

ORIGINS LABORATORY

Ensolum

March 27, 2025

Jeremy Espinoza

11049 W 44th Avenue, Suite 103

Wheat Ridge CO 80033

**Project Name - KMG - Sarchet-Kariuh 32 HZ
Facility**

Project Number - 09A14171080

Attached are your analytical results for KMG - Sarchet-Kariuh 32 HZ Facility received by Origins Laboratory March 07, 2025. This project is associated with Origins project number E5C0280-01.

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



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

Jeremy Espinoza
Project Number: 09A14171080
Project: KMG - Sarchet-Kariuh 32 HZ Facility

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SEP01-Inlet@0.5'	E5C0280-01	Soil	March 7, 2025 9:00	03/07/2025 16:25
SEP01-Inlet@0.5'-V	E5C0280-02	Soil	March 7, 2025 9:05	03/07/2025 16:25
SEP01-Outlet@0.5'	E5C0280-03	Soil	March 7, 2025 9:15	03/07/2025 16:25
SEP01-Outlet@0.5'-V	E5C0280-04	Soil	March 7, 2025 9:17	03/07/2025 16:25
SEP02-Outlet@0.5'	E5C0280-05	Soil	March 7, 2025 9:20	03/07/2025 16:25
SEP02-Outlet@0.5'-V	E5C0280-06	Soil	March 7, 2025 9:25	03/07/2025 16:25
SEP02-Inlet@0.5'	E5C0280-07	Soil	March 7, 2025 9:30	03/07/2025 16:25
SEP02-Inlet@0.5'-V	E5C0280-08	Soil	March 7, 2025 9:35	03/07/2025 16:25
BG01@0.5'	E5C0280-09	Soil	March 7, 2025 9:43	03/07/2025 16:25
BG02@0.5'	E5C0280-10	Soil	March 7, 2025 9:52	03/07/2025 16:25
Native-BG01@0.5'	E5C0280-11	Soil	March 7, 2025 9:50	03/07/2025 16:25
Native-BG02@0.5'	E5C0280-12	Soil	March 7, 2025 9:58	03/07/2025 16:25
Native-BG03@0.5'	E5C0280-13	Soil	March 7, 2025 10:02	03/07/2025 16:25
Native-BG04@0.5'	E5C0280-14	Soil	March 7, 2025 10:07	03/07/2025 16:25

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ESW


Page 1 of 2

Client: Ensolum
 Address: _____
 Project Manager: Jeremy Espinoza
 Project Name: Sarchet-Kariuh 32 HZ Facility
 Project Number: 09A14171080
 Key: W=Water
W=Acid/Alkaline
 Telephone Number: 0720 570-2179
 Email Address: WJ@Ensol.com
 Invoice Billing Info: Monthly
 Collected By: W
 W=Surface Water
 W=M-Waste Water
 L=Leakage

Sample ID	Date Sampled	Time Sampled	# of Containers	Matrix Preservative	Analysis						Comments	
					Fullist	pH	EC	SAR	Baron	GIS		PHEN
5801-TMU-10.5-V	3/7/25	0900	3	UNP	X							
5801-TMU-10.5-V	3/7/25	0905	3		X							
5801-TMU-10.5-V	3/7/25	0915	3		X							
5801-TMU-10.5-V	3/7/25	0925	3		X							
5801-TMU-10.5-V	3/7/25	0930	3		X							
5801-TMU-10.5-V	3/7/25	0935	3		X							
5801-TMU-10.5-V	3/7/25	0943	2		X	X	X	X	X			
5801-TMU-10.5-V	3/7/25	0952	1		X	X	X	X	X			

Temp Received: 22 Received on ice? Yes No

Turnaround Time
 48 Hr 72
 SAME DAY 24 Hr

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Jeremy Espinoza
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 Project: KMG - Sarchet-Kariuh 32 HZ Facility

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CSW-20

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Sample ID	Date Sampled	Time Sampled	# of Containers	Matrix / Preservative	Analysis					Comments
					pH	EC	Sal	Baron	915 Mut ₂₅₄	
MWH - Blau 105'	05/15	0558	2	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0602	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0607	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0612	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0617	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0622	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0627	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0632	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0637	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0642	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0647	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0652	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0657	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0702	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0707	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0712	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0717	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0722	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0727	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0732	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0737	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0742	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0747	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0752	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0757	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0802	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0807	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0812	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0817	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0822	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0827	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0832	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0837	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0842	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0847	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0852	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0857	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0902	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0907	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0912	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0917	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0922	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0927	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0932	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0937	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0942	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0947	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0952	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0957	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1002	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1007	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1012	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1017	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1022	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1027	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1032	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1037	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1042	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1047	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1052	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1057	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1102	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1107	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1112	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1117	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1122	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1127	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1132	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1137	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1142	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1147	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1152	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1157	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1202	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1207	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1212	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1217	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1222	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1227	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1232	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1237	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1242	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1247	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1252	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	1257	1	UNP	Y	X	X	X	Y	

Temp Received - 2.2 Received On Ice? Yes No

Reinforced By: hurdin Date: 3/7/15 Time: 1:07 Received By: gan Date: 3/7/15 Time: 1:09

Reinforced By: gan Date: 3/7/15 Time: 6:29 Received By: JNA Date: 3/7/15 Time: 16:25

Sample ID	Date Sampled	Time Sampled	# of Containers	Matrix / Preservative	pH	EC	Sal	Baron	915 Mut ₂₅₄	Comments
MWH - Blau 105'	05/15	0558	2	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0602	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0607	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0612	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0617	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0622	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0627	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0632	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0637	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0642	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0647	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0652	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0657	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0702	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0707	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0712	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0717	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0722	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0727	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0732	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0737	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0742	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0747	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0752	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0757	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0802	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0807	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0812	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0817	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0822	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0827	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0832	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0837	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0842	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0847	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0852	1	UNP	Y	X	X	X	Y	
MWH - Blau 105'	05/15	0857	1	UNP	Y	X	X</			

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Jeremy Espinoza
Project Number: 09A14171080
Project: KMG - Sarchet-Kariuh 32 HZ Facility

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: ESCO280 Client: Ensolum
 Checklist Completed by: SEM/JWR Client Project ID: Sarchet-Kariuh Facility
 Date/time completed: 03/10/25 Shipped Via: HD
 (UPS, FedEx, Hand Delivered, Pick-up, etc.)
 Matrix(s) Received: (Check all that apply): Soil/Solid Water Other: _____
 Cooler Number/Temperature: 1, 2.2 °C (Describe)
 Thermometer ID: T-007

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ^{(1)?}	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact ^{(1)?}	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ^{(1)?}	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present ^{(1)?}	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) present and filled out completely ^{(1)?}	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ^{(1)?}	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ^{(1)?}	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client with date and time recorded ^{(1)?}	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are samples preserved that require preservation and was it checked ^{(1)?} (note ID of confirmation instrument used in comments) / (preservation is not confirmed for sub-contracted analyses in order to insure sample integrity)(pH <2 for samples preserved with HNO3, HCl, H2SO4) / (pH >10 for samples preserved with NaOH, NaOCl, BrAc, NaOH)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Additional Comments (if any):				

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

Reviewed by (Project Manager) JWR

3/11/25
Date/Time Reviewed

Origins Laboratory

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Jeremy Espinoza
 Project Number: 09A14171080
 Project: KMG - Sarchet-Kariuh 32 HZ Facility

SEP01-Inlet@0.5'
3/7/2025 9:00:00AM

E5C0280-01 (Soil)
GEL Laboratories, LLC

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
PAH by 3541/8270									
1-Methylnaphthalene	ND	0.00115	0.00349	mg/kg dry	1	2766129	03/17/2025	03/17/2025	U
2-Methylnaphthalene	ND	0.00115	0.00349	"	"	"	"	"	U
Acenaphthene	ND	0.00115	0.00349	"	"	"	"	"	U
Anthracene	ND	0.00115	0.00349	"	"	"	"	"	U
Benzo(a)anthracene	ND	0.00115	0.00349	"	"	"	"	"	U
Benzo(a)pyrene	ND	0.00115	0.00349	"	"	"	"	"	U
Benzo(b)fluoranthene	ND	0.00115	0.00349	"	"	"	"	"	U
Benzo(k)fluoranthene	ND	0.00115	0.00349	"	"	"	"	"	U
Chrysene	ND	0.00115	0.00349	"	"	"	"	"	U
Dibenzo(a,h)anthracene	ND	0.00115	0.00349	"	"	"	"	"	U
Fluoranthene	ND	0.00115	0.00349	"	"	"	"	"	U
Fluorene	ND	0.00115	0.00349	"	"	"	"	"	U
Indeno(1,2,3-cd)pyrene	ND	0.00115	0.00349	"	"	"	"	"	U
Naphthalene	ND	0.00115	0.00349	"	"	"	"	"	U
Pyrene	ND	0.00115	0.00349	"	"	"	"	"	U
Surrogate: 5-alpha-Androstane	66 %			22-135		"	"	"	
Total Metals 7196A									
Hexavalent Chromium	ND	0.121	0.303	mg/kg dry	1	2766607	03/19/2025	03/20/2025	U

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Jeremy Espinoza
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 Project: KMG - Sarchet-Kariuh 32 HZ Facility

SEP01-Inlet@0.5'
3/7/2025 9:00:00AM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
E5C0280-01 (Soil)									
Origins Laboratory									
Boron (DTPA Sorbitol)									
Boron	0.120		0.101	mg/L	1	B5C1061	03/10/2025	03/12/2025	
DRO/ORO by EPA 8015D									
Diesel (C10-C28)	ND		25.0	mg/kg	1	B5C1224	03/12/2025	03/15/2025	Ua
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	Ua
Surrogate: o-Terphenyl	75.8 %			50-150		"	"	"	
GBTEX+TMBs by 8260D									
1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B5C1152	03/11/2025	03/15/2025	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	93.3 %			70-130		"	"	"	
Surrogate: 4-Bromofluorobenzene	102 %			70-130		"	"	"	

Origins Laboratory

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

Jeremy Espinoza
 Project Number: 09A14171080
 Project: KMG - Sarchet-Kariuh 32 HZ Facility

SEP01-Inlet@0.5'
3/7/2025 9:00:00AM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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E5C0280-01 (Soil)
Origins Laboratory

Metals by Saturated Paste by EPA 6010

Calcium	1.16		0.499	meq/L	10	[CALC]	03/10/2025	03/13/2025	
Magnesium	ND		0.823	"	"	"	"	"	
Sodium	ND		0.435	"	"	"	"	"	

pH in Soil by 9045D

pH	8.41			pH Units	1	B5C1069	03/10/2025	03/13/2025	
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SAR by 20B Saturated Paste

SAR	0.0607		0.0100	SAR	1	B5C1066	03/10/2025	03/13/2025	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.144		0.00500	mmhos/cm	1	B5C1069	03/10/2025	03/13/2025	
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Table 915 metals by EPA 6020B

Arsenic	2.14		0.272	mg/kg	10	B5C1045	03/10/2025	03/12/2025	
Barium	62.8		9.39	"	"	"	"	"	
Cadmium	0.740		0.0939	"	"	"	"	"	
Copper	ND		9.39	"	"	"	"	"	
Lead	5.91		0.939	"	"	"	"	"	
Nickel	7.38		0.939	"	"	"	"	"	
Selenium	ND		0.244	"	"	"	"	"	

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 Wheat Ridge CO 80033

Jeremy Espinoza
 Project Number: 09A14171080
 Project: KMG - Sarchet-Kariuh 32 HZ Facility

SEP01-Inlet@0.5'
3/7/2025 9:00:00AM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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E5C0280-01 (Soil)
Origins Laboratory

Table 915 metals by EPA 6020B

Silver	ND		0.0939	mg/kg	10	B5C1045	03/10/2025	03/12/2025	
Zinc	ND		34.7	"	"	"	"	"	

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 Project: KMG - Sarchet-Kariuh 32 HZ Facility

SEP01-Inlet@0.5'-V
3/7/2025 9:05:00AM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
E5C0280-02 (Soil)									
Origins Laboratory									
pH in Soil by 9045D									
pH	8.34			pH Units	1	B5C1117	03/11/2025	03/13/2025	

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Jeremy Espinoza
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 Project: KMG - Sarchet-Kariuh 32 HZ Facility

SEP01-Outlet@0.5'
3/7/2025 9:15:00AM

E5C0280-03 (Soil)
GEL Laboratories, LLC

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
PAH by 3541/8270									
1-Methylnaphthalene	0.0301	0.00112	0.00338	mg/kg dry	1	2766129	03/17/2025	03/18/2025	
2-Methylnaphthalene	0.0379	0.00112	0.00338	"	"	"	"	"	
Acenaphthene	ND	0.00112	0.00338	"	"	"	"	"	U
Anthracene	0.0149	0.00112	0.00338	"	"	"	"	"	
Benzo(a)anthracene	ND	0.00112	0.00338	"	"	"	"	"	U
Benzo(a)pyrene	ND	0.00112	0.00338	"	"	"	"	"	U
Benzo(b)fluoranthene	ND	0.00112	0.00338	"	"	"	"	"	U
Benzo(k)fluoranthene	ND	0.00112	0.00338	"	"	"	"	"	U
Chrysene	ND	0.00112	0.00338	"	"	"	"	"	U
Dibenzo(a,h)anthracene	ND	0.00112	0.00338	"	"	"	"	"	U
Fluoranthene	0.0247	0.00112	0.00338	"	"	"	"	"	
Fluorene	0.0281	0.00112	0.00338	"	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	0.00112	0.00338	"	"	"	"	"	U
Naphthalene	0.0179	0.00112	0.00338	"	"	"	"	"	
Pyrene	0.0957	0.00112	0.00338	"	"	"	"	"	

Surrogate: 5-alpha-Androstane 88 % 22-135 " " "

Total Metals 7196A

Hexavalent Chromium	ND	0.0990	0.248	mg/kg dry	1	2766607	03/19/2025	03/20/2025	U
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Jeremy Espinoza
 Project Number: 09A14171080
 Project: KMG - Sarchet-Kariuh 32 HZ Facility

SEP01-Outlet@0.5'
3/7/2025 9:15:00AM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
E5C0280-03 (Soil)									
Origins Laboratory									
Boron (DTPA Sorbitol)									
Boron	ND		0.0999	mg/L	1	B5C1061	03/10/2025	03/12/2025	
DRO/ORO by EPA 8015D									
Diesel (C10-C28)	88.8		25.0	mg/kg	1	B5C1224	03/12/2025	03/15/2025	
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	Ua
Surrogate: o-Terphenyl	63.7 %			50-150		"	"	"	
GBTEX+TMBs by 8260D									
1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B5C1152	03/11/2025	03/15/2025	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	0.357		0.200	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	101 %			70-130		"	"	"	
Surrogate: Toluene-d8	93.0 %			70-130		"	"	"	
Surrogate: 4-Bromofluorobenzene	101 %			70-130		"	"	"	

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 Wheat Ridge CO 80033

Jeremy Espinoza
 Project Number: 09A14171080
 Project: KMG - Sarchet-Kariuh 32 HZ Facility

SEP01-Outlet@0.5'
3/7/2025 9:15:00AM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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E5C0280-03 (Soil)
Origins Laboratory

Metals by Saturated Paste by EPA 6010

Calcium	1.87		0.499	meq/L	10	[CALC]	03/10/2025	03/13/2025	
Magnesium	ND		0.823	"	"	"	"	"	
Sodium	ND		0.435	"	"	"	"	"	

pH in Soil by 9045D

pH	8.30			pH Units	1	B5C1069	03/10/2025	03/13/2025	
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SAR by 20B Saturated Paste

SAR	0.0621		0.0100	SAR	1	B5C1066	03/10/2025	03/13/2025	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.233		0.00500	mmhos/cm	1	B5C1069	03/10/2025	03/13/2025	
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Table 915 metals by EPA 6020B

Arsenic	2.41		0.252	mg/kg	10	B5C1045	03/10/2025	03/12/2025	
Barium	49.5		8.68	"	"	"	"	"	
Cadmium	ND		0.0868	"	"	"	"	"	
Copper	ND		8.68	"	"	"	"	"	
Lead	4.50		0.868	"	"	"	"	"	
Nickel	5.32		0.868	"	"	"	"	"	

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Jeremy Espinoza
 Project Number: 09A14171080
 Project: KMG - Sarchet-Kariuh 32 HZ Facility

SEP01-Outlet@0.5'
3/7/2025 9:15:00AM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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E5C0280-03 (Soil)
Origins Laboratory

Table 915 metals by EPA 6020B

Selenium	ND	0.226	mg/kg	10	B5C1045	03/10/2025	03/12/2025		
Silver	ND	0.0868	"	"	"	"	"	"	"
Zinc	ND	32.1	"	"	"	"	"	"	"

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SEP01-Outlet@0.5'-V
3/7/2025 9:17:00AM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
E5C0280-04 (Soil)									
Origins Laboratory									
pH in Soil by 9045D									
pH	8.35			pH Units	1	B5C1117	03/11/2025	03/13/2025	

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SEP02-Outlet@0.5'
3/7/2025 9:20:00AM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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E5C0280-05 (Soil)
GEL Laboratories, LLC

PAH by 3541/8270

1-Methylnaphthalene	0.273	0.00113	0.00343	mg/kg dry	1	2766129	03/17/2025	03/17/2025	
2-Methylnaphthalene	0.671	0.00113	0.00343	"	"	"	"	"	
Acenaphthene	0.0117	0.00113	0.00343	"	"	"	"	"	
Anthracene	ND	0.00113	0.00343	"	"	"	"	"	U
Benzo(a)anthracene	ND	0.00113	0.00343	"	"	"	"	"	U
Benzo(a)pyrene	ND	0.00113	0.00343	"	"	"	"	"	U
Benzo(b)fluoranthene	ND	0.00113	0.00343	"	"	"	"	"	U
Benzo(k)fluoranthene	ND	0.00113	0.00343	"	"	"	"	"	U
Chrysene	ND	0.00113	0.00343	"	"	"	"	"	U
Dibenzo(a,h)anthracene	ND	0.00113	0.00343	"	"	"	"	"	U
Fluoranthene	0.00754	0.00113	0.00343	"	"	"	"	"	
Fluorene	0.0737	0.00113	0.00343	"	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	0.00113	0.00343	"	"	"	"	"	U
Naphthalene	0.0764	0.00113	0.00343	"	"	"	"	"	
Pyrene	0.0274	0.00113	0.00343	"	"	"	"	"	

Surrogate: 5-alpha-Androstane 101 % 22-135 " " "

Total Metals 7196A

Hexavalent Chromium	ND	0.122	0.304	mg/kg dry	1	2766607	03/19/2025	03/20/2025	U
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Jeremy Espinoza
 Project Number: 09A14171080
 Project: KMG - Sarchet-Kariuh 32 HZ Facility

SEP02-Outlet@0.5'
3/7/2025 9:20:00AM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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E5C0280-05 (Soil)
Origins Laboratory

Boron (DTPA Sorbitol)

Boron	0.105		0.0985	mg/L	1	B5C1061	03/10/2025	03/12/2025	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	417		25.0	mg/kg	1	B5C1224	03/12/2025	03/15/2025	
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	Ua

Surrogate: o-Terphenyl	93.5 %			50-150		"	"	"	
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GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	0.405		0.0500	mg/kg	25	B5C1152	03/11/2025	03/17/2025	
1,3,5-Trimethylbenzene	0.260		0.00200	"	1	"	"	03/15/2025	
Benzene	ND		0.00200	"	"	"	"	"	Ua
Ethylbenzene	0.0235		0.00200	"	"	"	"	"	
Toluene	0.00696		0.00200	"	"	"	"	"	
Xylenes, total	0.689		0.00200	"	"	"	"	"	
Gasoline Range Hydrocarbons	43.9		5.00	"	25	"	"	03/17/2025	

Surrogate: 1,2-Dichloroethane-d4	103 %			70-130		"	"	03/15/2025	
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Surrogate: Toluene-d8	94.7 %			70-130		"	"	"	
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Surrogate: 4-Bromofluorobenzene	106 %			70-130		"	"	"	
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Metals by Saturated Paste by EPA 6010

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Jeremy Espinoza
 Project Number: 09A14171080
 Project: KMG - Sarchet-Kariuh 32 HZ Facility

SEP02-Outlet@0.5'
3/7/2025 9:20:00AM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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E5C0280-05 (Soil)
Origins Laboratory

Metals by Saturated Paste by EPA 6010

Calcium	1.72		0.499	meq/L	10	[CALC]	03/10/2025	03/13/2025	
Magnesium	ND		0.823	"	"	"	"	"	
Sodium	ND		0.435	"	"	"	"	"	

pH in Soil by 9045D

pH	8.33			pH Units	1	B5C1069	03/10/2025	03/13/2025	
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SAR by 20B Saturated Paste

SAR	0.0712		0.0100	SAR	1	B5C1066	03/10/2025	03/13/2025	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.214		0.00500	mmhos/cm	1	B5C1069	03/10/2025	03/13/2025	
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Table 915 metals by EPA 6020B

Arsenic	2.16		0.277	mg/kg	10	B5C1045	03/10/2025	03/12/2025	
Barium	56.6		9.53	"	"	"	"	"	
Cadmium	ND		0.0953	"	"	"	"	"	
Copper	ND		9.53	"	"	"	"	"	
Lead	5.20		0.953	"	"	"	"	"	
Nickel	7.27		0.953	"	"	"	"	"	

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 Project: KMG - Sarchet-Kariuh 32 HZ Facility

SEP02-Outlet@0.5'
3/7/2025 9:20:00AM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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E5C0280-05 (Soil)
Origins Laboratory

Table 915 metals by EPA 6020B

Selenium	ND		0.248	mg/kg	10	B5C1045	03/10/2025	03/12/2025	
Silver	ND		0.0953	"	"	"	"	"	
Zinc	ND		35.3	"	"	"	"	"	

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Jeremy Espinoza
 Project Number: 09A14171080
 Project: KMG - Sarchet-Kariuh 32 HZ Facility

SEP02-Outlet@0.5'-V
3/7/2025 9:25:00AM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
E5C0280-06 (Soil)									
Origins Laboratory									
pH in Soil by 9045D									
pH	8.30			pH Units	1	B5C1117	03/11/2025	03/13/2025	

Origins Laboratory

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 Project: KMG - Sarchet-Kariuh 32 HZ Facility

SEP02-Inlet@0.5'
3/7/2025 9:30:00AM

E5C0280-07 (Soil)
GEL Laboratories, LLC

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
PAH by 3541/8270									
1-Methylnaphthalene	ND	0.00115	0.00348	mg/kg dry	1	2766129	03/17/2025	03/17/2025	U
2-Methylnaphthalene	ND	0.00115	0.00348	"	"	"	"	"	U
Acenaphthene	ND	0.00115	0.00348	"	"	"	"	"	U
Anthracene	ND	0.00115	0.00348	"	"	"	"	"	U
Benzo(a)anthracene	ND	0.00115	0.00348	"	"	"	"	"	U
Benzo(a)pyrene	ND	0.00115	0.00348	"	"	"	"	"	U
Benzo(b)fluoranthene	ND	0.00115	0.00348	"	"	"	"	"	U
Benzo(k)fluoranthene	ND	0.00115	0.00348	"	"	"	"	"	U
Chrysene	ND	0.00115	0.00348	"	"	"	"	"	U
Dibenzo(a,h)anthracene	ND	0.00115	0.00348	"	"	"	"	"	U
Fluoranthene	ND	0.00115	0.00348	"	"	"	"	"	U
Fluorene	ND	0.00115	0.00348	"	"	"	"	"	U
Indeno(1,2,3-cd)pyrene	ND	0.00115	0.00348	"	"	"	"	"	U
Naphthalene	ND	0.00115	0.00348	"	"	"	"	"	U
Pyrene	ND	0.00115	0.00348	"	"	"	"	"	U
Surrogate: 5-alpha-Androstane	85 %			22-135		"	"	"	
Total Metals 7196A									
Hexavalent Chromium	ND	0.119	0.297	mg/kg dry	1	2766607	03/19/2025	03/20/2025	U

Origins Laboratory

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 Wheat Ridge CO 80033

Jeremy Espinoza
 Project Number: 09A14171080
 Project: KMG - Sarchet-Kariuh 32 HZ Facility

SEP02-Inlet@0.5'
3/7/2025 9:30:00AM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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E5C0280-07 (Soil)

Origins Laboratory

Boron (DTPA Sorbitol)

Boron	ND		0.0987	mg/L	1	B5C1061	03/10/2025	03/12/2025	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND		25.0	mg/kg	1	B5C1224	03/12/2025	03/15/2025	Ua
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	Ua

Surrogate: o-Terphenyl	59.8 %			50-150		"	"	"	
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GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B5C1152	03/11/2025	03/15/2025	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	103 %			70-130		"	"	"	
Surrogate: Toluene-d8	92.9 %			70-130		"	"	"	
Surrogate: 4-Bromofluorobenzene	100 %			70-130		"	"	"	

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

Jeremy Espinoza
 Project Number: 09A14171080
 Project: KMG - Sarchet-Kariuh 32 HZ Facility

SEP02-Inlet@0.5'
3/7/2025 9:30:00AM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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E5C0280-07 (Soil)
Origins Laboratory

Metals by Saturated Paste by EPA 6010

Calcium	1.30		0.499	meq/L	10	[CALC]	03/10/2025	03/13/2025	
Magnesium	ND		0.823	"	"	"	"	"	
Sodium	ND		0.435	"	"	"	"	"	

pH in Soil by 9045D

pH	8.33			pH Units	1	B5C1069	03/10/2025	03/13/2025	
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SAR by 20B Saturated Paste

SAR	0.0515		0.0100	SAR	1	B5C1066	03/10/2025	03/13/2025	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.183		0.00500	mmhos/cm	1	B5C1069	03/10/2025	03/13/2025	
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Table 915 metals by EPA 6020B

Arsenic	2.63		0.279	mg/kg	10	B5C1045	03/10/2025	03/12/2025	
Barium	63.6		9.60	"	"	"	"	"	
Cadmium	0.794		0.0960	"	"	"	"	"	
Copper	ND		9.60	"	"	"	"	"	
Lead	7.33		0.960	"	"	"	"	"	
Nickel	7.71		0.960	"	"	"	"	"	
Selenium	ND		0.250	"	"	"	"	"	

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 Wheat Ridge CO 80033

Jeremy Espinoza
 Project Number: 09A14171080
 Project: KMG - Sarchet-Kariuh 32 HZ Facility

SEP02-Inlet@0.5'
3/7/2025 9:30:00AM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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E5C0280-07 (Soil)
Origins Laboratory

Table 915 metals by EPA 6020B

Silver	ND		0.0960	mg/kg	10	B5C1045	03/10/2025	03/12/2025	
Zinc	ND		35.5	"	"	"	"	"	

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 Project: KMG - Sarchet-Kariuh 32 HZ Facility

SEP02-Inlet@0.5'-V
3/7/2025 9:35:00AM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
E5C0280-08 (Soil)									
Origins Laboratory									
pH in Soil by 9045D									
pH	8.32			pH Units	1	B5C1117	03/11/2025	03/13/2025	

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Jeremy Espinoza
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 Project: KMG - Sarchet-Kariuh 32 HZ Facility

BG01@0.5'
3/7/2025 9:43:00AM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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E5C0280-09 (Soil)
GEL Laboratories, LLC

Total Metals 7196A

Hexavalent Chromium	ND	0.139	0.347	mg/kg dry	1	2766607	03/19/2025	03/20/2025	U
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Origins Laboratory

Boron (DTPA Sorbitol)

Boron	ND		0.101	mg/L	1	B5C1061	03/10/2025	03/12/2025	
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Metals by Saturated Paste by EPA 6010

Calcium	0.897		0.499	meq/L	10	[CALC]	03/10/2025	03/13/2025	
Magnesium	ND		0.823	"	"	"	"	"	
Sodium	ND		0.435	"	"	"	"	"	

pH in Soil by 9045D

pH	8.22			pH Units	1	B5C1069	03/10/2025	03/13/2025	
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SAR by 20B Saturated Paste

SAR	0.0730		0.0100	SAR	1	B5C1066	03/10/2025	03/13/2025	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.160		0.00500	mmhos/cm	1	B5C1069	03/10/2025	03/13/2025	
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Jeremy Espinoza
 Project Number: 09A14171080
 Project: KMG - Sarchet-Kariuh 32 HZ Facility

BG01@0.5'
3/7/2025 9:43:00AM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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E5C0280-09 (Soil)
Origins Laboratory

Table 915 metals by EPA 6020B

Arsenic	2.15		0.244	mg/kg	10	B5C1045	03/10/2025	03/12/2025	
Barium	51.6		8.40	"	"	"	"	"	"
Cadmium	0.106		0.0840	"	"	"	"	"	"
Copper	ND		8.40	"	"	"	"	"	"
Lead	5.26		0.840	"	"	"	"	"	"
Nickel	5.27		0.840	"	"	"	"	"	"
Selenium	ND		0.218	"	"	"	"	"	"
Silver	0.353		0.0840	"	"	"	"	"	"
Zinc	ND		31.1	"	"	"	"	"	"

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 Project: KMG - Sarchet-Kariuh 32 HZ Facility

BG02@0.5'
3/7/2025 9:52:00AM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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E5C0280-10 (Soil)
GEL Laboratories, LLC

Total Metals 7196A

Hexavalent Chromium	ND	0.102	0.254	mg/kg dry	1	2766607	03/19/2025	03/20/2025	U
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Origins Laboratory

Boron (DTPA Sorbitol)

Boron	ND		0.0988	mg/L	1	B5C1061	03/10/2025	03/12/2025	
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Metals by Saturated Paste by EPA 6010

Calcium	0.703		0.499	meq/L	10	[CALC]	03/11/2025	03/13/2025	
Magnesium	ND		0.823	"	"	"	"	"	
Sodium	ND		0.435	"	"	"	"	"	

pH in Soil by 9045D

pH	8.07			pH Units	1	B5C1111	03/11/2025	03/13/2025	
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SAR by 20B Saturated Paste

SAR	0.114		0.0100	SAR	1	B5C1101	03/11/2025	03/13/2025	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.117		0.00500	mmhos/cm	1	B5C1111	03/11/2025	03/13/2025	
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Jeremy Espinoza
 Project Number: 09A14171080
 Project: KMG - Sarchet-Kariuh 32 HZ Facility

BG02@0.5'

3/7/2025 9:52:00AM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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E5C0280-10 (Soil)
Origins Laboratory

Table 915 metals by EPA 6020B

Arsenic	1.77		0.248	mg/kg	10	B5C1045	03/10/2025	03/12/2025	
Barium	40.5		8.54	"	"	"	"	"	
Cadmium	ND		0.0854	"	"	"	"	"	
Copper	ND		8.54	"	"	"	"	"	
Lead	4.27		0.854	"	"	"	"	"	
Nickel	5.88		0.854	"	"	"	"	"	
Selenium	ND		0.222	"	"	"	"	"	
Silver	ND		0.0854	"	"	"	"	"	
Zinc	ND		31.6	"	"	"	"	"	

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Native-BG01@0.5'
3/7/2025 9:50:00AM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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E5C0280-11 (Soil)
GEL Laboratories, LLC

Total Metals 7196A

Hexavalent Chromium	ND	0.148	0.371	mg/kg dry	1	2766607	03/19/2025	03/20/2025	U
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Origins Laboratory

Boron (DTPA Sorbitol)

Boron	0.330		0.101	mg/L	1	B5C1061	03/10/2025	03/12/2025	
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Metals by Saturated Paste by EPA 6010

Calcium	3.08		0.499	meq/L	10	[CALC]	03/11/2025	03/13/2025	
Magnesium	ND		0.823	"	"	"	"	"	
Sodium	0.778		0.435	"	"	"	"	"	

pH in Soil by 9045D

pH	8.11			pH Units	1	B5C1111	03/11/2025	03/13/2025	
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SAR by 20B Saturated Paste

SAR	0.566		0.0100	SAR	1	B5C1101	03/11/2025	03/13/2025	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.531		0.00500	mmhos/cm	1	B5C1111	03/11/2025	03/13/2025	
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 Wheat Ridge CO 80033

Jeremy Espinoza
 Project Number: 09A14171080
 Project: KMG - Sarchet-Kariuh 32 HZ Facility

Native-BG01@0.5'
3/7/2025 9:50:00AM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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E5C0280-11 (Soil)
Origins Laboratory

Table 915 metals by EPA 6020B

Arsenic	2.46		0.282	mg/kg	10	B5C1045	03/10/2025	03/12/2025	
Barium	101		9.72	"	"	"	"	"	"
Cadmium	0.160		0.0972	"	"	"	"	"	"
Copper	10.3		9.72	"	"	"	"	"	"
Lead	8.82		0.972	"	"	"	"	"	"
Nickel	6.63		0.972	"	"	"	"	"	"
Selenium	ND		0.253	"	"	"	"	"	"
Silver	ND		0.0972	"	"	"	"	"	"
Zinc	36.3		36.0	"	"	"	"	"	"

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Jeremy Espinoza
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 Project: KMG - Sarchet-Kariuh 32 HZ Facility

Native-BG02@0.5'
3/7/2025 9:58:00AM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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E5C0280-12 (Soil)
GEL Laboratories, LLC

Total Metals 7196A

Hexavalent Chromium	ND	0.162	0.404	mg/kg dry	1	2766609	03/19/2025	03/21/2025	U
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Origins Laboratory

Boron (DTPA Sorbitol)

Boron	0.265		0.100	mg/L	1	B5C1061	03/10/2025	03/12/2025	
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Metals by Saturated Paste by EPA 6010

Calcium	2.36		0.499	meq/L	10	[CALC]	03/11/2025	03/13/2025	
Magnesium	ND		0.823	"	"	"	"	"	
Sodium	ND		0.435	"	"	"	"	"	

pH in Soil by 9045D

pH	8.10			pH Units	1	B5C1111	03/11/2025	03/13/2025	
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SAR by 20B Saturated Paste

SAR	0.162		0.0100	SAR	1	B5C1101	03/11/2025	03/13/2025	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.382		0.00500	mmhos/cm	1	B5C1111	03/11/2025	03/13/2025	
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 Wheat Ridge CO 80033

Jeremy Espinoza
 Project Number: 09A14171080
 Project: KMG - Sarchet-Kariuh 32 HZ Facility

Native-BG02@0.5'
3/7/2025 9:58:00AM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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E5C0280-12 (Soil)
Origins Laboratory

Table 915 metals by EPA 6020B

Arsenic	2.75		0.248	mg/kg	10	B5C1045	03/10/2025	03/12/2025	
Barium	83.4		8.56	"	"	"	"	"	"
Cadmium	0.173		0.0856	"	"	"	"	"	"
Copper	11.2		8.56	"	"	"	"	"	"
Lead	8.39		0.856	"	"	"	"	"	"
Nickel	6.24		0.856	"	"	"	"	"	"
Selenium	0.234		0.223	"	"	"	"	"	"
Silver	ND		0.0856	"	"	"	"	"	"
Zinc	34.8		31.7	"	"	"	"	"	"

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Jeremy Espinoza
 Project Number: 09A14171080
 Project: KMG - Sarchet-Kariuh 32 HZ Facility

Native-BG03@0.5'
3/7/2025 10:02:00AM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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E5C0280-13 (Soil)
GEL Laboratories, LLC

Total Metals 7196A

Hexavalent Chromium	ND	0.125	0.314	mg/kg dry	1	2766609	03/19/2025	03/21/2025	U
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Origins Laboratory

Boron (DTPA Sorbitol)

Boron	0.626		0.100	mg/L	1	B5C1061	03/10/2025	03/12/2025	
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Metals by Saturated Paste by EPA 6010

Calcium	2.38		0.499	meq/L	10	[CALC]	03/11/2025	03/13/2025	
Magnesium	ND		0.823	"	"	"	"	"	
Sodium	ND		0.435	"	"	"	"	"	

pH in Soil by 9045D

pH	8.12			pH Units	1	B5C1111	03/11/2025	03/13/2025	
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SAR by 20B Saturated Paste

SAR	0.205		0.0100	SAR	1	B5C1101	03/11/2025	03/13/2025	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.401		0.00500	mmhos/cm	1	B5C1111	03/11/2025	03/13/2025	
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Jeremy Espinoza
 Project Number: 09A14171080
 Project: KMG - Sarchet-Kariuh 32 HZ Facility

Native-BG03@0.5'
3/7/2025 10:02:00AM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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E5C0280-13 (Soil)
Origins Laboratory

Table 915 metals by EPA 6020B

Arsenic	2.53		0.277	mg/kg	10	B5C1045	03/10/2025	03/12/2025	
Barium	86.1		9.54	"	"	"	"	"	"
Cadmium	0.189		0.0954	"	"	"	"	"	"
Copper	13.2		9.54	"	"	"	"	"	"
Lead	9.08		0.954	"	"	"	"	"	"
Nickel	6.71		0.954	"	"	"	"	"	"
Selenium	0.303		0.248	"	"	"	"	"	"
Silver	ND		0.0954	"	"	"	"	"	"
Zinc	37.5		35.3	"	"	"	"	"	"

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Jeremy Espinoza
 Project Number: 09A14171080
 Project: KMG - Sarchet-Kariuh 32 HZ Facility

Native-BG04@0.5'
3/7/2025 10:07:00AM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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E5C0280-14 (Soil)
GEL Laboratories, LLC

Total Metals 7196A

Hexavalent Chromium	ND	0.134	0.335	mg/kg dry	1	2766609	03/19/2025	03/21/2025	U
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Origins Laboratory

Boron (DTPA Sorbitol)

Boron	0.645		0.100	mg/L	1	B5C1061	03/10/2025	03/12/2025	
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Metals by Saturated Paste by EPA 6010

Calcium	0.939		0.499	meq/L	10	[CALC]	03/11/2025	03/13/2025	
Magnesium	1.05		0.823	"	"	"	"	"	
Sodium	ND		0.435	"	"	"	"	"	

pH in Soil by 9045D

pH	8.30			pH Units	1	B5C1111	03/11/2025	03/13/2025	
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SAR by 20B Saturated Paste

SAR	0.103		0.0100	SAR	1	B5C1101	03/11/2025	03/13/2025	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.266		0.00500	mmhos/cm	1	B5C1111	03/11/2025	03/13/2025	
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11049 W 44th Avenue, Suite 103

Wheat Ridge CO 80033

Jeremy Espinoza

Project Number: 09A14171080

Project: KMG - Sarchet-Kariuh 32 HZ Facility

Native-BG04@0.5'

3/7/2025 10:07:00AM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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E5C0280-14 (Soil)

Origins Laboratory

Table 915 metals by EPA 6020B

Arsenic	2.40		0.269	mg/kg	10	B5C1045	03/10/2025	03/12/2025	
Barium	123		9.28	"	"	"	"	"	"
Cadmium	0.155		0.0928	"	"	"	"	"	"
Copper	ND		9.28	"	"	"	"	"	"
Lead	7.22		0.928	"	"	"	"	"	"
Nickel	5.99		0.928	"	"	"	"	"	"
Selenium	ND		0.241	"	"	"	"	"	"
Silver	ND		0.0928	"	"	"	"	"	"
Zinc	ND		34.3	"	"	"	"	"	"

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 Project: KMG - Sarchet-Kariuh 32 HZ 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 B5C1061 - DTPA Sorbitol Preparation

Blank (B5C1061-BLK1)

Prepared: 03/10/2025 Analyzed: 03/12/2025

Boron ND 0.100 mg/L

Duplicate (B5C1061-DUP1)

Source: E5B0487-01

Prepared: 03/10/2025 Analyzed: 03/12/2025

Boron 1.50 0.0988 mg/L 1.34 11.3 50

Batch B5C1066 - Saturated Paste Metals

Blank (B5C1066-BLK1)

Prepared: 03/10/2025 Analyzed: 03/13/2025

SAR ND 0.0100 SAR
 Calcium PPM ND 10.0 mg/L
 Magnesium PPM ND 10.0 "
 Sodium PPM ND 10.0 "

Duplicate (B5C1066-DUP1)

Source: E5C0269-04

Prepared: 03/10/2025 Analyzed: 03/13/2025

SAR ND 0.0100 SAR 0.262 200
 Calcium PPM 30.9 10.0 mg/L 31.7 2.43 50
 Magnesium PPM 6.10 10.0 " 6.43 5.27 50
 Sodium PPM 5.92 10.0 " 6.19 4.46 50

Batch B5C1101 - Saturated Paste Metals

Blank (B5C1101-BLK1)

Prepared: 03/11/2025 Analyzed: 03/13/2025

Calcium PPM ND 10.0 mg/L
 SAR ND 0.0100 SAR
 Magnesium PPM ND 10.0 mg/L
 Sodium PPM ND 10.0 "

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Jeremy Espinoza
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 Project: KMG - Sarchet-Kariuh 32 HZ Facility

Classical Chemistry Parameters - Quality Control
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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B5C1101 - Saturated Paste Metals

Duplicate (B5C1101-DUP1)

Source: E5C0280-10

Prepared: 03/11/2025 Analyzed: 03/13/2025

SAR	ND	0.0100	SAR		0.114				200	
Calcium PPM	14.3	10.0	mg/L		14.1			1.55	50	
Magnesium PPM	2.66	10.0	"		2.53			5.01	50	
Sodium PPM	1.50	10.0	"		1.77			16.5	50	

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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 B5C1224 - EPA 3550B

Blank (B5C1224-BLK1)

Prepared: 03/12/2025 Analyzed: 03/15/2025

Diesel (C10-C28)	ND	25.0	mg/kg							Ua
Residual Range Organics (C28-C40)	ND	100	"							Ua
Surrogate: o-Terphenyl	14		"	24.9		58.1	50-150			

LCS (B5C1224-BS1)

Prepared: 03/12/2025 Analyzed: 03/15/2025

Diesel (C10-C28)	909	50.0	mg/kg	1000		90.9	70-130			
Residual Range Organics (C28-C40)	931	200	"	1000		93.1	70-130			
Surrogate: o-Terphenyl	45		"	49.8		90.1	50-150			

Matrix Spike (B5C1224-MS1)

Source: E5C0279-01

Prepared: 03/12/2025 Analyzed: 03/15/2025

Diesel (C10-C28)	924	50.0	mg/kg	1000	ND	92.4	70-130			
Residual Range Organics (C28-C40)	976	200	"	1000	ND	97.6	70-130			
Surrogate: o-Terphenyl	42		"	49.8		85.0	50-150			

Matrix Spike Dup (B5C1224-MSD1)

Source: E5C0279-01

Prepared: 03/12/2025 Analyzed: 03/15/2025

Diesel (C10-C28)	941	50.0	mg/kg	1000	ND	94.1	70-130	1.85	35	
Residual Range Organics (C28-C40)	987	200	"	1000	ND	98.7	70-130	1.14	35	
Surrogate: o-Terphenyl	41		"	49.8		82.1	50-150			

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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 B5C1045 - EPA 3050B

Blank (B5C1045-BLK1)

Prepared: 03/10/2025 Analyzed: 03/12/2025

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 (B5C1045-BS1)

Prepared: 03/10/2025 Analyzed: 03/12/2025

Arsenic	5.20	0.290	mg/kg	5.00		104	80-120			
Barium	539	10.0	"	500		108	80-120			
Cadmium	5.41	0.100	"	5.00		108	80-120			
Copper	51.4	10.0	"	50.0		103	80-120			
Lead	5.44	1.00	"	5.00		109	80-120			
Nickel	5.36	1.00	"	5.00		107	80-120			
Selenium	5.14	0.260	"	5.00		103	80-120			
Silver	5.40	0.100	"	5.00		108	80-120			
Zinc	53.4	37.0	"	50.0		107	80-120			

Matrix Spike (B5C1045-MS1)

Source: E5C0280-05

Prepared: 03/10/2025 Analyzed: 03/12/2025

Arsenic	7.36	0.268	mg/kg	4.62	2.16	113	75-125			
Barium	581	9.23	"	462	56.6	114	75-125			
Cadmium	5.30	0.0923	"	4.62	0.0772	113	75-125			
Copper	56.8	9.23	"	46.2	6.89	108	75-125			
Lead	10.4	0.923	"	4.62	5.20	113	75-125			

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Metals by EPA 6000/7000 Series Methods - Quality Control
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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B5C1045 - EPA 3050B

Matrix Spike (B5C1045-MS1)

Source: E5C0280-05

Prepared: 03/10/2025 Analyzed: 03/12/2025

Nickel	11.9	0.923	mg/kg	4.62	7.27	100	75-125			
Selenium	4.85	0.240	"	4.62	0.245	99.7	75-125			
Silver	5.32	0.0923	"	4.62	0.0238	115	75-125			
Zinc	79.1	34.2	"	46.2	28.2	110	75-125			

Matrix Spike Dup (B5C1045-MSD1)

Source: E5C0280-05

Prepared: 03/10/2025 Analyzed: 03/12/2025

Arsenic	7.09	0.265	mg/kg	4.56	2.16	108	75-125	3.81	20	
Barium	553	9.12	"	456	56.6	109	75-125	4.94	20	
Cadmium	4.88	0.0912	"	4.56	0.0772	105	75-125	8.24	20	
Copper	53.9	9.12	"	45.6	6.89	103	75-125	5.34	20	
Lead	9.52	0.912	"	4.56	5.20	94.7	75-125	8.90	20	
Nickel	11.1	0.912	"	4.56	7.27	84.1	75-125	6.78	20	
Selenium	4.55	0.237	"	4.56	0.245	94.3	75-125	6.35	20	
Silver	4.85	0.0912	"	4.56	0.0238	106	75-125	9.17	20	
Zinc	71.8	33.8	"	45.6	28.2	95.8	75-125	9.56	20	

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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 B5C1069 - Saturated Paste pH/EC

Blank (B5C1069-BLK1)

Prepared: 03/10/2025 Analyzed: 03/13/2025

Specific Conductance (EC) ND 0.00500 mmhos/cm

Duplicate (B5C1069-DUP1)

Source: E5C0269-04

Prepared: 03/10/2025 Analyzed: 03/13/2025

pH 8.32 pH Units 8.32 0.00 25

Specific Conductance (EC) 0.313 0.00500 mmhos/cm 0.304 2.95 25

Batch B5C1111 - Saturated Paste pH/EC

Blank (B5C1111-BLK1)

Prepared: 03/11/2025 Analyzed: 03/13/2025

Specific Conductance (EC) ND 0.00500 mmhos/cm

Duplicate (B5C1111-DUP1)

Source: E5C0280-10

Prepared: 03/11/2025 Analyzed: 03/13/2025

Specific Conductance (EC) 0.126 0.00500 mmhos/cm 0.117 6.84 25

pH 8.06 pH Units 8.07 0.124 25

Batch B5C1117 - Saturated Paste pH/EC

Duplicate (B5C1117-DUP1)

Source: E5C0279-02

Prepared: 03/11/2025 Analyzed: 03/13/2025

pH 8.34 pH Units 8.32 0.240 25

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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 B5C1152 - EPA 5030 (soil)

Blank (B5C1152-BLK1)

Prepared: 03/11/2025 Analyzed: 03/15/2025

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
Toluene	ND	0.00200	"							Ua
Xylenes, total	ND	0.00200	"							Ua
Gasoline Range Hydrocarbons	ND	0.200	"							Ua

Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125	100	70-130
Surrogate: Toluene-d8	0.12		"	0.125	93.5	70-130
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125	102	70-130

LCS (B5C1152-BS1)

Prepared: 03/11/2025 Analyzed: 03/15/2025

1,2,4-Trimethylbenzene	0.118	0.00200	mg/kg	0.100	118	70-130
1,3,5-Trimethylbenzene	0.117	0.00200	"	0.100	117	70-130
Benzene	0.102	0.00200	"	0.100	102	70-130
Ethylbenzene	0.108	0.00200	"	0.100	108	70-130
Toluene	0.101	0.00200	"	0.100	101	70-130
o-Xylene	0.114	0.00200	"	0.100	114	70-130
m,p-Xylene	0.221	0.00400	"	0.200	111	70-130
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125	99.3	70-130
Surrogate: Toluene-d8	0.11		"	0.125	90.6	70-130
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125	104	70-130

Matrix Spike (B5C1152-MS1)

Source: E5C0276-01

Prepared: 03/11/2025 Analyzed: 03/15/2025

1,2,4-Trimethylbenzene	0.106	0.00200	mg/kg	0.100	ND	106	70-130
1,3,5-Trimethylbenzene	0.109	0.00200	"	0.100	ND	109	70-130
Benzene	0.0857	0.00200	"	0.100	ND	85.7	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 B5C1152 - EPA 5030 (soil)

Matrix Spike (B5C1152-MS1)

Source: E5C0276-01

Prepared: 03/11/2025 Analyzed: 03/15/2025

Ethylbenzene	0.103	0.00200	mg/kg	0.100	ND	103	70-130			
Toluene	0.0925	0.00200	"	0.100	ND	92.5	70-130			
o-Xylene	0.108	0.00200	"	0.100	ND	108	70-130			
m,p-Xylene	0.207	0.00400	"	0.200	ND	103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		88.7	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.2	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		104	70-130			

Matrix Spike Dup (B5C1152-MSD1)

Source: E5C0276-01

Prepared: 03/11/2025 Analyzed: 03/15/2025

1,2,4-Trimethylbenzene	0.116	0.00200	mg/kg	0.100	ND	116	70-130	8.58	20	
1,3,5-Trimethylbenzene	0.114	0.00200	"	0.100	ND	114	70-130	5.20	20	
Benzene	0.101	0.00200	"	0.100	ND	101	70-130	15.9	20	
Ethylbenzene	0.107	0.00200	"	0.100	ND	107	70-130	3.56	20	
Toluene	0.101	0.00200	"	0.100	ND	101	70-130	8.99	20	
o-Xylene	0.114	0.00200	"	0.100	ND	114	70-130	5.11	20	
m,p-Xylene	0.216	0.00400	"	0.200	ND	108	70-130	4.20	20	
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		99.2	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		93.6	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		103	70-130			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2766129 - SW846 3541

BLANK (1206038303-BLK)

Prepared: 03/17/2025 Analyzed: 03/17/2025

Benzo(b)fluoranthene	ND	0.00328	mg/kg	-	-	-	-	-	-	U
Pyrene	ND	0.00328	"	-	-	-	-	-	-	U
Naphthalene	ND	0.00328	"	-	-	-	-	-	-	U
Indeno(1,2,3-cd)pyrene	ND	0.00328	"	-	-	-	-	-	-	U
Fluorene	ND	0.00328	"	-	-	-	-	-	-	U
Fluoranthene	ND	0.00328	"	-	-	-	-	-	-	U
Dibenzo(a,h)anthracene	ND	0.00328	"	-	-	-	-	-	-	U
Benzo(k)fluoranthene	ND	0.00328	"	-	-	-	-	-	-	U
Benzo(a)pyrene	ND	0.00328	"	-	-	-	-	-	-	U
1-Methylnaphthalene	ND	0.00328	"	-	-	-	-	-	-	U
Anthracene	ND	0.00328	"	-	-	-	-	-	-	U
Acenaphthene	ND	0.00328	"	-	-	-	-	-	-	U
2-Methylnaphthalene	ND	0.00328	"	-	-	-	-	-	-	U
Benzo(a)anthracene	ND	0.00328	"	-	-	-	-	-	-	U
Chrysene	ND	0.00328	"	-	-	-	-	-	-	U

Surrogate: 5-alpha-Androstane

0.123

"

0.164

75

22-135

LCS (1206038304-BKS)

Prepared: 03/17/2025 Analyzed: 03/17/2025

Benzo(k)fluoranthene	0.237	0.00331	mg/kg	0.331	71	40-122
Chrysene	0.248	0.00331	"	0.331	75	42-117
Dibenzo(a,h)anthracene	0.258	0.00331	"	0.331	78	38-132
Pyrene	0.258	0.00331	"	0.331	78	38-117
Fluoranthene	0.260	0.00331	"	0.331	78	39-119
Fluorene	0.246	0.00331	"	0.331	74	37-115
Indeno(1,2,3-cd)pyrene	0.255	0.00331	"	0.331	77	38-133
Benzo(b)fluoranthene	0.250	0.00331	"	0.331	75	39-123
1-Methylnaphthalene	0.232	0.00331	"	0.331	70	39-109

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2766129 - SW846 3541

LCS (1206038304-BKS)

Prepared: 03/17/2025 Analyzed: 03/17/2025

Naphthalene	0.233	0.00331	mg/kg	0.331		70	38-109			
Benzo(a)anthracene	0.259	0.00331	"	0.331		78	42-120			
Anthracene	0.265	0.00331	"	0.331		80	41-117			
Acenaphthene	0.233	0.00331	"	0.331		70	41-112			
2-Methylnaphthalene	0.239	0.00331	"	0.331		72	39-110			
Benzo(a)pyrene	0.264	0.00331	"	0.331		80	39-127			
Surrogate: 5-alpha-Androstane	0.144		"	0.166		87	22-135			

LCSD (1206038305-BKSD)

Prepared: 03/17/2025 Analyzed: 03/17/2025

Naphthalene	0.261	0.00325	mg/kg	0.325		80	38-109	12	30	
Pyrene	0.294	0.00325	"	0.325		90	38-117	13	30	
Benzo(a)anthracene	0.294	0.00325	"	0.325		90	42-120	12	30	
Benzo(a)pyrene	0.300	0.00325	"	0.325		92	39-127	13	30	
Benzo(b)fluoranthene	0.284	0.00325	"	0.325		87	39-123	13	30	
Benzo(k)fluoranthene	0.269	0.00325	"	0.325		83	40-122	13	30	
Chrysene	0.280	0.00325	"	0.325		86	42-117	12	30	
Fluoranthene	0.297	0.00325	"	0.325		91	39-119	13	30	
Indeno(1,2,3-cd)pyrene	0.292	0.00325	"	0.325		90	38-133	14	30	
Fluorene	0.279	0.00325	"	0.325		86	37-115	13	30	
Dibenzo(a,h)anthracene	0.296	0.00325	"	0.325		91	38-132	13	30	
Acenaphthene	0.264	0.00325	"	0.325		81	41-112	13	30	
1-Methylnaphthalene	0.261	0.00325	"	0.325		80	39-109	12	30	
2-Methylnaphthalene	0.269	0.00325	"	0.325		83	39-110	12	30	
Anthracene	0.302	0.00325	"	0.325		93	41-117	13	30	
Surrogate: 5-alpha-Androstane	0.147		"	0.163		90	22-135			

MS (1206038306 S)

Source: E5C0280-01

Prepared: 03/17/2025 Analyzed: 03/17/2025

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2766129 - SW846 3541

MS (1206038306 S)

Source: E5C0280-01

Prepared: 03/17/2025 Analyzed: 03/17/2025

2-Methylnaphthalene	0.239	0.00346	mg/kg dry	0.346	<0.00114	69	15-132			
Acenaphthene	0.236	0.00346	"	0.346	<0.00114	68	17-129			
Anthracene	0.272	0.00346	"	0.346	<0.00114	79	18-136			
Benzo(a)anthracene	0.265	0.00346	"	0.346	<0.00114	77	20-132			
Benzo(b)fluoranthene	0.257	0.00346	"	0.346	<0.00114	74	14-136			
1-Methylnaphthalene	0.233	0.00346	"	0.346	<0.00114	67	15-129			
Benzo(k)fluoranthene	0.242	0.00346	"	0.346	<0.00114	70	18-138			
Chrysene	0.252	0.00346	"	0.346	<0.00114	73	19-129			
Dibenzo(a,h)anthracene	0.264	0.00346	"	0.346	<0.00114	76	11-134			
Fluoranthene	0.269	0.00346	"	0.346	<0.00114	78	14-136			
Fluorene	0.251	0.00346	"	0.346	<0.00114	72	16-134			
Indeno(1,2,3-cd)pyrene	0.261	0.00346	"	0.346	<0.00114	76	13-134			
Naphthalene	0.230	0.00346	"	0.346	<0.00114	67	16-126			
Pyrene	0.265	0.00346	"	0.346	<0.00114	76	12-139			
Benzo(a)pyrene	0.272	0.00346	"	0.346	<0.00114	78	16-133			

Surrogate: 5-alpha-Androstane

0.145

"

0.173

0.115

84

22-135

MSD (1206038307 SD)

Source: E5C0280-01

Prepared: 03/17/2025 Analyzed: 03/17/2025

1-Methylnaphthalene	0.258	0.00349	mg/kg dry	0.349	<0.00115	74	15-129	10	30	
Benzo(b)fluoranthene	0.278	0.00349	"	0.349	<0.00115	80	14-136	8	30	
2-Methylnaphthalene	0.265	0.00349	"	0.349	<0.00115	76	15-132	10	30	
Benzo(a)pyrene	0.294	0.00349	"	0.349	<0.00115	84	16-133	8	30	
Benzo(a)anthracene	0.290	0.00349	"	0.349	<0.00115	83	20-132	9	30	
Dibenzo(a,h)anthracene	0.286	0.00349	"	0.349	<0.00115	82	11-134	8	30	
Acenaphthene	0.258	0.00349	"	0.349	<0.00115	74	17-129	9	30	
Benzo(k)fluoranthene	0.261	0.00349	"	0.349	<0.00115	75	18-138	8	30	
Pyrene	0.289	0.00349	"	0.349	<0.00115	83	12-139	9	30	

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

Jeremy Espinoza
 Project Number: 09A14171080
 Project: KMG - Sarchet-Kariuh 32 HZ Facility

PAH by 3541/8270 - Quality Control
GEL Laboratories, LLC

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2766129 - SW846 3541

MSD (1206038307 SD)

Source: E5C0280-01

Prepared: 03/17/2025 Analyzed: 03/17/2025

Indeno(1,2,3-cd)pyrene	0.283	0.00349	mg/kg dry	0.349	<0.00115	81	13-134	8	30	
Fluorene	0.275	0.00349	"	0.349	<0.00115	79	16-134	9	30	
Fluoranthene	0.291	0.00349	"	0.349	<0.00115	84	14-136	8	30	
Naphthalene	0.256	0.00349	"	0.349	<0.00115	73	16-126	10	30	
Chrysene	0.275	0.00349	"	0.349	<0.00115	79	19-129	9	30	
Anthracene	0.297	0.00349	"	0.349	<0.00115	85	18-136	9	30	
Surrogate: 5-alpha-Androstane	0.155		"	0.174	0.115	89	22-135			

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

Jeremy Espinoza
 Project Number: 09A14171080
 Project: KMG - Sarchet-Kariuh 32 HZ Facility

Total Metals 7196A - Quality Control
GEL Laboratories, LLC

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2766609 - SW846 3060A

BLANK (1206039271-BLK)

Prepared: 03/19/2025 Analyzed: 03/21/2025

Hexavalent Chromium	ND	0.323	mg/kg				-			U
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LCS (1206039272-BKS)

Prepared: 03/19/2025 Analyzed: 03/21/2025

Hexavalent Chromium	2.64	0.265	mg/kg	2.65		99.7	80-120			
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DUP (1206039273 D)

Source: E5C0280-12

Prepared: 03/19/2025 Analyzed: 03/21/2025

Hexavalent Chromium	ND	0.404	mg/kg dry		<0.162		0-50	N/A	50	U
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MS (1206039274 S)

Source: E5C0280-12

Prepared: 03/19/2025 Analyzed: 03/21/2025

Hexavalent Chromium	2.39	0.404	mg/kg dry	4.04	<0.162	57.1	75-125			
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DUP (1206039275 D)

Source: E5C0280-13

Prepared: 03/19/2025 Analyzed: 03/21/2025

Hexavalent Chromium	ND	0.315	mg/kg dry		<0.126		0-50	N/A	50	U
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MS (1206039276 S)

Source: E5C0280-13

Prepared: 03/19/2025 Analyzed: 03/21/2025

Hexavalent Chromium	2.28	0.315	mg/kg dry	3.15	<0.126	71.4	75-125			
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ILCS (1206039277-ILCS)

Prepared: 03/19/2025 Analyzed: 03/21/2025

Hexavalent Chromium	5.61	0.269	mg/kg	5.49		102	80-120			
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Ensolum
 11049 W 44th Avenue, Suite 103
 Wheat Ridge CO 80033

Jeremy Espinoza
 Project Number: 09A14171080
 Project: KMG - Sarchet-Kariuh 32 HZ Facility

Total Metals 7196A - Quality Control
GEL Laboratories, LLC

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2766607 - SW846 3060A

BLANK (1206039264-BLK)

Prepared: 03/19/2025 Analyzed: 03/20/2025

Hexavalent Chromium	ND	0.274	mg/kg				-			U
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LCS (1206039265-BKS)

Prepared: 03/19/2025 Analyzed: 03/20/2025

Hexavalent Chromium	2.94	0.293	mg/kg	2.93		100	80-120			
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DUP (1206039266 D)

Source: 713409001

Prepared: 03/19/2025 Analyzed: 03/20/2025

Hexavalent Chromium	ND	0.371	mg/kg dry		<0.148		0-50	N/A	50	U
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MS (1206039267 S)

Source: 713409001

Prepared: 03/19/2025 Analyzed: 03/20/2025

Hexavalent Chromium	2.01	0.371	mg/kg dry	3.71	<0.148	53.8	75-125			
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DUP (1206039268 D)

Source: 713409002

Prepared: 03/19/2025 Analyzed: 03/20/2025

Hexavalent Chromium	ND	0.346	mg/kg dry		<0.138		0-50	N/A	50	U
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MS (1206039269 S)

Source: 713409002

Prepared: 03/19/2025 Analyzed: 03/20/2025

Hexavalent Chromium	2.75	0.346	mg/kg dry	3.46	<0.138	79.1	75-125			
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ILCS (1206039270-ILCS)

Prepared: 03/19/2025 Analyzed: 03/20/2025

Hexavalent Chromium	7.09	0.332	mg/kg	6.65		107	80-120			
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Ensolum

11049 W 44th Avenue, Suite 103

Wheat Ridge CO 80033

Jeremy Espinoza

Project Number: 09A14171080

Project: KMG - Sarchet-Kariuh 32 HZ Facility

Notes and Definitions

Ua Sample is Non-Detect.

U Result not detected above the detection limit

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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