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18 January 2021

Michael Hannigan  
Kinder Morgan  
17801 Hwy 491  
Cortez, CO 81321  
RE: Table 910

Enclosed are the results of analyses for samples received by the laboratory on 12/28/20 11:00. The data to follow was performed, in whole or in part, by a subcontract laboratory with an additional report attached.

If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads 'Debbie Zufelt'.

Debbie Zufelt  
Reports Manager

All accredited analytes contained in this report are denoted by an asterisk (\*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at <http://greenanalytical.com/certifications/>

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water.

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8.



Kinder Morgan  
17801 Hwy 491  
Cortez CO, 81321

Project: Table 910  
Project Name / Number: Yellow Jacket YC Cluster T-501  
Project Manager: Michael Hannigan

Reported:  
01/18/21 11:05

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
YCPWS1	2012198-01	Solid	12/26/20 11:30	12/28/20 11:00	Q1

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Debbie Zufelt, Reports Manager

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Reported:  
01/18/21 11:05

**YCPWS1**

**2012198-01 (Soil)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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**General Chemistry**

% Dry Solids	79.0			%	1	12/29/20 09:20	EPA160.3/1684		VJW
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**Saturated Paste Extraction**

Calcium	175	0.200	0.033	mg/L	2	12/31/20 17:13	EPA200.7		AES
Conductivity	1340			umho/cm @ 25.0°C	1	12/30/20 10:30	ASA#9 10-3.3		VJW
Magnesium	25.9	0.200	0.047	mg/L	2	12/31/20 17:13	EPA200.7		AES
pH	7.50			pH Units	1	12/30/20 08:15	ASA#9 10-3.2		VJW
SAR	0.70			No Unit	1	12/31/20 17:13	Calculation		AES
Sodium	37.4	2.00	0.201	mg/L	2	12/31/20 17:13	EPA200.7		AES

**Total Metals by ICP**

Barium	225	5.00	0.318	mg/kg dry	100	01/07/21 10:33	6010B		AES
Cadmium	<5.00	5.00	0.310	mg/kg dry	100	01/07/21 10:34	6010B		AES
Chromium	8.14	5.00	0.416	mg/kg dry	100	01/07/21 10:34	6010B		AES
Copper	7.81	5.00	1.40	mg/kg dry	100	01/07/21 10:34	6010B		AES
Lead	<10.0	10.0	0.661	mg/kg dry	100	01/07/21 10:34	6010B		AES
Nickel	7.75	5.00	0.507	mg/kg dry	100	01/07/21 10:34	6010B		AES
Selenium	<20.0	20.0	7.60	mg/kg dry	100	01/07/21 10:33	6010B		AES
Silver	<1.00	1.00	0.390	mg/kg dry	100	01/07/21 10:34	6010B		AES
Zinc	21.1	10.0	2.60	mg/kg dry	100	01/07/21 10:34	6010B		AES

**Total Metals by ICPMS**

Arsenic	2.83	1.00	0.0807	mg/kg dry	1000	01/07/21 16:27	6020A		AES
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**Total Mercury by CVAA**

Mercury	<0.0506	0.0506	0.0029	mg/kg dry	200	01/07/21 12:06	EPA7471		LLG
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**Hot Water Extractable**

Boron	<1.20	1.20	0.059	mg/L	4	12/31/20 17:22	EPA200.7		AES
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Reported:  
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**YCPWS1**

**2012198-01 (Soil)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050	0.050	0.005	mg/kg	50	12/31/20 18:04	8021B		MS
Toluene*	<0.050	0.050	0.004	mg/kg	50	12/31/20 18:04	8021B		MS
Ethylbenzene*	<0.050	0.050	0.006	mg/kg	50	12/31/20 18:04	8021B		MS
Total Xylenes*	<0.150	0.150	0.013	mg/kg	50	12/31/20 18:04	8021B		MS
Total BTEX	<0.300	0.300	0.018	mg/kg	50	12/31/20 18:04	8021B		MS
Surrogate: 4-Bromofluorobenzene (PID)			101 %	73.3-129		12/31/20 18:04	8021B		MS

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0	10.0	1.97	mg/kg	1	01/04/21 14:56	8015B		MS
DRO >C10-C28*	<10.0	10.0	2.97	mg/kg	1	01/04/21 14:56	8015B		MS
EXT DRO >C28-C36	<10.0	10.0	2.97	mg/kg	1	01/04/21 14:56	8015B		MS
Surrogate: 1-Chlorooctane			99.1 %	44.3-144		01/04/21 14:56	8015B		MS
Surrogate: 1-Chlorooctadecane			97.0 %	42.2-156		01/04/21 14:56	8015B		MS

**Polynuclear Aromatic Compounds by GC/MS**

Naphthalene*	<0.004	0.040	0.004	mg/kg	40	01/08/21 11:06	8270C	QR-03	MS
2-Methylnaphthalene*	<0.002	0.040	0.002	mg/kg	40	01/08/21 11:06	8270C		MS
1-Methylnaphthalene	<0.006	0.040	0.006	mg/kg	40	01/08/21 11:06	8270C		MS
Acenaphthylene*	<0.002	0.040	0.002	mg/kg	40	01/08/21 11:06	8270C		MS
Acenaphthene*	<0.003	0.040	0.003	mg/kg	40	01/08/21 11:06	8270C		MS
Fluorene*	<0.003	0.040	0.003	mg/kg	40	01/08/21 11:06	8270C		MS
Phenanthrene*	<0.005	0.040	0.005	mg/kg	40	01/08/21 11:06	8270C		MS
Anthracene*	<0.004	0.040	0.004	mg/kg	40	01/08/21 11:06	8270C		MS
Carbazole*	<0.004	0.040	0.004	mg/kg	40	01/08/21 11:06	8270C		MS
Fluoranthene*	<0.002	0.040	0.002	mg/kg	40	01/08/21 11:06	8270C		MS
Pyrene*	<0.003	0.040	0.003	mg/kg	40	01/08/21 11:06	8270C		MS
Benzo[a]anthracene*	<0.002	0.040	0.002	mg/kg	40	01/08/21 11:06	8270C		MS
Chrysene*	<0.0008	0.040	0.0008	mg/kg	40	01/08/21 11:06	8270C		MS
Benzo[b]fluoranthene*	<0.002	0.040	0.002	mg/kg	40	01/08/21 11:06	8270C		MS
Benzo[k]fluoranthene*	<0.002	0.040	0.002	mg/kg	40	01/08/21 11:06	8270C		MS
Benzo[a]pyrene*	<0.004	0.040	0.004	mg/kg	40	01/08/21 11:06	8270C		MS

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**YCPWS1**

**2012198-01 (Soil)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories

**Polynuclear Aromatic Compounds by GC/MS**

<b>Indeno[1,2,3-cd]pyrene*</b>	<0.003	0.040	0.003	mg/kg	40	01/08/21 11:06	8270C		MS
<b>Dibenz[a,h]anthracene*</b>	<0.004	0.040	0.004	mg/kg	40	01/08/21 11:06	8270C		MS
<b>Benzo[g,h,i]perylene*</b>	<0.004	0.040	0.004	mg/kg	40	01/08/21 11:06	8270C		MS
<i>Surrogate: Nitrobenzene-d5</i>			74.7 %	11.5-118		01/08/21 11:06	8270C		MS
<i>Surrogate: 2-Fluorobiphenyl</i>			79.1 %	19.4-118		01/08/21 11:06	8270C		MS
<i>Surrogate: Terphenyl-d14</i>			42.5 %	20.1-127		01/08/21 11:06	8270C		MS

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**General Chemistry - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B202814 - General Prep - Wet Chem**

<b>Duplicate (B202814-DUP1)</b>		<b>Source: 2012188-01</b>		Prepared: 12/28/20		Analyzed: 12/29/20				
% Dry Solids	83.6		%		84.6			1.20	20	

**Saturated Paste Extraction - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B202823 - Paste Extract**

<b>Duplicate (B202823-DUP1)</b>		<b>Source: 2012188-01</b>		Prepared: 12/29/20		Analyzed: 12/30/20				
Conductivity	4910		umho/cm @ 25.0°C		4800			2.27	20	

<b>Reference (B202823-SRM1)</b>				Prepared: 12/29/20		Analyzed: 12/30/20				
Conductivity	7290		umho/cm @ 25.0°C	6720		108	90-110			

**Batch B202824 - Paste Extract**

<b>Duplicate (B202824-DUP1)</b>		<b>Source: 2012188-01</b>		Prepared: 12/29/20		Analyzed: 12/30/20				
pH	8.47		pH Units		8.50			0.354	20	

<b>Reference (B202824-SRM1)</b>				Prepared: 12/29/20		Analyzed: 12/30/20				
pH	9.05		pH Units	9.14		99.0	95-105			

**Batch B202825 - Paste Extract**

<b>Blank (B202825-BLK1)</b>				Prepared: 12/29/20		Analyzed: 12/31/20				
Calcium	ND	0.100	mg/L							
Magnesium	ND	0.100	mg/L							
Sodium	ND	1.00	mg/L							

<b>Duplicate (B202825-DUP1)</b>		<b>Source: 2012188-01</b>		Prepared: 12/29/20		Analyzed: 12/31/20				
Calcium	42.0	1.00	mg/L		37.5			11.4	20	
Magnesium	8.75	1.00	mg/L		7.92			9.95	20	
SAR	35.0		No Unit		35.9			2.40	20	
Sodium	955	10.0	mg/L		926			3.16	20	

<b>Reference (B202825-SRM1)</b>				Prepared: 12/29/20		Analyzed: 12/31/20				
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**Saturated Paste Extraction - Quality Control  
(Continued)**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B202825 - Paste Extract (Continued)**

**Reference (B202825-SRM1) (Continued)**

Prepared: 12/29/20 Analyzed: 12/31/20

SAR	7.35		No Unit	7.50		98.0	90-110			
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**Total Metals by ICP - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B210025 - EPA 3050**

**Blank (B210025-BLK1)**

Prepared: 01/06/21 Analyzed: 01/07/21

Barium	ND	5.00	mg/kg dry							
Cadmium	ND	5.00	mg/kg dry							
Chromium	ND	5.00	mg/kg dry							
Copper	ND	5.00	mg/kg dry							
Lead	ND	10.0	mg/kg dry							
Nickel	ND	5.00	mg/kg dry							
Selenium	ND	20.0	mg/kg dry							
Silver	ND	1.00	mg/kg dry							
Zinc	ND	10.0	mg/kg dry							

**LCS (B210025-BS1)**

Prepared: 01/06/21 Analyzed: 01/07/21

Barium	195	5.00	mg/kg dry	200		97.3	80-120			
Cadmium	182	5.00	mg/kg dry	200		91.1	80-120			
Chromium	198	5.00	mg/kg dry	200		99.2	80-120			
Copper	408	5.00	mg/kg dry	400		102	80-120			
Lead	190	10.0	mg/kg dry	200		95.0	80-120			
Nickel	192	5.00	mg/kg dry	200		95.9	80-120			
Selenium	808	20.0	mg/kg dry	800		101	80-120			
Silver	9.63	1.00	mg/kg dry	10.0		96.3	80-120			
Zinc	183	10.0	mg/kg dry	200		91.5	80-120			

**LCS Dup (B210025-BSD1)**

Prepared: 01/06/21 Analyzed: 01/07/21

Barium	194	5.00	mg/kg dry	200		97.0	80-120	0.247	20	
Cadmium	182	5.00	mg/kg dry	200		90.9	80-120	0.170	20	
Chromium	198	5.00	mg/kg dry	200		98.9	80-120	0.231	20	
Copper	409	5.00	mg/kg dry	400		102	80-120	0.130	20	
Lead	186	10.0	mg/kg dry	200		92.8	80-120	2.33	20	
Nickel	188	5.00	mg/kg dry	200		93.9	80-120	2.06	20	
Selenium	799	20.0	mg/kg dry	800		99.8	80-120	1.17	20	
Silver	9.42	1.00	mg/kg dry	10.0		94.2	80-120	2.22	20	
Zinc	178	10.0	mg/kg dry	200		89.2	80-120	2.52	20	

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*Debbie Zufelt*

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**Total Metals by ICPMS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B210026 - EPA 3050M**

**Blank (B210026-BLK1)**

Prepared: 01/06/21 Analyzed: 01/07/21

Arsenic ND 0.100 mg/kg dry

**LCS (B210026-BS1)**

Prepared: 01/06/21 Analyzed: 01/07/21

Arsenic 5.14 0.100 mg/kg dry 5.00 103 80-120

**LCS Dup (B210026-BSD1)**

Prepared: 01/06/21 Analyzed: 01/07/21

Arsenic 5.11 0.100 mg/kg dry 5.00 102 80-120 0.513 20

**Total Mercury by CVAA - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B210016 - EPA 7471**

**Blank (B210016-BLK1)**

Prepared: 01/05/21 Analyzed: 01/07/21

Mercury ND 0.0002 mg/kg wet

**LCS (B210016-BS1)**

Prepared: 01/05/21 Analyzed: 01/07/21

Mercury 0.0050 0.0002 mg/kg wet 0.00500 100 85-115

**LCS Dup (B210016-BSD1)**

Prepared: 01/05/21 Analyzed: 01/07/21

Mercury 0.0051 0.0002 mg/kg wet 0.00500 101 85-115 0.695 20

**Hot Water Extractable - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B202822 - Hot Water Soluble Metals Extract**

**Blank (B202822-BLK1)**

Prepared: 12/29/20 Analyzed: 12/31/20

Boron ND 1.20 mg/L

**Duplicate (B202822-DUP1)**

Source: 2012198-01

Prepared: 12/29/20 Analyzed: 12/31/20

Boron 0.873 1.20 mg/L 0.847 2.97 200

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Project: Table 910  
Project Name / Number: Yellow Jacket YC Cluster T-501  
Project Manager: Michael Hannigan

Reported:  
01/18/21 11:05

**Volatile Organic Compounds by EPA Method 8021 - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 0123103 - Volatiles**

**Blank (0123103-BLK1)**

Prepared & Analyzed: 12/31/20

Surrogate: 4-Bromofluorobenzene (PID)	0.0509		mg/kg	0.0500		102	73.3-129			
Benzene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Total Xylenes	ND	0.150	mg/kg							

**LCS (0123103-BS1)**

Prepared & Analyzed: 12/31/20

Surrogate: 4-Bromofluorobenzene (PID)	0.0502		mg/kg	0.0500		100	73.3-129			
Benzene	1.97	0.050	mg/kg	2.00		98.4	72.2-131			
Ethylbenzene	1.97	0.050	mg/kg	2.00		98.6	68.9-126			
Toluene	1.90	0.050	mg/kg	2.00		94.8	71.7-126			
Total Xylenes	5.61	0.150	mg/kg	6.00		93.5	71.4-125			

**LCS Dup (0123103-BSD1)**

Prepared & Analyzed: 12/31/20

Surrogate: 4-Bromofluorobenzene (PID)	0.0496		mg/kg	0.0500		99.3	73.3-129			
Benzene	1.99	0.050	mg/kg	2.00		99.7	72.2-131	1.28	14.6	
Ethylbenzene	2.01	0.050	mg/kg	2.00		100	68.9-126	1.74	18.9	
Toluene	1.92	0.050	mg/kg	2.00		96.0	71.7-126	1.25	17.4	
Total Xylenes	5.70	0.150	mg/kg	6.00		95.0	71.4-125	1.57	18.5	

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Project: Table 910  
Project Name / Number: Yellow Jacket YC Cluster T-501  
Project Manager: Michael Hannigan

Reported:  
01/18/21 11:05

**Petroleum Hydrocarbons by GC FID - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1010403 - General Prep - Organics**

**Blank (1010403-BLK1)**

Prepared & Analyzed: 01/04/21

Surrogate: 1-Chlorooctadecane	50.1		mg/kg	50.0		100	42.2-156			
Surrogate: 1-Chlorooctane	52.6		mg/kg	50.0		105	44.3-144			
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
GRO C6-C10	ND	10.0	mg/kg							

**LCS (1010403-BS1)**

Prepared & Analyzed: 01/04/21

Surrogate: 1-Chlorooctadecane	55.3		mg/kg	50.0		111	42.2-156			
Surrogate: 1-Chlorooctane	55.6		mg/kg	50.0		111	44.3-144			
DRO >C10-C28	195	10.0	mg/kg	200		97.7	80.4-133			
GRO C6-C10	213	10.0	mg/kg	200		107	83.7-135			
Total TPH C6-C28	409	10.0	mg/kg	400		102	83.1-133			

**LCS Dup (1010403-BSD1)**

Prepared & Analyzed: 01/04/21

Surrogate: 1-Chlorooctadecane	56.0		mg/kg	50.0		112	42.2-156			
Surrogate: 1-Chlorooctane	56.8		mg/kg	50.0		114	44.3-144			
DRO >C10-C28	202	10.0	mg/kg	200		101	80.4-133	3.33	22.1	
GRO C6-C10	220	10.0	mg/kg	200		110	83.7-135	3.02	13.8	
Total TPH C6-C28	422	10.0	mg/kg	400		105	83.1-133	3.17	17.7	

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Kinder Morgan  
17801 Hwy 491  
Cortez CO, 81321

Project: Table 910  
Project Name / Number: Yellow Jacket YC Cluster T-501  
Project Manager: Michael Hannigan

Reported:  
01/18/21 11:05

**Polynuclear Aromatic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 0123114 - SW846-3510**

**Blank (0123114-BLK1)**

Prepared: 12/31/20 Analyzed: 01/08/21

1-Methylnaphthalene	ND	0.040	mg/kg							
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>1.55</i>		mg/kg	<i>2.00</i>		<i>77.4</i>	<i>19.4-118</i>			
2-Methylnaphthalene	ND	0.040	mg/kg							
Acenaphthene	ND	0.040	mg/kg							
Acenaphthylene	ND	0.040	mg/kg							
Anthracene	ND	0.040	mg/kg							
Benzo[a]anthracene	ND	0.040	mg/kg							
Benzo[a]pyrene	ND	0.040	mg/kg							
Benzo[b]flouranthene	ND	0.040	mg/kg							
Benzo[g,h,i]perylene	ND	0.040	mg/kg							
Benzo[k]flouranthene	ND	0.040	mg/kg							
Carbazole	ND	0.040	mg/kg							
Chrysene	ND	0.040	mg/kg							
Dibenz[a,h]anthracene	ND	0.040	mg/kg							
Fluoranthene	ND	0.040	mg/kg							
Fluorene	ND	0.040	mg/kg							
Indeno[1,2,3-cd]pyrene	ND	0.040	mg/kg							
Naphthalene	ND	0.040	mg/kg							
<i>Surrogate: Nitrobenzene-d5</i>	<i>1.51</i>		mg/kg	<i>2.00</i>		<i>75.7</i>	<i>11.5-118</i>			
Phenanthrene	ND	0.040	mg/kg							
Pyrene	ND	0.040	mg/kg							
<i>Surrogate: Terphenyl-dl4</i>	<i>0.859</i>		mg/kg	<i>2.00</i>		<i>43.0</i>	<i>20.1-127</i>			

**LCS (0123114-BS1)**

Prepared: 12/31/20 Analyzed: 01/08/21

1-Methylnaphthalene	0.366	0.040	mg/kg	0.400		91.4	41.5-115			
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>1.52</i>		mg/kg	<i>2.00</i>		<i>76.2</i>	<i>19.4-118</i>			
2-Methylnaphthalene	0.352	0.040	mg/kg	0.400		88.0	41.3-115			
Acenaphthene	0.349	0.040	mg/kg	0.400		87.2	40.8-115			
Acenaphthylene	0.351	0.040	mg/kg	0.400		87.8	39.6-115			
Anthracene	0.360	0.040	mg/kg	0.400		90.1	41.6-116			
Benzo[a]anthracene	0.393	0.040	mg/kg	0.400		98.2	38.1-120			
Benzo[a]pyrene	0.361	0.040	mg/kg	0.400		90.3	43.2-122			
Benzo[b]flouranthene	0.343	0.040	mg/kg	0.400		85.8	36-129			
Benzo[g,h,i]perylene	0.338	0.040	mg/kg	0.400		84.4	29.6-131			
Benzo[k]flouranthene	0.337	0.040	mg/kg	0.400		84.2	40.9-123			
Carbazole	0.374	0.040	mg/kg	0.400		93.6	41.3-117			
Chrysene	0.428	0.040	mg/kg	0.400		107	39.4-118			
Dibenz[a,h]anthracene	0.348	0.040	mg/kg	0.400		87.0	37-123			
Fluoranthene	0.367	0.040	mg/kg	0.400		91.7	42.5-116			

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Kinder Morgan  
17801 Hwy 491  
Cortez CO, 81321

Project: Table 910  
Project Name / Number: Yellow Jacket YC Cluster T-501  
Project Manager: Michael Hannigan

Reported:  
01/18/21 11:05

**Polynuclear Aromatic Compounds by GC/MS - Quality Control  
(Continued)**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 0123114 - SW846-3510 (Continued)**

**LCS (0123114-BS1) (Continued)**

Prepared: 12/31/20 Analyzed: 01/08/21

Fluorene	0.348	0.040	mg/kg	0.400		86.9	40.8-115			
Indeno[1,2,3-cd]pyrene	0.352	0.040	mg/kg	0.400		88.0	40.5-121			
Naphthalene	0.350	0.040	mg/kg	0.400		87.4	37.2-118			
<i>Surrogate: Nitrobenzene-d5</i>	<i>1.57</i>		mg/kg	<i>2.00</i>		<i>78.3</i>	<i>11.5-118</i>			
Phenanthrene	0.354	0.040	mg/kg	0.400		88.4	41.6-117			
Pyrene	0.386	0.040	mg/kg	0.400		96.5	38.2-121			
<i>Surrogate: Terphenyl-d14</i>	<i>0.959</i>		mg/kg	<i>2.00</i>		<i>48.0</i>	<i>20.1-127</i>			

**LCS Dup (0123114-BS1)**

Prepared: 12/31/20 Analyzed: 01/08/21

1-Methylnaphthalene	0.354	0.040	mg/kg	0.400		88.4	41.5-115	3.38	5.67	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>1.53</i>		mg/kg	<i>2.00</i>		<i>76.5</i>	<i>19.4-118</i>			
2-Methylnaphthalene	0.353	0.040	mg/kg	0.400		88.3	41.3-115	0.298	5.43	
Acenaphthene	0.352	0.040	mg/kg	0.400		87.9	40.8-115	0.794	5.45	
Acenaphthylene	0.340	0.040	mg/kg	0.400		85.0	39.6-115	3.24	4.49	
Anthracene	0.351	0.040	mg/kg	0.400		87.7	41.6-116	2.78	3.74	
Benzo[a]anthracene	0.376	0.040	mg/kg	0.400		94.1	38.1-120	4.25	3.05	QR-02
Benzo[a]pyrene	0.352	0.040	mg/kg	0.400		88.0	43.2-122	2.56	3.42	
Benzo[b]fluoranthene	0.349	0.040	mg/kg	0.400		87.3	36-129	1.74	32.9	
Benzo[g,h,i]perylene	0.340	0.040	mg/kg	0.400		85.0	29.6-131	0.714	6.1	
Benzo[k]fluoranthene	0.337	0.040	mg/kg	0.400		84.3	40.9-123	0.181	6.97	
Carbazole	0.363	0.040	mg/kg	0.400		90.8	41.3-117	3.07	5.33	
Chrysene	0.413	0.040	mg/kg	0.400		103	39.4-118	3.64	2.77	QR-02
Dibenz[a,h]anthracene	0.349	0.040	mg/kg	0.400		87.2	37-123	0.284	5.52	
Fluoranthene	0.363	0.040	mg/kg	0.400		90.7	42.5-116	1.06	6.41	
Fluorene	0.343	0.040	mg/kg	0.400		85.8	40.8-115	1.19	5.01	
Indeno[1,2,3-cd]pyrene	0.351	0.040	mg/kg	0.400		87.9	40.5-121	0.162	4.92	
Naphthalene	0.343	0.040	mg/kg	0.400		85.7	37.2-118	2.00	4.51	
<i>Surrogate: Nitrobenzene-d5</i>	<i>1.52</i>		mg/kg	<i>2.00</i>		<i>76.2</i>	<i>11.5-118</i>			
Phenanthrene	0.338	0.040	mg/kg	0.400		84.6	41.6-117	4.41	4.53	
Pyrene	0.381	0.040	mg/kg	0.400		95.2	38.2-121	1.32	8.61	
<i>Surrogate: Terphenyl-d14</i>	<i>0.969</i>		mg/kg	<i>2.00</i>		<i>48.5</i>	<i>20.1-127</i>			

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*Debbie Zufelt*

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Project: Table 910  
Project Name / Number: Yellow Jacket YC Cluster T-501  
Project Manager: Michael Hannigan

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01/18/21 11:05

Notes and Definitions

- QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
- 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.
- Q1 Sample received outside of acceptable temperature range for analyses requiring cold storage.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis  
\*Results reported on as received basis unless designated as dry.
- RPD Relative Percent Difference
- LCS Laboratory Control Sample (Blank Spike)
- RL Report Limit
- MDL Method Detection Limit

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