



Absaroka  
Max Dahlgren  
112 High St.

November 20, 2024

Buffalo WY 82834

**Project Name - KMG - Mulga 29C Small Eyed 14C HZ OSA**    **Project Number - [none]**

Attached are your analytical results for KMG - Mulga 29C Small Eyed 14C HZ OSA received by Origins Laboratory November 06, 2024. This project is associated with Origins project number E4K0139-01.

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  
303.433.1322  
projectmanager@originslab.com



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

Absaroka  
112 High St.  
Buffalo

WY 82834

Max Dahlgren  
Project Number: [none]  
Project: KMG - Mulga 29C Small Eyed 14C HZ  
OSA

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
REL-N01@3'	E4K0139-01	Soil	November 6, 2024 10:05	11/06/2024 15:13
REL-E01@3'	E4K0139-02	Soil	November 6, 2024 10:10	11/06/2024 15:13
REL-S01@3'	E4K0139-03	Soil	November 6, 2024 10:15	11/06/2024 15:13
REL-W01@3'	E4K0139-04	Soil	November 6, 2024 10:20	11/06/2024 15:13
REL-B01@6'	E4K0139-05	Soil	November 6, 2024 10:00	11/06/2024 15:13

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ORIGINS

64K0139

Page 1 of 1

Client: OXY / Absaroka  
Address: \_\_\_\_\_  
Project Manager: Max Dahlgren  
Project Name: Mulga 29C Small Eyed 14C HZ OSA Facility  
Key: \_\_\_\_\_  
Telephone Number: 970-481-6909  
Project Number: \_\_\_\_\_  
Collected By: JC / CH  
W=Groundwater  
SW=Surface Water  
Email Address: oxy.com@absarokasolutions.com  
Invoice Billing Info: On File - Dry  
WV=Waste Water

5-501 | 10-5010 | 0-0-0 | Aaly / Gdms | UNP (Hepes) | HCS-Hydrocort | HVC-Hydrocort | HVC-Hydrocort | HVC-Hydrocort | HVC-Hydrocort

Sample ID	Date Sampled	Time Sampled	# of Containers	Matrix	Preservative	Analysis											Comments
						STEX, TPH	TMBS	1-M, 2-M	B(a)P, Naph	Chrysene	Pyrene	Fluorene	As, Ba, Cd	Cu, Pb, Ni	EC, SAR	Boron, Cr VI	
REL-W01@3'	11/6/2024	1005	3	S	UNP	X	X	X	X	X	X	X	X	X	X	X	Baron, SAR 2'
REL-F01@3'	11/6/2024	1000	3	S	UNP	X	X	X	X	X	X	X	X	X	X	X	EC added to all
REL-S01@3'	11/6/2024	1015	3	S	UNP	X	X	X	X	X	X	X	X	X	X	X	Scopus per
REL-W01@3'	11/6/2024	1020	3	S	UNP	X	X	X	X	X	X	X	X	X	X	X	Weldon's email
REL-B01@3'	11/6/2024	1000	3	S	UNP	X	X	X	X	X	X	X	X	X	X	X	11/7 AG

Temp Received- ☒ Received On Ice? ☒ Yes ☐ No  
☐ Standard

Relinquished By: *[Signature]* Date: 11/6/24 Time: 12:30  
Received By: *[Signature]* Date: 11/6/24 Time: 1:53  
Turnaround Time: ☒ SAME DAY ☐ 24 DAY ☐ 48 Hr ☐ 72

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*[Signature]*

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# ORIGINS

## LABORATORY

Absaroka  
112 High St.  
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Project Number: [none]  
Project: KMG - Mulga 29C Small Eyed 14C HZ  
OSA

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### Sample Receipt Checklist

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

Origins Work Order: E450139

Client: Absaroka

Client Project ID: Mulga

Checklist Completed by: THPWS

Shipped Via: HD

Date/time completed: 11/16/12

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

Airbill #: N/A

Matrix(s) Received: (Check all that apply): ✓ Soil/Solid

Water

Other:

Cooler Number/Temperature: 1150 °C / °C / °C (Describe)

Thermometer ID: 7007

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

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

Reviewed by (Project Manager): THP

11/16/12  
Date/Time Reviewed

Origins Laboratory

*J. Bynon*

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112 High St.

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Max Dahlgren

Project Number: [none]

Project: KMG - Mulga 29C Small Eyed 14C HZ  
OSA

REL-N01@3'

11/6/2024 10:05:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory

### E4K0139-01 (Soil)

### Boron (DTPA Sorbitol)

Boron	1.19	0.101	mg/L	1	B4K0804	11/08/2024	11/11/2024	
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### DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B4K0642	11/06/2024	11/06/2024	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	73.6 %	50-150	"	"	"
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### GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B4K0635	11/06/2024	11/06/2024	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	113 %	70-130	"	"	"
Surrogate: Toluene-d8	99.0 %	70-130	"	"	"

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11/6/2024 10:05:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory

E4K0139-01 (Soil)

### GBTEX+TMBs by 8260D

Surrogate: 4-Bromofluorobenzene	103 %	70-130		B4K06 35	11/06/2024	11/06/2024
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### Metals by Saturated Paste by EPA 6010

Calcium	2.77	0.499	meq/L	10	[CALC]	11/08/2024	11/12/2024
Magnesium	0.841	0.823	"	"	"	"	"
Sodium	15.7	0.435	"	"	"	"	"

### PAH by EPA 8270E extracted via 3580A

1-Methylnaphthalene	ND	0.002	mg/kg	1	B4K0636	11/06/2024	11/19/2024	U
2-Methylnaphthalene	ND	0.002	"	"	"	"	"	U
Benzo (a) anthracene	ND	0.005	"	"	"	"	"	U
Chrysene	ND	0.020	"	"	"	"	"	U
Fluorene	ND	0.020	"	"	"	"	"	U
Naphthalene	ND	0.002	"	"	"	"	"	U
Pyrene	ND	0.020	"	"	"	"	"	U

Surrogate: Fluorene-d10	95.6 %	60-130	"	"	"
Surrogate: Anthracene-d10	80.3 %	60-130	"	"	"
Surrogate: Pyrene-d10	95.8 %	60-130	"	"	"
Surrogate: Benzo (a) pyrene-d12	98.7 %	60-130	"	"	"

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REL-N01@3'

11/6/2024 10:05:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory

E4K0139-01 (Soil)

### SAR by 20B Saturated Paste

SAR	11.7	0.0100	SAR	1	B4K0811	11/08/2024	11/12/2024
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### Specific Conductance Mod. 9050A

Specific Conductance (EC)	2.10	0.00500	mmhos/cm	1	B4K0816	11/08/2024	11/12/2024
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### Table 915 metals by EPA 6020B

Arsenic	2.37	0.262	mg/kg	10	B4K0646	11/06/2024	11/07/2024
Barium	60.6	9.05	"	"	"	"	"
Cadmium	ND	0.0905	"	"	"	"	"
Copper	ND	9.05	"	"	"	"	"
Lead	6.42	0.905	"	"	"	"	"
Nickel	7.69	0.905	"	"	"	"	"

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REL-E01@3'

11/6/2024 10:10:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory E4K0139-02 (Soil)

### Boron (DTPA Sorbitol)

Boron	2.51	0.102	mg/L	1	B4K0804	11/08/2024	11/11/2024	
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### DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B4K0642	11/06/2024	11/06/2024	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	79.1 %	50-150	"	"	"	"	"	
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### GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	0.00862	0.00200	mg/kg	1	B4K0635	11/06/2024	11/06/2024	
1,3,5-Trimethylbenzene	0.0336	0.00200	"	"	"	"	"	
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Xylenes, total	0.0343	0.00200	"	"	"	"	"	
Gasoline Range Hydrocarbons	0.727	0.200	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	108 %	70-130	"	"	"	"	"	
Surrogate: Toluene-d8	101 %	70-130	"	"	"	"	"	

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REL-E01@3'

11/6/2024 10:10:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory

E4K0139-02 (Soil)

### GBTEX+TMBs by 8260D

Surrogate: 4-Bromofluorobenzene	103 %	70-130		B4K06 35	11/06/2024	11/06/2024
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### Metals by Saturated Paste by EPA 6010

Calcium	0.943	0.499	meq/L	10	[CALC]	11/08/2024	11/12/2024
Magnesium	ND	0.823	"	"	"	"	"
Sodium	23.1	0.435	"	"	"	"	"

### PAH by EPA 8270E extracted via 3580A

1-Methylnaphthalene	0.006	0.002	mg/kg	1	B4K0636	11/06/2024	11/19/2024	
2-Methylnaphthalene	0.004	0.002	"	"	"	"	"	
Benzo (a) anthracene	ND	0.005	"	"	"	"	"	U
Chrysene	ND	0.020	"	"	"	"	"	U
Fluorene	ND	0.020	"	"	"	"	"	U
Naphthalene	ND	0.002	"	"	"	"	"	U
Pyrene	ND	0.020	"	"	"	"	"	U

Surrogate: Fluorene-d10	96.3 %	60-130	"	"	"
Surrogate: Anthracene-d10	84.9 %	60-130	"	"	"
Surrogate: Pyrene-d10	82.9 %	60-130	"	"	"
Surrogate: Benzo (a) pyrene-d12	98.7 %	60-130	"	"	"

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REL-E01@3'

11/6/2024 10:10:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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### Origins Laboratory

E4K0139-02 (Soil)

#### SAR by 20B Saturated Paste

SAR	31.3	0.0100	SAR	1	B4K0811	11/08/2024	11/12/2024
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#### Specific Conductance Mod. 9050A

Specific Conductance (EC)	2.69	0.00500	mmhos/cm	1	B4K0816	11/08/2024	11/12/2024
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#### Table 915 metals by EPA 6020B

Arsenic	2.15	0.265	mg/kg	10	B4K0646	11/06/2024	11/07/2024
Barium	56.5	9.14	"	"	"	"	"
Cadmium	ND	0.0914	"	"	"	"	"
Copper	ND	9.14	"	"	"	"	"
Lead	5.09	0.914	"	"	"	"	"
Nickel	6.38	0.914	"	"	"	"	"

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Jordan A. Bynon, Project Manager

Absaroka

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Project Number: [none]

Project: KMG - Mulga 29C Small Eyed 14C HZ  
OSA

REL-S01@3'

11/6/2024 10:15:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory E4K0139-03 (Soil)

### Boron (DTPA Sorbitol)

Boron	0.677	0.102	mg/L	1	B4K0804	11/08/2024	11/11/2024	
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### DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B4K0642	11/06/2024	11/06/2024	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	74.4 %	50-150	"	"	"
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### GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B4K0635	11/06/2024	11/07/2024	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	106 %	70-130	"	"	"
Surrogate: Toluene-d8	102 %	70-130	"	"	"

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Project Number: [none]

Project: KMG - Mulga 29C Small Eyed 14C HZ  
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REL-S01@3'

11/6/2024 10:15:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory

E4K0139-03 (Soil)

### GBTEX+TMBs by 8260D

Surrogate: 4-Bromofluorobenzene	97.6 %	70-130		B4K06 35	11/06/2024	11/07/2024
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### Metals by Saturated Paste by EPA 6010

Calcium	10.7	0.499	meq/L	10	[CALC]	11/08/2024	11/12/2024
Magnesium	4.24	0.823	"	"	"	"	"
Sodium	23.0	0.435	"	"	"	"	"

### PAH by EPA 8270E extracted via 3580A

1-Methylnaphthalene	ND	0.002	mg/kg	1	B4K0636	11/06/2024	11/19/2024	U
2-Methylnaphthalene	ND	0.002	"	"	"	"	"	U
Benzo (a) anthracene	ND	0.005	"	"	"	"	"	U
Chrysene	ND	0.020	"	"	"	"	"	U
Fluorene	ND	0.020	"	"	"	"	"	U
Naphthalene	ND	0.002	"	"	"	"	"	U
Pyrene	ND	0.020	"	"	"	"	"	U

Surrogate: Fluorene-d10	103 %	60-130	"	"	"
Surrogate: Anthracene-d10	77.4 %	60-130	"	"	"
Surrogate: Pyrene-d10	113 %	60-130	"	"	"
Surrogate: Benzo (a) pyrene-d12	101 %	60-130	"	"	"

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Project Number: [none]

Project: KMG - Mulga 29C Small Eyed 14C HZ  
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REL-S01@3'

11/6/2024 10:15:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory

E4K0139-03 (Soil)

### SAR by 20B Saturated Paste

SAR	8.43	0.0100	SAR	1	B4K0811	11/08/2024	11/12/2024
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### Specific Conductance Mod. 9050A

Specific Conductance (EC)	4.23	0.00500	mmhos/cm	1	B4K0816	11/08/2024	11/12/2024
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### Table 915 metals by EPA 6020B

Arsenic	2.13	0.267	mg/kg	10	B4K0646	11/06/2024	11/07/2024
Barium	50.7	9.22	"	"	"	"	"
Cadmium	ND	0.0922	"	"	"	"	"
Copper	ND	9.22	"	"	"	"	"
Lead	4.88	0.922	"	"	"	"	"
Nickel	7.03	0.922	"	"	"	"	"

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Project Number: [none]

Project: KMG - Mulga 29C Small Eyed 14C HZ  
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REL-W01@3'

11/6/2024 10:20:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory E4K0139-04 (Soil)

### Boron (DTPA Sorbitol)

Boron	ND	0.0991	mg/L	1	B4K0804	11/08/2024	11/11/2024	
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### DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B4K0642	11/06/2024	11/06/2024	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	77.1 %	50-150	"	"	"
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### GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B4K0635	11/06/2024	11/07/2024	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	107 %	70-130	"	"	"
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Absaroka

112 High St.

Buffalo

WY

82834

Max Dahlgren

Project Number: [none]

Project: KMG - Mulga 29C Small Eyed 14C HZ  
OSA

REL-W01@3'

11/6/2024 10:20:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory

E4K0139-04 (Soil)

### GBTEX+TMBs by 8260D

Surrogate: Toluene-d8	102 %	70-130				B4K06 35	11/06/2024	11/07/2024	
Surrogate: 4-Bromofluorobenzene	99.3 %	70-130				"	"	"	

### Metals by Saturated Paste by EPA 6010

Calcium	1.11	0.499	meq/L	10	[CALC]		11/08/2024	11/12/2024	
Magnesium	ND	0.823	"	"	"		"	"	
Sodium	ND	0.435	"	"	"		"	"	

### PAH by EPA 8270E extracted via 3580A

1-Methylnaphthalene	ND	0.002	mg/kg	1	B4K0636	11/06/2024	11/19/2024	U
2-Methylnaphthalene	ND	0.002	"	"	"	"	"	U
Benzo (a) anthracene	ND	0.005	"	"	"	"	"	U
Chrysene	ND	0.020	"	"	"	"	"	U
Fluorene	ND	0.020	"	"	"	"	"	U
Naphthalene	ND	0.002	"	"	"	"	"	U
Pyrene	ND	0.020	"	"	"	"	"	U

Surrogate: Fluorene-d10	99.1 %	60-130			"	"	"	
Surrogate: Anthracene-d10	75.7 %	60-130			"	"	"	
Surrogate: Pyrene-d10	106 %	60-130			"	"	"	

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Project Number: [none]

Project: KMG - Mulga 29C Small Eyed 14C HZ  
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REL-W01@3'

11/6/2024 10:20:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory

E4K0139-04 (Soil)

### PAH by EPA 8270E extracted via 3580A

Surrogate: Benzo (a) pyrene-d12	101 %	60-130	B4K06 36	11/06/2024	11/19/2024
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### SAR by 20B Saturated Paste

SAR	0.323	0.0100	SAR	1	B4K0811	11/08/2024	11/12/2024
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### Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.208	0.00500	mmhos/cm	1	B4K0816	11/08/2024	11/12/2024
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### Table 915 metals by EPA 6020B

Arsenic	1.60	0.281	mg/kg	10	B4K0646	11/06/2024	11/07/2024
Barium	18.5	9.70	"	"	"	"	"
Cadmium	ND	0.0970	"	"	"	"	"
Copper	ND	9.70	"	"	"	"	"
Lead	2.82	0.970	"	"	"	"	"
Nickel	4.23	0.970	"	"	"	"	"

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Max Dahlgren

Project Number: [none]

Project: KMG - Mulga 29C Small Eyed 14C HZ  
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REL-B01@6'

11/6/2024 10:00:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory E4K0139-05 (Soil)

### Boron (DTPA Sorbitol)

Boron	0.248	0.0997	mg/L	1	B4K0804	11/08/2024	11/11/2024	
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### DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B4K0642	11/06/2024	11/06/2024	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	76.0 %	50-150	"	"	"	"	"
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### GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	0.0227	0.00200	mg/kg	1	B4K0635	11/06/2024	11/07/2024	
1,3,5-Trimethylbenzene	0.0317	0.00200	"	"	"	"	"	
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Xylenes, total	0.0409	0.00200	"	"	"	"	"	
Gasoline Range Hydrocarbons	4.41	0.200	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	110 %	70-130	"	"	"	"	"
Surrogate: Toluene-d8	101 %	70-130	"	"	"	"	"

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Project Number: [none]

Project: KMG - Mulga 29C Small Eyed 14C HZ  
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REL-B01@6'

11/6/2024 10:00:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory

E4K0139-05 (Soil)

### GBTEX+TMBs by 8260D

Surrogate: 4-Bromofluorobenzene	104 %	70-130		B4K06 35	11/06/2024	11/07/2024
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### Metals by Saturated Paste by EPA 6010

Calcium	1.92	0.499	meq/L	10	[CALC]	11/08/2024	11/12/2024
Magnesium	ND	0.823	"	"	"	"	"
Sodium	2.88	0.435	"	"	"	"	"

### PAH by EPA 8270E extracted via 3580A

1-Methylnaphthalene	0.005	0.002	mg/kg	1	B4K0636	11/06/2024	11/19/2024	
2-Methylnaphthalene	0.005	0.002	"	"	"	"	"	
Benzo (a) anthracene	ND	0.005	"	"	"	"	"	U
Chrysene	ND	0.020	"	"	"	"	"	U
Fluorene	ND	0.020	"	"	"	"	"	U
Naphthalene	ND	0.002	"	"	"	"	"	U
Pyrene	ND	0.020	"	"	"	"	"	U

Surrogate: Fluorene-d10	98.6 %	60-130	"	"	"
Surrogate: Anthracene-d10	75.3 %	60-130	"	"	"
Surrogate: Pyrene-d10	92.3 %	60-130	"	"	"
Surrogate: Benzo (a) pyrene-d12	101 %	60-130	"	"	"

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Max Dahlgren

Project Number: [none]

Project: KMG - Mulga 29C Small Eyed 14C HZ  
OSA

REL-B01@6'

11/6/2024 10:00:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory

E4K0139-05 (Soil)

### SAR by 20B Saturated Paste

SAR	2.47	0.0100	SAR	1	B4K0811	11/08/2024	11/12/2024
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### Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.638	0.00500	mmhos/cm	1	B4K0816	11/08/2024	11/12/2024
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### Table 915 metals by EPA 6020B

Arsenic	2.33	0.271	mg/kg	10	B4K0646	11/06/2024	11/07/2024
Barium	72.7	9.35	"	"	"	"	"
Cadmium	ND	0.0935	"	"	"	"	"
Copper	ND	9.35	"	"	"	"	"
Lead	5.60	0.935	"	"	"	"	"
Nickel	7.36	0.935	"	"	"	"	"

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Project Number: [none]

Project: KMG - Mulga 29C Small Eyed 14C HZ  
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**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B4K0635 - EPA 5030 (soil)</b>										
<b>Blank (B4K0635-BLK1)</b>					Prepared: 11/06/2024 Analyzed: 11/06/2024					
1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
1,3,5-Trimethylbenzene	ND	0.00200	"							U
Benzene	ND	0.00200	"							U
Ethylbenzene	ND	0.00200	"							U
Naphthalene	ND	0.00380	"							U
Toluene	ND	0.00200	"							U
Xylenes, total	ND	0.00200	"							U
Gasoline Range Hydrocarbons	ND	0.200	"							U
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125	103		70-130			
Surrogate: Toluene-d8	0.13		"	0.125	103		70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125	103		70-130			

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Project Number: [none]

Project: KMG - Mulga 29C Small Eyed 14C HZ  
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## Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control

### Origins Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B4K0635 - EPA 5030 (soil)

#### LCS (B4K0635-BS1)

Prepared: 11/06/2024 Analyzed: 11/06/2024

1,2,4-Trimethylbenzene	0.115	0.00200	mg/kg	0.100		115	70-130			
1,3,5-Trimethylbenzene	0.119	0.00200	"	0.100		119	70-130			
Benzene	0.112	0.00200	"	0.100		112	70-130			
Ethylbenzene	0.117	0.00200	"	0.100		117	70-130			
Naphthalene	0.110	0.00380	"	0.100		110	70-130			
Toluene	0.110	0.00200	"	0.100		110	70-130			
o-Xylene	0.113	0.00200	"	0.100		113	70-130			
m,p-Xylene	0.240	0.00400	"	0.200		120	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		103	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.5	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		105	70-130			

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Max Dahlgren  
Project Number: [none]  
Project: KMG - Mulga 29C Small Eyed 14C HZ  
OSA

## Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control

### Origins Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B4K0635 - EPA 5030 (soil)										
Matrix Spike (B4K0635-MS1)		Source: E4K0132-01			Prepared: 11/06/2024 Analyzed: 11/06/2024					
1,2,4-Trimethylbenzene	0.130	0.00200	mg/kg	0.100	ND	130	70-130			
1,3,5-Trimethylbenzene	0.132	0.00200	"	0.100	ND	132	70-130			QM-07
Benzene	0.127	0.00200	"	0.100	ND	127	70-130			
Ethylbenzene	0.133	0.00200	"	0.100	ND	133	70-130			QM-07
Naphthalene	0.134	0.00380	"	0.100	ND	134	70-130			QM-07
Toluene	0.121	0.00200	"	0.100	ND	121	70-130			
o-Xylene	0.135	0.00200	"	0.100	ND	135	70-130			QM-07
m,p-Xylene	0.265	0.00400	"	0.200	ND	133	70-130			QM-07
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		99.7	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.7	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		107	70-130			

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Project Number: [none]  
Project: KMG - Mulga 29C Small Eyed 14C HZ  
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## Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control

### Origins Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B4K0635 - EPA 5030 (soil)										
Matrix Spike Dup (B4K0635-MSD1)			Source: E4K0132-01		Prepared: 11/06/2024 Analyzed: 11/06/2024					
1,2,4-Trimethylbenzene	0.122	0.00200	mg/kg	0.100	ND	122	70-130	6.65	20	
1,3,5-Trimethylbenzene	0.126	0.00200	"	0.100	ND	126	70-130	4.94	20	
Benzene	0.123	0.00200	"	0.100	ND	123	70-130	3.08	20	
Ethylbenzene	0.125	0.00200	"	0.100	ND	125	70-130	5.99	20	
Naphthalene	0.124	0.00380	"	0.100	ND	124	70-130	8.09	20	
Toluene	0.116	0.00200	"	0.100	ND	116	70-130	4.39	20	
o-Xylene	0.126	0.00200	"	0.100	ND	126	70-130	7.37	20	
m,p-Xylene	0.249	0.00400	"	0.200	ND	124	70-130	6.33	20	
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		104	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		97.7	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		107	70-130			

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Max Dahlgren

Project Number: [none]

Project: KMG - Mulga 29C Small Eyed 14C HZ  
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**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B4K0642 - EPA 3550B**

**Blank (B4K0642-BLK1)**

Prepared: 11/06/2024 Analyzed: 11/06/2024

Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	21		"	24.9		82.8	50-150			

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Jordan A. Bynon, Project Manager



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Max Dahlgren

Project Number: [none]

Project: KMG - Mulga 29C Small Eyed 14C HZ  
OSA

**Extractable Petroleum Hydrocarbons by 8015D - Quality Control**  
**Origins Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B4K0642 - EPA 3550B**

**LCS (B4K0642-BS1)**

Prepared: 11/06/2024 Analyzed: 11/06/2024

Diesel (C10-C28)	1050	50.0	mg/kg	1000		105	70-130			
Residual Range Organics (C28-C40)	1050	200	"	1000		105	70-130			
Surrogate: o-Terphenyl	44		"	49.8		89.2	50-150			

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Max Dahlgren

Project Number: [none]

Project: KMG - Mulga 29C Small Eyed 14C HZ  
OSA

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control

### Origins Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B4K0642 - EPA 3550B

Matrix Spike (B4K0642-MS1)		Source: E4K0136-01			Prepared: 11/06/2024 Analyzed: 11/06/2024					
Diesel (C10-C28)	991	50.0	mg/kg	1000	ND	99.1	70-130			
Residual Range Organics (C28-C40)	926	200	"	1000	ND	92.6	70-130			
Surrogate: o-Terphenyl	34		"	49.8		68.1	50-150			

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Project Number: [none]

Project: KMG - Mulga 29C Small Eyed 14C HZ  
OSA

**Extractable Petroleum Hydrocarbons by 8015D - Quality Control**  
**Origins Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B4K0642 - EPA 3550B**

Matrix Spike Dup (B4K0642-MSD1)		Source: E4K0136-01			Prepared: 11/06/2024 Analyzed: 11/06/2024					
Diesel (C10-C28)	1120	50.0	mg/kg	1000	ND	112	70-130	12.0	35	
Residual Range Organics (C28-C40)	1100	200	"	1000	ND	110	70-130	17.5	35	
Surrogate: o-Terphenyl	41		"	49.8		81.7	50-150			

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Jordan A. Bynon, Project Manager



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Max Dahlgren  
Project Number: [none]  
Project: KMG - Mulga 29C Small Eyed 14C HZ  
OSA

**Extractable Petroleum Hydrocarbons by 8015D - Quality Control**  
**Origins Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Metals by EPA 6000/7000 Series Methods - Quality Control**  
**Origins Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B4K0646 - EPA 3050B**

**Blank (B4K0646-BLK1)**

Prepared: 11/06/2024 Analyzed: 11/07/2024

Arsenic	ND	0.290	mg/kg
Barium	ND	10.0	"
Cadmium	ND	0.100	"
Copper	ND	10.0	"
Lead	ND	1.00	"
Nickel	ND	1.00	"
Selenium	ND	0.260	"
Silver	ND	0.100	"
Zinc	ND	37.0	"

**LCS (B4K0646-BS1)**

Prepared: 11/06/2024 Analyzed: 11/07/2024

Arsenic	5.10	0.290	mg/kg	5.00	102	80-120
Barium	537	10.0	"	500	107	80-120
Cadmium	5.19	0.100	"	5.00	104	80-120
Copper	52.6	10.0	"	50.0	105	80-120
Lead	5.20	1.00	"	5.00	104	80-120
Nickel	5.44	1.00	"	5.00	109	80-120
Selenium	5.27	0.260	"	5.00	105	80-120
Silver	5.73	0.100	"	5.00	115	80-120
Zinc	50.5	37.0	"	50.0	101	80-120

**Matrix Spike (B4K0646-MS1)**

**Source: E4K0139-01**

Prepared: 11/06/2024 Analyzed: 11/07/2024

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Project Number: [none]  
Project: KMG - Mulga 29C Small Eyed 14C HZ  
OSA

**Metals by EPA 6000/7000 Series Methods - Quality Control**  
**Origins Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B4K0646 - EPA 3050B**

Matrix Spike (B4K0646-MS1)		Source: E4K0139-01			Prepared: 11/06/2024 Analyzed: 11/07/2024					
Arsenic	6.97	0.271	mg/kg	4.67	2.37	98.7	75-125			
Barium	594	9.34	"	467	60.6	114	75-125			
Cadmium	4.83	0.0934	"	4.67	0.0751	102	75-125			
Copper	54.4	9.34	"	46.7	7.39	101	75-125			
Lead	10.3	0.934	"	4.67	6.42	82.7	75-125			
Nickel	12.6	0.934	"	4.67	7.69	105	75-125			
Selenium	4.88	0.243	"	4.67	0.0968	103	75-125			
Silver	5.22	0.0934	"	4.67	0.0416	111	75-125			
Zinc	72.8	34.5	"	46.7	28.7	94.4	75-125			
Matrix Spike Dup (B4K0646-MSD1)		Source: E4K0139-01			Prepared: 11/06/2024 Analyzed: 11/07/2024					
Arsenic	7.17	0.272	mg/kg	4.69	2.37	102	75-125	2.74	20	
Barium	573	9.39	"	469	60.6	109	75-125	3.54	20	
Cadmium	5.11	0.0939	"	4.69	0.0751	107	75-125	5.78	20	
Copper	56.4	9.39	"	46.9	7.39	105	75-125	3.71	20	
Lead	10.7	0.939	"	4.69	6.42	92.1	75-125	4.42	20	
Nickel	13.0	0.939	"	4.69	7.69	113	75-125	3.01	20	
Selenium	5.42	0.244	"	4.69	0.0968	113	75-125	10.5	20	
Silver	5.62	0.0939	"	4.69	0.0416	119	75-125	7.49	20	
Zinc	76.3	34.7	"	46.9	28.7	101	75-125	4.72	20	

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Max Dahlgren  
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Project: KMG - Mulga 29C Small Eyed 14C HZ  
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**EPA 8270E (SW846) - Semivolatile Organic Compounds - Quality Control**  
**Origins Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B4K0636 - EPA 3580**

**Blank (B4K0636-BLK1)**

Prepared: 11/06/2024 Analyzed: 11/19/2024

1-Methylnaphthalene	ND	0.002	mg/kg							U
2-Methylnaphthalene	ND	0.002	"							U
Acenaphthene	ND	0.020	"							U
Anthracene	ND	0.020	"							U
Benzo (a) anthracene	ND	0.005	"							U
Benzo (a) pyrene	ND	0.020	"							U
Benzo (b) fluoranthene	ND	0.020	"							U
Benzo (g,h,i) perylene	ND	0.020	"							U
Benzo (k) fluoranthene	ND	0.020	"							U
Chrysene	ND	0.020	"							U
Dibenz (a,h) anthracene	ND	0.020	"							U
Fluoranthene	ND	0.020	"							U
Fluorene	ND	0.020	"							U
Indeno (1,2,3-cd) pyrene	ND	0.020	"							U
Naphthalene	ND	0.002	"							U
Phenanthrene	ND	0.020	"							U
Pyrene	ND	0.020	"							U

Surrogate: Fluorene-d10	210		ug/kg	200	105	60-130
Surrogate: Anthracene-d10	170		"	200	87.3	60-130
Surrogate: Pyrene-d10	180		"	200	90.0	60-130
Surrogate: Benzo (a) pyrene-d12	210		"	200	103	60-130

**LCS (B4K0636-BS1)**

Prepared: 11/06/2024 Analyzed: 11/19/2024

1-Methylnaphthalene	0.175	0.002	mg/kg	0.200	87.6	70-130
2-Methylnaphthalene	0.185	0.002	"	0.200	92.6	70-130
Acenaphthene	0.200	0.020	"	0.200	100	70-130
Anthracene	0.169	0.020	"	0.200	84.3	70-130

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## EPA 8270E (SW846) - Semivolatile Organic Compounds - Quality Control

### Origins Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch B4K0636 - EPA 3580

#### LCS (B4K0636-BS1)

Prepared: 11/06/2024 Analyzed: 11/19/2024

Benzo (a) anthracene	0.154	0.005	mg/kg	0.200		77.1	70-130			
Benzo (a) pyrene	0.179	0.020	"	0.200		89.7	70-130			
Benzo (b) fluoranthene	0.239	0.020	"	0.200		120	70-130			
Benzo (g,h,i) perylene	0.212	0.020	"	0.200		106	70-130			
Benzo (k) fluoranthene	0.185	0.020	"	0.200		92.4	70-130			
Chrysene	0.189	0.020	"	0.200		94.5	70-130			
Dibenz (a,h) anthracene	0.247	0.020	"	0.200		123	70-130			
Fluoranthene	0.210	0.020	"	0.200		105	70-130			
Fluorene	0.191	0.020	"	0.200		95.4	70-130			
Indeno (1,2,3-cd) pyrene	0.230	0.020	"	0.200		115	70-130			
Naphthalene	0.199	0.002	"	0.200		99.6	70-130			
Phenanthrene	0.213	0.020	"	0.200		106	70-130			
Pyrene	0.210	0.020	"	0.200		105	70-130			
Surrogate: Fluorene-d10	190		ug/kg	200		94.3	60-130			
Surrogate: Anthracene-d10	160		"	200		81.4	60-130			
Surrogate: Pyrene-d10	200		"	200		102	60-130			
Surrogate: Benzo (a) pyrene-d12	210		"	200		104	60-130			

#### Matrix Spike (B4K0636-MS1)

Source: E4K0132-01

Prepared: 11/06/2024 Analyzed: 11/19/2024

1-Methylnaphthalene	0.193	0.002	mg/kg	0.200	ND	96.7	70-130			
2-Methylnaphthalene	0.197	0.002	"	0.200	ND	98.4	70-130			
Acenaphthene	0.212	0.020	"	0.200	ND	106	70-130			
Anthracene	0.167	0.020	"	0.200	ND	83.6	70-130			
Benzo (a) anthracene	0.153	0.005	"	0.200	0.0006	76.3	70-130			
Benzo (a) pyrene	0.171	0.020	"	0.200	ND	85.3	70-130			
Benzo (b) fluoranthene	0.265	0.020	"	0.200	0.0003	132	70-130			QM-07
Benzo (g,h,i) perylene	0.190	0.020	"	0.200	ND	95.0	70-130			

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## EPA 8270E (SW846) - Semivolatile Organic Compounds - Quality Control

### Origins Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch B4K0636 - EPA 3580

Matrix Spike (B4K0636-MS1)		Source: E4K0132-01			Prepared: 11/06/2024 Analyzed: 11/19/2024					
Benzo (k) fluoranthene	0.195	0.020	mg/kg	0.200	0.0007	97.1	70-130			
Chrysene	0.183	0.020	"	0.200	ND	91.3	70-130			
Dibenz (a,h) anthracene	0.223	0.020	"	0.200	ND	111	70-130			
Fluoranthene	0.194	0.020	"	0.200	ND	97.2	70-130			
Fluorene	0.238	0.020	"	0.200	ND	119	70-130			
Indeno (1,2,3-cd) pyrene	0.203	0.020	"	0.200	ND	101	70-130			
Naphthalene	0.195	0.002	"	0.200	ND	97.5	70-130			
Phenanthrene	0.214	0.020	"	0.200	ND	107	70-130			
Pyrene	0.186	0.020	"	0.200	ND	92.8	70-130			
Surrogate: Fluorene-d10	230		ug/kg	200		113	60-130			
Surrogate: Anthracene-d10	160		"	200		82.5	60-130			
Surrogate: Pyrene-d10	190		"	200		93.4	60-130			
Surrogate: Benzo (a) pyrene-d12	200		"	200		102	60-130			

Matrix Spike Dup (B4K0636-MSD1)		Source: E4K0132-01			Prepared: 11/06/2024 Analyzed: 11/19/2024					
1-Methylnaphthalene	0.192	0.002	mg/kg	0.200	ND	96.0	70-130	0.688	20	
2-Methylnaphthalene	0.193	0.002	"	0.200	ND	96.3	70-130	2.12	20	
Acenaphthene	0.210	0.020	"	0.200	ND	105	70-130	0.939	20	
Anthracene	0.154	0.020	"	0.200	ND	76.8	70-130	8.56	20	
Benzo (a) anthracene	0.154	0.005	"	0.200	0.0006	76.6	70-130	0.383	20	
Benzo (a) pyrene	0.171	0.020	"	0.200	ND	85.3	70-130	0.0880	20	
Benzo (b) fluoranthene	0.251	0.020	"	0.200	0.0003	125	70-130	5.45	20	
Benzo (g,h,i) perylene	0.228	0.020	"	0.200	ND	114	70-130	18.1	20	
Benzo (k) fluoranthene	0.183	0.020	"	0.200	0.0007	91.0	70-130	6.39	20	
Chrysene	0.204	0.020	"	0.200	ND	102	70-130	11.2	20	
Dibenz (a,h) anthracene	0.253	0.020	"	0.200	ND	126	70-130	12.6	20	
Fluoranthene	0.186	0.020	"	0.200	ND	93.0	70-130	4.51	20	

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B4K0636 - EPA 3580**

Matrix Spike Dup (B4K0636-MSD1)		Source: E4K0132-01			Prepared: 11/06/2024 Analyzed: 11/19/2024					
Fluorene	0.211	0.020	mg/kg	0.200	ND	106	70-130	11.8	20	
Indeno (1,2,3-cd) pyrene	0.231	0.020	"	0.200	ND	115	70-130	13.0	20	
Naphthalene	0.203	0.002	"	0.200	ND	101	70-130	4.01	20	
Phenanthrene	0.202	0.020	"	0.200	ND	101	70-130	5.73	20	
Pyrene	0.196	0.020	"	0.200	ND	97.8	70-130	5.22	20	
Surrogate: Fluorene-d10	220		ug/kg	200		111	60-130			
Surrogate: Anthracene-d10	150		"	200		72.9	60-130			
Surrogate: Pyrene-d10	190		"	200		97.0	60-130			
Surrogate: Benzo (a) pyrene-d12	200		"	200		98.9	60-130			

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## Classical Chemistry Parameters - Quality Control

### Origins Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch B4K0804 - DTPA Sorbitol Preparation

##### Blank (B4K0804-BLK1)

Prepared: 11/08/2024 Analyzed: 11/11/2024

Boron ND 0.100 mg/L

##### Duplicate (B4K0804-DUP1)

Source: E4K0139-01

Prepared: 11/08/2024 Analyzed: 11/11/2024

Boron 1.26 0.101 mg/L 1.19 5.64 50

#### Batch B4K0811 - Saturated Paste Metals

##### Blank (B4K0811-BLK1)

Prepared: 11/08/2024 Analyzed: 11/12/2024

Calcium PPM ND 10.0 mg/L

SAR ND 0.0100 SAR

Magnesium PPM ND 10.0 mg/L

Sodium PPM ND 10.0 "

##### Duplicate (B4K0811-DUP1)

Source: E4J0012-08

Prepared: 11/08/2024 Analyzed: 11/12/2024

Calcium PPM 391 10.0 mg/L 401 2.54 50

SAR ND 0.0100 SAR 16.8 200

Magnesium PPM 1020 10.0 mg/L 996 2.46 50

Sodium PPM 2870 100 " 2750 4.41 50

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Project: KMG - Mulga 29C Small Eyed 14C HZ  
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**Saturated Paste - Quality Control**  
**Origins Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B4K0816 - Saturated Paste pH/EC</b>										
<b>Blank (B4K0816-BLK1)</b>					Prepared: 11/08/2024 Analyzed: 11/12/2024					
Specific Conductance (EC)	ND	0.00500	mmhos/cm							
<b>Duplicate (B4K0816-DUP1)</b>					<b>Source: E4J0012-08RE1</b> Prepared: 11/08/2024 Analyzed: 11/12/2024					
Specific Conductance (EC)	13.1	0.00500	mmhos/cm		14.3			8.63	25	

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Project Number: [none]

Project: KMG - Mulga 29C Small Eyed 14C HZ  
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## Notes and Definitions

U Sample is Non-Detect.

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

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported on a wet weight basis.

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