



Ensolum

November 15, 2024

Jeremy Espinoza

11049 W 44th Avenue, Suite 103

Wheat Ridge CO 80033

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**Project Name - KMG - Victor 21-23, USX W 23-4,5,6 Facility**    **Project Number - 09A1417841**

Attached are your analytical results for KMG - Victor 21-23, USX W 23-4,5,6 Facility received by Origins Laboratory October 11, 2024. This project is associated with Origins project number E410370-01.

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



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

Ensolum  
 11049 W 44th Avenue, Suite 103  
 Wheat Ridge CO 80033

Jeremy Espinoza  
 Project Number: 09A1417841  
 Project: KMG - Victor 21-23, USX W 23-4,5,6  
 Facility

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AST01@0.5'	E410370-01	Soil	October 11, 2024 11:30	10/11/2024 17:21
AST01@0.5'-V	E410370-02	Soil	October 11, 2024 11:35	10/11/2024 17:21
PWV-B01@5'	E410370-03	Soil	October 11, 2024 13:35	10/11/2024 17:21
PWV-B01@5'-V	E410370-04	Soil	October 11, 2024 13:40	10/11/2024 17:21
PWV-N01@2.5'	E410370-05	Soil	October 11, 2024 13:45	10/11/2024 17:21
PWV-N01@2.5'-V	E410370-06	Soil	October 11, 2024 13:50	10/11/2024 17:21
SEP01-INLET@3'	E410370-07	Soil	October 11, 2024 11:40	10/11/2024 17:21
SEP01-OUTLET@3'	E410370-08	Soil	October 11, 2024 11:45	10/11/2024 17:21
TB-BG01@0.5'	E410370-09	Soil	October 11, 2024 11:25	10/11/2024 17:21
NATIVE-BG01@3'	E410370-10	Soil	October 11, 2024 13:55	10/11/2024 17:21
NATIVE-BG01@6'	E410370-11	Soil	October 11, 2024 14:00	10/11/2024 17:21
NATIVE-BG02@3'	E410370-12	Soil	October 11, 2024 14:05	10/11/2024 17:21
NATIVE-BG02@6'	E410370-13	Soil	October 11, 2024 14:10	10/11/2024 17:21
NATIVE-BG03@3'	E410370-14	Soil	October 11, 2024 14:15	10/11/2024 17:21

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Facility

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
NATIVE-BG03@6'	E410370-15	Soil	October 11, 2024 14:20	10/11/2024 17:21

Origins Laboratory



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ORIGINS WORK ORDER # **EM10370**

ORIGINS LABORATORY


Client: Ensolum  
 Address: \_\_\_\_\_  
 Project Manager: Jeremy Espinoza  
 Project Name: Victor 21-23 USX 4,5,6 Facility  
 Project Number: 09A1417841  
 Collected By: Contra Torres  
 Invoice/Billing Info: PHILA  
 Telephone Number: (770) 560-2154  
 Email Address: lmg@ensol.com

S=Soil | SO=Solid | O=Oil | A=Air | G=Gas | UNP=Unpres | HCl= Hydrochloric | HNO3=Nitric | H2SO4=Sulfuric | NaOH=Sodium Hydroxide

#	Sample ID	Date Sampled	Time Sampled	# of Containers	Matrix	Preservative	Analysis		Comments
							PH	PC	
1	WATER-SOIL 06	10/11/21	1400	2	5	UNP	X	X	
2	WATER-SOIL 05	1405		2			X	X	
3	WATER-SOIL 04	1410		2			X	X	
4	WATER-SOIL 03	1415		2			X	X	
5	WATER-SOIL 02	1420		2			X	X	
6									
7									
8									
9									
10									

Relinquished By:	Date:	Received By:	Date:	Turnaround Time
<u>[Signature]</u>	10/11/21	<u>[Signature]</u>	10/11/21	<input checked="" type="checkbox"/> SAME DAY
Relinquished By:	Date:	Received By:	Date:	<input type="checkbox"/> 48 Hr <input type="checkbox"/> 72
				<input type="checkbox"/> Standard

For Lab Sample Receiving Only:  
 Temp Received: ✓ | Received On Ice?  Yes  No

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

**Sample Receipt Checklist**

Origins Work Order: E410370 Client: ENSOLUM  
Client Project ID: Victor 21-23

Checklist Completed by: JHD/WS Shipped Via: HD  
Date/Time completed: 10/11/24 (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 4.1 °C \_\_\_\_\_ °C \_\_\_\_\_ °C (Describe) \_\_\_\_\_ °C

Thermometer ID: 1004

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> ?	/			
Is there ice present (document if blue ice is used)	/			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		/		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		/		
Were all samples received intact <sup>(1)</sup> ?	/			
Was adequate sample volume provided <sup>(1)</sup> ?	/			
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?		/		
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	/			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	/			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	/			
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	/			
For volatiles in water – is there headspace (> ¼ inch bubble) present? <b>If yes, contact client and note in narrative.</b>			/	
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)			/	
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) JHD Date/Time Reviewed 10/11/24

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 Facility

**AST01@0.5'**

**10/11/2024 11:30:00AM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory**  
**E410370-01 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.138		0.101	mg/L	1	B4J1403	10/14/2024	10/15/2024	
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND		25.0	mg/kg	1	B4J1133	10/11/2024	10/11/2024	Ua
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	Ua

Surrogate: <i>o</i> -Terphenyl	80.5 %		50-150			"	"	"	
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**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B4J1132	"	10/11/2024	Ua
1,3,5-Trimethylbenzene	ND		0.00200	"	"	"	"	"	Ua
Benzene	ND		0.00200	"	"	"	"	"	Ua
Ethylbenzene	ND		0.00200	"	"	"	"	"	Ua
Toluene	ND		0.00200	"	"	"	"	"	Ua
Xylenes, total	ND		0.00200	"	"	"	"	"	Ua
Gasoline Range Hydrocarbons	ND		0.200	"	"	"	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	99.5 %		70-130			"	"	"	
Surrogate: Toluene-d8	105 %		70-130			"	"	"	

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**AST01@0.5'**

**10/11/2024 11:30:00AM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory**  
**E410370-01 (Soil)**

**GBTEX+TMBs by 8260D**

Surrogate: 4-Bromofluorobenzene	100 %	70-130			B4J11 32	10/11/2024	10/11/2024
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**Metals by Saturated Paste by EPA 6010**

Calcium	1.59	0.499	meq/L	10	[CALC]	10/14/2024	10/15/2024
Magnesium	ND	0.823	"	"	"	"	"
Sodium	ND	0.435	"	"	"	"	"

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

1-Methylnaphthalene	ND	0.002	mg/kg	1	B4J1134	10/11/2024	10/11/2024	Ua
2-Methylnaphthalene	ND	0.002	"	"	"	"	"	Ua
Acenaphthene	ND	0.020	"	"	"	"	"	Ua
Anthracene	ND	0.020	"	"	"	"	"	Ua
Benzo (a) anthracene	ND	0.005	"	"	"	"	"	Ua
Benzo (a) pyrene	ND	0.020	"	"	"	"	"	Ua
Benzo (b) fluoranthene	ND	0.020	"	"	"	"	"	Ua
Benzo (k) fluoranthene	ND	0.020	"	"	"	"	"	Ua
Chrysene	ND	0.020	"	"	"	"	"	Ua
Dibenz (a,h) anthracene	ND	0.020	"	"	"	"	"	Ua
Fluoranthene	ND	0.020	"	"	"	"	"	Ua
Fluorene	ND	0.020	"	"	"	"	"	Ua

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**AST01@0.5'**

**10/11/2024 11:30:00AM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory**  
**E410370-01 (Soil)**

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

Indeno (1,2,3-cd) pyrene	ND	0.020	mg/kg	1	B4J1134	10/11/2024	10/11/2024	Ua
Naphthalene	ND	0.002	"	"	"	"	"	Ua
Pyrene	ND	0.020	"	"	"	"	"	Ua

Surrogate: Fluorene-d10	101 %	60-130	"	"	"	"	"
Surrogate: Anthracene-d10	86.8 %	60-130	"	"	"	"	"
Surrogate: Pyrene-d10	109 %	60-130	"	"	"	"	"
Surrogate: Benzo (a) pyrene-d12	100 %	60-130	"	"	"	"	"

**pH in Soil by 9045D**

pH	8.17	pH Units	1	B4J1411	10/14/2024	10/15/2024
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**SAR by 20B Saturated Paste**

SAR	0.0517	0.0100	SAR	1	B4J1408	10/14/2024	10/15/2024
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	0.260	0.00500	mmhos/cm	1	B4J1411	10/14/2024	10/15/2024
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**Table 915 metals by EPA 6020B**

Arsenic	2.77	0.250	mg/kg	10	B4J1130	10/11/2024	10/12/2024
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Facility

**AST01@0.5'**

**10/11/2024 11:30:00AM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory  
E410370-01 (Soil)**

**Table 915 metals by EPA 6020B**

Barium	84.4		8.61	mg/kg	10	B4J1130	10/11/2024	10/12/2024	
Cadmium	0.162		0.0861	"	"	"	"	"	
Copper	8.79		8.61	"	"	"	"	"	
Lead	17.1		0.861	"	"	"	"	"	
Nickel	8.16		0.861	"	"	"	"	"	
Selenium	ND		0.224	"	"	"	"	"	
Silver	ND		0.0861	"	"	"	"	"	
Zinc	33.1		31.9	"	"	"	"	"	

**Total Metals 7196A**

Hexavalent Chromium	ND	0.133	0.332	mg/kg dry	1	2689106	11/05/2024	11/11/2024	U
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Facility

**AST01@0.5'-V**

**10/11/2024 11:35:00AM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory  
E410370-02 (Soil)**

**pH in Soil by 9045D**

pH	8.10			pH Units	1	B4J1811	10/18/2024	10/19/2024	
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**Table 915 metals by EPA 6020B**

Barium	73.3		8.76	mg/kg	10	B4J1446	10/14/2024	10/15/2024	
Lead	11.9		0.876	"	"	"	"	"	

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**PWV-B01@5'**

**10/11/2024 1:35:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory  
E410370-03 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	<b>0.248</b>		0.100	mg/L	1	B4J1403	10/14/2024	10/15/2024	
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	<b>35.2</b>		25.0	mg/kg	1	B4J1133	10/11/2024	10/11/2024	
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	Ua

Surrogate: <i>o</i> -Terphenyl	83.2 %		50-150			"	"	"	
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**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B4J1132	"	10/11/2024	Ua
1,3,5-Trimethylbenzene	ND		0.00200	"	"	"	"	"	Ua
Benzene	ND		0.00200	"	"	"	"	"	Ua
Ethylbenzene	ND		0.00200	"	"	"	"	"	Ua
Toluene	ND		0.00200	"	"	"	"	"	Ua
Xylenes, total	ND		0.00200	"	"	"	"	"	Ua
Gasoline Range Hydrocarbons	<b>1.09</b>		0.200	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	99.9 %		70-130			"	"	"	
Surrogate: Toluene-d8	104 %		70-130			"	"	"	

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**PWV-B01@5'**

**10/11/2024 1:35:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory**  
**E410370-03 (Soil)**

**GBTEX+TMBs by 8260D**

Surrogate: 4-Bromofluorobenzene	101 %		70-130			B4J11 32	10/11/2024	10/11/2024	
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**Metals by Saturated Paste by EPA 6010**

Calcium	0.657		0.499	meq/L	10	[CALC]	10/14/2024	10/15/2024	
Magnesium	ND		0.823	"	"	"	"	"	
Sodium	1.99		0.435	"	"	"	"	"	

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

1-Methylnaphthalene	0.010		0.002	mg/kg	1	B4J1134	10/11/2024	10/11/2024	
2-Methylnaphthalene	0.016		0.002	"	"	"	"	"	
Acenaphthene	ND		0.020	"	"	"	"	"	Ua
Anthracene	ND		0.020	"	"	"	"	"	Ua
Benzo (a) anthracene	ND		0.005	"	"	"	"	"	Ua
Benzo (a) pyrene	ND		0.020	"	"	"	"	"	Ua
Benzo (b) fluoranthene	ND		0.020	"	"	"	"	"	Ua
Benzo (k) fluoranthene	ND		0.020	"	"	"	"	"	Ua
Chrysene	ND		0.020	"	"	"	"	"	Ua
Dibenz (a,h) anthracene	ND		0.020	"	"	"	"	"	Ua
Fluoranthene	ND		0.020	"	"	"	"	"	Ua
Fluorene	ND		0.020	"	"	"	"	"	Ua

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Facility

**PWV-B01@5'**

**10/11/2024 1:35:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory  
E410370-03 (Soil)**

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

Indeno (1,2,3-cd) pyrene	ND		0.020	mg/kg	1	B4J1134	10/11/2024	10/11/2024	Ua
Naphthalene	ND		0.002	"	"	"	"	"	Ua
Pyrene	ND		0.020	"	"	"	"	"	Ua

Surrogate: Fluorene-d10	105 %		60-130			"	"	"	
Surrogate: Anthracene-d10	82.8 %		60-130			"	"	"	
Surrogate: Pyrene-d10	106 %		60-130			"	"	"	
Surrogate: Benzo (a) pyrene-d12	99.8 %		60-130			"	"	"	

**pH in Soil by 9045D**

pH	8.26			pH Units	1	B4J1411	10/14/2024	10/15/2024	
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**SAR by 20B Saturated Paste**

SAR	2.94		0.0100	SAR	1	B4J1408	10/14/2024	10/15/2024	
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	0.317		0.00500	mmhos/cm	1	B4J1411	10/14/2024	10/15/2024	
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**Table 915 metals by EPA 6020B**

Arsenic	1.92		0.252	mg/kg	10	B4J1130	10/11/2024	10/12/2024	
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Facility

**PWV-B01@5'**

**10/11/2024 1:35:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory  
E410370-03 (Soil)**

**Table 915 metals by EPA 6020B**

Barium	69.3		8.70	mg/kg	10	B4J1130	10/11/2024	10/12/2024	
Cadmium	ND		0.0870	"	"	"	"	"	
Copper	ND		8.70	"	"	"	"	"	
Lead	6.13		0.870	"	"	"	"	"	
Nickel	7.19		0.870	"	"	"	"	"	
Selenium	ND		0.226	"	"	"	"	"	
Silver	ND		0.0870	"	"	"	"	"	
Zinc	ND		32.2	"	"	"	"	"	

**Total Metals 7196A**

Hexavalent Chromium	ND	0.117	0.292	mg/kg dry	1	2689106	11/05/2024	11/11/2024	U
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11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417841  
Project: KMG - Victor 21-23, USX W 23-4,5,6  
Facility

PWV-B01@5'-V

10/11/2024 1:40:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory**  
E410370-04 (Soil)

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

1-Methylnaphthalene	0.016		0.002	mg/kg	1	B4J1445	10/14/2024	10/15/2024	
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Surrogate: Fluorene-d10	102 %		60-130			"	"	"	
Surrogate: Anthracene-d10	84.2 %		60-130			"	"	"	
Surrogate: Pyrene-d10	111 %		60-130			"	"	"	
Surrogate: Benzo (a) pyrene-d12	96.3 %		60-130			"	"	"	

**pH in Soil by 9045D**

pH	8.20			pH Units	1	B4J1811	10/18/2024	10/19/2024	
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Jeremy Espinoza  
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 Project: KMG - Victor 21-23, USX W 23-4,5,6  
 Facility

**PWV-N01@2.5'**

**10/11/2024 1:45:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory**  
**E410370-05 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.128		0.0992	mg/L	1	B4J1403	10/14/2024	10/15/2024	
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND		25.0	mg/kg	1	B4J1133	10/11/2024	10/11/2024	Ua
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	Ua

Surrogate: <i>o</i> -Terphenyl	84.2 %		50-150			"	"	"	
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**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B4J1132	"	10/11/2024	Ua
1,3,5-Trimethylbenzene	ND		0.00200	"	"	"	"	"	Ua
Benzene	ND		0.00200	"	"	"	"	"	Ua
Ethylbenzene	ND		0.00200	"	"	"	"	"	Ua
Toluene	ND		0.00200	"	"	"	"	"	Ua
Xylenes, total	ND		0.00200	"	"	"	"	"	Ua
Gasoline Range Hydrocarbons	0.295		0.200	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	100 %		70-130			"	"	"	
Surrogate: Toluene-d8	105 %		70-130			"	"	"	

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 Project Number: 09A1417841  
 Project: KMG - Victor 21-23, USX W 23-4,5,6  
 Facility

**PWV-N01@2.5'**

**10/11/2024 1:45:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory**  
**E410370-05 (Soil)**

**GBTEX+TMBs by 8260D**

Surrogate: 4-Bromofluorobenzene	99.3 %	70-130			B4J11 32	10/11/2024	10/11/2024
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**Metals by Saturated Paste by EPA 6010**

Calcium	1.41	0.499	meq/L	10	[CALC]	10/14/2024	10/15/2024
Magnesium	ND	0.823	"	"	"	"	"
Sodium	ND	0.435	"	"	"	"	"

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

1-Methylnaphthalene	ND	0.002	mg/kg	1	B4J1134	10/11/2024	10/11/2024	Ua
2-Methylnaphthalene	ND	0.002	"	"	"	"	"	Ua
Acenaphthene	ND	0.020	"	"	"	"	"	Ua
Anthracene	ND	0.020	"	"	"	"	"	Ua
Benzo (a) anthracene	ND	0.005	"	"	"	"	"	Ua
Benzo (a) pyrene	ND	0.020	"	"	"	"	"	Ua
Benzo (b) fluoranthene	ND	0.020	"	"	"	"	"	Ua
Benzo (k) fluoranthene	ND	0.020	"	"	"	"	"	Ua
Chrysene	ND	0.020	"	"	"	"	"	Ua
Dibenz (a,h) anthracene	ND	0.020	"	"	"	"	"	Ua
Fluoranthene	ND	0.020	"	"	"	"	"	Ua
Fluorene	ND	0.020	"	"	"	"	"	Ua

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 Project: KMG - Victor 21-23, USX W 23-4,5,6  
 Facility

**PWV-N01@2.5'**

**10/11/2024 1:45:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory**  
**E410370-05 (Soil)**

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

Indeno (1,2,3-cd) pyrene	ND		0.020	mg/kg	1	B4J1134	10/11/2024	10/11/2024	Ua
Naphthalene	ND		0.002	"	"	"	"	"	Ua
Pyrene	ND		0.020	"	"	"	"	"	Ua

Surrogate: Fluorene-d10	102 %		60-130			"	"	"	
Surrogate: Anthracene-d10	86.8 %		60-130			"	"	"	
Surrogate: Pyrene-d10	104 %		60-130			"	"	"	
Surrogate: Benzo (a) pyrene-d12	97.0 %		60-130			"	"	"	

**pH in Soil by 9045D**

pH	8.17			pH Units	1	B4J1411	10/14/2024	10/15/2024	
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**SAR by 20B Saturated Paste**

SAR	0.0514		0.0100	SAR	1	B4J1408	10/14/2024	10/15/2024	
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	0.272		0.00500	mmhos/cm	1	B4J1411	10/14/2024	10/15/2024	
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**Table 915 metals by EPA 6020B**

Arsenic	2.83		0.264	mg/kg	10	B4J1130	10/11/2024	10/12/2024	
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Project: KMG - Victor 21-23, USX W 23-4,5,6 Facility

**PWV-N01@2.5'**

**10/11/2024 1:45:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory  
E410370-05 (Soil)**

**Table 915 metals by EPA 6020B**

Barium	74.5		9.10	mg/kg	10	B4J1130	10/11/2024	10/12/2024	
Cadmium	0.141		0.0910	"	"	"	"	"	
Copper	10.4		9.10	"	"	"	"	"	
Lead	9.65		0.910	"	"	"	"	"	
Nickel	8.95		0.910	"	"	"	"	"	
Selenium	ND		0.237	"	"	"	"	"	
Silver	ND		0.0910	"	"	"	"	"	
Zinc	38.3		33.7	"	"	"	"	"	

**Total Metals 7196A**

Hexavalent Chromium	ND	0.131	0.326	mg/kg dry	1	2689110	11/05/2024	11/12/2024	U
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Facility

PWV-N01@2.5'-V

10/11/2024 1:50:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory  
E410370-06 (Soil)

**pH in Soil by 9045D**

pH	8.10			pH Units	1	B4J1811	10/18/2024	10/19/2024	
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**SEP01-INLET@3'**  
**10/11/2024 11:40:00AM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory**  
**E410370-07 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	ND		0.101	mg/L	1	B4J1403	10/14/2024	10/15/2024	
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND		25.0	mg/kg	1	B4J1133	10/11/2024	10/11/2024	Ua
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	Ua

Surrogate: <i>o</i> -Terphenyl	82.7 %		50-150			"	"	"	
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**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B4J1132	"	10/11/2024	Ua
1,3,5-Trimethylbenzene	ND		0.00200	"	"	"	"	"	Ua
Benzene	ND		0.00200	"	"	"	"	"	Ua
Ethylbenzene	ND		0.00200	"	"	"	"	"	Ua
Toluene	ND		0.00200	"	"	"	"	"	Ua
Xylenes, total	ND		0.00200	"	"	"	"	"	Ua
Gasoline Range Hydrocarbons	ND		0.200	"	"	"	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	101 %		70-130			"	"	"	
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 Project: KMG - Victor 21-23, USX W 23-4,5,6  
 Facility

**SEP01-INLET@3'**

**10/11/2024 11:40:00AM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory**  
**E410370-07 (Soil)**

**GBTEX+TMBs by 8260D**

Surrogate: Toluene-d8	104 %		70-130			B4J11 32	10/11/2024	10/11/2024	
Surrogate: 4-Bromofluorobenzene	101 %		70-130			"	"	"	

**Metals by Saturated Paste by EPA 6010**

Calcium	0.906		0.499	meq/L	10	[CALC]	10/14/2024	10/15/2024	
Magnesium	ND		0.823	"	"	"	"	"	
Sodium	ND		0.435	"	"	"	"	"	

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

1-Methylnaphthalene	ND		0.002	mg/kg	1	B4J1134	10/11/2024	10/11/2024	Ua
2-Methylnaphthalene	ND		0.002	"	"	"	"	"	Ua
Acenaphthene	ND		0.020	"	"	"	"	"	Ua
Anthracene	ND		0.020	"	"	"	"	"	Ua
Benzo (a) anthracene	ND		0.005	"	"	"	"	"	Ua
Benzo (a) pyrene	ND		0.020	"	"	"	"	"	Ua
Benzo (b) fluoranthene	ND		0.020	"	"	"	"	"	Ua
Benzo (k) fluoranthene	ND		0.020	"	"	"	"	"	Ua
Chrysene	ND		0.020	"	"	"	"	"	Ua
Dibenz (a,h) anthracene	ND		0.020	"	"	"	"	"	Ua
Fluoranthene	ND		0.020	"	"	"	"	"	Ua

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 Facility

**SEP01-INLET@3'**  
**10/11/2024 11:40:00AM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory**  
**E410370-07 (Soil)**

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

Fluorene	ND	0.020	mg/kg	1	B4J1134	10/11/2024	10/11/2024	Ua
Indeno (1,2,3-cd) pyrene	ND	0.020	"	"	"	"	"	Ua
Naphthalene	ND	0.002	"	"	"	"	"	Ua
Pyrene	ND	0.020	"	"	"	"	"	Ua

Surrogate: Fluorene-d10	102 %	60-130	"	"	"	"	"
Surrogate: Anthracene-d10	84.7 %	60-130	"	"	"	"	"
Surrogate: Pyrene-d10	109 %	60-130	"	"	"	"	"
Surrogate: Benzo (a) pyrene-d12	98.8 %	60-130	"	"	"	"	"

**pH in Soil by 9045D**

pH	8.16	pH Units	1	B4J1411	10/14/2024	10/15/2024
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**SAR by 20B Saturated Paste**

SAR	0.0686	0.0100	SAR	1	B4J1408	10/14/2024	10/15/2024
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	0.209	0.00500	mmhos/cm	1	B4J1411	10/14/2024	10/15/2024
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**Table 915 metals by EPA 6020B**

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**SEP01-INLET@3'**

**10/11/2024 11:40:00AM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory  
E410370-07 (Soil)**

**Table 915 metals by EPA 6020B**

Arsenic	2.73		0.287	mg/kg	10	B4J1130	10/11/2024	10/12/2024	
Barium	55.6		9.89	"	"	"	"	"	
Cadmium	0.854		0.0989	"	"	"	"	"	
Copper	ND		9.89	"	"	"	"	"	
Lead	7.51		0.989	"	"	"	"	"	
Nickel	6.22		0.989	"	"	"	"	"	
Selenium	ND		0.257	"	"	"	"	"	
Silver	ND		0.0989	"	"	"	"	"	
Zinc	ND		36.6	"	"	"	"	"	

**Total Metals 7196A**

Hexavalent Chromium	ND	0.0995	0.249	mg/kg dry	1	2689110	11/05/2024	11/12/2024	U
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**SEP01-OUTLET@3'**  
**10/11/2024 11:45:00AM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory**  
**E410370-08 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.101		0.101	mg/L	1	B4J1403	10/14/2024	10/15/2024	
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND		25.0	mg/kg	1	B4J1133	10/11/2024	10/11/2024	Ua
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	Ua

Surrogate: <i>o</i> -Terphenyl	82.9 %		50-150			"	"	"	
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**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B4J1132	"	10/11/2024	Ua
1,3,5-Trimethylbenzene	ND		0.00200	"	"	"	"	"	Ua
Benzene	ND		0.00200	"	"	"	"	"	Ua
Ethylbenzene	ND		0.00200	"	"	"	"	"	Ua
Toluene	ND		0.00200	"	"	"	"	"	Ua
Xylenes, total	ND		0.00200	"	"	"	"	"	Ua
Gasoline Range Hydrocarbons	ND		0.200	"	"	"	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	102 %		70-130			"	"	"	
Surrogate: Toluene-d8	104 %		70-130			"	"	"	

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**SEP01-OUTLET@3'**  
**10/11/2024 11:45:00AM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory**  
**E410370-08 (Soil)**

**GBTEX+TMBs by 8260D**

Surrogate: 4-Bromofluorobenzene	100 %		70-130			B4J11 32	10/11/2024	10/11/2024	
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**Metals by Saturated Paste by EPA 6010**

Calcium	2.56		0.499	meq/L	10	[CALC]	10/14/2024	10/15/2024	
Magnesium	ND		0.823	"	"	"	"	"	
Sodium	0.442		0.435	"	"	"	"	"	

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

1-Methylnaphthalene	ND		0.002	mg/kg	1	B4J1134	10/11/2024	10/11/2024	Ua
2-Methylnaphthalene	ND		0.002	"	"	"	"	"	Ua
Acenaphthene	ND		0.020	"	"	"	"	"	Ua
Anthracene	ND		0.020	"	"	"	"	"	Ua
Benzo (a) anthracene	ND		0.005	"	"	"	"	"	Ua
Benzo (a) pyrene	ND		0.020	"	"	"	"	"	Ua
Benzo (b) fluoranthene	ND		0.020	"	"	"	"	"	Ua
Benzo (k) fluoranthene	ND		0.020	"	"	"	"	"	Ua
Chrysene	ND		0.020	"	"	"	"	"	Ua
Dibenz (a,h) anthracene	ND		0.020	"	"	"	"	"	Ua
Fluoranthene	ND		0.020	"	"	"	"	"	Ua
Fluorene	ND		0.020	"	"	"	"	"	Ua

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 Project Number: 09A1417841  
 Project: KMG - Victor 21-23, USX W 23-4,5,6  
 Facility

**SEP01-OUTLET@3'**  
**10/11/2024 11:45:00AM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory**  
**E410370-08 (Soil)**

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

Indeno (1,2,3-cd) pyrene	ND	0.020	mg/kg	1	B4J1134	10/11/2024	10/11/2024	Ua
Naphthalene	ND	0.002	"	"	"	"	"	Ua
Pyrene	ND	0.020	"	"	"	"	"	Ua

Surrogate: Fluorene-d10	99.5 %	60-130	"	"	"	"	"
Surrogate: Anthracene-d10	85.8 %	60-130	"	"	"	"	"
Surrogate: Pyrene-d10	111 %	60-130	"	"	"	"	"
Surrogate: Benzo (a) pyrene-d12	96.9 %	60-130	"	"	"	"	"

**pH in Soil by 9045D**

pH	8.06	pH Units	1	B4J1411	10/14/2024	10/15/2024
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**SAR by 20B Saturated Paste**

SAR	0.344	0.0100	SAR	1	B4J1408	10/14/2024	10/15/2024
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	0.510	0.00500	mmhos/cm	1	B4J1411	10/14/2024	10/15/2024
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**Table 915 metals by EPA 6020B**

Arsenic	1.76	0.271	mg/kg	10	B4J1130	10/11/2024	10/12/2024
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Ensolum  
11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417841  
Project: KMG - Victor 21-23, USX W 23-4,5,6  
Facility

**SEP01-OUTLET@3'**  
**10/11/2024 11:45:00AM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory**  
**E410370-08 (Soil)**

**Table 915 metals by EPA 6020B**

Barium	56.2		9.35	mg/kg	10	B4J1130	10/11/2024	10/12/2024	
Cadmium	0.106		0.0935	"	"	"	"	"	
Copper	ND		9.35	"	"	"	"	"	
Lead	7.08		0.935	"	"	"	"	"	
Nickel	5.68		0.935	"	"	"	"	"	
Selenium	ND		0.243	"	"	"	"	"	
Silver	ND		0.0935	"	"	"	"	"	
Zinc	ND		34.6	"	"	"	"	"	

**Total Metals 7196A**

Hexavalent Chromium	ND	0.156	0.390	mg/kg dry	1	2689110	11/05/2024	11/12/2024	U
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Origins Laboratory



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 Wheat Ridge CO 80033

Jeremy Espinoza  
 Project Number: 09A1417841  
 Project: KMG - Victor 21-23, USX W 23-4,5,6  
 Facility

**TB-BG01@0.5'**

**10/11/2024 11:25:00AM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory**  
**E410370-09 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.113		0.0996	mg/L	1	B4J1403	10/14/2024	10/15/2024	
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**Metals by Saturated Paste by EPA 6010**

Calcium	1.44		0.499	meq/L	10	[CALC]	10/14/2024	10/15/2024	
Magnesium	ND		0.823	"	"	"	"	"	
Sodium	ND		0.435	"	"	"	"	"	

**pH in Soil by 9045D**

pH	8.17			pH Units	1	B4J1411	10/14/2024	10/15/2024	
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**SAR by 20B Saturated Paste**

SAR	0.0496		0.0100	SAR	1	B4J1408	10/14/2024	10/15/2024	
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	0.268		0.00500	mmhos/cm	1	B4J1411	10/14/2024	10/15/2024	
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**Table 915 metals by EPA 6020B**

Arsenic	2.23		0.251	mg/kg	10	B4J1130	10/11/2024	10/12/2024	
Barium	64.6		8.66	"	"	"	"	"	
Cadmium	0.101		0.0866	"	"	"	"	"	
Copper	ND		8.66	"	"	"	"	"	

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Project: KMG - Victor 21-23, USX W 23-4,5,6  
Facility

**TB-BG01@0.5'**

**10/11/2024 11:25:00AM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory  
E410370-09 (Soil)**

**Table 915 metals by EPA 6020B**

Lead	7.85		0.866	mg/kg	10	B4J1130	10/11/2024	10/12/2024	
Nickel	7.18		0.866	"	"	"	"	"	
Selenium	ND		0.225	"	"	"	"	"	
Silver	ND		0.0866	"	"	"	"	"	
Zinc	ND		32.0	"	"	"	"	"	

**Total Metals 7196A**

Hexavalent Chromium	ND	0.131	0.327	mg/kg dry	1	2689110	11/05/2024	11/12/2024	U
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 Project: KMG - Victor 21-23, USX W 23-4,5,6  
 Facility

**NATIVE-BG01@3'**

**10/11/2024 1:55:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory**  
**E410370-10 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.226		0.100	mg/L	1	B4J1403	10/14/2024	10/15/2024	
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**Metals by Saturated Paste by EPA 6010**

Calcium	0.606		0.499	meq/L	10	[CALC]	10/14/2024	10/15/2024	
Magnesium	ND		0.823	"	"	"	"	"	"
Sodium	0.702		0.435	"	"	"	"	"	"

**pH in Soil by 9045D**

pH	8.32			pH Units	1	B4J1412	10/14/2024	10/15/2024	
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**SAR by 20B Saturated Paste**

SAR	1.15		0.0100	SAR	1	B4J1409	10/14/2024	10/15/2024	
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	0.216		0.00500	mmhos/cm	1	B4J1412	10/14/2024	10/15/2024	
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**Table 915 metals by EPA 6020B**

Arsenic	1.71		0.286	mg/kg	10	B4J1130	10/11/2024	10/12/2024	
Barium	68.3		9.85	"	"	"	"	"	"
Cadmium	ND		0.0985	"	"	"	"	"	"
Copper	ND		9.85	"	"	"	"	"	"

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Project: KMG - Victor 21-23, USX W 23-4,5,6  
Facility

**NATIVE-BG01@3'**

**10/11/2024 1:55:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory  
E410370-10 (Soil)**

**Table 915 metals by EPA 6020B**

Lead	4.93		0.985	mg/kg	10	B4J1130	10/11/2024	10/12/2024	
Nickel	5.67		0.985	"	"	"	"	"	
Selenium	ND		0.256	"	"	"	"	"	
Silver	ND		0.0985	"	"	"	"	"	
Zinc	ND		36.4	"	"	"	"	"	

**Total Metals 7196 A**

Hexavalent Chromium	ND	0.156	0.389	mg/kg dry	1	2698174	11/05/2024	11/12/2024	U
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 Facility

**NATIVE-BG01@6'**

**10/11/2024 2:00:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory**  
**E410370-11 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.216	0.0993	mg/L	1	B4J1404	10/14/2024	10/15/2024
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**Metals by Saturated Paste by EPA 6010**

Calcium	0.970	0.499	meq/L	10	[CALC]	10/14/2024	10/15/2024
Magnesium	ND	0.823	"	"	"	"	"
Sodium	ND	0.435	"	"	"	"	"

**pH in Soil by 9045D**

pH	8.20		pH Units	1	B4J1412	10/14/2024	10/15/2024
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**SAR by 20B Saturated Paste**

SAR	0.403	0.0100	SAR	1	B4J1409	10/14/2024	10/15/2024
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	0.280	0.00500	mmhos/cm	1	B4J1412	10/14/2024	10/15/2024
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**Table 915 metals by EPA 6020B**

Arsenic	1.85	0.279	mg/kg	10	B4J1130	10/11/2024	10/12/2024
Barium	72.6	9.61	"	"	"	"	"
Cadmium	ND	0.0961	"	"	"	"	"

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Project: KMG - Victor 21-23, USX W 23-4,5,6  
Facility

**NATIVE-BG01@6'**

**10/11/2024 2:00:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory  
E410370-11 (Soil)**

**Table 915 metals by EPA 6020B**

Copper	ND		9.61	mg/kg	10	B4J1130	10/11/2024	10/12/2024	
Lead	<b>5.95</b>		0.961	"	"	"	"	"	
Nickel	<b>6.38</b>		0.961	"	"	"	"	"	
Selenium	ND		0.250	"	"	"	"	"	
Silver	ND		0.0961	"	"	"	"	"	
Zinc	ND		35.6	"	"	"	"	"	

**Total Metals 7196A**

Hexavalent Chromium	ND	0.142	0.356	mg/kg dry	1	2689110	11/05/2024	11/12/2024	U
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 Facility

**NATIVE-BG02@3'**

**10/11/2024 2:05:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory**  
**E410370-12 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	ND		0.101	mg/L	1	B4J1404	10/14/2024	10/15/2024	
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**Metals by Saturated Paste by EPA 6010**

Calcium	ND		0.499	meq/L	10	[CALC]	10/14/2024	10/15/2024	
Magnesium	ND		0.823	"	"	"	"	"	
Sodium	ND		0.435	"	"	"	"	"	

**pH in Soil by 9045D**

pH	7.44			pH Units	1	B4J1412	10/14/2024	10/15/2024	
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**SAR by 20B Saturated Paste**

SAR	0.184		0.0100	SAR	1	B4J1409	10/14/2024	10/15/2024	
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	0.0490		0.00500	mmhos/cm	1	B4J1412	10/14/2024	10/15/2024	
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**Table 915 metals by EPA 6020B**

Arsenic	1.65		0.283	mg/kg	10	B4J1130	10/11/2024	10/12/2024	
Barium	74.0		9.77	"	"	"	"	"	
Cadmium	ND		0.0977	"	"	"	"	"	

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Project: KMG - Victor 21-23, USX W 23-4,5,6  
Facility

**NATIVE-BG02@3'**

**10/11/2024 2:05:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory  
E410370-12 (Soil)**

**Table 915 metals by EPA 6020B**

Copper	ND		9.77	mg/kg	10	B4J1130	10/11/2024	10/12/2024	
Lead	<b>5.66</b>		0.977	"	"	"	"	"	
Nickel	<b>5.93</b>		0.977	"	"	"	"	"	
Selenium	ND		0.254	"	"	"	"	"	
Silver	ND		0.0977	"	"	"	"	"	
Zinc	ND		36.1	"	"	"	"	"	

**Total Metals 7196A**

Hexavalent Chromium	ND	0.160	0.400	mg/kg dry	1	2689110	11/05/2024	11/12/2024	U
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Jeremy Espinoza  
Project Number: 09A1417841  
Project: KMG - Victor 21-23, USX W 23-4,5,6 Facility

**NATIVE-BG02@6'**

**10/11/2024 2:10:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory  
E410370-13 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.117		0.101	mg/L	1	B4J1404	10/14/2024	10/15/2024	
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**Metals by Saturated Paste by EPA 6010**

Calcium	ND		0.499	meq/L	10	[CALC]	10/14/2024	10/15/2024	
Magnesium	ND		0.823	"	"	"	"	"	
Sodium	ND		0.435	"	"	"	"	"	

**pH in Soil by 9045D**

pH	7.47			pH Units	1	B4J1412	10/14/2024	10/15/2024	
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**SAR by 20B Saturated Paste**

SAR	0.306		0.0100	SAR	1	B4J1409	10/14/2024	10/15/2024	
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	0.0833		0.00500	mmhos/cm	1	B4J1412	10/14/2024	10/15/2024	
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**Table 915 metals by EPA 6020B**

Arsenic	2.43		0.265	mg/kg	10	B4J1130	10/11/2024	10/12/2024	
Barium	107		9.14	"	"	"	"	"	
Cadmium	ND		0.0914	"	"	"	"	"	

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Project Number: 09A1417841  
Project: KMG - Victor 21-23, USX W 23-4,5,6  
Facility

**NATIVE-BG02@6'**

**10/11/2024 2:10:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory  
E410370-13 (Soil)**

**Table 915 metals by EPA 6020B**

Copper	ND		9.14	mg/kg	10	B4J1130	10/11/2024	10/12/2024	
Lead	<b>7.69</b>		0.914	"	"	"	"	"	
Nickel	<b>11.0</b>		0.914	"	"	"	"	"	
Selenium	ND		0.238	"	"	"	"	"	
Silver	ND		0.0914	"	"	"	"	"	
Zinc	ND		33.8	"	"	"	"	"	

**Total Metals 7196A**

Hexavalent Chromium	ND	0.159	0.397	mg/kg dry	1	2689110	11/05/2024	11/12/2024	U
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Project Number: 09A1417841  
Project: KMG - Victor 21-23, USX W 23-4,5,6 Facility

**NATIVE-BG03@3'**

**10/11/2024 2:15:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory  
E410370-14 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.117		0.0992	mg/L	1	B4J1404	10/14/2024	10/15/2024	
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**Metals by Saturated Paste by EPA 6010**

Calcium	1.03		0.499	meq/L	10	[CALC]	10/14/2024	10/15/2024	
Magnesium	ND		0.823	"	"	"	"	"	
Sodium	ND		0.435	"	"	"	"	"	

**pH in Soil by 9045D**

pH	8.26			pH Units	1	B4J1412	10/14/2024	10/15/2024	
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**SAR by 20B Saturated Paste**

SAR	0.100		0.0100	SAR	1	B4J1409	10/14/2024	10/15/2024	
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	0.216		0.00500	mmhos/cm	1	B4J1412	10/14/2024	10/15/2024	
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**Table 915 metals by EPA 6020B**

Arsenic	1.68		0.278	mg/kg	10	B4J1130	10/11/2024	10/12/2024	
Barium	66.2		9.57	"	"	"	"	"	
Cadmium	ND		0.0957	"	"	"	"	"	

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Project Number: 09A1417841  
Project: KMG - Victor 21-23, USX W 23-4,5,6  
Facility

**NATIVE-BG03@3'**

**10/11/2024 2:15:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory  
E410370-14 (Soil)**

**Table 915 metals by EPA 6020B**

Copper	ND		9.57	mg/kg	10	B4J1130	10/11/2024	10/12/2024	
Lead	7.11		0.957	"	"	"	"	"	
Nickel	5.25		0.957	"	"	"	"	"	
Selenium	ND		0.249	"	"	"	"	"	
Silver	ND		0.0957	"	"	"	"	"	
Zinc	ND		35.4	"	"	"	"	"	

**Total Metals 7196A**

Hexavalent Chromium	ND	0.138	0.345	mg/kg dry	1	2689110	11/05/2024	11/12/2024	U
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Project Number: 09A1417841  
Project: KMG - Victor 21-23, USX W 23-4,5,6 Facility

**NATIVE-BG03@6'**

**10/11/2024 2:20:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory  
E410370-15 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.154		0.0997	mg/L	1	B4J1404	10/14/2024	10/15/2024	
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**Metals by Saturated Paste by EPA 6010**

Calcium	1.06		0.499	meq/L	10	[CALC]	10/14/2024	10/15/2024	
Magnesium	ND		0.823	"	"	"	"	"	
Sodium	ND		0.435	"	"	"	"	"	

**pH in Soil by 9045D**

pH	8.26			pH Units	1	B4J1412	10/14/2024	10/15/2024	
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**SAR by 20B Saturated Paste**

SAR	0.0673		0.0100	SAR	1	B4J1409	10/14/2024	10/15/2024	
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	0.188		0.00500	mmhos/cm	1	B4J1412	10/14/2024	10/15/2024	
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**Table 915 metals by EPA 6020B**

Arsenic	2.12		0.251	mg/kg	10	B4J1130	10/11/2024	10/12/2024	
Barium	73.5		8.67	"	"	"	"	"	
Cadmium	0.0919		0.0867	"	"	"	"	"	
Copper	ND		8.67	"	"	"	"	"	

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Project Number: 09A1417841  
Project: KMG - Victor 21-23, USX W 23-4,5,6  
Facility

**NATIVE-BG03@6'**

**10/11/2024 2:20:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory  
E410370-15 (Soil)**

**Table 915 metals by EPA 6020B**

Lead	6.01		0.867	mg/kg	10	B4J1130	10/11/2024	10/12/2024	
Nickel	6.51		0.867	"	"	"	"	"	
Selenium	ND		0.225	"	"	"	"	"	
Silver	ND		0.0867	"	"	"	"	"	
Zinc	ND		32.1	"	"	"	"	"	

**Total Metals 7196A**

Hexavalent Chromium	ND	0.133	0.334	mg/kg dry	1	2689110	11/05/2024	11/12/2024	U
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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 B4J1132 - EPA 5030 (soil)**

**Blank (B4J1132-BLK1)**

Prepared: 10/11/2024 Analyzed: 10/11/2024

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							Ua
1,3,5-Trimethylbenzene	ND	0.00200	"							Ua
Benzene	ND	0.00200	"							Ua
Ethylbenzene	ND	0.00200	"							Ua
Naphthalene	ND	0.00380	"							Ua
Toluene	ND	0.00200	"							Ua
Xylenes, total	ND	0.00200	"							Ua
Gasoline Range Hydrocarbons	ND	0.200	"							Ua
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125	96.3		70-130			
Surrogate: Toluene-d8	0.13		"	0.125	105		70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125	99.2		70-130			

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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 B4J1132 - EPA 5030 (soil)**

**LCS (B4J1132-BS1)**

Prepared: 10/11/2024 Analyzed: 10/11/2024

1,2,4-Trimethylbenzene	0.103	0.00200	mg/kg	0.100		103	70-130			
1,3,5-Trimethylbenzene	0.104	0.00200	"	0.100		104	70-130			
Benzene	0.0857	0.00200	"	0.100		85.7	70-130			
Ethylbenzene	0.102	0.00200	"	0.100		102	70-130			
Naphthalene	0.104	0.00380	"	0.100		104	70-130			
Toluene	0.0951	0.00200	"	0.100		95.1	70-130			
o-Xylene	0.102	0.00200	"	0.100		102	70-130			
m,p-Xylene	0.214	0.00400	"	0.200		107	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		95.0	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		104	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

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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 B4J1132 - EPA 5030 (soil)**

<b>Matrix Spike (B4J1132-MS1)</b>	<b>Source: E410370-01</b>			<b>Prepared: 10/11/2024 Analyzed: 10/11/2024</b>						
1,2,4-Trimethylbenzene	0.0928	0.00200	mg/kg	0.100	ND	92.8	70-130			
1,3,5-Trimethylbenzene	0.0941	0.00200	"	0.100	ND	94.1	70-130			
Benzene	0.0800	0.00200	"	0.100	ND	80.0	70-130			
Ethylbenzene	0.0970	0.00200	"	0.100	ND	97.0	70-130			
Naphthalene	0.0897	0.00380	"	0.100	ND	89.7	70-130			
Toluene	0.0888	0.00200	"	0.100	ND	88.8	70-130			
o-Xylene	0.0972	0.00200	"	0.100	ND	97.2	70-130			
m,p-Xylene	0.203	0.00400	"	0.200	ND	102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		94.6	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		105	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		103	70-130			

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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 B4J1132 - EPA 5030 (soil)**

<b>Matrix Spike Dup (B4J1132-MSD1)</b>	<b>Source: E410370-01</b>			<b>Prepared: 10/11/2024 Analyzed: 10/11/2024</b>						
1,2,4-Trimethylbenzene	0.0854	0.00200	mg/kg	0.100	ND	85.4	70-130	8.24	20	
1,3,5-Trimethylbenzene	0.0860	0.00200	"	0.100	ND	86.0	70-130	8.95	20	
Benzene	0.0754	0.00200	"	0.100	ND	75.4	70-130	5.82	20	
Ethylbenzene	0.0897	0.00200	"	0.100	ND	89.7	70-130	7.73	20	
Naphthalene	0.0826	0.00380	"	0.100	ND	82.6	70-130	8.26	20	
Toluene	0.0826	0.00200	"	0.100	ND	82.6	70-130	7.33	20	
o-Xylene	0.0896	0.00200	"	0.100	ND	89.6	70-130	8.16	20	
m,p-Xylene	0.187	0.00400	"	0.200	ND	93.6	70-130	8.17	20	
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		96.8	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		104	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		103	70-130			

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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 B4J1133 - EPA 3550B</b>										
<b>Blank (B4J1133-BLK1)</b>										
					Prepared: 10/11/2024 Analyzed: 10/12/2024					
Diesel (C10-C28)	ND	25.0	mg/kg							Ua
Residual Range Organics (C28-C40)	ND	100	"							Ua
Surrogate: o-Terphenyl	22		"	24.9		88.5	50-150			

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**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 B4J1133 - EPA 3550B**

**LCS (B4J1133-BS1)**

Prepared: 10/11/2024 Analyzed: 10/11/2024

Diesel (C10-C28)	1030	50.0	mg/kg	1000		103	70-130			
Residual Range Organics (C28-C40)	1010	200	"	1000		101	70-130			
Surrogate: o-Terphenyl	52		"	49.8		105	50-150			

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**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 B4J1133 - EPA 3550B**

<b>Matrix Spike (B4J1133-MS1)</b>	<b>Source: E410370-01</b>			<b>Prepared: 10/11/2024 Analyzed: 10/11/2024</b>						
Diesel (C10-C28)	1020	50.0	mg/kg	1000	ND	102	70-130			
Residual Range Organics (C28-C40)	1030	200	"	1000	ND	103	70-130			
Surrogate: o-Terphenyl	50		"	49.8		100	50-150			

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**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 B4J1133 - EPA 3550B**

<b>Matrix Spike Dup (B4J1133-MSD1)</b>	<b>Source: E410370-01</b>			<b>Prepared: 10/11/2024 Analyzed: 10/11/2024</b>						
Diesel (C10-C28)	1040	50.0	mg/kg	1000	ND	104	70-130	1.84	35	
Residual Range Organics (C28-C40)	1040	200	"	1000	ND	104	70-130	1.65	35	
<i>Surrogate: o-Terphenyl</i>	49		"	49.8		99.5	50-150			

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**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 B4J1130 - EPA 3050B**

**Blank (B4J1130-BLK1)**

Prepared: 10/11/2024 Analyzed: 10/12/2024

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 (B4J1130-BS1)**

Prepared: 10/11/2024 Analyzed: 10/12/2024

Arsenic	4.66	0.290	mg/kg	5.00		93.3	80-120			
Barium	537	10.0	"	500		107	80-120			
Cadmium	5.44	0.100	"	5.00		109	80-120			
Copper	49.4	10.0	"	50.0		98.8	80-120			
Lead	5.34	1.00	"	5.00		107	80-120			
Nickel	5.70	1.00	"	5.00		114	80-120			
Selenium	5.37	0.260	"	5.00		107	80-120			
Silver	5.96	0.100	"	5.00		119	80-120			
Zinc	46.5	37.0	"	50.0		93.0	80-120			

**Matrix Spike (B4J1130-MS1)**

**Source: E410356-01**

Prepared: 10/11/2024 Analyzed: 10/12/2024

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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 B4J1130 - EPA 3050B**

Matrix Spike (B4J1130-MS1)		Source: E410356-01			Prepared: 10/11/2024 Analyzed: 10/12/2024					
Arsenic	7.37	0.277	mg/kg	4.78	2.10	110	75-125			
Barium	597	9.55	"	478	49.3	115	75-125			
Cadmium	5.42	0.0955	"	4.78	0.257	108	75-125			
Copper	56.5	9.55	"	47.8	8.60	100	75-125			
Lead	18.1	0.955	"	4.78	13.8	90.4	75-125			
Nickel	10.5	0.955	"	4.78	4.57	123	75-125			
Selenium	5.32	0.248	"	4.78	0.0894	110	75-125			
Silver	5.74	0.0955	"	4.78	0.152	117	75-125			
Zinc	75.2	35.4	"	47.8	30.1	94.4	75-125			

Matrix Spike Dup (B4J1130-MSD1)		Source: E410356-01			Prepared: 10/11/2024 Analyzed: 10/12/2024					
Arsenic	6.79	0.274	mg/kg	4.72	2.10	99.3	75-125	8.20	20	
Barium	599	9.43	"	472	49.3	117	75-125	0.317	20	
Cadmium	5.66	0.0943	"	4.72	0.257	115	75-125	4.34	20	
Copper	60.4	9.43	"	47.2	8.60	110	75-125	6.69	20	
Lead	19.7	0.943	"	4.72	13.8	124	75-125	8.16	20	
Nickel	11.0	0.943	"	4.72	4.57	137	75-125	5.31	20	QM-07
Selenium	5.64	0.245	"	4.72	0.0894	118	75-125	5.79	20	
Silver	5.98	0.0943	"	4.72	0.152	124	75-125	4.05	20	
Zinc	82.0	34.9	"	47.2	30.1	110	75-125	8.69	20	

**Batch B4J1446 - EPA 3050B**

Blank (B4J1446-BLK1)		Prepared: 10/14/2024 Analyzed: 10/15/2024								
Arsenic	ND	0.290	mg/kg							
Barium	ND	10.0	"							
Cadmium	ND	0.100	"							

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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 B4J1446 - EPA 3050B**

**Blank (B4J1446-BLK1)**

Prepared: 10/14/2024 Analyzed: 10/15/2024

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

**LCS (B4J1446-BS1)**

Prepared: 10/14/2024 Analyzed: 10/15/2024

Arsenic	5.10	0.290	mg/kg	5.00		102	80-120			
Barium	536	10.0	"	500		107	80-120			
Cadmium	5.49	0.100	"	5.00		110	80-120			
Copper	52.5	10.0	"	50.0		105	80-120			
Lead	5.48	1.00	"	5.00		110	80-120			
Nickel	5.36	1.00	"	5.00		107	80-120			
Selenium	5.34	0.260	"	5.00		107	80-120			
Silver	5.51	0.100	"	5.00		110	80-120			
Zinc	52.1	37.0	"	50.0		104	80-120			

**Matrix Spike (B4J1446-MS1)**

**Source: E410416-01**

Prepared: 10/14/2024 Analyzed: 10/15/2024

Arsenic	6.33	0.246	mg/kg	4.24	2.47	90.9	75-125			
Barium	556	8.49	"	424	99.4	108	75-125			
Cadmium	4.62	0.0849	"	4.24	0.141	106	75-125			
Copper	49.7	8.49	"	42.4	6.48	102	75-125			
Lead	11.1	0.849	"	4.24	7.32	90.1	75-125			
Nickel	10.9	0.849	"	4.24	7.23	86.7	75-125			
Selenium	4.36	0.221	"	4.24	0.160	99.0	75-125			
Silver	4.59	0.0849	"	4.24	0.0205	108	75-125			

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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 B4J1446 - EPA 3050B

<b>Matrix Spike (B4J1446-MS1)</b>		<b>Source: E410416-01</b>			<b>Prepared: 10/14/2024 Analyzed: 10/15/2024</b>					
Zinc	66.7	31.4	mg/kg	42.4	28.5	90.0	75-125			
<b>Matrix Spike Dup (B4J1446-MSD1)</b>		<b>Source: E410416-01</b>			<b>Prepared: 10/14/2024 Analyzed: 10/15/2024</b>					
Arsenic	13.4	0.258	mg/kg	4.45	2.47	246	75-125	71.9	20	QM-02, QM-07
Barium	609	8.89	"	445	99.4	115	75-125	9.21	20	
Cadmium	5.27	0.0889	"	4.45	0.141	115	75-125	13.2	20	
Copper	60.1	8.89	"	44.5	6.48	120	75-125	18.8	20	
Lead	14.7	0.889	"	4.45	7.32	167	75-125	27.8	20	QM-02, QM-07
Nickel	15.6	0.889	"	4.45	7.23	188	75-125	35.4	20	QM-02
Selenium	5.04	0.231	"	4.45	0.160	110	75-125	14.5	20	
Silver	5.15	0.0889	"	4.45	0.0205	115	75-125	11.4	20	
Zinc	77.5	32.9	"	44.5	28.5	110	75-125	14.9	20	

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 Wheat Ridge CO 80033

Jeremy Espinoza  
 Project Number: 09A1417841  
 Project: KMG - Victor 21-23, USX W 23-4,5,6  
 Facility

**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 B4J1134 - EPA 3580**

**Blank (B4J1134-BLK1)**

Prepared: 10/11/2024 Analyzed: 10/11/2024

1-Methylnaphthalene	ND	0.002	mg/kg							Ua
2-Methylnaphthalene	ND	0.002	"							Ua
Acenaphthene	ND	0.020	"							Ua
Anthracene	ND	0.020	"							Ua
Benzo (a) anthracene	ND	0.005	"							Ua
Benzo (a) pyrene	ND	0.020	"							Ua
Benzo (b) fluoranthene	ND	0.020	"							Ua
Benzo (g,h,i) perylene	ND	0.020	"							Ua
Benzo (k) fluoranthene	ND	0.020	"							Ua
Chrysene	ND	0.020	"							Ua
Dibenz (a,h) anthracene	ND	0.020	"							Ua
Fluoranthene	ND	0.020	"							Ua
Fluorene	ND	0.020	"							Ua
Indeno (1,2,3-cd) pyrene	ND	0.020	"							Ua
Naphthalene	ND	0.002	"							Ua
Phenanthrene	ND	0.020	"							Ua
Pyrene	ND	0.020	"							Ua
<hr/>										
Surrogate: Fluorene-d10	210		ug/kg	200		105	60-130			
Surrogate: Anthracene-d10	170		"	200		83.2	60-130			
Surrogate: Pyrene-d10	200		"	200		100	60-130			
Surrogate: Benzo (a) pyrene-d12	200		"	200		99.7	60-130			

**LCS (B4J1134-BS1)**

Prepared: 10/11/2024 Analyzed: 10/11/2024

1-Methylnaphthalene	0.167	0.002	mg/kg	0.200		83.5	70-130			
2-Methylnaphthalene	0.170	0.002	"	0.200		85.1	70-130			
Acenaphthene	0.181	0.020	"	0.200		90.6	70-130			
Anthracene	0.169	0.020	"	0.200		84.4	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 B4J1134 - EPA 3580**

**LCS (B4J1134-BS1)**

Prepared: 10/11/2024 Analyzed: 10/11/2024

Benzo (a) anthracene	0.173	0.005	mg/kg	0.200		86.4	70-130			
Benzo (a) pyrene	0.170	0.020	"	0.200		85.2	70-130			
Benzo (b) fluoranthene	0.188	0.020	"	0.200		94.0	70-130			
Benzo (g,h,i) perylene	0.169	0.020	"	0.200		84.5	70-130			
Benzo (k) fluoranthene	0.185	0.020	"	0.200		92.5	70-130			
Chrysene	0.174	0.020	"	0.200		86.8	70-130			
Dibenz (a,h) anthracene	0.173	0.020	"	0.200		86.3	70-130			
Fluoranthene	0.180	0.020	"	0.200		90.1	70-130			
Fluorene	0.186	0.020	"	0.200		93.0	70-130			
Indeno (1,2,3-cd) pyrene	0.210	0.020	"	0.200		105	70-130			
Naphthalene	0.174	0.002	"	0.200		86.9	70-130			
Phenanthrene	0.168	0.020	"	0.200		83.9	70-130			
Pyrene	0.198	0.020	"	0.200		99.0	70-130			
Surrogate: Fluorene-d10	210		ug/kg	200		105	60-130			
Surrogate: Anthracene-d10	170		"	200		85.6	60-130			
Surrogate: Pyrene-d10	200		"	200		100	60-130			
Surrogate: Benzo (a) pyrene-d12	200		"	200		97.8	60-130			

**Matrix Spike (B4J1134-MS1)**

**Source: E410370-01**

Prepared: 10/11/2024 Analyzed: 10/11/2024

1-Methylnaphthalene	0.185	0.002	mg/kg	0.200	ND	92.4	70-130			
2-Methylnaphthalene	0.186	0.002	"	0.200	ND	93.2	70-130			
Acenaphthene	0.190	0.020	"	0.200	0.002	93.9	70-130			
Anthracene	0.176	0.020	"	0.200	0.002	87.2	70-130			
Benzo (a) anthracene	0.194	0.005	"	0.200	0.0009	96.7	70-130			
Benzo (a) pyrene	0.194	0.020	"	0.200	0.001	96.1	70-130			
Benzo (b) fluoranthene	0.207	0.020	"	0.200	0.003	102	70-130			
Benzo (g,h,i) perylene	0.189	0.020	"	0.200	0.003	92.8	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 B4J1134 - EPA 3580**

<b>Matrix Spike (B4J1134-MS1)</b>	<b>Source: E410370-01</b>			<b>Prepared: 10/11/2024 Analyzed: 10/11/2024</b>						
Benzo (k) fluoranthene	0.202	0.020	mg/kg	0.200	0.001	101	70-130			
Chrysene	0.186	0.020	"	0.200	0.002	91.7	70-130			
Dibenz (a,h) anthracene	0.184	0.020	"	0.200	0.002	91.0	70-130			
Fluoranthene	0.199	0.020	"	0.200	0.003	98.1	70-130			
Fluorene	0.194	0.020	"	0.200	ND	97.1	70-130			
Indeno (1,2,3-cd) pyrene	0.227	0.020	"	0.200	0.003	112	70-130			
Naphthalene	0.189	0.002	"	0.200	ND	94.6	70-130			
Phenanthrene	0.179	0.020	"	0.200	0.0003	89.1	70-130			
Pyrene	0.212	0.020	"	0.200	0.001	105	70-130			
Surrogate: Fluorene-d10	210		ug/kg	200		104	60-130			
Surrogate: Anthracene-d10	170		"	200		84.0	60-130			
Surrogate: Pyrene-d10	200		"	200		102	60-130			
Surrogate: Benzo (a) pyrene-d12	200		"	200		101	60-130			

<b>Matrix Spike Dup (B4J1134-MSD1)</b>	<b>Source: E410370-01</b>			<b>Prepared: 10/11/2024 Analyzed: 10/11/2024</b>						
1-Methylnaphthalene	0.179	0.002	mg/kg	0.200	ND	89.7	70-130	2.99	20	
2-Methylnaphthalene	0.181	0.002	"	0.200	ND	90.6	70-130	2.82	20	
Acenaphthene	0.185	0.020	"	0.200	0.002	91.7	70-130	2.36	20	
Anthracene	0.174	0.020	"	0.200	0.002	86.3	70-130	1.02	20	
Benzo (a) anthracene	0.183	0.005	"	0.200	0.0009	91.0	70-130	5.96	20	
Benzo (a) pyrene	0.190	0.020	"	0.200	0.001	94.2	70-130	1.96	20	
Benzo (b) fluoranthene	0.207	0.020	"	0.200	0.003	102	70-130	0.448	20	
Benzo (g,h,i) perylene	0.178	0.020	"	0.200	0.003	87.6	70-130	5.74	20	
Benzo (k) fluoranthene	0.183	0.020	"	0.200	0.001	91.1	70-130	9.80	20	
Chrysene	0.195	0.020	"	0.200	0.002	96.5	70-130	5.00	20	
Dibenz (a,h) anthracene	0.184	0.020	"	0.200	0.002	91.1	70-130	0.0795	20	
Fluoranthene	0.193	0.020	"	0.200	0.003	95.0	70-130	3.12	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 B4J1134 - EPA 3580**

Matrix Spike Dup (B4J1134-MSD1)	Source: E410370-01			Prepared: 10/11/2024 Analyzed: 10/11/2024						
Fluorene	0.186	0.020	mg/kg	0.200	ND	92.9	70-130	4.48	20	
Indeno (1,2,3-cd) pyrene	0.174	0.020	"	0.200	0.003	85.7	70-130	26.3	20	QR-02
Naphthalene	0.193	0.002	"	0.200	ND	96.6	70-130	2.10	20	
Phenanthrene	0.180	0.020	"	0.200	0.0003	89.7	70-130	0.670	20	
Pyrene	0.211	0.020	"	0.200	0.001	105	70-130	0.562	20	
Surrogate: Fluorene-d10	210		ug/kg	200		104	60-130			
Surrogate: Anthracene-d10	170		"	200		86.5	60-130			
Surrogate: Pyrene-d10	210		"	200		103	60-130			
Surrogate: Benzo (a) pyrene-d12	200		"	200		101	60-130			

**Batch B4J1445 - EPA 3580**

Blank (B4J1445-BLK1)	Prepared: 10/14/2024 Analyzed: 10/14/2024									
1-Methylnaphthalene	ND	0.002	mg/kg							Ua
2-Methylnaphthalene	ND	0.002	"							Ua
Acenaphthene	ND	0.020	"							Ua
Anthracene	ND	0.020	"							Ua
Benzo (a) anthracene	ND	0.005	"							Ua
Benzo (a) pyrene	ND	0.020	"							Ua
Benzo (b) fluoranthene	ND	0.020	"							Ua
Benzo (g,h,i) perylene	ND	0.020	"							Ua
Benzo (k) fluoranthene	ND	0.020	"							Ua
Chrysene	ND	0.020	"							Ua
Dibenz (a,h) anthracene	ND	0.020	"							Ua
Fluoranthene	ND	0.020	"							Ua
Fluorene	ND	0.020	"							Ua
Indeno (1,2,3-cd) pyrene	ND	0.020	"							Ua

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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 B4J1445 - EPA 3580**

**Blank (B4J1445-BLK1)**

Prepared: 10/14/2024 Analyzed: 10/14/2024

Naphthalene	ND	0.002	mg/kg							Ua
Phenanthrene	ND	0.020	"							Ua
Pyrene	ND	0.020	"							Ua
Surrogate: Fluorene-d10	210		ug/kg	200		105	60-130			
Surrogate: Anthracene-d10	170		"	200		82.9	60-130			
Surrogate: Pyrene-d10	210		"	200		107	60-130			
Surrogate: Benzo (a) pyrene-d12	190		"	200		97.0	60-130			

**LCS (B4J1445-BS1)**

Prepared: 10/14/2024 Analyzed: 10/14/2024

1-Methylnaphthalene	0.175	0.002	mg/kg	0.200		87.3	70-130			
2-Methylnaphthalene	0.175	0.002	"	0.200		87.4	70-130			
Acenaphthene	0.182	0.020	"	0.200		91.2	70-130			
Anthracene	0.166	0.020	"	0.200		83.0	70-130			
Benzo (a) anthracene	0.195	0.005	"	0.200		97.3	70-130			
Benzo (a) pyrene	0.174	0.020	"	0.200		86.8	70-130			
Benzo (b) fluoranthene	0.194	0.020	"	0.200		96.8	70-130			
Benzo (g,h,i) perylene	0.174	0.020	"	0.200		87.2	70-130			
Benzo (k) fluoranthene	0.189	0.020	"	0.200		94.7	70-130			
Chrysene	0.184	0.020	"	0.200		91.8	70-130			
Dibenz (a,h) anthracene	0.174	0.020	"	0.200		87.2	70-130			
Fluoranthene	0.199	0.020	"	0.200		99.5	70-130			
Fluorene	0.186	0.020	"	0.200		93.0	70-130			
Indeno (1,2,3-cd) pyrene	0.166	0.020	"	0.200		83.2	70-130			
Naphthalene	0.180	0.002	"	0.200		89.9	70-130			
Phenanthrene	0.177	0.020	"	0.200		88.4	70-130			
Pyrene	0.213	0.020	"	0.200		107	70-130			
Surrogate: Fluorene-d10	210		ug/kg	200		104	60-130			

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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 B4J1445 - EPA 3580**

**LCS (B4J1445-BS1)**

Prepared: 10/14/2024 Analyzed: 10/14/2024

Surrogate: Anthracene-d10	170		ug/kg	200		85.6	60-130
Surrogate: Pyrene-d10	210		"	200		107	60-130
Surrogate: Benzo (a) pyrene-d12	200		"	200		98.1	60-130

**Matrix Spike (B4J1445-MS1)**

**Source: E410406-04**

Prepared: 10/14/2024 Analyzed: 10/14/2024

1-Methylnaphthalene	0.182	0.002	mg/kg	0.200	0.005	88.2	70-130
2-Methylnaphthalene	0.185	0.002	"	0.200	0.007	88.9	70-130
Acenaphthene	0.185	0.020	"	0.200	0.002	91.4	70-130
Anthracene	0.191	0.020	"	0.200	ND	95.3	70-130
Benzo (a) anthracene	0.185	0.005	"	0.200	0.004	90.8	70-130
Benzo (a) pyrene	0.186	0.020	"	0.200	0.005	90.6	70-130
Benzo (b) fluoranthene	0.214	0.020	"	0.200	0.012	101	70-130
Benzo (g,h,i) perylene	0.190	0.020	"	0.200	0.009	90.5	70-130
Benzo (k) fluoranthene	0.196	0.020	"	0.200	0.009	93.8	70-130
Chrysene	0.199	0.020	"	0.200	0.009	94.7	70-130
Dibenz (a,h) anthracene	0.186	0.020	"	0.200	0.006	89.9	70-130
Fluoranthene	0.199	0.020	"	0.200	0.005	97.4	70-130
Fluorene	0.190	0.020	"	0.200	0.001	94.3	70-130
Indeno (1,2,3-cd) pyrene	0.174	0.020	"	0.200	0.009	82.7	70-130
Naphthalene	0.191	0.002	"	0.200	0.004	93.8	70-130
Phenanthrene	0.186	0.020	"	0.200	0.008	89.0	70-130
Pyrene	0.217	0.020	"	0.200	0.005	106	70-130

Surrogate: Fluorene-d10	200		ug/kg	200		102	60-130
Surrogate: Anthracene-d10	180		"	200		88.0	60-130
Surrogate: Pyrene-d10	210		"	200		105	60-130
Surrogate: Benzo (a) pyrene-d12	200		"	200		101	60-130

**Matrix Spike Dup (B4J1445-MSD1)**

**Source: E410406-04**

Prepared: 10/14/2024 Analyzed: 10/14/2024

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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
<b>Batch B4J1445 - EPA 3580</b>										
1-Methylnaphthalene	0.182	0.002	mg/kg	0.200	0.005	88.1	70-130	0.0775	20	
2-Methylnaphthalene	0.184	0.002	"	0.200	0.007	88.3	70-130	0.617	20	
Acenaphthene	0.183	0.020	"	0.200	0.002	90.6	70-130	0.862	20	
Anthracene	0.188	0.020	"	0.200	ND	94.1	70-130	1.18	20	
Benzo (a) anthracene	0.185	0.005	"	0.200	0.004	90.8	70-130	0.00485	20	
Benzo (a) pyrene	0.186	0.020	"	0.200	0.005	90.5	70-130	0.104	20	
Benzo (b) fluoranthene	0.208	0.020	"	0.200	0.012	97.9	70-130	2.86	20	
Benzo (g,h,i) perylene	0.177	0.020	"	0.200	0.009	83.7	70-130	7.42	20	
Benzo (k) fluoranthene	0.199	0.020	"	0.200	0.009	95.0	70-130	1.16	20	
Chrysene	0.201	0.020	"	0.200	0.009	95.9	70-130	1.19	20	
Dibenz (a,h) anthracene	0.181	0.020	"	0.200	0.006	87.7	70-130	2.45	20	
Fluoranthene	0.202	0.020	"	0.200	0.005	98.8	70-130	1.40	20	
Fluorene	0.186	0.020	"	0.200	0.001	92.5	70-130	1.90	20	
Indeno (1,2,3-cd) pyrene	0.163	0.020	"	0.200	0.009	77.2	70-130	6.50	20	
Naphthalene	0.184	0.002	"	0.200	0.004	90.3	70-130	3.77	20	
Phenanthrene	0.186	0.020	"	0.200	0.008	89.3	70-130	0.400	20	
Pyrene	0.226	0.020	"	0.200	0.005	110	70-130	3.92	20	
Surrogate: Fluorene-d10	200		ug/kg	200		99.5	60-130			
Surrogate: Anthracene-d10	170		"	200		83.0	60-130			
Surrogate: Pyrene-d10	220		"	200		108	60-130			
Surrogate: Benzo (a) pyrene-d12	190		"	200		97.3	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
<b>Batch B4J1403 - DTPA Sorbitol Preparation</b>										
<b>Blank (B4J1403-BLK1)</b>					Prepared: 10/14/2024 Analyzed: 10/15/2024					
Boron	ND	0.100	mg/L							
<b>Duplicate (B4J1403-DUP1)</b>		<b>Source: E410356-01</b>			Prepared: 10/14/2024 Analyzed: 10/15/2024					
Boron	0.278	0.0985	mg/L		0.281			0.908	50	
<b>Batch B4J1404 - DTPA Sorbitol Preparation</b>										
<b>Blank (B4J1404-BLK1)</b>					Prepared: 10/14/2024 Analyzed: 10/15/2024					
Boron	ND	0.100	mg/L							
<b>Duplicate (B4J1404-DUP1)</b>		<b>Source: E410370-11</b>			Prepared: 10/14/2024 Analyzed: 10/15/2024					
Boron	0.222	0.0996	mg/L		0.216			2.39	50	
<b>Batch B4J1408 - Saturated Paste Metals</b>										
<b>Blank (B4J1408-BLK1)</b>					Prepared: 10/14/2024 Analyzed: 10/15/2024					
SAR	ND	0.0100	SAR							
Calcium PPM	ND	10.0	mg/L							
Magnesium PPM	ND	10.0	"							
Sodium PPM	ND	10.0	"							
<b>Duplicate (B4J1408-DUP1)</b>		<b>Source: E410356-01</b>			Prepared: 10/14/2024 Analyzed: 10/15/2024					
SAR	ND	0.0100	SAR		3.99				200	
Calcium PPM	42.8	10.0	mg/L		44.7			4.41	50	
Magnesium PPM	13.2	10.0	"		13.9			4.80	50	
Sodium PPM	120	10.0	"		119			0.418	50	

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 Project: KMG - Victor 21-23, USX W 23-4,5,6  
 Facility

**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 B4J1409 - Saturated Paste Metals**

**Blank (B4J1409-BLK1)**

Prepared: 10/14/2024 Analyzed: 10/15/2024

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 (B4J1409-DUP1)**

**Source: E410370-10**

Prepared: 10/14/2024 Analyzed: 10/15/2024

SAR	ND	0.0100	SAR		1.15			200
Calcium PPM	14.4	10.0	mg/L		12.1		17.3	50
Magnesium PPM	2.06	10.0	"		1.77		15.1	50
Sodium PPM	13.6	10.0	"		16.1		17.1	50

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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
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**Batch B4J1411 - Saturated Paste pH/EC**

**Blank (B4J1411-BLK1)**

Prepared: 10/14/2024 Analyzed: 10/15/2024

Specific Conductance (EC) ND 0.00500 mmhos/cm

**Duplicate (B4J1411-DUP1)**

**Source: E410356-01**

Prepared: 10/14/2024 Analyzed: 10/15/2024

Specific Conductance (EC)	1.09	0.00500	mmhos/cm	1.28		16.1	25
pH	8.18		pH Units	8.16		0.245	25

**Batch B4J1412 - Saturated Paste pH/EC**

**Blank (B4J1412-BLK1)**

Prepared: 10/14/2024 Analyzed: 10/15/2024

Specific Conductance (EC) ND 0.00500 mmhos/cm

**Duplicate (B4J1412-DUP1)**

**Source: E410370-10**

Prepared: 10/14/2024 Analyzed: 10/15/2024

Specific Conductance (EC)	0.189	0.00500	mmhos/cm	0.216		13.5	25
pH	8.23		pH Units	8.32		1.09	25

**Batch B4J1811 - Saturated Paste pH/EC**

**Duplicate (B4J1811-DUP1)**

**Source: E410344-09**

Prepared: 10/18/2024 Analyzed: 10/19/2024

pH	7.80		pH Units	7.72		1.03	25
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**Total Metals 7196A - Quality Control  
GEL Laboratories, LLC**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
<b>Batch 2689110 - SW846 3060A</b>											
<b>BLANK (1205888918-BLK)</b>					Prepared: 11/05/2024 Analyzed: 11/12/2024						<b>U</b>
Hexavalent Chromium	ND	0.303	mg/kg				-				
<b>LCS (1205888919-BKS)</b>					Prepared: 11/05/2024 Analyzed: 11/12/2024						
Hexavalent Chromium	3.78	0.379	mg/kg	3.79		99.9	80-120				
<b>DUP (1205888920 D)</b>					Source: 690230001 Prepared: 11/05/2024 Analyzed: 11/12/2024						<b>U</b>
Hexavalent Chromium	ND	0.376	mg/kg dry		<0.150		0-50	N/A	50		
<b>MS (1205888921 S)</b>					Source: 690230001 Prepared: 11/05/2024 Analyzed: 11/12/2024						
Hexavalent Chromium	3.09	0.376	mg/kg dry	3.76	<0.150	79.7	75-125				
<b>DUP (1205888922 D)</b>					Source: 690230002 Prepared: 11/05/2024 Analyzed: 11/12/2024						<b>U</b>
Hexavalent Chromium	ND	0.484	mg/kg dry		<0.193		0-50	N/A	50		
<b>MS (1205888923 S)</b>					Source: 690230002 Prepared: 11/05/2024 Analyzed: 11/12/2024						
Hexavalent Chromium	2.37	0.484	mg/kg dry	4.84	<0.193	48.7	75-125				
<b>ILCS (1205888924-ILCS)</b>					Prepared: 11/05/2024 Analyzed: 11/12/2024						
Hexavalent Chromium	7.46	0.364	mg/kg	7.27		103	80-120				

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**Total Metals 7196 A - Quality Control  
GEL Laboratories, LLC**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
<b>Batch 2698174 - SW846 3060A</b>											
<b>BLANK (1205905436-BLK)</b>					Prepared: 11/05/2024 Analyzed: 11/12/2024						<b>U</b>
Hexavalent Chromium	ND	0.397	mg/kg				-				
<b>LCS (1205905437-BKS)</b>					Prepared: 11/05/2024 Analyzed: 11/12/2024						
Hexavalent Chromium	3.63	0.364	mg/kg	3.64		99.9	80-120				
<b>DUP (1205905438 D)</b>					Source: E410370-10 Prepared: 11/05/2024 Analyzed: 11/12/2024						<b>U</b>
Hexavalent Chromium	ND	0.391	mg/kg dry		<0.157		0-50	N/A	50		
<b>MS (1205905439 S)</b>					Source: E410370-10 Prepared: 11/05/2024 Analyzed: 11/12/2024						
Hexavalent Chromium	2.65	0.392	mg/kg dry	3.92	<0.157	65.3	75-125				
<b>DUP (1205905440 D)</b>					Source: 690718001 Prepared: 11/05/2024 Analyzed: 11/12/2024						<b>U</b>
Hexavalent Chromium	ND	0.382	mg/kg dry		<0.153		0-50	N/A	50		
<b>MS (1205905441 S)</b>					Source: 690718001 Prepared: 11/05/2024 Analyzed: 11/12/2024						
Hexavalent Chromium	3.47	0.382	mg/kg dry	3.82	<0.153	89.7	75-125				
<b>ILCS (1205905442-ILCS)</b>					Prepared: 11/05/2024 Analyzed: 11/12/2024						
Hexavalent Chromium	7.74	0.375	mg/kg	7.57		102	80-120				

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**Total Metals 7196A - Quality Control**  
**GEL Laboratories, LLC**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
<b>Batch 2689106 - SW846 3060A</b>											
<b>BLANK (1205888904-BLK)</b>					Prepared: 11/05/2024 Analyzed: 11/11/2024						<b>U</b>
Hexavalent Chromium	ND	0.398	mg/kg				-				
<b>LCS (1205888905-BKS)</b>					Prepared: 11/05/2024 Analyzed: 11/11/2024						
Hexavalent Chromium	3.78	0.376	mg/kg	3.76		101	80-120				
<b>DUP (1205888906 D)</b>					Source: 690180001 Prepared: 11/05/2024 Analyzed: 11/11/2024						<b>U</b>
Hexavalent Chromium	ND	0.218	mg/kg dry		<0.0874		0-50	N/A	50		
<b>MS (1205888907 S)</b>					Source: 690180001 Prepared: 11/05/2024 Analyzed: 11/11/2024						
Hexavalent Chromium	1.39	0.218	mg/kg dry	2.18	<0.0874	62.6	75-125				
<b>DUP (1205888908 D)</b>					Source: 690180002 Prepared: 11/05/2024 Analyzed: 11/11/2024						<b>U</b>
Hexavalent Chromium	ND	0.255	mg/kg dry		<0.102		0-50	N/A	50		
<b>MS (1205888909 S)</b>					Source: 690180002 Prepared: 11/05/2024 Analyzed: 11/11/2024						
Hexavalent Chromium	1.14	0.255	mg/kg dry	2.55	<0.102	43.6	75-125				
<b>ILCS (1205888910-ILCS)</b>					Prepared: 11/05/2024 Analyzed: 11/11/2024						
Hexavalent Chromium	8.07	0.390	mg/kg	7.83		103	80-120				

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**Notes and Definitions**

Ua Sample is Non-Detect.

U Result not detected above the detection limit

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

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

QM-02 The RPD and/or percent recovery for this QC spike sample cannot be accurately calculated due to the high concentration of analyte inherent in the sample.

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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