

July 06, 2018

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver CO 80211

Project Name - KMG - CPC 42-10

Project Number - [none]

Attached are your analytical results for KMG - CPC 42-10 received by Origins Laboratory, Inc. June 29, 2018. This project is associated with Origins project number Y807011-01.

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



Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01 - 6/29/18	Y807011-01	Water	June 29, 2018 10:20	06/29/2018 16:15
BH02 - 6/29/18	Y807011-02	Water	June 29, 2018 10:15	06/29/2018 16:15
BH03 - 6/29/18	Y807011-03	Water	June 29, 2018 10:35	06/29/2018 16:15
BH04 - 6/29/18	Y807011-04	Water	June 29, 2018 10:40	06/29/2018 16:15
BH05 - 6/29/18	Y807011-05	Water	June 29, 2018 10:13	06/29/2018 16:15

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - CPC 42-10

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: Y807011

Client: Tasman
 Client Project ID: KMG-CPC-42-10

Checklist Completed by: JG
 Date/time completed: 7/2/2018

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

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

Cooler Number/Temperature: 1 2.4 °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.

JG
 Reviewed by (Project Manager)

7/2/18
 Date/Time Reviewed

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - CPC 42-10

BH01 - 6/29/18
6/29/2018 10:20:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y807011-01 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8G0305	07/03/2018	07/03/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4	96.6 %	84-121			"	"	"	
Surrogate: Toluene-d8	97.6 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.4 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - CPC 42-10

BH02 - 6/29/18
6/29/2018 10:15:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y807011-02 (Water)

BTEX by EPA 8260C

Benzene	135	1.00	ug/L	1	B8G0305	07/03/2018	07/03/2018	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	97.4 %	84-121			"	"	"	
Surrogate: Toluene-d8	96.3 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	105 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - CPC 42-10

BH03 - 6/29/18
6/29/2018 10:35:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y807011-03 (Water)

BTEX by EPA 8260C

Benzene	ND	4.00	ug/L	4	B8G0305	07/03/2018	07/03/2018	U
Toluene	ND	4.00	"	"	"	"	"	U
Ethylbenzene	ND	4.00	"	"	"	"	"	U
Xylenes, total	ND	4.00	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4	92.6 %	84-121			"	"	"	
Surrogate: Toluene-d8	98.8 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	97.1 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - CPC 42-10

BH04 - 6/29/18
6/29/2018 10:40:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y807011-04 (Water)

BTEX by EPA 8260C

Benzene	56.9	1.00	ug/L	1	B8G0305	07/03/2018	07/03/2018	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	97.9 %	84-121			"	"	"	
Surrogate: Toluene-d8	97.7 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	96.6 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - CPC 42-10

BH05 - 6/29/18
6/29/2018 10:13:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y807011-05 (Water)

BTEX by EPA 8260C

Benzene	12.9	1.00	ug/L	1	B8G0305	07/03/2018	07/03/2018	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	98.8 %	84-121			"	"	"	
Surrogate: Toluene-d8	98.3 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.8 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - CPC 42-10

Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8G0305 - EPA 5030B (Water)

Blank (B8G0305-BLK1)

Prepared: 07/03/2018 Analyzed: 07/03/2018

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	59		"	62.5	94.0		84-121			
Surrogate: Toluene-d8	62		"	62.5	98.8		85-115			
Surrogate: 4-Bromofluorobenzene	60		"	62.5	96.2		84-114			

Origins Laboratory, Inc.



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 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - CPC 42-10

Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8G0305 - EPA 5030B (Water)

Blank (B8G0305-BLK2)

Prepared: 07/03/2018 Analyzed: 07/04/2018

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		98.7	84-121			
Surrogate: Toluene-d8	63		"	62.5		100	85-115			
Surrogate: 4-Bromofluorobenzene	59		"	62.5		94.0	84-114			

Origins Laboratory, Inc.



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Tasman Geosciences
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 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - CPC 42-10

Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8G0305 - EPA 5030B (Water)

LCS (B8G0305-BS1)

Prepared: 07/03/2018 Analyzed: 07/03/2018

Benzene	45.8	1.00	ug/L	50.0		91.6	73.3-129			
Toluene	41.6	1.00	"	50.0		83.1	76.2-123			
Ethylbenzene	43.2	1.00	"	50.0		86.5	73.6-130			
m,p-Xylene	85.4	2.00	"	100		85.4	76.1-126			
o-Xylene	45.4	1.00	"	50.0		90.7	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	57		"	62.5		91.4	84-121			
Surrogate: Toluene-d8	61		"	62.5		97.7	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	84-114			

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - CPC 42-10

Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8G0305 - EPA 5030B (Water)

LCS (B8G0305-BS2)

Prepared: 07/03/2018 Analyzed: 07/04/2018

Benzene	44.3	1.00	ug/L	50.0		88.6	73.3-129			
Toluene	45.5	1.00	"	50.0		90.9	76.2-123			
Ethylbenzene	45.8	1.00	"	50.0		91.7	73.6-130			
m,p-Xylene	94.3	2.00	"	100		94.3	76.1-126			
o-Xylene	46.1	1.00	"	50.0		92.2	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	61		"	62.5		98.2	84-121			
Surrogate: Toluene-d8	64		"	62.5		102	85-115			
Surrogate: 4-Bromofluorobenzene	59		"	62.5		95.1	84-114			

Origins Laboratory, Inc.



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 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - CPC 42-10

Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8G0305 - EPA 5030B (Water)

Matrix Spike (B8G0305-MS1)	Source: Y807012-01			Prepared: 07/03/2018 Analyzed: 07/03/2018						
Benzene	57.3	1.00	ug/L	50.0	ND	115	74-130			
Toluene	55.0	1.00	"	50.0	ND	110	73-131			
Ethylbenzene	56.7	1.00	"	50.0	ND	113	76-132			
m,p-Xylene	109	2.00	"	100	ND	109	69-139			
o-Xylene	57.0	1.00	"	50.0	ND	114	74-131			
Surrogate: 1,2-Dichloroethane-d4	61		"	62.5		97.7	84-121			
Surrogate: Toluene-d8	61		"	62.5		97.9	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		100	84-114			

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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - CPC 42-10

Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8G0305 - EPA 5030B (Water)

Matrix Spike (B8G0305-MS2)	Source: Y807012-02			Prepared: 07/03/2018 Analyzed: 07/03/2018						
Benzene	58.9	1.00	ug/L	50.0	ND	118	74-130			
Toluene	58.4	1.00	"	50.0	ND	117	73-131			
Ethylbenzene	62.1	1.00	"	50.0	ND	124	76-132			
m,p-Xylene	121	2.00	"	100	ND	121	69-139			
o-Xylene	63.2	1.00	"	50.0	ND	126	74-131			
Surrogate: 1,2-Dichloroethane-d4	60		"	62.5		96.3	84-121			
Surrogate: Toluene-d8	61		"	62.5		97.8	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	84-114			

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 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - CPC 42-10

Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8G0305 - EPA 5030B (Water)

Matrix Spike Dup (B8G0305-MSD1)	Source: Y807012-01			Prepared: 07/03/2018 Analyzed: 07/03/2018						
Benzene	60.0	1.00	ug/L	50.0	ND	120	74-130	4.72	20	
Toluene	57.7	1.00	"	50.0	ND	115	73-131	4.70	20	
Ethylbenzene	61.0	1.00	"	50.0	ND	122	76-132	7.39	20	
m,p-Xylene	118	2.00	"	100	ND	118	69-139	7.89	20	
o-Xylene	61.7	1.00	"	50.0	ND	123	74-131	7.91	20	
Surrogate: 1,2-Dichloroethane-d4	61		"	62.5		98.0	84-121			
Surrogate: Toluene-d8	61		"	62.5		97.2	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	84-114			

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - CPC 42-10

Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8G0305 - EPA 5030B (Water)

Matrix Spike Dup (B8G0305-MSD2)	Source: Y807012-02			Prepared: 07/03/2018 Analyzed: 07/03/2018						
Benzene	60.0	1.00	ug/L	50.0	ND	120	74-130	1.75	20	
Toluene	59.3	1.00	"	50.0	ND	119	73-131	1.56	20	
Ethylbenzene	63.7	1.00	"	50.0	ND	127	76-132	2.62	20	
m,p-Xylene	123	2.00	"	100	ND	123	69-139	2.35	20	
o-Xylene	64.9	1.00	"	50.0	ND	130	74-131	2.55	20	
Surrogate: 1,2-Dichloroethane-d4	59		"	62.5		93.6	84-121			
Surrogate: Toluene-d8	62		"	62.5		98.5	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	84-114			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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.



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 For Noelle Doyle Mathis, President

September 04, 2018

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver CO 80211

Project Name - KMG - CPC 42-10

Project Number - [none]

Attached are your analytical results for KMG - CPC 42-10 received by Origins Laboratory, Inc. August 27, 2018. This project is associated with Origins project number Y808399-01.

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.

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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



Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01 - 082718	Y808399-01	Water	August 27, 2018 13:32	08/27/2018 17:38
BH02 - 082718	Y808399-02	Water	August 27, 2018 14:30	08/27/2018 17:38
BH03 - 082718	Y808399-03	Water	August 27, 2018 14:00	08/27/2018 17:38
BH04 - 082718	Y808399-04	Water	August 27, 2018 14:24	08/27/2018 17:38
BH05 - 082718	Y808399-05	Water	August 27, 2018 14:12	08/27/2018 17:38
BH06 - 082718	Y808399-06	Water	August 27, 2018 13:15	08/27/2018 17:38
BH07 - 082718	Y808399-07	Water	August 27, 2018 12:54	08/27/2018 17:38
BH08 - 082718	Y808399-08	Water	August 27, 2018 13:11	08/27/2018 17:38
BH09 - 082718	Y808399-09	Water	August 27, 2018 12:55	08/27/2018 17:38
BH10 - 082718	Y808399-10	Water	August 27, 2018 13:35	08/27/2018 17:38
BH11 - 082718	Y808399-11	Water	August 27, 2018 13:53	08/27/2018 17:38

Origins Laboratory, Inc.



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 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - CPC 42-10

www.originslaboratory.com
 page 1 of 2

1808399

ORIGINS
 LABORATORY, INC

Client: ARC/Tasman Project Manager/Send Report to: Bob Cornez
 Address: 6899 N. Pecos Email Address: BCornez@tasmangeo.com
Denver, CO 80221 Project Name/Number: CPC 42-10 / 83366424
 Telephone Number: 815-979-8348 Samples Collected By: Alison Dahl

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

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis/Method	Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa #		
BH01 - 082718	8-27-2018	1352	3	X	X	X		X			BTEX	1
BH02 - 082718		1430	1	X	X	X						2
BH03 - 082718		1400		X	X	X						3
BH04 - 082718		1424		X	X	X						4
BH05 - 082718		1412		X	X	X						5
BH06 - 082718		1315		X	X	X						6
BH07 - 082718		1254		X	X	X						7
BH08 - 082718		1311		X	X	X						8
BH09 - 082718		1255		X	X	X						9
BH10 - 082718		1335		X	X	X						10
Relinquished By: <u>Alison Dahl</u>	Date: <u>8/27/2018</u>	Time:	Time:	Received By: <u>[Signature]</u>				Date: <u>8/27/18</u>	Time: <u>17:38</u>	Turnaround Time: Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/> Standard <input checked="" type="checkbox"/>		
Relinquished By:	Date:	Time:	Time:	Received By:				Date:	Time:			

Comments: . . . Date Results Needed:

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.

Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - CPC 42-10

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: VR08399 Client: Tasman
 Client Project ID: KMG-CPC 42-10
 Checklist Completed by: JG Shipped Via: HD
 Date/time completed: 8/28/18 (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 / 4.6 °C _____ / _____ °C _____ / _____ °C _____ / _____ °C (Describe)
 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 8/29/18

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - CPC 42-10

BH01 - 082718
8/27/2018 1:32:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y808399-01 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8H3005	JTD	08/30/2018	08/30/2018	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	102 %	84-121			"	"	"	"	
Surrogate: Toluene-d8	99.7 %	85-115			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	106 %	84-114			"	"	"	"	

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.

Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - CPC 42-10

BH02 - 082718
8/27/2018 2:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y808399-02 (Water)

BTEX by EPA 8260C

Benzene	176	4.00	ug/L	4	B8H3005	KDK	08/30/2018	08/31/2018	
Toluene	ND	1.00	"	1	"	JTD	"	08/30/2018	U
Ethylbenzene	1.37	1.00	"	"	"	JTD	"	"	
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	102 %	84-121			"	"	"	"	
Surrogate: Toluene-d8	103 %	85-115			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	106 %	84-114			"	"	"	"	

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.

Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - CPC 42-10

BH03 - 082718
8/27/2018 2:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y808399-03 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8H3005	JTD	08/30/2018	08/30/2018	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	103 %	84-121			"	"	"	"	
Surrogate: Toluene-d8	99.6 %	85-115			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	108 %	84-114			"	"	"	"	

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.

Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - CPC 42-10

BH04 - 082718
8/27/2018 2:24:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y808399-04 (Water)

BTEX by EPA 8260C

Benzene	83.0	1.00	ug/L	1	B8H3005	JTD	08/30/2018	08/30/2018	
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	101 %	84-121			"	"	"	"	
Surrogate: Toluene-d8	98.7 %	85-115			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	107 %	84-114			"	"	"	"	

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.

Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - CPC 42-10

BH05 - 082718
8/27/2018 2:12:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y808399-05 (Water)

BTEX by EPA 8260C

Benzene	5.65	1.00	ug/L	1	B8H3005	JTD	08/30/2018	08/30/2018	
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	104 %	84-121			"	"	"	"	
Surrogate: Toluene-d8	100 %	85-115			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	106 %	84-114			"	"	"	"	

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.

Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - CPC 42-10

BH06 - 082718
8/27/2018 1:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y808399-06 (Water)

BTEX by EPA 8260C

Benzene	14.4	1.00	ug/L	1	B8H3005	JTD	08/30/2018	08/30/2018	
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	101 %	84-121			"	"	"	"	
Surrogate: Toluene-d8	99.2 %	85-115			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	104 %	84-114			"	"	"	"	

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.

Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - CPC 42-10

BH07 - 082718

8/27/2018 12:54:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y808399-07 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8H3005	JTD	08/30/2018	08/30/2018	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	102 %	84-121			"	"	"	"	
Surrogate: Toluene-d8	99.6 %	85-115			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	105 %	84-114			"	"	"	"	

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.

Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - CPC 42-10

BH08 - 082718
8/27/2018 1:11:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y808399-08 (Water)

BTEX by EPA 8260C

Benzene	1.79	1.00	ug/L	1	B8H3005	JTD	08/30/2018	08/30/2018	
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U
Surrogate: 1,2-Dichloroethane-d4	102 %			84-121		"	"	"	
Surrogate: Toluene-d8	98.9 %			85-115		"	"	"	
Surrogate: 4-Bromofluorobenzene	106 %			84-114		"	"	"	

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.

Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - CPC 42-10

BH09 - 082718

8/27/2018 12:55:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y808399-09 (Water)

BTEX by EPA 8260C

Benzene	5.18	1.00	ug/L	1	B8H3005	JTD	08/30/2018	08/30/2018	
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	102 %	84-121			"	"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	107 %	84-114			"	"	"	"	

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.

Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - CPC 42-10

BH10 - 082718
8/27/2018 1:35:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y808399-10 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8H3005	JTD	08/30/2018	08/30/2018	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	104 %	84-121			"	"	"	"	
Surrogate: Toluene-d8	100 %	85-115			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	106 %	84-114			"	"	"	"	

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.

Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - CPC 42-10

BH11 - 082718
8/27/2018 1:53:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y808399-11 (Water)

BTEX by EPA 8260C

Benzene	23.3	1.00	ug/L	1	B8H3005	JTD	08/30/2018	08/30/2018	
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	103 %	84-121			"	"	"	"	
Surrogate: Toluene-d8	98.6 %	85-115			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	106 %	84-114			"	"	"	"	

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.

Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - CPC 42-10

Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8H3005 - EPA 5030B (Water)

Blank (B8H3005-BLK1)

Prepared: 08/30/2018 Analyzed: 08/30/2018

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	60		"	62.5	95.4		84-121			
Surrogate: Toluene-d8	62		"	62.5	99.4		85-115			
Surrogate: 4-Bromofluorobenzene	66		"	62.5	105		84-114			

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.

Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - CPC 42-10

Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8H3005 - EPA 5030B (Water)

LCS (B8H3005-BS1)

Prepared: 08/30/2018 Analyzed: 08/30/2018

Benzene	43.6	1.00	ug/L	50.0		87.1	73.3-129			
Toluene	43.2	1.00	"	50.0		86.5	76.2-123			
Ethylbenzene	43.7	1.00	"	50.0		87.3	73.6-130			
m,p-Xylene	86.6	2.00	"	100		86.6	76.1-126			
o-Xylene	44.6	1.00	"	50.0		89.3	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	64		"	62.5		102	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.0	85-115			
Surrogate: 4-Bromofluorobenzene	68		"	62.5		108	84-114			

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.

Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - CPC 42-10

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

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

Batch B8H3005 - EPA 5030B (Water)

Matrix Spike (B8H3005-MS1)	Source: Y808400-01			Prepared: 08/30/2018 Analyzed: 08/30/2018						
Benzene	48.4	1.00	ug/L	50.0	ND	96.8	74-130			
Toluene	50.2	1.00	"	50.0	ND	100	73-131			
Ethylbenzene	51.2	1.00	"	50.0	0.090	102	76-132			
m,p-Xylene	101	2.00	"	100	ND	101	69-139			
o-Xylene	51.3	1.00	"	50.0	ND	103	74-131			
Surrogate: 1,2-Dichloroethane-d4	63		"	62.5		101	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.7	85-115			
Surrogate: 4-Bromofluorobenzene	69		"	62.5		110	84-114			

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.

Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - CPC 42-10

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

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

Batch B8H3005 - EPA 5030B (Water)

Matrix Spike Dup (B8H3005-MSD1)	Source: Y808400-01			Prepared: 08/30/2018 Analyzed: 08/30/2018						
Benzene	53.2	1.00	ug/L	50.0	ND	106	74-130	9.55	20	
Toluene	55.0	1.00	"	50.0	ND	110	73-131	9.10	20	
Ethylbenzene	56.1	1.00	"	50.0	0.090	112	76-132	9.04	20	
m,p-Xylene	112	2.00	"	100	ND	112	69-139	10.2	20	
o-Xylene	55.8	1.00	"	50.0	ND	112	74-131	8.46	20	
Surrogate: 1,2-Dichloroethane-d4	63		"	62.5		100	84-121			
Surrogate: Toluene-d8	63		"	62.5		100	85-115			
Surrogate: 4-Bromofluorobenzene	67		"	62.5		108	84-114			

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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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.



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.

October 05, 2018

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver CO 80211

Project Name - KMG - CPC 42-10

Project Number - 89366424

Attached are your analytical results for KMG - CPC 42-10 received by Origins Laboratory, Inc. October 02, 2018. This project is associated with Origins project number Y810046-01.

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



Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89366424
Project: KMG - CPC 42-10

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH12 - 100218	Y810046-01	Water	October 2, 2018 10:10	10/02/2018 17:00
BH13 - 100218	Y810046-02	Water	October 2, 2018 10:20	10/02/2018 17:00
BH14 - 100218	Y810046-03	Water	October 2, 2018 10:35	10/02/2018 17:00
BH15 - 100218	Y810046-04	Water	October 2, 2018 10:45	10/02/2018 17:00
BH16 - 100218	Y810046-05	Water	October 2, 2018 10:55	10/02/2018 17:00
BH17 - 100218	Y810046-06	Water	October 2, 2018 11:11	10/02/2018 17:00

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 For Noelle Doyle Mathis, President

Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 89366424
 Project: KMG - CPC 42-10

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 1810046 Client: Tasman
 Client Project ID: KMG - CPC 42-10
 Checklist Completed by: JG Shipped Via: HD
 (UPS, FedEx, Hand Delivered, Pick-up, etc.)
 Date/time completed: 10/3/2018 Airbill #: N/A
 Matrix(s) Received: (Check all that apply): Soil/Solid Water Other:
 Cooler Number/Temperature: 1 / 5.8 °C / °C / °C (Describe)
 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"/>	<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 ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<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 checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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) [Signature] Date/Time Reviewed 10/4/18

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.

Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 89366424
 Project: KMG - CPC 42-10

BH12 - 100218

10/2/2018 10:10:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y810046-01 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8J0308	KDK	10/03/2018	10/04/2018	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	104 %	84-121			"	"	"	"	
Surrogate: Toluene-d8	105 %	85-115			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	90.4 %	84-114			"	"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 89366424
 Project: KMG - CPC 42-10

BH13 - 100218

10/2/2018 10:20:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y810046-02 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8J0308	JTD	10/03/2018	10/04/2018	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	103 %	84-121			"	"	"	"	
Surrogate: Toluene-d8	100 %	85-115			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	88.8 %	84-114			"	"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 89366424
 Project: KMG - CPC 42-10

BH14 - 100218

10/2/2018 10:35:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y810046-03 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8J0308	JTD	10/03/2018	10/04/2018	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	103 %	84-121			"	"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	91.0 %	84-114			"	"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 89366424
 Project: KMG - CPC 42-10

BH15 - 100218

10/2/2018 10:45:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y810046-04 (Water)

BTEX by EPA 8260C

Benzene	ND	4.00	ug/L	4	B8J0308	JTD	10/03/2018	10/04/2018	U
Toluene	ND	4.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	4.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	4.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	96.8 %	84-121			"	"	"	"	
Surrogate: Toluene-d8	108 %	85-115			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	86.9 %	84-114			"	"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 89366424
 Project: KMG - CPC 42-10

BH16 - 100218
10/2/2018 10:55:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y810046-05 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8J0308	JTD	10/03/2018	10/04/2018	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	100 %	84-121			"	"	"	"	
Surrogate: Toluene-d8	106 %	85-115			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	87.9 %	84-114			"	"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 89366424
 Project: KMG - CPC 42-10

BH17 - 100218

10/2/2018 11:11:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y810046-06 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8J0308	JTD	10/03/2018	10/04/2018	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	101 %	84-121			"	"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	90.9 %	84-114			"	"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 89366424
 Project: KMG - CPC 42-10

Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8J0308 - EPA 5030B (Water)

Blank (B8J0308-BLK1)

Prepared: 10/03/2018 Analyzed: 10/03/2018

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	59		"	62.5	94.9		84-121			
Surrogate: Toluene-d8	65		"	62.5	104		85-115			
Surrogate: 4-Bromofluorobenzene	56		"	62.5	89.0		84-114			

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 89366424
 Project: KMG - CPC 42-10

Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8J0308 - EPA 5030B (Water)

LCS (B8J0308-BS1)

Prepared: 10/03/2018 Analyzed: 10/03/2018

Benzene	51.1	1.00	ug/L	50.0		102	73.3-129			
Toluene	51.1	1.00	"	50.0		102	76.2-123			
Ethylbenzene	55.4	1.00	"	50.0		111	73.6-130			
m,p-Xylene	109	2.00	"	100		109	76.1-126			
o-Xylene	51.1	1.00	"	50.0		102	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	62		"	62.5		99.4	84-121			
Surrogate: Toluene-d8	63		"	62.5		101	85-115			
Surrogate: 4-Bromofluorobenzene	59		"	62.5		94.0	84-114			

Origins Laboratory, Inc.



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 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 89366424
 Project: KMG - CPC 42-10

Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8J0308 - EPA 5030B (Water)

Matrix Spike (B8J0308-MS1)	Source: Y810032-04			Prepared: 10/03/2018 Analyzed: 10/04/2018						
Benzene	49.8	1.00	ug/L	50.0	ND	99.6	74-130			
Toluene	55.1	1.00	"	50.0	ND	110	73-131			
Ethylbenzene	57.9	1.00	"	50.0	1.32	113	76-132			
m,p-Xylene	137	2.00	"	100	33.2	104	69-139			
o-Xylene	53.4	1.00	"	50.0	ND	107	74-131			
Surrogate: 1,2-Dichloroethane-d4	62		"	62.5		98.7	84-121			
Surrogate: Toluene-d8	66		"	62.5		105	85-115			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		96.2	84-114			

Origins Laboratory, Inc.



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 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 89366424
 Project: KMG - CPC 42-10

Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8J0308 - EPA 5030B (Water)

Matrix Spike Dup (B8J0308-MSD1)	Source: Y810032-04			Prepared: 10/03/2018 Analyzed: 10/04/2018						
Benzene	50.2	1.00	ug/L	50.0	ND	100	74-130	0.760	20	
Toluene	46.6	1.00	"	50.0	ND	93.2	73-131	16.7	20	
Ethylbenzene	55.2	1.00	"	50.0	1.32	108	76-132	4.67	20	
m,p-Xylene	132	2.00	"	100	33.2	99.2	69-139	3.32	20	
o-Xylene	52.9	1.00	"	50.0	ND	106	74-131	1.03	20	
Surrogate: 1,2-Dichloroethane-d4	63		"	62.5		101	84-121			
Surrogate: Toluene-d8	60		"	62.5		95.9	85-115			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		102	84-114			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89366424
Project: KMG - CPC 42-10

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 For Noelle Doyle Mathis, President