

TABLE 1
GROUNDWATER ANALYTICAL AND FIELD RESULTS
ARISTOCRAT 41-9 1
WELD COUNTY, COLORADO
KERR-MCGEE OIL & GAS ONSHORE, LP

Well Name	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Depth to Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
COGCC Allowable Levels		5	560	700	1400		
GW01	7/17/2019	<4.00	<4.00	6.68	78.4	24	NA
SB03	5/23/2019	63.4	<4.00	1,210	13,500	13.28	84.34
	5/29/2019	Depth to Water Measurement - Not Sampled				13.06	84.56
	SB03 destroyed on 7/1/2019						
SB04	5/23/2019	71.7	<4.00	469	4,780	14.47	81.46
	5/29/2019	Depth to Water Measurement - Not Sampled				14.24	81.69
	SB04 destroyed on 7/1/2019						
SB05	5/23/2019	<4.00	<4.00	<4.00	<4.00	12.83	87.65
	5/29/2019	Depth to Water Measurement - Not Sampled				12.62	87.86
	SB05 destroyed on 7/1/2019						
SB06	5/23/2019	8.04	<4.00	410	5,060	14.19	85.38
	5/29/2019	Depth to Water Measurement - Not Sampled				14.15	85.42
	SB06 destroyed on 7/1/2019						
SB07	5/23/2019	<4.00	<4.00	<4.00	16.9	13.05	84.00
	5/29/2019	Depth to Water Measurement - Not Sampled				12.21	84.84
	SB07 destroyed on 7/1/2019						
SB08	5/23/2019	288	<4.00	1,250	14,200	13.81	82.94
	5/29/2019	Depth to Water Measurement - Not Sampled				13.50	83.25
	SB08 destroyed on 7/1/2019						
SB09	5/29/2019	<4.00	12.2	2,410	29,100	14.74	81.18
	SB09 destroyed on 7/1/2019						
SB10	5/29/2019	<4.00	<4.00	58.4	532	14.48	81.50
	SB10 destroyed on 7/1/2019						
SB11	5/29/2019	<1.00	<1.00	1.07	9.32	14.96	81.06
	SB11 destroyed on 7/1/2019						



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COGCC Allowable Levels		5	560	700	1400		
SB12	5/29/2019	<4.00	<4.00	46.6	202	14.46	81.35
	SB12 destroyed on 7/1/2019						
SB13	5/29/2019	<1.00	<1.00	<1.00	<1.00	14.27	81.39
	SB13 destroyed on 7/1/2019						
SB14	5/29/2019	<1.00	<1.00	1.95	<1.00	14.55	81.40
	SB14 destroyed on 7/1/2019						
MW01	10/25/2019	<1.00	<1.00	3.36	11.4	13.86	86.64
	11/14/2019	Depth to Water Measurement - Not Sampled				14.15	86.35
	1/10/2020	<1.00	<1.00	<1.00	<1.00	14.55	85.85
	4/2/2020	<1.00	<1.00	<1.00	<1.00	14.65	85.75
MW02	10/25/2019	<1.00	<1.00	<1.00	3.16	13.60	84.84
	11/14/2019	Depth to Water Measurement - Not Sampled				13.89	84.55
	1/10/2020	<1.00	<1.00	<1.00	<1.00	14.27	85.91
	4/2/2020	<1.00	<1.00	<1.00	<1.00	14.52	85.66
MW03	10/25/2019	1.32	<1.00	171	1,420	13.41	90.44
	11/14/2019	Depth to Water Measurement - Not Sampled				13.69	90.16
	1/10/2020	<1.00	<1.00	2.25	14.6	14.01	85.76
	4/2/2020	<1.00	<1.00	26.9	102	14.21	85.56
MW04	10/25/2019	<1.00	<1.00	<1.00	<1.00	13.15	89.83
	11/14/2019	Depth to Water Measurement - Not Sampled				13.42	89.56
	1/10/2020	<1.00	<1.00	<1.00	3.06	13.71	85.55
	4/2/2020	<1.00	<1.00	<1.00	<1.00	13.91	85.35
MW05	10/25/2019	<1.00	<1.00	6.48	50.5	14.12	86.22
	11/14/2019	Depth to Water Measurement - Not Sampled				14.41	85.93
	1/10/2020	<1.00	<1.00	1.49	<1.00	14.80	86.07
	4/2/2020	<1.00	<1.00	<1.00	<1.00	14.86	NA
MW06	10/25/2019	<1.00	<1.00	<1.00	2.51	14.01	86.18



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Well Name	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Depth to Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
COGCC Allowable Levels		5	560	700	1400		
	11/14/2019	Depth to Water Measurement - Not Sampled				14.22	85.97
	1/10/2020	1.98	<1.00	<1.00	2.39	14.52	85.46
	4/2/2020	<1.00	<1.00	<1.00	<1.00	14.69	85.29
MW07	10/25/2019	<1.00	<1.00	<1.00	<1.00	15.20	85.35
	11/14/2019	Depth to Water Measurement - Not Sampled				15.45	85.10
	1/10/2020	<1.00	<1.00	<1.00	<1.00	15.76	85.13
	4/2/2020	<1.00	<1.00	<1.00	<1.00	15.97	84.92
MW08	10/25/2019	<1.00	<1.00	<1.00	<1.00	14.51	83.99
	11/14/2019	Depth to Water Measurement - Not Sampled				14.72	83.78
	1/10/2020	<1.00	<1.00	<1.00	<1.00	15.04	85.29
	4/2/2020	<1.00	<1.00	<1.00	<1.00	15.31	85.02
MW09	10/25/2019	<1.00	<1.00	<1.00	<1.00	13.12	90.78
	11/14/2019	Depth to Water Measurement - Not Sampled				13.34	90.56
	1/10/2020	<1.00	<1.00	<1.00	<1.00	13.67	85.64
	4/2/2020	<1.00	<1.00	<1.00	<1.00	13.94	85.37
MW10	10/25/2019	<1.00	<1.00	<1.00	<1.00	13.46	89.66
	11/14/2019	Depth to Water Measurement - Not Sampled				13.73	89.39
	1/10/2020	<4.00	<4.00	<4.00	<4.00	14.07	85.83
	4/2/2020	<1.00	<1.00	<1.00	<1.00	14.21	85.69
MW11	10/25/2019	<1.00	<1.00	<1.00	<1.00	14.22	86.04
	11/14/2019	Depth to Water Measurement - Not Sampled				14.43	85.83
	1/10/2020	<1.00	<1.00	<1.00	<1.00	14.80	86.05
	4/2/2020	<1.00	<1.00	<1.00	<1.00	14.88	85.97

Notes: COGCC - Colorado Oil and Gas Conservation Commission µg/L - micrograms per liter
ft bgs - feet below ground surface < - less than laboratory reporting limit
NA - not analyzed/not available Excavation groundwater depth is approximate
NM - not measured
Corrected Relative GW Elev. is used when LNAPL is present.
BOLD = Analytical result is in exceedance of COGCC Table 910-1 groundwater standards.





January 16, 2020

LT Environmental, Inc.

Brian Sulzberger

4600 West 60th Avenue

Arvada CO 80003

Project Name - KMG - Aristocrat 41-9 #1

Project Number - 014219041/WO #898833

Attached are your analytical results for KMG - Aristocrat 41-9 #1 received by Origins Laboratory, Inc. January 10, 2020. This project is associated with Origins project number Y001139-01.

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

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: 014219041/WO #89883348
Project: KMG - Aristocrat 41-9 #1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	Y001139-01	Water	January 10, 2020 12:58	01/10/2020 15:20
MW02	Y001139-02	Water	January 10, 2020 12:47	01/10/2020 15:20
MW03	Y001139-03	Water	January 10, 2020 13:17	01/10/2020 15:20
MW04	Y001139-04	Water	January 10, 2020 13:04	01/10/2020 15:20
MW05	Y001139-05	Water	January 10, 2020 13:07	01/10/2020 15:20
MW06	Y001139-06	Water	January 10, 2020 13:14	01/10/2020 15:20
MW07	Y001139-07	Water	January 10, 2020 13:25	01/10/2020 15:20
MW08	Y001139-08	Water	January 10, 2020 13:27	01/10/2020 15:20
MW09	Y001139-09	Water	January 10, 2020 13:37	01/10/2020 15:20
MW10	Y001139-10	Water	January 10, 2020 13:43	01/10/2020 15:20
MW11	Y001139-11	Water	January 10, 2020 13:38	01/10/2020 15:20

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

LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

1001139

41

1725 Elk Place, Denver, CO 80211
 Laboratory # - 303.433.1322

Client: LT Environmental, Inc. Project Manager: Brian Sulzberger
 Project: KMG - Aristocrat 41-9 #1 Project Number: 014219041/WO #89883348

Number	Sample Identification	Matrix	Sample Date	Sample Time	Sampled By	Container	Qty	Analyses
01-001	MW01	Water	11/10/2020	1258	HG	40mL Amber VOA Vial - HC	3	BTEX by EPA 8260D
02-001	MW02	Water		1247	RN	40mL Amber VOA Vial - HC	3	BTEX by EPA 8260D
03-001	MW03	Water		1317	HG	40mL Amber VOA Vial - HC	3	BTEX by EPA 8260D
04-001	MW04	Water		1304	RN	40mL Amber VOA Vial - HC	3	BTEX by EPA 8260D
05-001	MW05	Water		1307	HG	40mL Amber VOA Vial - HC	3	BTEX by EPA 8260D
06-001	MW06	Water		1314	RN	40mL Amber VOA Vial - HC	3	BTEX by EPA 8260D
07-001	MW07	Water		1325	RN	40mL Amber VOA Vial - HC	3	BTEX by EPA 8260D
08-001	MW08	Water		1327	HG	40mL Amber VOA Vial - HC	3	BTEX by EPA 8260D
09-001	MW09	Water		1337	RN	40mL Amber VOA Vial - HC	3	BTEX by EPA 8260D
10-001	MW10	Water		1343	RN	40mL Amber VOA Vial - HC	3	BTEX by EPA 8260D
11-001	MW11	Water		1350	HG	40mL Amber VOA Vial - HC	3	BTEX by EPA 8260D

Temperature on Receipt: 2.6
 Turn Around Time:
 Same Day: 72-hr
 24-hr Standard
 48-hr

Relinquished By: [Signature] Date / Time: 11/10/20 1520
 Received By: [Signature] Date / Time: 11/10/20 1520

Origins Laboratory, Inc.

Jen Pellegrini

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LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: Y001139

Client: LTE
 Client Project ID: Aristocrat 41-9 #1

Checklist Completed by: JG

Shipped Via: HD
 (UPS, FedEx, Hand Delivered, Pick-up, etc.)
 Airbill #: N/A

Date/time completed: 1/10/2020

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

Cooler Number/Temperature: 1 12.6 °C _____ °C _____ °C _____ °C

Thermometer ID: T003

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

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

Reviewed by (Project Manager) JG Date/Time Reviewed 1/13/20

Origins Laboratory, Inc.



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LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

MW01

1/10/2020 12:58:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y001139-01 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0A1301	KDK	01/13/2020	01/14/2020	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	101 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	101 %	70-130			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	95.9 %	70-130			"	"	"	"	

Origins Laboratory, Inc.



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LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

MW02

1/10/2020 12:47:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y001139-02 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0A1301	KDK	01/13/2020	01/14/2020	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	101 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	102 %	70-130			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	98.8 %	70-130			"	"	"	"	

Origins Laboratory, Inc.



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LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

MW03

1/10/2020 1:17:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y001139-03 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0A1301	KDK	01/13/2020	01/14/2020	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	2.25	1.00	"	"	"	KDK	"	"	
Xylenes, total	14.6	1.00	"	"	"	KDK	"	"	

Surrogate: 1,2-Dichloroethane-d4	99.7 %	70-130			"	"	"		
Surrogate: Toluene-d8	103 %	70-130			"	"	"		
Surrogate: 4-Bromofluorobenzene	100 %	70-130			"	"	"		

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

MW04

1/10/2020 1:04:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y001139-04 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0A1301	KDK	01/13/2020	01/14/2020	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	3.06	1.00	"	"	"	KDK	"	"	

Surrogate: 1,2-Dichloroethane-d4	101 %	70-130			"	"		"	
Surrogate: Toluene-d8	100 %	70-130			"	"		"	
Surrogate: 4-Bromofluorobenzene	99.7 %	70-130			"	"		"	

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

MW05

1/10/2020 1:07:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y001139-05 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0A1301	KDK	01/13/2020	01/14/2020	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	1.49	1.00	"	"	"	KDK	"	"	
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	102 %	70-130			"	"		"	
Surrogate: Toluene-d8	98.5 %	70-130			"	"		"	
Surrogate: 4-Bromofluorobenzene	101 %	70-130			"	"		"	

Origins Laboratory, Inc.



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LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

MW06

1/10/2020 1:14:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y001139-06 (Water)

BTEX by EPA 8260D

Benzene	1.98	1.00	ug/L	1	B0A1301	KDK	01/13/2020	01/14/2020	
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	2.39	1.00	"	"	"	KDK	"	"	

Surrogate: 1,2-Dichloroethane-d4	97.8 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	101 %	70-130			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	101 %	70-130			"	"	"	"	

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

MW07

1/10/2020 1:25:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y001139-07 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0A1301	KDK	01/13/2020	01/14/2020	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	101 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	98.6 %	70-130			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	99.4 %	70-130			"	"	"	"	

Origins Laboratory, Inc.



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LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

MW08

1/10/2020 1:27:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y001139-08 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0A1302	ZZZ	01/13/2020	01/13/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	95.5 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	104 %	70-130			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	95.9 %	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

LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

MW09

1/10/2020 1:37:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y001139-09 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0A1302	ZZZ	01/13/2020	01/13/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	98.5 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	99.7 %	70-130			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	95.9 %	70-130			"	"	"	"	

Origins Laboratory, Inc.



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LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

MW10
1/10/2020 1:43:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y001139-10 (Water)

BTEX by EPA 8260D

Benzene	ND	4.00	ug/L	4	B0A1302	ZZZ	01/13/2020	01/13/2020	U
Toluene	ND	4.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	4.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	4.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	102 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	101 %	70-130			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	94.3 %	70-130			"	"	"	"	

Origins Laboratory, Inc.



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LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

MW11

1/10/2020 1:38:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y001139-11 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0A1302	ZZZ	01/13/2020	01/13/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	100 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	98.8 %	70-130			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	97.1 %	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.

LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

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 B0A1301 - EPA 5030B (Water)

Blank (B0A1301-BLK1)

Prepared: 01/13/2020 Analyzed: 01/13/2020

Benzene	ND	1.00	ug/L							U
Toluene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	63		"	62.5		101	70-130			
Surrogate: Toluene-d8	61		"	62.5		97.7	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.0	70-130			

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

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 B0A1301 - EPA 5030B (Water)

LCS (B0A1301-BS1)

Prepared: 01/13/2020 Analyzed: 01/13/2020

Benzene	41.1	1.00	ug/L	50.0		82.2	70-130			
Toluene	43.3	1.00	"	50.0		86.5	70-130			
Ethylbenzene	41.1	1.00	"	50.0		82.2	70-130			
m,p-Xylene	84.0	2.00	"	100		84.0	70-130			
o-Xylene	42.7	1.00	"	50.0		85.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	61		"	62.5		97.2	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	70-130			

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

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 B0A1301 - EPA 5030B (Water)

Matrix Spike (B0A1301-MS1)	Source: Y001138-02			Prepared: 01/13/2020 Analyzed: 01/13/2020						
Benzene	43.4	1.00	ug/L	50.0	0.930	84.9	70-130			
Toluene	44.4	1.00	"	50.0	ND	88.8	70-130			
Ethylbenzene	43.1	1.00	"	50.0	0.160	85.8	70-130			
m,p-Xylene	88.1	2.00	"	100	1.23	86.8	70-130			
o-Xylene	44.0	1.00	"	50.0	ND	88.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	62		"	62.5		99.5	70-130			
Surrogate: Toluene-d8	63		"	62.5		100	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	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

LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

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 B0A1301 - EPA 5030B (Water)

Matrix Spike Dup (B0A1301-MSD1)	Source: Y001138-02			Prepared: 01/13/2020 Analyzed: 01/13/2020						
Benzene	44.0	1.00	ug/L	50.0	0.930	86.2	70-130	1.49	20	
Toluene	45.2	1.00	"	50.0	ND	90.3	70-130	1.70	20	
Ethylbenzene	43.5	1.00	"	50.0	0.160	86.7	70-130	1.04	20	
m,p-Xylene	88.9	2.00	"	100	1.23	87.7	70-130	0.949	20	
o-Xylene	44.2	1.00	"	50.0	ND	88.4	70-130	0.476	20	
Surrogate: 1,2-Dichloroethane-d4	62		"	62.5		99.5	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.2	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.4	70-130			

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

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 B0A1302 - EPA 5030B (Water)

Blank (B0A1302-BLK1)

Prepared: 01/13/2020 Analyzed: 01/13/2020

Benzene	ND	1.00	ug/L							U
Toluene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	61		"	62.5	97.9		70-130			
Surrogate: Toluene-d8	64		"	62.5	102		70-130			
Surrogate: 4-Bromofluorobenzene	59		"	62.5	93.6		70-130			

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

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 B0A1302 - EPA 5030B (Water)

LCS (B0A1302-BS1)

Prepared: 01/13/2020 Analyzed: 01/13/2020

Benzene	41.9	1.00	ug/L	50.0		83.9	70-130			
Toluene	46.0	1.00	"	50.0		92.0	70-130			
Ethylbenzene	46.6	1.00	"	50.0		93.1	70-130			
m,p-Xylene	101	2.00	"	100		101	70-130			
o-Xylene	44.8	1.00	"	50.0		89.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	63		"	62.5		101	70-130			
Surrogate: Toluene-d8	64		"	62.5		103	70-130			
Surrogate: 4-Bromofluorobenzene	59		"	62.5		95.1	70-130			

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

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 B0A1302 - EPA 5030B (Water)

Matrix Spike (B0A1302-MS1)	Source: Y001140-01			Prepared: 01/13/2020 Analyzed: 01/13/2020						
Benzene	58.9	1.00	ug/L	50.0	ND	118	70-130			
Toluene	62.5	1.00	"	50.0	ND	125	70-130			
Ethylbenzene	64.8	1.00	"	50.0	ND	130	70-130			
m,p-Xylene	140	2.00	"	100	ND	140	70-130			QM-07
o-Xylene	62.3	1.00	"	50.0	ND	125	70-130			
Surrogate: 1,2-Dichloroethane-d4	58		"	62.5		93.1	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		95.4	70-130			

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

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 B0A1302 - EPA 5030B (Water)

Matrix Spike Dup (B0A1302-MSD1)	Source: Y001140-01			Prepared: 01/13/2020 Analyzed: 01/13/2020						
Benzene	43.2	1.00	ug/L	50.0	ND	86.5	70-130	30.6	20	QR-03
Toluene	48.7	1.00	"	50.0	ND	97.4	70-130	24.8	20	QR-03
Ethylbenzene	47.2	1.00	"	50.0	ND	94.3	70-130	31.4	20	QR-03
m,p-Xylene	103	2.00	"	100	ND	103	70-130	30.7	20	QR-03
o-Xylene	45.4	1.00	"	50.0	ND	90.8	70-130	31.3	20	QR-03
Surrogate: 1,2-Dichloroethane-d4	63		"	62.5		101	70-130			
Surrogate: Toluene-d8	64		"	62.5		103	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	70-130			

Origins Laboratory, Inc.



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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: 014219041/WO #89883348
Project: KMG - Aristocrat 41-9 #1

Notes and Definitions

U Sample is Non-Detect.

QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.

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



April 09, 2020

LT Environmental, Inc.

Brian Sulzberger

4600 West 60th Avenue

Arvada

CO 80003

Project Name - KMG - Aristocrat 41-9 #1

Project Number - 014219041/WO #898833

Attached are your analytical results for KMG - Aristocrat 41-9 #1 received by Origins Laboratory, Inc. April 02, 2020. This project is associated with Origins project number Y004052-01.

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

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: 014219041/WO #89883348
Project: KMG - Aristocrat 41-9 #1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	Y004052-01	Water	April 2, 2020 13:19	04/02/2020 16:45
MW02	Y004052-02	Water	April 2, 2020 13:12	04/02/2020 16:45
MW03	Y004052-03	Water	April 2, 2020 13:06	04/02/2020 16:45
MW04	Y004052-04	Water	April 2, 2020 13:26	04/02/2020 16:45
MW05	Y004052-05	Water	April 2, 2020 13:40	04/02/2020 16:45
MW06	Y004052-06	Water	April 2, 2020 13:34	04/02/2020 16:45
MW07	Y004052-07	Water	April 2, 2020 13:52	04/02/2020 16:45
MW08	Y004052-08	Water	April 2, 2020 13:46	04/02/2020 16:45
MW09	Y004052-09	Water	April 2, 2020 14:11	04/02/2020 16:45
MW10	Y004052-10	Water	April 2, 2020 14:00	04/02/2020 16:45
MW11	Y004052-11	Water	April 2, 2020 14:16	04/02/2020 16:45

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

LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

ORIGINS
 LABORATORY, INC

yousoz

1 of 1

1725 Elk Place, Denver, CO 80211
 Laboratory # - 303.433.1322

Client: LT Environmental, Inc. Project Manager: Brian Sulzberger
 Project: KMG - Aristocrat 41-9 #1 Project Number: 014219041/WO #89883348

Number	Sample Identification	Matrix	Sample Date	Sample Time	Sampled By	Container	Qty	Analyses
01-001	MMW01	Water	4/2/20	13:19	<i>K.M</i>	40mL Amber VOA Vial - HC	3	BTEX by EPA 8260D
02-001	MMW02	Water		13:12		40mL Amber VOA Vial - HC	3	BTEX by EPA 8260D
03-001	MMW03	Water		13:06		40mL Amber VOA Vial - HC	3	BTEX by EPA 8260D
04-001	MMW04	Water		13:26		40mL Amber VOA Vial - HC	3	BTEX by EPA 8260D
05-001	MMW05	Water		13:40		40mL Amber VOA Vial - HC	3	BTEX by EPA 8260D
06-001	MMW06	Water		13:34		40mL Amber VOA Vial - HC	3	BTEX by EPA 8260D
07-001	MMW07	Water		13:52		40mL Amber VOA Vial - HC	3	BTEX by EPA 8260D
08-001	MMW08	Water		13:46		40mL Amber VOA Vial - HC	3	BTEX by EPA 8260D
09-001	MMW09	Water		14:11		40mL Amber VOA Vial - HC	3	BTEX by EPA 8260D
10-001	MMW10	Water		14:00		40mL Amber VOA Vial - HC	3	BTEX by EPA 8260D
11-001	MMW11	Water		14:16		40mL Amber VOA Vial - HC	3	BTEX by EPA 8260D

Relinquished By *[Signature]* Date / Time 4/2/20 16:49
 Relinquished By *[Signature]* Date / Time 4/2/20 16:45
 Received By *[Signature]* Date / Time 4/2/20 16:45
 Received By *[Signature]* Date / Time 4/2/20 16:45

Temperature on Receipt: 31
 Turn Around Time: 72-hr Standard
 24-hr 48 L.

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.

LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

Origins Laboratory

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

Origins Work Order: Y004052 **Sample Receipt Checklist**

Client: LTE
 Client Project ID: Aristocrat 41-9 #1

Checklist Completed by: JG
 Date/time completed: 4/3/2020
 Shipped Via: HD
 (UPS, FedEx, Hand Delivered, Pick-up, etc.)
 Airbill #: N/A

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

Cooler Number/Temperature: 1 / 3.1 °C _____ / _____ °C (Describe) _____ °C

Thermometer ID: T003

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

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

Reviewed by (Project Manager) JM Date/Time Reviewed 4-6-20

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.

LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

MW01

4/2/2020 1:19:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y004052-01 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0D0304	ZZZ	04/03/2020	04/04/2020	U
Toluene	ND	1.00	"	"	"	KDK	"	04/06/2020	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	96.5 %	70-130			"	"		04/04/2020	
Surrogate: Toluene-d8	97.6 %	70-130			"	"		"	
Surrogate: 4-Bromofluorobenzene	97.6 %	70-130			"	"		"	

Origins Laboratory, Inc.



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LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

MW02

4/2/2020 1:12:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.
 Y004052-02 (Water)**

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0D0304	ZZZ	04/03/2020	04/04/2020	U
Toluene	ND	1.00	"	"	"	KDK	"	04/06/2020	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	04/04/2020	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	04/06/2020	U

Surrogate: 1,2-Dichloroethane-d4	96.4 %	70-130			"	"		04/04/2020	
Surrogate: Toluene-d8	99.4 %	70-130			"	"		"	
Surrogate: 4-Bromofluorobenzene	97.1 %	70-130			"	"		"	

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

MW03

4/2/2020 1:06:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y004052-03 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0D0304	ZZZ	04/03/2020	04/04/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	26.9	1.00	"	"	"	ZZZ	"	"	
Xylenes, total	102	1.00	"	"	"	ZZZ	"	"	

Surrogate: 1,2-Dichloroethane-d4	95.2 %	70-130			"	"	"		
Surrogate: Toluene-d8	100 %	70-130			"	"	"		
Surrogate: 4-Bromofluorobenzene	98.4 %	70-130			"	"	"		

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

MW04

4/2/2020 1:26:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y004052-04 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0D0304	ZZZ	04/03/2020	04/04/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	95.4 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	96.6 %	70-130			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	99.3 %	70-130			"	"	"	"	

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

MW05

4/2/2020 1:40:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y004052-05 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0D0304	KDK	04/03/2020	04/04/2020	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130			"	"		"	
Surrogate: Toluene-d8	104 %	70-130			"	"		"	
Surrogate: 4-Bromofluorobenzene	118 %	70-130			"	"		"	

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

MW06

4/2/2020 1:34:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y004052-06 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0D0304	KDK	04/03/2020	04/04/2020	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U
Surrogate: 1,2-Dichloroethane-d4	102 %	70-130			"	"		"	
Surrogate: Toluene-d8	102 %	70-130			"	"		"	
Surrogate: 4-Bromofluorobenzene	117 %	70-130			"	"		"	

Origins Laboratory, Inc.



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LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

MW07

4/2/2020 1:52:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y004052-07 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0D0304	KDK	04/03/2020	04/04/2020	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U
Surrogate: 1,2-Dichloroethane-d4	101 %	70-130			"	"		"	
Surrogate: Toluene-d8	105 %	70-130			"	"		"	
Surrogate: 4-Bromofluorobenzene	118 %	70-130			"	"		"	

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

MW08

4/2/2020 1:46:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y004052-08 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0D0304	KDK	04/03/2020	04/04/2020	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U
Surrogate: 1,2-Dichloroethane-d4	102 %	70-130			"	"		"	
Surrogate: Toluene-d8	105 %	70-130			"	"		"	
Surrogate: 4-Bromofluorobenzene	118 %	70-130			"	"		"	

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

MW09

4/2/2020 2:11:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y004052-09 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0D0304	KDK	04/03/2020	04/06/2020	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U
<i>Surrogate: 1,2-Dichloroethane-d4</i>	102 %	70-130			"	"	"	"	
<i>Surrogate: Toluene-d8</i>	103 %	70-130			"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	116 %	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

LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

MW10

4/2/2020 2:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y004052-10 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0D0304	KDK	04/03/2020	04/06/2020	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U
Surrogate: 1,2-Dichloroethane-d4	102 %	70-130			"	"		"	
Surrogate: Toluene-d8	103 %	70-130			"	"		"	
Surrogate: 4-Bromofluorobenzene	116 %	70-130			"	"		"	

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

MW11

4/2/2020 2:16:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y004052-11 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0D0304	KDK	04/03/2020	04/06/2020	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	103 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	104 %	70-130			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	119 %	70-130			"	"	"	"	

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

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 B0D0304 - EPA 5030B (Water)

Blank (B0D0304-BLK1)

Prepared: 04/03/2020 Analyzed: 04/03/2020

Benzene	ND	1.00	ug/L							U
Toluene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	62		"	62.5		98.6	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.0	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.6	70-130			

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

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 B0D0304 - EPA 5030B (Water)

LCS (B0D0304-BS1)

Prepared: 04/03/2020 Analyzed: 04/03/2020

Benzene	49.4	1.00	ug/L	50.0		98.9	70-130			
Toluene	46.3	1.00	"	50.0		92.6	70-130			
Ethylbenzene	48.2	1.00	"	50.0		96.3	70-130			
m,p-Xylene	95.0	2.00	"	100		95.0	70-130			
o-Xylene	47.9	1.00	"	50.0		95.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	57		"	62.5		91.3	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.2	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.7	70-130			

Origins Laboratory, Inc.



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LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

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 B0D0304 - EPA 5030B (Water)

Matrix Spike (B0D0304-MS1)	Source: Y004044-01			Prepared: 04/03/2020 Analyzed: 04/04/2020						
Benzene	48.5	1.00	ug/L	50.0	ND	97.1	70-130			
Toluene	46.8	1.00	"	50.0	ND	93.6	70-130			
Ethylbenzene	49.1	1.00	"	50.0	0.280	97.6	70-130			
m,p-Xylene	95.5	2.00	"	100	0.520	95.0	70-130			
o-Xylene	48.0	1.00	"	50.0	0.240	95.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	56		"	62.5		89.8	70-130			
Surrogate: Toluene-d8	62		"	62.5		100	70-130			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		96.8	70-130			

Origins Laboratory, Inc.



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LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

Brian Sulzberger
 Project Number: 014219041/WO #89883348
 Project: KMG - Aristocrat 41-9 #1

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 B0D0304 - EPA 5030B (Water)

Matrix Spike Dup (B0D0304-MSD1)	Source: Y004044-01			Prepared: 04/03/2020 Analyzed: 04/04/2020						
Benzene	50.7	1.00	ug/L	50.0	ND	101	70-130	4.37	20	
Toluene	47.8	1.00	"	50.0	ND	95.5	70-130	2.03	20	
Ethylbenzene	50.8	1.00	"	50.0	0.280	101	70-130	3.40	20	
m,p-Xylene	99.8	2.00	"	100	0.520	99.3	70-130	4.41	20	
o-Xylene	49.8	1.00	"	50.0	0.240	99.1	70-130	3.70	20	
Surrogate: 1,2-Dichloroethane-d4	56		"	62.5		90.2	70-130			
Surrogate: Toluene-d8	61		"	62.5		97.0	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.4	70-130			

Origins Laboratory, Inc.



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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: 014219041/WO #89883348
Project: KMG - Aristocrat 41-9 #1

Notes and Definitions

U Sample is Non-Detect.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager