic	1.41		0.0926	mg/kg	10	B2L0804	12/08/2022	12/12/2022	
Barium	78.6		9.26	"	"	"	"	"	
Cadmium	ND		0.0926	"	"	"	"	"	U

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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

Levi Kirk  
Project Number: [none]  
Project: Koch Tank Battery P&A

SW-4@4'

12/5/2022 12:20:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y212129-06 (Soil)**

**Table 915 metals by EPA 6020B**

Copper	ND	9.26	mg/kg	10	B2L0804	12/08/2022	12/12/2022	U
Lead	ND	9.26	"	"	"	"	"	U
Nickel	ND	9.26	"	"	"	"	"	U
Selenium	0.100	0.0926	"	"	"	"	"	
Silver	ND	0.0926	"	"	"	"	"	U
Zinc	ND	92.6	"	"	"	"	"	U

**Total Metals by 7196A**

Chromium, Hexavalent	ND	0.488	1	mg/Kg	2	L653471	12/05/2022	12/13/2022
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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 P&A

SS-2@5'

12/6/2022 10:40:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y212129-07 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.298	0.0995	mg/L	1	B2L0809	12/08/2022	12/09/2022	
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B2L0724	12/07/2022	12/08/2022	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	89.9 %	50-150			"	"	"	
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**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2L0811	12/08/2022	12/08/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Naphthalene	ND	0.00380	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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

Levi Kirk  
Project Number: [none]  
Project: Koch Tank Battery P&A

SS-2@5'

12/6/2022 10:40:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y212129-07 (Soil)**

**GBTEX+TMBs by 8260D**

Surrogate: 1,2-Dichloroethane-d4	110 %	70-130	B2L08 11	12/08/2022	12/08/2022
Surrogate: Toluene-d8	98.0 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	96.2 %	70-130	"	"	"

**Metals by Saturated Paste by EPA 6010**

Calcium	1.18	0.499	meq/L	10	[CALC]	12/08/2022	12/09/2022
Magnesium	1.01	0.823	"	"	"	"	"
Sodium	0.983	0.435	"	"	"	"	"

**pH in Soil by 9045D**

pH	7.99	pH Units	1	B2L0818	12/08/2022	12/09/2022
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**SAR by 20B Saturated Paste**

SAR	0.938	SAR	1	B2L0814	12/08/2022	12/09/2022
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	0.376	0.00500	mmhos/cm	1	B2L0818	12/08/2022	12/09/2022
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Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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

Levi Kirk  
Project Number: [none]  
Project: Koch Tank Battery P&A

SS-4@5'

12/6/2022 10:50:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y212129-08 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.234	0.101	mg/L	1	B2L0809	12/08/2022	12/09/2022	
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	28.3	25.0	mg/kg	1	B2L0724	12/07/2022	12/08/2022	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	88.6 %	50-150			"	"	"	
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**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2L0811	12/08/2022	12/08/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Naphthalene	ND	0.00380	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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

Levi Kirk  
Project Number: [none]  
Project: Koch Tank Battery P&A

SS-4@5'

12/6/2022 10:50:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y212129-08 (Soil)**

**GBTEX+TMBs by 8260D**

Surrogate: 1,2-Dichloroethane-d4	107 %	70-130	B2L08 11	12/08/2022	12/08/2022
Surrogate: Toluene-d8	96.4 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	97.4 %	70-130	"	"	"

**Metals by Saturated Paste by EPA 6010**

Calcium	3.41	0.499	meq/L	10	[CALC]	12/08/2022	12/09/2022
Magnesium	0.981	0.823	"	"	"	"	"
Sodium	0.685	0.435	"	"	"	"	"

**pH in Soil by 9045D**

pH	8.24	pH Units	1	B2L0818	12/08/2022	12/09/2022
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**SAR by 20B Saturated Paste**

SAR	0.462	SAR	1	B2L0814	12/08/2022	12/09/2022
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	0.594	0.00500	mmhos/cm	1	B2L0818	12/08/2022	12/09/2022
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Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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

Levi Kirk  
Project Number: [none]  
Project: Koch Tank Battery P&A

SS-6@5'

12/6/2022 11:00:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y212129-09 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	1.04	0.0982	mg/L	1	B2L0809	12/08/2022	12/09/2022	
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B2L0724	12/07/2022	12/08/2022	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	85.9 %	50-150			"	"	"	
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**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2L0811	12/08/2022	12/08/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Naphthalene	ND	0.00380	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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KP Kauffman Co. Inc.

1700 Lincoln St #4550

Denver CO 80203

Levi Kirk

Project Number: [none]

Project: Koch Tank Battery P&A

SS-6@5'

12/6/2022 11:00:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y212129-09 (Soil)

## GBTEX+TMBs by 8260D

Surrogate: 1,2-Dichloroethane-d4	109 %	70-130	B2L08 11	12/08/2022	12/08/2022
Surrogate: Toluene-d8	96.8 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	97.0 %	70-130	"	"	"

## Metals by Saturated Paste by EPA 6010

Calcium	1.67	0.499	meq/L	10	[CALC]	12/08/2022	12/09/2022
Magnesium	4.23	0.823	"	"	"	"	"
Sodium	10.5	0.435	"	"	"	"	"

## pH in Soil by 9045D

pH	8.55	pH Units	1	B2L0818	12/08/2022	12/09/2022
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## SAR by 20B Saturated Paste

SAR	6.13	SAR	1	B2L0814	12/08/2022	12/09/2022
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## Specific Conductance Mod. 9050A

Specific Conductance (EC)	1.83	0.00500	mmhos/cm	1	B2L0818	12/08/2022	12/09/2022
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Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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

Levi Kirk  
Project Number: [none]  
Project: Koch Tank Battery P&A

**SOURCE SAMPLE**  
**12/6/2022 1:30:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y212129-10 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.668	0.0998	mg/L	1	B2L0809	12/08/2022	12/09/2022
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	451	25.0	mg/kg	1	B2L0724	12/07/2022	12/08/2022
Residual Range Organics (C28-C40)	136	100	"	"	"	"	"

Surrogate: o-Terphenyl	92.4 %	50-150	"	"	"
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**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	1.03	0.0500	mg/kg	25	B2L0811	12/08/2022	12/08/2022
1,3,5-Trimethylbenzene	0.0732	0.00200	"	1	"	"	12/09/2022
Benzene	ND	0.00200	"	"	"	"	" U
Ethylbenzene	0.00530	0.00200	"	"	"	"	"
Toluene	0.00406	0.00200	"	"	"	"	"
Xylenes, total	0.0209	0.00200	"	"	"	"	"
Gasoline Range Hydrocarbons	349	5.00	"	25	"	"	12/08/2022

Surrogate: 1,2-Dichloroethane-d4	101 %	70-130	"	"	"
Surrogate: Toluene-d8	107 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	94.8 %	70-130	"	"	"

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 P&A

## SOURCE SAMPLE

12/6/2022 1:30:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y212129-10 (Soil)

## Metals by Saturated Paste by EPA 6010

Calcium	0.585	0.499	meq/L	10	[CALC]	12/08/2022	12/09/2022
Magnesium	ND	0.823	"	"	"	"	"
Sodium	6.66	0.435	"	"	"	"	"

## PAH by 8270D SIM

1-Methylnaphthalene	0.125	0.00549	0.0101	mg/Kg	5	L653131	12/12/2022	12/13/2022
2-Methylnaphthalene	0.0852	0.00972	0.0101	"	"	"	"	"
Acenaphthene	0.0292	0.00152	0.00335	"	"	"	"	"
Anthracene	0.00572	0.00167	0.00335	"	"	"	"	"
Benzo(a)anthracene	0.00575	0.00247	0.00335	"	"	"	"	"
Benzo(a)pyrene	ND	0.00234	0.00335	"	"	"	"	"
Benzo(b)fluoranthene	ND	0.00293	0.00335	"	"	"	"	"
Benzo(k)fluoranthene	ND	0.00219	0.00335	"	"	"	"	"
Chrysene	0.0245	0.00312	0.00335	"	"	"	"	"
Dibenz(a,h)anthracene	ND	0.00307	0.00335	"	"	"	"	"
Fluoranthene	0.00753	0.00197	0.00335	"	"	"	"	"
Fluorene	0.0603	0.00143	0.00335	"	"	"	"	"
Indeno(1,2,3-cd)pyrene	ND	0.00314	0.00335	"	"	"	"	"
Naphthalene	0.0183	0.0073	0.0101	"	"	"	"	"
Pyrene	0.0147	0.00322	0.00335	"	"	"	"	"
Surrogate: 2-Fluorobiphenyl	43.7 %		33-115			"	"	"
Surrogate: 4-Terphenyl-d14	48.6 %		33-122			"	"	"

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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

Levi Kirk  
Project Number: [none]  
Project: Koch Tank Battery P&A

**SOURCE SAMPLE**  
**12/6/2022 1:30:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, LLC.**  
**Y212129-10 (Soil)**

**PAH by 8270D SIM**

Surrogate: Nitrobenzene-d5	44.6 %	29-110	L6531 31	12/12/2022	12/13/2022
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**pH in Soil by 9045D**

pH	8.30	pH Units	1	B2L0818	12/08/2022	12/09/2022
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**SAR by 20B Saturated Paste**

SAR	9.08	SAR	1	B2L0814	12/08/2022	12/09/2022
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	0.862	0.00500	mmhos/cm	1	B2L0818	12/08/2022	12/09/2022
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**Table 915 metals by EPA 6020B**

Arsenic	2.76	0.0909	mg/kg	10	B2L0804	12/08/2022	12/12/2022
Barium	72.1	9.09	"	"	"	"	"
Cadmium	0.124	0.0909	"	"	"	"	"
Copper	ND	9.09	"	"	"	"	" U
Lead	ND	9.09	"	"	"	"	" U
Nickel	ND	9.09	"	"	"	"	" U
Selenium	0.107	0.0909	"	"	"	"	"
Silver	ND	0.0909	"	"	"	"	" U

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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

Levi Kirk  
Project Number: [none]  
Project: Koch Tank Battery P&A

**SOURCE SAMPLE**  
**12/6/2022 1:30:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y212129-10 (Soil)**

**Table 915 metals by EPA 6020B**

Zinc	ND	90.9	mg/kg	10	B2L0804	12/08/2022	12/12/2022	U
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**Total Metals by 7196A**

Chromium, Hexavalent	ND	0.244	0.501	mg/Kg	1	L653471	12/05/2022	12/13/2022
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1700 Lincoln St #4550  
Denver CO 80203

Levi Kirk  
Project Number: [none]  
Project: Koch Tank Battery P&A

## GW-1

12/5/2022 12:35:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y212129-11 (Water)

### Anions by IC 300.0

Chloride	845		31.2	mg/L	125	B2L1319	12/13/2022	12/14/2022	
Sulfate	409		31.2	"	"	"	"	"	

### BTEX+N+TMBs by 8260D

Benzene	ND		1.00	ug/L	1	B2L0835	12/08/2022	12/09/2022	U
Ethylbenzene	1.20		1.00	"	"	"	"	"	
Toluene	ND		1.00	"	"	"	"	"	U
Xylenes, total	6.59		1.00	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	110 %		70-130			"	"	"	
Surrogate: Toluene-d8	95.5 %		70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	111 %		70-130			"	"	"	

### Total Dissolved Solids by 2540C

Total Dissolved Solids	3060		5.00	mg/L	1	B2L0824	12/08/2022	12/08/2022	
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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 P&A

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2L0724 - EPA 3580										
Blank (B2L0724-BLK1)					Prepared: 12/07/2022 Analyzed: 12/08/2022					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	25		"	24.9		98.9	50-150			

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 P&A

## Extractable Petroleum Hydrocarbons by 8015D - 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 B2L0724 - EPA 3580

#### LCS (B2L0724-BS1)

Prepared: 12/07/2022 Analyzed: 12/08/2022

Diesel (C10-C28)	1140	50.0	mg/kg	1000		114	70-130			
Residual Range Organics (C28-C40)	1020	200	"	1000		102	70-130			
Surrogate: o-Terphenyl	48		"	49.8		96.2	50-150			

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 P&A

## Extractable Petroleum Hydrocarbons by 8015D - 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 B2L0724 - EPA 3580

Matrix Spike (B2L0724-MS1)		Source: Y212129-01			Prepared: 12/07/2022 Analyzed: 12/08/2022					
Diesel (C10-C28)	1080	50.0	mg/kg	1000	165	91.4	70-130			
Residual Range Organics (C28-C40)	1380	200	"	1000	372	101	70-130			
Surrogate: o-Terphenyl	45		"	49.8		91.0	50-150			

Origins Laboratory, Inc.



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Denver CO 80203

Levi Kirk  
Project Number: [none]  
Project: Koch Tank Battery P&A

## Extractable Petroleum Hydrocarbons by 8015D - 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 B2L0724 - EPA 3580

Matrix Spike Dup (B2L0724-MSD1)		Source: Y212129-01			Prepared: 12/07/2022 Analyzed: 12/08/2022					
Diesel (C10-C28)	1090	50.0	mg/kg	1000	165	92.1	70-130	0.624	35	
Residual Range Organics (C28-C40)	1370	200	"	1000	372	100	70-130	0.342	35	
Surrogate: o-Terphenyl	55		"	49.8		111	50-150			

Origins Laboratory, Inc.



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1700 Lincoln St #4550  
Denver CO 80203

Levi Kirk  
Project Number: [none]  
Project: Koch Tank Battery P&A

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2L0811 - EPA 5030 (soil)</b>										
<b>Blank (B2L0811-BLK1)</b>					Prepared: 12/08/2022 Analyzed: 12/08/2022					
1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
1,3,5-Trimethylbenzene	ND	0.00200	"							U
Benzene	ND	0.00200	"							U
Ethylbenzene	ND	0.00200	"							U
Naphthalene	ND	0.00380	"							U
Toluene	ND	0.00200	"							U
Xylenes, total	ND	0.00200	"							U
Gasoline Range Hydrocarbons	ND	0.200	"							U
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		102	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.6	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		95.9	70-130			

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 P&A

**Volatile Organic Compounds by GC/MS SW846 8260D - 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 B2L0811 - EPA 5030 (soil)**

**LCS (B2L0811-BS1)**

Prepared: 12/08/2022 Analyzed: 12/08/2022

1,2,4-Trimethylbenzene	0.0964	0.00200	mg/kg	0.100		96.4	70-130			
1,3,5-Trimethylbenzene	0.0965	0.00200	"	0.100		96.5	70-130			
Benzene	0.0914	0.00200	"	0.100		91.4	70-130			
Ethylbenzene	0.0946	0.00200	"	0.100		94.6	70-130			
Naphthalene	0.0932	0.00380	"	0.100		93.2	70-130			
Toluene	0.0930	0.00200	"	0.100		93.0	70-130			
o-Xylene	0.0937	0.00200	"	0.100		93.7	70-130			
m,p-Xylene	0.190	0.00400	"	0.200		94.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		99.9	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		101	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		98.0	70-130			

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 P&A

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2L0811 - EPA 5030 (soil)</b>										
<b>Matrix Spike (B2L0811-MS1)</b>		<b>Source: Y212129-01</b>			Prepared: 12/08/2022 Analyzed: 12/08/2022					
1,2,4-Trimethylbenzene	0.0680	0.00200	mg/kg	0.100	ND	68.0	70-130			QM-07
1,3,5-Trimethylbenzene	0.0656	0.00200	"	0.100	ND	65.6	70-130			QM-07
Benzene	0.0845	0.00200	"	0.100	ND	84.5	70-130			
Ethylbenzene	0.0806	0.00200	"	0.100	ND	80.6	70-130			
Naphthalene	0.0645	0.00380	"	0.100	ND	64.5	70-130			QM-07
Toluene	0.0822	0.00200	"	0.100	ND	82.2	70-130			
o-Xylene	0.0811	0.00200	"	0.100	ND	81.1	70-130			
m,p-Xylene	0.161	0.00400	"	0.200	ND	80.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		103	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.4	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		103	70-130			

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1700 Lincoln St #4550  
Denver CO 80203

Levi Kirk  
Project Number: [none]  
Project: Koch Tank Battery P&A

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2L0811 - EPA 5030 (soil)</b>										
<b>Matrix Spike Dup (B2L0811-MSD1)</b>		<b>Source: Y212129-01</b>			Prepared: 12/08/2022 Analyzed: 12/08/2022					
1,2,4-Trimethylbenzene	0.0576	0.00200	mg/kg	0.100	ND	57.6	70-130	16.4	20	QM-07
1,3,5-Trimethylbenzene	0.0547	0.00200	"	0.100	ND	54.7	70-130	18.1	20	QM-07
Benzene	0.0788	0.00200	"	0.100	ND	78.8	70-130	7.01	20	
Ethylbenzene	0.0701	0.00200	"	0.100	ND	70.1	70-130	14.0	20	
Naphthalene	0.0632	0.00380	"	0.100	ND	63.2	70-130	2.13	20	QM-07
Toluene	0.0757	0.00200	"	0.100	ND	75.7	70-130	8.28	20	
o-Xylene	0.0709	0.00200	"	0.100	ND	70.9	70-130	13.4	20	
m,p-Xylene	0.139	0.00400	"	0.200	ND	69.7	70-130	14.6	20	QM-07
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		104	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		97.5	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		100	70-130			

Origins Laboratory, Inc.



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1700 Lincoln St #4550  
Denver CO 80203

Levi Kirk  
Project Number: [none]  
Project: Koch Tank Battery P&A

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2L0835 - EPA 5030B (Water)</b>										
<b>Blank (B2L0835-BLK1)</b>					Prepared: 12/08/2022 Analyzed: 12/08/2022					
1,2,4-Trimethylbenzene	ND	2.00	ug/L							U
1,3,5-Trimethylbenzene	ND	2.00	"							U
Benzene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Naphthalene	ND	2.00	"							U
Toluene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	67		"	62.5		107	70-130			
Surrogate: Toluene-d8	61		"	62.5		97.3	70-130			
Surrogate: 4-Bromofluorobenzene	65		"	62.5		104	70-130			

Origins Laboratory, Inc.



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Denver CO 80203

Levi Kirk  
Project Number: [none]  
Project: Koch Tank Battery P&A

**Volatile Organic Compounds by GC/MS SW846 8260D - 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 B2L0835 - EPA 5030B (Water)**

**LCS (B2L0835-BS1)**

Prepared: 12/08/2022 Analyzed: 12/08/2022

1,2,4-Trimethylbenzene	49.7	2.00	ug/L	50.0		99.4	70-130			
1,3,5-Trimethylbenzene	51.3	2.00	"	50.0		103	70-130			
Benzene	50.9	1.00	"	50.0		102	70-130			
Ethylbenzene	52.0	1.00	"	50.0		104	70-130			
m,p-Xylene	101	2.00	"	100		101	70-130			
Naphthalene	53.4	2.00	"	50.0		107	70-130			
o-Xylene	49.2	1.00	"	50.0		98.4	70-130			
Toluene	51.8	1.00	"	50.0		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	63		"	62.5		101	70-130			
Surrogate: Toluene-d8	64		"	62.5		102	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	70-130			

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 P&A

**Volatile Organic Compounds by GC/MS SW846 8260D - 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 B2L0835 - EPA 5030B (Water)**

Matrix Spike (B2L0835-MS1)		Source: Y212123-01			Prepared: 12/08/2022 Analyzed: 12/08/2022					
1,2,4-Trimethylbenzene	50.5	2.00	ug/L	50.0	0.350	100	70-130			
1,3,5-Trimethylbenzene	51.8	2.00	"	50.0	ND	104	70-130			
Benzene	51.8	1.00	"	50.0	0.430	103	70-130			
Ethylbenzene	51.8	1.00	"	50.0	ND	104	70-130			
m,p-Xylene	100	2.00	"	100	1.25	98.7	70-130			
Naphthalene	51.2	2.00	"	50.0	0.770	101	70-130			
o-Xylene	49.3	1.00	"	50.0	ND	98.6	70-130			
Toluene	52.6	1.00	"	50.0	ND	105	70-130			
Surrogate: 1,2-Dichloroethane-d4	64		"	62.5		103	70-130			
Surrogate: Toluene-d8	64		"	62.5		102	70-130			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		96.6	70-130			

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 P&A

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2L0835 - EPA 5030B (Water)</b>										
<b>Matrix Spike Dup (B2L0835-MSD1)</b>			<b>Source: Y212123-01</b>		Prepared: 12/08/2022 Analyzed: 12/08/2022					
1,2,4-Trimethylbenzene	50.8	2.00	ug/L	50.0	0.350	101	70-130	0.711	20	
1,3,5-Trimethylbenzene	53.7	2.00	"	50.0	ND	107	70-130	3.51	20	
Benzene	52.0	1.00	"	50.0	0.430	103	70-130	0.520	20	
Ethylbenzene	52.9	1.00	"	50.0	ND	106	70-130	2.18	20	
m,p-Xylene	103	2.00	"	100	1.25	102	70-130	3.07	20	
Naphthalene	51.7	2.00	"	50.0	0.770	102	70-130	0.952	20	
o-Xylene	49.5	1.00	"	50.0	ND	99.0	70-130	0.344	20	
Toluene	53.4	1.00	"	50.0	ND	107	70-130	1.58	20	
Surrogate: 1,2-Dichloroethane-d4	63		"	62.5		101	70-130			
Surrogate: Toluene-d8	65		"	62.5		103	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.5	70-130			

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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

Levi Kirk  
Project Number: [none]  
Project: Koch Tank Battery P&A

**Volatile Organic Compounds by GC/MS SW846 8260D - 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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**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 B2L0804 - EPA 3050B**

**Blank (B2L0804-BLK1)**

Prepared: 12/08/2022 Analyzed: 12/12/2022

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 (B2L0804-BS1)**

Prepared: 12/08/2022 Analyzed: 12/12/2022

Arsenic	0.0491	0.000100	mg/kg	0.0500		98.3	80-120
Barium	4.90	0.0100	"	5.00		97.9	80-120
Cadmium	0.0511	0.000100	"	0.0500		102	80-120
Copper	0.509	0.0100	"	0.500		102	80-120
Lead	0.0502	0.0100	"	0.0500		100	80-120
Nickel	0.0452	0.0100	"	0.0500		90.3	80-120
Selenium	0.0487	0.000100	"	0.0500		97.3	80-120
Silver	0.0440	0.000100	"	0.0500		87.9	80-120
Zinc	0.488	0.100	"	0.500		97.7	80-120

**Matrix Spike (B2L0804-MS1)**

**Source: Y212128-10**

Prepared: 12/08/2022 Analyzed: 12/12/2022

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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

Levi Kirk  
Project Number: [none]  
Project: Koch Tank Battery P&A

**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 B2L0804 - EPA 3050B**

Matrix Spike (B2L0804-MS1)		Source: Y212128-10			Prepared: 12/08/2022 Analyzed: 12/12/2022					
Arsenic	6.80	0.0929	mg/kg	4.65	2.56	91.2	75-125			
Barium	542	9.29	"	465	83.7	98.7	75-125			
Cadmium	4.83	0.0929	"	4.65	0.0937	102	75-125			
Copper	47.6	9.29	"	46.5	7.90	85.5	75-125			
Lead	12.3	9.29	"	4.65	7.77	97.4	75-125			
Nickel	13.7	9.29	"	4.65	9.47	91.1	75-125			
Selenium	3.86	0.0929	"	4.65	0.0965	81.0	75-125			
Silver	3.98	0.0929	"	4.65	0.0315	85.1	75-125			
Zinc	75.6	92.9	"	46.5	34.2	89.2	75-125			U
Matrix Spike Dup (B2L0804-MSD1)		Source: Y212128-10			Prepared: 12/08/2022 Analyzed: 12/12/2022					
Arsenic	7.05	0.0946	mg/kg	4.73	2.56	94.8	75-125	3.62	20	
Barium	564	9.46	"	473	83.7	101	75-125	3.93	20	
Cadmium	5.00	0.0946	"	4.73	0.0937	104	75-125	3.37	20	
Copper	50.1	9.46	"	47.3	7.90	89.2	75-125	5.08	20	
Lead	12.7	9.46	"	4.73	7.77	104	75-125	3.14	20	
Nickel	13.7	9.46	"	4.73	9.47	89.7	75-125	0.0754	20	
Selenium	4.04	0.0946	"	4.73	0.0965	83.3	75-125	4.53	20	
Silver	4.12	0.0946	"	4.73	0.0315	86.3	75-125	3.26	20	
Zinc	79.0	94.6	"	47.3	34.2	94.8	75-125	4.41	20	U

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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

Levi Kirk  
Project Number: [none]  
Project: Koch Tank Battery P&A

## 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 B2L0809 - DTPA Sorbitol Preparation

##### Blank (B2L0809-BLK1)

Prepared: 12/08/2022 Analyzed: 12/09/2022

Boron	ND	0.100	mg/L							U
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##### Duplicate (B2L0809-DUP1)

Source: Y212128-11

Prepared: 12/08/2022 Analyzed: 12/09/2022

Boron	0.0978	0.100	mg/L		0.0982			0.420	50	U
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#### Batch B2L0814 - Saturated Paste Metals

##### Blank (B2L0814-BLK1)

Prepared: 12/08/2022 Analyzed: 12/09/2022

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

##### Duplicate (B2L0814-DUP1)

Source: Y212129-01

Prepared: 12/08/2022 Analyzed: 12/09/2022

SAR	0.00		SAR		0.461			200	200	U
Calcium PPM	48.1	10.0	mg/L		42.4			12.6	50	
Magnesium PPM	8.24	10.0	"		7.09			14.9	50	U
Sodium PPM	13.9	10.0	"		12.3			11.8	50	

#### Batch B2L0824 - NO PREP

##### Blank (B2L0824-BLK1)

Prepared: 12/08/2022 Analyzed: 12/08/2022

Total Dissolved Solids	ND	5.00	mg/L							U
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##### LCS (B2L0824-BS1)

Prepared: 12/08/2022 Analyzed: 12/08/2022

Total Dissolved Solids	964	5.00	mg/L	1000		96.4	90-110			
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Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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

Levi Kirk  
Project Number: [none]  
Project: Koch Tank Battery P&A

## Classical Chemistry Parameters - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2L0824 - NO PREP</b>										
<b>Duplicate (B2L0824-DUP1)</b>		<b>Source: Y212125-25</b>			Prepared: 12/08/2022 Analyzed: 12/08/2022					
Total Dissolved Solids	6490	5.00	mg/L		6480			0.185	10	
<b>Batch B2L1319 - Filter .45um non acidified</b>										
<b>Blank (B2L1319-BLK1)</b>		Prepared: 12/13/2022 Analyzed: 12/14/2022								
Chloride	ND	0.250	mg/L							U
Sulfate	ND	0.250	"							U
<b>LCS (B2L1319-BS1)</b>		Prepared: 12/13/2022 Analyzed: 12/14/2022								
Chloride	4.09	0.250	mg/L	4.00		102	90-110			
Sulfate	4.00	0.250	"	4.00		100	90-110			
<b>Matrix Spike (B2L1319-MS1)</b>		<b>Source: Y212125-11</b>			Prepared: 12/13/2022 Analyzed: 12/14/2022					
Chloride	727		mg/L	500	206	104	90-110			
Sulfate	791		"	500	281	102	90-110			
<b>Matrix Spike Dup (B2L1319-MSD1)</b>		<b>Source: Y212125-11</b>			Prepared: 12/13/2022 Analyzed: 12/14/2022					
Chloride	730		mg/L	500	206	105	90-110	0.408	5	
Sulfate	793		"	500	281	102	90-110	0.246	5	

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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

Levi Kirk  
Project Number: [none]  
Project: Koch Tank Battery P&A

## Saturated Paste - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2L0818 - Saturated Paste pH/EC</b>										
<b>Blank (B2L0818-BLK1)</b>					Prepared: 12/08/2022 Analyzed: 12/09/2022					
Specific Conductance (EC)	ND	0.00500	mmhos/cm							U
<b>Duplicate (B2L0818-DUP1)</b>					<b>Source: Y212129-01</b> Prepared: 12/08/2022 Analyzed: 12/09/2022					
Specific Conductance (EC)	0.387	0.00500	mmhos/cm		0.351			9.78	25	
pH	8.27		pH Units		8.20			0.850	25	

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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

Levi Kirk  
Project Number: [none]  
Project: Koch Tank Battery P&A

**PAH by 8270D SIM - Quality Control**  
**Waypoint Analytical, LLC.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L653131 - 3550B**

MSD (L 99362-MSD-L653131)		Source: Y212129-02			Prepared: 12/12/2022 Analyzed: 12/13/2022					
Indeno(1,2,3-cd)pyrene	0.0599	0.00335	mg/Kg	0.166	<0.00314	36	30-130	5.9	30	
Benzo(k)fluoranthene	0.0895	0.00335	"	0.166	<0.00219	53.9	30-130	19.4	30	
Benzo(b)fluoranthene	0.0642	0.00335	"	0.166	<0.00293	38.6	30-130	3.5	30	
Benzo(a)pyrene	0.1	0.00335	"	0.166	<0.00234	60.2	30-130	7.2	30	
Benzo(a)anthracene	0.104	0.00335	"	0.166	<0.00247	62.6	30-130	10.5	30	
Anthracene	0.0998	0.00335	"	0.166	<0.00167	60.1	30-130	9.8	30	
Acenaphthene	0.096	0.00335	"	0.166	<0.00152	57.8	30-130	1.9	30	
2-Methylnaphthalene	0.105	0.0101	"	0.166	<0.00972	63.2	30-130	15.4	30	
Chrysene	0.108	0.00335	"	0.166	<0.00312	65	30-130	1.8	30	
1-Methylnaphthalene	0.096	0.0101	"	0.166	<0.00549	57.8	30-130	9.9	30	
Dibenz(a,h)anthracene	0.0617	0.00335	"	0.166	<0.00307	37.1	30-130	11	30	
Fluoranthene	0.101	0.00335	"	0.166	<0.00197	60.8	30-130	4	30	
Fluorene	0.09	0.00335	"	0.166	0.00151	53.3	30-130	7.9	30	
Naphthalene	0.0976	0.0101	"	0.166	<0.00730	58.7	30-130	8.4	30	
Pyrene	0.0989	0.00335	"	0.166	<0.00322	59.5	30-130	6.3	30	
Surrogate: 2-Fluorobiphenyl	45.9		"	0.331	142	45.9	33-115			
Surrogate: Nitrobenzene-d5	59.8		"	0.331	140	59.8	29-110			
Surrogate: 4-Terphenyl-d14	57		"	0.331	167	57	33-122			

MS (L 99362-MS-L653131)		Source: Y212129-02			Prepared: 12/12/2022 Analyzed: 12/13/2022					
Dibenz(a,h)anthracene	0.0689	0.00335	mg/Kg	0.162	<0.00307	42.5	30-130			
Benzo(a)anthracene	0.0936	0.00335	"	0.162	<0.00247	57.7	30-130			
Fluorene	0.0831	0.00335	"	0.162	0.00151	50.3	30-130			
Naphthalene	0.0897	0.0101	"	0.162	<0.00730	55.3	30-130			
Indeno(1,2,3-cd)pyrene	0.0636	0.00335	"	0.162	<0.00314	39.2	30-130			
Fluoranthene	0.097	0.00335	"	0.162	<0.00197	59.8	30-130			
Chrysene	0.106	0.00335	"	0.162	<0.00312	65.4	30-130			

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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

Levi Kirk  
Project Number: [none]  
Project: Koch Tank Battery P&A

**PAH by 8270D SIM - Quality Control**  
**Waypoint Analytical, LLC.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L653131 - 3550B**

MS (L 99362-MS-L653131)		Source: Y212129-02			Prepared: 12/12/2022 Analyzed: 12/13/2022					
Benzo(k)fluoranthene	0.0736	0.00335	mg/Kg	0.162	<0.00219	45.4	30-130			
Benzo(a)pyrene	0.093	0.00335	"	0.162	<0.00234	57.4	30-130			
Pyrene	0.0928	0.00335	"	0.162	<0.00322	57.2	30-130			
Anthracene	0.0904	0.00335	"	0.162	<0.00167	55.8	30-130			
Acenaphthene	0.0941	0.00335	"	0.162	<0.00152	58	30-130			
2-Methylnaphthalene	0.0899	0.0101	"	0.162	<0.00972	55.4	30-130			
1-Methylnaphthalene	0.0869	0.0101	"	0.162	<0.00549	53.6	30-130			
Benzo(b)fluoranthene	0.0665	0.00335	"	0.162	<0.00293	41	30-130			
Surrogate: Nitrobenzene-d5	44.9		"	0.325	140	44.9	29-110			
Surrogate: 4-Terphenyl-d14	52.6		"	0.325	167	52.6	33-122			
Surrogate: 2-Fluorobiphenyl	42.7		"	0.325	142	42.7	33-115			

LCS (LCS-L653131)		Prepared: 12/12/2022 Analyzed: 12/13/2022								
Naphthalene	0.0962	0.00201	mg/Kg	0.167		57.6	30-130			
Benzo(a)pyrene	0.117	0.00067	"	0.167		70	30-130			
Indeno(1,2,3-cd)pyrene	0.0867	0.00067	"	0.167		51.9	30-130			
Fluorene	0.103	0.00067	"	0.167		61.6	30-130			
Fluoranthene	0.115	0.00067	"	0.167		68.8	30-130			
Dibenz(a,h)anthracene	0.083	0.00067	"	0.167		49.7	30-130			
Chrysene	0.115	0.00067	"	0.167		68.8	30-130			
Benzo(k)fluoranthene	0.0973	0.00067	"	0.167		58.2	30-130			
Benzo(b)fluoranthene	0.0897	0.00067	"	0.167		53.7	30-130			
Pyrene	0.111	0.00067	"	0.167		66.4	30-130			
Anthracene	0.104	0.00067	"	0.167		62.2	30-130			
Benzo(a)anthracene	0.115	0.00067	"	0.167		68.8	30-130			
Acenaphthene	0.102	0.00067	"	0.167		61	30-130			
2-Methylnaphthalene	0.114	0.00201	"	0.167		68.2	30-130			

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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

Levi Kirk  
Project Number: [none]  
Project: Koch Tank Battery P&A

**PAH by 8270D SIM - Quality Control**  
**Waypoint Analytical, LLC.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L653131 - 3550B**

**LCS (LCS-L653131)**

Prepared: 12/12/2022 Analyzed: 12/13/2022

1-Methylnaphthalene	0.0996	0.00201	mg/Kg	0.167		59.6	30-130			
Surrogate: Nitrobenzene-d5	52.5		"	0.333		52.5	29-110			
Surrogate: 4-Terphenyl-d14	66.3		"	0.333		66.3	33-122			
Surrogate: 2-Fluorobiphenyl	43.8		"	0.333		43.8	33-115			

**LRB (LRB-L653131)**

Prepared: 12/12/2022 Analyzed: 12/13/2022

Naphthalene	ND	0.00201	mg/Kg				-			
Benzo(a)pyrene	ND	0.00067	"				-			
Fluorene	ND	0.00067	"				-			
Fluoranthene	ND	0.00067	"				-			
Dibenz(a,h)anthracene	ND	0.00067	"				-			
Chrysene	ND	0.00067	"				-			
Benzo(k)fluoranthene	ND	0.00067	"				-			
Benzo(b)fluoranthene	ND	0.00067	"				-			
Indeno(1,2,3-cd)pyrene	ND	0.00067	"				-			
Benzo(a)anthracene	ND	0.00067	"				-			
Pyrene	ND	0.00067	"				-			
Anthracene	ND	0.00067	"				-			
1-Methylnaphthalene	ND	0.00201	"				-			
2-Methylnaphthalene	ND	0.00201	"				-			
Acenaphthene	ND	0.00067	"				-			
Surrogate: 2-Fluorobiphenyl	50.7		"	0.333		50.7	33-115			
Surrogate: Nitrobenzene-d5	51.3		"	0.333		51.3	29-110			
Surrogate: 4-Terphenyl-d14	66		"	0.333		66	33-122			

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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

Levi Kirk  
Project Number: [none]  
Project: Koch Tank Battery P&A

## 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
<b>Batch L653471 -</b>										
<b>DUP (L 99774-DUP)</b>		<b>Source: 99774</b>			Prepared: Analyzed: 12/13/2022					
Chromium, Hexavalent	ND	0.513	mg/Kg		<0.513	-		0	20	
<b>MS (L 99774-MS)</b>		<b>Source: 99774</b>			Prepared: Analyzed: 12/13/2022					
Chromium, Hexavalent	35.3	2.5	mg/Kg	39.5	< 0.244	89	75-125			
<b>MSD (L 99774-MSD)</b>		<b>Source: 99774</b>			Prepared: Analyzed: 12/13/2022					
Chromium, Hexavalent	566	50.6	mg/Kg	606	<24.7	93	75-125			
<b>LCS (LCS)</b>					Prepared: Analyzed: 12/13/2022					
Chromium, Hexavalent	7.35	0.5	mg/Kg	8		92	75-125			
<b>LRB (LRB)</b>					Prepared: Analyzed: 12/13/2022					
Chromium, Hexavalent	ND	0.5	mg/Kg				-			

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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

Levi Kirk  
Project Number: [none]  
Project: Koch Tank Battery P&A

### Notes and Definitions

U Sample is Non-Detect.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

J Estimated Value. Analyte below reported quantitation limit.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported on a wet weight basis.

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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