



Quandary Consultants

October 08, 2024

Mike Dinkel

2252 Emerson St.

Denver CO 80205

**Project Name - KMG - Goodin 15N 15N 16N
16N-B6HZ**

Project Number - [none]

Attached are your analytical results for KMG - Goodin 15N 15N 16N 16N-B6HZ received by Origins Laboratory October 07, 2024. This project is associated with Origins project number E410206-01.

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

Quandary Consultants
2252 Emerson St.
Denver CO 80205

Mike Dinkel
Project Number: [none]
Project: KMG - Goodin 15N 15N 16N 16N-B6HZ

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SEP-B01@5'	E410206-01	Soil	October 7, 2024 14:07	10/07/2024 16:23

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ORIGINS
 LABORATORY INC
 ORIGINAL WORK ORDER # **6410206**
 Page 1 of 1

Client: Lead-Nickel Ore & Gas Overseas, LP
 Address: 501 D. DIVISION ST.
PATTEVILLE, CO 80651
 Project Manager: MIKE DINKEL
 Project Name: GOODIN 15N 15N 16N 16N-B6HZ
 Project Number:
 Key:
 Telephone Number: 786 691-7788 SAMUEL@QUANDARYCONSULTANTS.COM
 Email Address: MDINKEL@QUANDARYCONSULTANTS.COM
 Invoice/Billing Info: ERIK MICKELSON
 Collected By: BK
 Matrix: S=soil | SO=soil | O=oil | A=air | G=gas | UNP=Unpres | HCL= Hydrochloric | HNO3=Nitric | H2SO4=Sulfuric | NaOH=sodium Hydroxide
 Sample Type:
 Comments:

#	Sample ID	Date	Time	# of Containers	Matrix	Preservative	Analysis											Comments					
							BTEX	TMBs	TPH	1-METH	2-METH	ACENAPHTHENE	CHRYSENE	FLUORENE	NAPHTHALENE	PYRENE	As		Ba	Pb	Zn		
1	SEA-B01051	10-7-24	1407	3	S	NONE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							

Relinquished By: Ben K Date: 10-7-24 Time: 16:33
 Received By: [Signature] Date: 10/7/24 Time: 16:23
 Turnaround Time: SAME DAY 24 Hr 48 Hr 72 Hr
 Standard
 Temp Received: 7.9 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: EU10206

Client: Quandary

Client Project ID: Goodin

Checklist Completed by: JHD/WS

Shipped Via: HD
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 10/7/12

Airbill #: N/A

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

Cooler Number/Temperature: 1 / 7.9 °C _____ °C _____ °C (Describe)

Thermometer ID: 7004

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

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

Reviewed by (Project Manager) [Signature] Date/Time Reviewed 10/7/12

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[Signature]

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 Project Number: [none]
 Project: KMG - Goodin 15N 15N 16N 16N-B6HZ

SEP-B01@5'
10/7/2024 2:07:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory
E410206-01 (Soil)

DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND		25.0	mg/kg	1	B4J0701	10/07/2024	10/07/2024	U
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U

Surrogate: <i>o</i> -Terphenyl	82.0 %		50-150			"	"	"	
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GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B4J0739	10/07/2024	10/07/2024	U
1,3,5-Trimethylbenzene	ND		0.00200	"	"	"	"	"	U
Benzene	ND		0.00200	"	"	"	"	"	U
Ethylbenzene	ND		0.00200	"	"	"	"	"	U
Toluene	ND		0.00200	"	"	"	"	"	U
Xylenes, total	ND		0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND		0.200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	107 %		70-130			"	"	"	
Surrogate: Toluene-d8	102 %		70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.9 %		70-130			"	"	"	

PAH by EPA 8270E extracted via 3580A

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SEP-B01@5'
10/7/2024 2:07:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory
E410206-01 (Soil)

PAH by EPA 8270E extracted via 3580A

1-Methylnaphthalene	ND		0.002	mg/kg	1	B4J0741	10/07/2024	10/08/2024	U
2-Methylnaphthalene	ND		0.002	"	"	"	"	"	U
Acenaphthene	ND		0.020	"	"	"	"	"	U
Chrysene	ND		0.020	"	"	"	"	"	U
Fluorene	ND		0.020	"	"	"	"	"	U
Naphthalene	ND		0.002	"	"	"	"	"	U
Pyrene	ND		0.020	"	"	"	"	"	U

Surrogate: Fluorene-d10	91.0 %		60-130			"	"	"	
Surrogate: Anthracene-d10	89.0 %		60-130			"	"	"	
Surrogate: Pyrene-d10	103 %		60-130			"	"	"	
Surrogate: Benzo (a) pyrene-d12	103 %		60-130			"	"	"	

Table 915 metals by EPA 6020B

Arsenic	3.26		0.287	mg/kg	10	B4J0738	10/07/2024	10/08/2024	
Barium	116		9.90	"	"	"	"	"	
Copper	ND		9.90	"	"	"	"	"	
Lead	7.11		0.990	"	"	"	"	"	
Nickel	8.53		0.990	"	"	"	"	"	

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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
Batch B4J0701 - EPA 3550B										
Blank (B4J0701-BLK1)										
					Prepared: 10/07/2024 Analyzed: 10/07/2024					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	21		"	24.9		83.4	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 B4J0701 - EPA 3550B

LCS (B4J0701-BS1)

Prepared: 10/07/2024 Analyzed: 10/07/2024

Diesel (C10-C28)	1030	50.0	mg/kg	1000		103	70-130			
Residual Range Organics (C28-C40)	1040	200	"	1000		104	70-130			
Surrogate: o-Terphenyl	53		"	49.8		106	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 B4J0701 - EPA 3550B

Matrix Spike (B4J0701-MS1)	Source: E410186-01			Prepared: 10/07/2024 Analyzed: 10/07/2024						
Diesel (C10-C28)	1130	50.0	mg/kg	1000	ND	113	70-130			
Residual Range Organics (C28-C40)	1180	200	"	1000	ND	118	70-130			
Surrogate: o-Terphenyl	35		"	49.8		70.7	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 B4J0701 - EPA 3550B

Matrix Spike Dup (B4J0701-MSD1)	Source: E410186-01			Prepared: 10/07/2024 Analyzed: 10/07/2024						
Diesel (C10-C28)	1140	50.0	mg/kg	1000	ND	114	70-130	1.42	35	
Residual Range Organics (C28-C40)	1200	200	"	1000	ND	120	70-130	2.23	35	
<i>Surrogate: o-Terphenyl</i>	32		"	49.8		65.0	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
Batch B4J0739 - EPA 5030 (soil)										
Blank (B4J0739-BLK1)										
					Prepared: 10/07/2024 Analyzed: 10/07/2024					
1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
1,3,5-Trimethylbenzene	ND	0.00200	"							U
Benzene	ND	0.00200	"							U
Ethylbenzene	ND	0.00200	"							U
Naphthalene	ND	0.00380	"							U
Toluene	ND	0.00200	"							U
Xylenes, total	ND	0.00200	"							U
Gasoline Range Hydrocarbons	ND	0.200	"							U
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		98.7	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		105	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.3	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 B4J0739 - EPA 5030 (soil)

LCS (B4J0739-BS1)

Prepared: 10/07/2024 Analyzed: 10/07/2024

1,2,4-Trimethylbenzene	0.102	0.00200	mg/kg	0.100		102	70-130			
1,3,5-Trimethylbenzene	0.104	0.00200	"	0.100		104	70-130			
Benzene	0.0844	0.00200	"	0.100		84.4	70-130			
Ethylbenzene	0.102	0.00200	"	0.100		102	70-130			
Naphthalene	0.101	0.00380	"	0.100		101	70-130			
Toluene	0.0918	0.00200	"	0.100		91.8	70-130			
o-Xylene	0.101	0.00200	"	0.100		101	70-130			
m,p-Xylene	0.213	0.00400	"	0.200		106	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		95.2	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		101	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		102	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 B4J0739 - EPA 5030 (soil)

Matrix Spike (B4J0739-MS1)	Source: E410202-01			Prepared: 10/07/2024 Analyzed: 10/07/2024						
1,2,4-Trimethylbenzene	0.0940	0.00200	mg/kg	0.100	ND	94.0	70-130			
1,3,5-Trimethylbenzene	0.0938	0.00200	"	0.100	ND	93.8	70-130			
Benzene	0.0798	0.00200	"	0.100	ND	79.8	70-130			
Ethylbenzene	0.0944	0.00200	"	0.100	ND	94.4	70-130			
Naphthalene	0.0972	0.00380	"	0.100	ND	97.2	70-130			
Toluene	0.0859	0.00200	"	0.100	ND	85.9	70-130			
o-Xylene	0.0934	0.00200	"	0.100	ND	93.4	70-130			
m,p-Xylene	0.197	0.00400	"	0.200	ND	98.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		100	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		101	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		102	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 B4J0739 - EPA 5030 (soil)

Matrix Spike Dup (B4J0739-MSD1)	Source: E410202-01			Prepared: 10/07/2024 Analyzed: 10/07/2024						
1,2,4-Trimethylbenzene	0.0978	0.00200	mg/kg	0.100	ND	97.8	70-130	3.96	20	
1,3,5-Trimethylbenzene	0.0976	0.00200	"	0.100	ND	97.6	70-130	3.89	20	
Benzene	0.0843	0.00200	"	0.100	ND	84.3	70-130	5.51	20	
Ethylbenzene	0.0976	0.00200	"	0.100	ND	97.6	70-130	3.27	20	
Naphthalene	0.102	0.00380	"	0.100	ND	102	70-130	4.39	20	
Toluene	0.0905	0.00200	"	0.100	ND	90.5	70-130	5.19	20	
o-Xylene	0.0970	0.00200	"	0.100	ND	97.0	70-130	3.84	20	
m,p-Xylene	0.204	0.00400	"	0.200	ND	102	70-130	3.42	20	
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		101	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		100	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.9	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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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 B4J0738 - EPA 3050B

Blank (B4J0738-BLK1)

Prepared: 10/07/2024 Analyzed: 10/08/2024

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 (B4J0738-BS1)

Prepared: 10/07/2024 Analyzed: 10/08/2024

Arsenic	5.35	0.290	mg/kg	5.00	107	80-120
Barium	526	10.0	"	500	105	80-120
Cadmium	5.46	0.100	"	5.00	109	80-120
Copper	54.9	10.0	"	50.0	110	80-120
Lead	5.35	1.00	"	5.00	107	80-120
Nickel	5.52	1.00	"	5.00	110	80-120
Selenium	5.06	0.260	"	5.00	101	80-120
Silver	5.75	0.100	"	5.00	115	80-120
Zinc	53.9	37.0	"	50.0	108	80-120

Matrix Spike (B4J0738-MS1)

Source: E410198-02

Prepared: 10/07/2024 Analyzed: 10/08/2024

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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 B4J0738 - EPA 3050B

Matrix Spike (B4J0738-MS1)	Source: E410198-02			Prepared: 10/07/2024 Analyzed: 10/08/2024						
Arsenic	6.83	0.287	mg/kg	4.95	1.51	107	75-125			
Barium	635	9.90	"	495	92.2	110	75-125			
Cadmium	5.77	0.0990	"	4.95	0.127	114	75-125			
Copper	64.2	9.90	"	49.5	7.39	115	75-125			
Lead	11.8	0.990	"	4.95	6.45	108	75-125			
Nickel	14.8	0.990	"	4.95	9.18	113	75-125			
Selenium	5.68	0.257	"	4.95	0.145	112	75-125			
Silver	6.12	0.0990	"	4.95	ND	124	75-125			
Zinc	85.1	36.6	"	49.5	29.8	112	75-125			

Matrix Spike Dup (B4J0738-MSD1)	Source: E410198-02			Prepared: 10/07/2024 Analyzed: 10/08/2024						
Arsenic	6.19	0.250	mg/kg	4.32	1.51	108	75-125	9.78	20	
Barium	557	8.63	"	432	92.2	108	75-125	13.2	20	
Cadmium	5.06	0.0863	"	4.32	0.127	114	75-125	13.1	20	
Copper	58.7	8.63	"	43.2	7.39	119	75-125	8.94	20	
Lead	11.1	0.863	"	4.32	6.45	107	75-125	6.11	20	
Nickel	14.2	0.863	"	4.32	9.18	115	75-125	4.45	20	
Selenium	4.69	0.224	"	4.32	0.145	105	75-125	19.0	20	
Silver	5.28	0.0863	"	4.32	ND	122	75-125	14.7	20	
Zinc	79.6	31.9	"	43.2	29.8	115	75-125	6.69	20	

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 Project: KMG - Goodin 15N 15N 16N 16N-B6HZ

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 B4J0741 - EPA 3580

Blank (B4J0741-BLK1)

Prepared: 10/07/2024 Analyzed: 10/07/2024

1-Methylnaphthalene	ND	0.002	mg/kg							U
2-Methylnaphthalene	ND	0.002	"							U
Acenaphthene	ND	0.020	"							U
Anthracene	ND	0.020	"							U
Benzo (a) anthracene	ND	0.005	"							U
Benzo (a) pyrene	ND	0.020	"							U
Benzo (b) fluoranthene	ND	0.020	"							U
Benzo (g,h,i) perylene	ND	0.020	"							U
Benzo (k) fluoranthene	ND	0.020	"							U
Chrysene	ND	0.020	"							U
Dibenz (a,h) anthracene	ND	0.020	"							U
Fluoranthene	ND	0.020	"							U
Fluorene	ND	0.020	"							U
Indeno (1,2,3-cd) pyrene	ND	0.020	"							U
Naphthalene	ND	0.002	"							U
Phenanthrene	ND	0.020	"							U
Pyrene	ND	0.020	"							U
Surrogate: Fluorene-d10	200		ug/kg	200		102	60-130			
Surrogate: Anthracene-d10	200		"	200		98.4	60-130			
Surrogate: Pyrene-d10	210		"	200		105	60-130			
Surrogate: Benzo (a) pyrene-d12	220		"	200		109	60-130			

LCS (B4J0741-BS1)

Prepared: 10/07/2024 Analyzed: 10/07/2024

1-Methylnaphthalene	0.199	0.002	mg/kg	0.200		99.6	70-130			
2-Methylnaphthalene	0.202	0.002	"	0.200		101	70-130			
Acenaphthene	0.199	0.020	"	0.200		99.4	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 B4J0741 - EPA 3580

LCS (B4J0741-BS1)

Prepared: 10/07/2024 Analyzed: 10/07/2024

Benzo (a) anthracene	0.176	0.005	mg/kg	0.200		88.2	70-130			
Benzo (a) pyrene	0.176	0.020	"	0.200		88.2	70-130			
Benzo (b) fluoranthene	0.178	0.020	"	0.200		89.0	70-130			
Benzo (g,h,i) perylene	0.174	0.020	"	0.200		86.8	70-130			
Benzo (k) fluoranthene	0.177	0.020	"	0.200		88.3	70-130			
Chrysene	0.174	0.020	"	0.200		87.1	70-130			
Dibenz (a,h) anthracene	0.179	0.020	"	0.200		89.4	70-130			
Fluoranthene	0.175	0.020	"	0.200		87.3	70-130			
Fluorene	0.220	0.020	"	0.200		110	70-130			
Indeno (1,2,3-cd) pyrene	0.208	0.020	"	0.200		104	70-130			
Naphthalene	0.207	0.002	"	0.200		104	70-130			
Phenanthrene	0.179	0.020	"	0.200		89.7	70-130			
Pyrene	0.173	0.020	"	0.200		86.4	70-130			
Surrogate: Fluorene-d10	230		ug/kg	200		113	60-130			
Surrogate: Anthracene-d10	190		"	200		96.0	60-130			
Surrogate: Pyrene-d10	200		"	200		98.2	60-130			
Surrogate: Benzo (a) pyrene-d12	200		"	200		101	60-130			

Matrix Spike (B4J0741-MS1)

Source: E410016-01

Prepared: 10/07/2024 Analyzed: 10/07/2024

1-Methylnaphthalene	0.222	0.002	mg/kg	0.200	ND	111	70-130			
2-Methylnaphthalene	0.223	0.002	"	0.200	ND	111	70-130			
Acenaphthene	0.210	0.020	"	0.200	ND	105	70-130			
Anthracene	0.185	0.020	"	0.200	ND	92.6	70-130			
Benzo (a) anthracene	0.195	0.005	"	0.200	ND	97.5	70-130			
Benzo (a) pyrene	0.204	0.020	"	0.200	ND	102	70-130			
Benzo (b) fluoranthene	0.221	0.020	"	0.200	ND	111	70-130			
Benzo (g,h,i) perylene	0.222	0.020	"	0.200	ND	111	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 B4J0741 - EPA 3580

Matrix Spike (B4J0741-MS1)	Source: E410016-01			Prepared: 10/07/2024 Analyzed: 10/07/2024						
Benzo (k) fluoranthene	0.224	0.020	mg/kg	0.200	0.0005	112	70-130			
Chrysene	0.172	0.020	"	0.200	ND	85.8	70-130			
Dibenz (a,h) anthracene	0.214	0.020	"	0.200	ND	107	70-130			
Fluoranthene	0.182	0.020	"	0.200	ND	91.1	70-130			
Fluorene	0.217	0.020	"	0.200	0.001	108	70-130			
Indeno (1,2,3-cd) pyrene	0.214	0.020	"	0.200	ND	107	70-130			
Naphthalene	0.214	0.002	"	0.200	ND	107	70-130			
Phenanthrene	0.198	0.020	"	0.200	ND	99.0	70-130			
Pyrene	0.211	0.020	"	0.200	ND	105	70-130			
Surrogate: Fluorene-d10	210		ug/kg	200		103	60-130			
Surrogate: Anthracene-d10	180		"	200		91.5	60-130			
Surrogate: Pyrene-d10	200		"	200		99.9	60-130			
Surrogate: Benzo (a) pyrene-d12	220		"	200		110	60-130			

Matrix Spike Dup (B4J0741-MSD1)	Source: E410016-01			Prepared: 10/07/2024 Analyzed: 10/07/2024						
1-Methylnaphthalene	0.235	0.002	mg/kg	0.200	ND	117	70-130	5.79	20	
2-Methylnaphthalene	0.230	0.002	"	0.200	ND	115	70-130	3.13	20	
Acenaphthene	0.233	0.020	"	0.200	ND	117	70-130	10.7	20	
Anthracene	0.206	0.020	"	0.200	ND	103	70-130	10.4	20	
Benzo (a) anthracene	0.225	0.005	"	0.200	ND	112	70-130	14.2	20	
Benzo (a) pyrene	0.226	0.020	"	0.200	ND	113	70-130	9.92	20	
Benzo (b) fluoranthene	0.234	0.020	"	0.200	ND	117	70-130	5.62	20	
Benzo (g,h,i) perylene	0.241	0.020	"	0.200	ND	120	70-130	8.11	20	
Benzo (k) fluoranthene	0.240	0.020	"	0.200	0.0005	120	70-130	6.49	20	
Chrysene	0.225	0.020	"	0.200	ND	112	70-130	26.8	20	QR-02
Dibenz (a,h) anthracene	0.238	0.020	"	0.200	ND	119	70-130	10.6	20	
Fluoranthene	0.228	0.020	"	0.200	ND	114	70-130	22.5	20	QR-02

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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 B4J0741 - EPA 3580

Matrix Spike Dup (B4J0741-MSD1)	Source: E410016-01			Prepared: 10/07/2024 Analyzed: 10/07/2024						
Fluorene	0.247	0.020	mg/kg	0.200	0.001	123	70-130	12.6	20	
Indeno (1,2,3-cd) pyrene	0.219	0.020	"	0.200	ND	110	70-130	2.71	20	
Naphthalene	0.238	0.002	"	0.200	ND	119	70-130	10.3	20	
Phenanthrene	0.213	0.020	"	0.200	ND	106	70-130	7.06	20	
Pyrene	0.246	0.020	"	0.200	ND	123	70-130	15.6	20	
Surrogate: Fluorene-d10	210		ug/kg	200		106	60-130			
Surrogate: Anthracene-d10	170		"	200		87.4	60-130			
Surrogate: Pyrene-d10	220		"	200		108	60-130			
Surrogate: Benzo (a) pyrene-d12	200		"	200		102	60-130			

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Notes and Definitions

U Sample is Non-Detect.

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.

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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Jordan A. Bynon, Project Manager