



October 06, 2023

Tetra Tech Inc.

Tetrattech

1560 Broadway, Suite 1400

Denver

CO 80202

**Project Name - KMG - Aristocrat**

**Project Number - 117-8735001-2023**

Attached are your analytical results for KMG - Aristocrat received by Origins Laboratory, Inc. October 05, 2023. This project is associated with Origins project number Y310161-01.

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

Tetra Tech Inc.

1560 Broadway, Suite 1400

Denver CO 80202

Tetrattech

Project Number: 117-8735001-2023

Project: KMG - Aristocrat

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TOF-N01-100523	Y310161-01	Soil	October 5, 2023 9:30	10/05/2023 12:20
TOF-N02-100523	Y310161-02	Soil	October 5, 2023 9:40	10/05/2023 12:20
TOF-M01-100523	Y310161-03	Soil	October 5, 2023 9:50	10/05/2023 12:20
TOF-M02-100523	Y310161-04	Soil	October 5, 2023 9:57	10/05/2023 12:20
TOF-S01-100523	Y310161-05	Soil	October 5, 2023 10:06	10/05/2023 12:20
TOF-S02-100523	Y310161-06	Soil	October 5, 2023 10:20	10/05/2023 12:20

Origins Laboratory, Inc.



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

Jen Pellegrini, Project Manager

Tetra Tech Inc.  
1560 Broadway, Suite 1400  
Denver CO 80202

Tetrattech  
Project Number: 117-8735001-2023  
Project: KMG - Aristocrat

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

**ORIGINS**  
LABORATORY, INC

310141

www.originslaboratory.com

page | of

Client: Tetra Tech / WES  
Address: 1100 S Meadlin Blvd, Suite 150  
Superior, CO 80027  
Telephone Number: 303 827 8950  
Email Address: katelyn.groen@tetra.tech.com  
Project Manager: Bill Zahner  
Project Name: Aristocrat  
Project Number: 117-8735001-2023  
Samples Collected By: Katelyn Groen

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative			Matrix			Analysis		Sample Instructions
				Unpreserved	HCl	HNO <sub>3</sub>	Groundwater	Soil	Air Summa Canister #	Other	Tablet Dis Inorganic	
TOF-NØ1-100523	10/5/23	930	1	X				X		X		1
TOF-NØ2-100523	10/5/23	940	1	X				X		X		2
TOF-MØ1-100523	10/5/23	950	1	X				X		X		3
TOF-MØ2-100523	10/5/23	957	1	X				X		X		4
TOF-SØ1-100523	10/5/23	1006	1	X				X		X		5
TOF-SØ2-100523	10/5/23	1020	1	X				X		X		6
												7
												8
												9
												10

Temp Received- 29 Date Results Needed

Relinquished By: Katelyn Groen

Date: 10/5/23

Time: 1220

Received By: [Signature]

Date: 10/5/23

Time: 1220

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

Origins Laboratory, Inc.

*Jen Pellegrini*

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

Jen Pellegrini, Project Manager

Tetra Tech Inc.

1560 Broadway, Suite 1400

Denver CO 80202

Tetrattech

Project Number: 117-8735001-2023

Project: KMG - Aristocrat

Origins Laboratory

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

### Sample Receipt Checklist

Origins Work Order: 421041

Client: Tetrattech

Client Project ID: Aristocrat

Checklist Completed by: T. Pellegrini

Shipped Via: HL

(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 10/5/23

Airbill #: N/A

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

Cooler Number/Temperature: 1, 2.9 °C 1 °C 1 °C (Describe) 1 °C

Thermometer ID: 7004

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"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation 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 type="checkbox"/>	<input type="checkbox"/>	<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.

Em. Antunovich  
Reviewed by (Project Manager)

10/5/23  
Date/Time Reviewed

Origins Laboratory, Inc.

Jefe Pellegrini

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

Tetra Tech Inc.  
1560 Broadway, Suite 1400  
Denver CO 80202

Tetrattech  
Project Number: 117-8735001-2023  
Project: KMG - Aristocrat

TOF-N01-100523  
10/5/2023 9:30:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	---------	----------	----------	-------

## Origins Laboratory, Inc. Y310161-01 (Soil)

### DRO/ORO by EPA 8015D

Diesel (C10-C28)	35.0	25.0	mg/kg	1	B3J0501	ZZZ	10/05/2023	10/05/2023	
Residual Range Organics (C28-C40)	817	100	"	"	"	ZZZ	"	"	

Surrogate: o-Terphenyl 96.9 % 50-150 " " "

### GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B3J0527	HKS	10/05/2023	10/05/2023	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	HKS	"	"	U
Benzene	ND	0.00200	"	"	"	HKS	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	HKS	"	"	U
Toluene	ND	0.00200	"	"	"	HKS	"	"	U
Xylenes, total	ND	0.00200	"	"	"	HKS	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	HKS	"	"	U

Surrogate: 1,2-Dichloroethane-d4 103 % 70-130 " " "  
Surrogate: Toluene-d8 96.8 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 98.8 % 70-130 " " "

### PAH by EPA 8270E

1-Methylnaphthalene	ND	0.002	mg/kg	1	B3J0529	Windo	10/05/2023	10/05/2023	U
2-Methylnaphthalene	ND	0.002	"	"	"	Windo	"	"	U
Acenaphthene	ND	0.020	"	"	"	Windo	"	"	U

Origins Laboratory, Inc.



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

Tetra Tech Inc.  
1560 Broadway, Suite 1400  
Denver CO 80202

Tetrattech  
Project Number: 117-8735001-2023  
Project: KMG - Aristocrat

TOF-N01-100523  
10/5/2023 9:30:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	---------	----------	----------	-------

Origins Laboratory, Inc.  
Y310161-01 (Soil)

## PAH by EPA 8270E

Anthracene	ND	0.020	mg/kg	1	B3J0529	Windo	10/05/2023	10/05/2023	U
Benzo (a) anthracene	ND	0.005	"	"	"	Windo	"	"	U
Benzo (a) pyrene	ND	0.020	"	"	"	Windo	"	"	U
Benzo (b) fluoranthene	ND	0.020	"	"	"	Windo	"	"	U
Benzo (k) fluoranthene	ND	0.020	"	"	"	Windo	"	"	U
Chrysene	ND	0.020	"	"	"	Windo	"	"	U
Dibenz (a,h) anthracene	ND	0.020	"	"	"	Windo	"	"	U
Fluoranthene	ND	0.020	"	"	"	Windo	"	"	U
Fluorene	ND	0.020	"	"	"	Windo	"	"	U
Indeno (1,2,3-cd) pyrene	ND	0.020	"	"	"	Windo	"	"	U
Naphthalene	ND	0.002	"	"	"	Windo	"	"	U
Pyrene	ND	0.020	"	"	"	Windo	"	"	U

Surrogate: Fluorene-d10	91.3 %	60-130	"	"	"
Surrogate: Anthracene-d10	93.0 %	60-130	"	"	"
Surrogate: Pyrene-d10	129 %	60-130	"	"	"
Surrogate: Benzo (a) pyrene-d12	86.7 %	60-130	"	"	"

Origins Laboratory, Inc.



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



Tetra Tech Inc.  
1560 Broadway, Suite 1400  
Denver CO 80202

Tetrattech  
Project Number: 117-8735001-2023  
Project: KMG - Aristocrat

TOF-N02-100523  
10/5/2023 9:40:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	---------	----------	----------	-------

Origins Laboratory, Inc.  
Y310161-02 (Soil)

DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B3J0501	ZZZ	10/05/2023	10/05/2023	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	ZZZ	"	"	U

Surrogate: o-Terphenyl 103 % 50-150 " " "

GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B3J0527	HKS	10/05/2023	10/05/2023	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	HKS	"	"	U
Benzene	ND	0.00200	"	"	"	HKS	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	HKS	"	"	U
Toluene	ND	0.00200	"	"	"	HKS	"	"	U
Xylenes, total	ND	0.00200	"	"	"	HKS	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	HKS	"	"	U

Surrogate: 1,2-Dichloroethane-d4 105 % 70-130 " " "  
Surrogate: Toluene-d8 95.6 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 97.8 % 70-130 " " "

PAH by EPA 8270E

1-Methylnaphthalene	ND	0.002	mg/kg	1	B3J0529	Windo	10/05/2023	10/05/2023	U
2-Methylnaphthalene	ND	0.002	"	"	"	Windo	"	"	U

Origins Laboratory, Inc.



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

Tetra Tech Inc.  
1560 Broadway, Suite 1400  
Denver CO 80202

Tetrattech  
Project Number: 117-8735001-2023  
Project: KMG - Aristocrat

TOF-N02-100523  
10/5/2023 9:40:00AM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-------	-------	----------	-------	---------	----------	----------	-------

Origins Laboratory, Inc.  
Y310161-02 (Soil)

PAH by EPA 8270E

Acenaphthene	ND	0.020	mg/kg	1	B3J0529	Windo	10/05/2023	10/05/2023	U
Anthracene	ND	0.020	"	"	"	Windo	"	"	U
Benzo (a) anthracene	ND	0.005	"	"	"	Windo	"	"	U
Benzo (a) pyrene	ND	0.020	"	"	"	Windo	"	"	U
Benzo (b) fluoranthene	ND	0.020	"	"	"	Windo	"	"	U
Benzo (k) fluoranthene	ND	0.020	"	"	"	Windo	"	"	U
Chrysene	ND	0.020	"	"	"	Windo	"	"	U
Dibenz (a,h) anthracene	ND	0.020	"	"	"	Windo	"	"	U
Fluoranthene	ND	0.020	"	"	"	Windo	"	"	U
Fluorene	ND	0.020	"	"	"	Windo	"	"	U
Indeno (1,2,3-cd) pyrene	ND	0.020	"	"	"	Windo	"	"	U
Naphthalene	ND	0.002	"	"	"	Windo	"	"	U
Pyrene	ND	0.020	"	"	"	Windo	"	"	U

Surrogate: Fluorene-d10	93.5 %	60-130	"	"	"
Surrogate: Anthracene-d10	115 %	60-130	"	"	"
Surrogate: Pyrene-d10	92.3 %	60-130	"	"	"
Surrogate: Benzo (a) pyrene-d12	89.7 %	60-130	"	"	"

Origins Laboratory, Inc.



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



Tetra Tech Inc.  
1560 Broadway, Suite 1400  
Denver CO 80202

Tetrattech  
Project Number: 117-8735001-2023  
Project: KMG - Aristocrat

TOF-M01-100523  
10/5/2023 9:50:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	---------	----------	----------	-------

Origins Laboratory, Inc.  
Y310161-03 (Soil)

DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B3J0501	ZZZ	10/05/2023	10/05/2023	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	ZZZ	"	"	U

Surrogate: o-Terphenyl 96.8 % 50-150 " " "

GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B3J0527	HKS	10/05/2023	10/05/2023	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	HKS	"	"	U
Benzene	ND	0.00200	"	"	"	HKS	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	HKS	"	"	U
Toluene	ND	0.00200	"	"	"	HKS	"	"	U
Xylenes, total	ND	0.00200	"	"	"	HKS	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	HKS	"	"	U

Surrogate: 1,2-Dichloroethane-d4 103 % 70-130 " " "  
Surrogate: Toluene-d8 96.9 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 99.2 % 70-130 " " "

PAH by EPA 8270E

1-Methylnaphthalene	ND	0.002	mg/kg	1	B3J0529	Windo	10/05/2023	10/05/2023	U
2-Methylnaphthalene	ND	0.002	"	"	"	Windo	"	"	U

Origins Laboratory, Inc.



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

Tetra Tech Inc.  
1560 Broadway, Suite 1400  
Denver CO 80202

Tetrattech  
Project Number: 117-8735001-2023  
Project: KMG - Aristocrat

TOF-M01-100523  
10/5/2023 9:50:00AM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-------	-------	----------	-------	---------	----------	----------	-------

Origins Laboratory, Inc.  
Y310161-03 (Soil)

PAH by EPA 8270E

Acenaphthene	ND	0.020	mg/kg	1	B3J0529	Windo	10/05/2023	10/05/2023	U
Anthracene	ND	0.020	"	"	"	Windo	"	"	U
Benzo (a) anthracene	ND	0.005	"	"	"	Windo	"	"	U
Benzo (a) pyrene	ND	0.020	"	"	"	Windo	"	"	U
Benzo (b) fluoranthene	ND	0.020	"	"	"	Windo	"	"	U
Benzo (k) fluoranthene	ND	0.020	"	"	"	Windo	"	"	U
Chrysene	ND	0.020	"	"	"	Windo	"	"	U
Dibenz (a,h) anthracene	ND	0.020	"	"	"	Windo	"	"	U
Fluoranthene	ND	0.020	"	"	"	Windo	"	"	U
Fluorene	ND	0.020	"	"	"	Windo	"	"	U
Indeno (1,2,3-cd) pyrene	ND	0.020	"	"	"	Windo	"	"	U
Naphthalene	ND	0.002	"	"	"	Windo	"	"	U
Pyrene	ND	0.020	"	"	"	Windo	"	"	U

Surrogate: Fluorene-d10	93.4 %	60-130	"	"	"
Surrogate: Anthracene-d10	86.8 %	60-130	"	"	"
Surrogate: Pyrene-d10	100 %	60-130	"	"	"
Surrogate: Benzo (a) pyrene-d12	87.1 %	60-130	"	"	"

Origins Laboratory, Inc.



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

Tetra Tech Inc.  
1560 Broadway, Suite 1400  
Denver CO 80202

Tetrattech  
Project Number: 117-8735001-2023  
Project: KMG - Aristocrat

TOF-M02-100523  
10/5/2023 9:57:00AM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-------	-------	----------	-------	---------	----------	----------	-------

Origins Laboratory, Inc.  
Y310161-04 (Soil)

DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B3J0501	ZZZ	10/05/2023	10/05/2023	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	ZZZ	"	"	U

Surrogate: o-Terphenyl 95.4 % 50-150 " " "

GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B3J0527	HKS	10/05/2023	10/05/2023	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	HKS	"	"	U
Benzene	ND	0.00200	"	"	"	HKS	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	HKS	"	"	U
Toluene	ND	0.00200	"	"	"	HKS	"	"	U
Xylenes, total	ND	0.00200	"	"	"	HKS	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	HKS	"	"	U

Surrogate: 1,2-Dichloroethane-d4 105 % 70-130 " " "  
Surrogate: Toluene-d8 96.3 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 99.3 % 70-130 " " "

PAH by EPA 8270E

1-Methylnaphthalene	ND	0.002	mg/kg	1	B3J0529	Windo	10/05/2023	10/05/2023	U
2-Methylnaphthalene	ND	0.002	"	"	"	Windo	"	"	U

Origins Laboratory, Inc.



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

Tetra Tech Inc.  
1560 Broadway, Suite 1400  
Denver CO 80202

Tetrattech  
Project Number: 117-8735001-2023  
Project: KMG - Aristocrat

TOF-M02-100523  
10/5/2023 9:57:00AM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-------	-------	----------	-------	---------	----------	----------	-------

Origins Laboratory, Inc.  
Y310161-04 (Soil)

PAH by EPA 8270E

Acenaphthene	ND	0.020	mg/kg	1	B3J0529	Windo	10/05/2023	10/05/2023	U
Anthracene	ND	0.020	"	"	"	Windo	"	"	U
Benzo (a) anthracene	ND	0.005	"	"	"	Windo	"	"	U
Benzo (a) pyrene	ND	0.020	"	"	"	Windo	"	"	U
Benzo (b) fluoranthene	ND	0.020	"	"	"	Windo	"	"	U
Benzo (k) fluoranthene	ND	0.020	"	"	"	Windo	"	"	U
Chrysene	ND	0.020	"	"	"	Windo	"	"	U
Dibenz (a,h) anthracene	ND	0.020	"	"	"	Windo	"	"	U
Fluoranthene	ND	0.020	"	"	"	Windo	"	"	U
Fluorene	ND	0.020	"	"	"	Windo	"	"	U
Indeno (1,2,3-cd) pyrene	ND	0.020	"	"	"	Windo	"	"	U
Naphthalene	ND	0.002	"	"	"	Windo	"	"	U
Pyrene	ND	0.020	"	"	"	Windo	"	"	U

Surrogate: Fluorene-d10	92.2 %	60-130	"	"	"
Surrogate: Anthracene-d10	109 %	60-130	"	"	"
Surrogate: Pyrene-d10	89.2 %	60-130	"	"	"
Surrogate: Benzo (a) pyrene-d12	88.1 %	60-130	"	"	"

Origins Laboratory, Inc.



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

Tetra Tech Inc.  
1560 Broadway, Suite 1400  
Denver CO 80202

Tetrattech  
Project Number: 117-8735001-2023  
Project: KMG - Aristocrat

## TOF-S01-100523

10/5/2023 10:06:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	---------	----------	----------	-------

## Origins Laboratory, Inc. Y310161-05 (Soil)

### DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B3J0501	ZZZ	10/05/2023	10/05/2023	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	ZZZ	"	"	U

Surrogate: o-Terphenyl 95.4 % 50-150 " " "

### GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B3J0527	HKS	10/05/2023	10/05/2023	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	HKS	"	"	U
Benzene	ND	0.00200	"	"	"	HKS	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	HKS	"	"	U
Toluene	ND	0.00200	"	"	"	HKS	"	"	U
Xylenes, total	ND	0.00200	"	"	"	HKS	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	HKS	"	"	U

Surrogate: 1,2-Dichloroethane-d4 106 % 70-130 " " "  
Surrogate: Toluene-d8 95.7 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 99.8 % 70-130 " " "

### PAH by EPA 8270E

1-Methylnaphthalene	ND	0.002	mg/kg	1	B3J0529	Windo	10/05/2023	10/05/2023	U
2-Methylnaphthalene	ND	0.002	"	"	"	Windo	"	"	U

Origins Laboratory, Inc.



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

Tetra Tech Inc.  
1560 Broadway, Suite 1400  
Denver CO 80202

Tetrattech  
Project Number: 117-8735001-2023  
Project: KMG - Aristocrat

TOF-S01-100523

10/5/2023 10:06:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	---------	----------	----------	-------

Origins Laboratory, Inc.  
Y310161-05 (Soil)

PAH by EPA 8270E

Acenaphthene	ND	0.020	mg/kg	1	B3J0529	Windo	10/05/2023	10/05/2023	U
Anthracene	ND	0.020	"	"	"	Windo	"	"	U
Benzo (a) anthracene	ND	0.005	"	"	"	Windo	"	"	U
Benzo (a) pyrene	ND	0.020	"	"	"	Windo	"	"	U
Benzo (b) fluoranthene	ND	0.020	"	"	"	Windo	"	"	U
Benzo (k) fluoranthene	ND	0.020	"	"	"	Windo	"	"	U
Chrysene	ND	0.020	"	"	"	Windo	"	"	U
Dibenz (a,h) anthracene	ND	0.020	"	"	"	Windo	"	"	U
Fluoranthene	ND	0.020	"	"	"	Windo	"	"	U
Fluorene	ND	0.020	"	"	"	Windo	"	"	U
Indeno (1,2,3-cd) pyrene	ND	0.020	"	"	"	Windo	"	"	U
Naphthalene	ND	0.002	"	"	"	Windo	"	"	U
Pyrene	ND	0.020	"	"	"	Windo	"	"	U

Surrogate: Fluorene-d10	92.2 %	60-130	"	"	"
Surrogate: Anthracene-d10	124 %	60-130	"	"	"
Surrogate: Pyrene-d10	101 %	60-130	"	"	"
Surrogate: Benzo (a) pyrene-d12	90.7 %	60-130	"	"	"

Origins Laboratory, Inc.



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

Jen Pellegrini, Project Manager



Tetra Tech Inc.  
1560 Broadway, Suite 1400  
Denver CO 80202

Tetrattech  
Project Number: 117-8735001-2023  
Project: KMG - Aristocrat

## TOF-S02-100523

10/5/2023 10:20:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	---------	----------	----------	-------

## Origins Laboratory, Inc. Y310161-06 (Soil)

### DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B3J0501	ZZZ	10/05/2023	10/05/2023	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	ZZZ	"	"	U

Surrogate: o-Terphenyl 97.8 % 50-150 " " "

### GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B3J0527	HKS	10/05/2023	10/05/2023	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	HKS	"	"	U
Benzene	ND	0.00200	"	"	"	HKS	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	HKS	"	"	U
Toluene	ND	0.00200	"	"	"	HKS	"	"	U
Xylenes, total	ND	0.00200	"	"	"	HKS	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	HKS	"	"	U

Surrogate: 1,2-Dichloroethane-d4 105 % 70-130 " " "  
Surrogate: Toluene-d8 96.3 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 98.1 % 70-130 " " "

### PAH by EPA 8270E

1-Methylnaphthalene	ND	0.002	mg/kg	1	B3J0529	Windo	10/05/2023	10/05/2023	U
2-Methylnaphthalene	ND	0.002	"	"	"	Windo	"	"	U

Origins Laboratory, Inc.



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

Tetra Tech Inc.  
1560 Broadway, Suite 1400  
Denver CO 80202

Tetrattech  
Project Number: 117-8735001-2023  
Project: KMG - Aristocrat

TOF-S02-100523

10/5/2023 10:20:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	---------	----------	----------	-------

**Origins Laboratory, Inc.**  
**Y310161-06 (Soil)**

**PAH by EPA 8270E**

Acenaphthene	ND	0.020	mg/kg	1	B3J0529	Windo	10/05/2023	10/05/2023	U
Anthracene	ND	0.020	"	"	"	Windo	"	"	U
Benzo (a) anthracene	ND	0.005	"	"	"	Windo	"	"	U
Benzo (a) pyrene	ND	0.020	"	"	"	Windo	"	"	U
Benzo (b) fluoranthene	ND	0.020	"	"	"	Windo	"	"	U
Benzo (k) fluoranthene	ND	0.020	"	"	"	Windo	"	"	U
Chrysene	ND	0.020	"	"	"	Windo	"	"	U
Dibenz (a,h) anthracene	ND	0.020	"	"	"	Windo	"	"	U
Fluoranthene	ND	0.020	"	"	"	Windo	"	"	U
Fluorene	ND	0.020	"	"	"	Windo	"	"	U
Indeno (1,2,3-cd) pyrene	ND	0.020	"	"	"	Windo	"	"	U
Naphthalene	ND	0.002	"	"	"	Windo	"	"	U
Pyrene	ND	0.020	"	"	"	Windo	"	"	U

Surrogate: Fluorene-d10	93.3 %	60-130	"	"	"
Surrogate: Anthracene-d10	121 %	60-130	"	"	"
Surrogate: Pyrene-d10	90.4 %	60-130	"	"	"
Surrogate: Benzo (a) pyrene-d12	103 %	60-130	"	"	"

Origins Laboratory, Inc.



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

Tetra Tech Inc.  
1560 Broadway, Suite 1400  
Denver CO 80202

Tetrattech  
Project Number: 117-8735001-2023  
Project: KMG - Aristocrat

## 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 B3J0501 - EPA 3550B										
Blank (B3J0501-BLK1)					Prepared: 10/05/2023 Analyzed: 10/05/2023					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	24		"	24.9		96.5	50-150			

Origins Laboratory, Inc.



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

Jen Pellegrini, Project Manager

Tetra Tech Inc.  
1560 Broadway, Suite 1400  
Denver CO 80202

Tetrattech  
Project Number: 117-8735001-2023  
Project: KMG - Aristocrat

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 B3J0501 - EPA 3550B

LCS (B3J0501-BS1)

Prepared: 10/05/2023 Analyzed: 10/05/2023

Diesel (C10-C28)	1030	50.0	mg/kg	1000		103	70-130			
Residual Range Organics (C28-C40)	1090	200	"	1000		109	70-130			
Surrogate: o-Terphenyl	64		"	49.8		128	50-150			

Origins Laboratory, Inc.



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

Jen Pellegrini, Project Manager

Tetra Tech Inc.  
1560 Broadway, Suite 1400  
Denver CO 80202

Tetrattech  
Project Number: 117-8735001-2023  
Project: KMG - Aristocrat

## 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 B3J0501 - EPA 3550B

Matrix Spike (B3J0501-MS1)		Source: Y310161-01			Prepared: 10/05/2023 Analyzed: 10/05/2023					
Diesel (C10-C28)	1110	50.0	mg/kg	1000	ND	111	70-130			
Residual Range Organics (C28-C40)	1960	200	"	1000	817	114	70-130			
Surrogate: o-Terphenyl	59		"	49.8		119	50-150			

Origins Laboratory, Inc.



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

Jen Pellegrini, Project Manager

Tetra Tech Inc.  
1560 Broadway, Suite 1400  
Denver CO 80202

Tetrattech  
Project Number: 117-8735001-2023  
Project: KMG - Aristocrat

## 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 B3J0501 - EPA 3550B										
Matrix Spike Dup (B3J0501-MSD1)		Source: Y310161-01			Prepared: 10/05/2023 Analyzed: 10/05/2023					
Diesel (C10-C28)	1060	50.0	mg/kg	1000	ND	106	70-130	4.70	35	
Residual Range Organics (C28-C40)	1920	200	"	1000	817	110	70-130	2.16	35	
Surrogate: o-Terphenyl	56		"	49.8		112	50-150			

Origins Laboratory, Inc.



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

Jen Pellegrini, Project Manager



Tetra Tech Inc.  
1560 Broadway, Suite 1400  
Denver CO 80202

Tetrattech  
Project Number: 117-8735001-2023  
Project: KMG - Aristocrat

## 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 B3J0527 - EPA 5030 (soil)										
Blank (B3J0527-BLK1)					Prepared: 10/05/2023 Analyzed: 10/05/2023					
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	0.12		"	0.125		99.6	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		97.2	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.5	70-130			

Origins Laboratory, Inc.



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

Jen Pellegrini, Project Manager

Tetra Tech Inc.  
1560 Broadway, Suite 1400  
Denver CO 80202

Tetrattech  
Project Number: 117-8735001-2023  
Project: KMG - Aristocrat

**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
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch B3J0527 - EPA 5030 (soil)

**LCS (B3J0527-BS1)**

Prepared: 10/05/2023 Analyzed: 10/05/2023

1,2,4-Trimethylbenzene	0.0931	0.00200	mg/kg	0.100		93.1	70-130			
1,3,5-Trimethylbenzene	0.0948	0.00200	"	0.100		94.8	70-130			
Benzene	0.0892	0.00200	"	0.100		89.2	70-130			
Ethylbenzene	0.0914	0.00200	"	0.100		91.4	70-130			
Naphthalene	0.0816	0.00380	"	0.100		81.6	70-130			
Toluene	0.0904	0.00200	"	0.100		90.4	70-130			
o-Xylene	0.0884	0.00200	"	0.100		88.4	70-130			
m,p-Xylene	0.183	0.00400	"	0.200		91.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		99.6	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		96.4	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		94.2	70-130			

Origins Laboratory, Inc.



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

Jen Pellegrini, Project Manager

Tetra Tech Inc.  
1560 Broadway, Suite 1400  
Denver CO 80202

Tetrattech  
Project Number: 117-8735001-2023  
Project: KMG - Aristocrat

**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 B3J0527 - EPA 5030 (soil)</b>										
<b>Matrix Spike (B3J0527-MS1)</b>		<b>Source: Y310161-01</b>			Prepared: 10/05/2023 Analyzed: 10/05/2023					
1,2,4-Trimethylbenzene	0.0536	0.00200	mg/kg	0.100	ND	53.6	70-130			QM-07
1,3,5-Trimethylbenzene	0.0541	0.00200	"	0.100	ND	54.1	70-130			QM-07
Benzene	0.0770	0.00200	"	0.100	ND	77.0	70-130			
Ethylbenzene	0.0681	0.00200	"	0.100	ND	68.1	70-130			QM-07
Naphthalene	0.0504	0.00380	"	0.100	ND	50.4	70-130			QM-07
Toluene	0.0738	0.00200	"	0.100	ND	73.8	70-130			
o-Xylene	0.0668	0.00200	"	0.100	ND	66.8	70-130			QM-07
m,p-Xylene	0.134	0.00400	"	0.200	ND	66.9	70-130			QM-07
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		102	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		95.7	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		97.2	70-130			

Origins Laboratory, Inc.



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

Jen Pellegrini, Project Manager

Tetra Tech Inc.  
1560 Broadway, Suite 1400  
Denver CO 80202

Tetrattech  
Project Number: 117-8735001-2023  
Project: KMG - Aristocrat

**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 B3J0527 - EPA 5030 (soil)</b>										
<b>Matrix Spike Dup (B3J0527-MSD1)</b>		<b>Source: Y310161-01</b>			Prepared: 10/05/2023 Analyzed: 10/05/2023					
1,2,4-Trimethylbenzene	0.0462	0.00200	mg/kg	0.100	ND	46.2	70-130	14.8	20	QM-07
1,3,5-Trimethylbenzene	0.0461	0.00200	"	0.100	ND	46.1	70-130	15.9	20	QM-07
Benzene	0.0736	0.00200	"	0.100	ND	73.6	70-130	4.49	20	
Ethylbenzene	0.0617	0.00200	"	0.100	ND	61.7	70-130	9.80	20	QM-07
Naphthalene	0.0441	0.00380	"	0.100	ND	44.1	70-130	13.4	20	QM-07
Toluene	0.0698	0.00200	"	0.100	ND	69.8	70-130	5.63	20	QM-07
o-Xylene	0.0605	0.00200	"	0.100	ND	60.5	70-130	9.87	20	QM-07
m,p-Xylene	0.121	0.00400	"	0.200	ND	60.7	70-130	9.70	20	QM-07
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		104	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		95.3	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		97.0	70-130			

Origins Laboratory, Inc.



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

Jen Pellegrini, Project Manager

Tetra Tech Inc.  
1560 Broadway, Suite 1400  
Denver CO 80202

Tetrattech  
Project Number: 117-8735001-2023  
Project: KMG - Aristocrat

**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
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**EPA 8270E (SW846) - Semivolatile Organic Compounds - Quality Control**  
**Origins Laboratory, Inc.**

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

**Batch B3J0529 - EPA 3580**

**Blank (B3J0529-BLK1)**

Prepared: 10/05/2023 Analyzed: 10/05/2023

1-Methylnaphthalene	ND	0.002	mg/kg							U
2-Methylnaphthalene	ND	0.002	"							U
Acenaphthene	ND	0.020	"							U
Anthracene	ND	0.020	"							U
Benzo (a) anthracene	ND	0.005	"							U
Benzo (a) pyrene	ND	0.020	"							U
Benzo (b) fluoranthene	ND	0.020	"							U
Benzo (g,h,i) perylene	ND	0.020	"							U
Benzo (k) fluoranthene	ND	0.020	"							U
Chrysene	ND	0.020	"							U
Dibenz (a,h) anthracene	ND	0.020	"							U
Fluoranthene	ND	0.020	"							U
Fluorene	ND	0.020	"							U
Indeno (1,2,3-cd) pyrene	ND	0.020	"							U
Naphthalene	ND	0.002	"							U
Phenanthrene	ND	0.020	"							U
Pyrene	ND	0.020	"							U
Surrogate: Fluorene-d10	190		ug/kg	200		95.7	60-130			
Surrogate: Anthracene-d10	240		"	200		122	60-130			
Surrogate: Pyrene-d10	170		"	200		85.3	60-130			
Surrogate: Benzo (a) pyrene-d12	180		"	200		90.6	60-130			

Origins Laboratory, Inc.



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

Tetra Tech Inc.  
1560 Broadway, Suite 1400  
Denver CO 80202

Tetrattech  
Project Number: 117-8735001-2023  
Project: KMG - Aristocrat

**EPA 8270E (SW846) - Semivolatile Organic Compounds - Quality Control**  
**Origins Laboratory, Inc.**

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

**Batch B3J0529 - EPA 3580**

**LCS (B3J0529-BS1)**

Prepared: 10/05/2023 Analyzed: 10/05/2023

1-Methylnaphthalene	0.204	0.002	mg/kg	0.200		102	70-130
2-Methylnaphthalene	0.188	0.002	"	0.200		93.8	70-130
Acenaphthene	0.198	0.020	"	0.200		98.9	70-130
Anthracene	0.203	0.020	"	0.200		101	70-130
Benzo (a) anthracene	0.193	0.005	"	0.200		96.5	70-130
Benzo (a) pyrene	0.218	0.020	"	0.200		109	70-130
Benzo (b) fluoranthene	0.183	0.020	"	0.200		91.6	70-130
Benzo (g,h,i) perylene	0.206	0.020	"	0.200		103	70-130
Benzo (k) fluoranthene	0.210	0.020	"	0.200		105	70-130
Chrysene	0.202	0.020	"	0.200		101	70-130
Dibenz (a,h) anthracene	0.212	0.020	"	0.200		106	70-130
Fluoranthene	0.230	0.020	"	0.200		115	70-130
Fluorene	0.193	0.020	"	0.200		96.6	70-130
Indeno (1,2,3-cd) pyrene	0.229	0.020	"	0.200		114	70-130
Naphthalene	0.199	0.002	"	0.200		99.6	70-130
Phenanthrene	0.197	0.020	"	0.200		98.3	70-130
Pyrene	0.175	0.020	"	0.200		87.5	70-130

Surrogate: Fluorene-d10	190		ug/kg	200		95.0	60-130
Surrogate: Anthracene-d10	250		"	200		125	60-130
Surrogate: Pyrene-d10	170		"	200		85.3	60-130
Surrogate: Benzo (a) pyrene-d12	210		"	200		104	60-130

**Matrix Spike (B3J0529-MS1)**

**Source: Y310161-01**

Prepared: 10/05/2023 Analyzed: 10/05/2023

1-Methylnaphthalene	0.206	0.002	mg/kg	0.200	ND	103	70-130
2-Methylnaphthalene	0.192	0.002	"	0.200	ND	96.1	70-130
Acenaphthene	0.201	0.020	"	0.200	ND	101	70-130
Anthracene	0.207	0.020	"	0.200	ND	103	70-130

Origins Laboratory, Inc.



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



Tetra Tech Inc.  
1560 Broadway, Suite 1400  
Denver CO 80202

Tetrattech  
Project Number: 117-8735001-2023  
Project: KMG - Aristocrat

**EPA 8270E (SW846) - Semivolatile Organic Compounds - Quality Control**  
**Origins Laboratory, Inc.**

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

**Batch B3J0529 - EPA 3580**

Matrix Spike (B3J0529-MS1)		Source: Y310161-01			Prepared: 10/05/2023 Analyzed: 10/05/2023					
Benzo (a) anthracene	0.207	0.005	mg/kg	0.200	0.002	102	70-130			
Benzo (a) pyrene	0.198	0.020	"	0.200	0.002	98.2	70-130			
Benzo (b) fluoranthene	0.162	0.020	"	0.200	0.0004	80.7	70-130			
Benzo (g,h,i) perylene	0.172	0.020	"	0.200	0.004	84.1	70-130			
Benzo (k) fluoranthene	0.194	0.020	"	0.200	0.002	96.0	70-130			
Chrysene	0.203	0.020	"	0.200	0.002	100	70-130			
Dibenz (a,h) anthracene	0.181	0.020	"	0.200	0.002	89.9	70-130			
Fluoranthene	0.184	0.020	"	0.200	0.004	90.3	70-130			
Fluorene	0.195	0.020	"	0.200	ND	97.4	70-130			
Indeno (1,2,3-cd) pyrene	0.179	0.020	"	0.200	0.004	87.8	70-130			
Naphthalene	0.200	0.002	"	0.200	ND	100	70-130			
Phenanthrene	0.206	0.020	"	0.200	ND	103	70-130			
Pyrene	0.258	0.020	"	0.200	0.006	126	70-130			
Surrogate: Fluorene-d10	190		ug/kg	200		95.2	60-130			
Surrogate: Anthracene-d10	210		"	200		105	60-130			
Surrogate: Pyrene-d10	260		"	200		130	60-130			
Surrogate: Benzo (a) pyrene-d12	190		"	200		95.4	60-130			

Matrix Spike Dup (B3J0529-MSD1)		Source: Y310161-01			Prepared: 10/05/2023 Analyzed: 10/05/2023					
1-Methylnaphthalene	0.210	0.002	mg/kg	0.200	ND	105	70-130	1.76	20	
2-Methylnaphthalene	0.202	0.002	"	0.200	ND	101	70-130	5.15	20	
Acenaphthene	0.198	0.020	"	0.200	ND	99.1	70-130	1.59	20	
Anthracene	0.181	0.020	"	0.200	ND	90.7	70-130	13.1	20	
Benzo (a) anthracene	0.168	0.005	"	0.200	0.002	82.7	70-130	21.0	20	QR-02
Benzo (a) pyrene	0.192	0.020	"	0.200	0.002	95.1	70-130	3.17	20	
Benzo (b) fluoranthene	0.164	0.020	"	0.200	0.0004	81.5	70-130	1.06	20	
Benzo (g,h,i) perylene	0.161	0.020	"	0.200	0.004	78.4	70-130	6.74	20	

Origins Laboratory, Inc.



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

Tetra Tech Inc.  
1560 Broadway, Suite 1400  
Denver CO 80202

Tetrattech  
Project Number: 117-8735001-2023  
Project: KMG - Aristocrat

**EPA 8270E (SW846) - Semivolatile Organic Compounds - Quality Control**  
**Origins Laboratory, Inc.**

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

**Batch B3J0529 - EPA 3580**

Matrix Spike Dup (B3J0529-MSD1)		Source: Y310161-01			Prepared: 10/05/2023 Analyzed: 10/05/2023					
Benzo (k) fluoranthene	0.195	0.020	mg/kg	0.200	0.002	96.5	70-130	0.563	20	
Chrysene	0.230	0.020	"	0.200	0.002	114	70-130	12.3	20	
Dibenz (a,h) anthracene	0.173	0.020	"	0.200	0.002	85.9	70-130	4.61	20	
Fluoranthene	0.211	0.020	"	0.200	0.004	104	70-130	13.4	20	
Fluorene	0.181	0.020	"	0.200	ND	90.7	70-130	7.09	20	
Indeno (1,2,3-cd) pyrene	0.183	0.020	"	0.200	0.004	89.7	70-130	2.09	20	
Naphthalene	0.206	0.002	"	0.200	ND	103	70-130	2.86	20	
Phenanthrene	0.208	0.020	"	0.200	ND	104	70-130	0.866	20	
Pyrene	0.248	0.020	"	0.200	0.006	121	70-130	3.94	20	
Surrogate: Fluorene-d10	180		ug/kg	200		92.3	60-130			
Surrogate: Anthracene-d10	240		"	200		121	60-130			
Surrogate: Pyrene-d10	240		"	200		119	60-130			
Surrogate: Benzo (a) pyrene-d12	200		"	200		102	60-130			

Origins Laboratory, Inc.



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

Jen Pellegrini, Project Manager

Tetra Tech Inc.  
1560 Broadway, Suite 1400  
Denver CO 80202

Tetrattech  
Project Number: 117-8735001-2023  
Project: KMG - Aristocrat

### Notes and Definitions

U Sample is Non-Detect.

QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.

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

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.



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

Jen Pellegrini, Project Manager